N31260_000124
CHESAPEAKE_BEACH_NRL
SSIC 5000-33c

OFF-BASE DRINKING WATER SAMPLE RESULTS, LEVEL 2 LABORATORY REPORT, LEVEL 4 LABORATORY REPORT, ELECTRONIC DATA DELIVERABLE, DATA VALIDATION REPORT AND THE SAMPLE LOCATION FIGURE, SDG 1801762 NAVAL RESEARCH LABORATORY CHESAPEAKE BAY DETACHMENT NRL CHESAPEAKE BEACH MD

02/01/2019

NAVFAC

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Naval Facilities Engineering Command

Off-base Drinking Water Sample Results, Level 2 Laboratory Report, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Figure, SDG 1801762

Naval Research Laboratory – Chesapeake Bay Detachment

Chesapeake Beach, Maryland

February 2019

Approved for public release: distribution unlimited

July 23, 2018

Vista Work Order No. 1801762

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 July 14, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'PFAS DW Investigation CTO-08 NRL CBD'.

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

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

Sincerely,

Martha Maier
Laboratory Director

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

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

Vista Work Order No. 1801762
Case Narrative

Sample Condition on Receipt:

Twenty 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.

Analytical Notes:

EPA Method 537, Rev. 1.1

The samples were extracted and analyzed for a selected list of PFAS using EPA Method 537, Rev. 1.1.

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

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

A Laboratory Fortified Sample Matrix (LFSM) and Laboratory Fortified Sample Matrix Duplicate (LFSMD) were performed on sample "CBD-1RW10-0718". The analyte recoveries and RPDs were within the method acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1801762-01	CBD-1RW01-0718	13-Jul-18 09:50	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-02	CBD-1FB01-0718	13-Jul-18 09:55	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-03	CBD-1RW02-0718	13-Jul-18 10:31	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-04	CBD-1FB02-0718	13-Jul-18 10:35	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-05	CBD-1RW03-0718	13-Jul-18 11:18	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-06	CBD-1FB03-0718	13-Jul-18 11:20	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-07	CBD-1RW04-0718	13-Jul-18 11:46	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-08	CBD-1FB04-0718	13-Jul-18 11:48	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-09	CBD-1RW05-0718	13-Jul-18 12:03	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-10	CBD-1FB05-0718	13-Jul-18 12:05	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-11	CBD-1RW06-0718	13-Jul-18 14:19	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-12	CBD-1FB06-0718	13-Jul-18 14:21	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-13	CBD-1RW07-0718	13-Jul-18 14:55	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-14	CBD-1FB07-0718	13-Jul-18 14:57	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-15	CBD-1RW08-0718	13-Jul-18 15:48	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-16	CBD-1FB08-0718	13-Jul-18 15:50	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-17	CBD-1RW09-0718	13-Jul-18 16:25	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-18	CBD-1FB09-0718	13-Jul-18 16:27	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-19	CBD-1RW10-0718	MS/MSD13-Jul-18 16:40	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

Vista Project: 1801762

Client Project: PFAS DW Investigation CTO-08 NRL CBD

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1801762-19	CBD-1RW10-0718	MS/MSD13-Jul-18 16:40	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-20	CBD-1FB10-0718	13-Jul-18 16:45	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

Vista Project: 1801762

Client Project: PFAS DW Investigation CTO-08 NRL CBD

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537

Client Data

Name: CH2M Hill
Matrix: Aqueous
Project: PFAS DW Investigation CTO-08 NRL CBD

Laboratory Data

Lab Sample: B8G0137-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFHxA	307-24-4	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFHpA	375-85-9	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFHxS	355-46-4	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFOA	335-67-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFNA	375-95-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFOS	1763-23-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFDA	335-76-2	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
MeFOSAA	2355-31-9	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
EtFOSAA	2991-50-6	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFUnA	2058-94-8	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFDoA	307-55-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFTrDA	72629-94-8	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFTeDA	376-06-7	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.4	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
13C2-PFDA	SURR	87.5	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
d5-EtFOSAA	SURR	94.3	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: LFB

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Aqueous

Laboratory Data

Lab Sample: B8G0137-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	77.6	70.8	110	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFHxA	307-24-4	79.6	80.0	99.4	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFHpA	375-85-9	81.6	80.0	102	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFHxS	355-46-4	73.4	72.8	101	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFOA	335-67-1	80.4	80.0	100	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFNA	375-95-1	75.2	80.0	94.0	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFOS	1763-23-1	76.6	74.0	104	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFDA	335-76-2	74.2	80.0	92.7	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
MeFOSAA	2355-31-9	83.6	80.0	104	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
EtFOSAA	2991-50-6	83.3	80.0	104	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFUnA	2058-94-8	79.0	80.0	98.8	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFDoA	307-55-1	72.3	80.0	90.4	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFTrDA	72629-94-8	74.3	80.0	92.8	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFTeDA	376-06-7	68.5	80.0	85.6	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	99.1	70- 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
13C2-PFDA	SURR	98.8	70- 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
d5-EtFOSAA	SURR	93.7	70- 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1

Sample ID: CBD-1RW01-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 09:50

Laboratory Data

Lab Sample: 1801762-01
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFHxA	307-24-4	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFHpA	375-85-9	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFHxS	355-46-4	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFOA	335-67-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFNA	375-95-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFOS	1763-23-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFDA	335-76-2	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
MeFOSAA	2355-31-9	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
EtFOSAA	2991-50-6	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFUnA	2058-94-8	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFDoA	307-55-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFTrDA	72629-94-8	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFTeDA	376-06-7	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.5	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
13C2-PFDA	SURR	85.5	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
d5-EtFOSAA	SURR	92.0	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: CBD-1FB01-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 09:55

Laboratory Data

Lab Sample: 1801762-02
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFHxA	307-24-4	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFHpA	375-85-9	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFHxS	355-46-4	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFOA	335-67-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFNA	375-95-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFOS	1763-23-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFDA	335-76-2	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
MeFOSAA	2355-31-9	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
EtFOSAA	2991-50-6	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFUnA	2058-94-8	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFDoA	307-55-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFTrDA	72629-94-8	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFTeDA	376-06-7	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.8	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
13C2-PFDA	SURR	87.7	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
d5-EtFOSAA	SURR	92.4	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: CBD-1RW02-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1H-JEl-18 10:Hl

Laboratory Data

Lab Sample: 1801762-0H
Date Received: 19-JEl-18 08:57
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	H75-7H-5	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFu xA	H07-29-9	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFu pA	H75-85-.	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFu xS	H55-96-9	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFOA	HH5-67-1	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFNA	H75-. 5-1	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFOS	176H-2H-1	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFDA	HH5-76-2	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
MeFOSAA	2H55-Hl-.	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
k tFOSAA	2. . 1-50-6	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFUnA	2058-. 9-8	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFDoA	H07-55-1	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFTrDA	7262. -. 9-8	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFTeDA	H76-06-7	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	SURR	8841	70 - 1H0		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
1HC2-PFDA	SURR	8741	70 - 1H0		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
d5-k tFOSAA	SURR	. 94	70 - 1H0		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and k tFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB02-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 10:J5

Laboratory Data

Lab Sample: 1801762-0H
Date Received: 1H-9El-18 08:57
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	J75-7J-5	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFu xA	J07-2H-H	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFu pA	J75-85-.	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFu xS	J55-H6-H	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFOA	JJ5-67-1	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFNA	J75-. 5-1	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFOS	176J-2J-1	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFDA	JJ5-76-2	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
MeFOSAA	2J55-J1-.	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
ktFOSAA	2. . 1-50-6	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFUnA	2058-. H-8	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFDoA	J07-55-1	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFTrDA	7262. -. H-8	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFTeDA	J76-06-7	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1JC2-PFu xA	SURR	8647	70 - 1J0		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
1JC2-PFDA	SURR	8646	70 - 1J0		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
d5-ktFOSAA	SURR	105	70 - 1J0		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW07-081L

PAMh etdr5 378

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 11:18

baoryatryE Data

Lab Sample: 1801762-0H
Date Received: 15-9El-18 08:H7
ColEmn: Bku C18

MnalEte	CMS Numoey	Crnc. (ng/b)	Db	bOD	bOQ	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
PFBS	J7H-7J-H	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFu xA	J07-25-5	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFu pA	J7H-8H-.	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFu xS	JHH-56-5	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFOA	JJH-67-1	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFNA	J7H-. H-1	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFOS	176J-2J-1	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFDA	JJH-76-2	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
MeFOSAA	2JHH-J1-.	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
ktFOSAA	2. . 1-H0-6	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFUnA	20H8-. 5-8	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFDoA	J07-HH-1	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFTrDA	7262. -. 5-8	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFTeDA	J76-06-7	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1

baoele5 Stan5ay5s	TEpe	% RecrveyE	bimits	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
1JC2-PFu xA	SURR	. 241	70 - 1J0		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
1JC2-PFDA	SURR	. 147	70 - 1J0		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
dH-ktFOSAA	SURR	. 041	70 - 1J0		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB07-081L

PAMh etdr5 378

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:20

baoryatryE Data

Lab Sample: 1801762-06
Date Received: 19-Jul-18 08:57
Column: BEH C18

MnalEte	CMS Numoey	Crnc. (ng/b)	Db	bOD	bOQ	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
PFBS	375-73-5	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFHxA	307-29-9	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFHpA	375-85-.	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFHxS	355-96-9	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFOA	335-67-1	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFNA	375-. 5-1	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFOS	1763-23-1	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFDA	335-76-2	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
MeFOSAA	2355-31-.	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
EtFOSAA	2. . 1-50-6	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFUnA	2058-. 9-8	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFDoA	307-55-1	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFTrDA	7262. -. 9-8	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFTeDA	376-06-7	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1

baoele5 Stan5ay5s	TEpe	% RecrveyE	bimits	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
13C2-PFHxA	SURR	8. 48	70 - 130		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
13C2-PFDA	SURR	8746	70 - 130		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
d5-EtFOSAA	SURR	. 741	70 - 130		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW04-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:96

Laboratory Data

Lab Sample: 1801762-07
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFHxA	307-29-9	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFHpA	375-85-.	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFHxS	355-96-9	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFOA	335-67-1	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFNA	375-. 5-1	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFOS	1763-23-1	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFDA	335-76-2	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
MeFOSAA	2355-31-.	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
EtFOSAA	2. . 1-50-6	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFUnA	2058-. 9-8	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFDoA	307-55-1	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFTrDA	7262. -. 9-8	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFTeDA	376-06-7	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	. 842	70 - 130		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
13C2-PFDA	SURR	8842	70 - 130		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
d5-EtFOSAA	SURR	. . 43	70 - 130		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB04-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:98

Laboratory Data

Lab Sample: 1801762-08
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFHxA	307-29-9	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFHpA	375-85-.	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFHxS	355-96-9	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFOA	335-67-1	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFNA	375-. 5-1	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFOS	1763-23-1	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFDA	335-76-2	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
MeFOSAA	2355-31-.	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
EtFOSAA	2. . 1-50-6	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFUnA	2058-. 9-8	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFDoA	307-55-1	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFTrDA	7262. -. 9-8	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFTeDA	376-06-7	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	. 542	70 - 130		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
13C2-PFDA	SURR	8. 40	70 - 130		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
d5-EtFOSAA	SURR	. . 4	70 - 130		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW07-081L

PAMh etdr5 738

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 12:0J

baoryatryE Data

Lab Sample: 1801762-0H
Date Received: 15-9El-18 08:47
ColEmn: Bku C18

MnalEte	CMS Numoey	Crnc. (ng/b)	Db	bOD	bOQ	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
PFBS	J74-7J-4	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFu xA	J07-25-5	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFu pA	J74-84-H	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFu xS	J44-56-5	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFOA	JJ4-67-1	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFNA	J74-H4-1	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFOS	176J-2J-1	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFDA	JJ4-76-2	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
MeFOSAA	2J44-J1-H	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
ktFOSAA	2HH1-40-6	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFUnA	2048-H5-8	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFDoA	J07-44-1	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFTrDA	7262H-H5-8	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFTeDA	J76-06-7	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1

baoele5 Stan5ay5s	TEpe	% RecrveyE	bimits	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
1JC2-PFu xA	SURR	H5.7	70 - 1J0		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
1JC2-PFDA	SURR	H0.J	70 - 1J0		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
d4-ktFOSAA	SURR	H7.0	70 - 1J0		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResEts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB07-081L

PAMh etdr5 738

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 12:09

baoryatryE Data

Lab Sample: 1801762-10
Date Received: 15-Jul-18 08:97
Column: BEH C18

MnalEte	CMS Numoey	Crnc. (ng/b)	Db	bOD	bOQ	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
PFBS	379-73-9	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFHxA	307-25-5	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFHpA	379-89-.	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFHxS	399-56-5	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFOA	339-67-1	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFNA	379-. 9-1	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFOS	1763-23-1	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFDA	339-76-2	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
MeFOSAA	2399-31-.	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
EtFOSAA	2. . 1-90-6	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFUnA	2098-. 5-8	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFDoA	307-99-1	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFTrDA	7262. -. 5-8	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
PFTeDA	376-06-7	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1

baoele5 Stan5ay5s	TEpe	% RecrveyE	bimits	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
13C2-PFHxA	SURR	. 746	70 - 130		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
13C2-PFDA	SURR	. 141	70 - 130		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1
d9-EtFOSAA	SURR	. 146	70 - 130		B8G0137	18-Jul-18	0296 L	20-Jul-18 20:50	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW06-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 19:15

Laboratory Data

Lab Sample: 1801762-11
Date Received: 19-Jul-18 08:47
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	374-73-4	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFHxA	307-29-9	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFHpA	374-84-5	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFHxS	344-96-9	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFOA	334-67-1	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFNA	374-54-1	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFOS	1763-23-1	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFDA	334-76-2	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
MeFOSAA	2344-31-5	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
EtFOSAA	2551-40-6	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFUnA	2048-59-8	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFDoA	307-44-1	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFTrDA	72625-59-8	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFTeDA	376-06-7	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	54.7	70 - 130		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
13C2-PFDA	SURR	83.0	70 - 130		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
d4-EtFOSAA	SURR	81.2	70 - 130		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: CBD-1FB06-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 19:21

Laboratory Data

Lab Sample: 1801762-12
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFHxA	307-29-9	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFHpA	375-85-G	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFHxS	355-96-9	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFOA	335-67-1	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFNA	375-G5-1	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFOS	1763-23-1	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFDA	335-76-2	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
MeFOSAA	2355-31-G	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
EtFOSAA	2GG1-50-6	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFUnA	2058-G9-8	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFDoA	307-55-1	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFTrDA	7262G-G9-8	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFTeDA	376-06-7	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	G14.9	70 - 130		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
13C2-PFDA	SURR	83.41	70 - 130		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
d5-EtFOSAA	SURR	102	70 - 130		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW07-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1H-JEl-18 19:55

Laboratory Data

Lab Sample: 1801762-1H
Date Received: 19-JEl-18 08:57
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	H75-7H-5	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFu xA	H07-29-9	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFu pA	H75-85-G	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFu xS	H55-96-9	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFOA	HH5-67-1	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFNA	H75-G5-1	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFOS	176H-2H-1	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFDA	HH5-76-2	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
MeFOSAA	2H55-H1-G	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
ktFOSAA	2GG1-50-6	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFUnA	2058-G9-8	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFDoA	H07-55-1	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFTrDA	7262G-G9-8	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFTeDA	H76-06-7	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	SURR	GH46	70 - 1H0		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
1HC2-PFDA	SURR	8G42	70 - 1H0		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
d5-ktFOSAA	SURR	G54G	70 - 1H0		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB07-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 1H57

Laboratory Data

Lab Sample: 1801762-1H
Date Received: 1H-9El-18 08:57
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	J75-7J-5	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFu xA	J07-2H-H	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFu pA	J75-85-G	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFu xS	J55-H6-H	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFOA	JJ5-67-1	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFNA	J75-G5-1	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFOS	176J-2J-1	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFDA	JJ5-76-2	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
MeFOSAA	2J55-J1-G	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
ktFOSAA	2GG1-50-6	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFUnA	2058-GH-8	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFDoA	J07-55-1	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFTrDA	7262G-GH-8	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFTeDA	J76-06-7	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1JC2-PFu xA	SURR	GJ41	70 - 1J0		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
1JC2-PFDA	SURR	8648	70 - 1J0		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
d5-ktFOSAA	SURR	10G	70 - 1J0		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResEts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW07-0817

EPA Method 538

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 1H:58

Laboratory Data

Lab Sample: 1801762-1H
Date Received: 15-9El-18 08:H7
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	J7H-7J-H	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFu xA	J07-25-5	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFu pA	J7H-8H-G	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFu xS	JHH-56-5	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFOA	JJH-67-1	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFNA	J7H-GH-1	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFOS	176J-2J-1	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFDA	JJH-76-2	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
MeFOSAA	2JHH-J1-G	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
ktFOSAA	2GG1-H0-6	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFUnA	20H8-G5-8	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFDoA	J07-HH-1	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFTrDA	7262G-G5-8	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFTeDA	J76-06-7	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1JC2-PFu xA	SURR	G146	70 - 1J0		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
1JC2-PFDA	SURR	8541	70 - 1J0		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
dH-ktFOSAA	SURR	G24G	70 - 1J0		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB07-0817

EPA Method 538

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 19:90

Laboratory Data

Lab Sample: 1801762-16
Date Received: 15-Jul-18 08:97
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	379-73-9	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFHxA	307-25-5	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFHpA	379-89-.	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFHxS	399-56-5	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFOA	339-67-1	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFNA	379-. 9-1	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFOS	1763-23-1	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFDA	339-76-2	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
MeFOSAA	2399-31-.	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
EtFOSAA	2. . 1-90-6	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFUnA	2098-. 5-8	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFDoA	307-99-1	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFTrDA	7262. -. 5-8	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFTeDA	376-06-7	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	. 340	70 - 130		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
13C2-PFDA	SURR	8748	70 - 130		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
d9-EtFOSAA	SURR	107	70 - 130		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW09-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:29

Laboratory Data

Lab Sample: 1801762-17
Date Received: 15-Jul-18 08:97
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	379-73-9	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFHxA	307-25-5	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFHpA	379-89-.	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFHxS	399-56-5	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFOA	339-67-1	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFNA	379-. 9-1	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFOS	1763-23-1	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFDA	339-76-2	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
MeFOSAA	2399-31-.	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
EtFOSAA	2. . 1-90-6	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFUnA	2098-. 5-8	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFDoA	307-99-1	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFTrDA	7262. -. 5-8	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFTeDA	376-06-7	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	. 946	70 - 130		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
13C2-PFDA	SURR	8. 46	70 - 130		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
d9-EtFOSAA	SURR	8349	70 - 130		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB09-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:27

Laboratory Data

Lab Sample: 1801762-18
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFHxA	307-29-9	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFHpA	375-85-G	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFHxS	355-96-9	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFOA	335-67-1	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFNA	375-G5-1	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFOS	1763-23-1	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFDA	335-76-2	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
MeFOSAA	2355-31-G	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
EtFOSAA	2GG1-50-6	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFUnA	2058-G9-8	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFDoA	307-55-1	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFTrDA	7262G-G9-8	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFTeDA	376-06-7	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	88.8	70 - 130		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
13C2-PFDA	SURR	8G.5	70 - 130		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
d5-EtFOSAA	SURR	G0.4	70 - 130		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW10-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 16:50

Laboratory Data

Lab Sample: 1801762-1H
Date Received: 15-9El-18 08:47
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	J74-7J-4	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFu xA	J07-25-5	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFu pA	J74-84-H	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFu xS	J44-56-5	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFOA	JJ4-67-1	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFNA	J74-H4-1	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFOS	176J-2J-1	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFDA	JJ4-76-2	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
MeFOSAA	2J44-J1-H	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
ktFOSAA	2HH1-40-6	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFUnA	2048-H5-8	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFDoA	J07-44-1	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFTrDA	7262H-H5-8	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFTeDA	J76-06-7	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1JC2-PFu xA	SURR	H1.0	70 - 1J0		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
1JC2-PFDA	SURR	8J.1	70 - 1J0		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
d4-ktFOSAA	SURR	H0.J	70 - 1J0		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResEts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1RW10-0718

EPA Method 537

Name:	CH2M Hill	Lab Sample:	B8G0137-MS1/B8G0137-MSD1	Source Lab Sample:	1801762-19
Project:	PFAS DW Investigation CTO-08 NRL CBD	QC Batch:	B8G0137	Date Extracted:	18-Jul-18
Matrix:	Aqueous	Samp Size:	0.235/0.249 L	Column:	BEH C18

Analyte	CAS Number	Sample (ng/L)	LFSM (ng/L)	LFSM Spike Amt	LFSM % Rec	LFSM Quals	LFSMD (ng/L)	LFSMD Spike Amt	LFSMD % Rec	RPD	LFSMD Quals	%Rec Limits	RPD Limits	LFSM Analyzed	LFSM Dil	LFSMD Analyzed	LFS MD
PFBS	375-73-5	ND	81.7	75.2	109		82.4	71.1	116	6.22		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFHxA	307-24-4	ND	82.4	85.0	96.6		80.8	80.4	100	3.46		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFHpA	375-85-9	ND	85.6	85.0	101		81.7	80.4	102	0.985		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFHxS	355-46-4	ND	81.2	77.4	105		78.9	73.1	108	2.82		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFOA	335-67-1	ND	91.5	85.0	107		79.9	80.4	99.2	7.57		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFNA	375-95-1	ND	76.1	85.0	89.5		73.6	80.4	91.5	2.21		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFOS	1763-23-1	ND	75.5	78.6	96.0		76.2	74.3	103	7.04		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFDA	335-76-2	ND	77.2	85.0	90.7		70.4	80.4	87.5	3.59		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
MeFOSAA	2355-31-9	ND	86.1	85.0	101		76.0	80.4	94.6	6.54		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
EtFOSAA	2991-50-6	ND	82.8	85.0	97.4		68.3	80.4	84.9	13.7		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFUnA	2058-94-8	ND	77.6	85.0	91.3		78.3	80.4	97.4	6.47		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFDoA	307-55-1	ND	73.4	85.0	86.3		73.5	80.4	91.4	5.74		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFTrDA	72629-94-8	ND	74.1	85.0	87.1		73.5	80.4	91.4	4.82		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFTeDA	376-06-7	ND	71.6	85.0	84.3		74.9	80.4	93.1	9.92		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1

Labeled Standards	Type	LFSM % Rec	LFSM Quals	LFSMD % Rec	LFSMD Quals	Limits	LFSM Analyzed	LFSM Dil	LFSMD Analyzed	LFS MD
13C2-PFHxA	SURR	95.7		98.0		70-130	20-Jul-18 18:19	1	20-Jul-18 18:31	1
13C2-PFDA	SURR	91.6		92.8		70-130	20-Jul-18 18:19	1	20-Jul-18 18:31	1
d5-EtFOSAA	SURR	83.3		77.6		70-130	20-Jul-18 18:19	1	20-Jul-18 18:31	1

Sample ID: CBD-1FB10-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:95

Laboratory Data

Lab Sample: 1801762-20
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFHxA	307-29-9	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFHpA	375-85-G	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFHxS	355-96-9	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFOA	335-67-1	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFNA	375-G5-1	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFOS	1763-23-1	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFDA	335-76-2	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
MeFOSAA	2355-31-G	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
EtFOSAA	2GG1-50-6	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFUnA	2058-G9-8	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFDoA	307-55-1	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFTrDA	7262G-G9-8	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFTeDA	376-06-7	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	8G4G	70 - 130		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
13C2-PFDA	SURR	8342	70 - 130		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
d5-EtFOSAA	SURR	8842	70 - 130		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank**
Conc.	**Concentration**
D	**Dilution**
DL	**Detection limit**
E	**The associated compound concentration exceeded the calibration range of the instrument**
H	**Recovery and/or RPD was outside laboratory acceptance limits**
I	**Chemical Interference**
J	**The amount detected is below the Reporting Limit/LOQ**
LOD	**Limits of Detection**
LOQ	**Limits of Quantitation**
M	**Estimated Maximum Possible Concentration (CA Region 2 projects only)**
NA	**Not applicable**
ND	**Not Detected**
Q	**Ion ratio outside of 70-130% of Standard Ratio. (DOD PFAS projects only)**
TEQ	**Toxic Equivalency**
U	**Not Detected (specific projects only)**
*****	**See Cover Letter**

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

CERTIFICATIONS

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

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

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

CTO-08 679580.14.F1.FS

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801762 Temp: 1.5 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

CTO-08, NRL CBD

Project ID: PFAS DW INVESTIGATION PO#: 101001982 Sampler: R. McElhinney (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE Circle Blvd Ste 300	Corvallis	Oregon	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Witmer	7/13/18	1830	B. Benedict	07/14/18	0924
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

ATTN: Martha Maier

Method of Shipment: FEDEX

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/ PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	PFOA/ PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
				Container(s)			Mod. EPA Method 537					EPA Method 537(DW only)			
CBD-IRW01-0718	7/13/18	0950		2	P	DW									
CBD-IFB01-0718		0955		2	P	DW									
CBD-IRW02-0718		1031		2	P	DW									
CBD-IFB02-0718		1035		2	P	DW									
CBD-IRW03-0718		1118		2	P	DW									
CBD-IFB03-0718		1120		2	P	DW									
CBD-IRW04-0718		1146		2	P	DW									
CBD-IFB04-0718		1148		2	P	DW									
CBD-IRW05-0718		1203		2	P	DW									
CBD-IFB05-0718		1205		2	P	DW									

Special Instructions/Comments: 7 DAY TAT
Analysis of Drinking Water Samples for PFOA/PFOS/PFBS

SEND DOCUMENTATION AND RESULTS TO:
Name: Tiffany Hill
Company: CH2M HILL INC
Address: 1100 NE CIRCLE BLVD STE 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 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:

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

ID: LR - 537COC

CTO-08 679580.14.F1.FS

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801762 Temp: 1.5 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

CTO-08 NRLCBD
Project ID: PFAS DW INVESTIGATION PO#: 101001982 Sampler: R. McElhinny (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE CIRCLE BLVD ST 300	CORVALLIS	OREGON	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Witmer MS MS	7/13/18	1830	B Benedict Beth Benedict	07/14/18	0924
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

ATTN: Martha Maier

Method of Shipment: FEDEX
Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
CBD-1RW06-0718	7/13/18	1419		2	P	DW									
CBD-1FB06-0718		1421		2	P	DW									
CBD-1RW07-0718		1455		2	P	DW									
CBD-1FB07-0718		1457		2	P	DW									
CBD-1RW08-0718		1548		2	P	DW									
CBD-1FB08-0718		1550		2	P	DW									
CBD-1RW09-0718		1625		2	P	DW									
CBD-1FB09-0718		1627		2	P	DW									
CBD-1RW10-0718		1640		2	P	DW									
CBD-1RW10-0718-MS		1640		2	P	DW									

Special Instructions/Comments: 7 DAY TAT
Analysis of Drinking Water Samples for PFOA/PFOS/PFBS

SEND DOCUMENTATION AND RESULTS TO:
Name: Tiffany Hill
Company: CH2M HILL INC
Address: 1100 NE Circle BLVD ST 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 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:

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

CTO-08 679580. ~~[illegible]~~ 14.F1.FS

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801762 Temp: 1.5 °C
Storage ID: WR2 Storage Secured: Yes ☑ No ☐

Project ID: CTO-08 NRL CBD PFAS OW INVESTIGATION PO#: 10100 1982 Sampler: R. McKlhinny (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE Circle Blvd Ste 300	Corvallis	Oregon	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Wittmer	7/13/18	1830	B. Benedict	07/14/18	0924
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

ATTN: Martha Maier

Method of Shipment: FEDEX

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List 6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List 6	PFAS List: 14	Comments
CBD-IRW10-0718-SD	7/13/18	1640		2	P	DW									
CBD-IFB10-0718	7/13/18	1645		2	P	DW									

Special Instructions/Comments: 7 DAY TAT
Analysis of OW Samples for PFOA/PFOS/PFBS

SEND DOCUMENTATION AND RESULTS TO:
Name: Tiffany Hill
Company: CH2M Hill Inc
Address: 1100 NE Circle Blvd Ste 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 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:

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1801762 **TAT** 7

Samples Arrival:	**Date/Time** 07/14/18 0857	**Initials:** BLB	**Location:** WR-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 07/16/18 0819	**Initials:** KE	**Location:** WR-2 **Shelf/Rack:** E3/E7

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

Temp °C: 1.6 (uncorrected)	**Time:** BLB ~~0925~~ 0923	**Thermometer ID:** IR-4
Temp °C: 1.5 (corrected)	**Probe used: Yes☐ No☑**	

		YES	NO	NA
Adequate Sample Volume Received?		BLB		
Holding Time Acceptable?		BLB		
Shipping Container(s) Intact?		BLB		
Shipping Custody Seals Intact?		BLB		
Shipping Documentation Present?		BLB		
Airbill	Trk # 7818 4187 1460	BLB		
Sample Container Intact?		BLB		
Sample Custody Seals Intact?				BLB
Chain of Custody / Sample Documentation Present?		BLB		
COC Anomaly/Sample Acceptance Form completed?			NLNS	NLNS

If Chlorinated or Drinking Water Samples, Acceptable Preservation?				BLB		
Preservation Documented:	$Na_2S_2O_3$	Trizma	None	Yes	No	NA
Shipping Container	Vista	Client	Retain	Return	Dispose	

Comments:

July 23, 2018

Vista Work Order No. 1801762

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 July 14, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'PFAS DW Investigation CTO-08 NRL CBD'.

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

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

Sincerely,

Martha Maier
Laboratory Director

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

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

Vista Work Order No. 1801762
Case Narrative

Sample Condition on Receipt:

Twenty 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.

Analytical Notes:

EPA Method 537, Rev. 1.1

The samples were extracted and analyzed for a selected list of PFAS using EPA Method 537, Rev. 1.1.

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

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

A Laboratory Fortified Sample Matrix (LFSM) and Laboratory Fortified Sample Matrix Duplicate (LFSMD) were performed on sample "CBD-1RW10-0718". The analyte recoveries and RPDs were within the method acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1801762-01	CBD-1RW01-0718	13-Jul-18 09:50	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-02	CBD-1FB01-0718	13-Jul-18 09:55	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-03	CBD-1RW02-0718	13-Jul-18 10:31	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-04	CBD-1FB02-0718	13-Jul-18 10:35	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-05	CBD-1RW03-0718	13-Jul-18 11:18	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-06	CBD-1FB03-0718	13-Jul-18 11:20	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-07	CBD-1RW04-0718	13-Jul-18 11:46	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-08	CBD-1FB04-0718	13-Jul-18 11:48	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-09	CBD-1RW05-0718	13-Jul-18 12:03	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-10	CBD-1FB05-0718	13-Jul-18 12:05	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-11	CBD-1RW06-0718	13-Jul-18 14:19	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-12	CBD-1FB06-0718	13-Jul-18 14:21	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-13	CBD-1RW07-0718	13-Jul-18 14:55	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-14	CBD-1FB07-0718	13-Jul-18 14:57	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-15	CBD-1RW08-0718	13-Jul-18 15:48	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-16	CBD-1FB08-0718	13-Jul-18 15:50	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-17	CBD-1RW09-0718	13-Jul-18 16:25	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-18	CBD-1FB09-0718	13-Jul-18 16:27	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-19	CBD-1RW10-0718	MS/MSD13-Jul-18 16:40	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

Vista Project: 1801762

Client Project: PFAS DW Investigation CTO-08 NRL CBD

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1801762-19	CBD-1RW10-0718	MS/MSD13-Jul-18 16:40	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801762-20	CBD-1FB10-0718	13-Jul-18 16:45	14-Jul-18 08:57	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

Vista Project: 1801762

Client Project: PFAS DW Investigation CTO-08 NRL CBD

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537

Client Data

Name: CH2M Hill
Matrix: Aqueous
Project: PFAS DW Investigation CTO-08 NRL CBD

Laboratory Data

Lab Sample: B8G0137-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFHxA	307-24-4	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFHpA	375-85-9	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFHxS	355-46-4	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFOA	335-67-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFNA	375-95-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFOS	1763-23-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFDA	335-76-2	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
MeFOSAA	2355-31-9	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
EtFOSAA	2991-50-6	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFUnA	2058-94-8	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFDoA	307-55-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFTrDA	72629-94-8	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
PFTeDA	376-06-7	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.4	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
13C2-PFDA	SURR	87.5	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1
d5-EtFOSAA	SURR	94.3	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:36	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: LFB

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Aqueous

Laboratory Data

Lab Sample: B8G0137-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	77.6	70.8	110	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFHxA	307-24-4	79.6	80.0	99.4	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFHpA	375-85-9	81.6	80.0	102	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFHxS	355-46-4	73.4	72.8	101	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFOA	335-67-1	80.4	80.0	100	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFNA	375-95-1	75.2	80.0	94.0	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFOS	1763-23-1	76.6	74.0	104	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFDA	335-76-2	74.2	80.0	92.7	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
MeFOSAA	2355-31-9	83.6	80.0	104	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
EtFOSAA	2991-50-6	83.3	80.0	104	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFUnA	2058-94-8	79.0	80.0	98.8	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFDoA	307-55-1	72.3	80.0	90.4	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFTrDA	72629-94-8	74.3	80.0	92.8	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
PFTeDA	376-06-7	68.5	80.0	85.6	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	99.1	70- 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
13C2-PFDA	SURR	98.8	70- 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1
d5-EtFOSAA	SURR	93.7	70- 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 16:49	1

Sample ID: CBD-1RW01-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 09:50

Laboratory Data

Lab Sample: 1801762-01
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFHxA	307-24-4	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFHpA	375-85-9	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFHxS	355-46-4	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFOA	335-67-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFNA	375-95-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFOS	1763-23-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFDA	335-76-2	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
MeFOSAA	2355-31-9	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
EtFOSAA	2991-50-6	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFUnA	2058-94-8	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFDoA	307-55-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFTrDA	72629-94-8	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFTeDA	376-06-7	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.5	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
13C2-PFDA	SURR	85.5	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
d5-EtFOSAA	SURR	92.0	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: CBD-1FB01-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 09:55

Laboratory Data

Lab Sample: 1801762-02
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFHxA	307-24-4	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFHpA	375-85-9	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFHxS	355-46-4	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFOA	335-67-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFNA	375-95-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFOS	1763-23-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFDA	335-76-2	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
MeFOSAA	2355-31-9	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
EtFOSAA	2991-50-6	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFUnA	2058-94-8	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFDoA	307-55-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFTrDA	72629-94-8	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFTeDA	376-06-7	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.8	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
13C2-PFDA	SURR	87.7	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
d5-EtFOSAA	SURR	92.4	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: CBD-1RW02-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1H-JEl-18 10:Hl

Laboratory Data

Lab Sample: 1801762-0H
Date Received: 19-JEl-18 08:57
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	H75-7H-5	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFu xA	H07-29-9	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFu pA	H75-85-.	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFu xS	H55-96-9	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFOA	HH5-67-1	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFNA	H75-. 5-1	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFOS	176H-2H-1	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFDA	HH5-76-2	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
MeFOSAA	2H55-Hl-.	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
k tFOSAA	2. . 1-50-6	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFUnA	2058-. 9-8	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFDoA	H07-55-1	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFTrDA	7262. -. 9-8	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
PFTeDA	H76-06-7	ND	H407	5409	1041		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	SURR	8841	70 - 1H0		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
1HC2-PFDA	SURR	8741	70 - 1H0		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1
d5-k tFOSAA	SURR	. 94	70 - 1H0		B8G01H7	18-JEl-18	0429 8 L	20-JEl-18 1. :10	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and k tFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB02-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 10:J5

Laboratory Data

Lab Sample: 1801762-0H
Date Received: 1H-9El-18 08:57
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	J75-7J-5	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFu xA	J07-2H-H	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFu pA	J75-85-.	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFu xS	J55-H6-H	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFOA	JJ5-67-1	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFNA	J75-. 5-1	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFOS	176J-2J-1	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFDA	JJ5-76-2	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
MeFOSAA	2J55-J1-.	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
ktFOSAA	2. . 1-50-6	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFUnA	2058-. H-8	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFDoA	J07-55-1	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFTrDA	7262. -. H-8	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
PFTeDA	J76-06-7	ND	24 .	H4 2	. 482		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1JC2-PFu xA	SURR	8647	70 - 1J0		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
1JC2-PFDA	SURR	8646	70 - 1J0		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1
d5-ktFOSAA	SURR	105	70 - 1J0		B8G01J7	18-9El-18	0425HL	20-9El-18 1. :2J	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW07-081L

PAMh etdr5 378

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 11:18

baoryatryE Data

Lab Sample: 1801762-0H
Date Received: 15-9El-18 08:H7
ColEmn: Bku C18

MnalEte	CMS Numoey	Crnc. (ng/b)	Db	bOD	bOQ	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
PFBS	J7H-7J-H	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFu xA	J07-25-5	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFu pA	J7H-8H-.	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFu xS	JHH-56-5	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFOA	JJH-67-1	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFNA	J7H-. H-1	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFOS	176J-2J-1	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFDA	JJH-76-2	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
MeFOSAA	2JHH-J1-.	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
ktFOSAA	2. . 1-H0-6	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFUnA	20H8-. 5-8	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFDoA	J07-HH-1	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFTrDA	7262. -. 5-8	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
PFTeDA	J76-06-7	ND	J406	H402	1041		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1

baoele5 Stan5ay5s	TEpe	% RecrveyE	bimits	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
1JC2-PFu xA	SURR	. 241	70 - 1J0		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
1JC2-PFDA	SURR	. 147	70 - 1J0		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1
dH-ktFOSAA	SURR	. 041	70 - 1J0		B8G01J7	18-9El-18	0425. L	20-9El-18 1. :J6	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB07-081L

PAMh etdr5 378

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:20

baoryatryE Data

Lab Sample: 1801762-06
Date Received: 19-Jul-18 08:57
Column: BEH C18

MnalEte	CMS Numoey	Crnc. (ng/b)	Db	bOD	bOQ	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
PFBS	375-73-5	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFHxA	307-29-9	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFHpA	375-85-.	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFHxS	355-96-9	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFOA	335-67-1	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFNA	375-. 5-1	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFOS	1763-23-1	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFDA	335-76-2	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
MeFOSAA	2355-31-.	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
EtFOSAA	2. . 1-50-6	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFUnA	2058-. 9-8	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFDoA	307-55-1	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFTrDA	7262. -. 9-8	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
PFTeDA	376-06-7	ND	3410	5410	1042		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1

baoele5 Stan5ay5s	TEpe	% RecrveyE	bimits	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
13C2-PFHxA	SURR	8. 48	70 - 130		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
13C2-PFDA	SURR	8746	70 - 130		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1
d5-EtFOSAA	SURR	. 741	70 - 130		B8G0137	18-Jul-18	0295 L	20-Jul-18 1. :98	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW04-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:96

Laboratory Data

Lab Sample: 1801762-07
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFHxA	307-29-9	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFHpA	375-85-.	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFHxS	355-96-9	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFOA	335-67-1	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFNA	375-. 5-1	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFOS	1763-23-1	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFDA	335-76-2	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
MeFOSAA	2355-31-.	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
EtFOSAA	2. . 1-50-6	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFUnA	2058-. 9-8	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFDoA	307-55-1	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFTrDA	7262. -. 9-8	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
PFTeDA	376-06-7	ND	3415	541.	1049		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	. 842	70 - 130		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
13C2-PFDA	SURR	8842	70 - 130		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1
d5-EtFOSAA	SURR	. . 43	70 - 130		B8G0137	18-Jul-18	0291 L	20-Jul-18 20:01	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB04-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:98

Laboratory Data

Lab Sample: 1801762-08
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFHxA	307-29-9	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFHpA	375-85-.	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFHxS	355-96-9	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFOA	335-67-1	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFNA	375-. 5-1	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFOS	1763-23-1	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFDA	335-76-2	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
MeFOSAA	2355-31-.	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
EtFOSAA	2. . 1-50-6	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFUnA	2058-. 9-8	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFDoA	307-55-1	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFTrDA	7262. -. 9-8	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
PFTeDA	376-06-7	ND	3400	94 9	. 486		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	. 542	70 - 130		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
13C2-PFDA	SURR	8. 40	70 - 130		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1
d5-EtFOSAA	SURR	. . 4	70 - 130		B8G0137	18-Jul-18	0425 3 L	20-Jul-18 20:19	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW07-081L

PAMh etdr5 738

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 12:0J

baoryatryE Data

Lab Sample: 1801762-0H
Date Received: 15-9El-18 08:47
ColEmn: Bku C18

MnalEte	CMS Numoey	Crnc. (ng/b)	Db	bOD	bOQ	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
PFBS	J74-7J-4	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFu xA	J07-25-5	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFu pA	J74-84-H	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFu xS	J44-56-5	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFOA	JJ4-67-1	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFNA	J74-H4-1	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFOS	176J-2J-1	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFDA	JJ4-76-2	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
MeFOSAA	2J44-J1-H	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
ktFOSAA	2HH1-40-6	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFUnA	2048-H5-8	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFDoA	J07-44-1	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFTrDA	7262H-H5-8	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
PFTeDA	J76-06-7	ND	J.0H	4.08	10.2		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1

baoele5 Stan5ay5s	TEpe	% RecrveyE	bimits	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
1JC2-PFu xA	SURR	H5.7	70 - 1J0		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
1JC2-PFDA	SURR	H0.J	70 - 1J0		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1
d4-ktFOSAA	SURR	H7.0	70 - 1J0		B8G01J7	18-9El-18	0.256 L	20-9El-18 20:27	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB07-081L

PAMh etdr5 738

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 12:09

baoryatryE Data

Lab Sample: 1801762-10
Date Received: 15-Jul-18 08:97
Column: BEH C18

MnalEte	CMS Numoey	Crnc. (ng/b)	Db	bOD	bOQ	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
PFBS	379-73-9	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFHxA	307-25-5	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFHpA	379-89-.	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFHxS	399-56-5	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFOA	339-67-1	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFNA	379-. 9-1	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFOS	1763-23-1	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFDA	339-76-2	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
MeFOSAA	2399-31-.	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
EtFOSAA	2. . 1-90-6	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFUnA	2098-. 5-8	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFDoA	307-99-1	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFTrDA	7262. -. 5-8	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
PFTeDA	376-06-7	ND	24 6	5488	. 479		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1

baoele5 Stan5ay5s	TEpe	% RecrveyE	bimits	Qualifieys	Batcd	Pxtyacte5	Samp Size	MnalEze5	Dilutirn
13C2-PFHxA	SURR	. 746	70 - 130		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
13C2-PFDA	SURR	. 141	70 - 130		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1
d9-EtFOSAA	SURR	. 146	70 - 130		B8G0137	18-Jul-18	0496 L	20-Jul-18 20:50	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW06-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 19:15

Laboratory Data

Lab Sample: 1801762-11
Date Received: 19-Jul-18 08:47
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	374-73-4	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFHxA	307-29-9	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFHpA	374-84-5	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFHxS	344-96-9	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFOA	334-67-1	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFNA	374-54-1	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFOS	1763-23-1	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFDA	334-76-2	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
MeFOSAA	2344-31-5	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
EtFOSAA	2551-40-6	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFUnA	2048-59-8	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFDoA	307-44-1	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFTrDA	72625-59-8	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
PFTeDA	376-06-7	ND	3.07	4.09	10.1		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	54.7	70 - 130		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
13C2-PFDA	SURR	83.0	70 - 130		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1
d4-EtFOSAA	SURR	81.2	70 - 130		B8G0137	18-Jul-18	0.298 L	20-Jul-18 20:42	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: CBD-1FB06-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 19:21

Laboratory Data

Lab Sample: 1801762-12
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFHxA	307-29-9	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFHpA	375-85-G	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFHxS	355-96-9	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFOA	335-67-1	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFNA	375-G5-1	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFOS	1763-23-1	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFDA	335-76-2	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
MeFOSAA	2355-31-G	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
EtFOSAA	2GG1-50-6	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFUnA	2058-G9-8	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFDoA	307-55-1	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFTrDA	7262G-G9-8	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFTeDA	376-06-7	ND	3.20	5.27	10.5		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	G14.9	70 - 130		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
13C2-PFDA	SURR	83.41	70 - 130		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
d5-EtFOSAA	SURR	102	70 - 130		B8. 0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW07-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1H-JEl-18 19:55

Laboratory Data

Lab Sample: 1801762-1H
Date Received: 19-JEl-18 08:57
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	H75-7H-5	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFu xA	H07-29-9	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFu pA	H75-85-G	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFu xS	H55-96-9	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFOA	HH5-67-1	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFNA	H75-G5-1	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFOS	176H-2H-1	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFDA	HH5-76-2	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
MeFOSAA	2H55-H1-G	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
ktFOSAA	2GG1-50-6	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFUnA	2058-G9-8	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFDoA	H07-55-1	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFTrDA	7262G-G9-8	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
PFTeDA	H76-06-7	ND	H405	5402	1040		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	SURR	GH46	70 - 1H0		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
1HC2-PFDA	SURR	8G42	70 - 1H0		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1
d5-ktFOSAA	SURR	G54G	70 - 1H0		B8. 01H7	18-JEl-18	0429GL	20-JEl-18 21:18	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB07-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 1H57

Laboratory Data

Lab Sample: 1801762-1H
Date Received: 1H-9El-18 08:57
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	J75-7J-5	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFu xA	J07-2H-H	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFu pA	J75-85-G	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFu xS	J55-H6-H	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFOA	JJ5-67-1	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFNA	J75-G5-1	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFOS	176J-2J-1	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFDA	JJ5-76-2	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
MeFOSAA	2J55-J1-G	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
ktFOSAA	2GG1-50-6	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFUnA	2058-GH-8	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFDoA	J07-55-1	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFTrDA	7262G-GH-8	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
PFTeDA	J76-06-7	ND	J40H	5400	1040		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1JC2-PFu xA	SURR	GJ41	70 - 1J0		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
1JC2-PFDA	SURR	8648	70 - 1J0		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1
d5-ktFOSAA	SURR	10G	70 - 1J0		B8. 01J7	18-9El-18	0425 0 L	20-9El-18 21:J1	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW07-0817

EPA Method 538

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 1H:58

Laboratory Data

Lab Sample: 1801762-1H
Date Received: 15-9El-18 08:H7
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	J7H-7J-H	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFu xA	J07-25-5	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFu pA	J7H-8H-G	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFu xS	JHH-56-5	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFOA	JJH-67-1	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFNA	J7H-GH-1	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFOS	176J-2J-1	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFDA	JJH-76-2	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
MeFOSAA	2JHH-J1-G	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
ktFOSAA	2GG1-H0-6	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFUnA	20H8-G5-8	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFDoA	J07-HH-1	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFTrDA	7262G-G5-8	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
PFTeDA	J76-06-7	ND	J406	H405	1041		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1JC2-PFu xA	SURR	G146	70 - 1J0		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
1JC2-PFDA	SURR	8541	70 - 1J0		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1
dH-ktFOSAA	SURR	G24G	70 - 1J0		B8. 01J7	18-9El-18	0425 8 L	20-9El-18 21:55	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL4

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB07-0817

EPA Method 538

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 19:90

Laboratory Data

Lab Sample: 1801762-16
Date Received: 15-Jul-18 08:97
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	379-73-9	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFHxA	307-25-5	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFHpA	379-89-.	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFHxS	399-56-5	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFOA	339-67-1	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFNA	379-. 9-1	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFOS	1763-23-1	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFDA	339-76-2	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
MeFOSAA	2399-31-.	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
EtFOSAA	2. . 1-90-6	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFUnA	2098-. 5-8	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFDoA	307-99-1	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFTrDA	7262. -. 5-8	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
PFTeDA	376-06-7	ND	3401	54 6	. 4 2		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	. 340	70 - 130		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
13C2-PFDA	SURR	8748	70 - 130		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1
d9-EtFOSAA	SURR	107	70 - 130		B8G0137	18-Jul-18	0429 2 L	20-Jul-18 21:96	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW09-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:29

Laboratory Data

Lab Sample: 1801762-17
Date Received: 15-Jul-18 08:97
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	379-73-9	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFHxA	307-25-5	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFHpA	379-89-.	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFHxS	399-56-5	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFOA	339-67-1	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFNA	379-. 9-1	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFOS	1763-23-1	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFDA	339-76-2	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
MeFOSAA	2399-31-.	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
EtFOSAA	2. . 1-90-6	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFUnA	2098-. 5-8	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFDoA	307-99-1	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFTrDA	7262. -. 5-8	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
PFTeDA	376-06-7	ND	3419	941.	1045		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	. 946	70 - 130		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
13C2-PFDA	SURR	8. 46	70 - 130		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1
d9-EtFOSAA	SURR	8349	70 - 130		B8G0137	18-Jul-18	0251 L	20-Jul-18 22:0.	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1FB09-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:27

Laboratory Data

Lab Sample: 1801762-18
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFHxA	307-29-9	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFHpA	375-85-G	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFHxS	355-96-9	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFOA	335-67-1	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFNA	375-G5-1	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFOS	1763-23-1	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFDA	335-76-2	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
MeFOSAA	2355-31-G	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
EtFOSAA	2GG1-50-6	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFUnA	2058-G9-8	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFDoA	307-55-1	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFTrDA	7262G-G9-8	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFTeDA	376-06-7	ND	3.05	5.00	10.0		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	88.8	70 - 130		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
13C2-PFDA	SURR	8G.5	70 - 130		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
d5-EtFOSAA	SURR	G0.4	70 - 130		B8. 0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

Sample ID: CBD-1RW10-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drin3ing Water
Date Collected: 1J-9El-18 16:50

Laboratory Data

Lab Sample: 1801762-1H
Date Received: 15-9El-18 08:47
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	J74-7J-4	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFu xA	J07-25-5	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFu pA	J74-84-H	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFu xS	J44-56-5	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFOA	JJ4-67-1	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFNA	J74-H4-1	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFOS	176J-2J-1	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFDA	JJ4-76-2	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
MeFOSAA	2J44-J1-H	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
ktFOSAA	2HH1-40-6	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFUnA	2048-H5-8	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFDoA	J07-44-1	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFTrDA	7262H-H5-8	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
PFTeDA	J76-06-7	ND	J.1H	4.24	10.4		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1JC2-PFu xA	SURR	H1.0	70 - 1J0		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
1JC2-PFDA	SURR	8J.1	70 - 1J0		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1
d4-ktFOSAA	SURR	H0.J	70 - 1J0		B8G01J7	18-9El-18	0.2J8 L	20-9El-18 22:J4	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResEts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1RW10-0718

EPA Method 537

Name:	CH2M Hill	Lab Sample:	B8G0137-MS1/B8G0137-MSD1	Source Lab Sample:	1801762-19
Project:	PFAS DW Investigation CTO-08 NRL CBD	QC Batch:	B8G0137	Date Extracted:	18-Jul-18
Matrix:	Aqueous	Samp Size:	0.235/0.249 L	Column:	BEH C18

Analyte	CAS Number	Sample (ng/L)	LFSM (ng/L)	LFSM Spike Amt	LFSM % Rec	LFSM Quals	LFSMD (ng/L)	LFSMD Spike Amt	LFSMD % Rec	RPD	LFSMD Quals	%Rec Limits	RPD Limits	LFSM Analyzed	LFSM Dil	LFSMD Analyzed	LFS MD
PFBS	375-73-5	ND	81.7	75.2	109		82.4	71.1	116	6.22		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFHxA	307-24-4	ND	82.4	85.0	96.6		80.8	80.4	100	3.46		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFHpA	375-85-9	ND	85.6	85.0	101		81.7	80.4	102	0.985		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFHxS	355-46-4	ND	81.2	77.4	105		78.9	73.1	108	2.82		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFOA	335-67-1	ND	91.5	85.0	107		79.9	80.4	99.2	7.57		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFNA	375-95-1	ND	76.1	85.0	89.5		73.6	80.4	91.5	2.21		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFOS	1763-23-1	ND	75.5	78.6	96.0		76.2	74.3	103	7.04		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFDA	335-76-2	ND	77.2	85.0	90.7		70.4	80.4	87.5	3.59		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
MeFOSAA	2355-31-9	ND	86.1	85.0	101		76.0	80.4	94.6	6.54		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
EtFOSAA	2991-50-6	ND	82.8	85.0	97.4		68.3	80.4	84.9	13.7		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFUnA	2058-94-8	ND	77.6	85.0	91.3		78.3	80.4	97.4	6.47		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFDoA	307-55-1	ND	73.4	85.0	86.3		73.5	80.4	91.4	5.74		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFTrDA	72629-94-8	ND	74.1	85.0	87.1		73.5	80.4	91.4	4.82		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1
PFTeDA	376-06-7	ND	71.6	85.0	84.3		74.9	80.4	93.1	9.92		70-130	30	20-Jul-18 18:19	1	20-Jul-18 18:31	1

Labeled Standards	Type	LFSM % Rec	LFSM Quals	LFSMD % Rec	LFSMD Quals	Limits	LFSM Analyzed	LFSM Dil	LFSMD Analyzed	LFS MD
13C2-PFHxA	SURR	95.7		98.0		70-130	20-Jul-18 18:19	1	20-Jul-18 18:31	1
13C2-PFDA	SURR	91.6		92.8		70-130	20-Jul-18 18:19	1	20-Jul-18 18:31	1
d5-EtFOSAA	SURR	83.3		77.6		70-130	20-Jul-18 18:19	1	20-Jul-18 18:31	1

Sample ID: CBD-1FB10-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:95

Laboratory Data

Lab Sample: 1801762-20
Date Received: 19-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFHxA	307-29-9	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFHpA	375-85-G	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFHxS	355-96-9	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFOA	335-67-1	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFNA	375-G5-1	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFOS	1763-23-1	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFDA	335-76-2	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
MeFOSAA	2355-31-G	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
EtFOSAA	2GG1-50-6	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFUnA	2058-G9-8	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFDoA	307-55-1	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFTrDA	7262G-G9-8	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
PFTeDA	376-06-7	ND	3411	5410	1042		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	8G4G	70 - 130		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
13C2-PFDA	SURR	8342	70 - 130		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1
d5-EtFOSAA	SURR	8842	70 - 130		B8. 0137	18-Jul-18	0295 L	20-Jul-18 22:98	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL4

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers4 Only the linear isomer is reported for all other analytes4

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank**
Conc.	**Concentration**
D	**Dilution**
DL	**Detection limit**
E	**The associated compound concentration exceeded the calibration range of the instrument**
H	**Recovery and/or RPD was outside laboratory acceptance limits**
I	**Chemical Interference**
J	**The amount detected is below the Reporting Limit/LOQ**
LOD	**Limits of Detection**
LOQ	**Limits of Quantitation**
M	**Estimated Maximum Possible Concentration (CA Region 2 projects only)**
NA	**Not applicable**
ND	**Not Detected**
Q	**Ion ratio outside of 70-130% of Standard Ratio. (DOD PFAS projects only)**
TEQ	**Toxic Equivalency**
U	**Not Detected (specific projects only)**
*****	**See Cover Letter**

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

CERTIFICATIONS

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

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

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

CTO-08 679580.14.F1.FS

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801762 Temp: 1.5 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

CTO-08, NRL CBD

Project ID: PFAS DW INVESTIGATION PO#: 101001982 Sampler: R. McElhinney (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE Circle Blvd Ste 300	Corvallis	Oregon	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Witmer	7/13/18	1830	B. Benedict	07/14/18	0924
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

ATTN: Martha Maier

Method of Shipment: FEDEX

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
				Container(s)			Mod. EPA Method 537					EPA Method 537(DW only)			
CBD-1RW01-0718	7/13/18	0950		2	P	DW									
CBD-1FB01-0718		0955		2	P	DW									
CBD-1RW02-0718		1031		2	P	DW									
CBD-1FB02-0718		1035		2	P	DW									
CBD-1RW03-0718		1118		2	P	DW									
CBD-1FB03-0718		1120		2	P	DW									
CBD-1RW04-0718		1146		2	P	DW									
CBD-1FB04-0718		1148		2	P	DW									
CBD-1RW05-0718		1203		2	P	DW									
CBD-1FB05-0718		1205		2	P	DW									

Special Instructions/Comments: 7 DAY TAT
Analysis of Drinking Water Samples for PFOA/PFOS/PFBS

SEND DOCUMENTATION AND RESULTS TO:
Name: Tiffany Hill
Company: CH2M HILL INC
Address: 1100 NE CIRCLE BLVD STE 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 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:

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

ID: LR - 537COC

CTO-08 679580.14.F1.FS

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801762 Temp: 1.5 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

Project ID: CTO-08 NRLCBD PFAS DW INVESTIGATION PO#: 101001982 Sampler: R. McElhinny (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE CIRCLE BLVD ST 300	CORVALLIS	OREGON	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Witmer MS MS	7/13/18	1830	B Benedict Beth Benedict	07/14/18	0924
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

ATTN: Martha Maier

Method of Shipment: FEDEX

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
CBD-1RW06-0718	7/13/18	1419		2	P	DW									
CBD-1FB06-0718		1421		2	P	DW									
CBD-1RW07-0718		1455		2	P	DW									
CBD-1FB07-0718		1457		2	P	DW									
CBD-1RW08-0718		1548		2	P	DW									
CBD-1FB08-0718		1550		2	P	DW									
CBD-1RW09-0718		1625		2	P	DW									
CBD-1FB09-0718		1627		2	P	DW									
CBD-1RW10-0718		1640		2	P	DW									
CBD-1RW10-0718-MS		1640		2	P	DW									

Special Instructions/Comments: 7 DAY TAT
Analysis of Drinking Water Samples for PFOA/PFOS/PFBS

SEND DOCUMENTATION AND RESULTS TO:
Name: Tiffany Hill
Company: CH2M HILL INC
Address: 1100 NE Circle BLVD ST 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 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:

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

CTO-08 679580. ~~[illegible]~~ 14.F1.FS

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801762 Temp: 1.5 °C
Storage ID: WR2 Storage Secured: Yes ☑ No ☐

Project ID: CTO-08 NRL CBD PFAS OW INVESTIGATION PO#: 10100 1982 Sampler: R. McKlhinny (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE Circle Blvd Ste 300	Corvallis	Oregon	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Wittmer	7/13/18	1830	B. Benedict	07/14/18	0924
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

ATTN: Martha Maier

Method of Shipment: FEDEX

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List 6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List 6	PFAS List: 14	Comments
CBD-IRW10-0718-SD	7/13/18	1640		2	P	DW									
CBD-IFB10-0718	7/13/18	1645		2	P	DW									

Special Instructions/Comments: 7 DAY TAT
Analysis of OW Samples for PFOA/PFOS/PFBS

SEND DOCUMENTATION AND RESULTS TO:
Name: Tiffany Hill
Company: CH2M Hill Inc
Address: 1100 NE Circle Blvd Ste 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 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:

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1801762 **TAT** 7

Samples Arrival:	**Date/Time** 07/14/18 0857	**Initials:** BLB	**Location:** WR-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 07/16/18 0819	**Initials:** KE	**Location:** WR-2 **Shelf/Rack:** E3/E7

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

Temp °C: 1.6 (uncorrected)	**Time:** BLB ~~0425~~ 0923	**Thermometer ID:** IR-4
Temp °C: 1.5 (corrected)	**Probe used: Yes☐ No☑**	

	YES	NO	NA
Adequate Sample Volume Received?	BLB		
Holding Time Acceptable?	BLB		
Shipping Container(s) Intact?	BLB		
Shipping Custody Seals Intact?	BLB		
Shipping Documentation Present?	BLB		
Airbill Trk # 7818 4187 1460	BLB		
Sample Container Intact?	BLB		
Sample Custody Seals Intact?			BLB
Chain of Custody / Sample Documentation Present?	BLB		
COC Anomaly/Sample Acceptance Form completed?		NLNS	NLNS

If Chlorinated or Drinking Water Samples, Acceptable Preservation?				BLB		
Preservation Documented:	$Na_2S_2O_3$	Trizma	None	Yes	No	NA
Shipping Container	Vista	Client	Retain	Return	Dispose	

Comments:

EXTRACTION INFORMATION

RUSH

Process Sheet

Workorder: 1801762

9- DAY TAT

Prep Expiration: 2018-Jul-27
Client: CH2M Hill

Workorder Due: 23-Jul-18 00:00

TAT: 9

Method: **537 PFAS DW DoD Unmodified**
Matrix: **Aqueous**

Prep Batch: B8G0137

Prep Data Entered: WJ 7/19/18
Date and Initials

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

Initial Sequence: S8G0062

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1801762-01	'B'	☑	☑	CBD-1RW01-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-02		☑	☑	CBD-1FB01-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-03		☑	☑	CBD-1RW02-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-04		☑	☑	CBD-1FB02-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-05		☑	☑	CBD-1RW03-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-06		☑	☑	CBD-1FB03-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-07		☑	☑	CBD-1RW04-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-08		☑	☑	CBD-1FB04-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-09		☑	☑	CBD-1RW05-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-10		☑	☑	CBD-1FB05-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-11		☑	☑	CBD-1RW06-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-12		☑	☑	CBD-1FB06-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-13		☑	☑	CBD-1RW07-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-14		☑	☑	CBD-1FB07-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-15		☑	☑	CBD-1RW08-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-16		☑	☑	CBD-1FB08-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-17		☑	☑	CBD-1RW09-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801762-18		☑	☑	CBD-1FB09-0718	✓ ✓	WR-2 E-3	HDPE Bottle, 250 mL
1801762-19	'DEF'	☑	☑	CBD-1RW10-0718	**MS/MSD**	WR-2 E-3	HDPE Bottle, 250 mL
1801762-20		☑	☑	CBD-1FB10-0718		WR-2 E-3	HDPE Bottle, 250 mL

Pre-Prep Check Out: 7/17/18 ST
Pre-Prep Check In: 7/17/18 ST

Prep Check Out: HN 7/18/18
Prep Check In: N/A

Prep Reconciled Initals/Date: 7/17/18 ST
Spike Reconciled Initals/Date: HN 7/18/18
VialBoxID: Bermuda Triangle

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8G0137

Chemist: HN

Prep Date: 7/18/18

Prep Time: 8:30

Prepared using: LCMS - SPE Extraction-LCMS

BalanceID: HRMS-8

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g) 7/19/18 ST	Sample Amt. (L) 7/19/18 ST	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	B8G0137-BLK1	N/A	N/A	(0.250)	HN 7R 7/18/18	HN 7/18/18	7R HN 7.19.18
☐	B8G0137-BS1	↓	↓	(0.250)	↓	↓	↓
☐	B8G0137-MS1 1801762-19	272.31	37.05	0.23526 ✓			
☐	B8G0137-MSD1 1801762-19	286.06	37.22	0.24884 ✓			
☐	1801762-01	290.98	37.46	0.25352 ✓			
☐	1801762-02	289.04	37.42	0.25162 ✓			
☐	1801762-03	284.99	37.22	0.24766 ✓			
☐	1801762-04	291.58	37.09	0.25449 ✓			
☐	1801762-05	285.61	37.07	0.24854 ✓			
☐	1801762-06	282.31	37.31	0.24500 ✓			
☐	1801762-07	278.77	37.39	0.24138 ✓			
☐	1801762-08	290.87	37.40	0.25347 ✓			
☐	1801762-09	283.13	37.36	0.24577 ✓			
☐	1801762-10	293.59	37.13	0.25646 ✓			
☐	1801762-11	284.84	36.98	0.24786 ✓			
☐	1801762-12	274.39	37.02	0.23737 ✓			

SS/IS: 18G0301, 20µL (V5)

NS: 18F2206, 20µL (V2)

IS/RS: 18G0302, 20µL (V5)

SPE Chem: Strata X 33µm 500mg/6mL
Lot#: 517-005760 / 517-005969

Ele SOLV: MeOH
Lot#: J B072509

Final Volume(s) 1mL

Notes:

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8G0137

Chemist: HN

Prep Date: 7/18/18

Prep Time: 8:30

Prepared using: LCMS - SPE Extraction-LCMS

BalanceID: HRMS-8

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g) 7/19/18 JT	Sample Amt. (L) 7/19/18 JT	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	1801762-13	286.71	37.27	0.24944 ✓	HN 7R 7/18/18	HN 7/18/18	7R HN 7-19-18
☐	1801762-14	287.24	37.21	0.25003 ✓	↓	↓	↓
☐	1801762-15	285.63	37.17	0.24846 ✓	↓	↓	↓
☐	1801762-16	289.19	37.08	0.25211 ✓	↓	↓	↓
☐	1801762-17	278.86	37.37	0.24149 ✓	↓	↓	↓
☐	1801762-18	286.61	37.05	0.24956 ✓	↓	↓	↓
☐	1801762-19	275.58	37.17	0.23841 ✓	↓	↓	↓
☐	1801762-20	281.77	37.12	0.24465 ✓	↓	↓	↓

SS/IS: 18G0301, 20µL (V5)

NS: 18F2206, 20µL (V2)

IS/RS: 18G0302, 20µL (V5)

SPE Chem: Strata X 33µm 500mg/6mL
Lot#: 517-005760/517-005969

Ele SOLV: MeOH
Lot#: J1307250g

Final Volume(s) 1mL

Notes:

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

Batch: B8G0137

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1801762-01	0.25352✓	NA	NA	1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-02	0.25162✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-03	0.24766✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-04	0.25449✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-05	0.24854✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-06	0.245✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-07	0.24138✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-08	0.25347✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-09	0.24577✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-10	0.25646✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-11	0.24786✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-12	0.23737✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-13	0.24944✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-14	0.25003✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-15	0.24846✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-16	0.25211✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-17	0.24149✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-18	0.24956✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-19	0.23841✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
1801762-20	0.24465✓			1000	18-Jul-18 08:30	HN			Drinking Water	537 PFAS DW DoD Unmod
B8G0137-BLK1	0.25✓			1000	18-Jul-18 08:30	HN				QC
B8G0137-BS1	0.25✓			1000	18-Jul-18 08:30	HN	18F2206✓	20✓		QC
B8G0137-MS1	0.23526✓			1000	18-Jul-18 08:30	HN	18F2206✓	20✓		QC
B8G0137-MSD1	0.24884✓			1000	18-Jul-18 08:30	HN	18F2206✓	20✓		QC

wy 7/19/18

Printed: 7/19/2018 9:21:11AM

SAMPLE DATA –EPA METHOD 537

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-04.qld

Last Altered: Saturday, July 21, 2018 15:36:46 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:38:42 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_4, Date: 20-Jul-2018, Time: 16:36:36, ID: B8G0137-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	298.6> 80.5		1.14e4	0.250		2.96				
2	2	PFHxA	312.7 > 268.8	3.94e1	9.05e3	0.250		3.34	3.33	0.0435	0.214	
3	3	PFHpA	362.7 > 318.8	1.92e1	9.05e3	0.250		3.85	3.87	0.0212	0.0968	
4	4	PFHxS	398.7 > 80.7		1.14e4	0.250		3.98				
5	5	PFOA	412.8 > 369.0	1.57e1	9.05e3	0.250		4.27	4.27	0.0173	0.0951	
6	6	PFNA	462.9 > 419.1		9.05e3	0.250		4.64				
7	7	PFOS	498.8 >80.7		1.14e4	0.250		4.70				
8	8	PFDA	512.8 > 469.0	4.01e1	9.05e3	0.250		4.92	4.94	0.0442	0.203	
9	9	N-MeFOSAA	569.7 > 419.0		1.38e4	0.250		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.38e4	0.250		5.17				
11	11	PFUnA	562.7 > 518.9		9.05e3	0.250		5.16				
12	12	PFDoA	612.5 > 319.0		9.05e3	0.250		5.40				
13	13	PFTrDA	662.4 > 618.7		9.05e3	0.250		5.61				
14	14	PFTeDA	712.2>668.4		9.05e3	0.250		5.79				
15	15	13C2-PFHxA	314.8 > 269.9	6.37e3	9.05e3	0.250	0.753	3.43	3.33	7.03	37.4	93.4
16	16	13C2-PFDA	514.8 > 470.0	8.10e3	9.05e3	0.250	1.023	4.87	4.94	8.95	35.0	87.5
17	17	d5-N-EtFOSAA	588.7> 419.1	1.65e4	1.38e4	0.250	1.264	5.05	5.17	47.7	151	94.3
18	18	13C2-PFOA	414.8 > 370.1	9.05e3	9.05e3	0.250	1.000	4.28	4.27	10.0	40.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.14e4	1.14e4	0.250	1.000	4.71	4.71	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.38e4	1.38e4	0.250	1.000	5.04	5.05	40.0	160	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-04.qld

Last Altered: Saturday, July 21, 2018 15:36:46 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:38:42 Pacific Daylight Time

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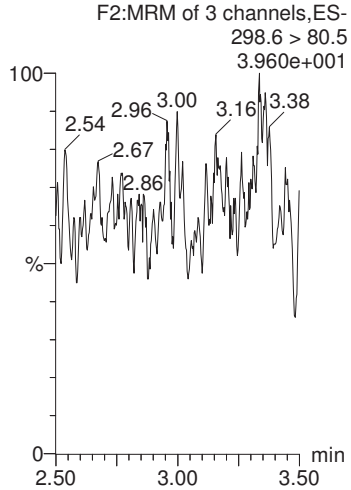
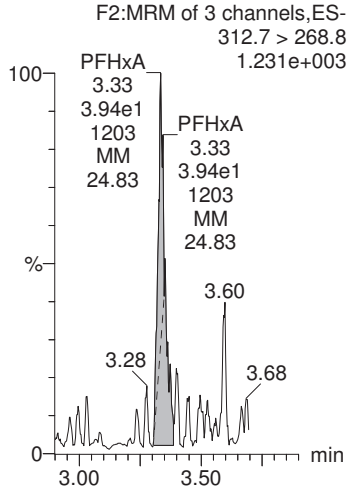
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_4, Date: 20-Jul-2018, Time: 16:36:36, ID: B8G0137-BLK1 LRB 0.25, Description: LRB

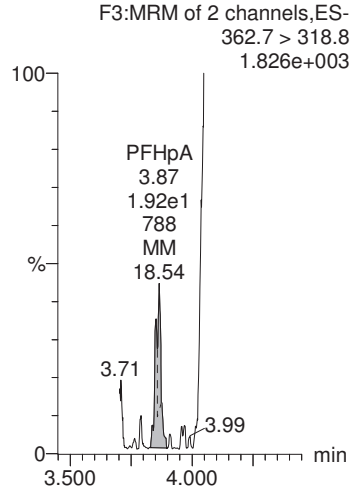
PFBS



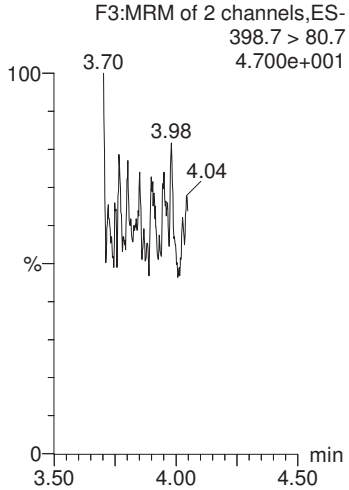
PFHxA



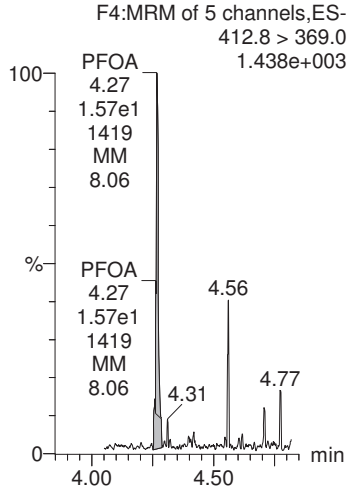
PFHpA



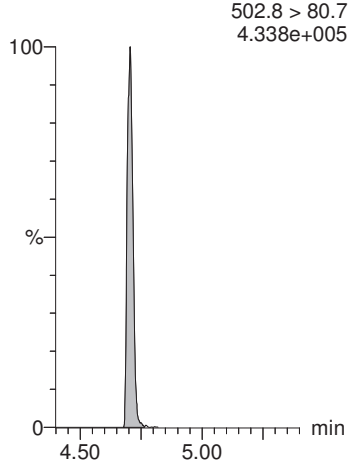
PFHxS



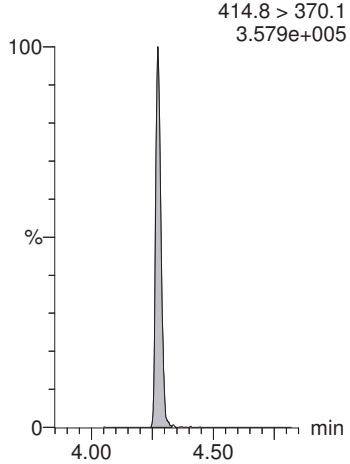
PFOA



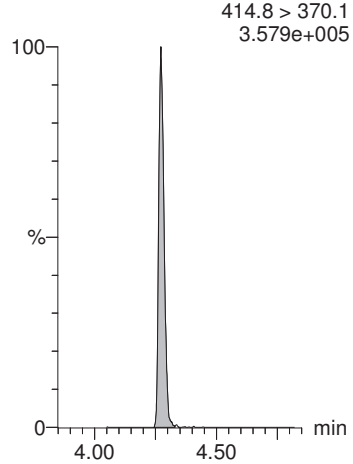
13C4-PFOS



13C2-PFOA



13C2-PFOA



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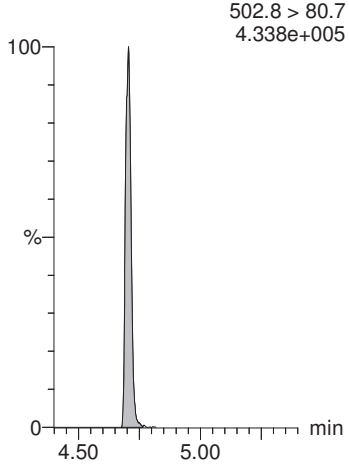
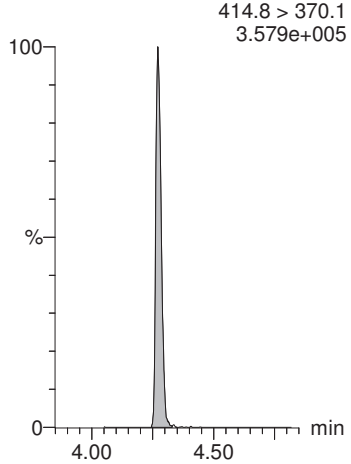


13C2-PFOA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-04.qld

Last Altered: Saturday, July 21, 2018 15:36:46 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:38:42 Pacific Daylight Time

Name: 180720G2_4, Date: 20-Jul-2018, Time: 16:36:36, ID: B8G0137-BLK1 LRB 0.25, Description: LRB

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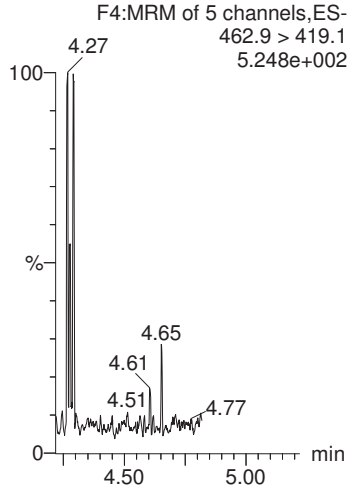

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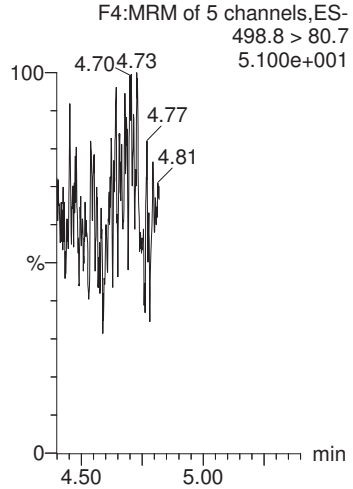

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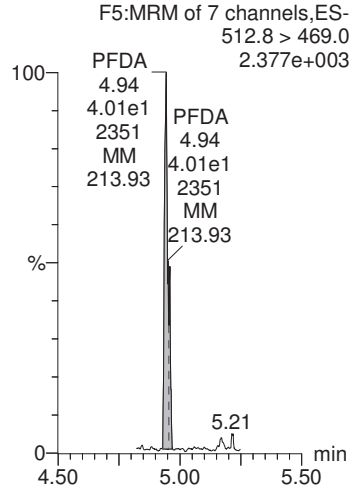

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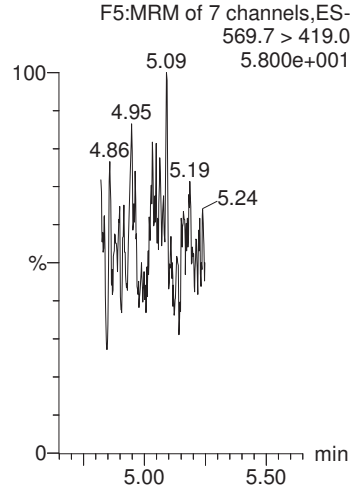

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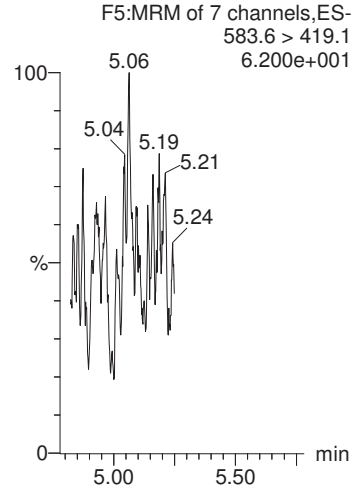

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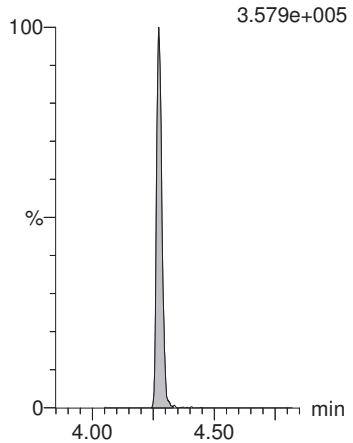

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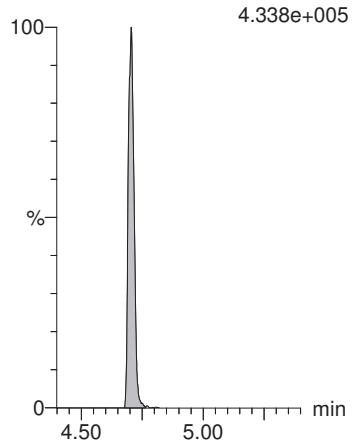

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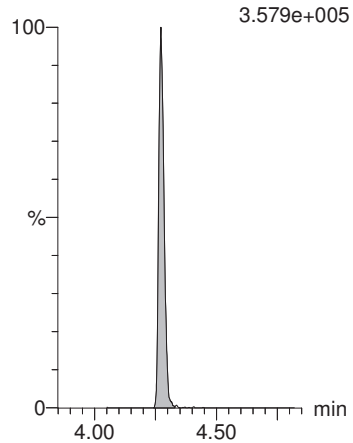

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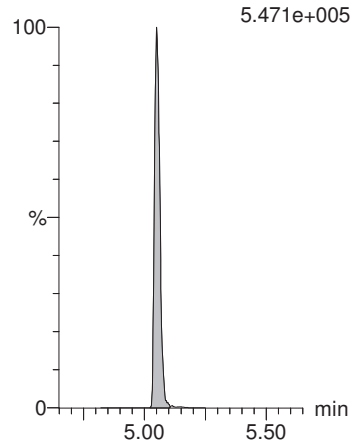

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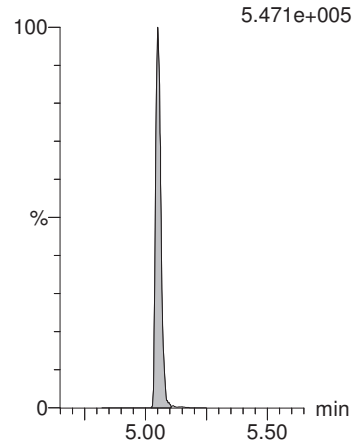

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-04.qld

Last Altered: Saturday, July 21, 2018 15:36:46 Pacific Daylight Time
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Name: 180720G2_4, Date: 20-Jul-2018, Time: 16:36:36, ID: B8G0137-BLK1 LRB 0.25, Description: LRB

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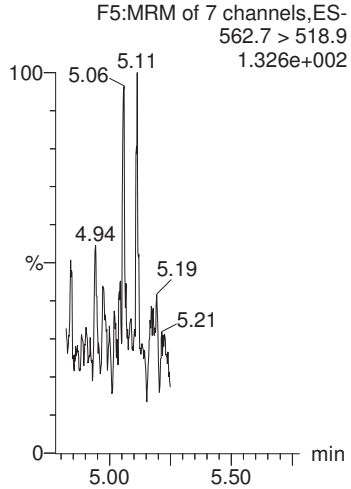

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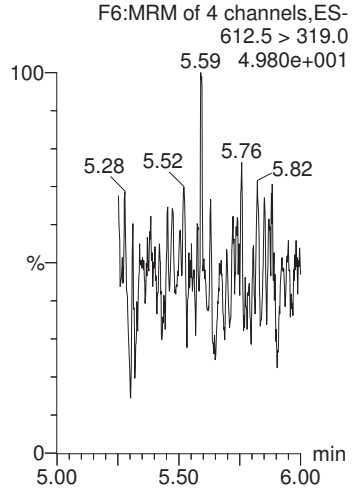

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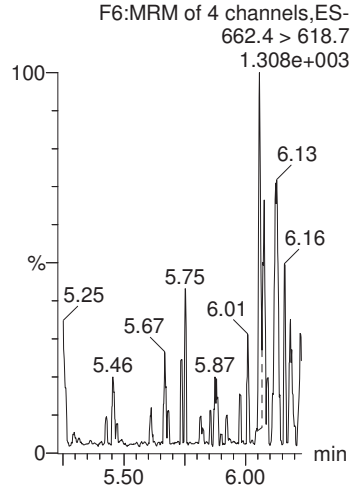

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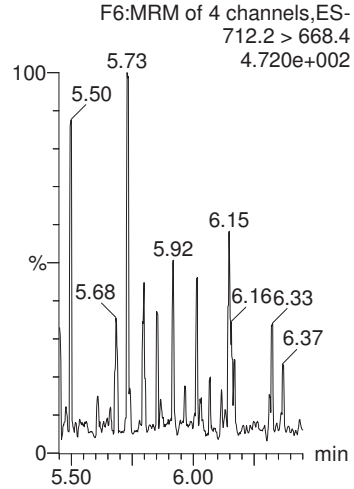

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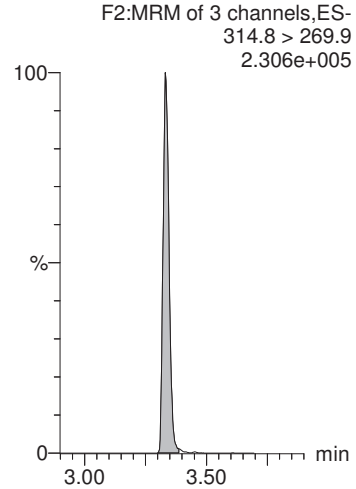

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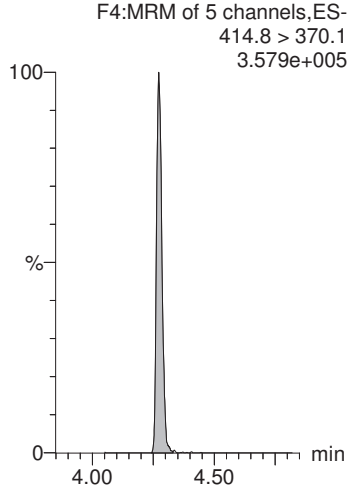

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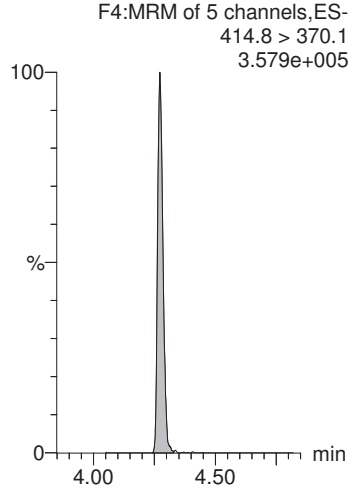

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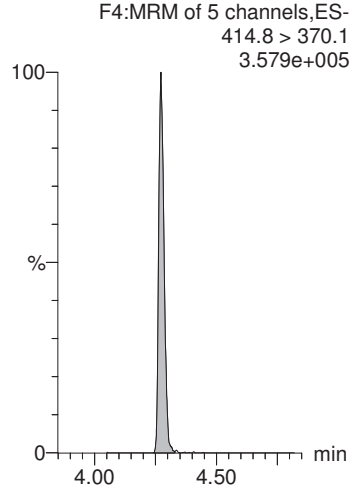

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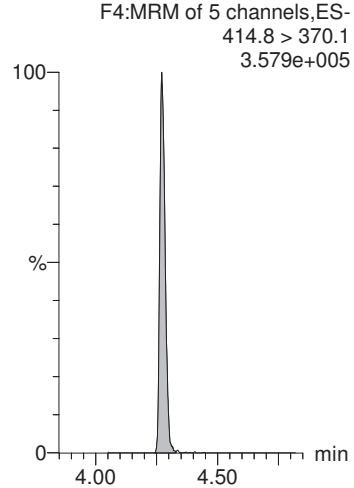

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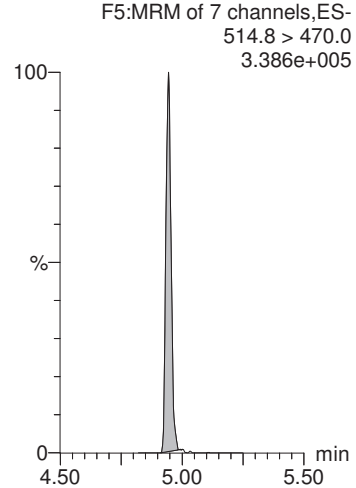

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-04.qld

Last Altered: Saturday, July 21, 2018 15:36:46 Pacific Daylight Time
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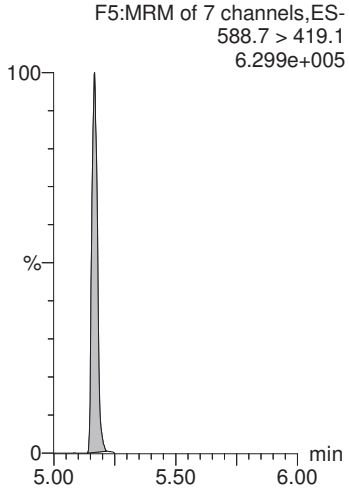
Name: 180720G2_4, Date: 20-Jul-2018, Time: 16:36:36, ID: B8G0137-BLK1 LRB 0.25, Description: LRB

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-05.qld

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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_5, Date: 20-Jul-2018, Time: 16:49:22, ID: B8G0137-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	298.6> 80.5	8.34e3	1.30e4	0.250		2.96	2.97	18.4	77.6	109.6
2	2	PFHxA	312.7 > 268.8	1.61e4	9.95e3	0.250		3.34	3.34	16.2	79.6	99.4
3	3	PFHpA	362.7 > 318.8	1.78e4	9.95e3	0.250		3.85	3.85	17.9	81.6	102.0
4	4	PFHxS	398.7 > 80.7	9.36e3	1.30e4	0.250		3.98	3.97	20.7	73.4	100.8
5	5	PFOA	412.8 > 369.0	1.46e4	9.95e3	0.250		4.27	4.27	14.7	80.4	100.5
6	6	PFNA	462.9 > 419.1	1.63e4	9.95e3	0.250		4.64	4.64	16.4	75.2	94.0
7	7	PFOS	498.8 >80.7	3.20e3	1.30e4	0.250		4.70	4.70	7.08	76.6	103.6
8	8	PFDA	512.8 > 469.0	1.61e4	9.95e3	0.250		4.92	4.94	16.2	74.2	92.7
9	9	N-MeFOSAA	569.7 > 419.0	9.86e3	1.63e4	0.250		5.05	5.05	24.2	83.6	104.5
10	10	N-EtFOSAA	583.6 >419.1	8.47e3	1.63e4	0.250		5.17	5.17	20.8	83.3	104.1
11	11	PFUnA	562.7 > 518.9	1.89e4	9.95e3	0.250		5.16	5.17	19.0	79.0	98.8
12	12	PFDoA	612.5 > 319.0	2.65e3	9.95e3	0.250		5.40	5.39	2.66	72.3	90.4
13	13	PFTrDA	662.4 > 618.7	1.67e4	9.95e3	0.250		5.61	5.61	16.7	74.3	92.8
14	14	PFTeDA	712.2>668.4	1.58e4	9.95e3	0.250		5.79	5.80	15.9	68.5	85.6
15	15	13C2-PFHxA	314.8 > 269.9	7.42e3	9.95e3	0.250	0.753	3.43	3.34	7.46	39.6	99.1
16	16	13C2-PFDA	514.8 > 470.0	1.01e4	9.95e3	0.250	1.023	4.87	4.95	10.1	39.5	98.8
17	17	d5-N-EtFOSAA	588.7> 419.1	1.93e4	1.63e4	0.250	1.264	5.05	5.16	47.4	150	93.7
18	18	13C2-PFOA	414.8 > 370.1	9.95e3	9.95e3	0.250	1.000	4.28	4.27	10.0	40.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.30e4	1.30e4	0.250	1.000	4.71	4.70	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.63e4	1.63e4	0.250	1.000	5.04	5.05	40.0	160	100.0

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Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-05.qld

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Name: 180720G2_5, Date: 20-Jul-2018, Time: 16:49:22, ID: B8G0137-BS1 LFB 0.25, Description: LFB

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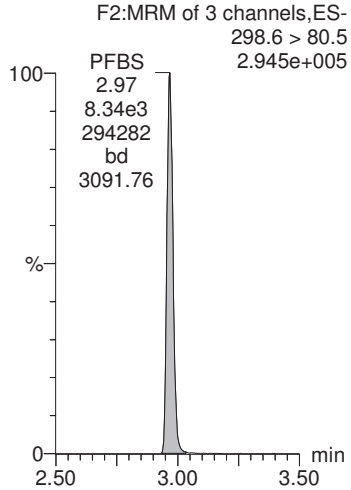

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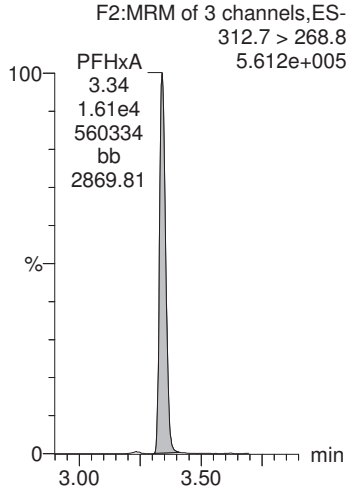

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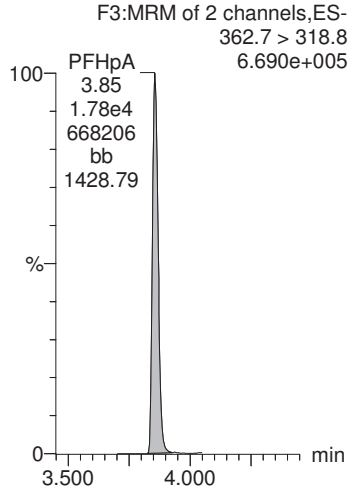

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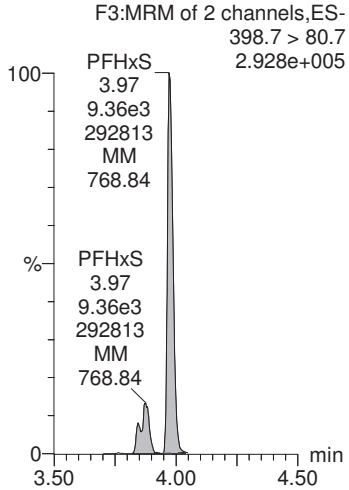

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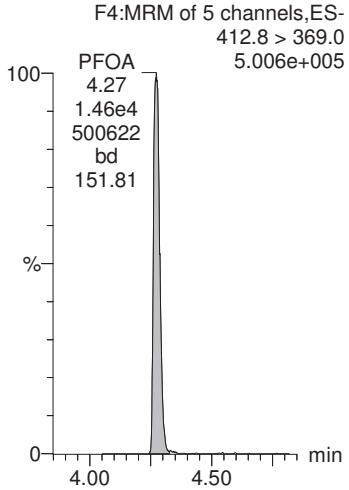

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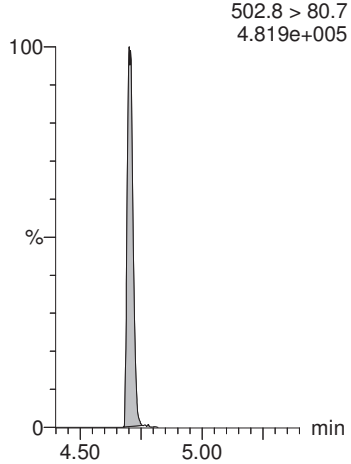

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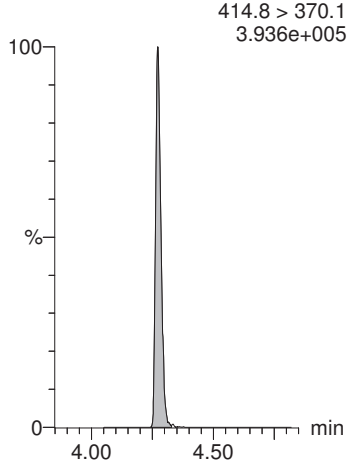

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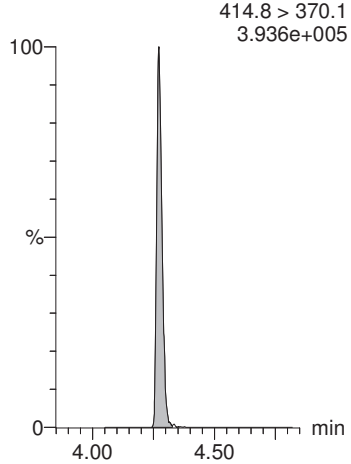

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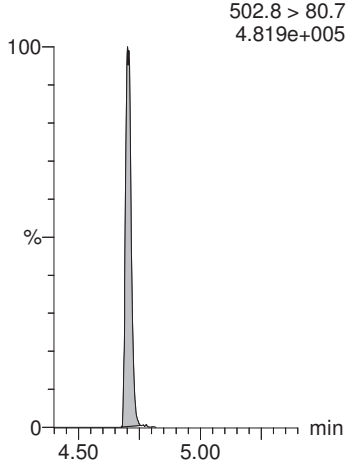

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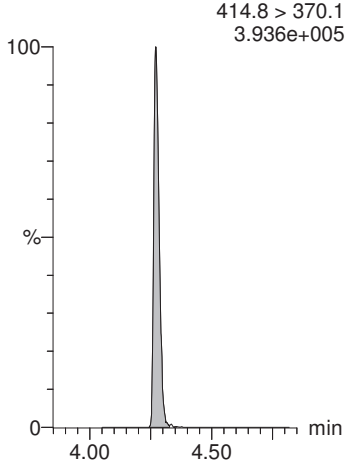

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-05.qld

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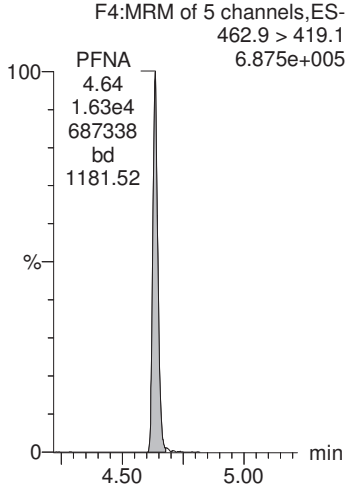

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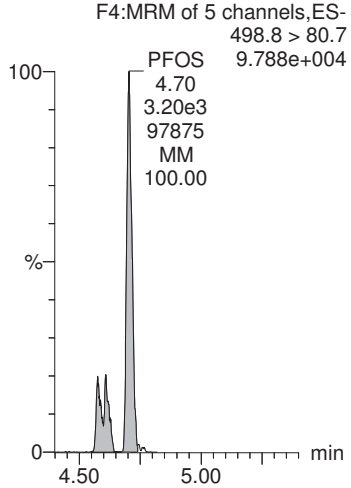

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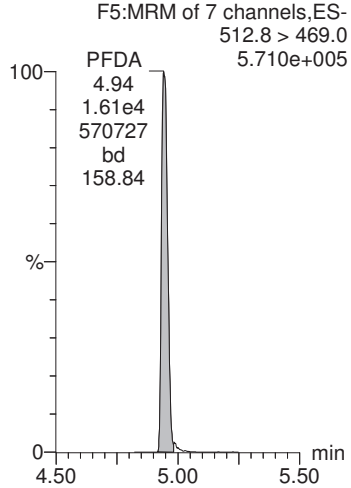

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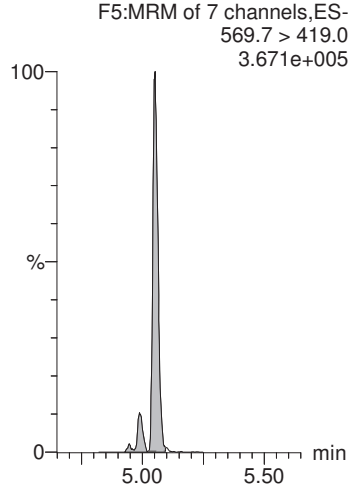

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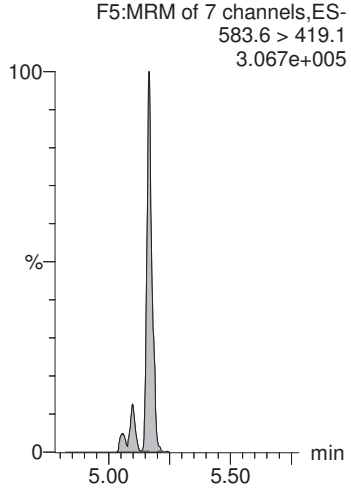

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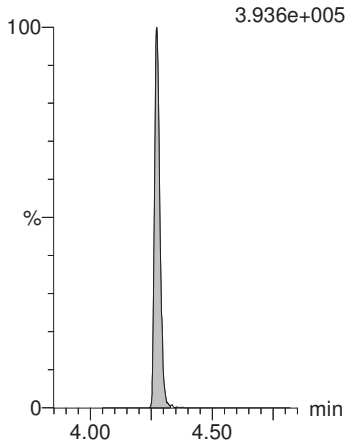

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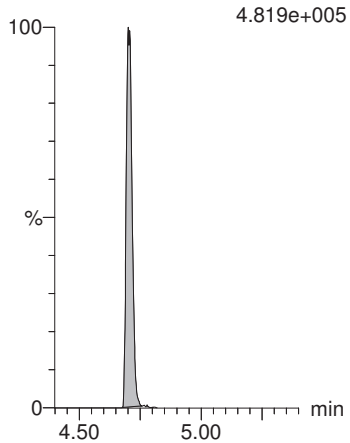

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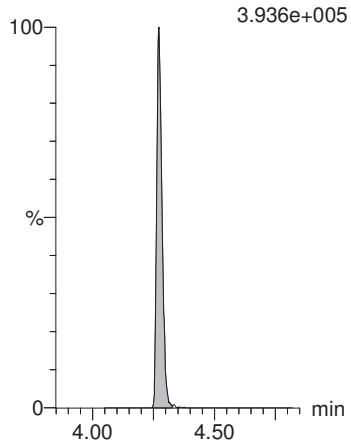

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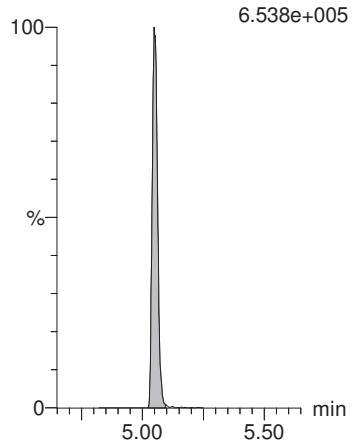

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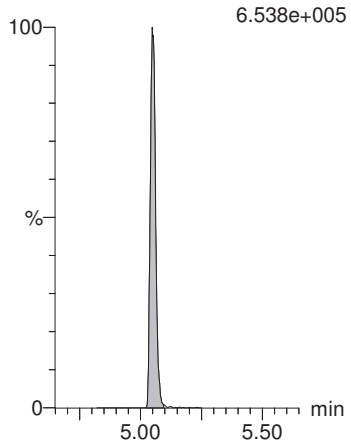

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-05.qld

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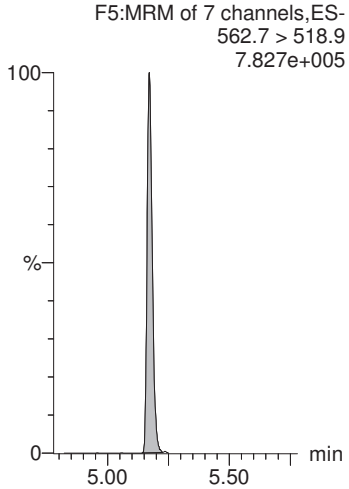
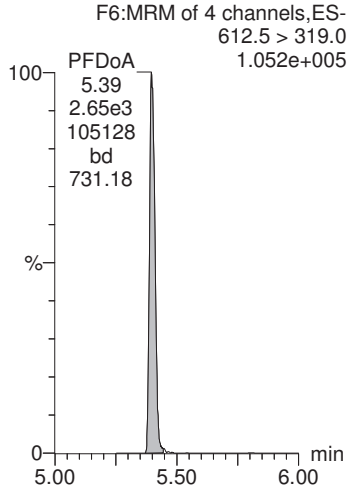
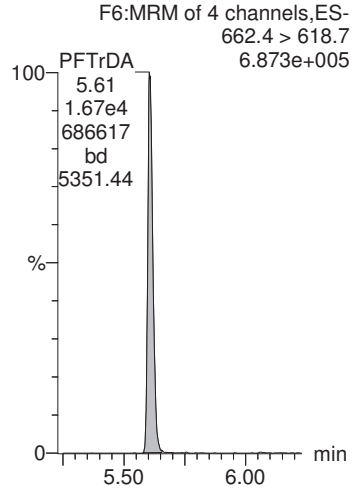
PFUnA



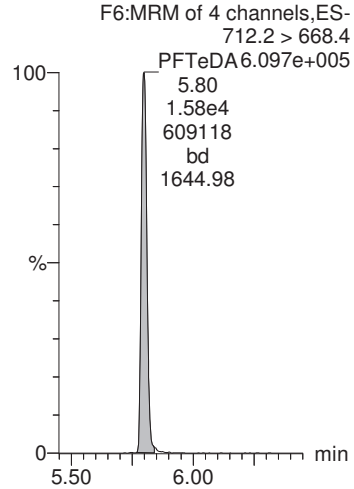
PFDoA



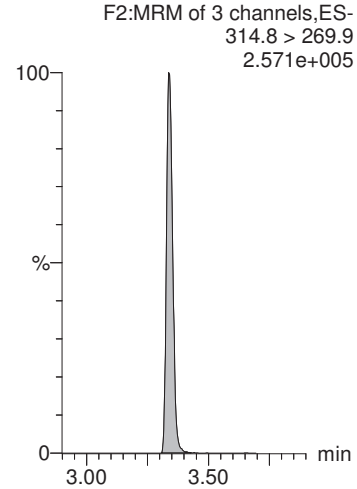
PFTrDA



PFTeDA



13C2-PFHxA



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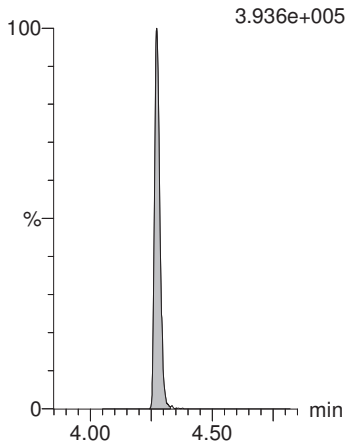

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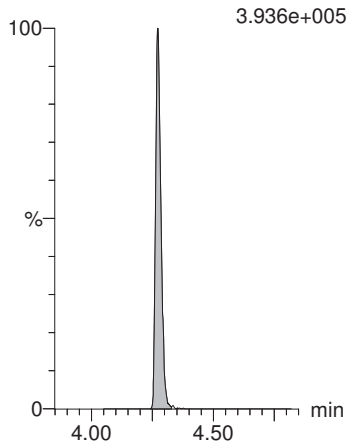

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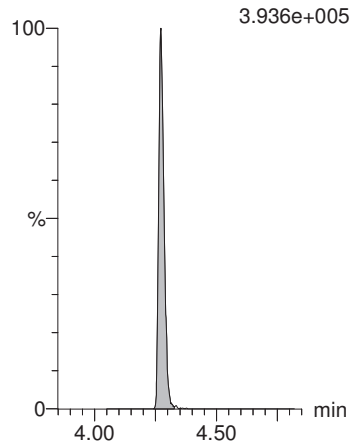

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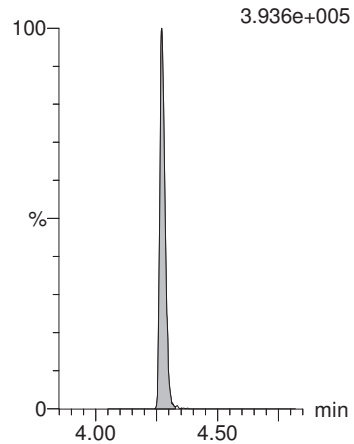

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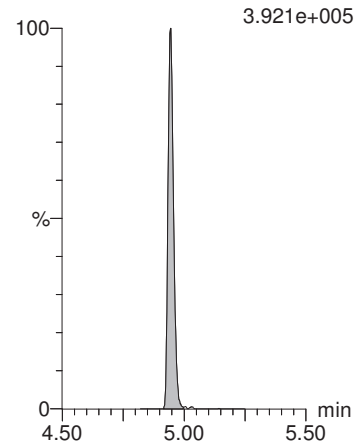

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-05.qld

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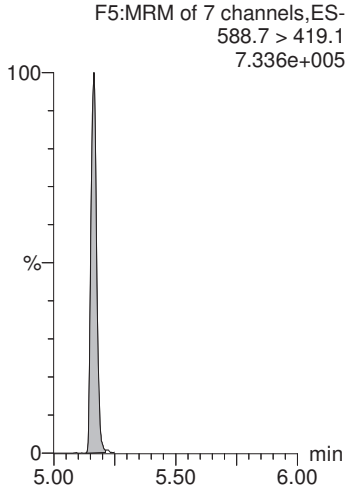
Printed: Saturday, July 21, 2018 15:31:49 Pacific Daylight Time

Name: 180720G2_5, Date: 20-Jul-2018, Time: 16:49:22, ID: B8G0137-BS1 LFB 0.25, Description: LFB

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/23/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-14.qld

Last Altered: Saturday, July 21, 2018 15:49:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:50:26 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_14, Date: 20-Jul-2018, Time: 18:44:43, ID: 1801762-01 CBD-1RW01-0718 0.25352, Description: CBD-1RW01-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.30e4	0.254		2.96				
2	2	PFHxA	312.7 > 268.8	5.65e1	1.10e4	0.254		3.34	3.34	0.0513	0.249	
3	3	PFHpA	362.7 > 318.8	1.44e1	1.10e4	0.254		3.85	3.86	0.0130	0.0586	
4	4	PFHxS	398.7 > 80.7	2.17e0	1.30e4	0.254		3.98	3.98	0.00479	0.0167	
5	5	PFOA	412.8 > 369.0	5.01e1	1.10e4	0.254		4.27	4.28	0.0455	0.246	
6	6	PFNA	462.9 > 419.1	1.83e0	1.10e4	0.254		4.64	4.65	0.00166	0.00752	
7	7	PFOS	498.8 >80.7	7.98e0	1.30e4	0.254		4.70	4.70	0.0176	0.188	
8	8	PFDA	512.8 > 469.0	1.82e1	1.10e4	0.254		4.92	4.94	0.0165	0.0748	
9	9	N-MeFOSAA	569.7 > 419.0		1.66e4	0.254		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.66e4	0.254		5.17				
11	11	PFUnA	562.7 > 518.9		1.10e4	0.254		5.16				
12	12	PFDoA	612.5 > 319.0		1.10e4	0.254		5.40				
13	13	PFTrDA	662.4 > 618.7		1.10e4	0.254		5.61				
14	14	PFTeDA	712.2>668.4		1.10e4	0.254		5.79				
15	15	13C2-PFHxA	314.8 > 269.9	8.00e3	1.10e4	0.254	0.753	3.43	3.33	7.27	38.1	96.5
16	16	13C2-PFDA	514.8 > 470.0	9.63e3	1.10e4	0.254	1.023	4.87	4.95	8.75	33.7	85.5
17	17	d5-N-EtFOSAA	588.7> 419.1	1.93e4	1.66e4	0.254	1.264	5.05	5.17	46.5	145	92.0
18	18	13C2-PFOA	414.8 > 370.1	1.10e4	1.10e4	0.254	1.000	4.28	4.27	10.0	39.4	100.0
19	19	13C4-PFOS	502.8>80.7	1.30e4	1.30e4	0.254	1.000	4.71	4.70	28.7	113	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.66e4	1.66e4	0.254	1.000	5.04	5.05	40.0	158	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/23/2018

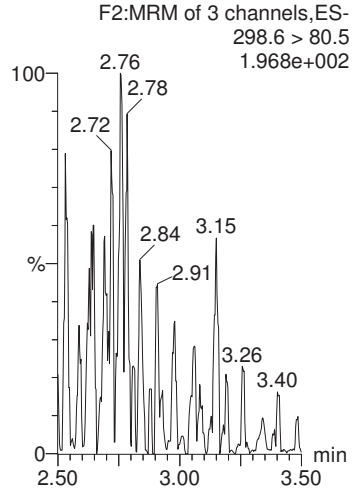
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-14.qld

Last Altered: Saturday, July 21, 2018 15:49:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:50:26 Pacific Daylight Time

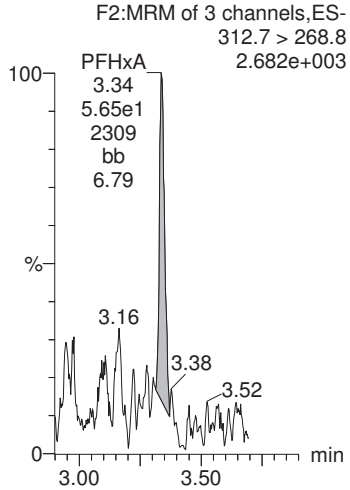
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_14, Date: 20-Jul-2018, Time: 18:44:43, ID: 1801762-01 CBD-1RW01-0718 0.25352, Description: CBD-1RW01-0718

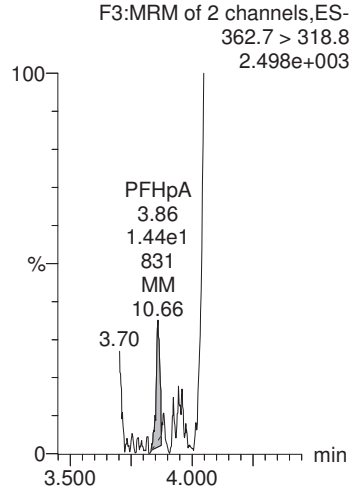
PFBS



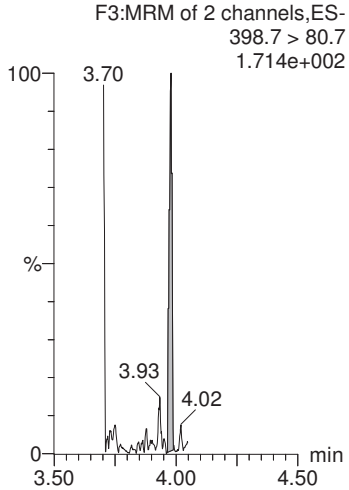
PFHxA



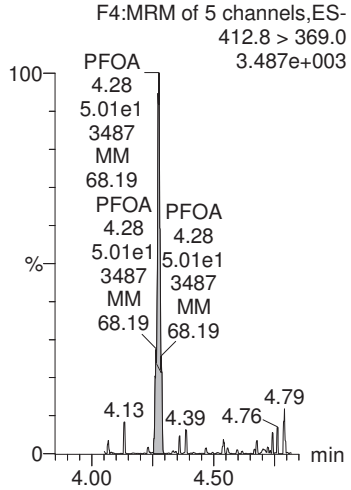
PFHpA



PFHxS



PFOA



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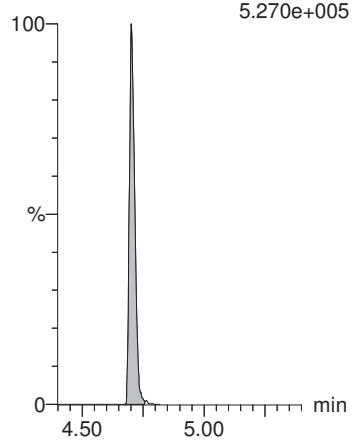

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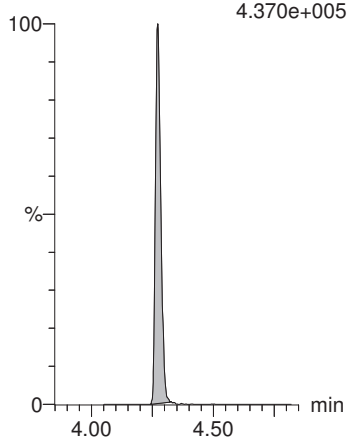

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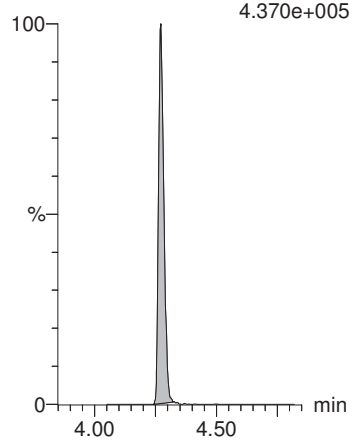

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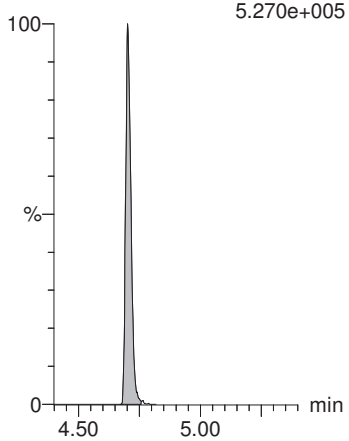

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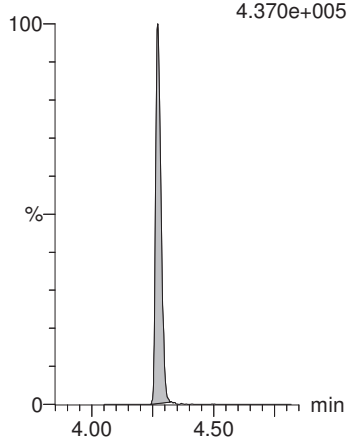


CGH 7/21/2018

Vista Analytical Laboratory

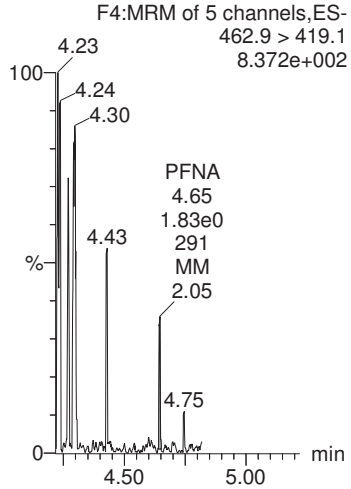
MMM 7/23/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-14.qld

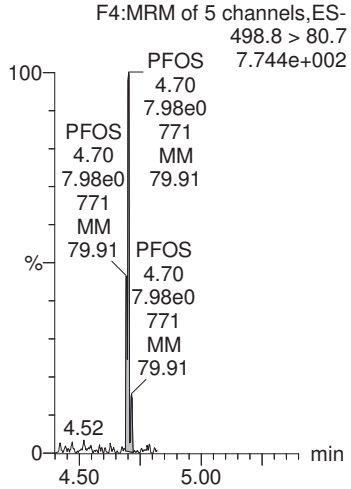
Last Altered: Saturday, July 21, 2018 15:49:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:50:26 Pacific Daylight Time

Name: 180720G2_14, Date: 20-Jul-2018, Time: 18:44:43, ID: 1801762-01 CBD-1RW01-0718 0.25352, Description: CBD-1RW01-0718

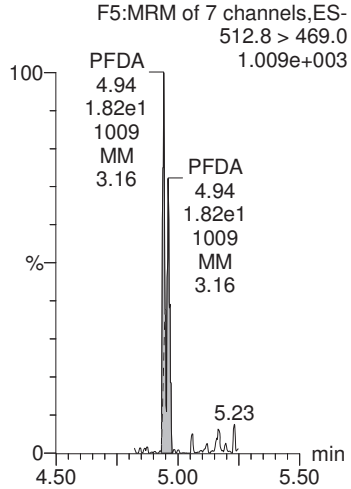
PFNA



PFOS



PFDA



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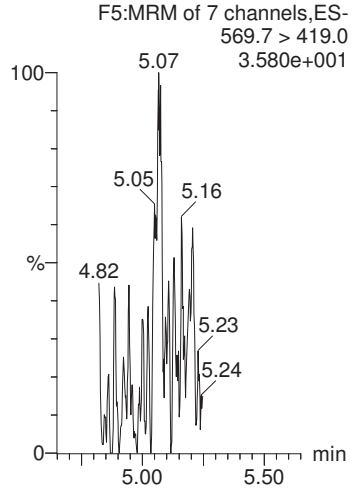

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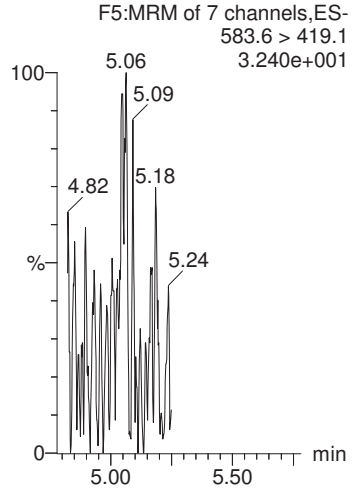

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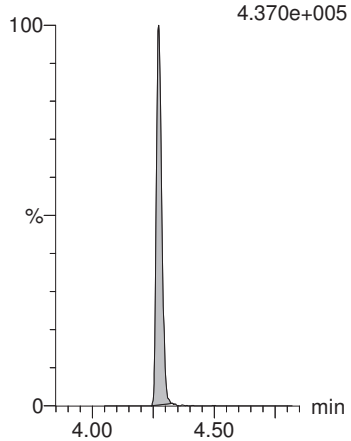

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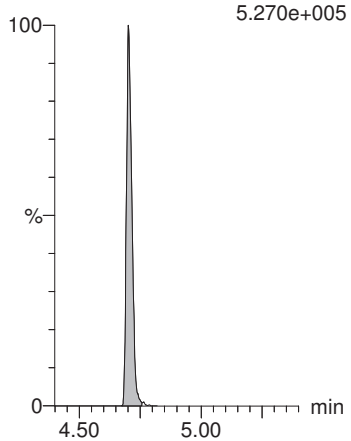

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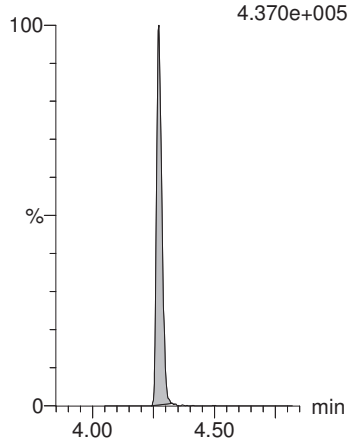

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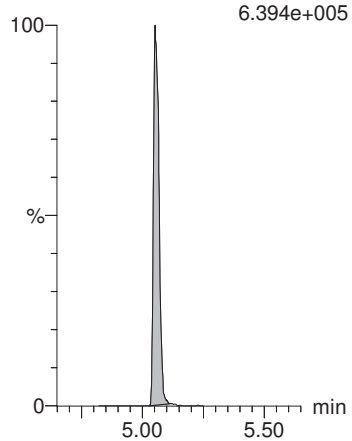

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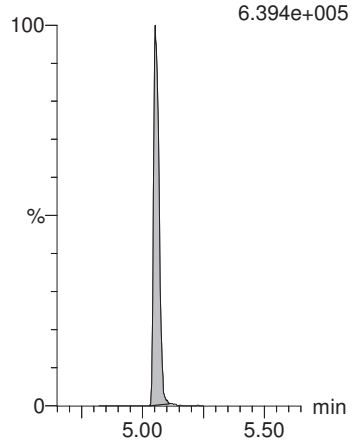


CGH 7/21/2018

Vista Analytical Laboratory

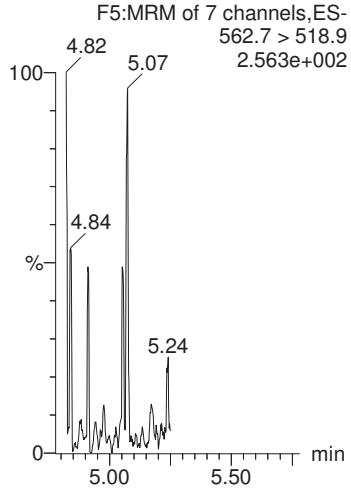
MMM 7/23/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-14.qld

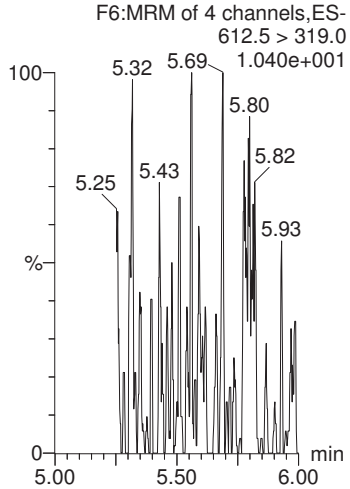
Last Altered: Saturday, July 21, 2018 15:49:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:50:26 Pacific Daylight Time

Name: 180720G2_14, Date: 20-Jul-2018, Time: 18:44:43, ID: 1801762-01 CBD-1RW01-0718 0.25352, Description: CBD-1RW01-0718

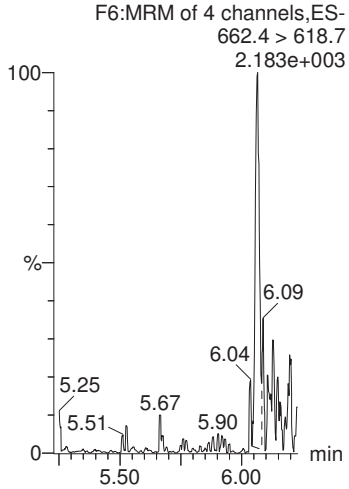
PFUnA



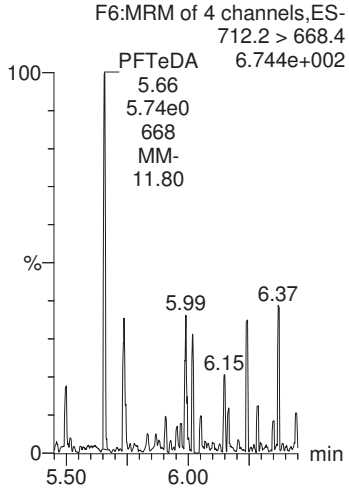
PFDoA



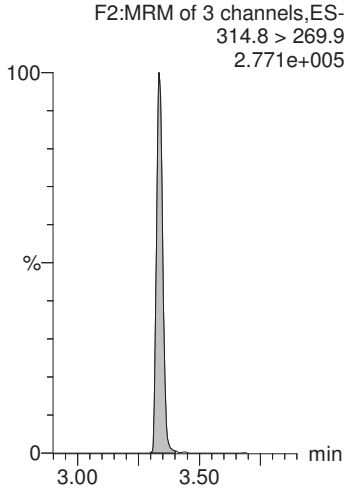
PFTrDA



PFTeDA



13C2-PFHxA



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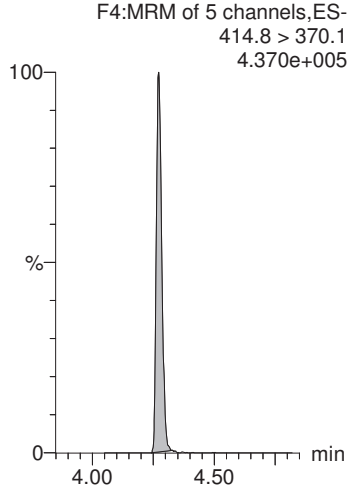

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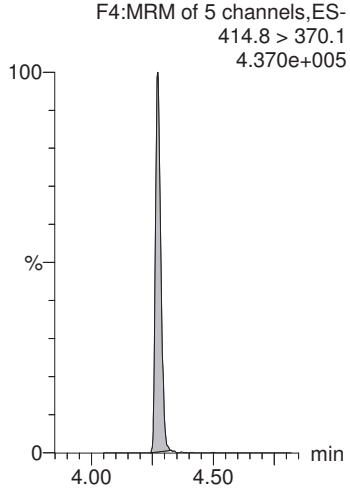

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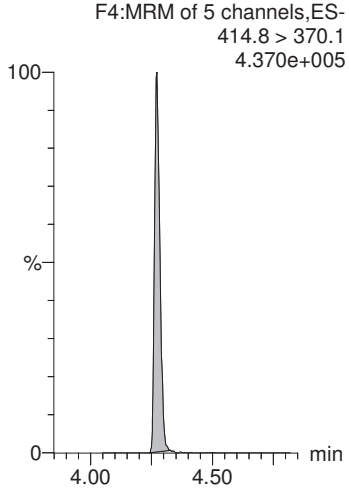

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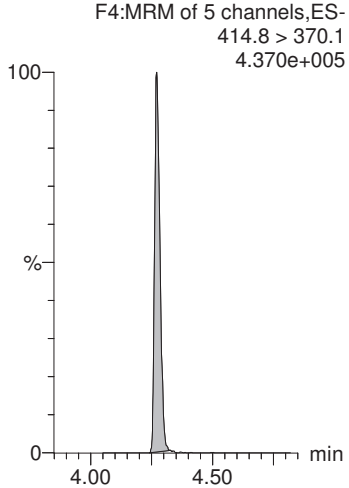

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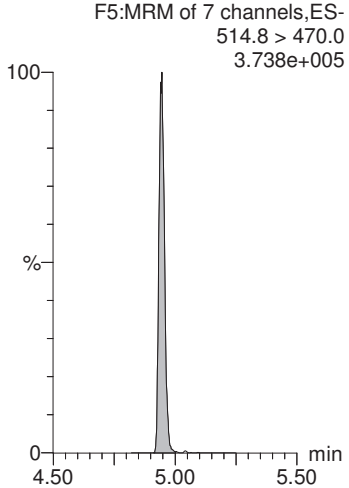


CGH 7/21/2018

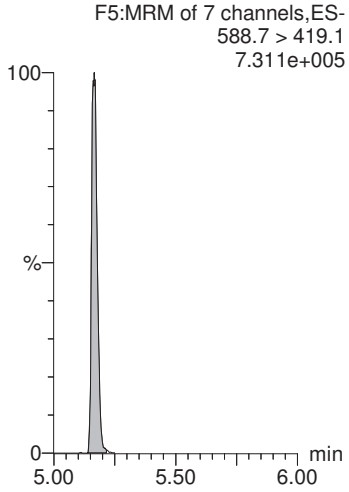
MMM 7/23/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-14.qld

Last Altered: Saturday, July 21, 2018 15:49:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:50:26 Pacific Daylight Time

Name: 180720G2_14, Date: 20-Jul-2018, Time: 18:44:43, ID: 1801762-01 CBD-1RW01-0718 0.25352, Description: CBD-1RW01-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-15.qld

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Printed: Saturday, July 21, 2018 15:55:59 Pacific Daylight Time

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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_15, Date: 20-Jul-2018, Time: 18:57:32, ID: 1801762-02 CBD-1FB01-0718 0.25162, Description: CBD-1FB01-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	1.24e0	1.27e4	0.252		2.97	2.96	0.00280	0.0117	
2	2	PFHxA	312.7 > 268.8	4.03e1	9.81e3	0.252		3.34	3.34	0.0410	0.201	
3	3	PFHpA	362.7 > 318.8		9.81e3	0.252		3.85				
4	4	PFHxS	398.7 > 80.7		1.27e4	0.252		3.99				
5	5	PFOA	412.8 > 369.0	2.10e1	9.81e3	0.252		4.28	4.28	0.0214	0.117	
6	6	PFNA	462.9 > 419.1		9.81e3	0.252		4.64				
7	7	PFOS	498.8 >80.7		1.27e4	0.252		4.70				
8	8	PFDA	512.8 > 469.0	1.36e1	9.81e3	0.252		4.92	4.94	0.0139	0.0633	
9	9	N-MeFOSAA	569.7 > 419.0		1.50e4	0.252		5.07				
10	10	N-EtFOSAA	583.6 >419.1		1.50e4	0.252		5.18				
11	11	PFUnA	562.7 > 518.9	1.16e1	9.81e3	0.252		5.17	5.12	0.0118	0.0487	
12	12	PFDoA	612.5 > 319.0		9.81e3	0.252		5.41				
13	13	PFTrDA	662.4 > 618.7		9.81e3	0.252		5.62				
14	14	PFTeDA	712.2>668.4		9.81e3	0.252		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.93e3	9.81e3	0.252	0.753	3.43	3.33	7.06	37.3	93.8
16	16	13C2-PFDA	514.8 > 470.0	8.79e3	9.81e3	0.252	1.023	4.88	4.94	8.96	34.8	87.7
17	17	d5-N-EtFOSAA	588.7> 419.1	1.76e4	1.50e4	0.252	1.264	5.06	5.16	46.7	147	92.4
18	18	13C2-PFOA	414.8 > 370.1	9.81e3	9.81e3	0.252	1.000	4.28	4.28	10.0	39.7	100.0
19	19	13C4-PFOS	502.8>80.7	1.27e4	1.27e4	0.252	1.000	4.71	4.71	28.7	114	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.50e4	1.50e4	0.252	1.000	5.04	5.06	40.0	159	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

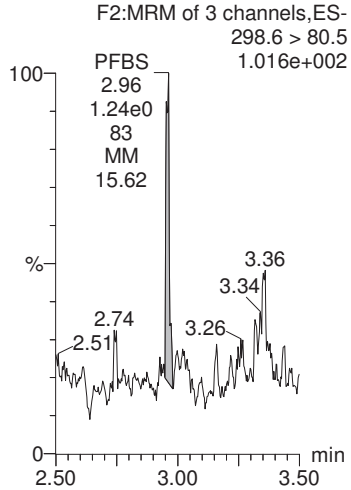
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-15.qld

Last Altered: Saturday, July 21, 2018 15:54:10 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:55:59 Pacific Daylight Time

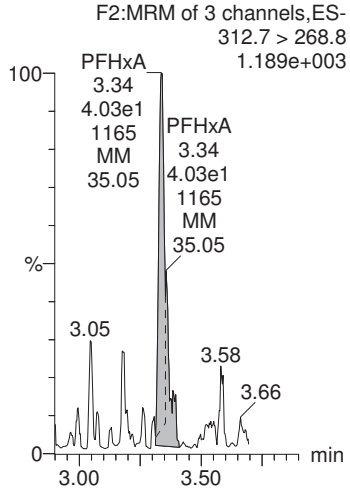
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_15, Date: 20-Jul-2018, Time: 18:57:32, ID: 1801762-02 CBD-1FB01-0718 0.25162, Description: CBD-1FB01-0718

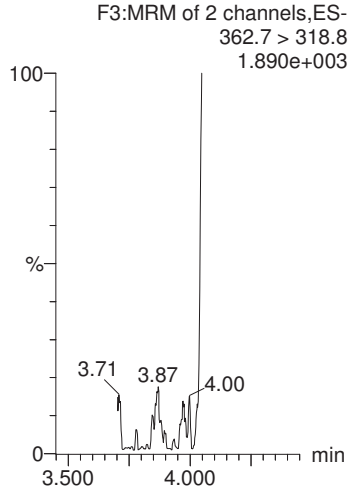
PFBS



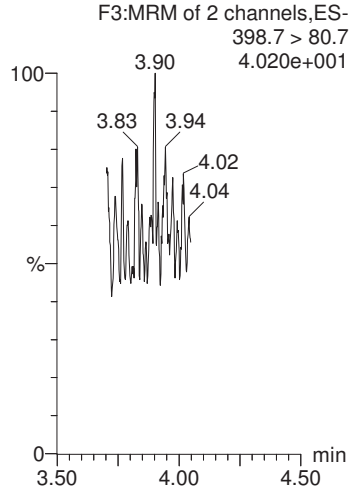
PFHxA



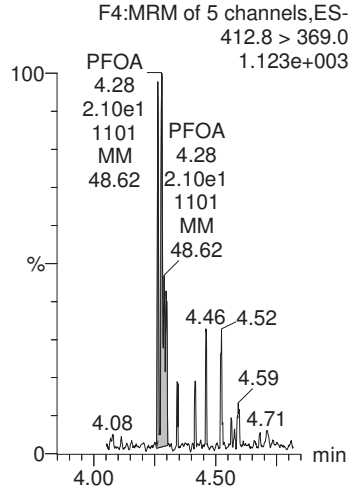
PFHpA



PFHxS



PFOA



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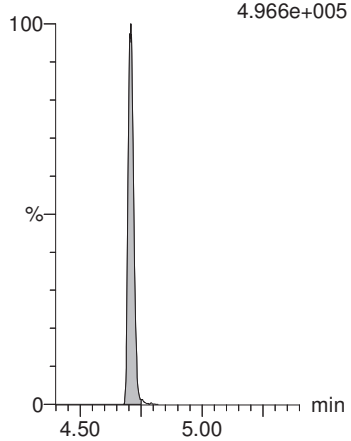

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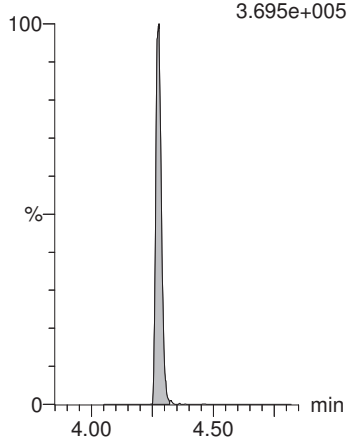

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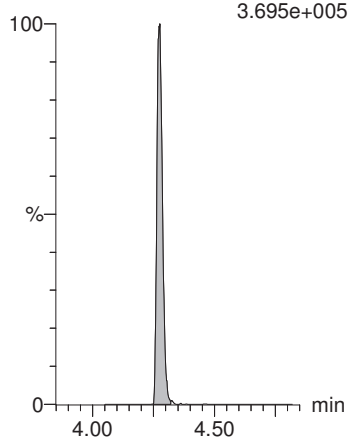

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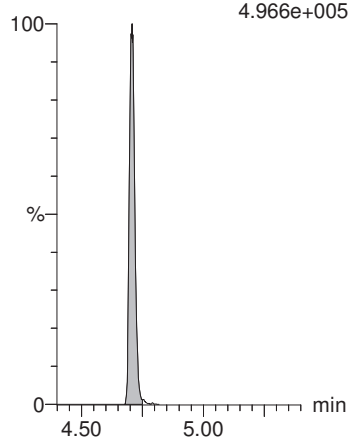

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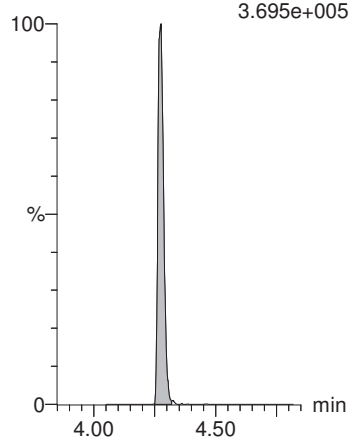


CGH 7/21/2018

Vista Analytical Laboratory

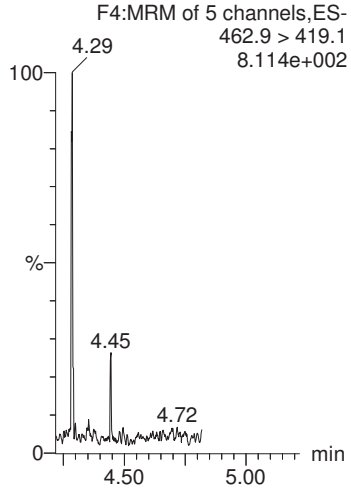
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-15.qld

Last Altered: Saturday, July 21, 2018 15:54:10 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:55:59 Pacific Daylight Time

Name: 180720G2_15, Date: 20-Jul-2018, Time: 18:57:32, ID: 1801762-02 CBD-1FB01-0718 0.25162, Description: CBD-1FB01-0718

PFNA



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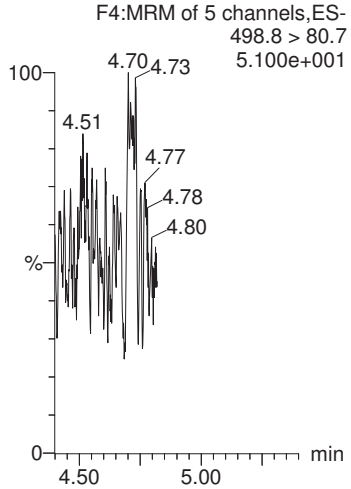

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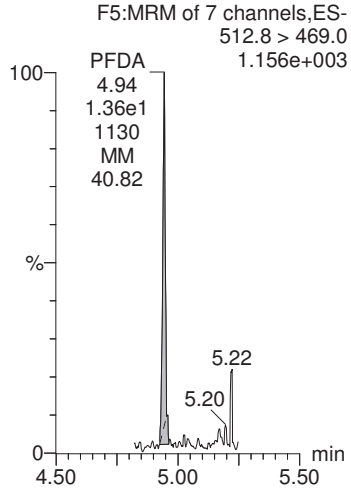
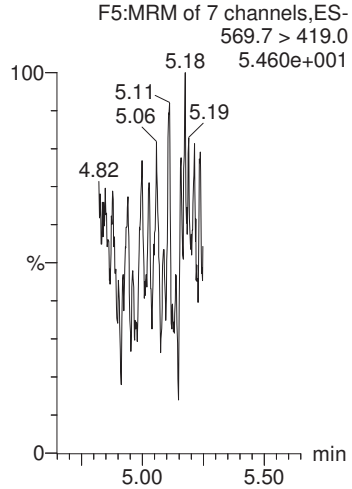


N-MeFOSAA



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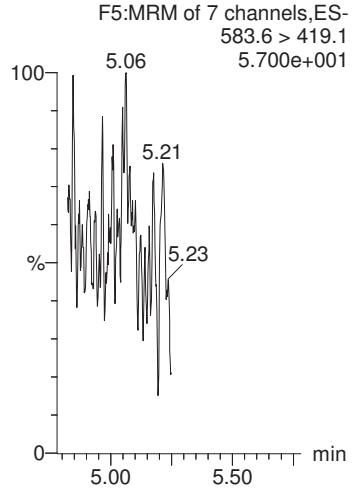

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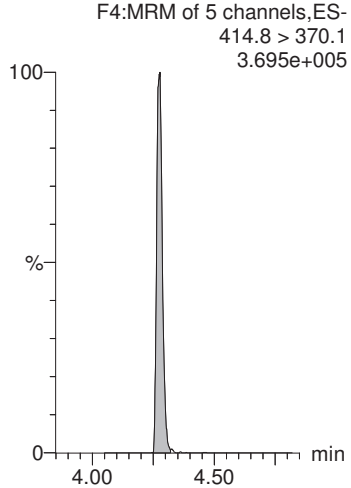

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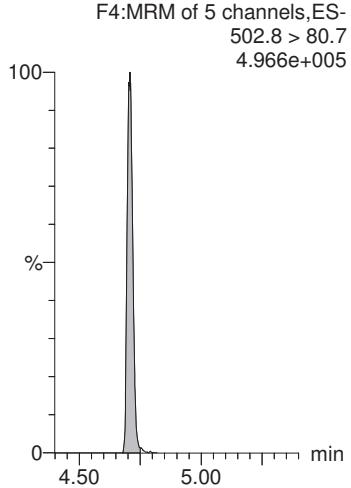

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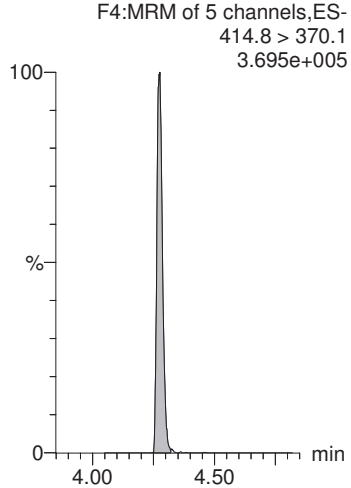

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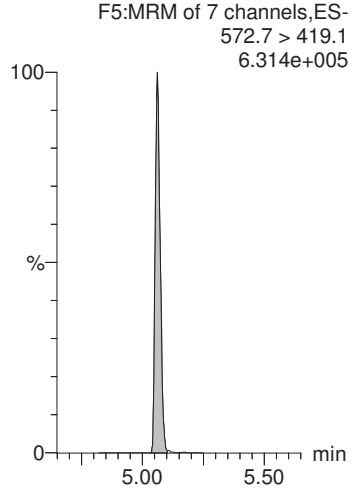

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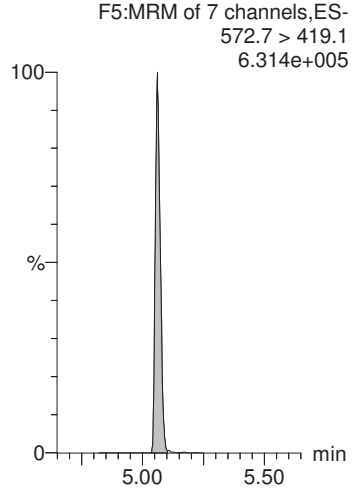


CGH 7/21/2018

Vista Analytical Laboratory

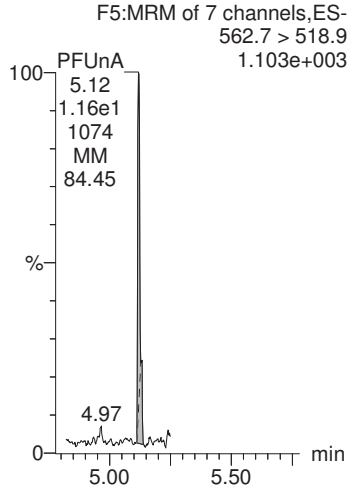
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-15.qld

Last Altered: Saturday, July 21, 2018 15:54:10 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:55:59 Pacific Daylight Time

Name: 180720G2_15, Date: 20-Jul-2018, Time: 18:57:32, ID: 1801762-02 CBD-1FB01-0718 0.25162, Description: CBD-1FB01-0718

PFUnA



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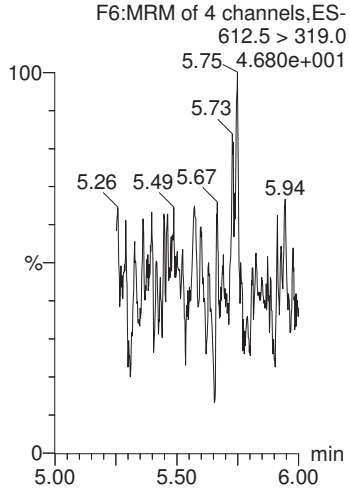

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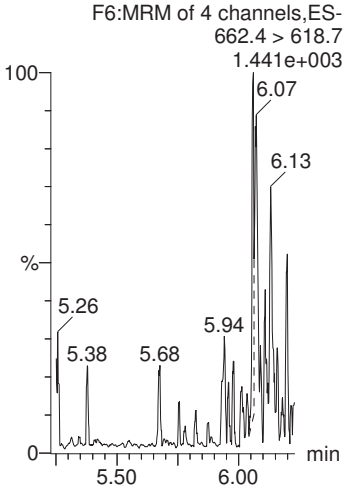

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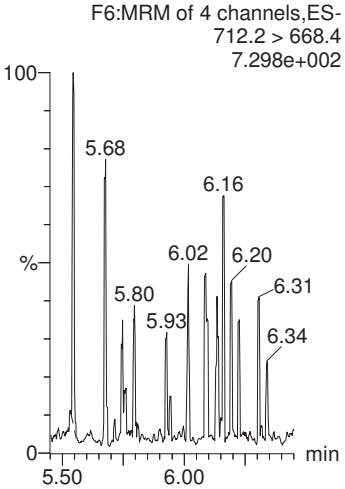

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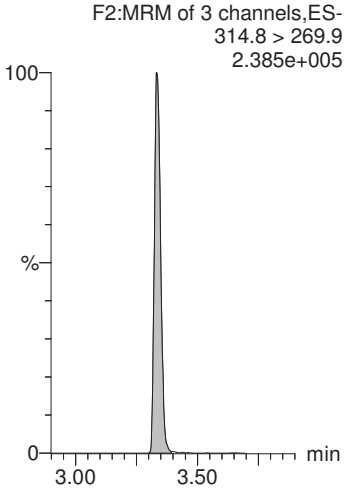

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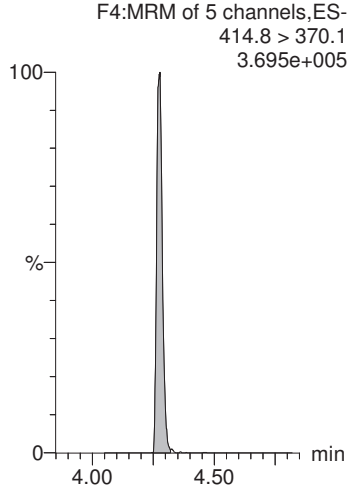

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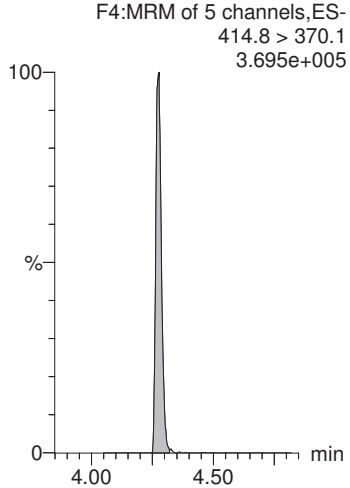

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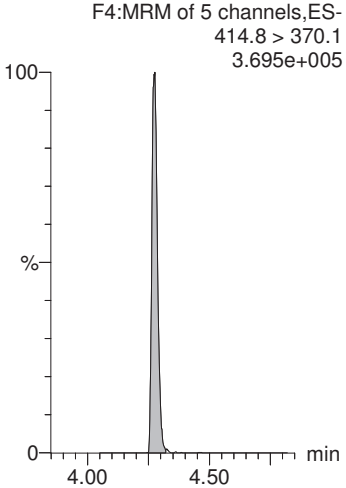

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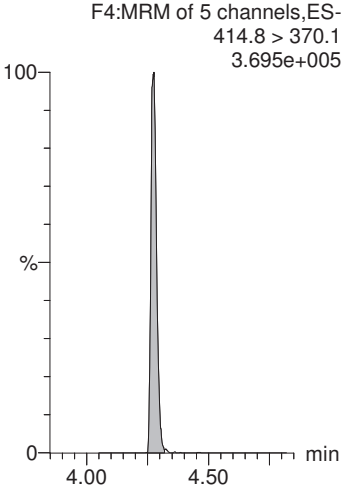

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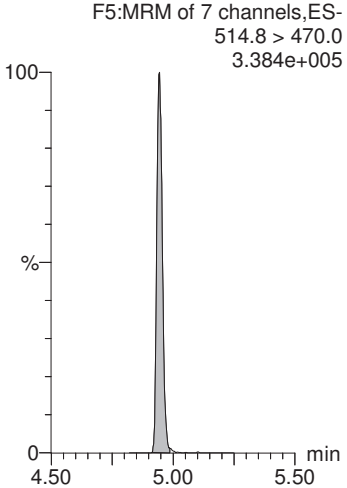

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-15.qld

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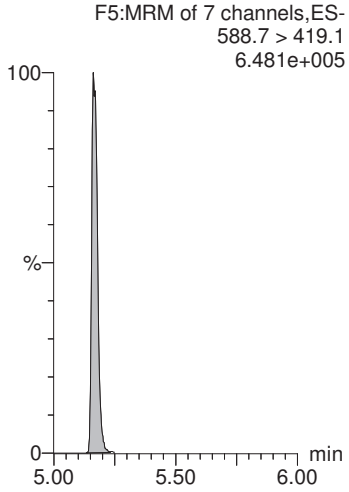
Printed: Saturday, July 21, 2018 15:55:59 Pacific Daylight Time

Name: 180720G2_15, Date: 20-Jul-2018, Time: 18:57:32, ID: 1801762-02 CBD-1FB01-0718 0.25162, Description: CBD-1FB01-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-16.qld

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Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_16, Date: 20-Jul-2018, Time: 19:10:22, ID: 1801762-03 CBD-1RW02-0718 0.24766, Description: CBD-1RW02-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.23e4	0.248		2.96				
2	2	PFHxA	312.7 > 268.8	4.85e1	1.05e4	0.248		3.34	3.34	0.0463	0.230	
3	3	PFHpA	362.7 > 318.8		1.05e4	0.248		3.85				
4	4	PFHxS	398.7 > 80.7		1.23e4	0.248		3.98				
5	5	PFOA	412.8 > 369.0	2.34e1	1.05e4	0.248		4.28	4.27	0.0224	0.124	
6	6	PFNA	462.9 > 419.1		1.05e4	0.248		4.64				
7	7	PFOS	498.8 >80.7	1.68e0	1.23e4	0.248		4.70	4.69	0.00393	0.0429	
8	8	PFDA	512.8 > 469.0	2.12e1	1.05e4	0.248		4.92	4.94	0.0202	0.0936	
9	9	N-MeFOSAA	569.7 > 419.0		1.53e4	0.248		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.53e4	0.248		5.17				
11	11	PFUnA	562.7 > 518.9		1.05e4	0.248		5.16				
12	12	PFDoA	612.5 > 319.0		1.05e4	0.248		5.40				
13	13	PFTrDA	662.4 > 618.7		1.05e4	0.248		5.61				
14	14	PFTeDA	712.2>668.4		1.05e4	0.248		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.94e3	1.05e4	0.248	0.753	3.43	3.34	6.63	35.6	88.1
16	16	13C2-PFDA	514.8 > 470.0	9.33e3	1.05e4	0.248	1.023	4.87	4.95	8.91	35.2	87.1
17	17	d5-N-EtFOSAA	588.7> 419.1	1.84e4	1.53e4	0.248	1.264	5.05	5.16	48.0	153	94.9
18	18	13C2-PFOA	414.8 > 370.1	1.05e4	1.05e4	0.248	1.000	4.28	4.28	10.0	40.4	100.0
19	19	13C4-PFOS	502.8>80.7	1.23e4	1.23e4	0.248	1.000	4.71	4.70	28.7	116	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.53e4	1.53e4	0.248	1.000	5.04	5.05	40.0	162	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-16.qld

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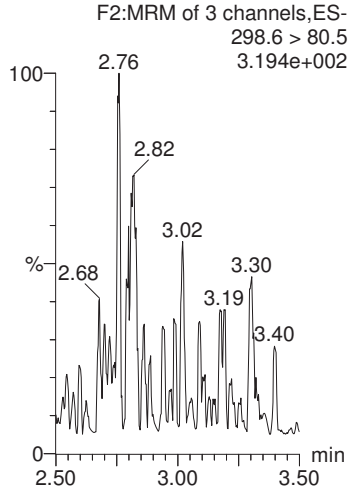
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_16, Date: 20-Jul-2018, Time: 19:10:22, ID: 1801762-03 CBD-1RW02-0718 0.24766, Description: CBD-1RW02-0718

PFBS



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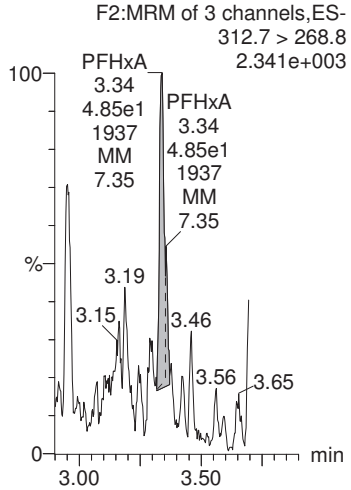

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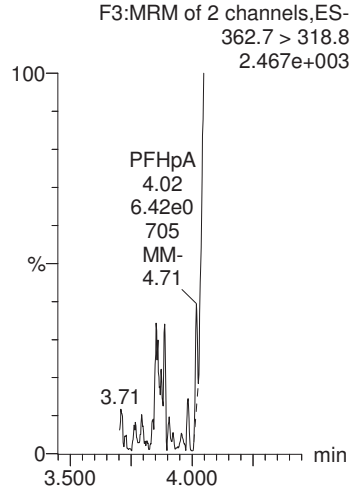

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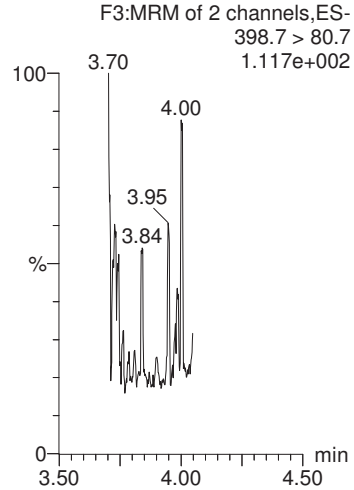
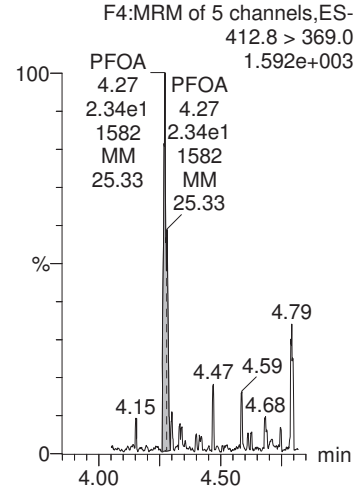
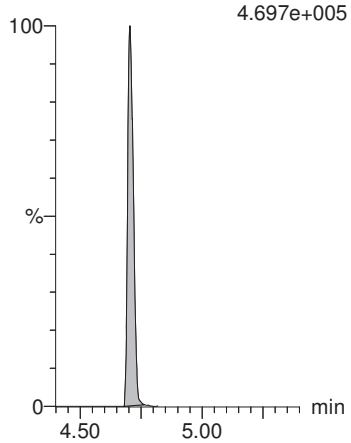


PFOA



13C4-PFOS



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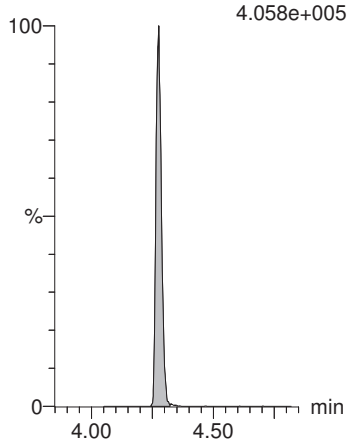

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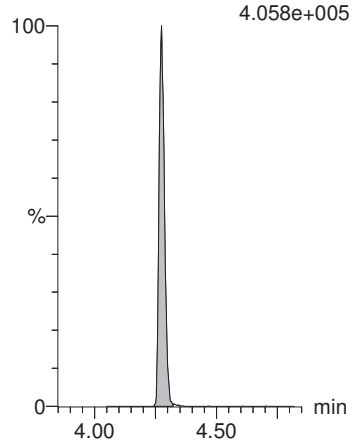

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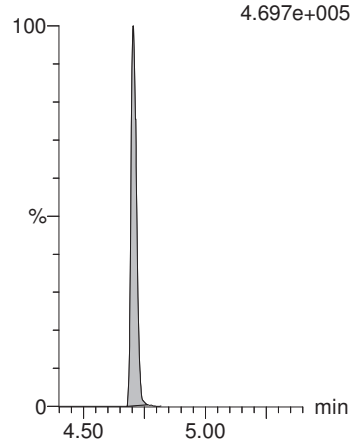

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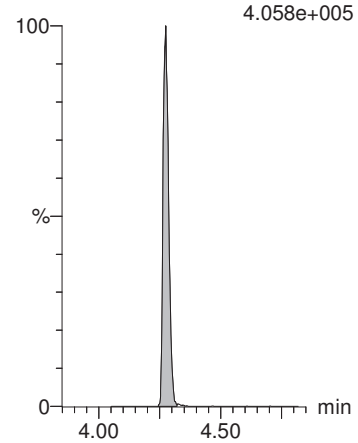

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-16.qld

Last Altered: Saturday, July 21, 2018 15:59:12 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:59:46 Pacific Daylight Time

Name: 180720G2_16, Date: 20-Jul-2018, Time: 19:10:22, ID: 1801762-03 CBD-1RW02-0718 0.24766, Description: CBD-1RW02-0718

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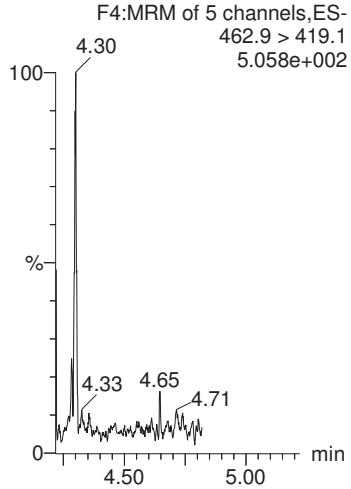

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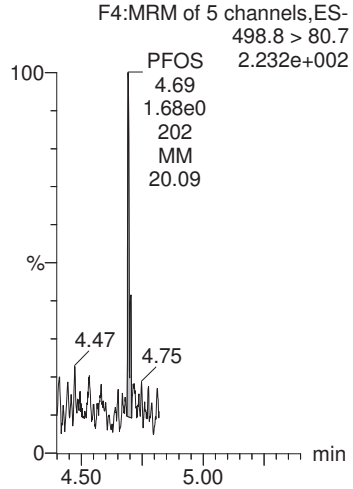

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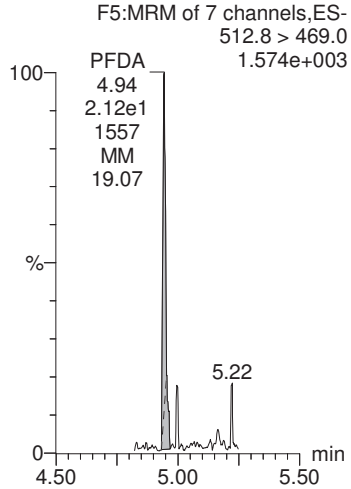

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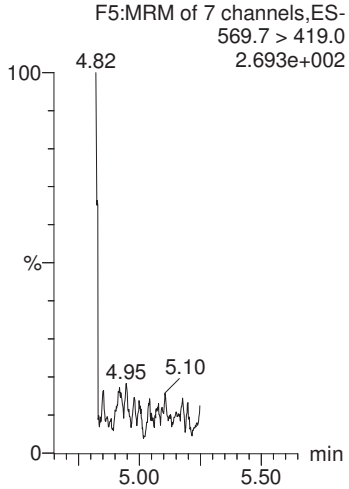

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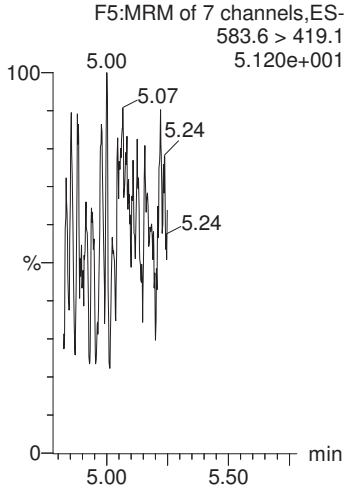

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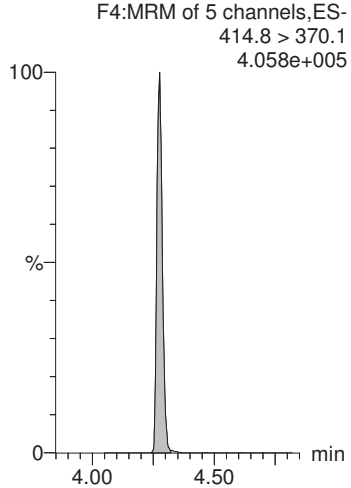

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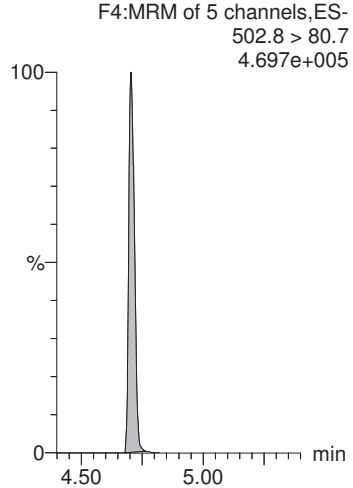

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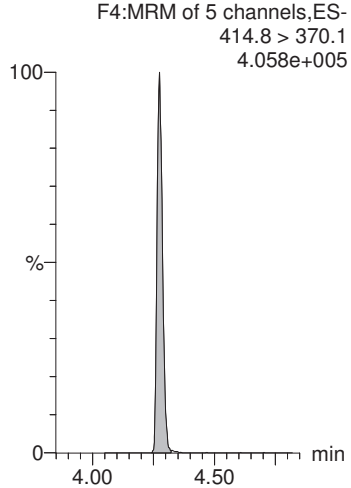

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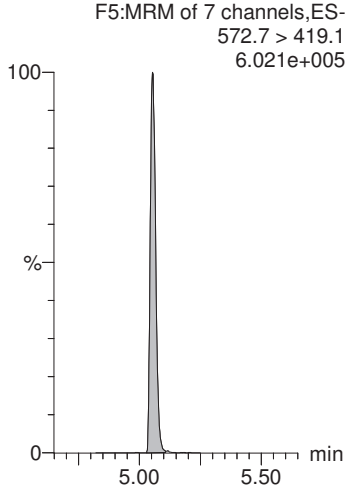

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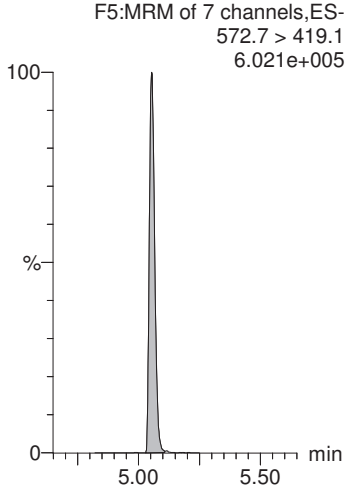

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-16.qld

Last Altered: Saturday, July 21, 2018 15:59:12 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:59:46 Pacific Daylight Time

Name: 180720G2_16, Date: 20-Jul-2018, Time: 19:10:22, ID: 1801762-03 CBD-1RW02-0718 0.24766, Description: CBD-1RW02-0718

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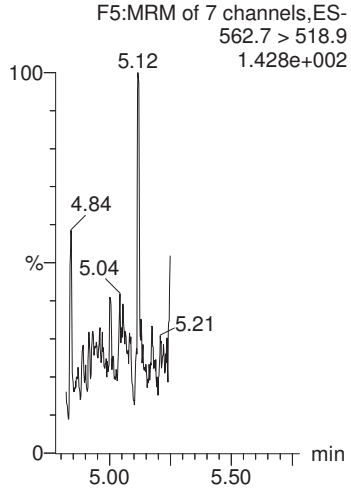

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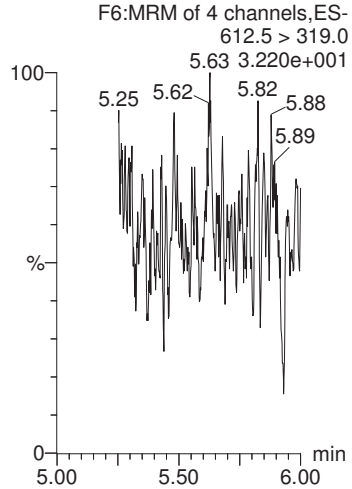

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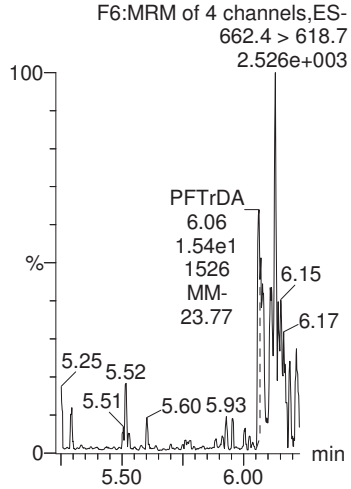

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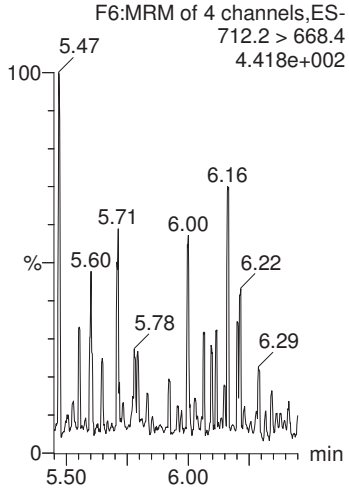

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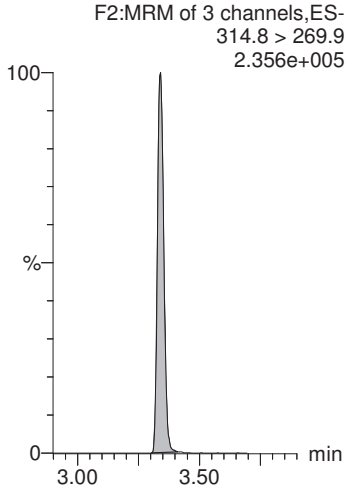

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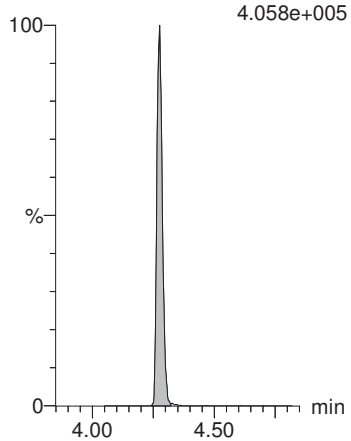

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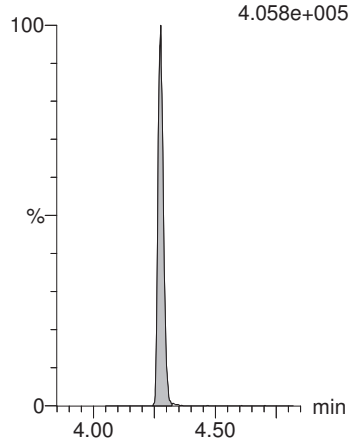

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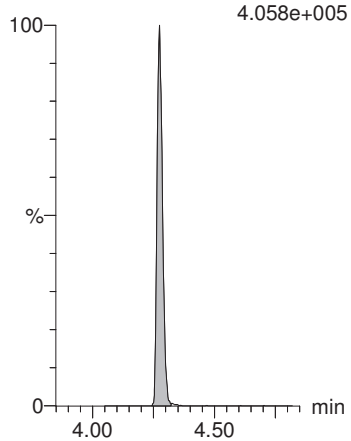

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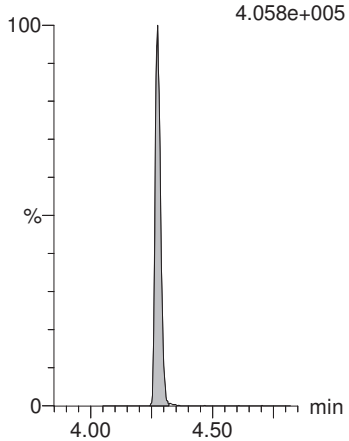

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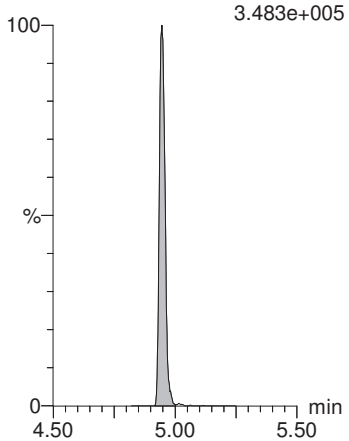

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-16.qld

Last Altered: Saturday, July 21, 2018 15:59:12 Pacific Daylight Time
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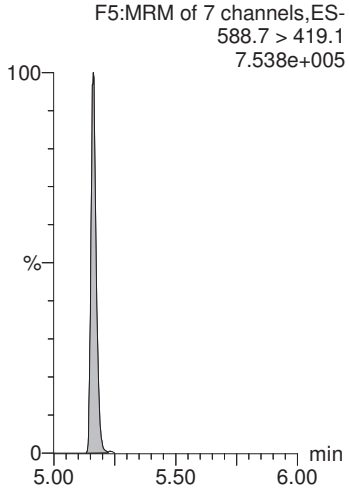
Name: 180720G2_16, Date: 20-Jul-2018, Time: 19:10:22, ID: 1801762-03 CBD-1RW02-0718 0.24766, Description: CBD-1RW02-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-17.qld

Last Altered: Saturday, July 21, 2018 16:02:52 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:03:30 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_17, Date: 20-Jul-2018, Time: 19:23:11, ID: 1801762-04 CBD-1FB02-0718 0.25449, Description: CBD-1FB02-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.11e4	0.254		2.96				
2	2	PFHxA	312.7 > 268.8	5.29e1	9.88e3	0.254		3.34	3.34	0.0535	0.259	
3	3	PFHpA	362.7 > 318.8	1.58e1	9.88e3	0.254		3.85	3.85	0.0160	0.0716	
4	4	PFHxS	398.7 > 80.7		1.11e4	0.254		3.98				
5	5	PFOA	412.8 > 369.0	7.51e0	9.88e3	0.254		4.28	4.27	0.00760	0.0410	
6	6	PFNA	462.9 > 419.1		9.88e3	0.254		4.64				
7	7	PFOS	498.8 >80.7	9.28e-1	1.11e4	0.254		4.70	4.70	0.00239	0.0254	
8	8	PFDA	512.8 > 469.0	3.79e1	9.88e3	0.254		4.92	4.94	0.0384	0.173	
9	9	N-MeFOSAA	569.7 > 419.0		1.37e4	0.254		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.37e4	0.254		5.18				
11	11	PFUnA	562.7 > 518.9	1.62e0	9.88e3	0.254		5.16	5.17	0.00164	0.00672	
12	12	PFDoA	612.5 > 319.0		9.88e3	0.254		5.40				
13	13	PFTrDA	662.4 > 618.7		9.88e3	0.254		5.61				
14	14	PFTeDA	712.2>668.4		9.88e3	0.254		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.44e3	9.88e3	0.254	0.753	3.43	3.34	6.52	34.1	86.7
16	16	13C2-PFDA	514.8 > 470.0	8.74e3	9.88e3	0.254	1.023	4.87	4.94	8.85	34.0	86.6
17	17	d5-N-EtFOSAA	588.7> 419.1	1.81e4	1.37e4	0.254	1.264	5.06	5.17	53.0	165	104.8
18	18	13C2-PFOA	414.8 > 370.1	9.88e3	9.88e3	0.254	1.000	4.28	4.27	10.0	39.3	100.0
19	19	13C4-PFOS	502.8>80.7	1.11e4	1.11e4	0.254	1.000	4.71	4.70	28.7	113	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.37e4	1.37e4	0.254	1.000	5.04	5.06	40.0	157	100.0

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Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-17.qld

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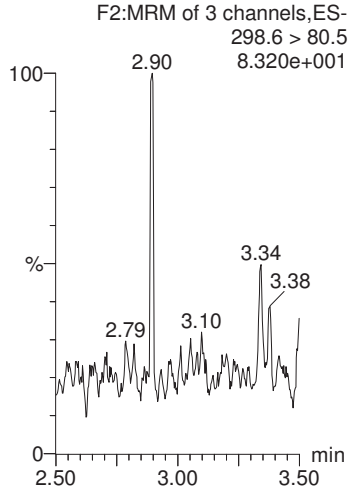
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_17, Date: 20-Jul-2018, Time: 19:23:11, ID: 1801762-04 CBD-1FB02-0718 0.25449, Description: CBD-1FB02-0718

PFBS



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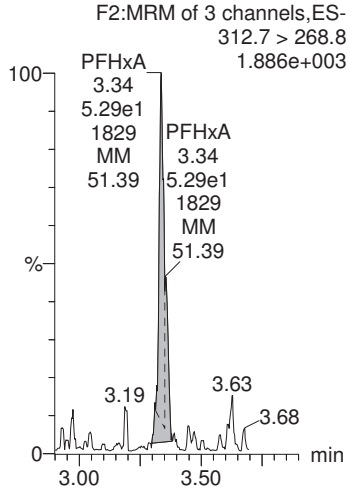

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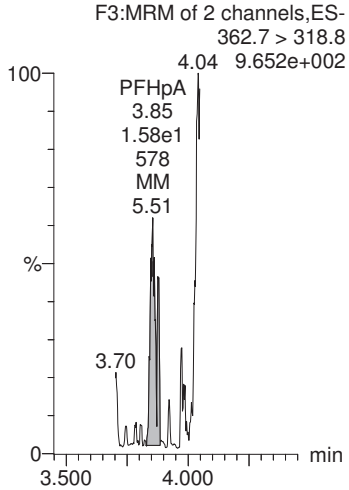

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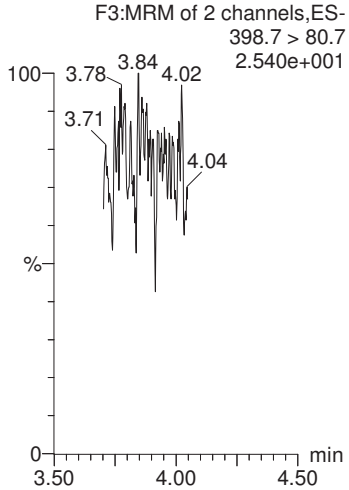
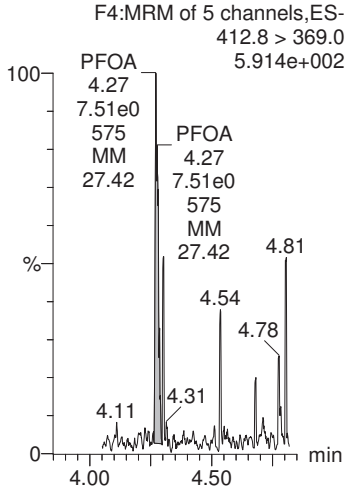


PFOA



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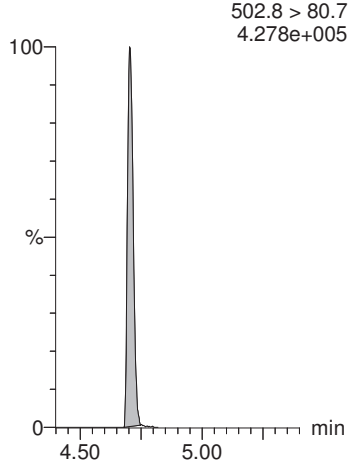

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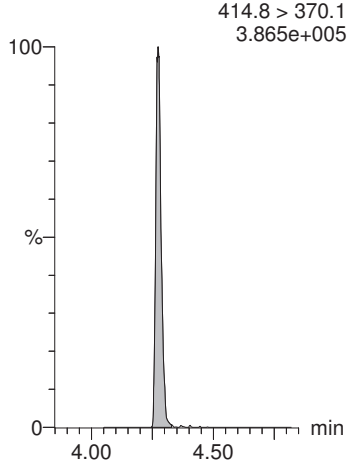

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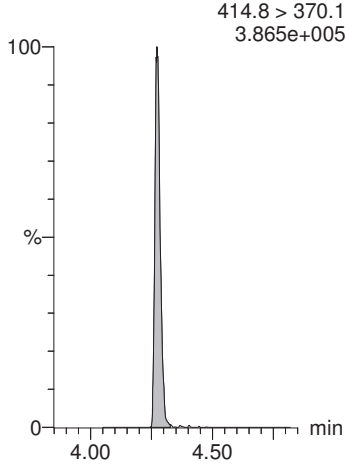

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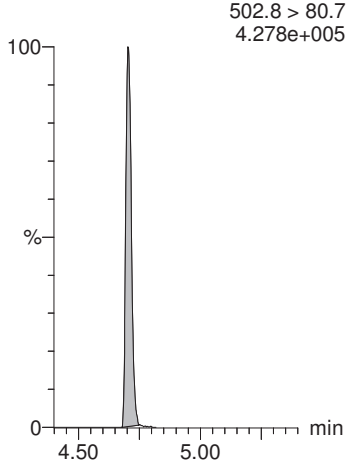

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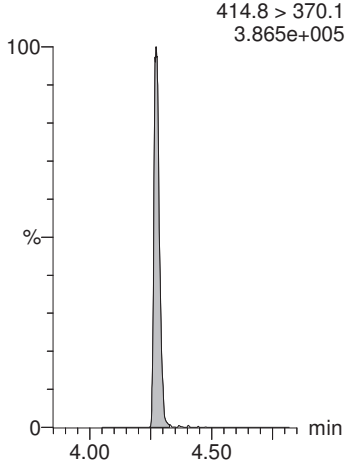

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-17.qld

Last Altered: Saturday, July 21, 2018 16:02:52 Pacific Daylight Time
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Name: 180720G2_17, Date: 20-Jul-2018, Time: 19:23:11, ID: 1801762-04 CBD-1FB02-0718 0.25449, Description: CBD-1FB02-0718

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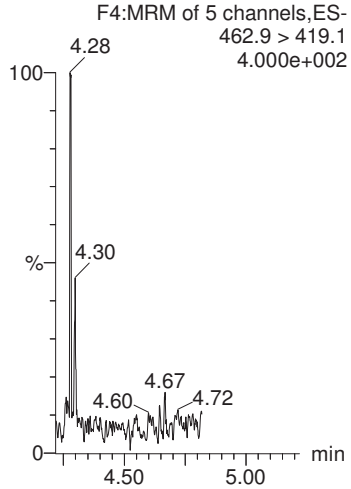

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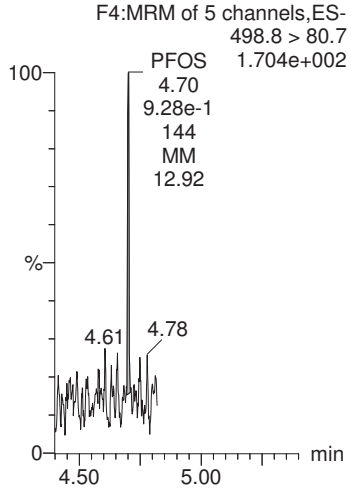

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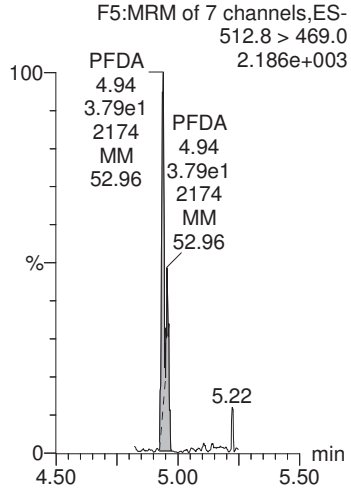

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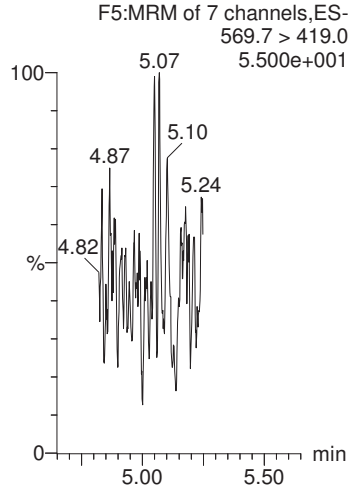

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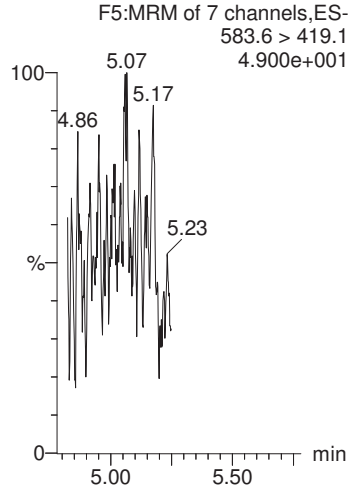

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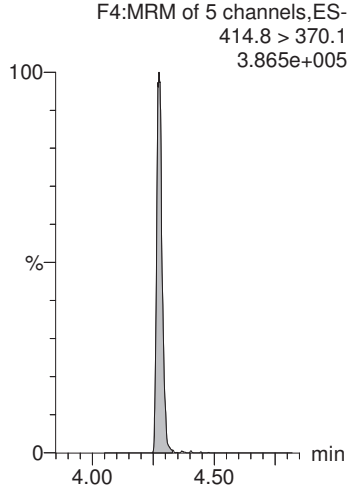

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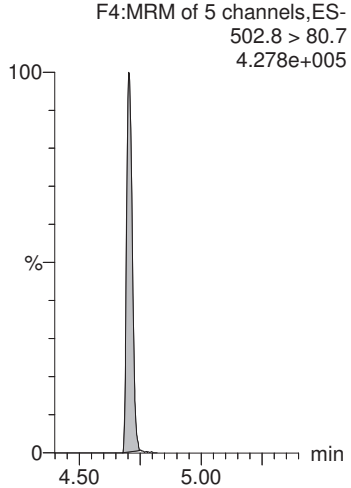
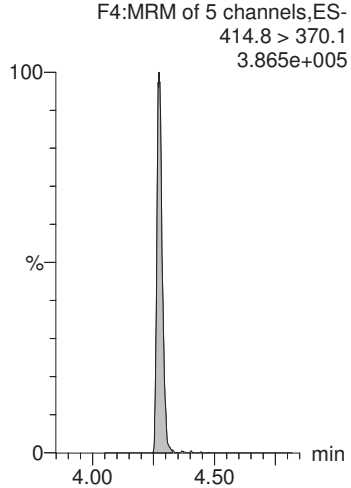
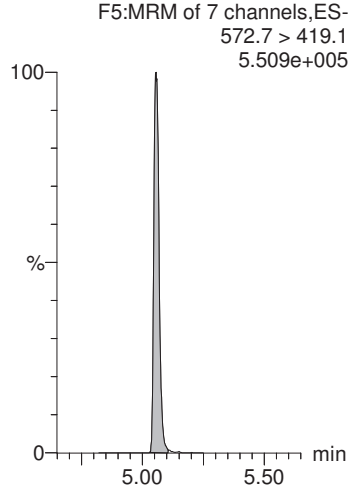


13C2-PFOA



d3-N-MeFOSAA



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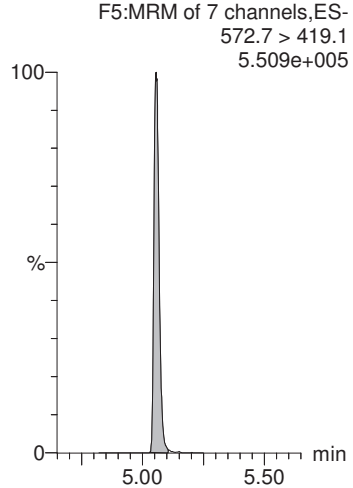

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-17.qld

Last Altered: Saturday, July 21, 2018 16:02:52 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:03:30 Pacific Daylight Time

Name: 180720G2_17, Date: 20-Jul-2018, Time: 19:23:11, ID: 1801762-04 CBD-1FB02-0718 0.25449, Description: CBD-1FB02-0718

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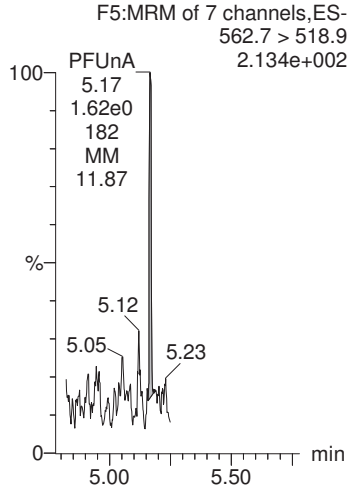

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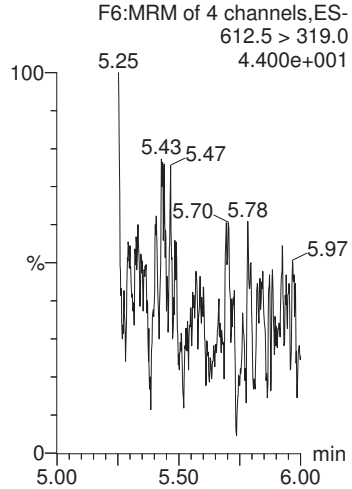

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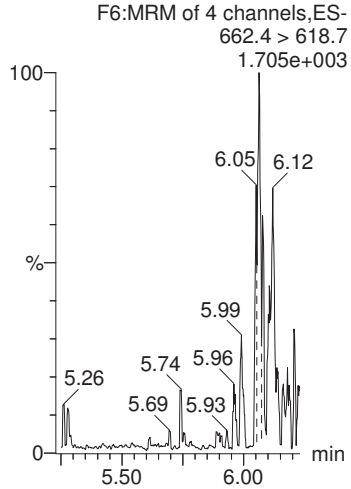

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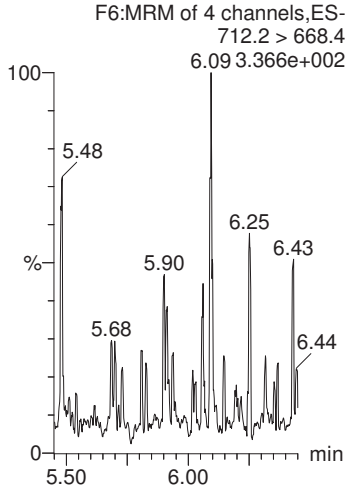

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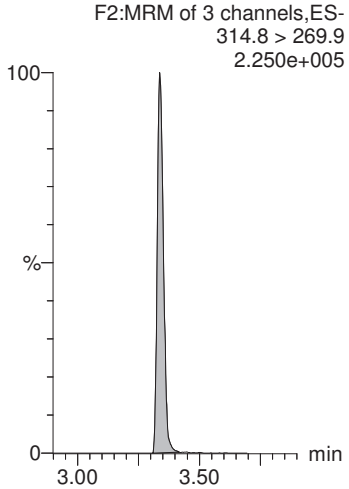

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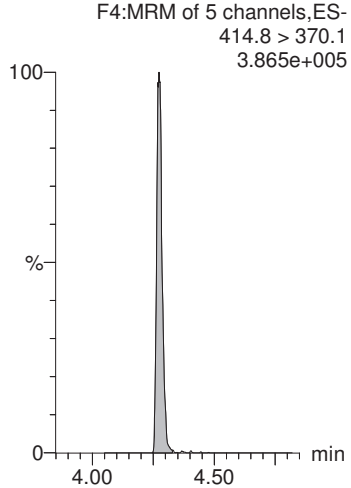

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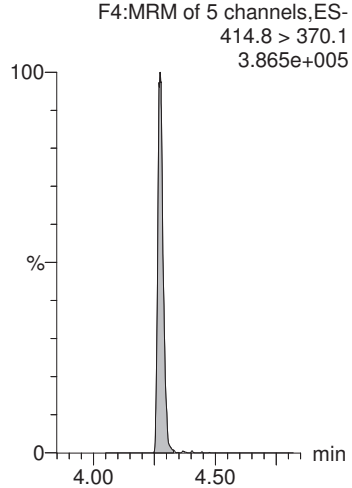

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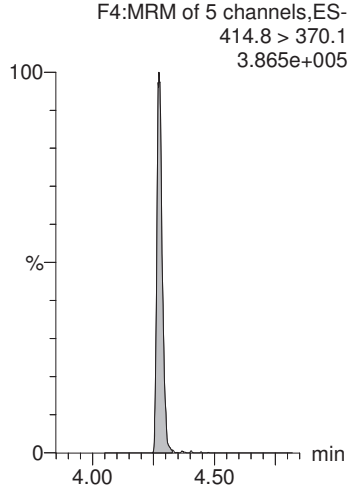

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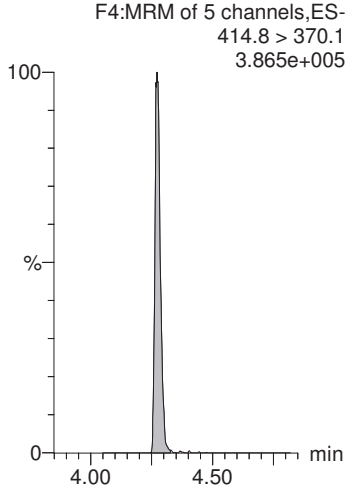

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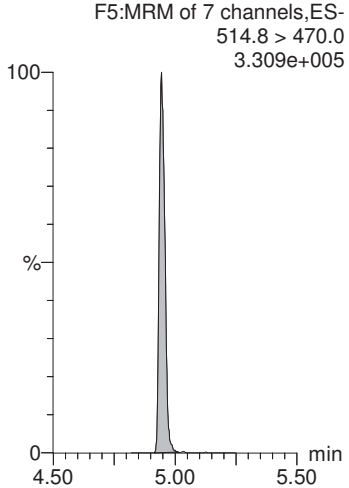


CGH 7/21/2018

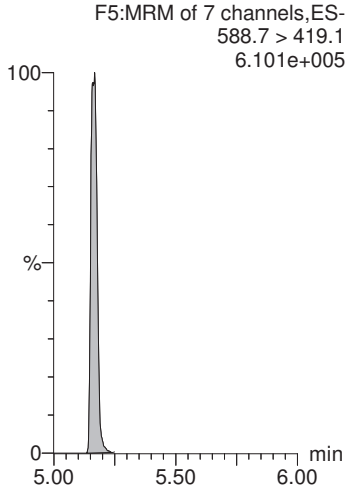
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-17.qld

Last Altered: Saturday, July 21, 2018 16:02:52 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:03:30 Pacific Daylight Time

Name: 180720G2_17, Date: 20-Jul-2018, Time: 19:23:11, ID: 1801762-04 CBD-1FB02-0718 0.25449, Description: CBD-1FB02-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-18.qld

Last Altered: Saturday, July 21, 2018 16:11:07 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:11:53 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_18, Date: 20-Jul-2018, Time: 19:36:00, ID: 1801762-05 CBD-1RW03-0718 0.24854, Description: CBD-1RW03-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.17e4	0.249		2.96				
2	2	PFHxA	312.7 > 268.8		9.73e3	0.249		3.34				
3	3	PFHpA	362.7 > 318.8		9.73e3	0.249		3.85				
4	4	PFHxS	398.7 > 80.7		1.17e4	0.249		3.99				
5	5	PFOA	412.8 > 369.0	3.14e1	9.73e3	0.249		4.28	4.26	0.0323	0.178	
6	6	PFNA	462.9 > 419.1		9.73e3	0.249		4.64				
7	7	PFOS	498.8 >80.7	1.52e0	1.17e4	0.249		4.70	4.70	0.00374	0.0407	
8	8	PFDA	512.8 > 469.0	4.85e1	9.73e3	0.249		4.92	4.96	0.0498	0.230	
9	9	N-MeFOSAA	569.7 > 419.0		1.50e4	0.249		5.05				
10	10	N-EtFOSAA	583.6 >419.1		1.50e4	0.249		5.17				
11	11	PFUnA	562.7 > 518.9		9.73e3	0.249		5.16				
12	12	PFDoA	612.5 > 319.0		9.73e3	0.249		5.40				
13	13	PFTrDA	662.4 > 618.7		9.73e3	0.249		5.61				
14	14	PFTeDA	712.2>668.4		9.73e3	0.249		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.74e3	9.73e3	0.249	0.753	3.43	3.34	6.93	37.1	92.1
16	16	13C2-PFDA	514.8 > 470.0	9.13e3	9.73e3	0.249	1.023	4.87	4.95	9.38	36.9	91.7
17	17	d5-N-EtFOSAA	588.7> 419.1	1.72e4	1.50e4	0.249	1.264	5.05	5.16	45.7	145	90.3
18	18	13C2-PFOA	414.8 > 370.1	9.73e3	9.73e3	0.249	1.000	4.28	4.27	10.0	40.2	100.0
19	19	13C4-PFOS	502.8>80.7	1.17e4	1.17e4	0.249	1.000	4.71	4.71	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.50e4	1.50e4	0.249	1.000	5.04	5.05	40.0	161	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

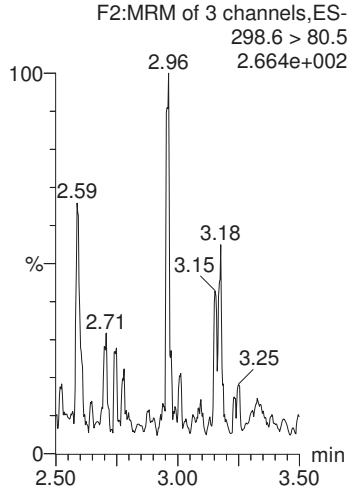
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-18.qld

Last Altered: Saturday, July 21, 2018 16:11:07 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:11:53 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_18, Date: 20-Jul-2018, Time: 19:36:00, ID: 1801762-05 CBD-1RW03-0718 0.24854, Description: CBD-1RW03-0718

PFBS



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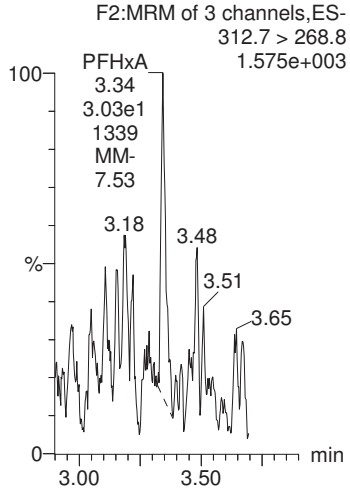

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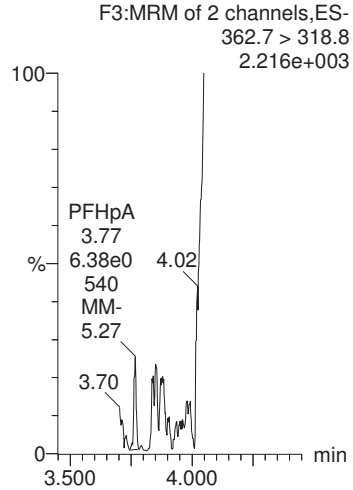

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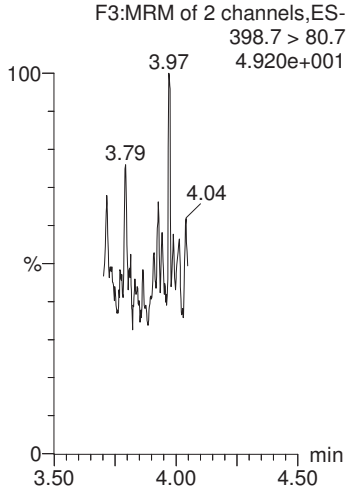
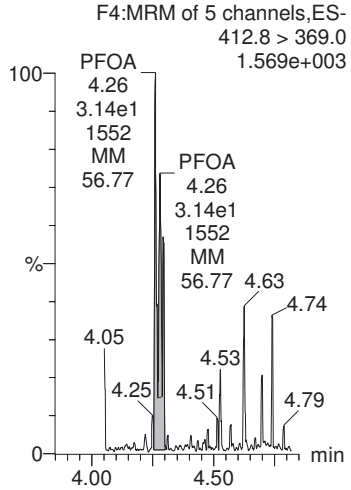


PFOA



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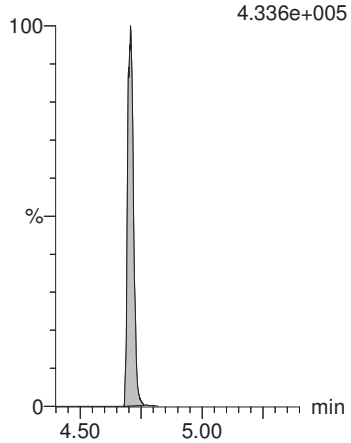

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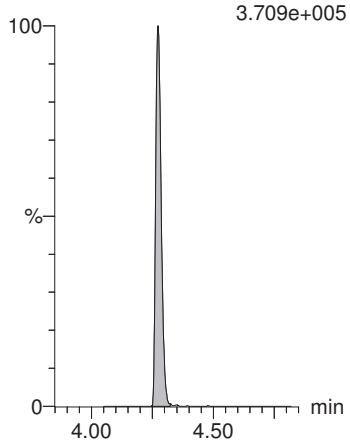

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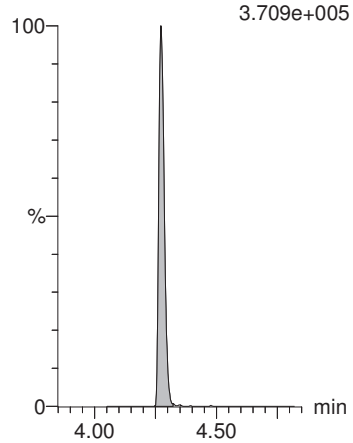

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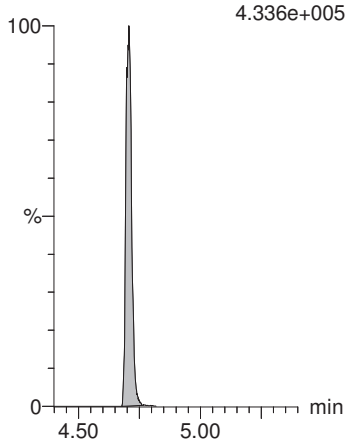

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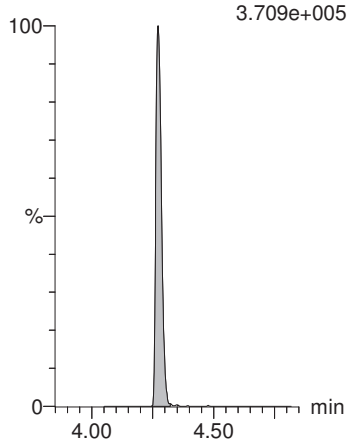

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-18.qld

Last Altered: Saturday, July 21, 2018 16:11:07 Pacific Daylight Time
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Name: 180720G2_18, Date: 20-Jul-2018, Time: 19:36:00, ID: 1801762-05 CBD-1RW03-0718 0.24854, Description: CBD-1RW03-0718

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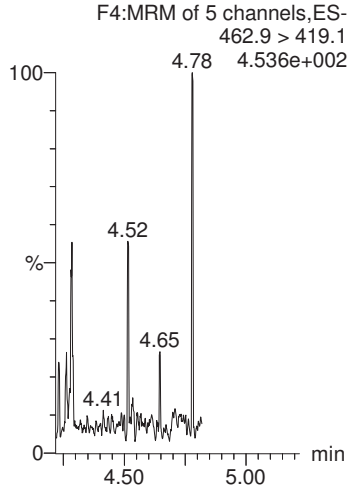

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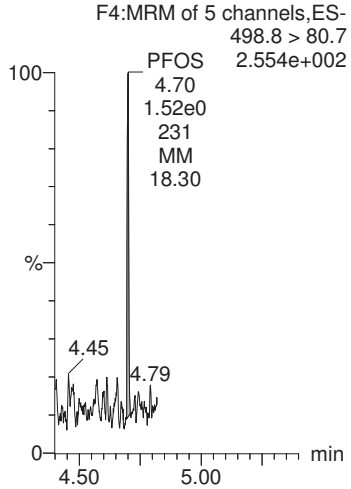

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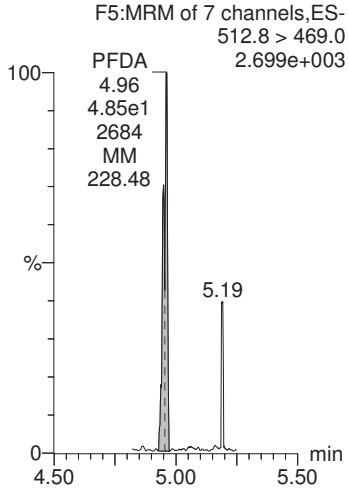

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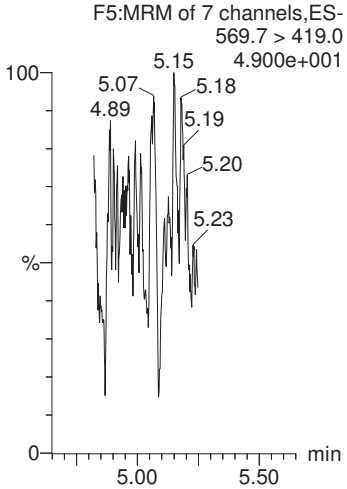

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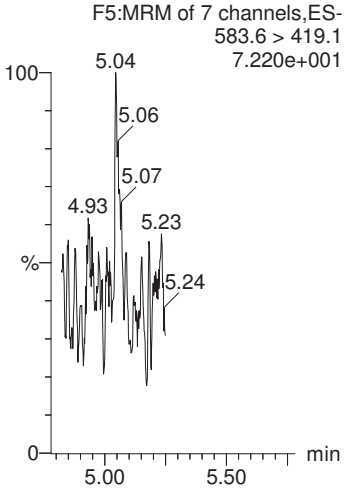

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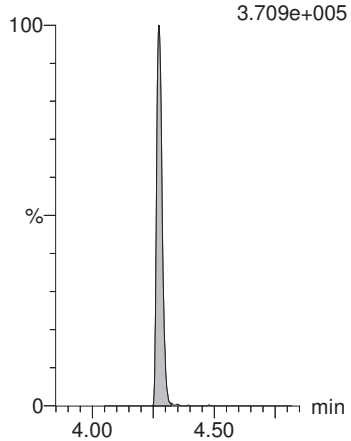

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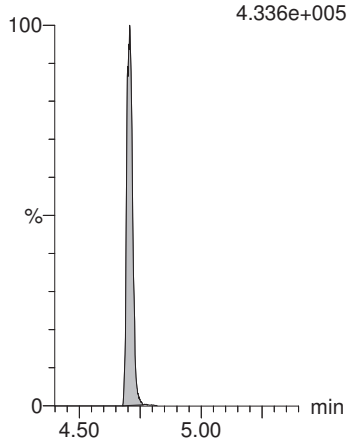

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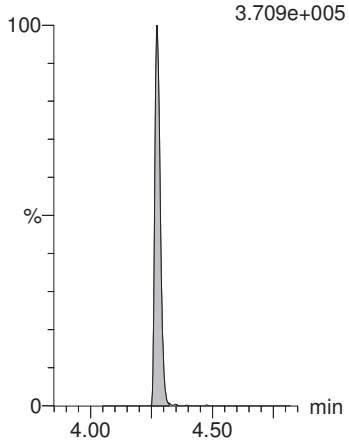

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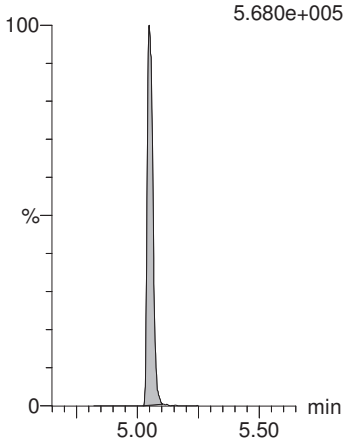

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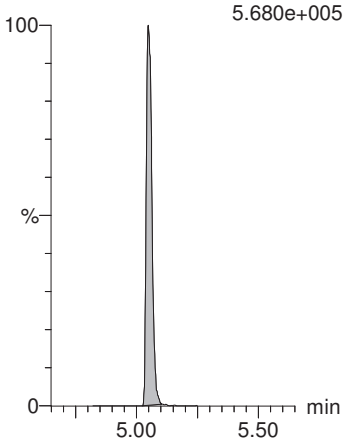

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-18.qld

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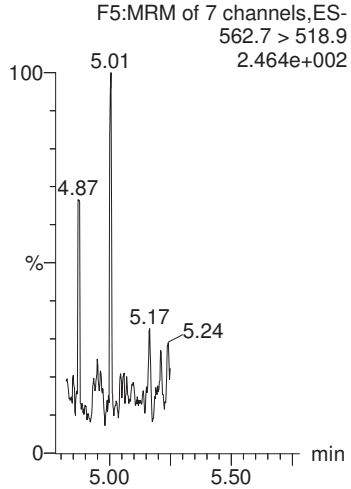
Name: 180720G2_18, Date: 20-Jul-2018, Time: 19:36:00, ID: 1801762-05 CBD-1RW03-0718 0.24854, Description: CBD-1RW03-0718

PFUnA



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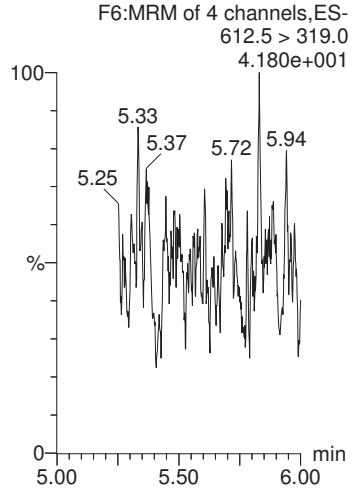
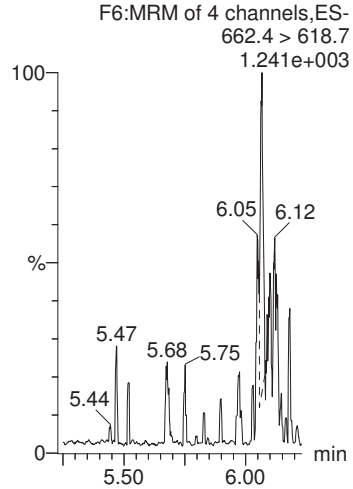
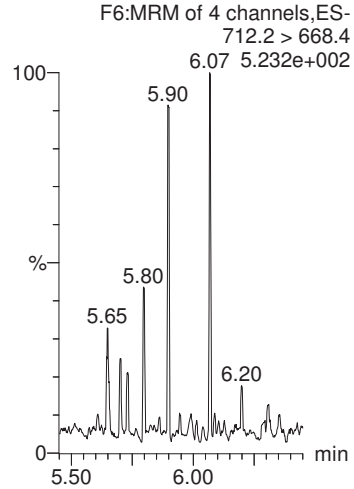


PFTrDA



PFTeDA



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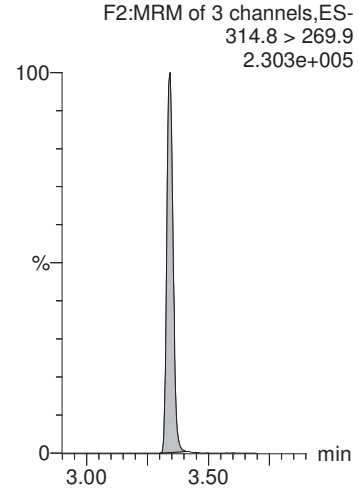

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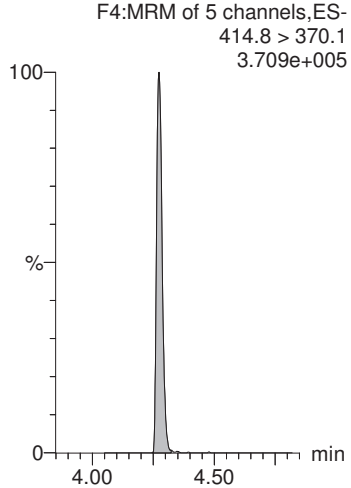

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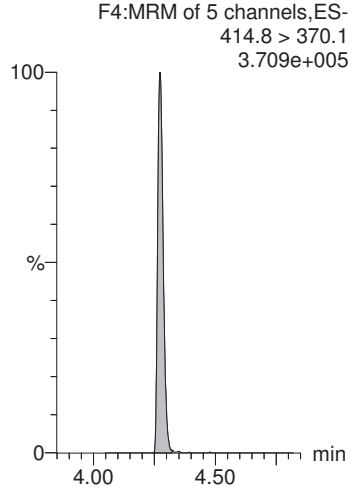

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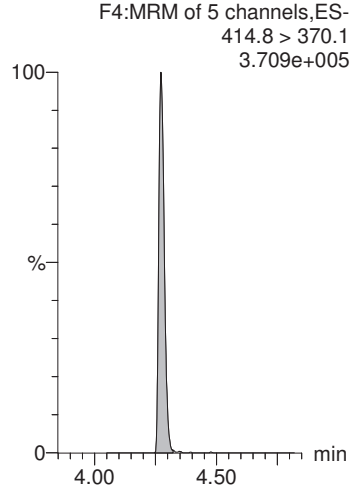

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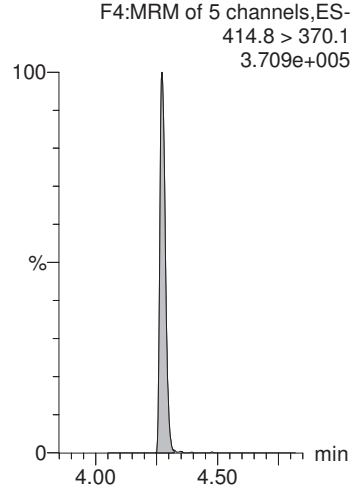

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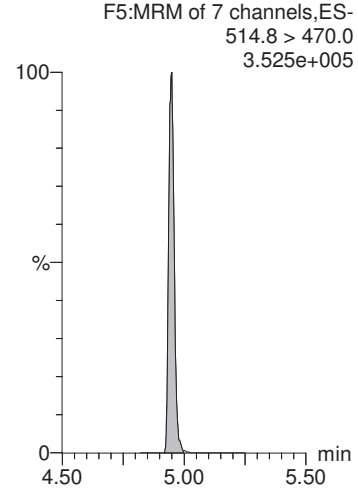


CGH 7/21/2018

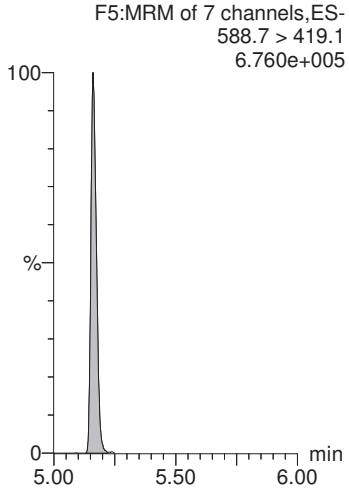
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-18.qld

Last Altered: Saturday, July 21, 2018 16:11:07 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:11:53 Pacific Daylight Time

Name: 180720G2_18, Date: 20-Jul-2018, Time: 19:36:00, ID: 1801762-05 CBD-1RW03-0718 0.24854, Description: CBD-1RW03-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-19.qld

Last Altered: Saturday, July 21, 2018 16:16:36 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:17:47 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_19, Date: 20-Jul-2018, Time: 19:48:50, ID: 1801762-06 CBD-1FB03-0718 0.245, Description: CBD-1FB03-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.15e4	0.245		2.96				
2	2	PFHxA	312.7 > 268.8	4.36e1	9.39e3	0.245		3.34	3.35	0.0464	0.233	
3	3	PFHpA	362.7 > 318.8	1.27e1	9.39e3	0.245		3.85	3.86	0.0136	0.0631	
4	4	PFHxS	398.7 > 80.7		1.15e4	0.245		3.99				
5	5	PFOA	412.8 > 369.0	1.11e1	9.39e3	0.245		4.28	4.29	0.0119	0.0664	
6	6	PFNA	462.9 > 419.1		9.39e3	0.245		4.64				
7	7	PFOS	498.8 >80.7		1.15e4	0.245		4.70				
8	8	PFDA	512.8 > 469.0	3.11e1	9.39e3	0.245		4.92	4.94	0.0331	0.155	
9	9	N-MeFOSAA	569.7 > 419.0		1.40e4	0.245		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.40e4	0.245		5.17				
11	11	PFUnA	562.7 > 518.9		9.39e3	0.245		5.16				
12	12	PFDoA	612.5 > 319.0		9.39e3	0.245		5.40				
13	13	PFTrDA	662.4 > 618.7		9.39e3	0.245		5.61				
14	14	PFTeDA	712.2>668.4		9.39e3	0.245		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.35e3	9.39e3	0.245	0.753	3.43	3.34	6.76	36.7	89.8
16	16	13C2-PFDA	514.8 > 470.0	8.42e3	9.39e3	0.245	1.023	4.87	4.94	8.96	35.8	87.6
17	17	d5-N-EtFOSAA	588.7> 419.1	1.71e4	1.40e4	0.245	1.264	5.05	5.16	49.1	159	97.1
18	18	13C2-PFOA	414.8 > 370.1	9.39e3	9.39e3	0.245	1.000	4.28	4.27	10.0	40.8	100.0
19	19	13C4-PFOS	502.8>80.7	1.15e4	1.15e4	0.245	1.000	4.71	4.71	28.7	117	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.40e4	1.40e4	0.245	1.000	5.04	5.05	40.0	163	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

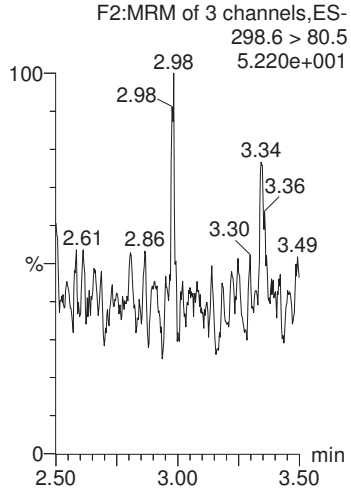
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-19.qld

Last Altered: Saturday, July 21, 2018 16:16:36 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:17:47 Pacific Daylight Time

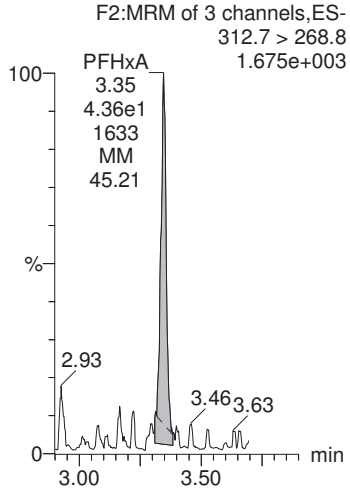
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_19, Date: 20-Jul-2018, Time: 19:48:50, ID: 1801762-06 CBD-1FB03-0718 0.245, Description: CBD-1FB03-0718

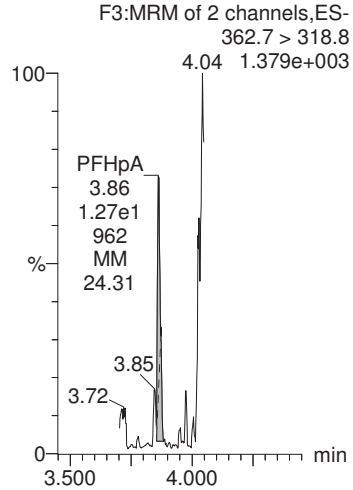
PFBS



PFHxA



PFHpA



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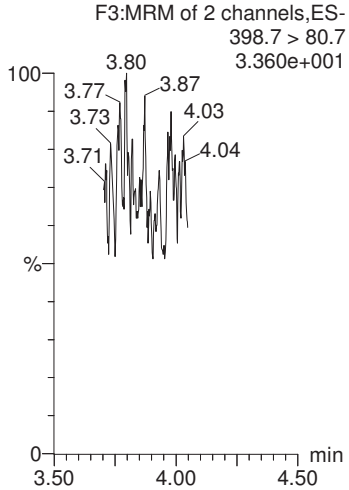
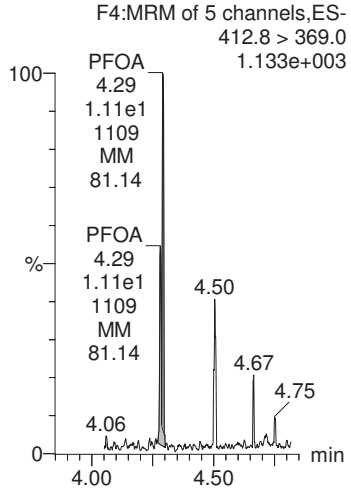
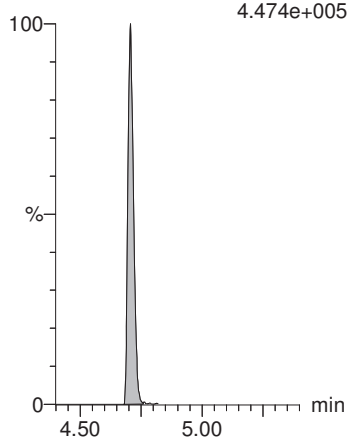


PFOA



13C4-PFOS



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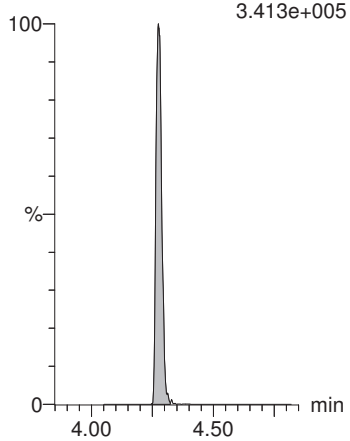

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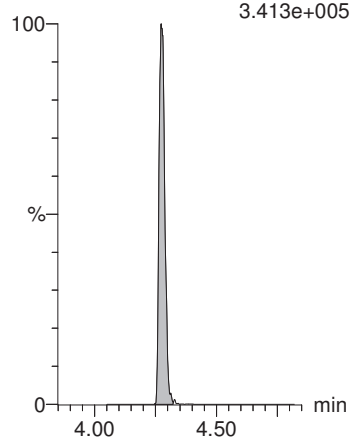

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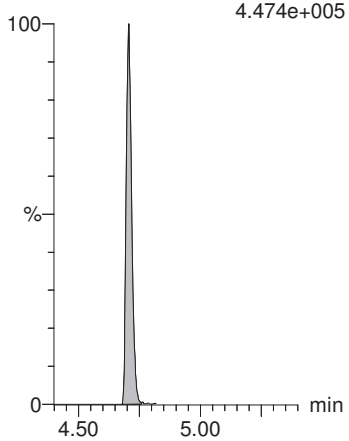

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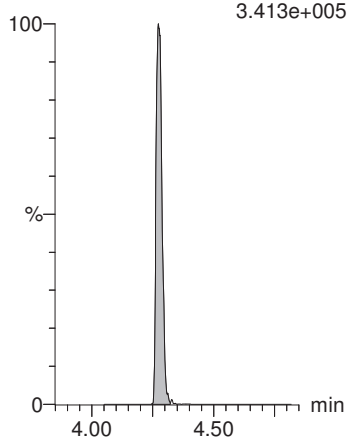


CGH 7/21/2018

Vista Analytical Laboratory

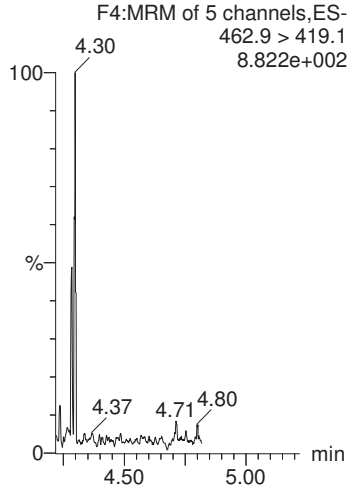
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-19.qld

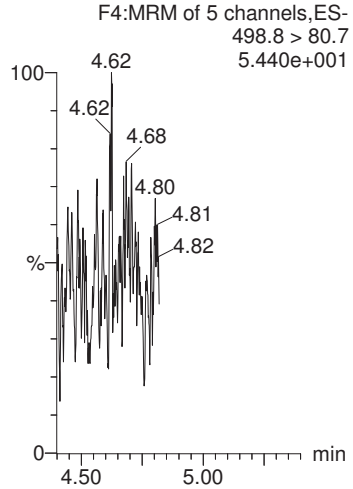
Last Altered: Saturday, July 21, 2018 16:16:36 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:17:47 Pacific Daylight Time

Name: 180720G2_19, Date: 20-Jul-2018, Time: 19:48:50, ID: 1801762-06 CBD-1FB03-0718 0.245, Description: CBD-1FB03-0718

PFNA



PFOS



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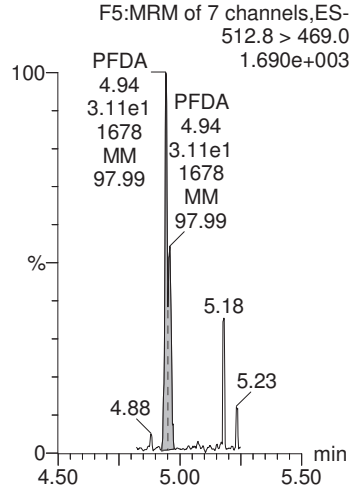
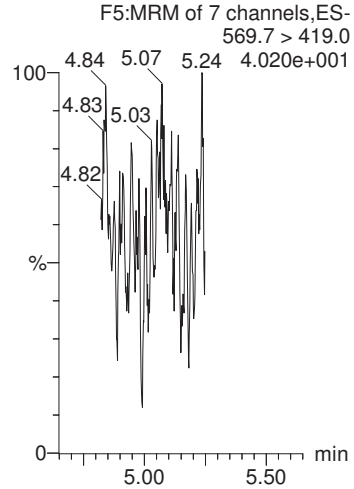
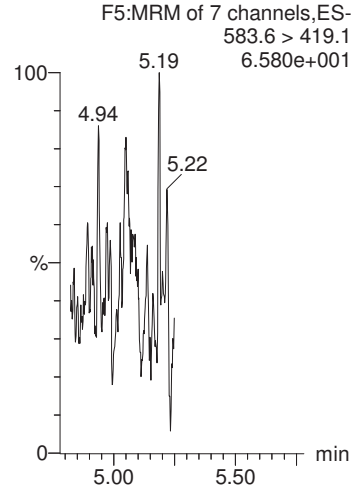


N-MeFOSAA



N-EtFOSAA



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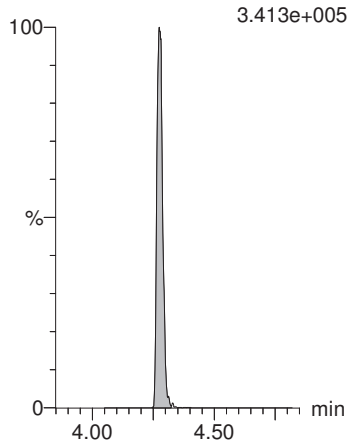

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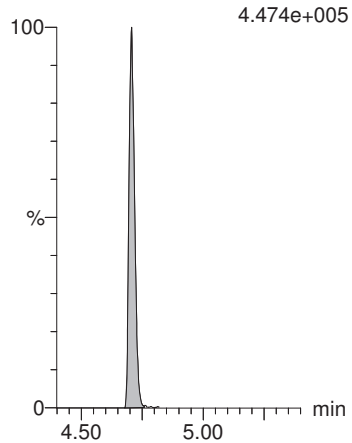

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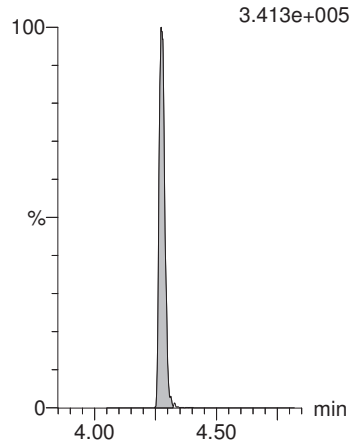
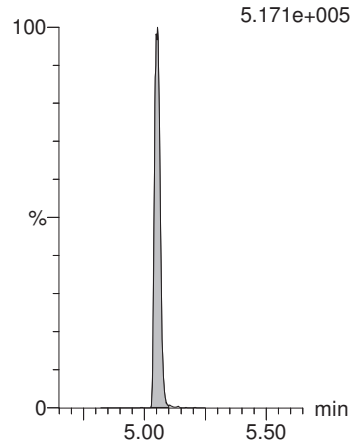


d3-N-MeFOSAA



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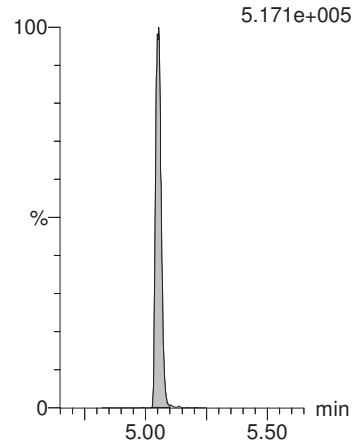


CGH 7/21/2018

Vista Analytical Laboratory

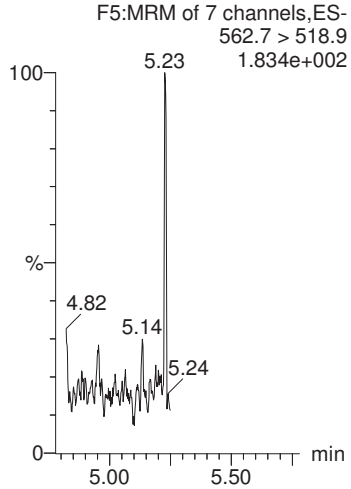
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-19.qld

Last Altered: Saturday, July 21, 2018 16:16:36 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:17:47 Pacific Daylight Time

Name: 180720G2_19, Date: 20-Jul-2018, Time: 19:48:50, ID: 1801762-06 CBD-1FB03-0718 0.245, Description: CBD-1FB03-0718

PFUnA



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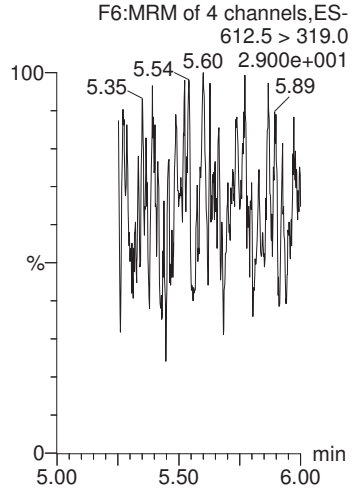
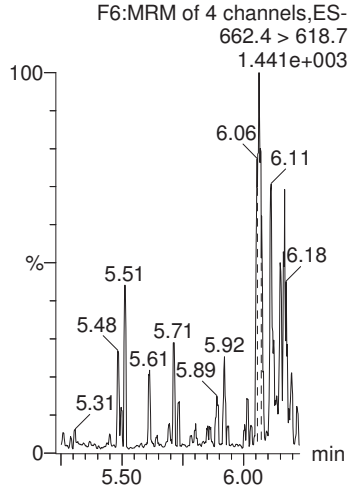
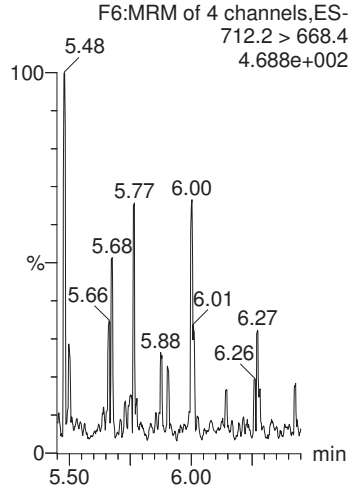


PFTrDA



PFTeDA



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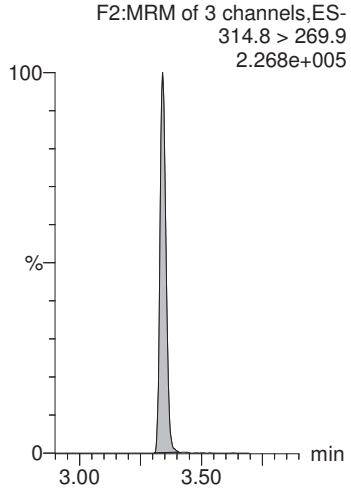

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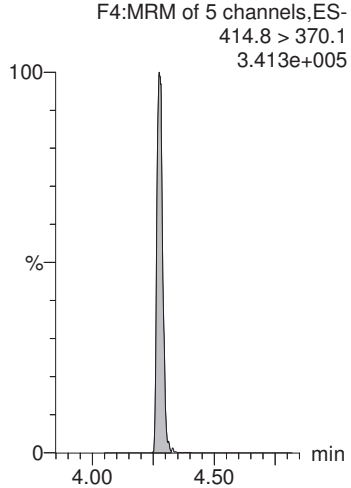

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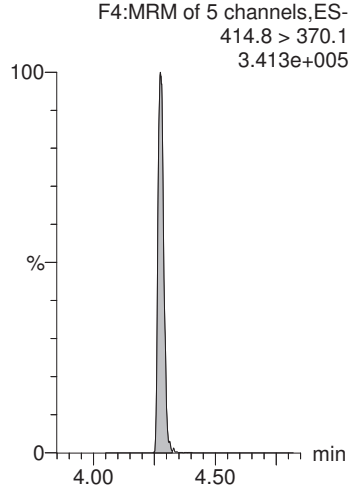

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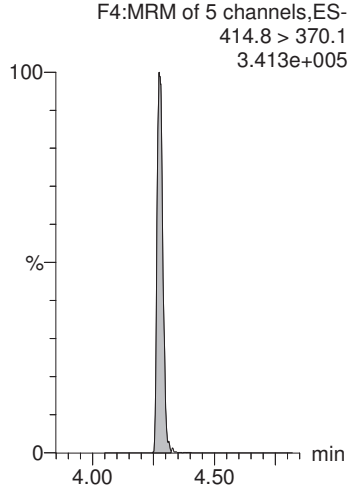

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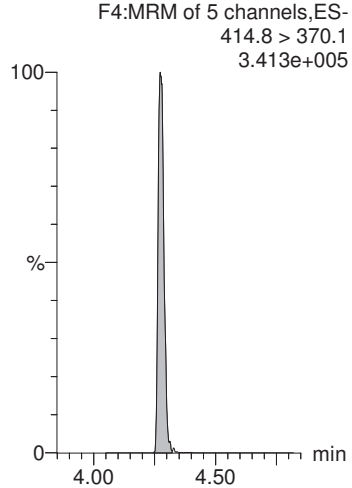

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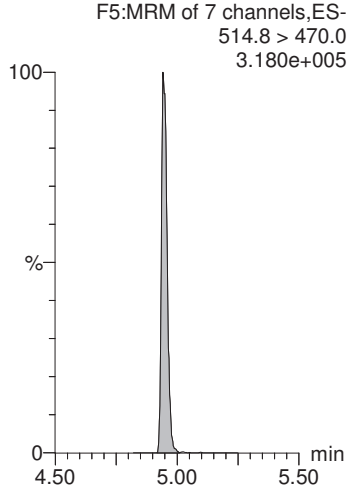


CGH 7/21/2018

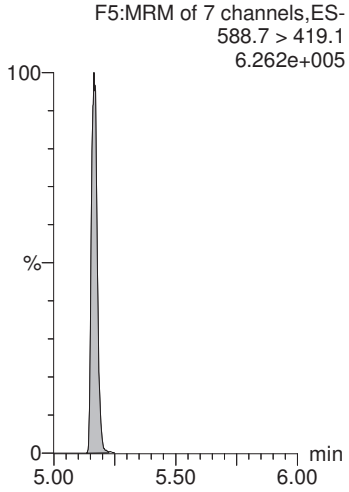
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-19.qld

Last Altered: Saturday, July 21, 2018 16:16:36 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:17:47 Pacific Daylight Time

Name: 180720G2_19, Date: 20-Jul-2018, Time: 19:48:50, ID: 1801762-06 CBD-1FB03-0718 0.245, Description: CBD-1FB03-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-20.qld

Last Altered: Saturday, July 21, 2018 16:20:18 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:21:01 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_20, Date: 20-Jul-2018, Time: 20:01:39, ID: 1801762-07 CBD-1RW04-0718 0.24138, Description: CBD-1RW04-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.34e4	0.241		2.96				
2	2	PFHxA	312.7 > 268.8		1.08e4	0.241		3.34				
3	3	PFHpA	362.7 > 318.8	1.79e1	1.08e4	0.241		3.85	3.85	0.0166	0.0786	
4	4	PFHxS	398.7 > 80.7		1.34e4	0.241		3.98				
5	5	PFOA	412.8 > 369.0	3.25e1	1.08e4	0.241		4.28	4.28	0.0302	0.171	
6	6	PFNA	462.9 > 419.1		1.08e4	0.241		4.64				
7	7	PFOS	498.8 >80.7		1.34e4	0.241		4.70				
8	8	PFDA	512.8 > 469.0	4.37e1	1.08e4	0.241		4.92	4.95	0.0406	0.193	
9	9	N-MeFOSAA	569.7 > 419.0	2.87e0	1.57e4	0.241		5.05	5.06	0.00731	0.0262	
10	10	N-EtFOSAA	583.6 >419.1		1.57e4	0.241		5.17				
11	11	PFUnA	562.7 > 518.9		1.08e4	0.241		5.16				
12	12	PFDoA	612.5 > 319.0		1.08e4	0.241		5.40				
13	13	PFTrDA	662.4 > 618.7		1.08e4	0.241		5.61				
14	14	PFTeDA	712.2>668.4		1.08e4	0.241		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	7.95e3	1.08e4	0.241	0.753	3.43	3.34	7.39	40.7	98.2
16	16	13C2-PFDA	514.8 > 470.0	9.70e3	1.08e4	0.241	1.023	4.87	4.95	9.01	36.5	88.2
17	17	d5-N-EtFOSAA	588.7> 419.1	1.97e4	1.57e4	0.241	1.264	5.05	5.16	50.2	165	99.3
18	18	13C2-PFOA	414.8 > 370.1	1.08e4	1.08e4	0.241	1.000	4.28	4.28	10.0	41.4	100.0
19	19	13C4-PFOS	502.8>80.7	1.34e4	1.34e4	0.241	1.000	4.71	4.71	28.7	119	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.57e4	1.57e4	0.241	1.000	5.04	5.05	40.0	166	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-20.qld

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Printed: Saturday, July 21, 2018 16:21:01 Pacific Daylight Time

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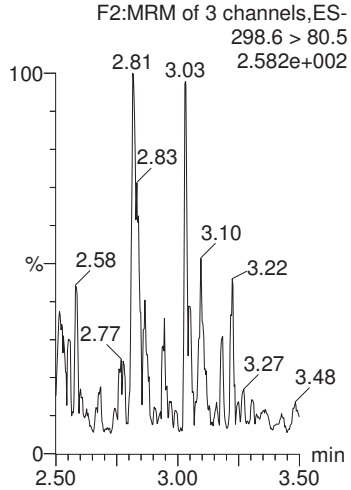
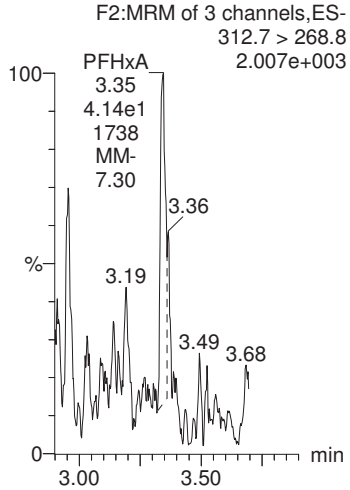
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_20, Date: 20-Jul-2018, Time: 20:01:39, ID: 1801762-07 CBD-1RW04-0718 0.24138, Description: CBD-1RW04-0718

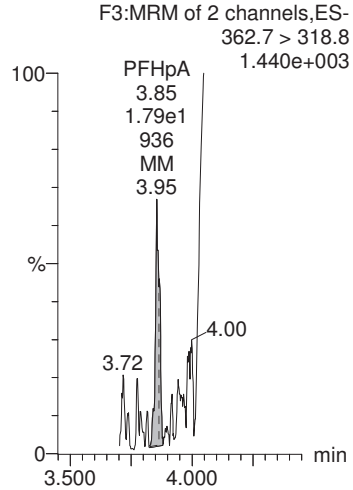
PFBS



PFHxA



PFHpA



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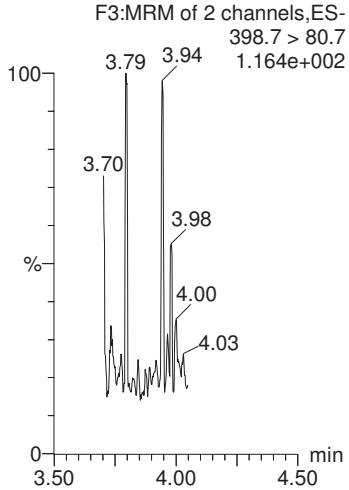
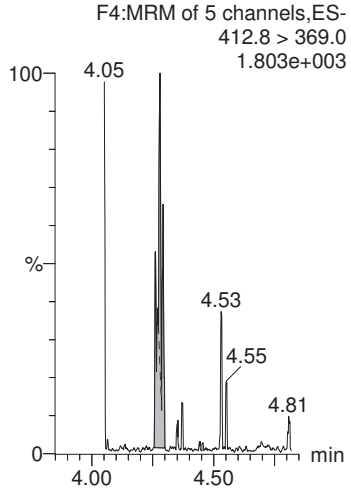
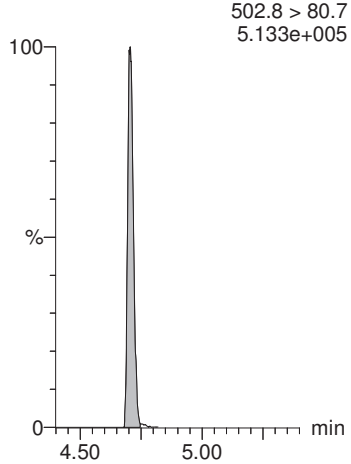


PFOA



13C4-PFOS



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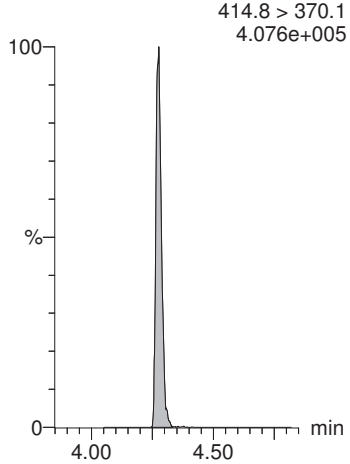

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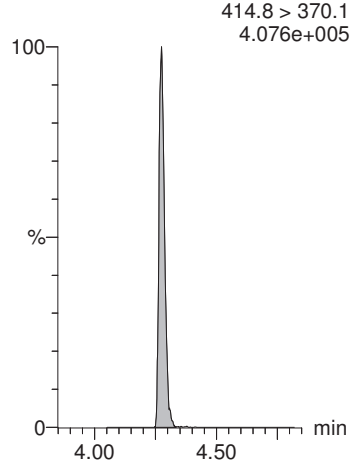

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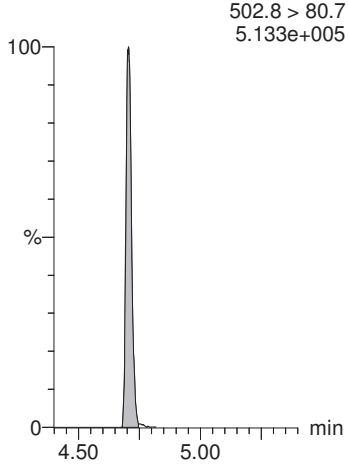

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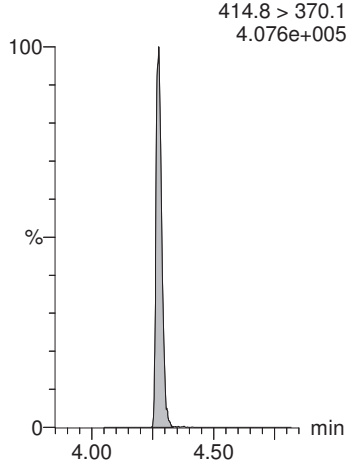

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-20.qld

Last Altered: Saturday, July 21, 2018 16:20:18 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:21:01 Pacific Daylight Time

Name: 180720G2_20, Date: 20-Jul-2018, Time: 20:01:39, ID: 1801762-07 CBD-1RW04-0718 0.24138, Description: CBD-1RW04-0718

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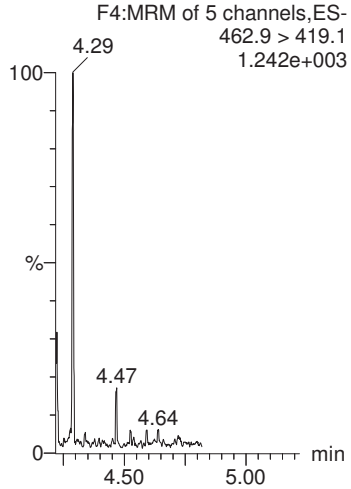
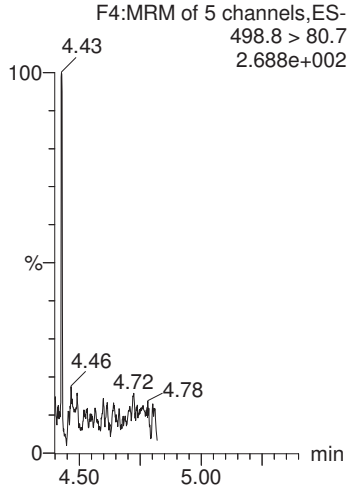


PFOS



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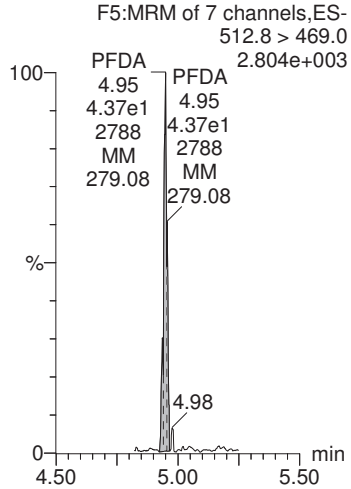
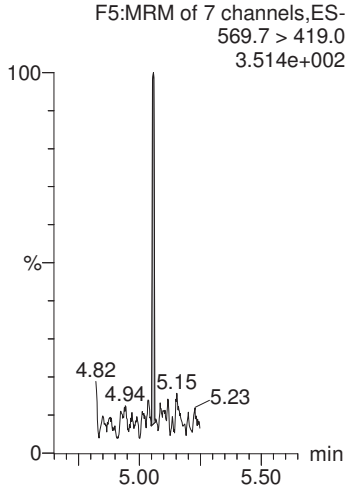


N-MeFOSAA



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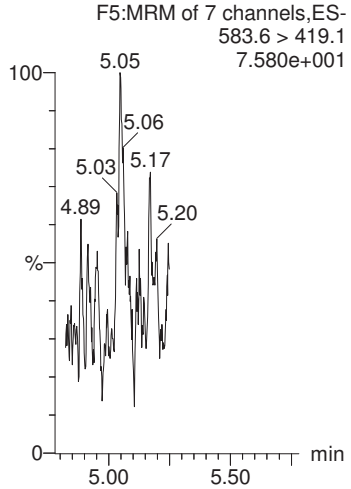

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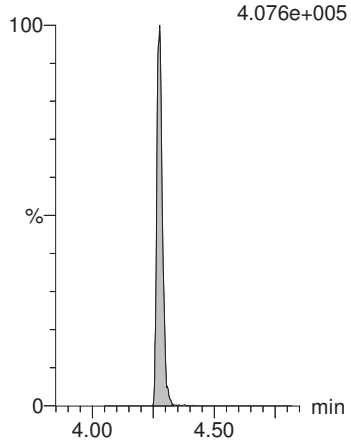

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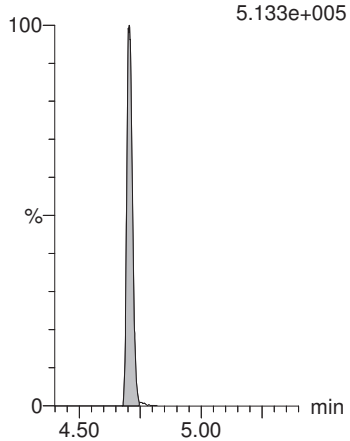

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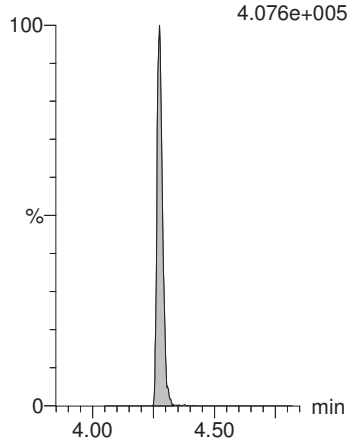

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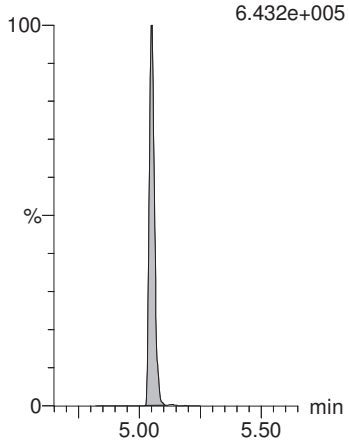

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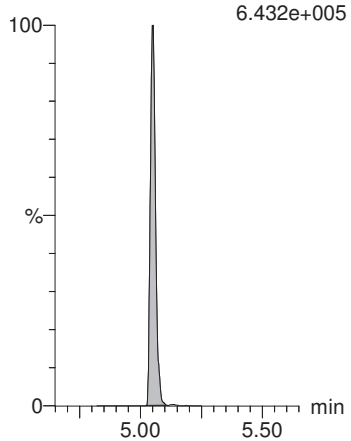

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-20.qld

Last Altered: Saturday, July 21, 2018 16:20:18 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:21:01 Pacific Daylight Time

Name: 180720G2_20, Date: 20-Jul-2018, Time: 20:01:39, ID: 1801762-07 CBD-1RW04-0718 0.24138, Description: CBD-1RW04-0718

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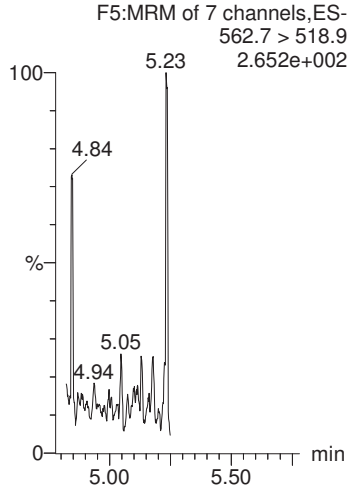

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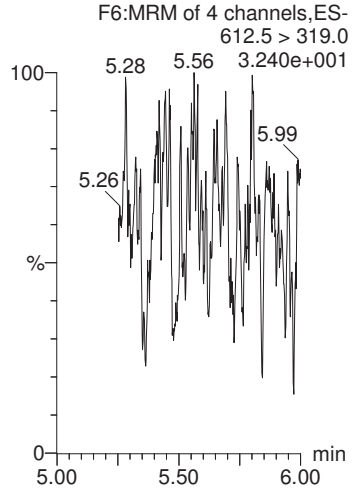

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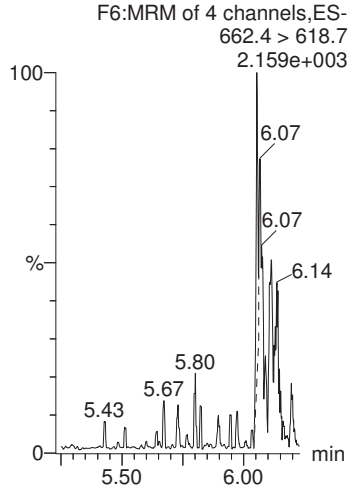

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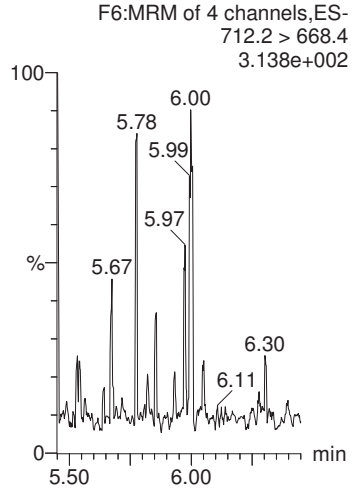

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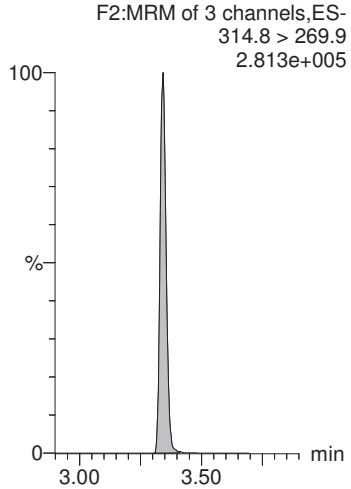

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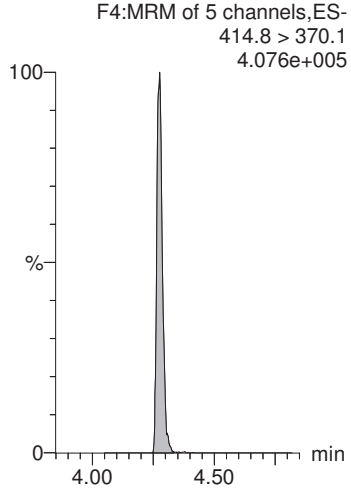

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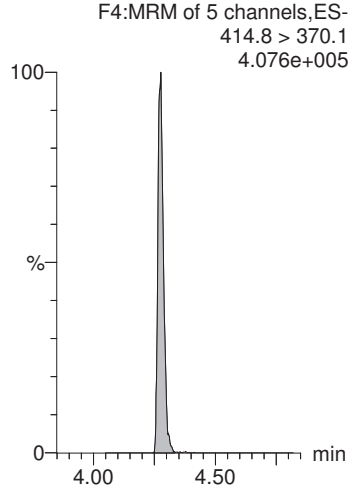

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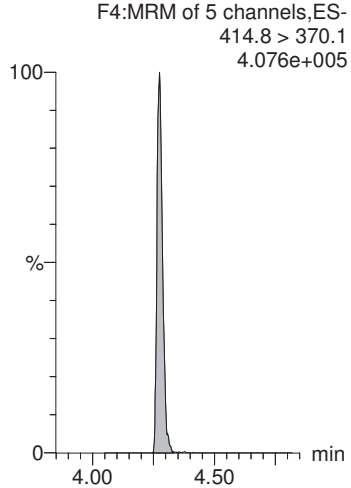

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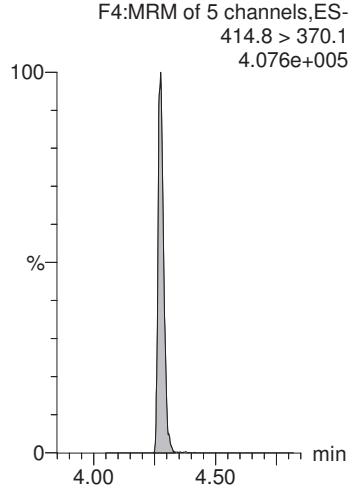

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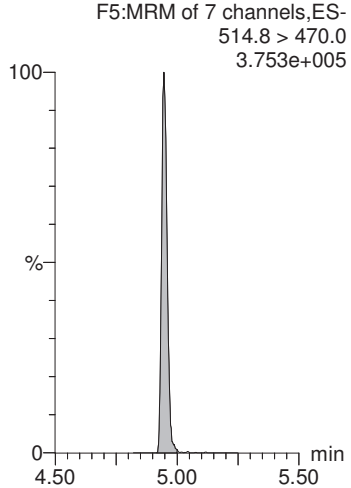


CGH 7/21/2018

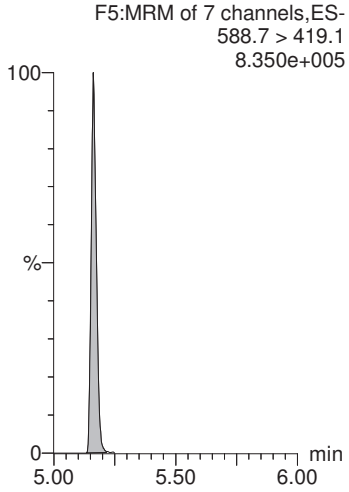
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-20.qld

Last Altered: Saturday, July 21, 2018 16:20:18 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:21:01 Pacific Daylight Time

Name: 180720G2_20, Date: 20-Jul-2018, Time: 20:01:39, ID: 1801762-07 CBD-1RW04-0718 0.24138, Description: CBD-1RW04-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-21.qld

Last Altered: Saturday, July 21, 2018 16:23:14 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:24:11 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_21, Date: 20-Jul-2018, Time: 20:14:25, ID: 1801762-08 CBD-1FB04-0718 0.25347, Description: CBD-1FB04-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.14e4	0.253		2.96				
2	2	PFHxA	312.7 > 268.8	5.42e1	8.93e3	0.253		3.34	3.36	0.0607	0.295	
3	3	PFHpA	362.7 > 318.8	1.23e1	8.93e3	0.253		3.85	3.87	0.0138	0.0619	
4	4	PFHxS	398.7 > 80.7		1.14e4	0.253		3.99				
5	5	PFOA	412.8 > 369.0	1.93e1	8.93e3	0.253		4.28	4.29	0.0217	0.117	
6	6	PFNA	462.9 > 419.1		8.93e3	0.253		4.64				
7	7	PFOS	498.8 >80.7		1.14e4	0.253		4.70				
8	8	PFDA	512.8 > 469.0	3.60e1	8.93e3	0.253		4.92	4.95	0.0403	0.182	
9	9	N-MeFOSAA	569.7 > 419.0		1.36e4	0.253		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.36e4	0.253		5.17				
11	11	PFUnA	562.7 > 518.9		8.93e3	0.253		5.17				
12	12	PFDoA	612.5 > 319.0		8.93e3	0.253		5.41				
13	13	PFTrDA	662.4 > 618.7		8.93e3	0.253		5.62				
14	14	PFTeDA	712.2>668.4		8.93e3	0.253		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.40e3	8.93e3	0.253	0.753	3.43	3.34	7.16	37.5	95.2
16	16	13C2-PFDA	514.8 > 470.0	8.13e3	8.93e3	0.253	1.023	4.88	4.95	9.10	35.1	89.0
17	17	d5-N-EtFOSAA	588.7> 419.1	1.72e4	1.36e4	0.253	1.264	5.05	5.16	50.5	158	99.9
18	18	13C2-PFOA	414.8 > 370.1	8.93e3	8.93e3	0.253	1.000	4.28	4.28	10.0	39.5	100.0
19	19	13C4-PFOS	502.8>80.7	1.14e4	1.14e4	0.253	1.000	4.71	4.71	28.7	113	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.36e4	1.36e4	0.253	1.000	5.04	5.05	40.0	158	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

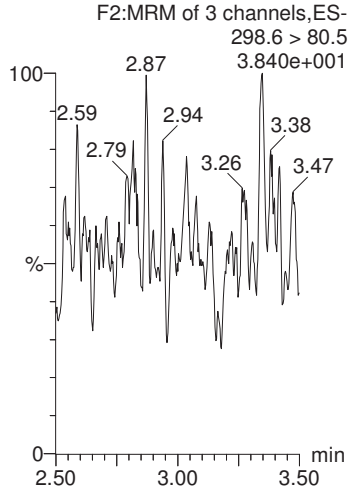
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-21.qld

Last Altered: Saturday, July 21, 2018 16:23:14 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:24:11 Pacific Daylight Time

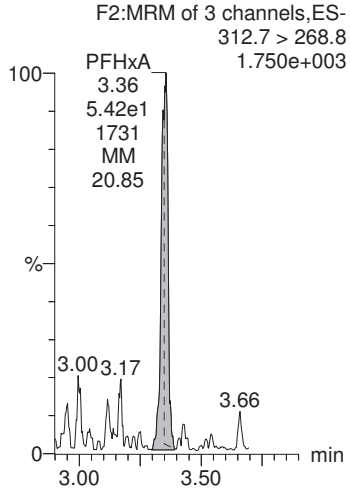
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_21, Date: 20-Jul-2018, Time: 20:14:25, ID: 1801762-08 CBD-1FB04-0718 0.25347, Description: CBD-1FB04-0718

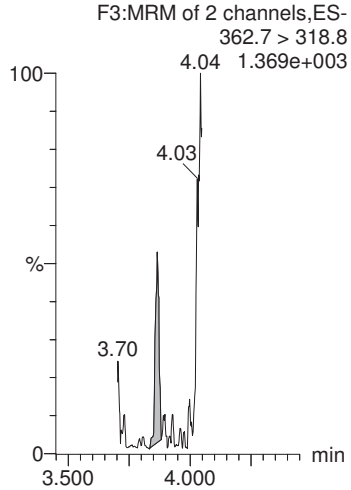
PFBS



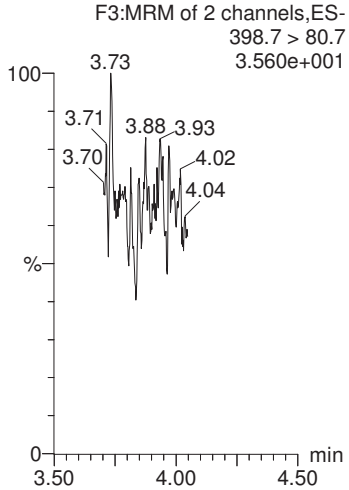
PFHxA



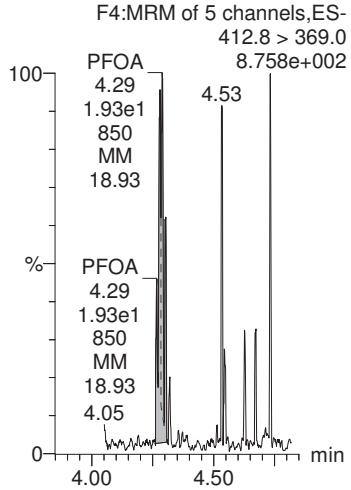
PFHpA



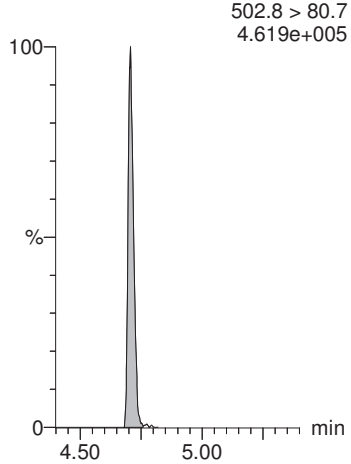
PFHxS



PFOA



13C4-PFOS



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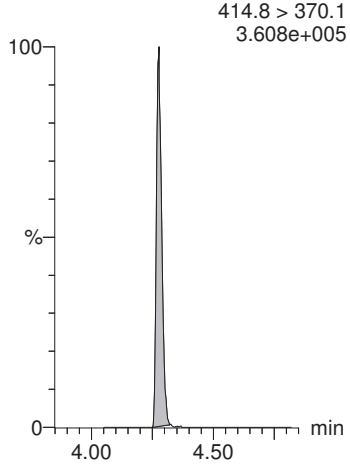

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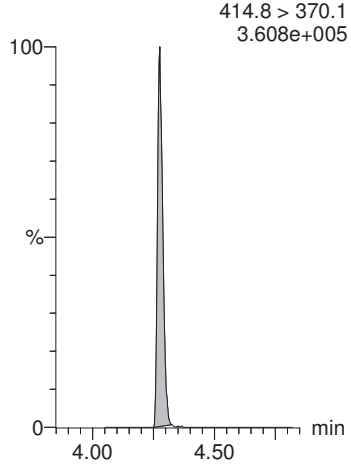

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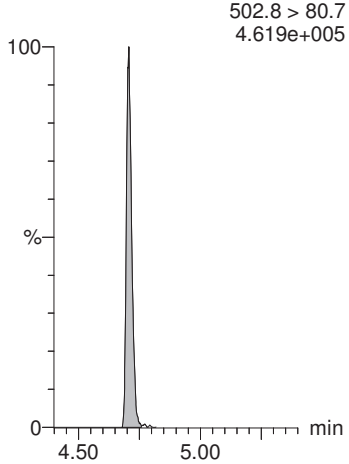

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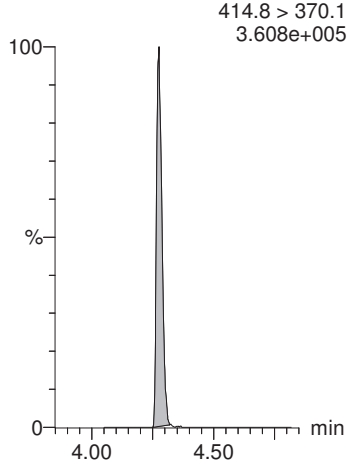


CGH 7/21/2018

Vista Analytical Laboratory

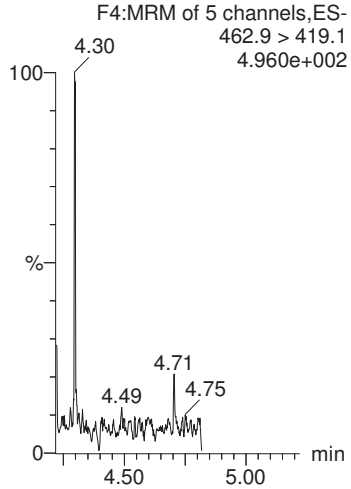
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-21.qld

Last Altered: Saturday, July 21, 2018 16:23:14 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:24:11 Pacific Daylight Time

Name: 180720G2_21, Date: 20-Jul-2018, Time: 20:14:25, ID: 1801762-08 CBD-1FB04-0718 0.25347, Description: CBD-1FB04-0718

PFNA



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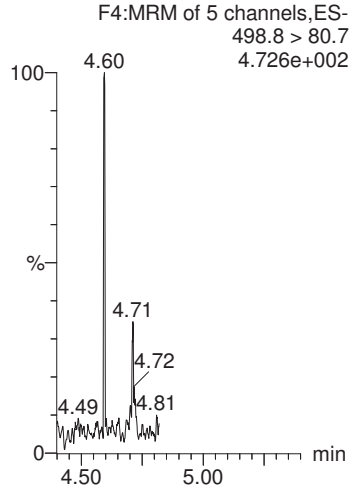

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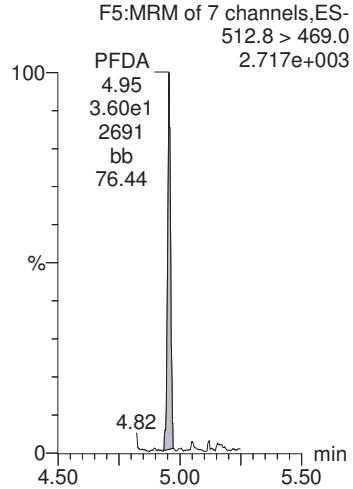

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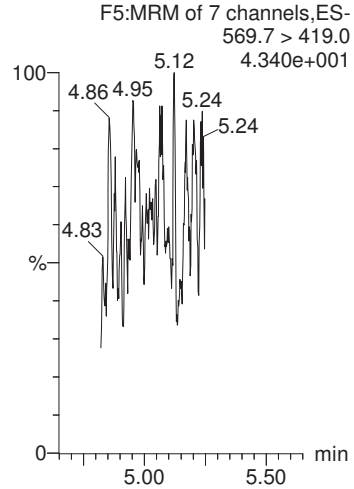

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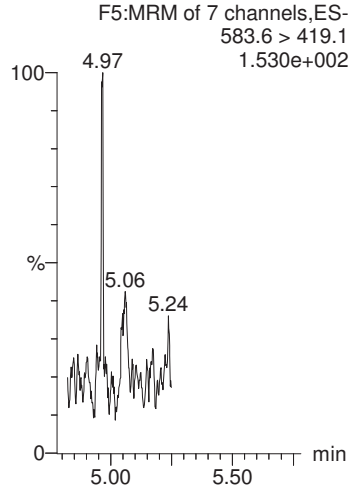
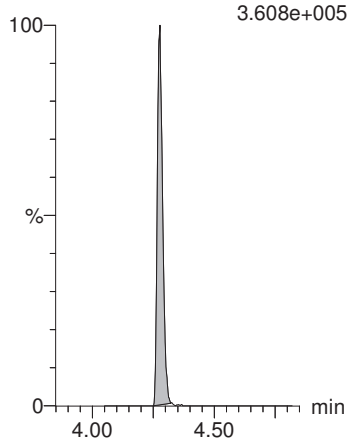


13C2-PFOA



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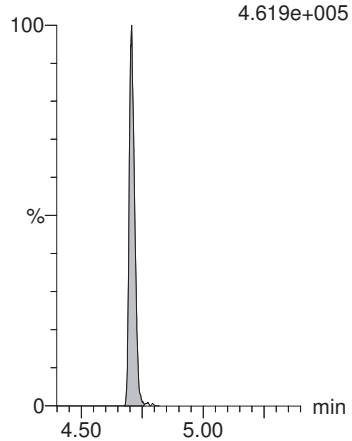

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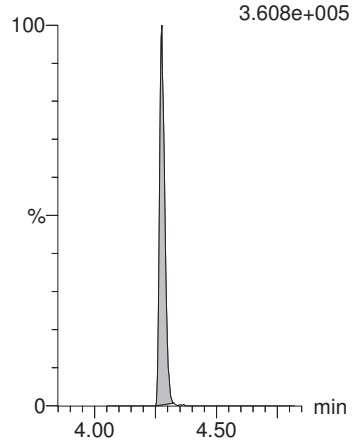
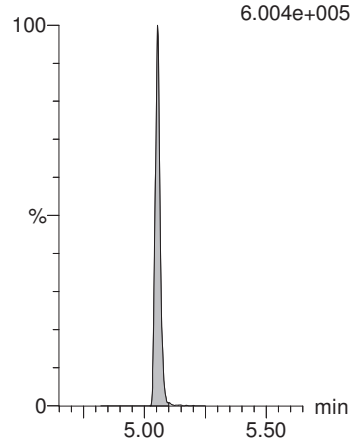


d3-N-MeFOSAA



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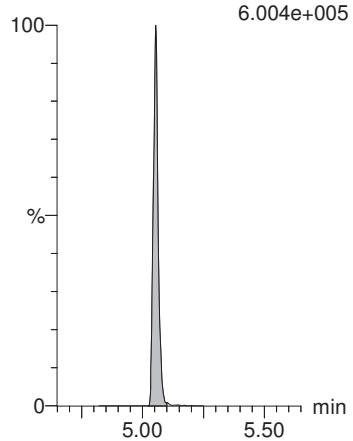

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-21.qld

Last Altered: Saturday, July 21, 2018 16:23:14 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:24:11 Pacific Daylight Time

Name: 180720G2_21, Date: 20-Jul-2018, Time: 20:14:25, ID: 1801762-08 CBD-1FB04-0718 0.25347, Description: CBD-1FB04-0718

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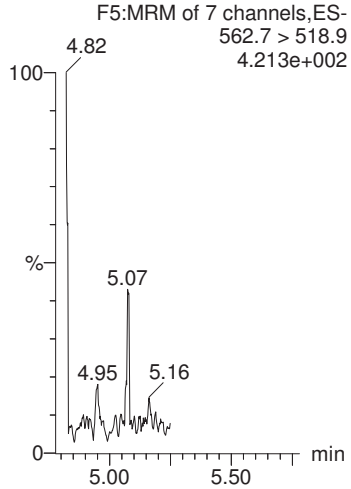

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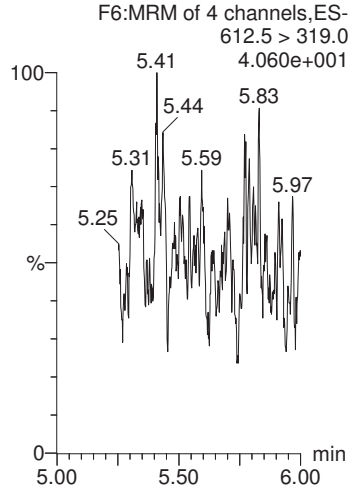

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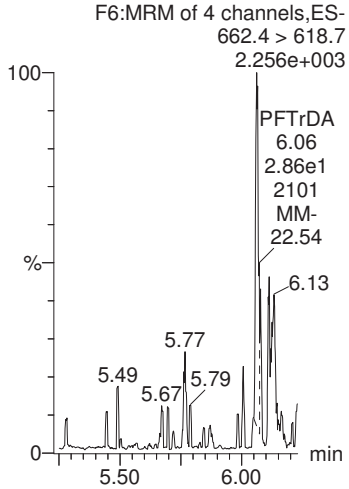

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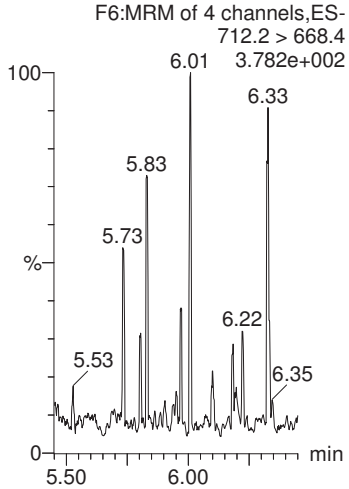

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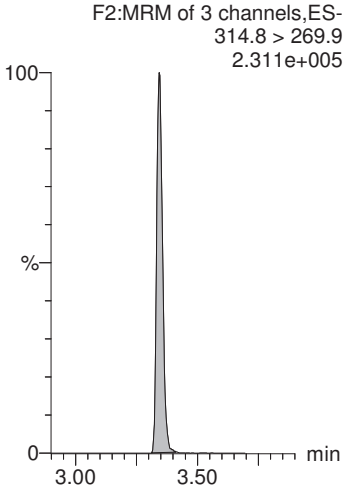

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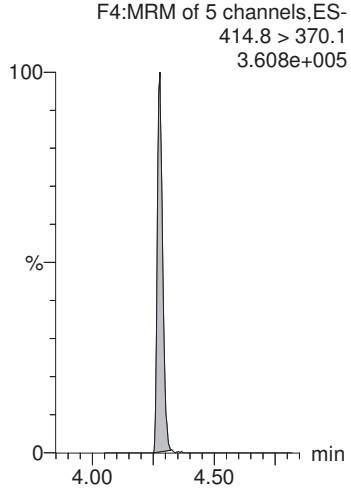

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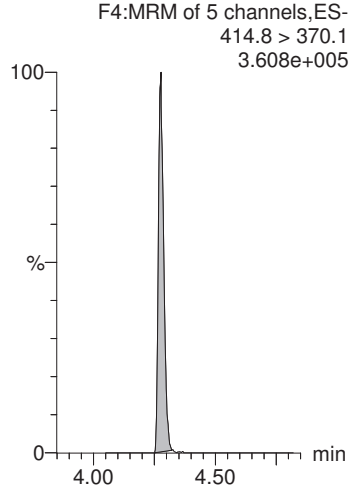

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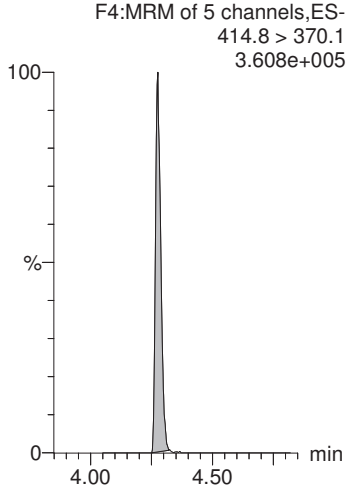

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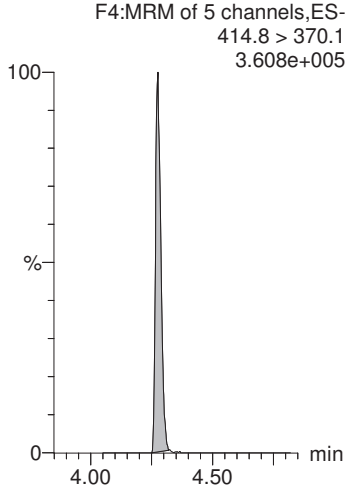

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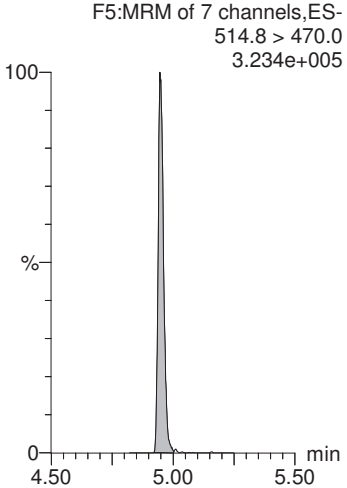


CGH 7/21/2018

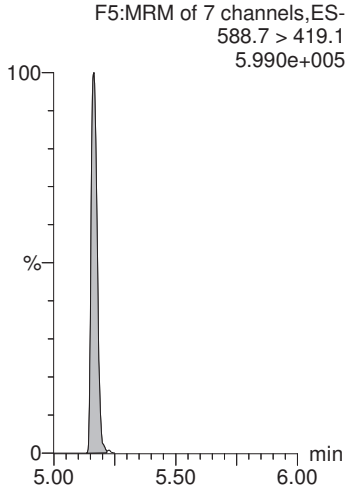
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-21.qld

Last Altered: Saturday, July 21, 2018 16:23:14 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:24:11 Pacific Daylight Time

Name: 180720G2_21, Date: 20-Jul-2018, Time: 20:14:25, ID: 1801762-08 CBD-1FB04-0718 0.25347, Description: CBD-1FB04-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-22.qld

Last Altered: Saturday, July 21, 2018 16:27:40 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:29:07 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_22, Date: 20-Jul-2018, Time: 20:27:14, ID: 1801762-09 CBD-1RW05-0718 0.24577, Description: CBD-1RW05-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.07e4	0.246		2.96				
2	2	PFHxA	312.7 > 268.8	3.85e1	8.56e3	0.246		3.34	3.35	0.0450	0.225	
3	3	PFHpA	362.7 > 318.8		8.56e3	0.246		3.85				
4	4	PFHxS	398.7 > 80.7		1.07e4	0.246		3.98				
5	5	PFOA	412.8 > 369.0	3.28e1	8.56e3	0.246		4.28	4.29	0.0383	0.214	
6	6	PFNA	462.9 > 419.1		8.56e3	0.246		4.64				
7	7	PFOS	498.8 >80.7		1.07e4	0.246		4.70				
8	8	PFDA	512.8 > 469.0	3.16e1	8.56e3	0.246		4.92	4.95	0.0370	0.173	
9	9	N-MeFOSAA	569.7 > 419.0	1.89e0	1.26e4	0.246		5.05	5.04	0.00600	0.0211	
10	10	N-EtFOSAA	583.6 >419.1		1.26e4	0.246		5.17				
11	11	PFUnA	562.7 > 518.9		8.56e3	0.246		5.16				
12	12	PFDoA	612.5 > 319.0		8.56e3	0.246		5.40				
13	13	PFTrDA	662.4 > 618.7		8.56e3	0.246		5.61				
14	14	PFTeDA	712.2>668.4		8.56e3	0.246		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.10e3	8.56e3	0.246	0.753	3.43	3.34	7.12	38.5	94.7
16	16	13C2-PFDA	514.8 > 470.0	7.91e3	8.56e3	0.246	1.023	4.87	4.95	9.24	36.7	90.3
17	17	d5-N-EtFOSAA	588.7> 419.1	1.54e4	1.26e4	0.246	1.264	5.05	5.16	49.1	158	97.0
18	18	13C2-PFOA	414.8 > 370.1	8.56e3	8.56e3	0.246	1.000	4.28	4.27	10.0	40.7	100.0
19	19	13C4-PFOS	502.8>80.7	1.07e4	1.07e4	0.246	1.000	4.71	4.70	28.7	117	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.26e4	1.26e4	0.246	1.000	5.04	5.05	40.0	163	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

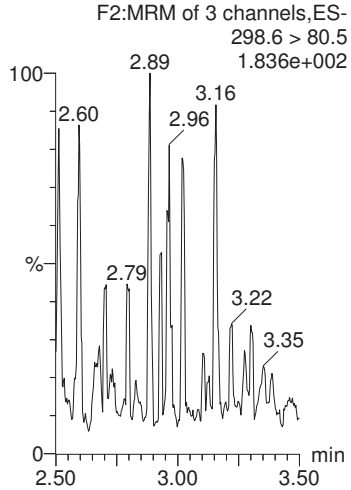
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-22.qld

Last Altered: Saturday, July 21, 2018 16:27:40 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:29:07 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_22, Date: 20-Jul-2018, Time: 20:27:14, ID: 1801762-09 CBD-1RW05-0718 0.24577, Description: CBD-1RW05-0718

PFBS



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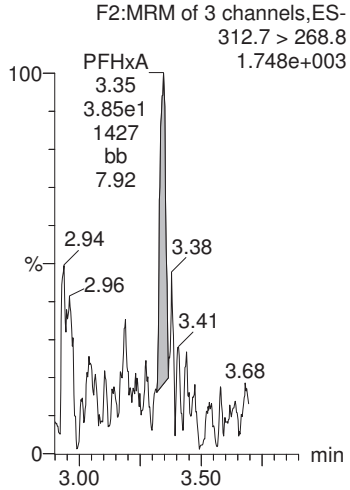

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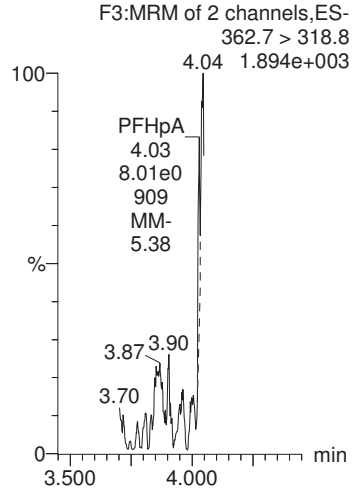

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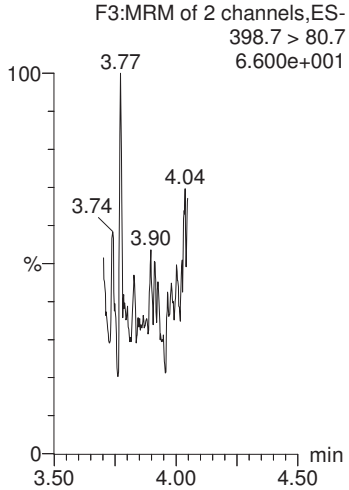
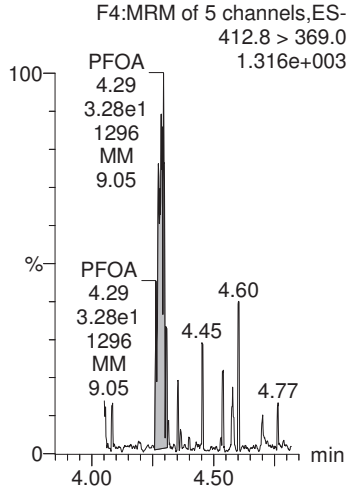


PFOA



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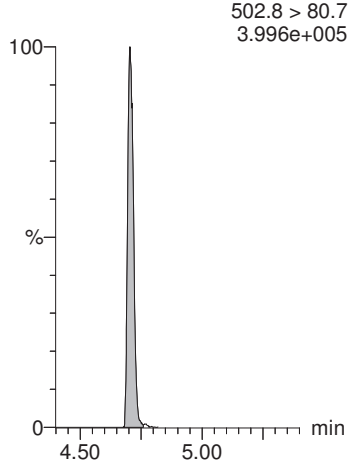

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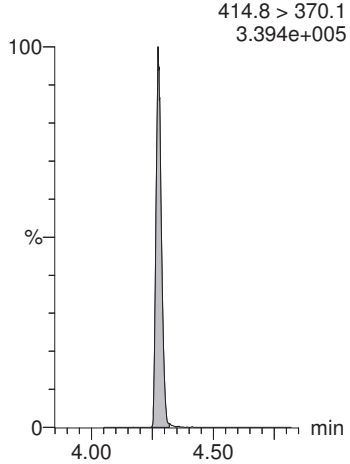

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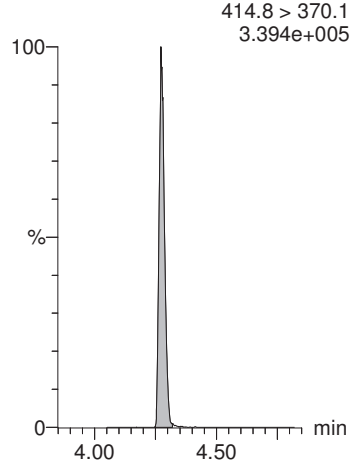

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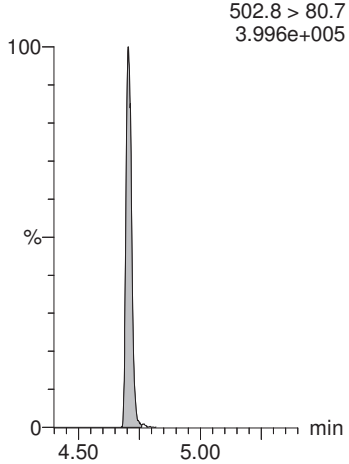

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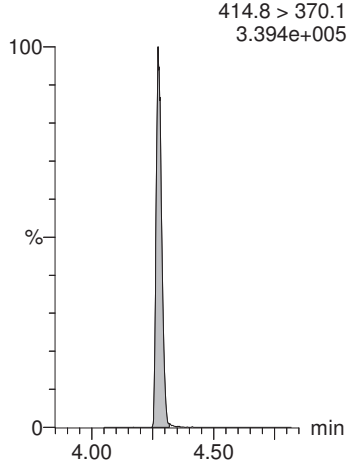


CGH 7/21/2018

Vista Analytical Laboratory

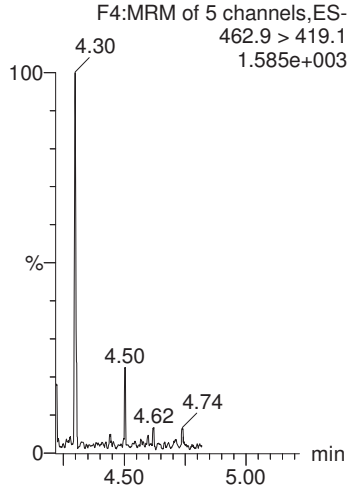
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-22.qld

Last Altered: Saturday, July 21, 2018 16:27:40 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:29:07 Pacific Daylight Time

Name: 180720G2_22, Date: 20-Jul-2018, Time: 20:27:14, ID: 1801762-09 CBD-1RW05-0718 0.24577, Description: CBD-1RW05-0718

PFNA



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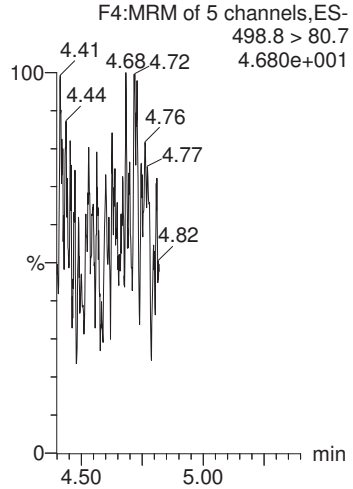

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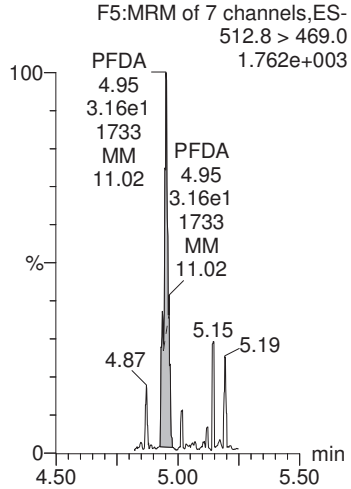

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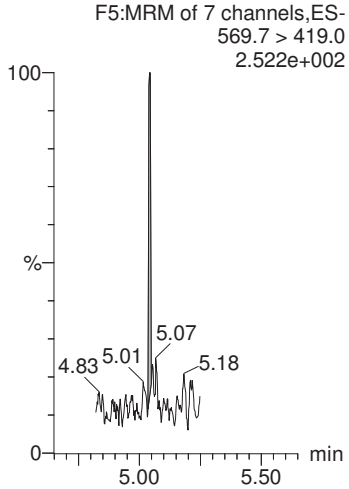

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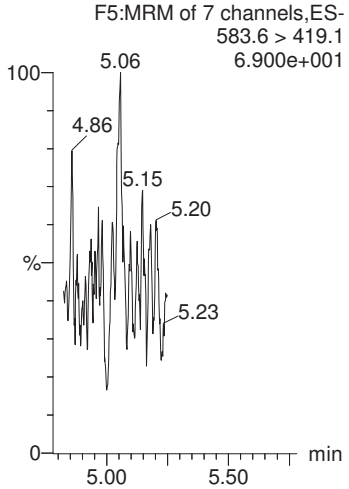

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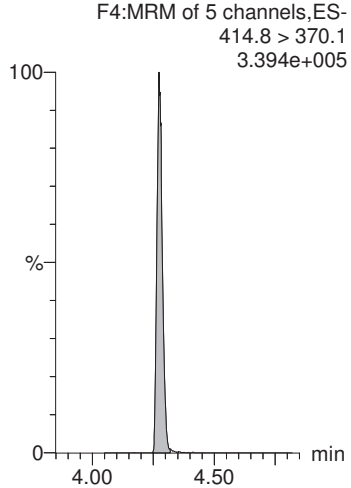

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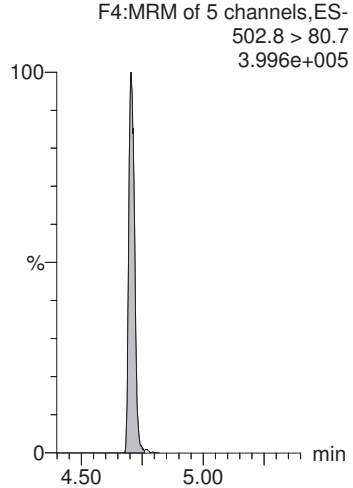

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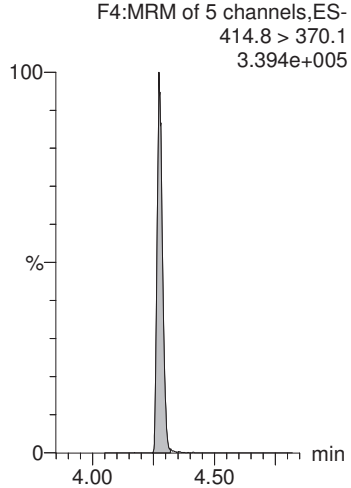

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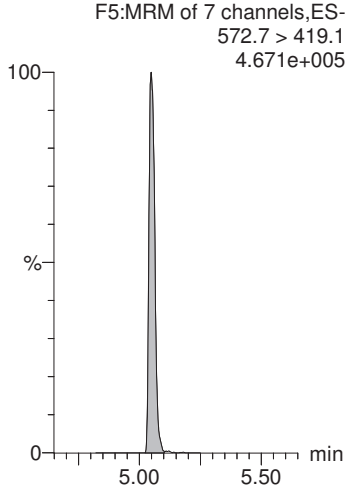

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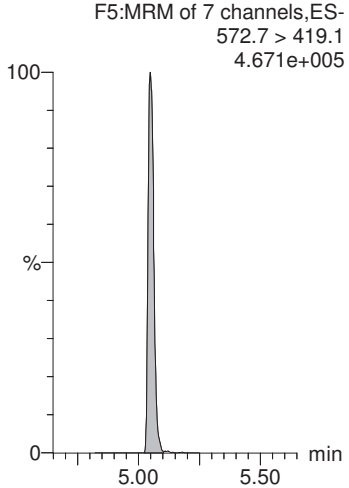


CGH 7/21/2018

Vista Analytical Laboratory

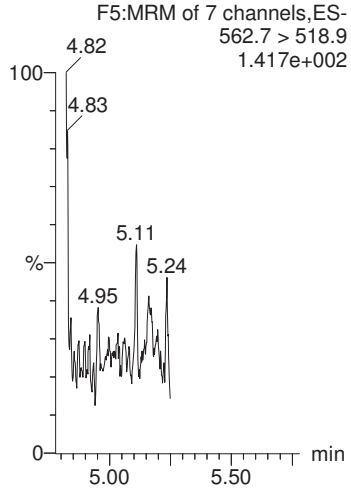
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-22.qld

Last Altered: Saturday, July 21, 2018 16:27:40 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:29:07 Pacific Daylight Time

Name: 180720G2_22, Date: 20-Jul-2018, Time: 20:27:14, ID: 1801762-09 CBD-1RW05-0718 0.24577, Description: CBD-1RW05-0718

PFUnA



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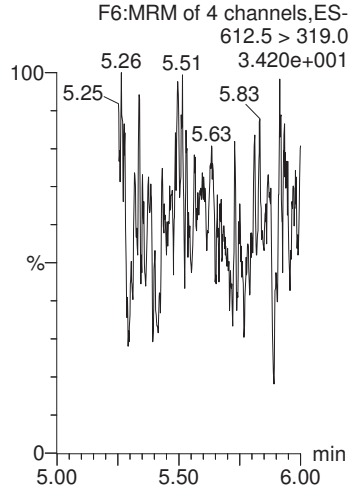
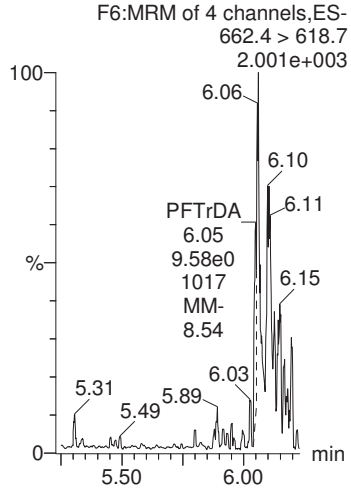


PFTrDA



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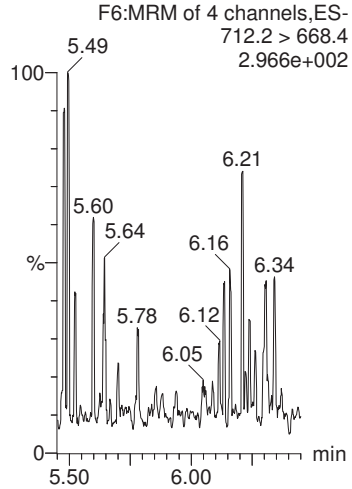

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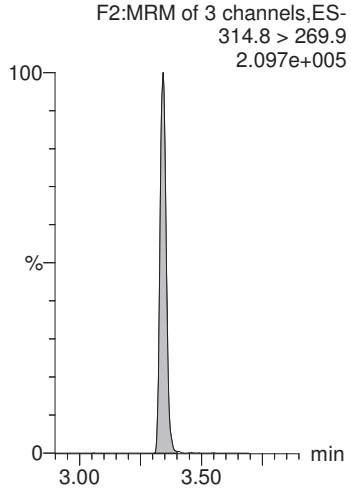

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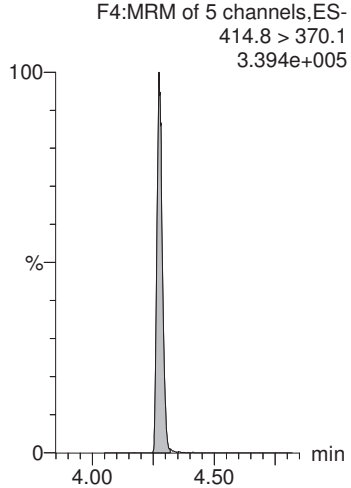

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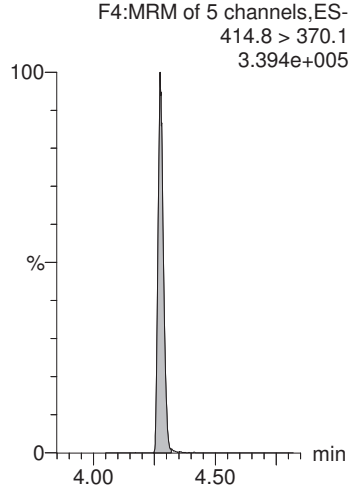

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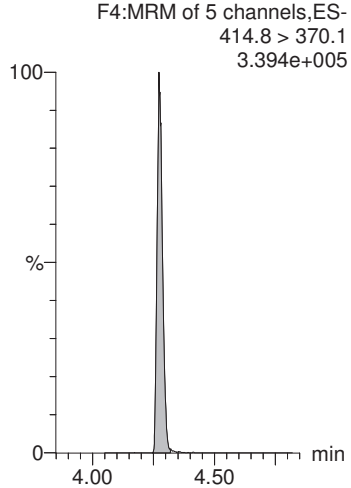
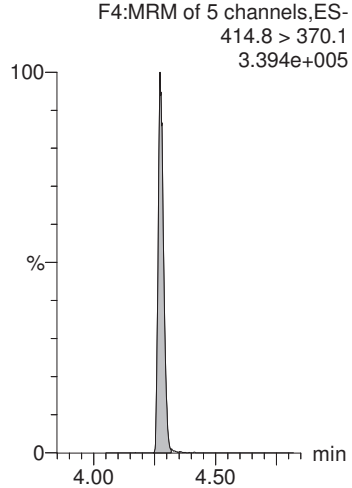
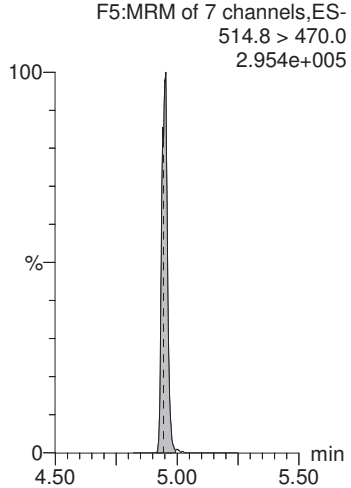


13C2-PFOA



13C2-PFDA



CGH 7/21/2018

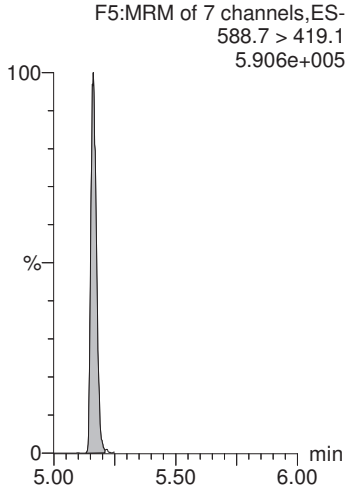
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-22.qld

Last Altered: Saturday, July 21, 2018 16:27:40 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:29:07 Pacific Daylight Time

Name: 180720G2_22, Date: 20-Jul-2018, Time: 20:27:14, ID: 1801762-09 CBD-1RW05-0718 0.24577, Description: CBD-1RW05-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-23.qld

Last Altered: Saturday, July 21, 2018 16:31:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:35:23 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_23, Date: 20-Jul-2018, Time: 20:40:03, ID: 1801762-10 CBD-1FB05-0718 0.25646, Description: CBD-1FB05-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.22e4	0.256		2.96				
2	2	PFHxA	312.7 > 268.8	4.07e1	9.71e3	0.256		3.34	3.34	0.0419	0.201	
3	3	PFHpA	362.7 > 318.8	1.49e1	9.71e3	0.256		3.85	3.86	0.0153	0.0681	
4	4	PFHxS	398.7 > 80.7		1.22e4	0.256		3.99				
5	5	PFOA	412.8 > 369.0	1.48e1	9.71e3	0.256		4.28	4.27	0.0152	0.0813	
6	6	PFNA	462.9 > 419.1		9.71e3	0.256		4.64				
7	7	PFOS	498.8 >80.7	6.63e0	1.22e4	0.256		4.70	4.72	0.0156	0.164	
8	8	PFDA	512.8 > 469.0	4.05e1	9.71e3	0.256		4.92	4.96	0.0417	0.187	
9	9	N-MeFOSAA	569.7 > 419.0		1.51e4	0.256		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.51e4	0.256		5.17				
11	11	PFUnA	562.7 > 518.9	3.18e0	9.71e3	0.256		5.16	5.13	0.00327	0.0133	
12	12	PFDoA	612.5 > 319.0		9.71e3	0.256		5.40				
13	13	PFTrDA	662.4 > 618.7		9.71e3	0.256		5.61				
14	14	PFTeDA	712.2>668.4		9.71e3	0.256		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	7.13e3	9.71e3	0.256	0.753	3.43	3.34	7.35	38.1	97.6
16	16	13C2-PFDA	514.8 > 470.0	9.04e3	9.71e3	0.256	1.023	4.87	4.95	9.31	35.5	91.1
17	17	d5-N-EtFOSAA	588.7> 419.1	1.74e4	1.51e4	0.256	1.264	5.05	5.16	46.3	143	91.6
18	18	13C2-PFOA	414.8 > 370.1	9.71e3	9.71e3	0.256	1.000	4.28	4.27	10.0	39.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.22e4	1.22e4	0.256	1.000	4.71	4.71	28.7	112	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.51e4	1.51e4	0.256	1.000	5.04	5.05	40.0	156	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

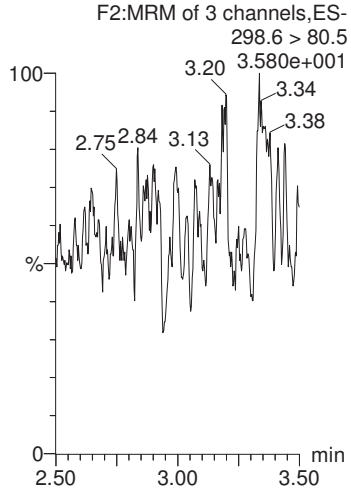
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-23.qld

Last Altered: Saturday, July 21, 2018 16:31:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:35:23 Pacific Daylight Time

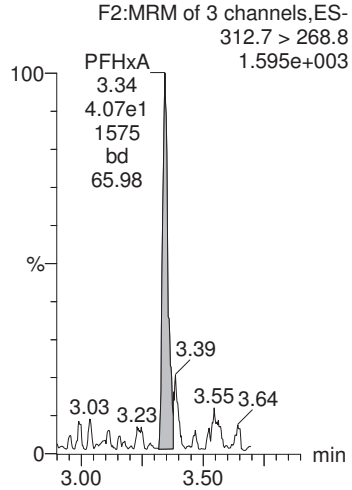
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_23, Date: 20-Jul-2018, Time: 20:40:03, ID: 1801762-10 CBD-1FB05-0718 0.25646, Description: CBD-1FB05-0718

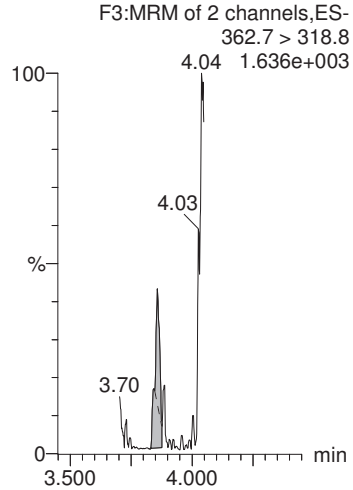
PFBS



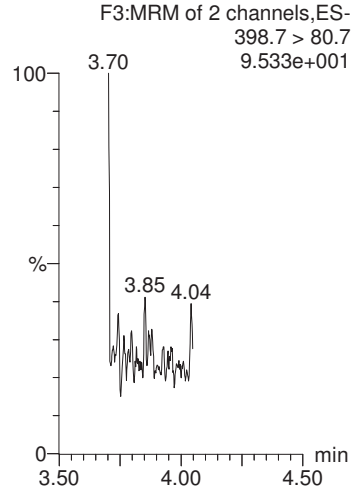
PFHxA



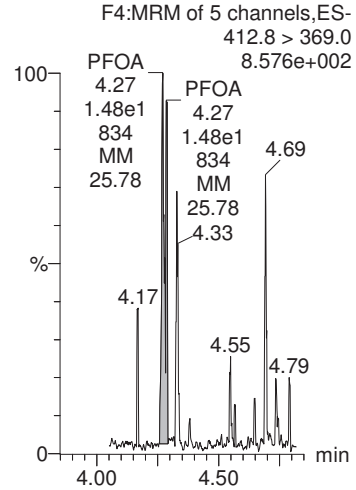
PFHpA



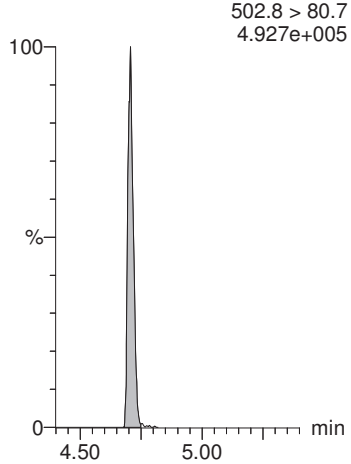
PFHxS



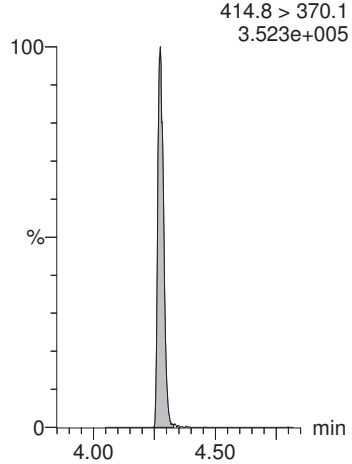
PFOA



13C4-PFOS



13C2-PFOA



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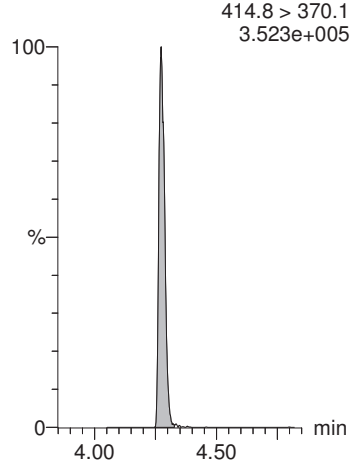
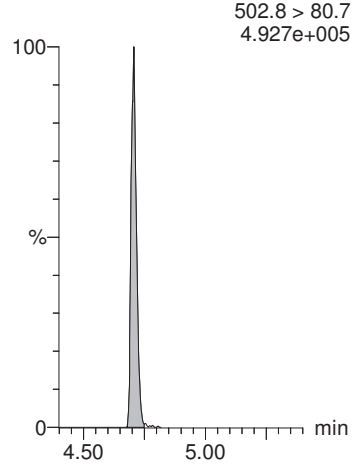
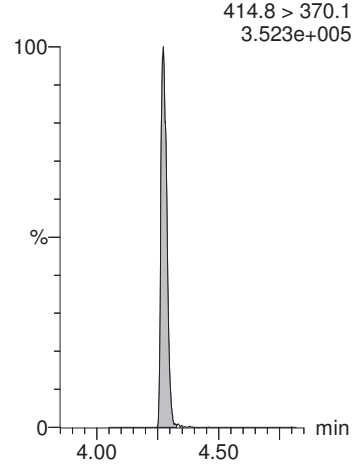


13C4-PFOS



13C2-PFOA



CGH 7/21/2018

Vista Analytical Laboratory

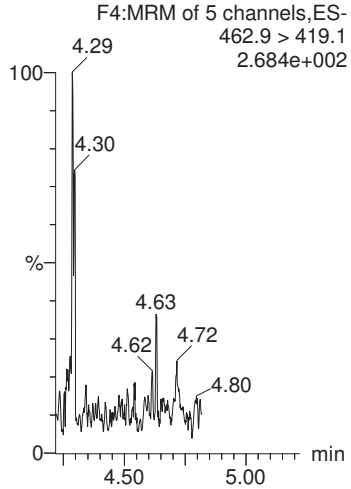
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-23.qld

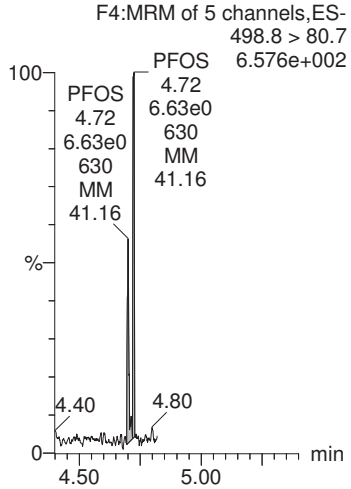
Last Altered: Saturday, July 21, 2018 16:31:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:35:23 Pacific Daylight Time

Name: 180720G2_23, Date: 20-Jul-2018, Time: 20:40:03, ID: 1801762-10 CBD-1FB05-0718 0.25646, Description: CBD-1FB05-0718

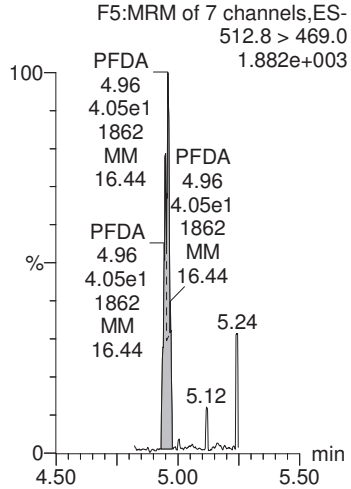
PFNA



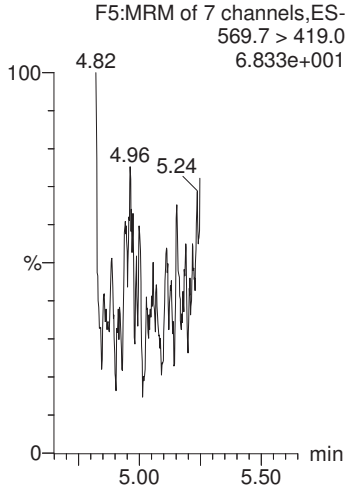
PFOS



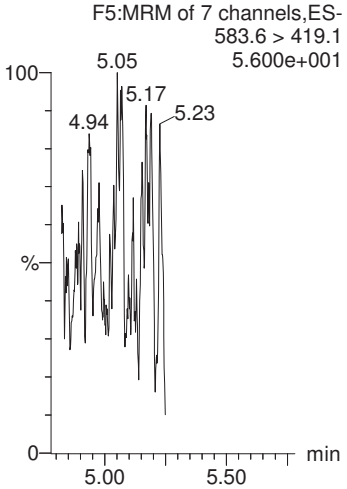
PFDA



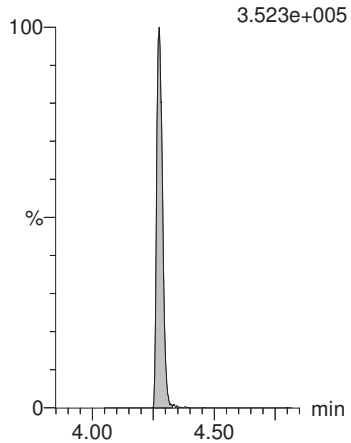
N-MeFOSAA



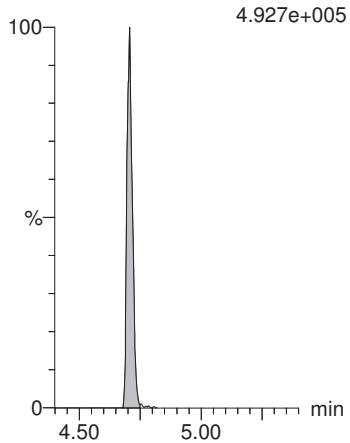
N-EtFOSAA



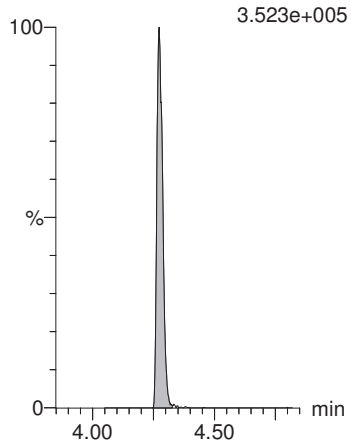
13C2-PFOA



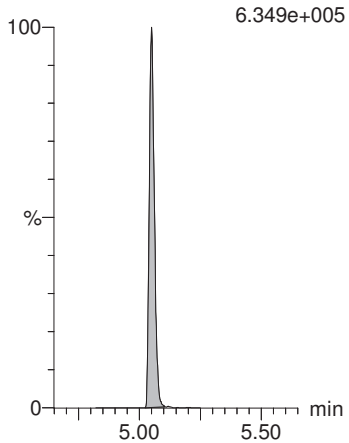
13C4-PFOS



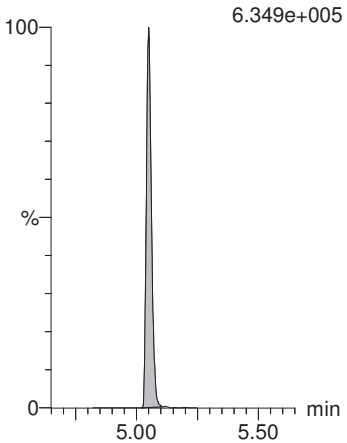
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

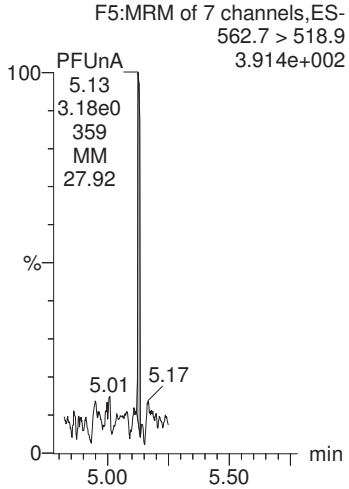
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-23.qld

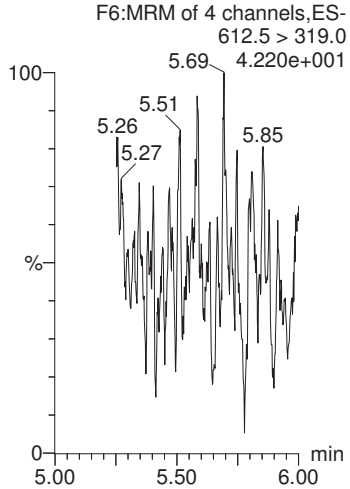
Last Altered: Saturday, July 21, 2018 16:31:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:35:23 Pacific Daylight Time

Name: 180720G2_23, Date: 20-Jul-2018, Time: 20:40:03, ID: 1801762-10 CBD-1FB05-0718 0.25646, Description: CBD-1FB05-0718

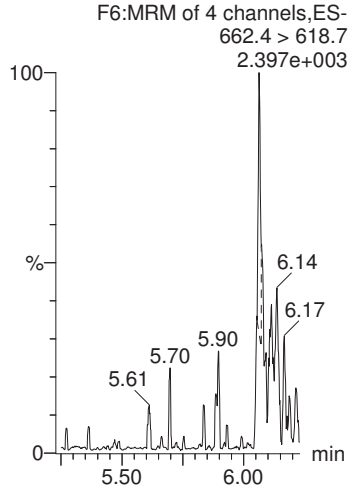
PFUnA



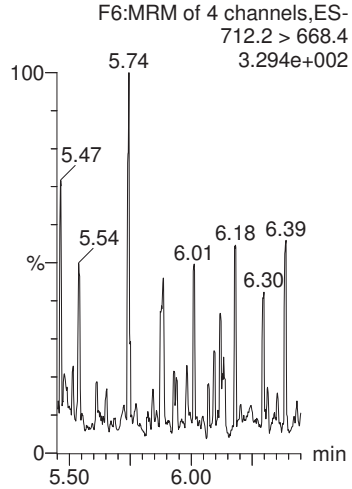
PFDoA



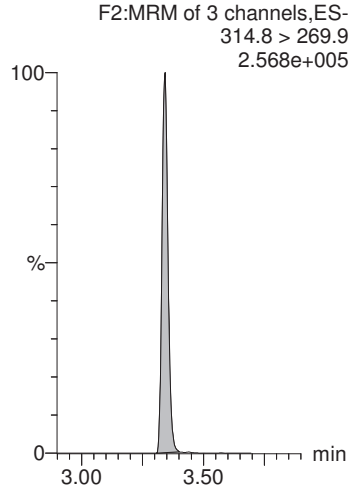
PFTrDA



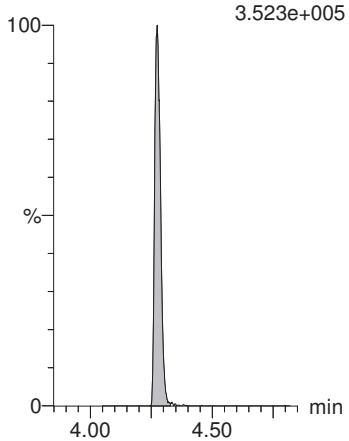
PFTeDA



13C2-PFHxA



13C2-PFOA



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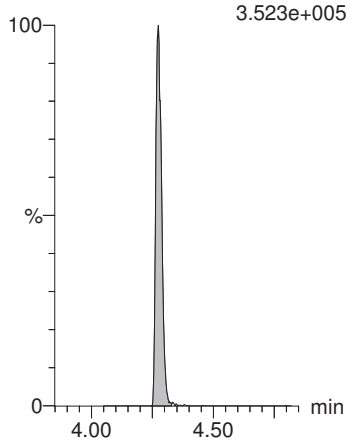

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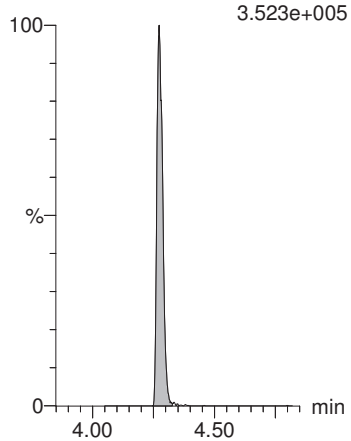

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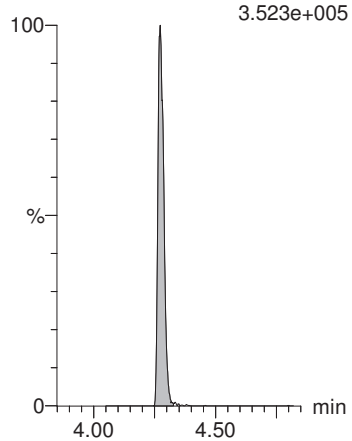
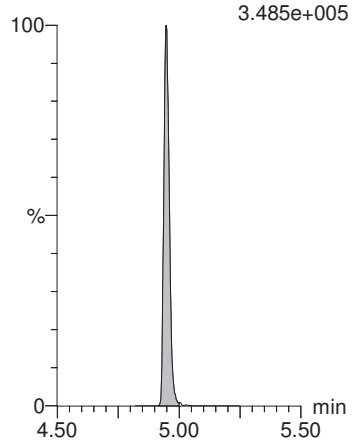


13C2-PFDA



CGH 7/21/2018

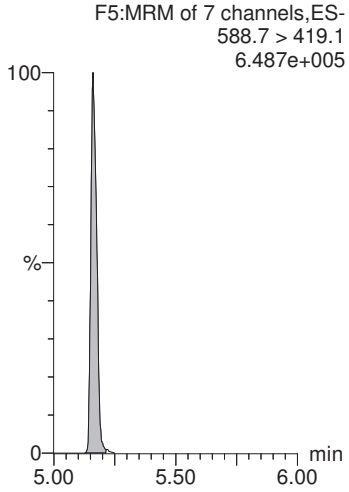
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-23.qld

Last Altered: Saturday, July 21, 2018 16:31:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:35:23 Pacific Daylight Time

Name: 180720G2_23, Date: 20-Jul-2018, Time: 20:40:03, ID: 1801762-10 CBD-1FB05-0718 0.25646, Description: CBD-1FB05-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-24.qld

Last Altered: Saturday, July 21, 2018 16:33:31 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:34:13 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_24, Date: 20-Jul-2018, Time: 20:52:53, ID: 1801762-11 CBD-1RW06-0718 0.24786, Description: CBD-1RW06-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.30e4	0.248		2.97				
2	2	PFHxA	312.7 > 268.8		1.08e4	0.248		3.33				
3	3	PFHpA	362.7 > 318.8	2.49e1	1.08e4	0.248		3.85	3.86	0.0231	0.107	
4	4	PFHxS	398.7 > 80.7		1.30e4	0.248		3.99				
5	5	PFOA	412.8 > 369.0	4.05e1	1.08e4	0.248		4.27	4.28	0.0375	0.208	
6	6	PFNA	462.9 > 419.1		1.08e4	0.248		4.63				
7	7	PFOS	498.8 >80.7	4.67e-1	1.30e4	0.248		4.70	4.70	0.00103	0.0113	
8	8	PFDA	512.8 > 469.0	9.61e0	1.08e4	0.248		4.92	4.94	0.00892	0.0413	
9	9	N-MeFOSAA	569.7 > 419.0		1.76e4	0.248		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.76e4	0.248		5.17				
11	11	PFUnA	562.7 > 518.9		1.08e4	0.248		5.16				
12	12	PFDoA	612.5 > 319.0		1.08e4	0.248		5.40				
13	13	PFTrDA	662.4 > 618.7		1.08e4	0.248		5.61				
14	14	PFTeDA	712.2>668.4		1.08e4	0.248		5.79				
15	15	13C2-PFHxA	314.8 > 269.9	7.77e3	1.08e4	0.248	0.753	3.43	3.34	7.21	38.6	95.7
16	16	13C2-PFDA	514.8 > 470.0	9.14e3	1.08e4	0.248	1.023	4.87	4.95	8.49	33.5	83.0
17	17	d5-N-EtFOSAA	588.7> 419.1	1.80e4	1.76e4	0.248	1.264	5.05	5.16	41.1	131	81.2
18	18	13C2-PFOA	414.8 > 370.1	1.08e4	1.08e4	0.248	1.000	4.28	4.27	10.0	40.3	100.0
19	19	13C4-PFOS	502.8>80.7	1.30e4	1.30e4	0.248	1.000	4.71	4.71	28.7	116	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.76e4	1.76e4	0.248	1.000	5.04	5.05	40.0	161	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

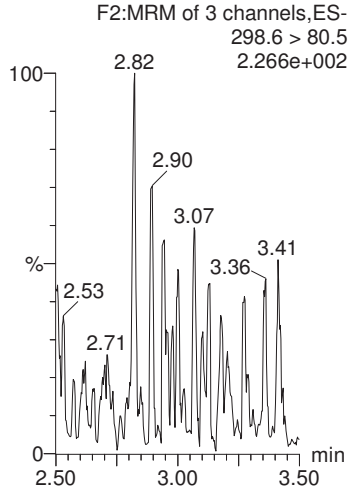
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-24.qld

Last Altered: Saturday, July 21, 2018 16:33:31 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:34:13 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_24, Date: 20-Jul-2018, Time: 20:52:53, ID: 1801762-11 CBD-1RW06-0718 0.24786, Description: CBD-1RW06-0718

PFBS



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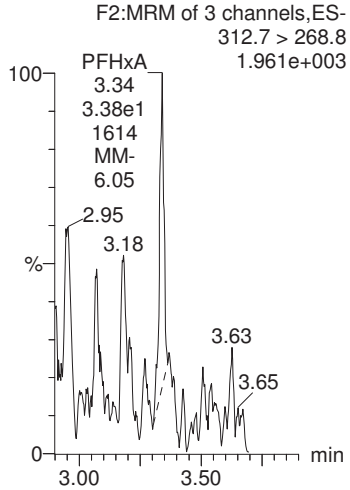

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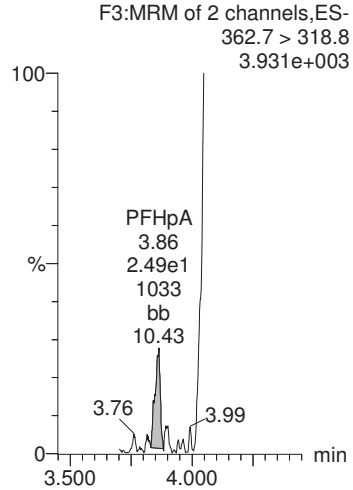

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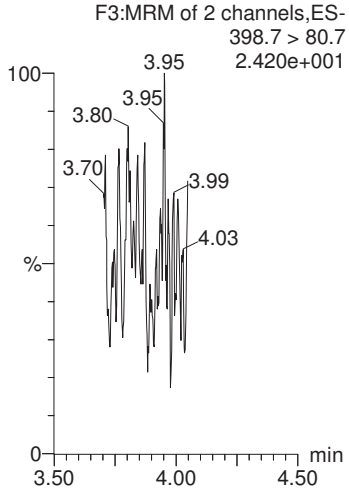

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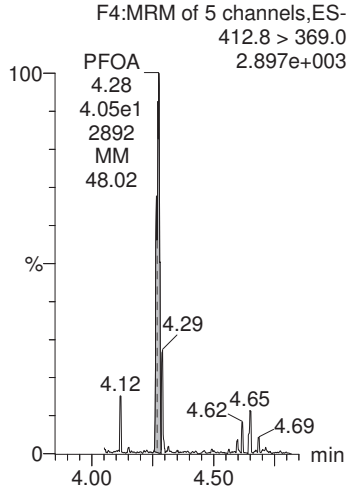

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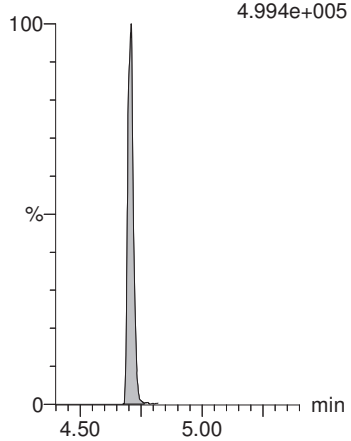

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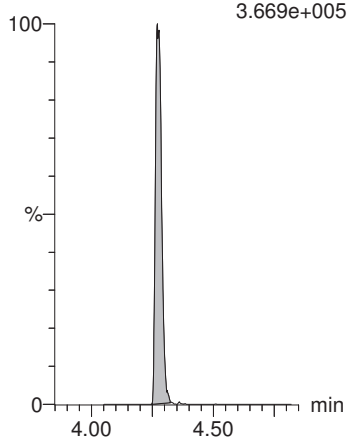

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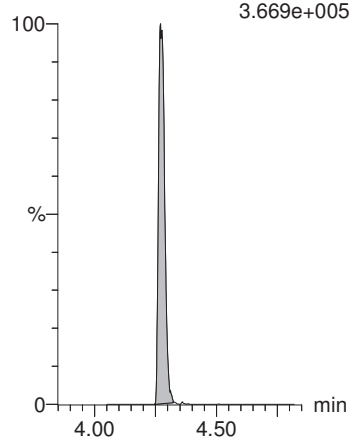

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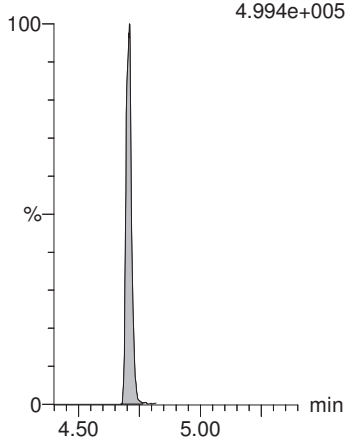

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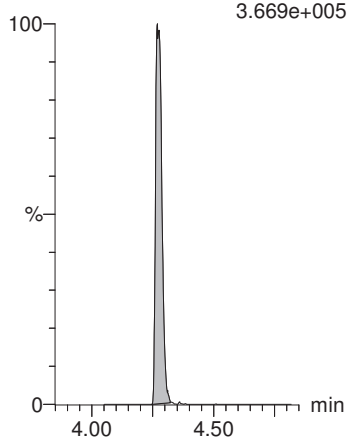

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-24.qld

Last Altered: Saturday, July 21, 2018 16:33:31 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:34:13 Pacific Daylight Time

Name: 180720G2_24, Date: 20-Jul-2018, Time: 20:52:53, ID: 1801762-11 CBD-1RW06-0718 0.24786, Description: CBD-1RW06-0718

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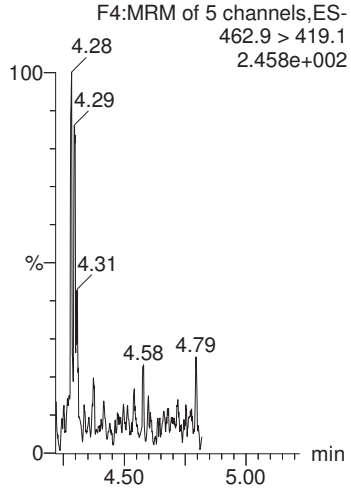

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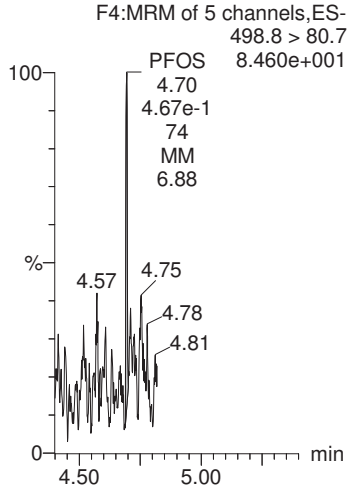

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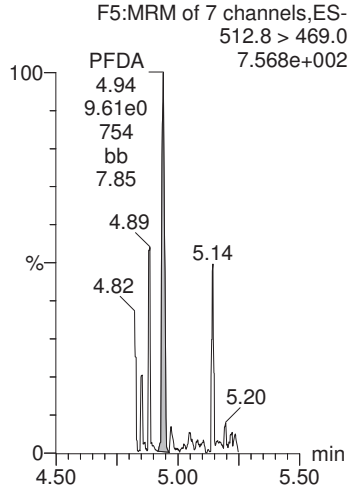

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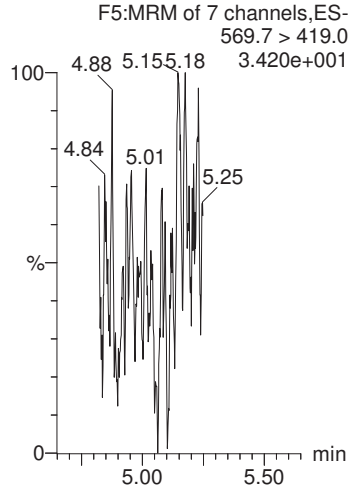

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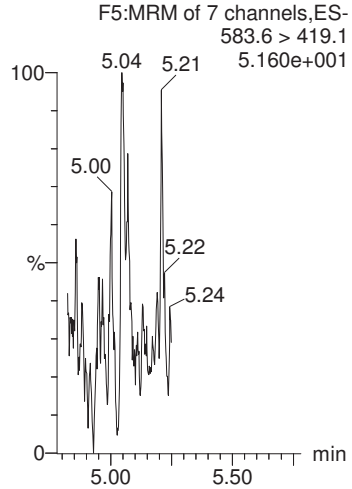

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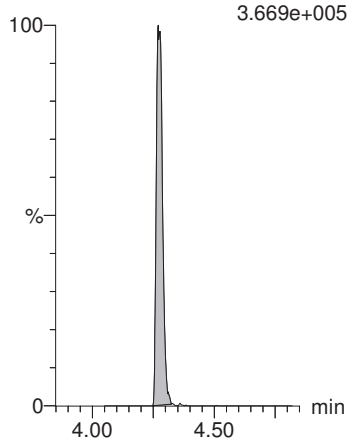

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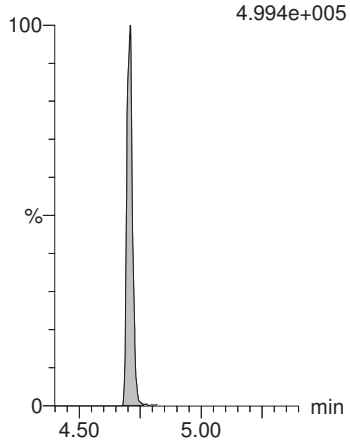

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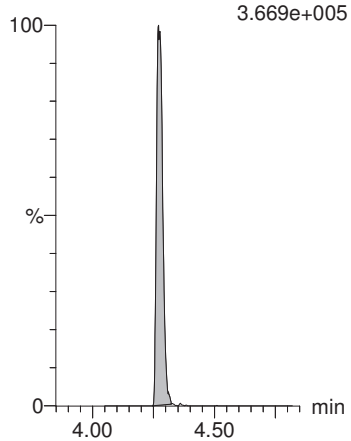

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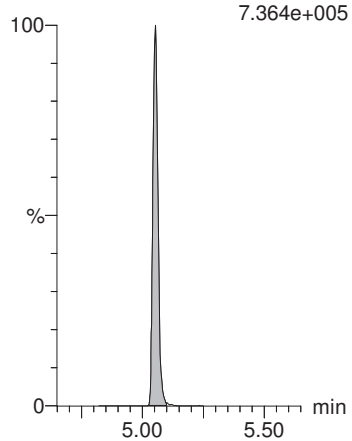

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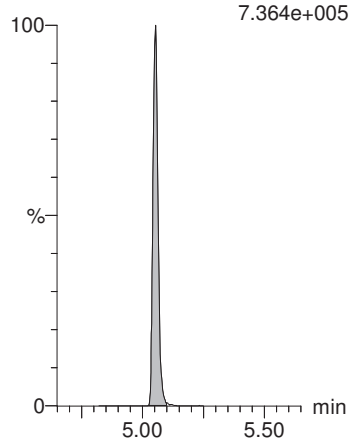

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-24.qld

Last Altered: Saturday, July 21, 2018 16:33:31 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:34:13 Pacific Daylight Time

Name: 180720G2_24, Date: 20-Jul-2018, Time: 20:52:53, ID: 1801762-11 CBD-1RW06-0718 0.24786, Description: CBD-1RW06-0718

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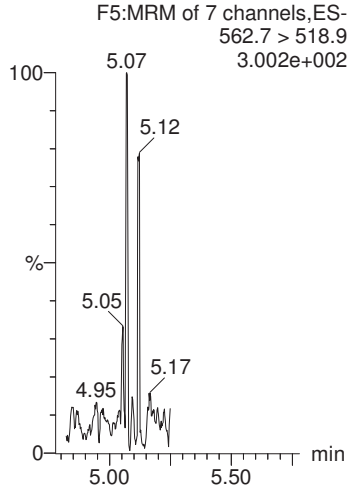

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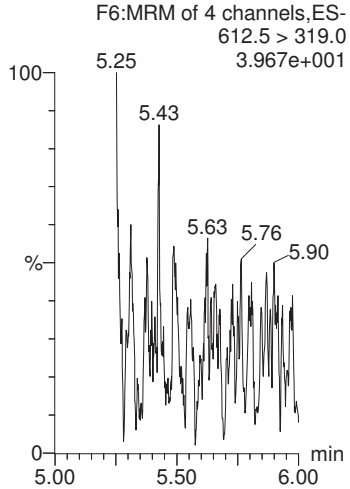

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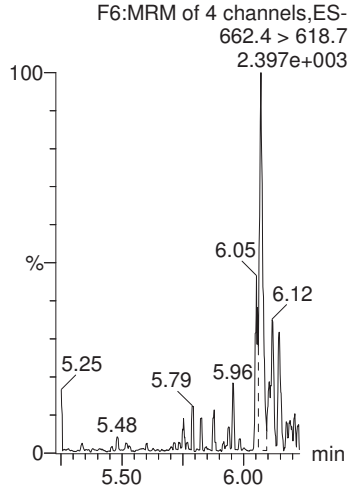

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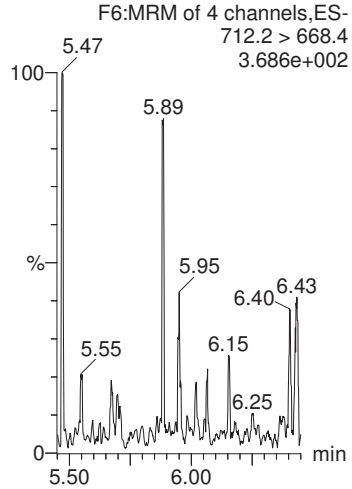

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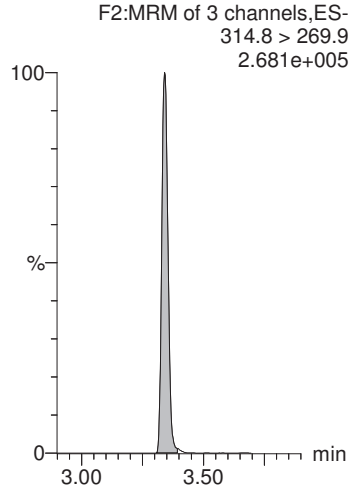

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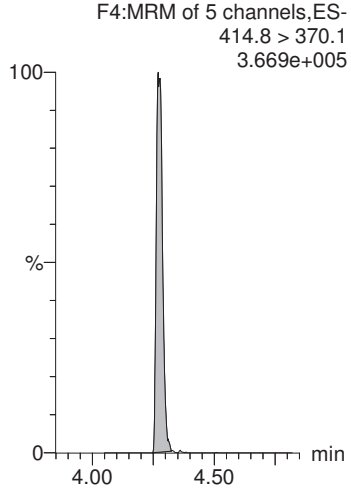

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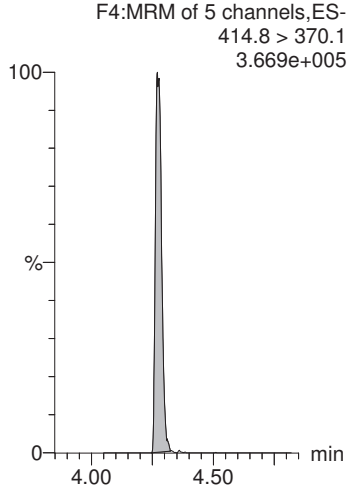

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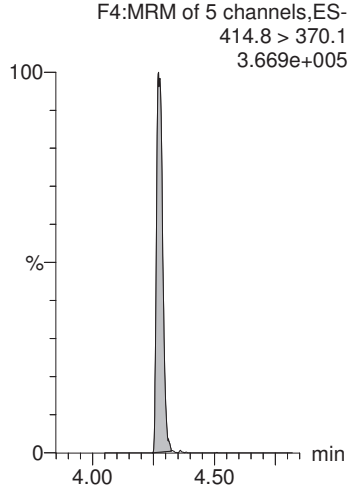

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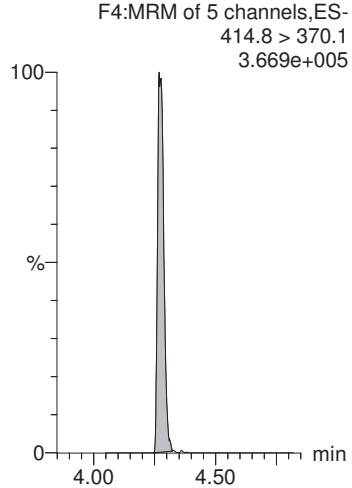

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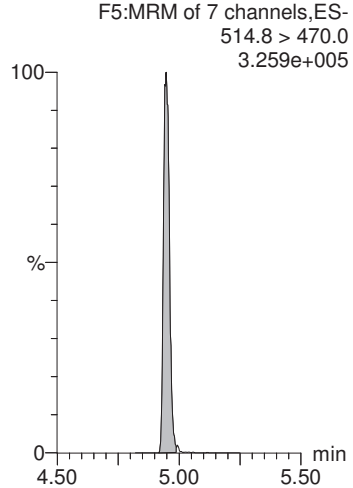

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-24.qld

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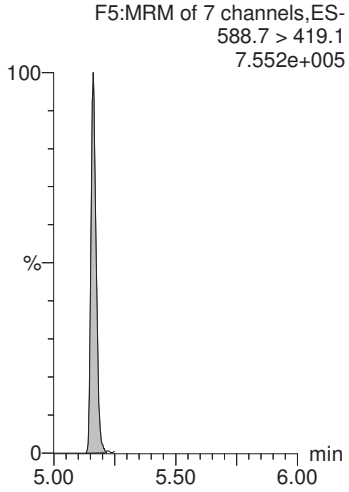
Printed: Saturday, July 21, 2018 16:34:13 Pacific Daylight Time

Name: 180720G2_24, Date: 20-Jul-2018, Time: 20:52:53, ID: 1801762-11 CBD-1RW06-0718 0.24786, Description: CBD-1RW06-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-25.qld

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Printed: Saturday, July 21, 2018 16:40:24 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_25, Date: 20-Jul-2018, Time: 21:05:41, ID: 1801762-12 CBD-1FB06-0718 0.23737, Description: CBD-1FB06-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.12e4	0.237		2.96				
2	2	PFHxA	312.7 > 268.8	3.75e1	9.85e3	0.237		3.34	3.35	0.0381	0.197	
3	3	PFHpA	362.7 > 318.8	1.30e1	9.85e3	0.237		3.85	3.85	0.0131	0.0632	
4	4	PFHxS	398.7 > 80.7		1.12e4	0.237		3.99				
5	5	PFOA	412.8 > 369.0	2.93e1	9.85e3	0.237		4.28	4.28	0.0298	0.172	
6	6	PFNA	462.9 > 419.1	2.74e0	9.85e3	0.237		4.64	4.64	0.00278	0.0134	
7	7	PFOS	498.8 >80.7		1.12e4	0.237		4.70				
8	8	PFDA	512.8 > 469.0	5.06e1	9.85e3	0.237		4.92	4.96	0.0513	0.248	
9	9	N-MeFOSAA	569.7 > 419.0		1.39e4	0.237		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.39e4	0.237		5.17				
11	11	PFUnA	562.7 > 518.9		9.85e3	0.237		5.16				
12	12	PFDoA	612.5 > 319.0		9.85e3	0.237		5.40				
13	13	PFTrDA	662.4 > 618.7		9.85e3	0.237		5.61				
14	14	PFTeDA	712.2>668.4		9.85e3	0.237		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.78e3	9.85e3	0.237	0.753	3.43	3.34	6.88	38.5	91.4
16	16	13C2-PFDA	514.8 > 470.0	8.37e3	9.85e3	0.237	1.023	4.87	4.95	8.49	35.0	83.1
17	17	d5-N-EtFOSAA	588.7> 419.1	1.78e4	1.39e4	0.237	1.264	5.05	5.16	51.3	171	101.5
18	18	13C2-PFOA	414.8 > 370.1	9.85e3	9.85e3	0.237	1.000	4.28	4.27	10.0	42.1	100.0
19	19	13C4-PFOS	502.8>80.7	1.12e4	1.12e4	0.237	1.000	4.71	4.71	28.7	121	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.39e4	1.39e4	0.237	1.000	5.04	5.05	40.0	169	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-25.qld

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Name: 180720G2_25, Date: 20-Jul-2018, Time: 21:05:41, ID: 1801762-12 CBD-1FB06-0718 0.23737, Description: CBD-1FB06-0718

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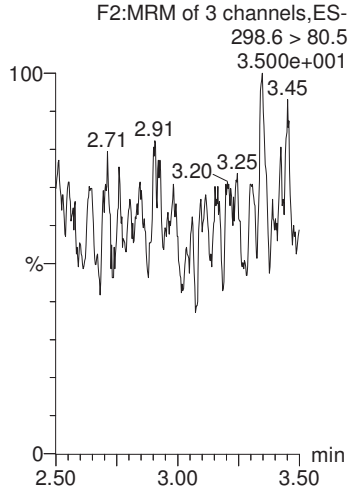

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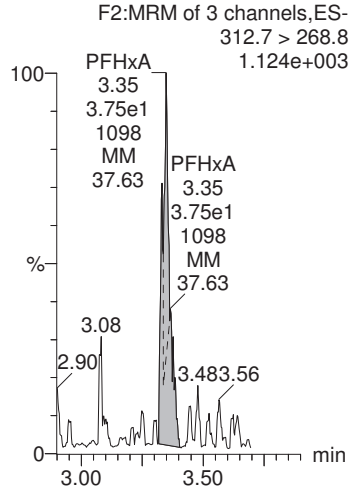

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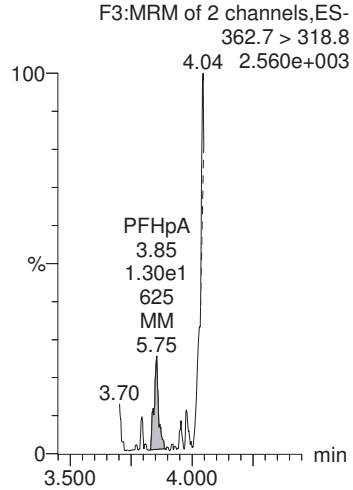

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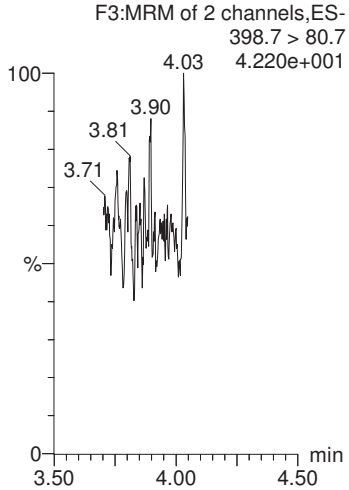

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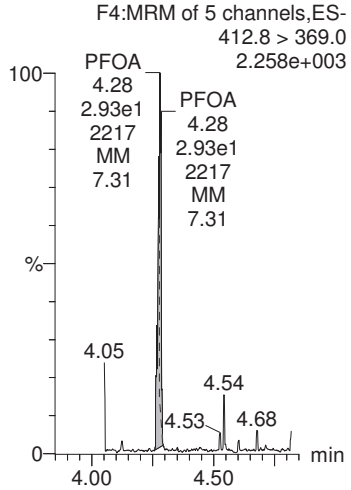

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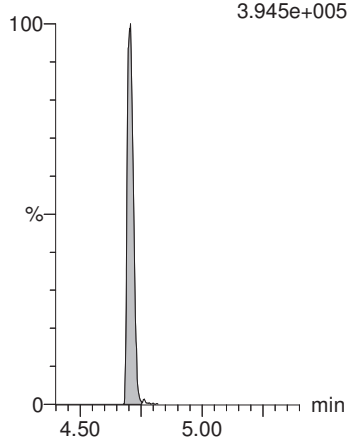

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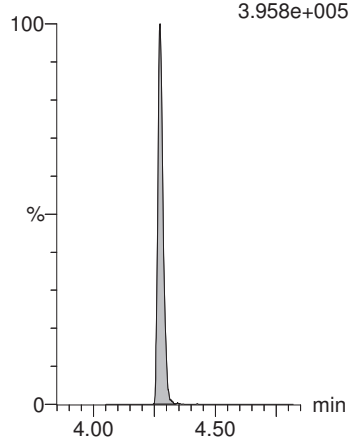

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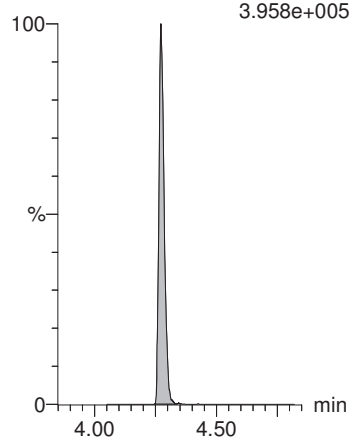

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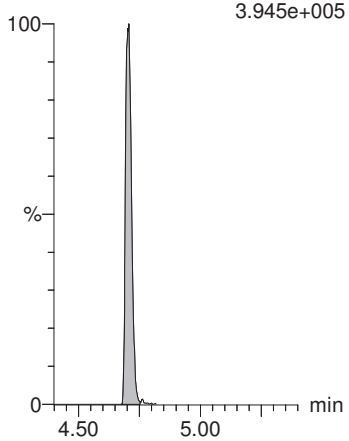

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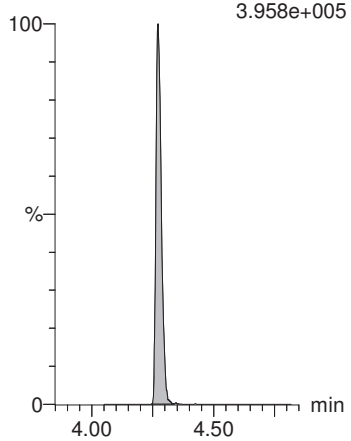

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-25.qld

Last Altered: Saturday, July 21, 2018 16:39:37 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:40:24 Pacific Daylight Time

Name: 180720G2_25, Date: 20-Jul-2018, Time: 21:05:41, ID: 1801762-12 CBD-1FB06-0718 0.23737, Description: CBD-1FB06-0718

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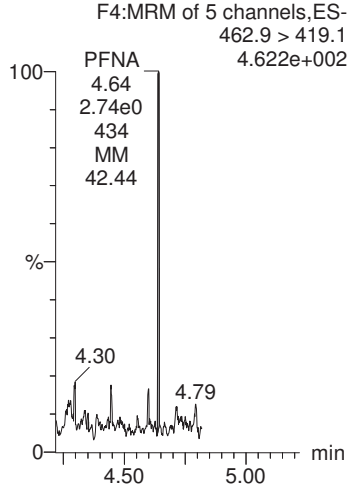

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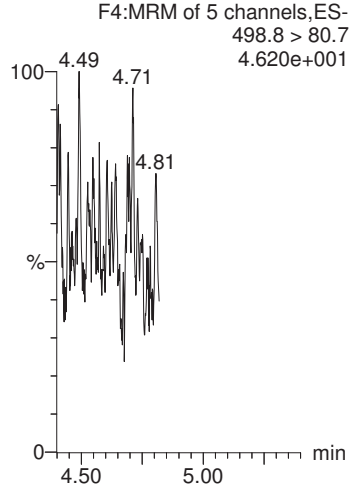
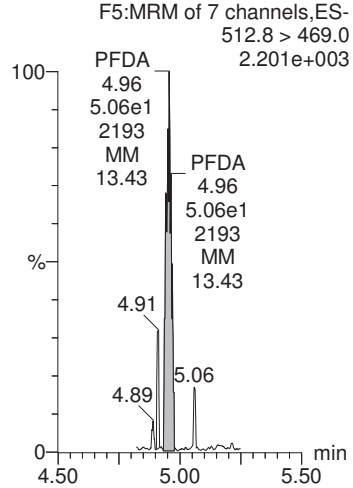
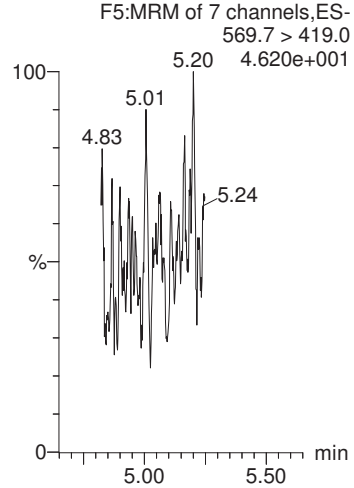


PFDA



N-MeFOSAA



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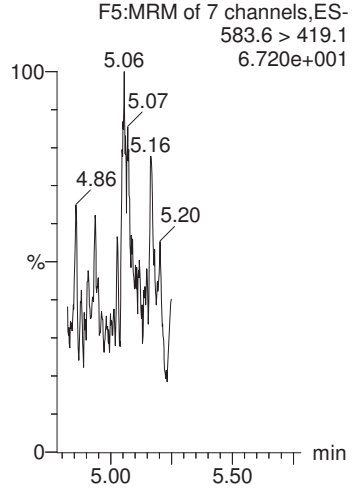
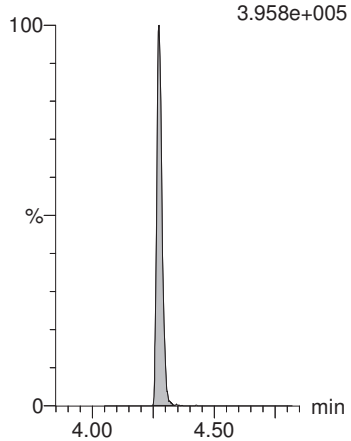


13C2-PFOA



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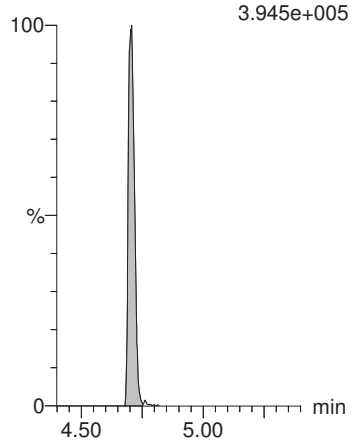

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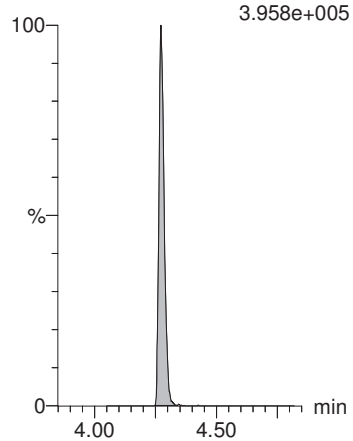

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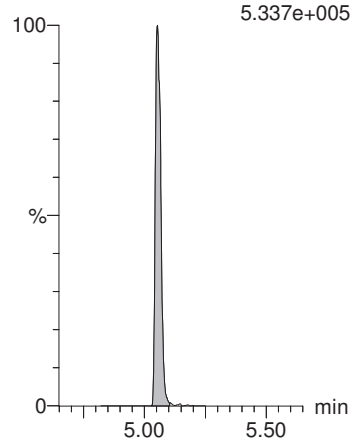

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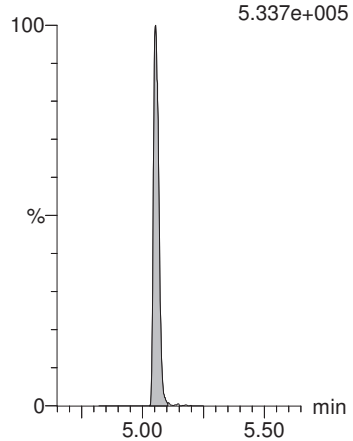

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-25.qld

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Printed: Saturday, July 21, 2018 16:40:24 Pacific Daylight Time

Name: 180720G2_25, Date: 20-Jul-2018, Time: 21:05:41, ID: 1801762-12 CBD-1FB06-0718 0.23737, Description: CBD-1FB06-0718

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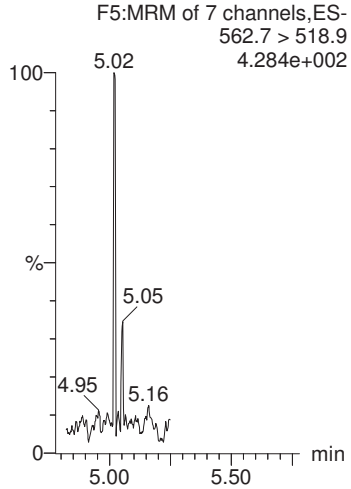

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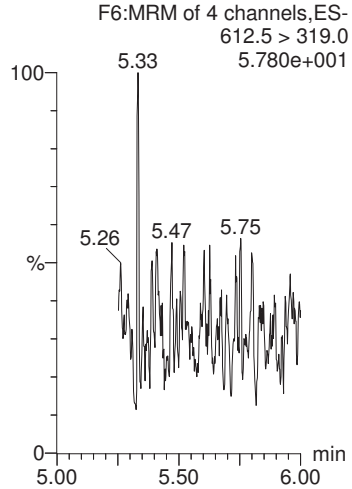

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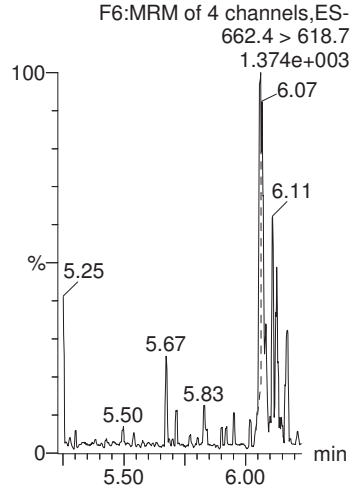

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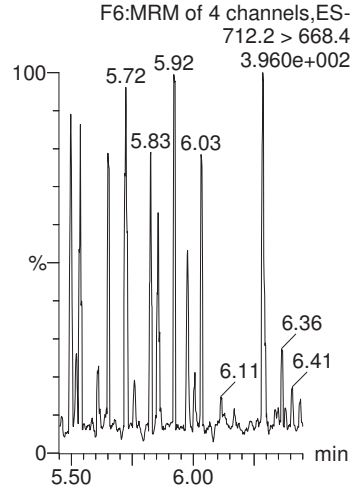

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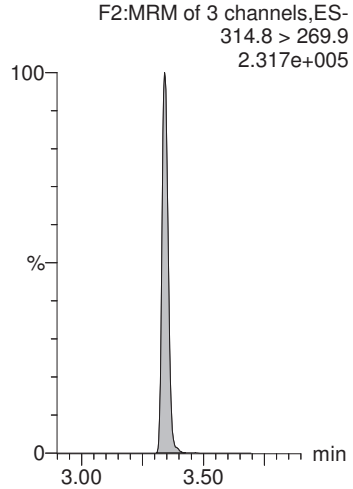

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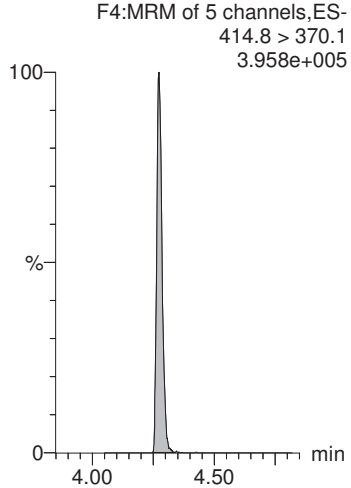

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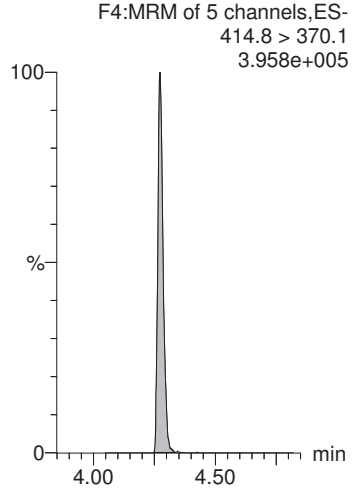

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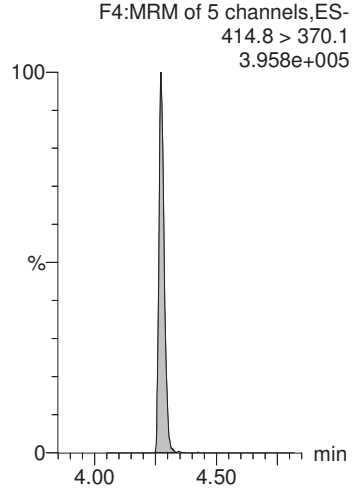

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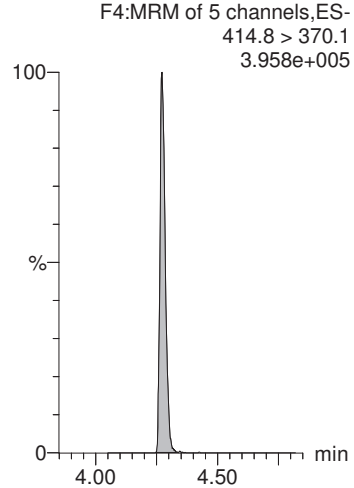

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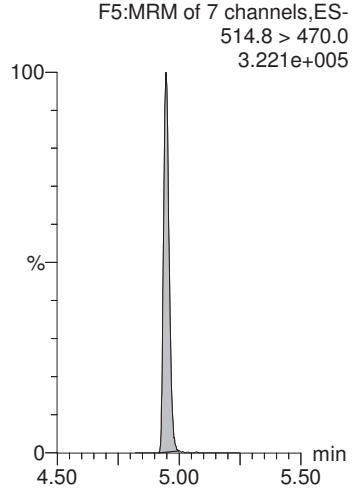


CGH 7/21/2018

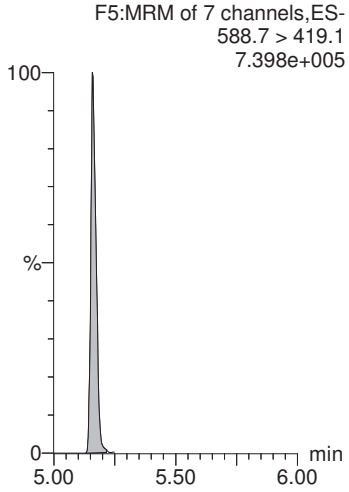
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-25.qld

Last Altered: Saturday, July 21, 2018 16:39:37 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:40:24 Pacific Daylight Time

Name: 180720G2_25, Date: 20-Jul-2018, Time: 21:05:41, ID: 1801762-12 CBD-1FB06-0718 0.23737, Description: CBD-1FB06-0718

d5-N-EtFOSAA



CGH 7/21/2018

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

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-26.qld

Last Altered: Saturday, July 21, 2018 16:55:50 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:56:40 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_26, Date: 20-Jul-2018, Time: 21:18:31, ID: 1801762-13 CBD-1RW07-0718 0.24944, Description: CBD-1RW07-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.28e4	0.249		2.96				
2	2	PFHxA	312.7 > 268.8	4.78e1	1.03e4	0.249		3.34	3.35	0.0464	0.229	
3	3	PFHpA	362.7 > 318.8		1.03e4	0.249		3.85				
4	4	PFHxS	398.7 > 80.7		1.28e4	0.249		3.98				
5	5	PFOA	412.8 > 369.0	2.34e1	1.03e4	0.249		4.28	4.28	0.0227	0.125	
6	6	PFNA	462.9 > 419.1	2.09e0	1.03e4	0.249		4.64	4.64	0.00204	0.00937	
7	7	PFOS	498.8 >80.7		1.28e4	0.249		4.70				
8	8	PFDA	512.8 > 469.0	1.42e1	1.03e4	0.249		4.92	4.96	0.0138	0.0634	
9	9	N-MeFOSAA	569.7 > 419.0		1.60e4	0.249		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.60e4	0.249		5.18				
11	11	PFUnA	562.7 > 518.9		1.03e4	0.249		5.16				
12	12	PFDoA	612.5 > 319.0		1.03e4	0.249		5.40				
13	13	PFTrDA	662.4 > 618.7		1.03e4	0.249		5.61				
14	14	PFTeDA	712.2>668.4		1.03e4	0.249		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	7.24e3	1.03e4	0.249	0.753	3.43	3.34	7.04	37.5	93.6
16	16	13C2-PFDA	514.8 > 470.0	9.38e3	1.03e4	0.249	1.023	4.87	4.95	9.12	35.8	89.2
17	17	d5-N-EtFOSAA	588.7> 419.1	1.94e4	1.60e4	0.249	1.264	5.06	5.16	48.5	154	95.9
18	18	13C2-PFOA	414.8 > 370.1	1.03e4	1.03e4	0.249	1.000	4.28	4.27	10.0	40.1	100.0
19	19	13C4-PFOS	502.8>80.7	1.28e4	1.28e4	0.249	1.000	4.71	4.70	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.60e4	1.60e4	0.249	1.000	5.04	5.06	40.0	160	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-26.qld

Last Altered: Saturday, July 21, 2018 16:55:50 Pacific Daylight Time
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Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_26, Date: 20-Jul-2018, Time: 21:18:31, ID: 1801762-13 CBD-1RW07-0718 0.24944, Description: CBD-1RW07-0718

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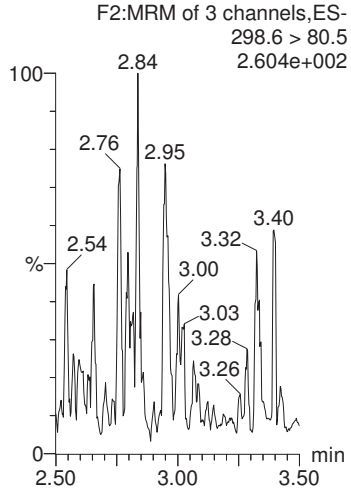

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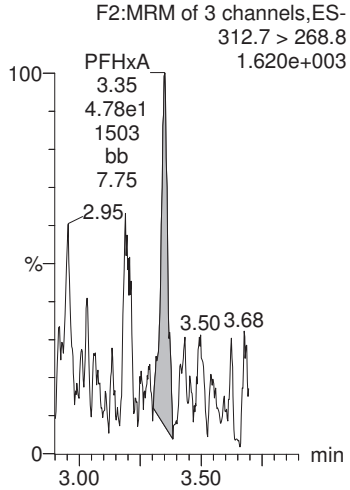

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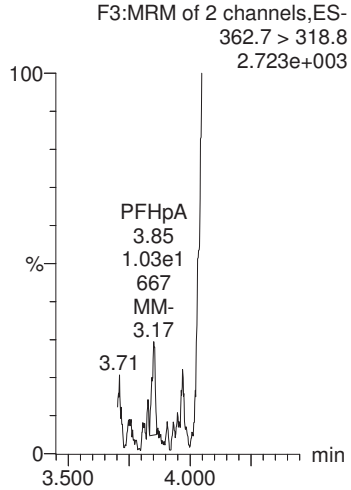

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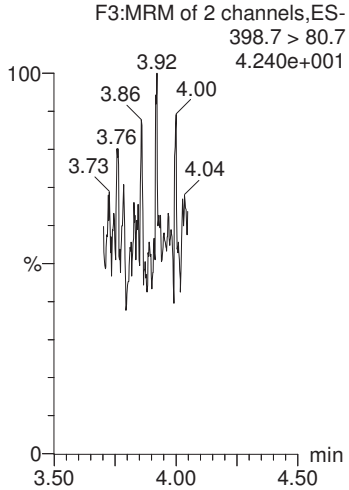
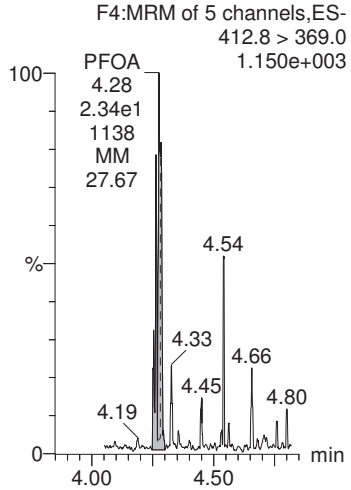


PFOA



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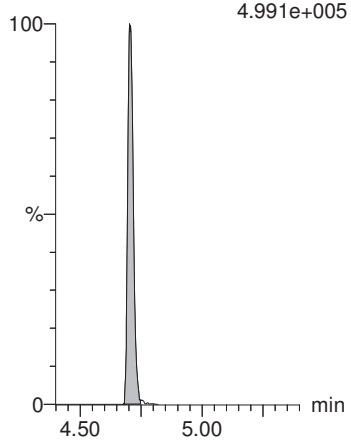

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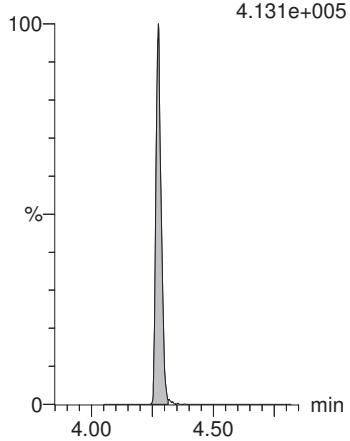

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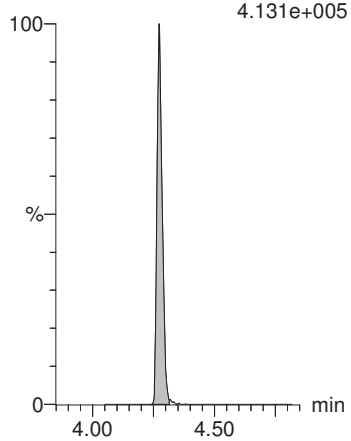

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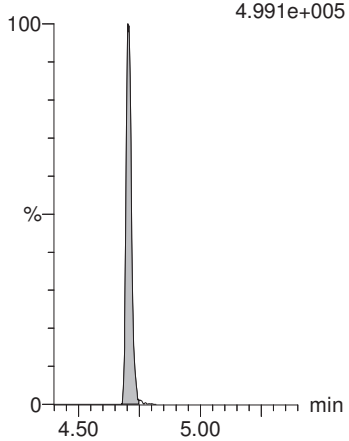

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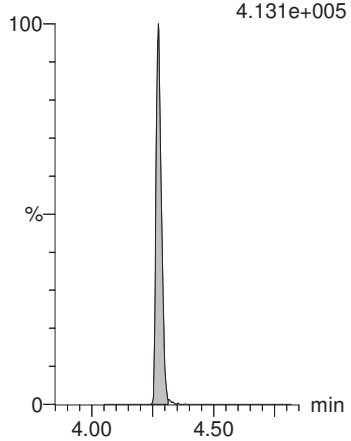

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-26.qld

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Name: 180720G2_26, Date: 20-Jul-2018, Time: 21:18:31, ID: 1801762-13 CBD-1RW07-0718 0.24944, Description: CBD-1RW07-0718

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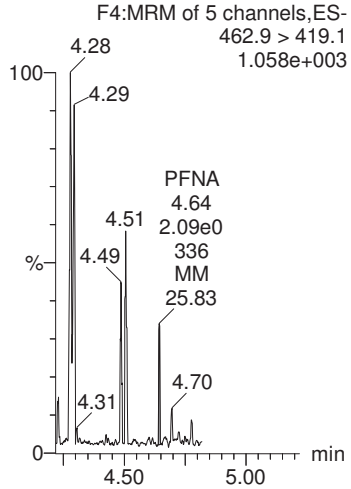

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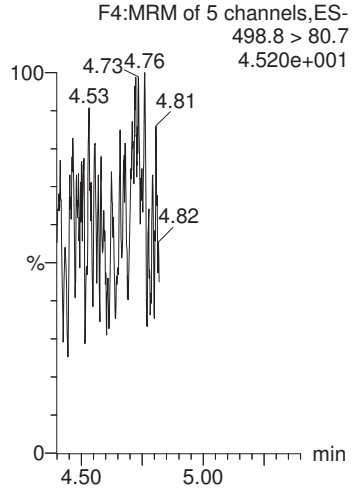

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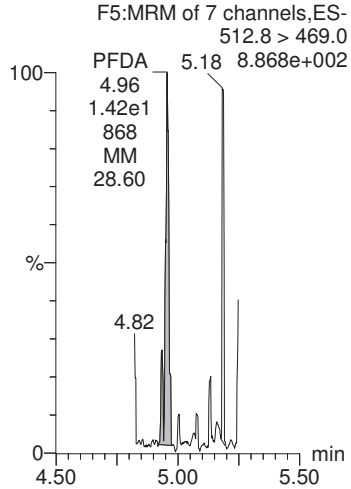

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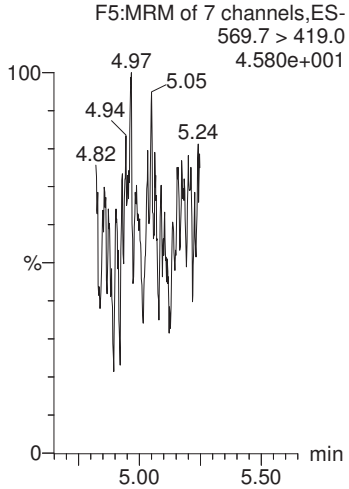

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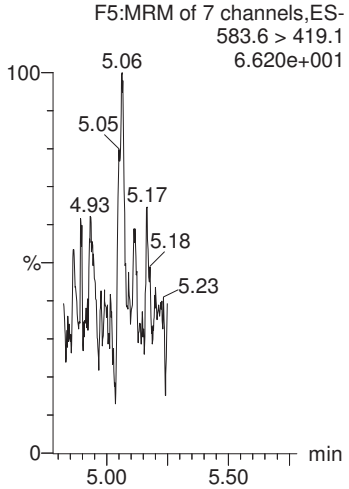

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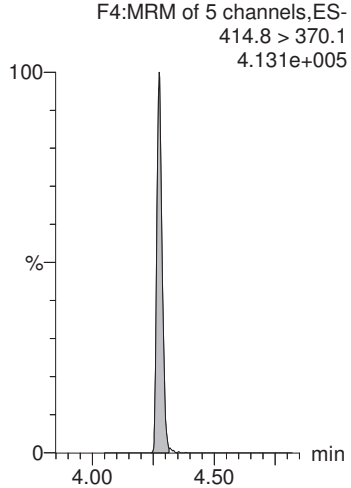

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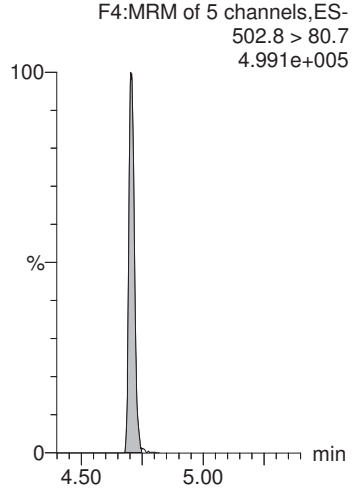

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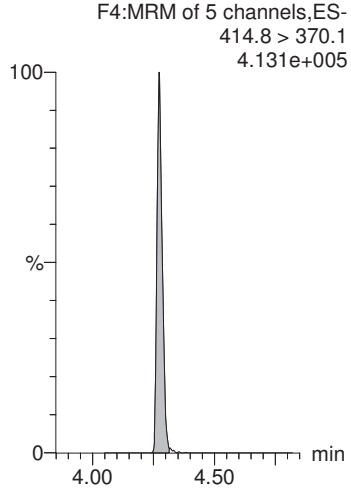

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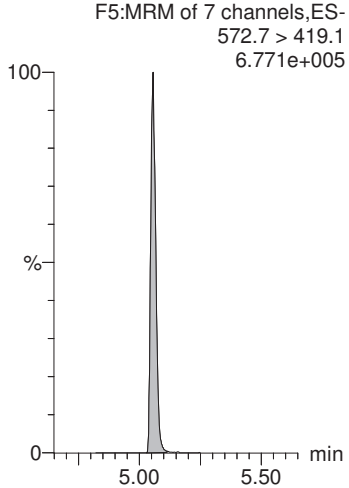

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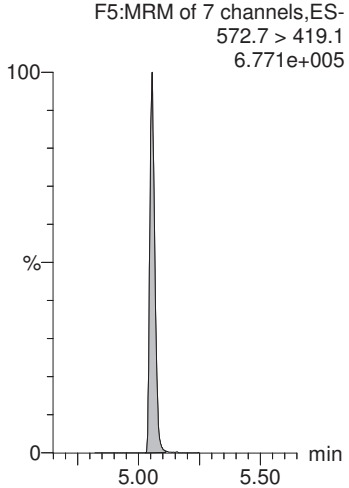

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-26.qld

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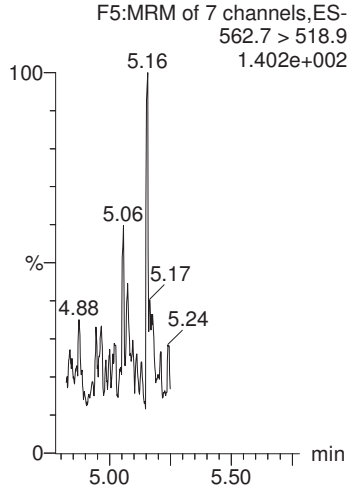
Printed: Saturday, July 21, 2018 16:56:40 Pacific Daylight Time

Name: 180720G2_26, Date: 20-Jul-2018, Time: 21:18:31, ID: 1801762-13 CBD-1RW07-0718 0.24944, Description: CBD-1RW07-0718

PFUnA



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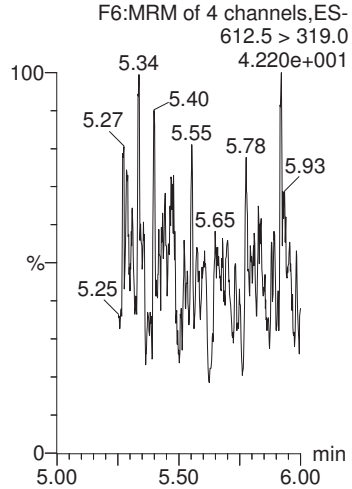

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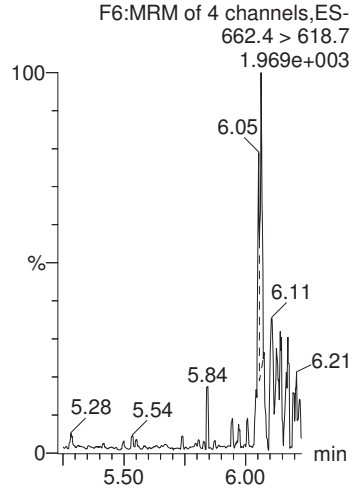

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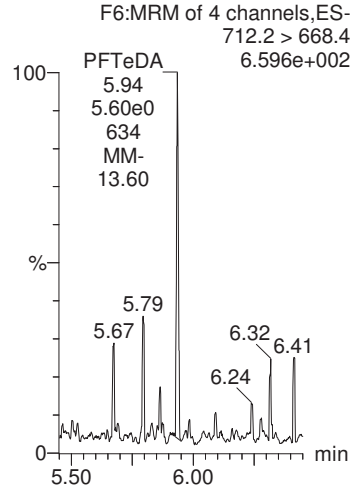
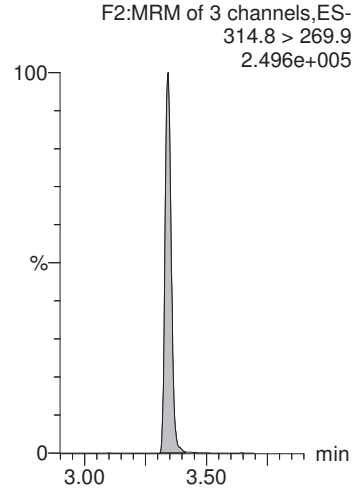
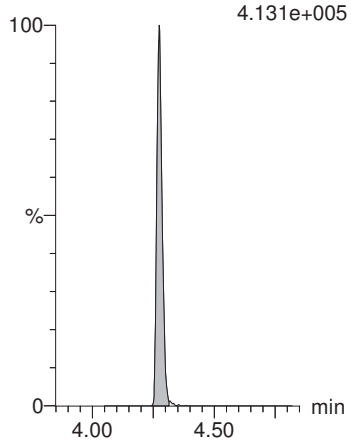


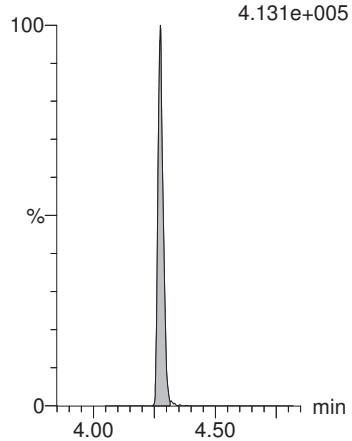
13C2-PFHxA



13C2-PFOA



13C2-PFOA



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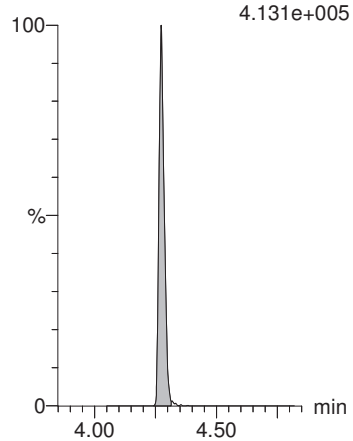

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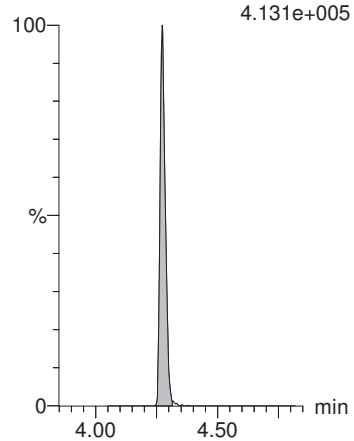
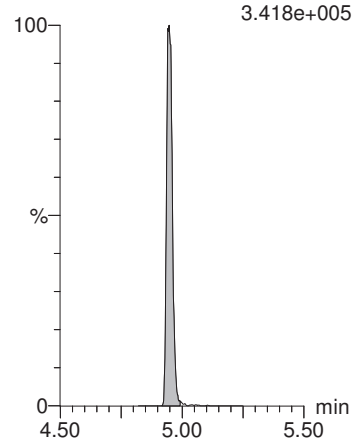


13C2-PFDA



CGH 7/21/2018

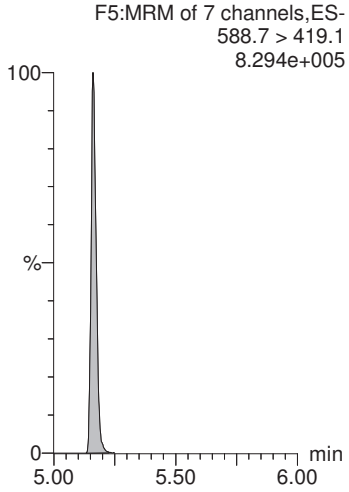
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-26.qld

Last Altered: Saturday, July 21, 2018 16:55:50 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:56:40 Pacific Daylight Time

Name: 180720G2_26, Date: 20-Jul-2018, Time: 21:18:31, ID: 1801762-13 CBD-1RW07-0718 0.24944, Description: CBD-1RW07-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-27.qld

Last Altered: Saturday, July 21, 2018 16:58:57 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:59:31 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_27, Date: 20-Jul-2018, Time: 21:31:21, ID: 1801762-14 CBD-1FB07-0718 0.25003, Description: CBD-1FB07-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.03e4	0.250		2.96				
2	2	PFHxA	312.7 > 268.8	4.25e1	8.69e3	0.250		3.34	3.35	0.0489	0.241	
3	3	PFHpA	362.7 > 318.8	1.61e1	8.69e3	0.250		3.85	3.87	0.0185	0.0843	
4	4	PFHxS	398.7 > 80.7		1.03e4	0.250		3.98				
5	5	PFOA	412.8 > 369.0	1.44e1	8.69e3	0.250		4.28	4.27	0.0166	0.0909	
6	6	PFNA	462.9 > 419.1		8.69e3	0.250		4.64				
7	7	PFOS	498.8 >80.7	2.09e0	1.03e4	0.250		4.70	4.70	0.00583	0.0631	
8	8	PFDA	512.8 > 469.0	3.01e1	8.69e3	0.250		4.92	4.96	0.0346	0.159	
9	9	N-MeFOSAA	569.7 > 419.0		1.31e4	0.250		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.31e4	0.250		5.18				
11	11	PFUnA	562.7 > 518.9		8.69e3	0.250		5.16				
12	12	PFDoA	612.5 > 319.0		8.69e3	0.250		5.40				
13	13	PFTrDA	662.4 > 618.7		8.69e3	0.250		5.61				
14	14	PFTeDA	712.2>668.4		8.69e3	0.250		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.08e3	8.69e3	0.250	0.753	3.43	3.34	7.00	37.2	93.1
16	16	13C2-PFDA	514.8 > 470.0	7.72e3	8.69e3	0.250	1.023	4.87	4.95	8.88	34.7	86.8
17	17	d5-N-EtFOSAA	588.7> 419.1	1.81e4	1.31e4	0.250	1.264	5.06	5.16	55.2	175	109.1
18	18	13C2-PFOA	414.8 > 370.1	8.69e3	8.69e3	0.250	1.000	4.28	4.27	10.0	40.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.03e4	1.03e4	0.250	1.000	4.71	4.70	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.31e4	1.31e4	0.250	1.000	5.04	5.06	40.0	160	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

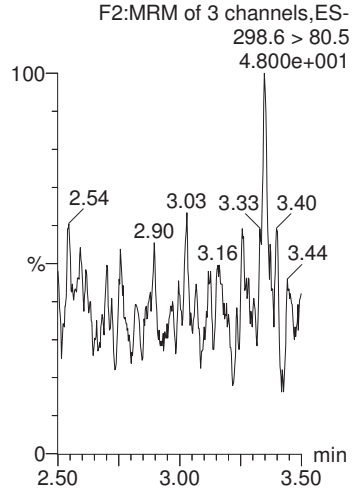
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-27.qld

Last Altered: Saturday, July 21, 2018 16:58:57 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:59:31 Pacific Daylight Time

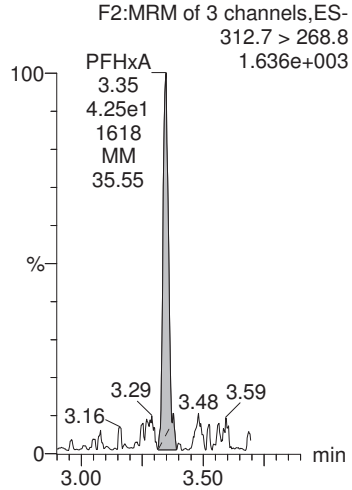
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_27, Date: 20-Jul-2018, Time: 21:31:21, ID: 1801762-14 CBD-1FB07-0718 0.25003, Description: CBD-1FB07-0718

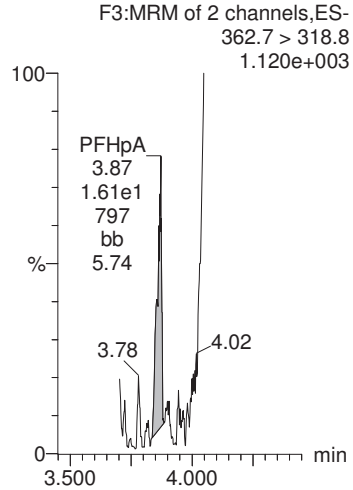
PFBS



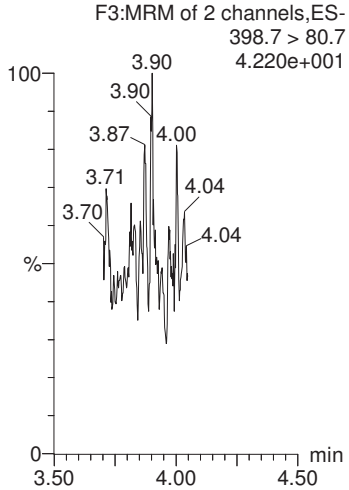
PFHxA



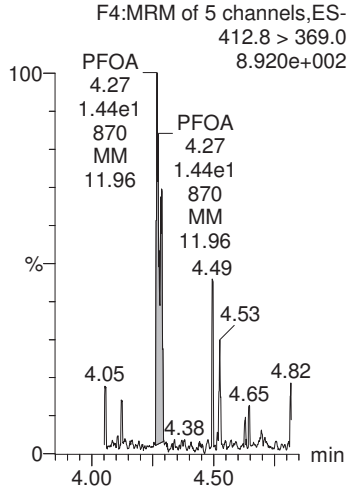
PFHpA



PFHxS



PFOA



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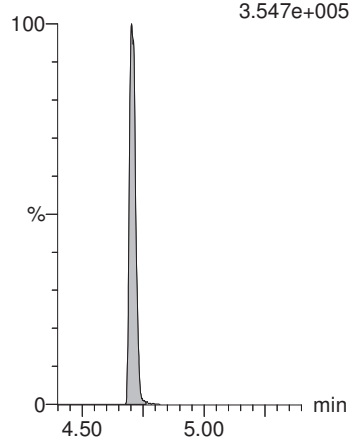
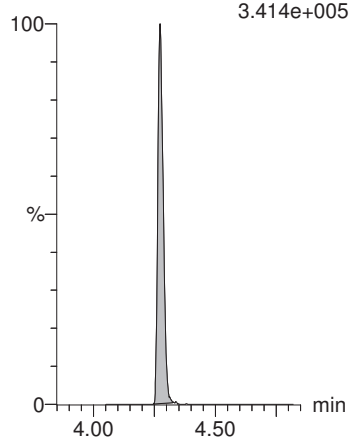


13C2-PFOA



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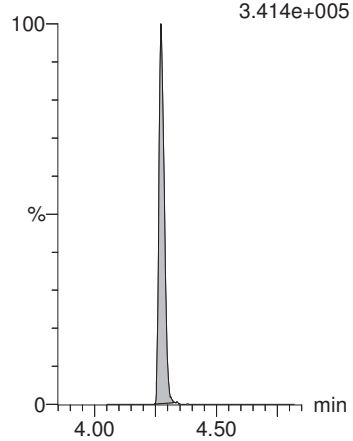
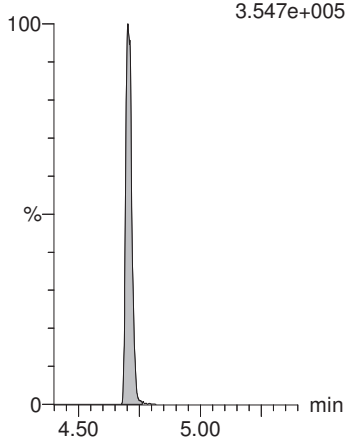


13C4-PFOS



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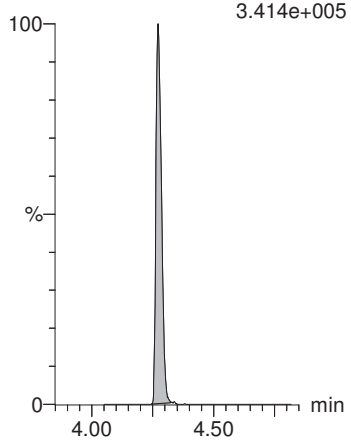


CGH 7/21/2018

Vista Analytical Laboratory

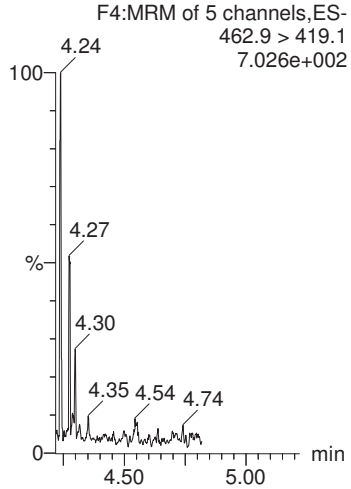
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-27.qld

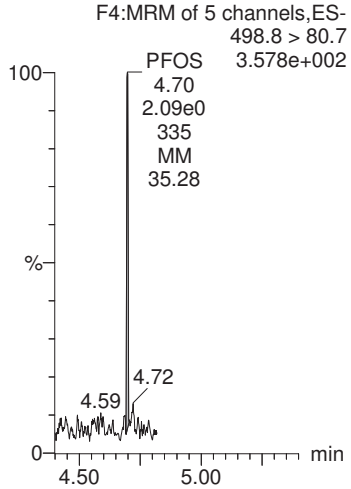
Last Altered: Saturday, July 21, 2018 16:58:57 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:59:31 Pacific Daylight Time

Name: 180720G2_27, Date: 20-Jul-2018, Time: 21:31:21, ID: 1801762-14 CBD-1FB07-0718 0.25003, Description: CBD-1FB07-0718

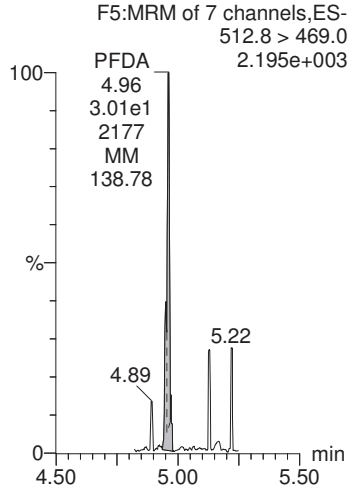
PFNA



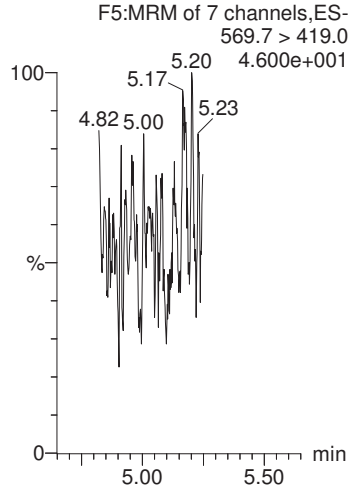
PFOS



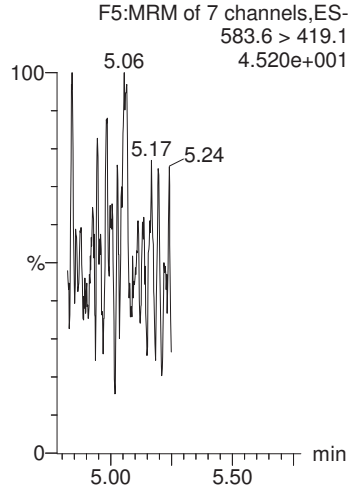
PFDA



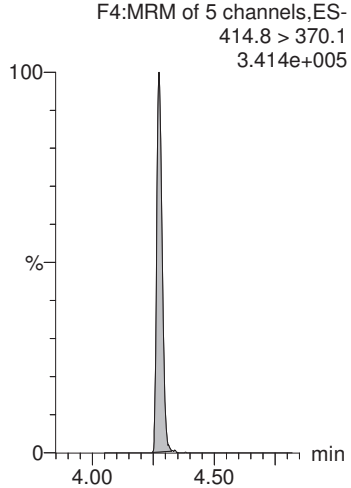
N-MeFOSAA



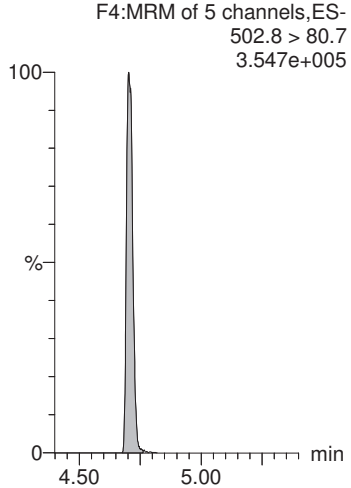
N-EtFOSAA



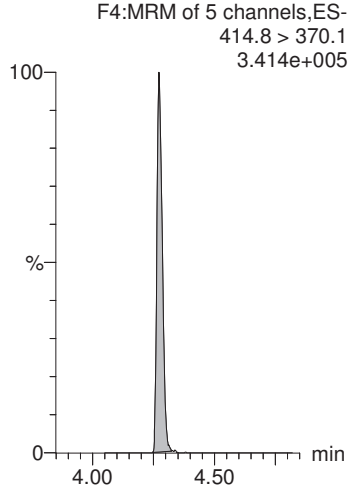
13C2-PFOA



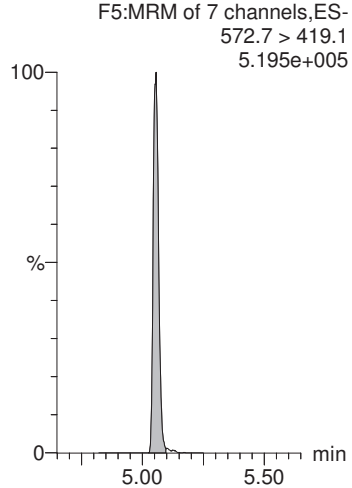
13C4-PFOS



13C2-PFOA



d3-N-MeFOSAA



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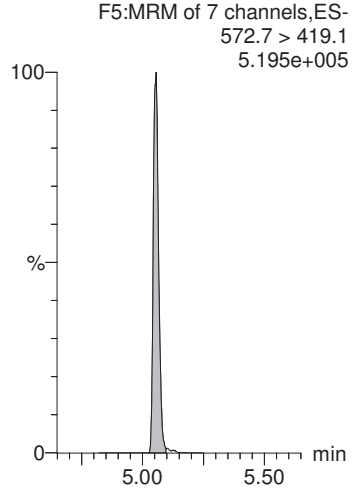


CGH 7/21/2018

Vista Analytical Laboratory

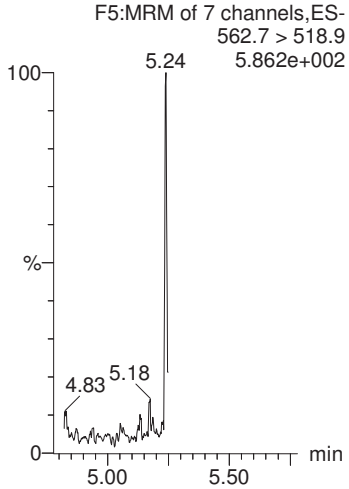
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-27.qld

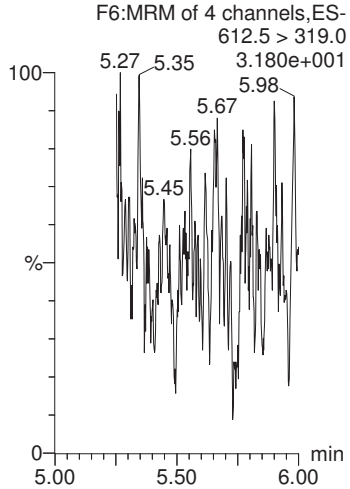
Last Altered: Saturday, July 21, 2018 16:58:57 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:59:31 Pacific Daylight Time

Name: 180720G2_27, Date: 20-Jul-2018, Time: 21:31:21, ID: 1801762-14 CBD-1FB07-0718 0.25003, Description: CBD-1FB07-0718

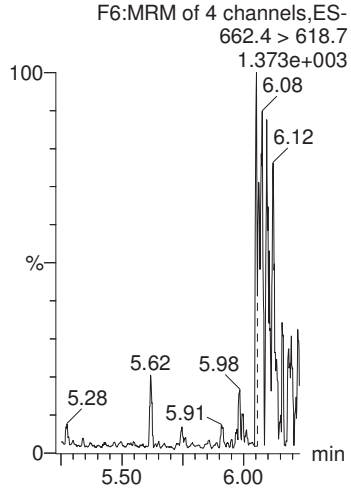
PFUnA



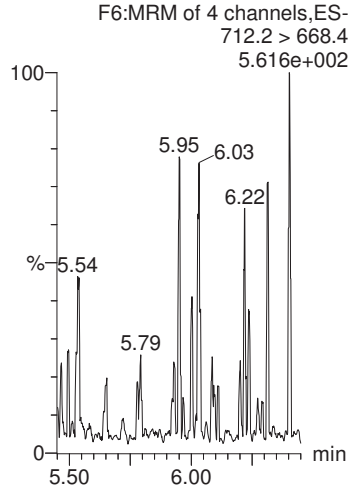
PFDoA



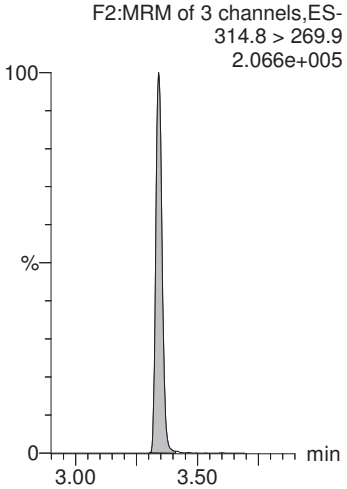
PFTrDA



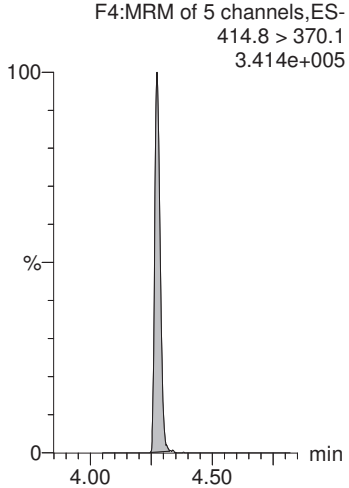
PFTeDA



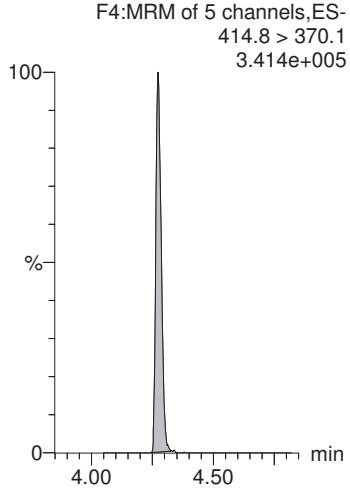
13C2-PFHxA



13C2-PFOA



13C2-PFOA



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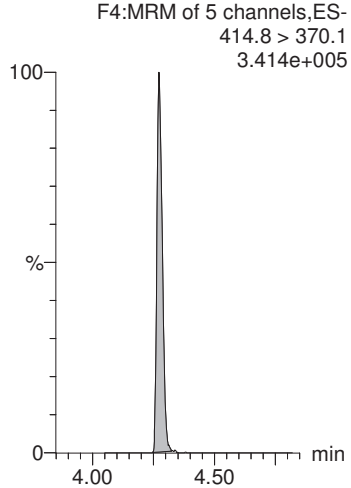

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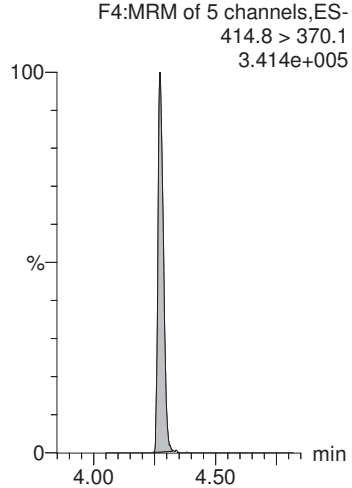

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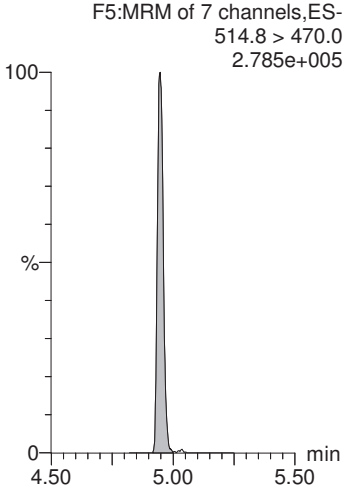


CGH 7/21/2018

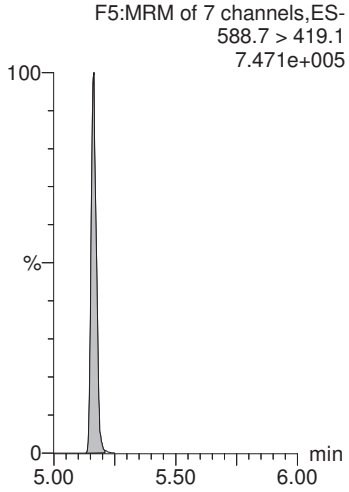
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-27.qld

Last Altered: Saturday, July 21, 2018 16:58:57 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:59:31 Pacific Daylight Time

Name: 180720G2_27, Date: 20-Jul-2018, Time: 21:31:21, ID: 1801762-14 CBD-1FB07-0718 0.25003, Description: CBD-1FB07-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-28.qld

Last Altered: Saturday, July 21, 2018 17:01:58 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:02:43 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_28, Date: 20-Jul-2018, Time: 21:44:10, ID: 1801762-15 CBD-1RW08-0718 0.24846, Description: CBD-1RW08-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.26e4	0.248		2.96				
2	2	PFHxA	312.7 > 268.8		1.08e4	0.248		3.33				
3	3	PFHpA	362.7 > 318.8		1.08e4	0.248		3.85				
4	4	PFHxS	398.7 > 80.7		1.26e4	0.248		3.98				
5	5	PFOA	412.8 > 369.0	4.54e1	1.08e4	0.248		4.27	4.27	0.0421	0.232	
6	6	PFNA	462.9 > 419.1		1.08e4	0.248		4.63				
7	7	PFOS	498.8 >80.7		1.26e4	0.248		4.70				
8	8	PFDA	512.8 > 469.0	2.59e1	1.08e4	0.248		4.92	4.95	0.0240	0.111	
9	9	N-MeFOSAA	569.7 > 419.0		1.58e4	0.248		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.58e4	0.248		5.17				
11	11	PFUnA	562.7 > 518.9		1.08e4	0.248		5.16				
12	12	PFDoA	612.5 > 319.0		1.08e4	0.248		5.40				
13	13	PFTrDA	662.4 > 618.7		1.08e4	0.248		5.61				
14	14	PFTeDA	712.2>668.4		1.08e4	0.248		5.79				
15	15	13C2-PFHxA	314.8 > 269.9	7.44e3	1.08e4	0.248	0.753	3.42	3.34	6.90	36.9	91.6
16	16	13C2-PFDA	514.8 > 470.0	9.29e3	1.08e4	0.248	1.023	4.87	4.95	8.62	33.9	84.3
17	17	d5-N-EtFOSAA	588.7> 419.1	1.85e4	1.58e4	0.248	1.264	5.05	5.17	47.0	150	92.9
18	18	13C2-PFOA	414.8 > 370.1	1.08e4	1.08e4	0.248	1.000	4.28	4.27	10.0	40.2	100.0
19	19	13C4-PFOS	502.8>80.7	1.26e4	1.26e4	0.248	1.000	4.71	4.70	28.7	116	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.58e4	1.58e4	0.248	1.000	5.04	5.05	40.0	161	100.0

CGH 7/21/2018

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MMM 7/22/2018

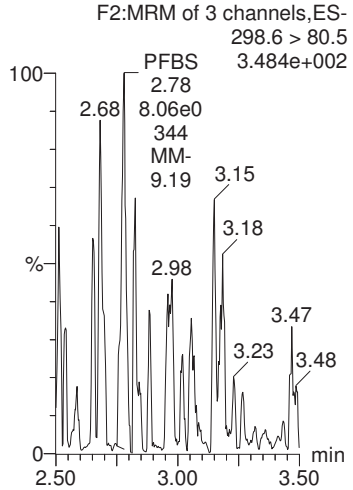
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-28.qld

Last Altered: Saturday, July 21, 2018 17:01:58 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:02:43 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_28, Date: 20-Jul-2018, Time: 21:44:10, ID: 1801762-15 CBD-1RW08-0718 0.24846, Description: CBD-1RW08-0718

PFBS



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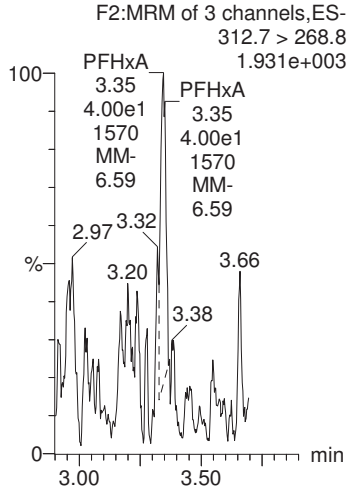

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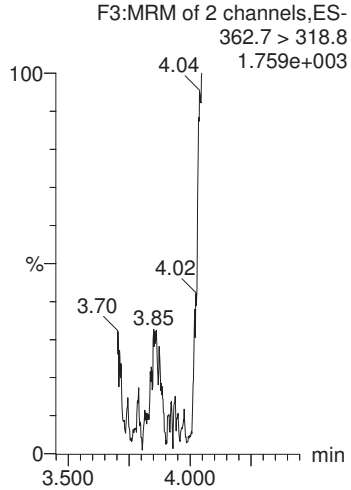

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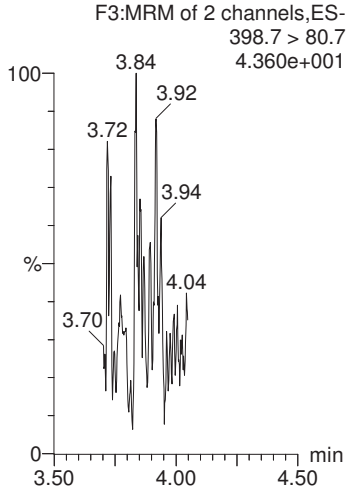

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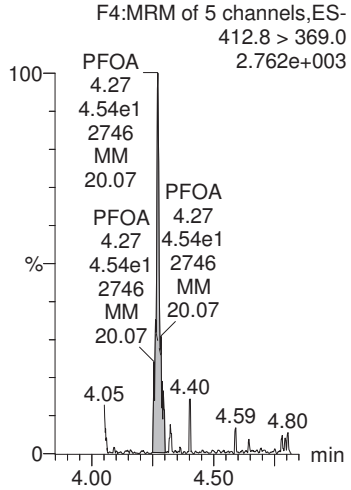

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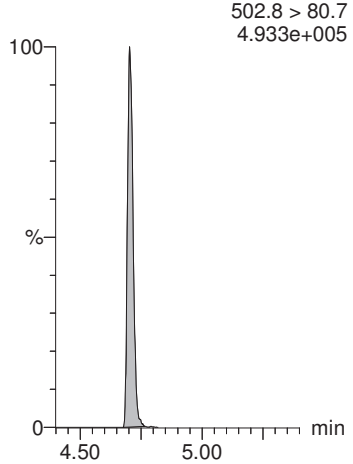

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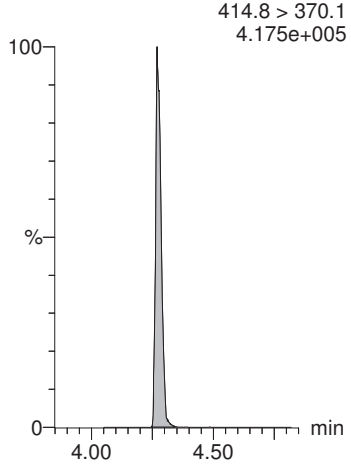

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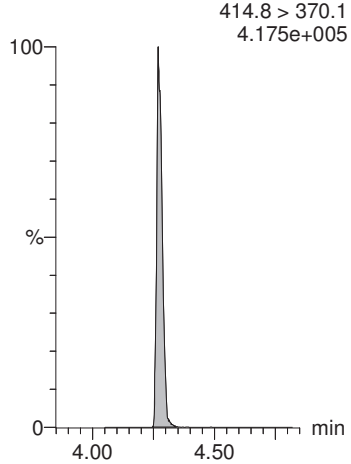

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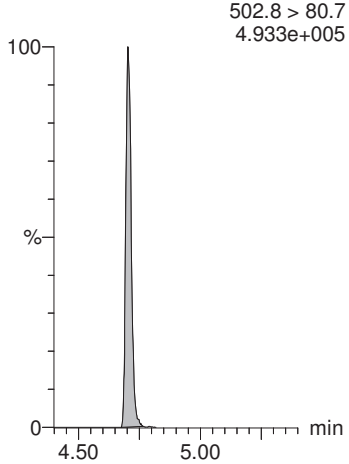

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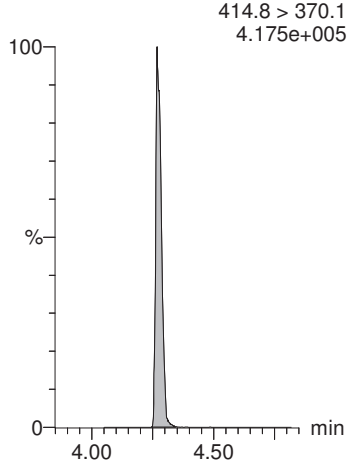

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Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-28.qld

Last Altered: Saturday, July 21, 2018 17:01:58 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:02:43 Pacific Daylight Time

Name: 180720G2_28, Date: 20-Jul-2018, Time: 21:44:10, ID: 1801762-15 CBD-1RW08-0718 0.24846, Description: CBD-1RW08-0718

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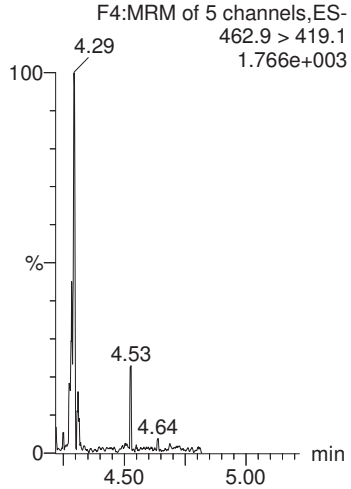

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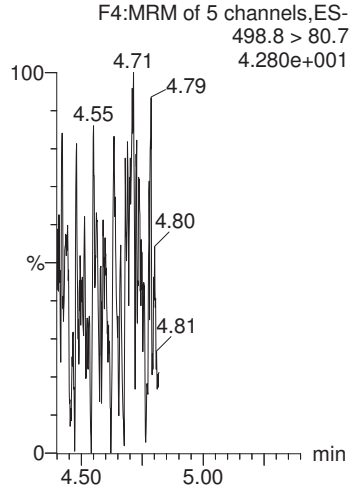

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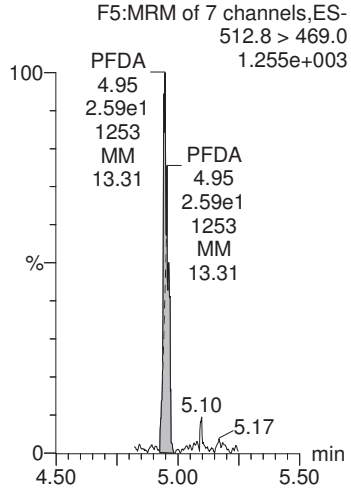

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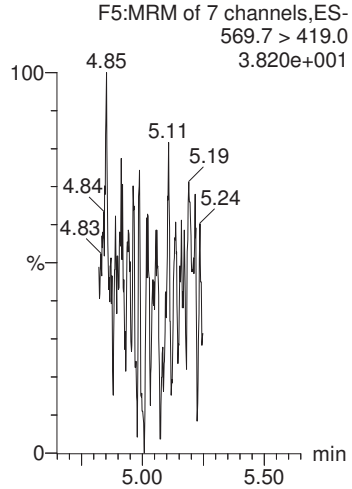

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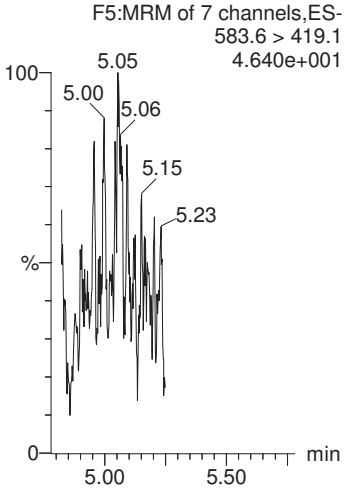

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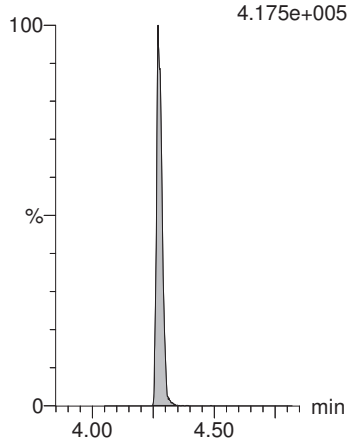

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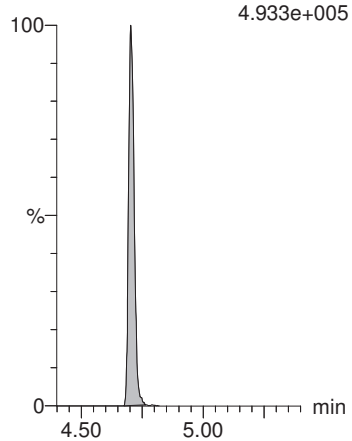

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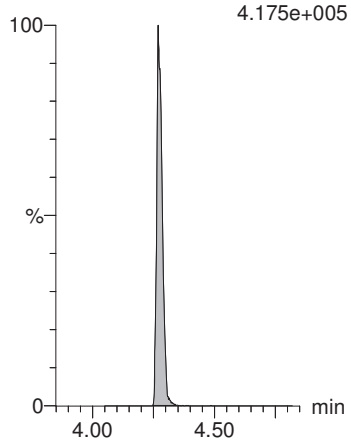

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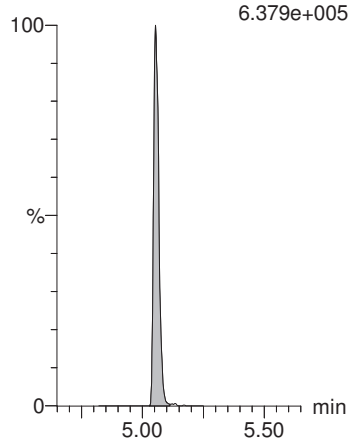

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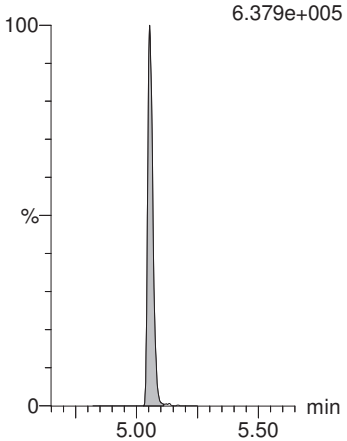

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Vista Analytical Laboratory

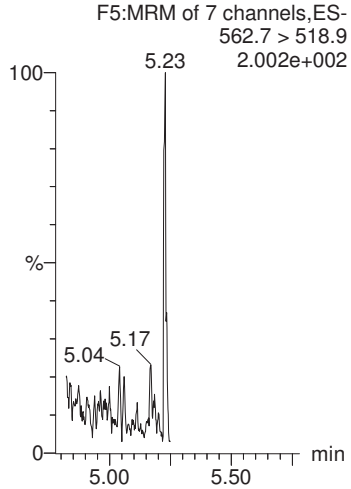
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-28.qld

Last Altered: Saturday, July 21, 2018 17:01:58 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:02:43 Pacific Daylight Time

Name: 180720G2_28, Date: 20-Jul-2018, Time: 21:44:10, ID: 1801762-15 CBD-1RW08-0718 0.24846, Description: CBD-1RW08-0718

PFUnA



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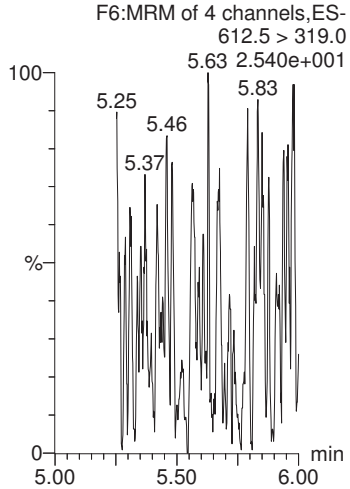

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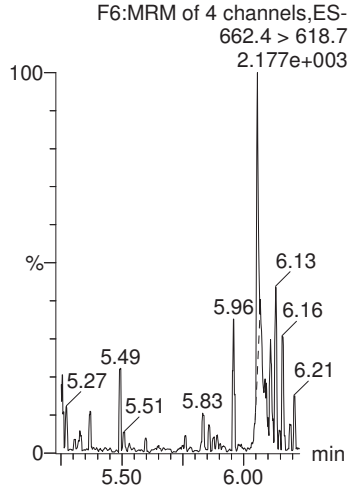

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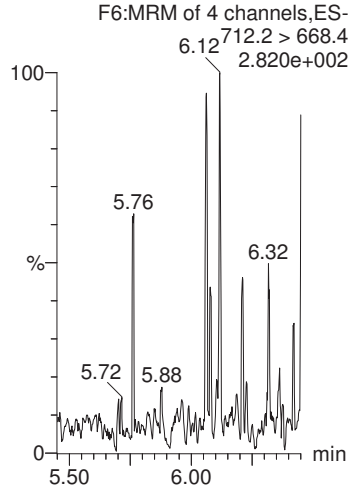

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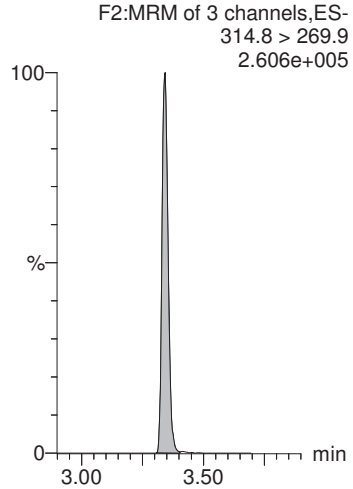

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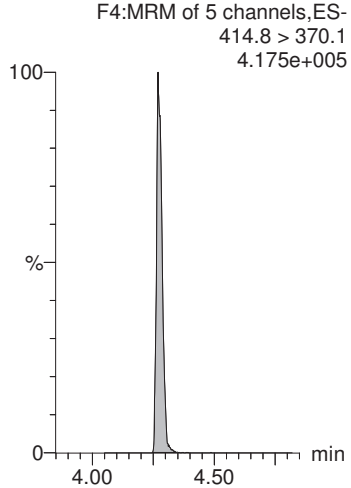

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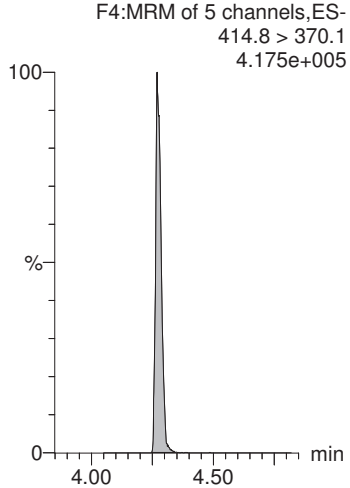

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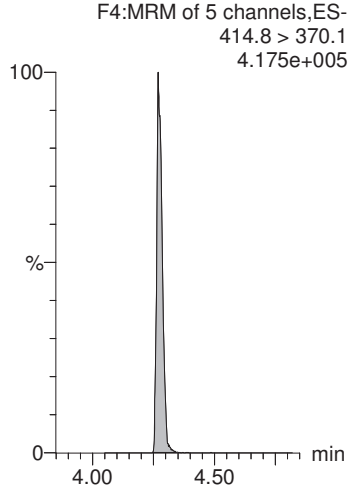

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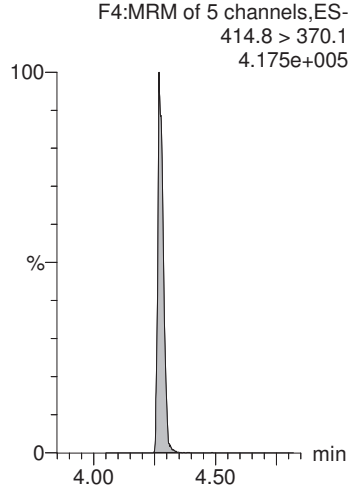

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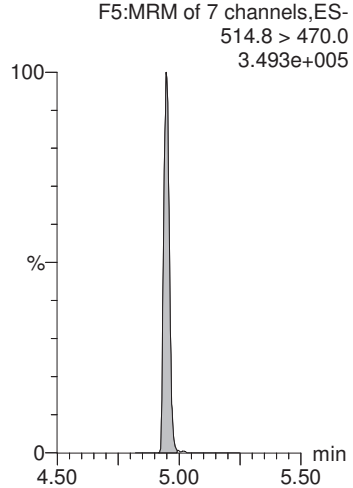


CGH 7/21/2018

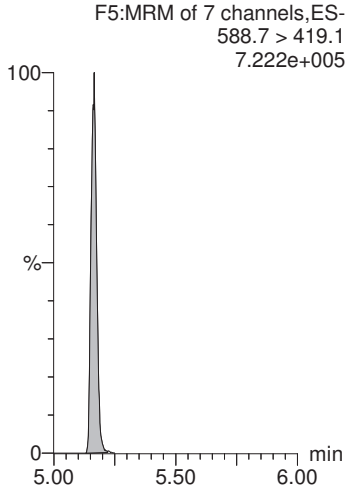
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-28.qld

Last Altered: Saturday, July 21, 2018 17:01:58 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:02:43 Pacific Daylight Time

Name: 180720G2_28, Date: 20-Jul-2018, Time: 21:44:10, ID: 1801762-15 CBD-1RW08-0718 0.24846, Description: CBD-1RW08-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-29.qld

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Printed: Saturday, July 21, 2018 17:06:04 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_29, Date: 20-Jul-2018, Time: 21:56:56, ID: 1801762-16 CBD-1FB08-0718 0.25211, Description: CBD-1FB08-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.05e4	0.252		2.96				
2	2	PFHxA	312.7 > 268.8	4.73e1	9.08e3	0.252		3.34	3.35	0.0521	0.254	
3	3	PFHpA	362.7 > 318.8	1.08e1	9.08e3	0.252		3.85	3.85	0.0119	0.0539	
4	4	PFHxS	398.7 > 80.7		1.05e4	0.252		3.98				
5	5	PFOA	412.8 > 369.0	1.36e1	9.08e3	0.252		4.28	4.27	0.0150	0.0817	
6	6	PFNA	462.9 > 419.1		9.08e3	0.252		4.64				
7	7	PFOS	498.8 >80.7	1.74e0	1.05e4	0.252		4.70	4.70	0.00476	0.0510	
8	8	PFDA	512.8 > 469.0	3.32e1	9.08e3	0.252		4.92	4.95	0.0366	0.167	
9	9	N-MeFOSAA	569.7 > 419.0		1.34e4	0.252		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.34e4	0.252		5.18				
11	11	PFUnA	562.7 > 518.9		9.08e3	0.252		5.16				
12	12	PFDoA	612.5 > 319.0		9.08e3	0.252		5.40				
13	13	PFTrDA	662.4 > 618.7		9.08e3	0.252		5.61				
14	14	PFTeDA	712.2>668.4		9.08e3	0.252		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.35e3	9.08e3	0.252	0.753	3.43	3.34	7.00	36.9	93.0
16	16	13C2-PFDA	514.8 > 470.0	8.15e3	9.08e3	0.252	1.023	4.87	4.95	8.97	34.8	87.8
17	17	d5-N-EtFOSAA	588.7> 419.1	1.82e4	1.34e4	0.252	1.264	5.06	5.17	54.3	170	107.4
18	18	13C2-PFOA	414.8 > 370.1	9.08e3	9.08e3	0.252	1.000	4.28	4.27	10.0	39.7	100.0
19	19	13C4-PFOS	502.8>80.7	1.05e4	1.05e4	0.252	1.000	4.71	4.70	28.7	114	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.34e4	1.34e4	0.252	1.000	5.04	5.06	40.0	159	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

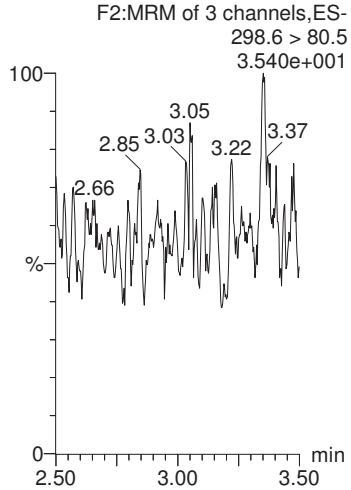
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-29.qld

Last Altered: Saturday, July 21, 2018 17:05:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:06:04 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_29, Date: 20-Jul-2018, Time: 21:56:56, ID: 1801762-16 CBD-1FB08-0718 0.25211, Description: CBD-1FB08-0718

PFBS



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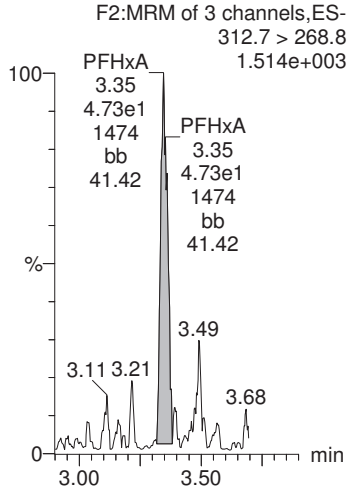

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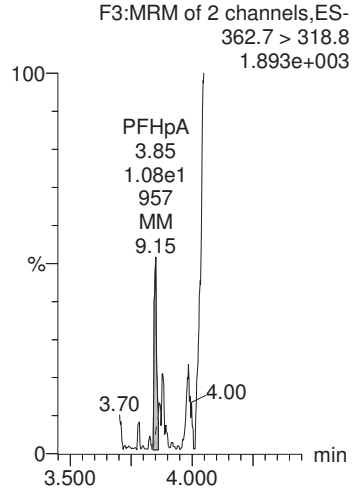

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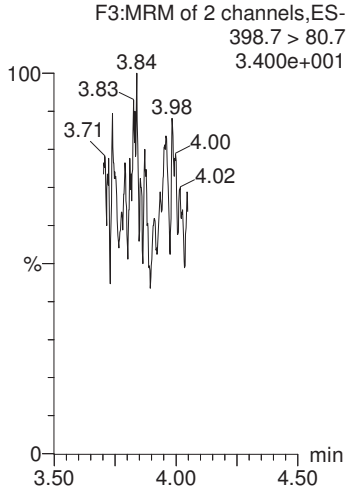

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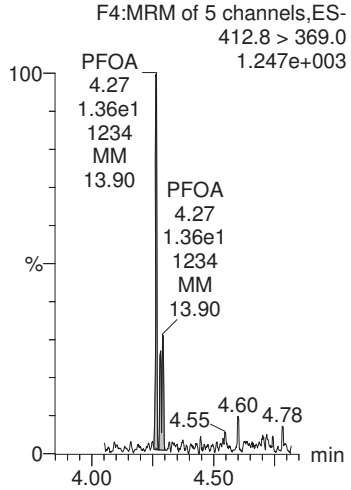

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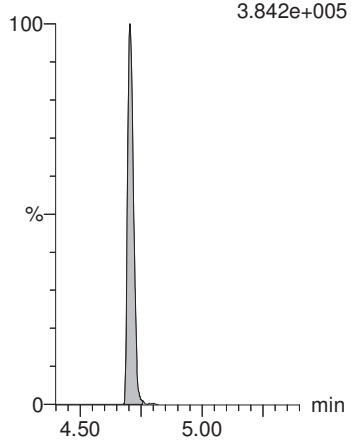

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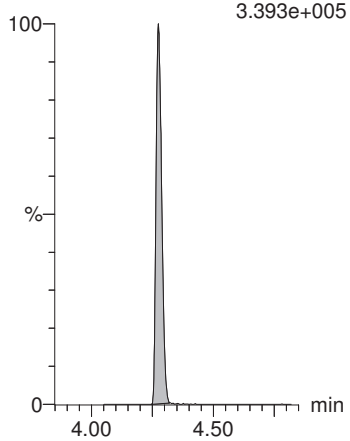

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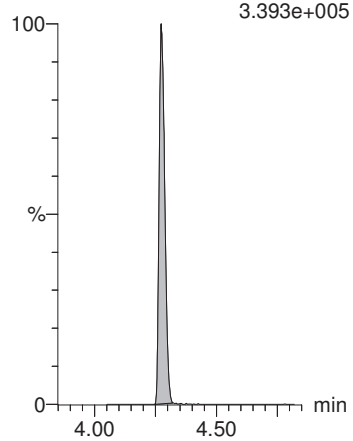

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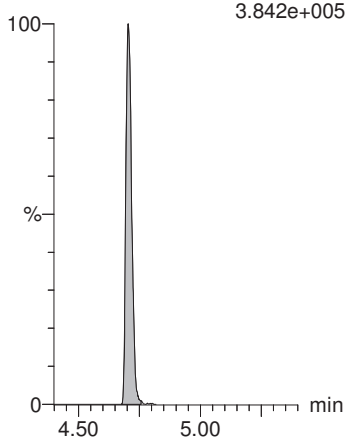

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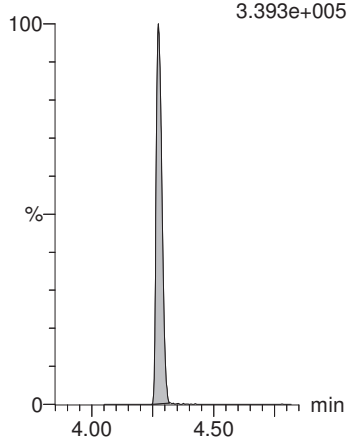

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Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-29.qld

Last Altered: Saturday, July 21, 2018 17:05:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:06:04 Pacific Daylight Time

Name: 180720G2_29, Date: 20-Jul-2018, Time: 21:56:56, ID: 1801762-16 CBD-1FB08-0718 0.25211, Description: CBD-1FB08-0718

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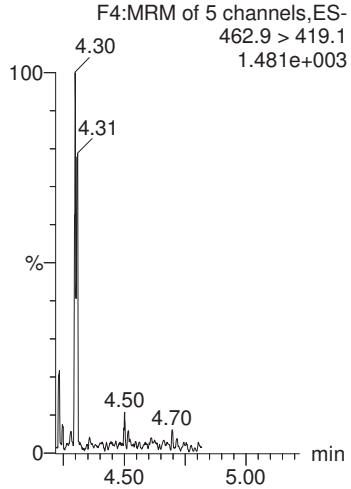

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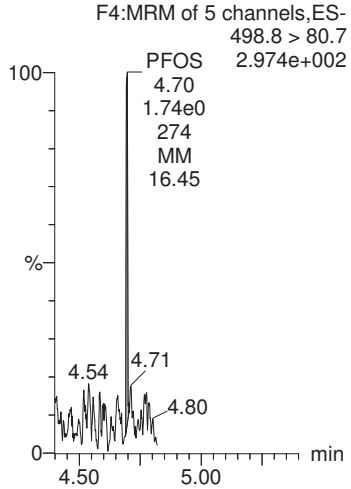

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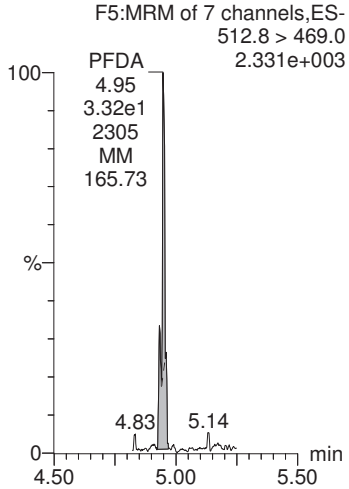

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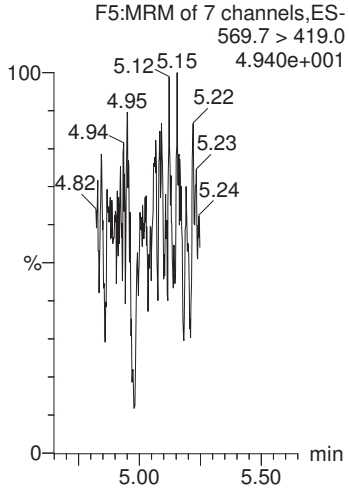

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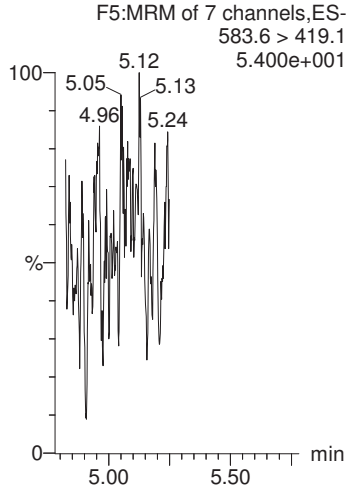

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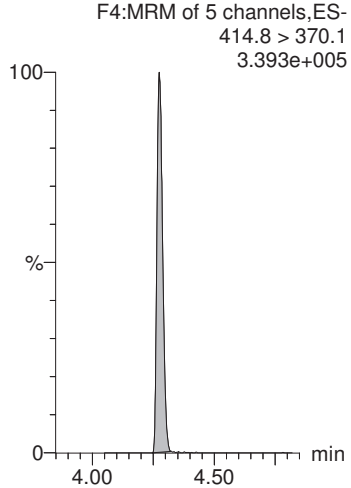

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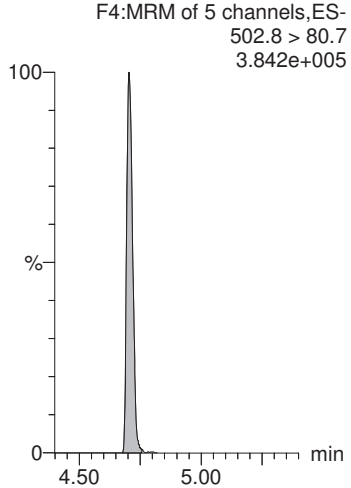

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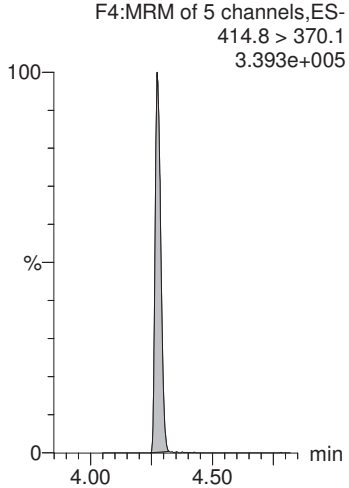

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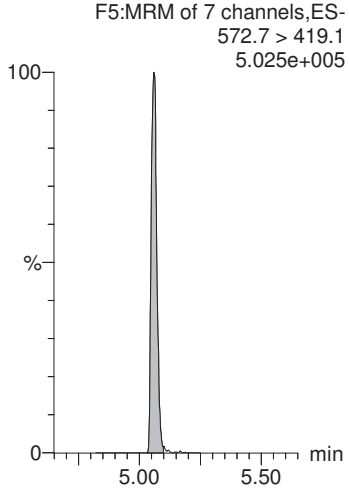

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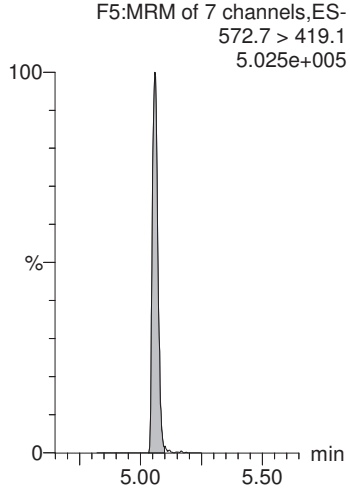

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-29.qld

Last Altered: Saturday, July 21, 2018 17:05:24 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:06:04 Pacific Daylight Time

Name: 180720G2_29, Date: 20-Jul-2018, Time: 21:56:56, ID: 1801762-16 CBD-1FB08-0718 0.25211, Description: CBD-1FB08-0718

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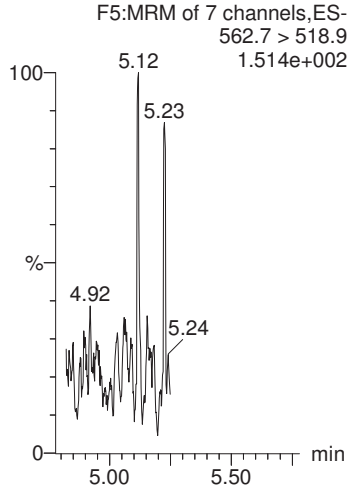

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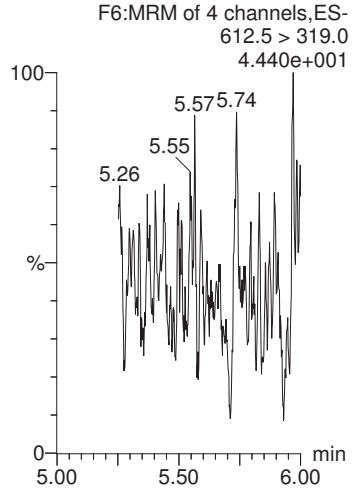

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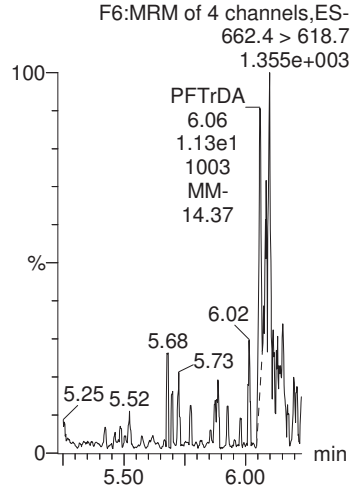

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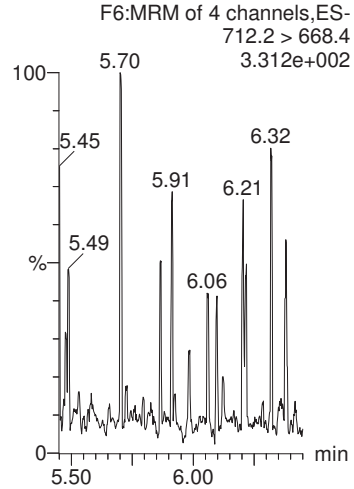

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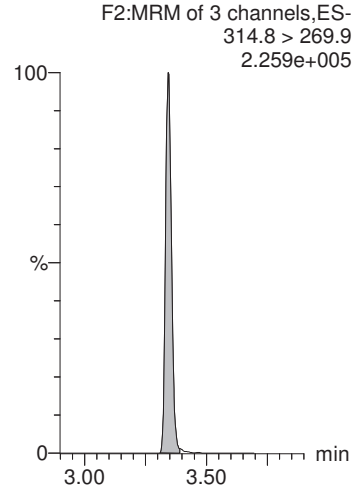

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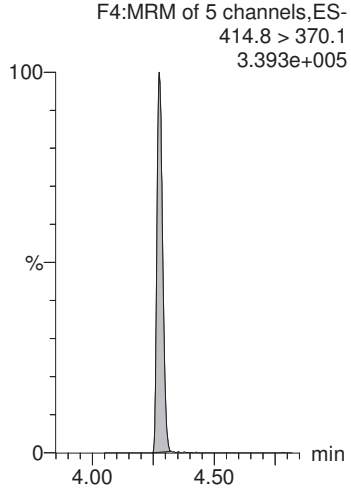

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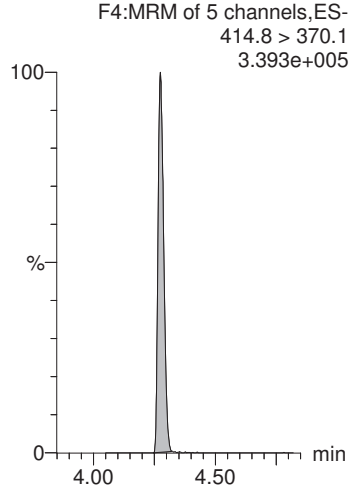

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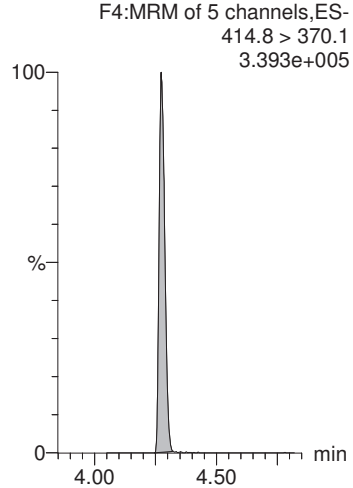

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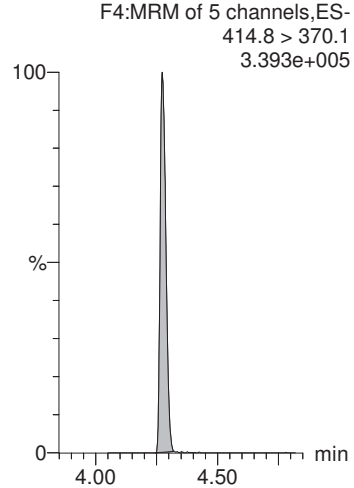

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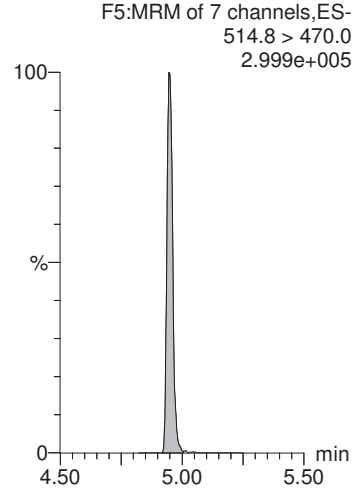

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-29.qld

Last Altered: Saturday, July 21, 2018 17:05:24 Pacific Daylight Time
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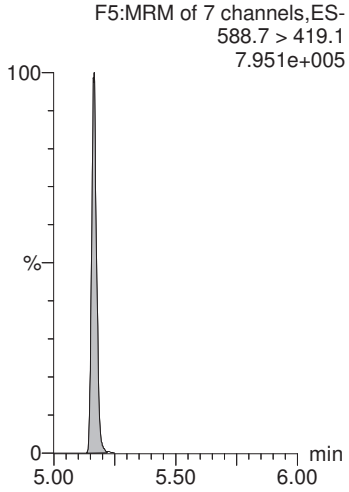
Name: 180720G2_29, Date: 20-Jul-2018, Time: 21:56:56, ID: 1801762-16 CBD-1FB08-0718 0.25211, Description: CBD-1FB08-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-30.qld

Last Altered: Saturday, July 21, 2018 17:09:35 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:10:13 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_30, Date: 20-Jul-2018, Time: 22:09:45, ID: 1801762-17 CBD-1RW09-0718 0.24149, Description: CBD-1RW09-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.06e4	0.241		2.96				
2	2	PFHxA	312.7 > 268.8	6.78e1	9.26e3	0.241		3.34	3.34	0.0732	0.373	
3	3	PFHpA	362.7 > 318.8	1.49e1	9.26e3	0.241		3.85	3.86	0.0161	0.0759	
4	4	PFHxS	398.7 > 80.7		1.06e4	0.241		3.98				
5	5	PFOA	412.8 > 369.0	1.50e1	9.26e3	0.241		4.28	4.28	0.0162	0.0920	
6	6	PFNA	462.9 > 419.1	3.02e0	9.26e3	0.241		4.64	4.66	0.00327	0.0155	
7	7	PFOS	498.8 >80.7		1.06e4	0.241		4.70				
8	8	PFDA	512.8 > 469.0	3.19e1	9.26e3	0.241		4.92	4.95	0.0345	0.164	
9	9	N-MeFOSAA	569.7 > 419.0		1.50e4	0.241		5.06				
10	10	N-EtFOSAA	583.6 >419.1		1.50e4	0.241		5.18				
11	11	PFUnA	562.7 > 518.9		9.26e3	0.241		5.16				
12	12	PFDoA	612.5 > 319.0		9.26e3	0.241		5.40				
13	13	PFTrDA	662.4 > 618.7		9.26e3	0.241		5.61				
14	14	PFTeDA	712.2>668.4		9.26e3	0.241		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.66e3	9.26e3	0.241	0.753	3.43	3.34	7.20	39.6	95.6
16	16	13C2-PFDA	514.8 > 470.0	8.48e3	9.26e3	0.241	1.023	4.87	4.95	9.16	37.1	89.6
17	17	d5-N-EtFOSAA	588.7> 419.1	1.59e4	1.50e4	0.241	1.264	5.06	5.16	42.2	138	83.5
18	18	13C2-PFOA	414.8 > 370.1	9.26e3	9.26e3	0.241	1.000	4.28	4.27	10.0	41.4	100.0
19	19	13C4-PFOS	502.8>80.7	1.06e4	1.06e4	0.241	1.000	4.71	4.70	28.7	119	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.50e4	1.50e4	0.241	1.000	5.04	5.06	40.0	166	100.0

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Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-30.qld

Last Altered: Saturday, July 21, 2018 17:09:35 Pacific Daylight Time
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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_30, Date: 20-Jul-2018, Time: 22:09:45, ID: 1801762-17 CBD-1RW09-0718 0.24149, Description: CBD-1RW09-0718

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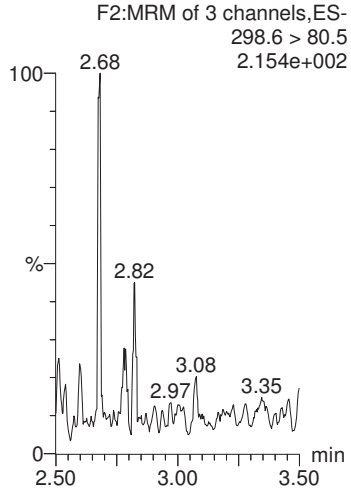

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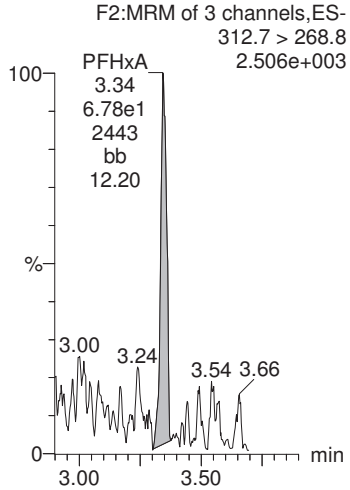

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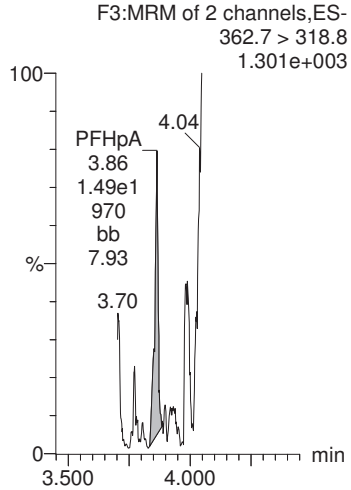

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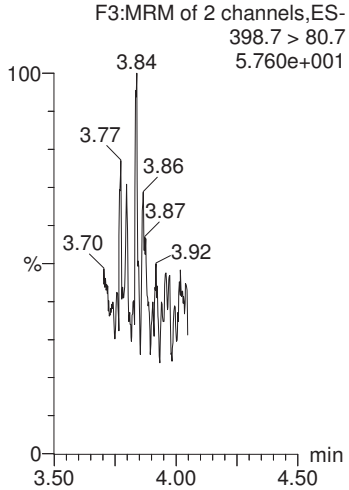
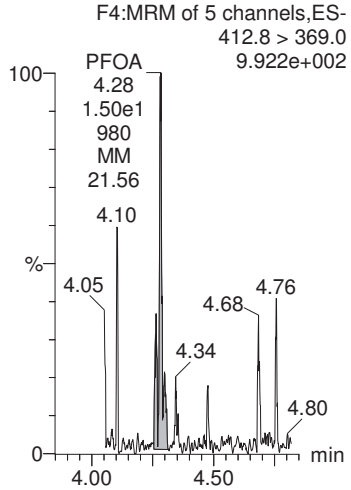


PFOA



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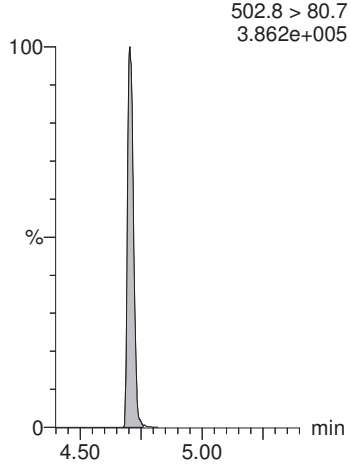

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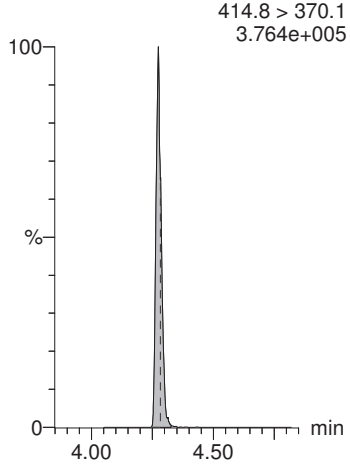

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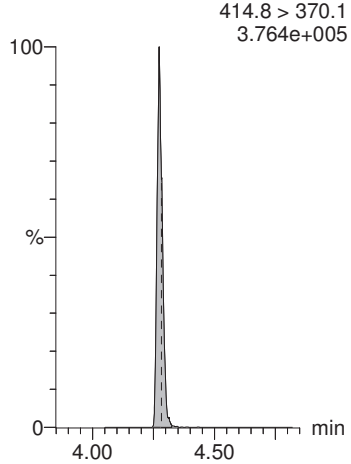

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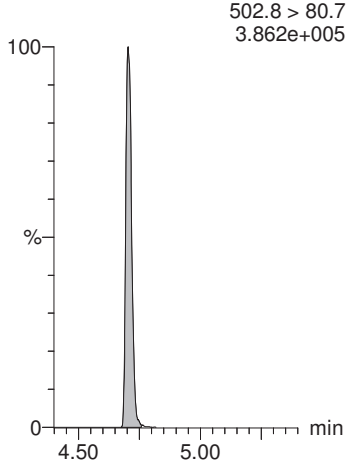

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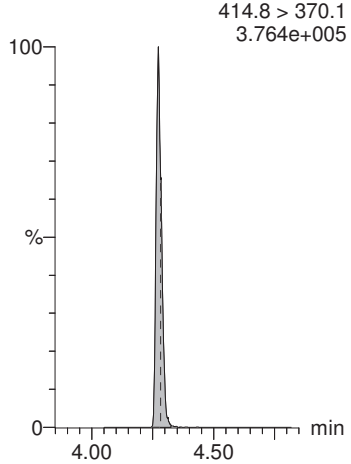

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-30.qld

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Name: 180720G2_30, Date: 20-Jul-2018, Time: 22:09:45, ID: 1801762-17 CBD-1RW09-0718 0.24149, Description: CBD-1RW09-0718

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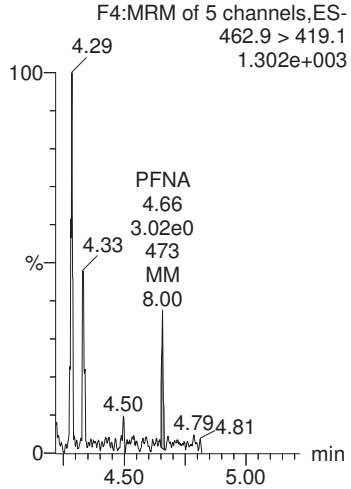

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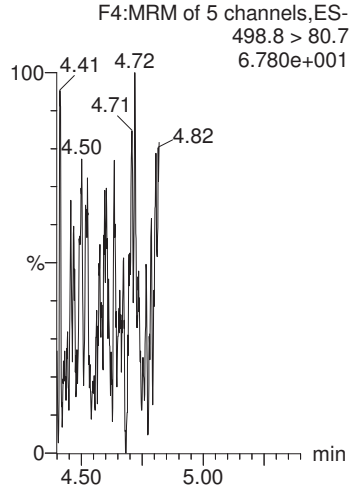

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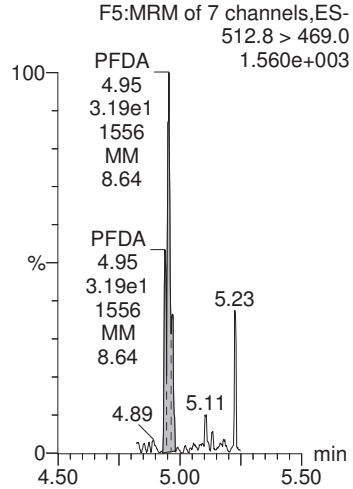

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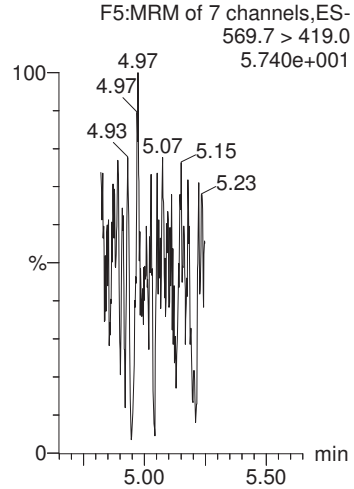

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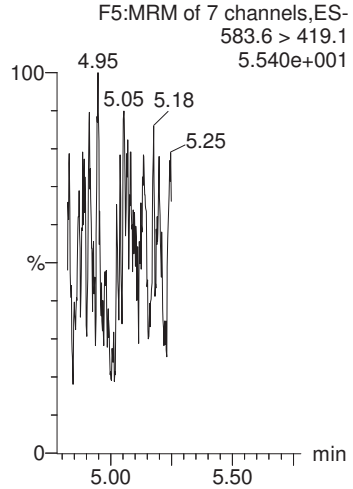

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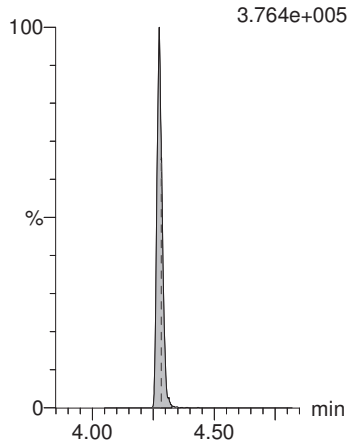

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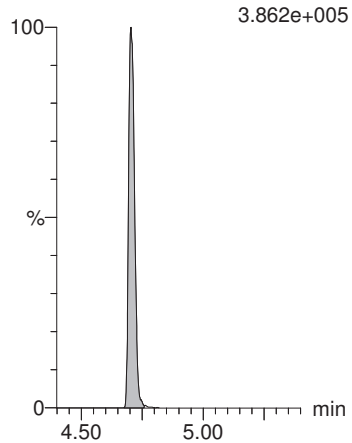

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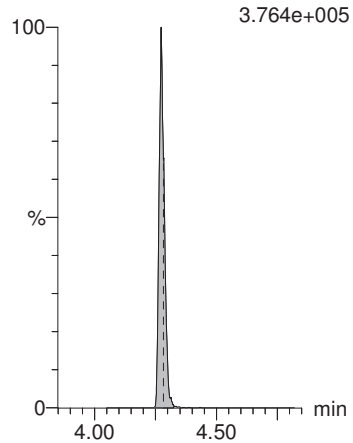

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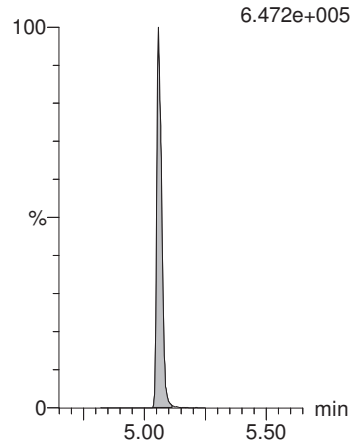

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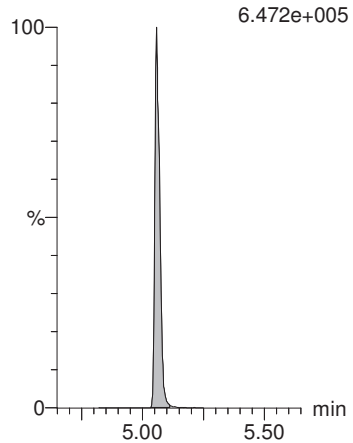

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

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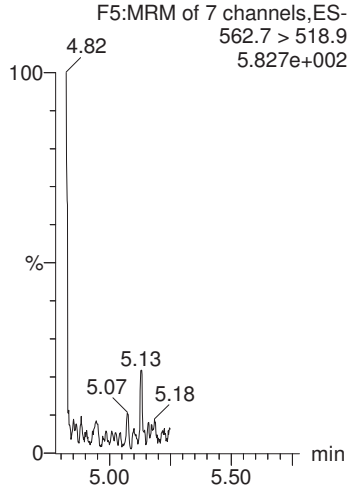
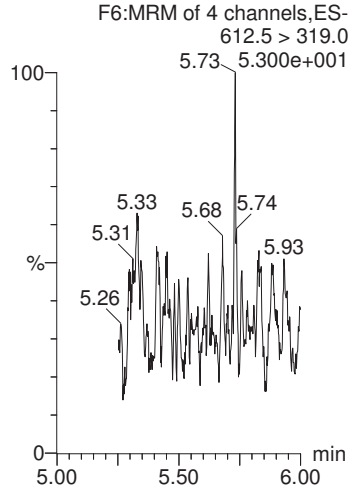
Name: 180720G2_30, Date: 20-Jul-2018, Time: 22:09:45, ID: 1801762-17 CBD-1RW09-0718 0.24149, Description: CBD-1RW09-0718

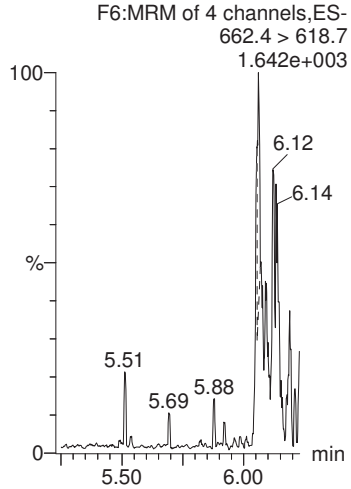
PFUnA



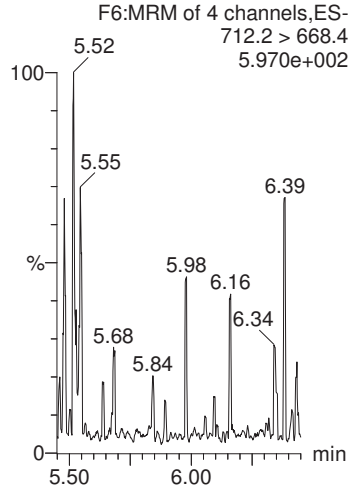
PFDoA



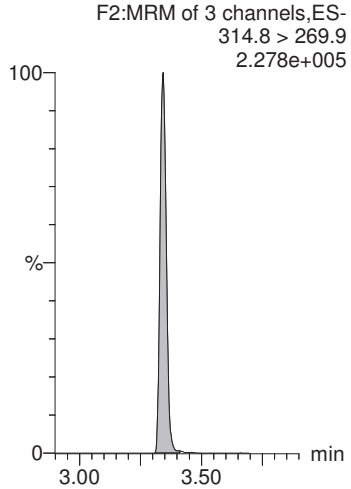
PFTrDA



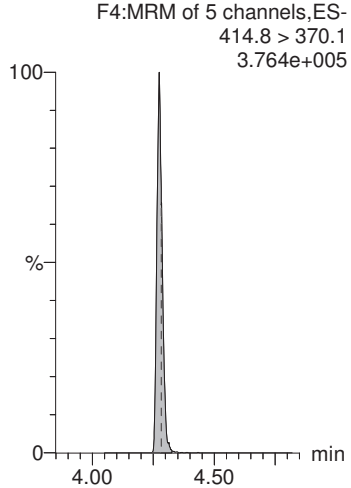
PFTeDA



13C2-PFHxA



13C2-PFOA



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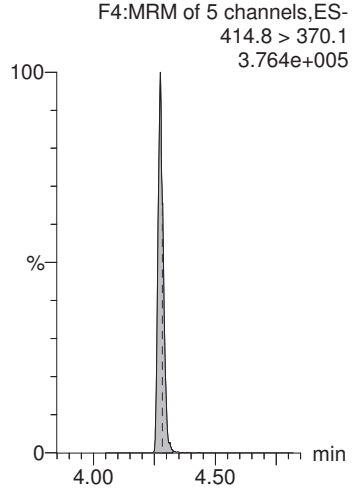

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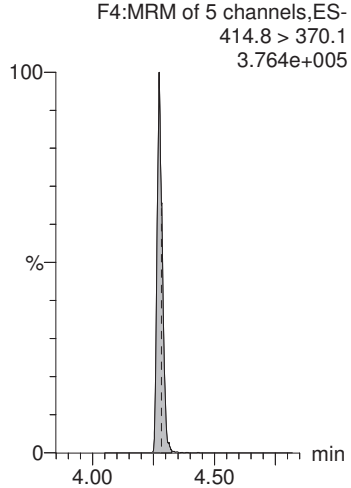
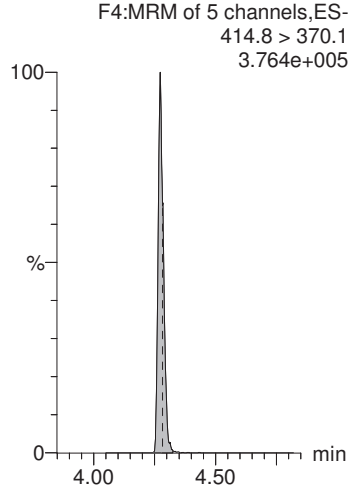
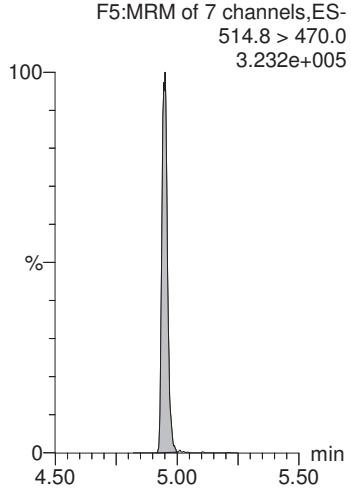


13C2-PFOA



13C2-PFDA



CGH 7/21/2018

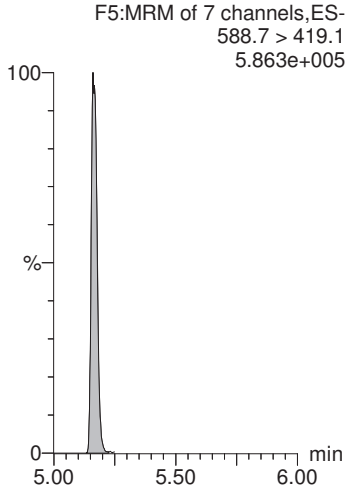
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-30.qld

Last Altered: Saturday, July 21, 2018 17:09:35 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:10:13 Pacific Daylight Time

Name: 180720G2_30, Date: 20-Jul-2018, Time: 22:09:45, ID: 1801762-17 CBD-1RW09-0718 0.24149, Description: CBD-1RW09-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-31.qld

Last Altered: Saturday, July 21, 2018 17:12:15 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:13:07 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_31, Date: 20-Jul-2018, Time: 22:22:34, ID: 1801762-18 CBD-1FB09-0718 0.24956, Description: CBD-1FB09-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.28e4	0.250		2.96				
2	2	PFHxA	312.7 > 268.8	5.49e1	1.10e4	0.250		3.34	3.34	0.0498	0.245	
3	3	PFHpA	362.7 > 318.8	1.35e1	1.10e4	0.250		3.85	3.86	0.0123	0.0561	
4	4	PFHxS	398.7 > 80.7		1.28e4	0.250		3.98				
5	5	PFOA	412.8 > 369.0	2.13e1	1.10e4	0.250		4.28	4.28	0.0193	0.106	
6	6	PFNA	462.9 > 419.1		1.10e4	0.250		4.64				
7	7	PFOS	498.8 >80.7		1.28e4	0.250		4.70				
8	8	PFDA	512.8 > 469.0	5.81e1	1.10e4	0.250		4.92	4.95	0.0527	0.242	
9	9	N-MeFOSAA	569.7 > 419.0		1.67e4	0.250		5.07				
10	10	N-EtFOSAA	583.6 >419.1		1.67e4	0.250		5.18				
11	11	PFUnA	562.7 > 518.9		1.10e4	0.250		5.16				
12	12	PFDoA	612.5 > 319.0		1.10e4	0.250		5.40				
13	13	PFTrDA	662.4 > 618.7		1.10e4	0.250		5.61				
14	14	PFTeDA	712.2>668.4		1.10e4	0.250		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	7.37e3	1.10e4	0.250	0.753	3.43	3.34	6.69	35.6	88.8
16	16	13C2-PFDA	514.8 > 470.0	1.01e4	1.10e4	0.250	1.023	4.87	4.95	9.15	35.9	89.5
17	17	d5-N-EtFOSAA	588.7> 419.1	1.90e4	1.67e4	0.250	1.264	5.06	5.16	45.6	144	90.1
18	18	13C2-PFOA	414.8 > 370.1	1.10e4	1.10e4	0.250	1.000	4.28	4.27	10.0	40.1	100.0
19	19	13C4-PFOS	502.8>80.7	1.28e4	1.28e4	0.250	1.000	4.71	4.70	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.67e4	1.67e4	0.250	1.000	5.04	5.06	40.0	160	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

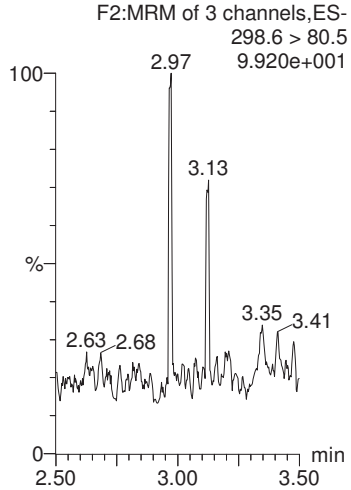
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-31.qld

Last Altered: Saturday, July 21, 2018 17:12:15 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:13:07 Pacific Daylight Time

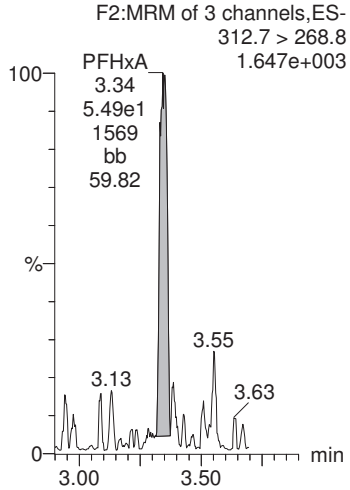
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_31, Date: 20-Jul-2018, Time: 22:22:34, ID: 1801762-18 CBD-1FB09-0718 0.24956, Description: CBD-1FB09-0718

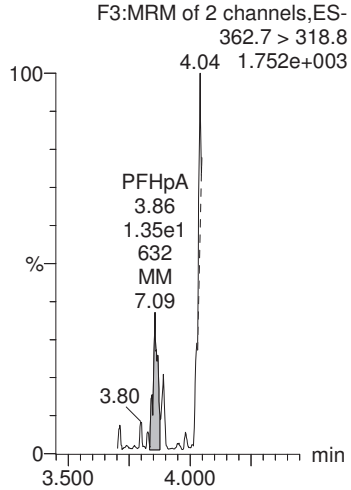
PFBS



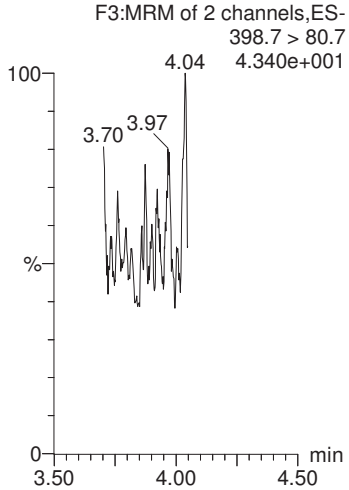
PFHxA



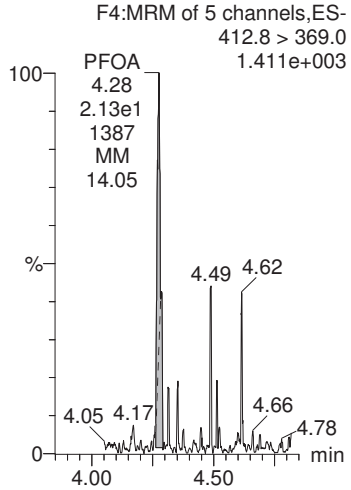
PFHpA



PFHxS



PFOA



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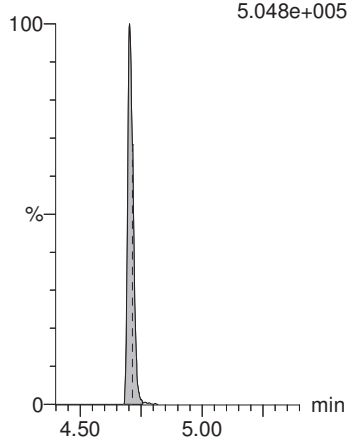
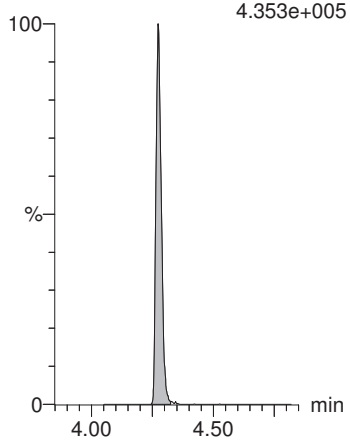


13C2-PFOA



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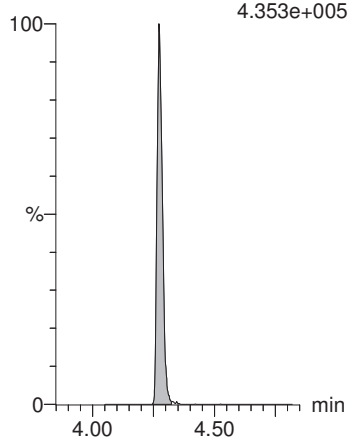

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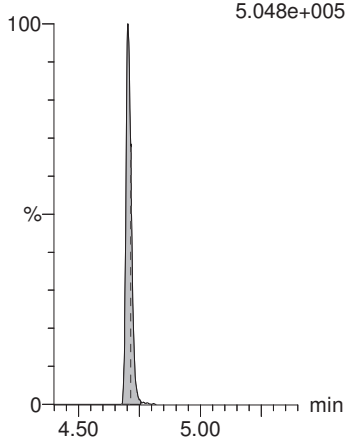

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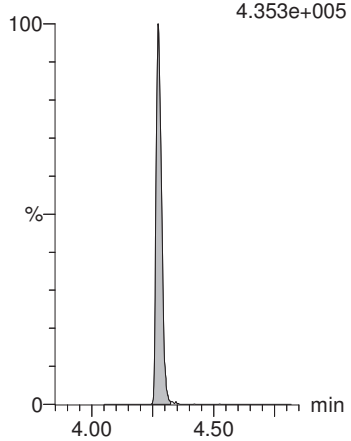


CGH 7/21/2018

Vista Analytical Laboratory

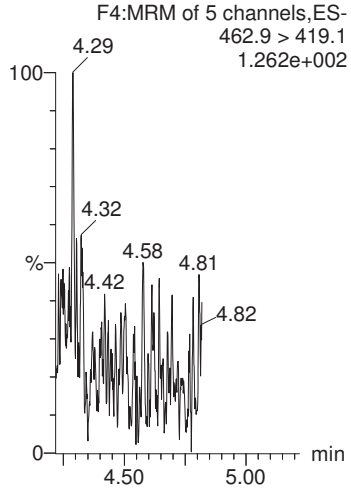
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-31.qld

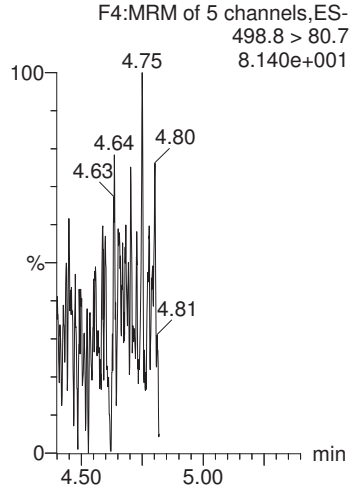
Last Altered: Saturday, July 21, 2018 17:12:15 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:13:07 Pacific Daylight Time

Name: 180720G2_31, Date: 20-Jul-2018, Time: 22:22:34, ID: 1801762-18 CBD-1FB09-0718 0.24956, Description: CBD-1FB09-0718

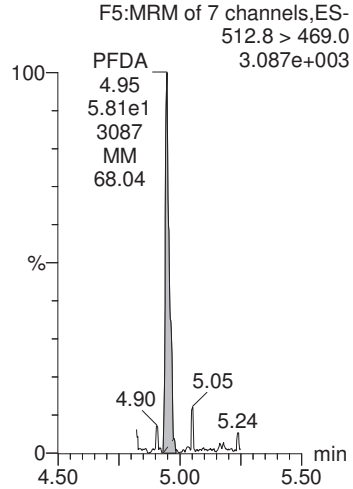
PFNA



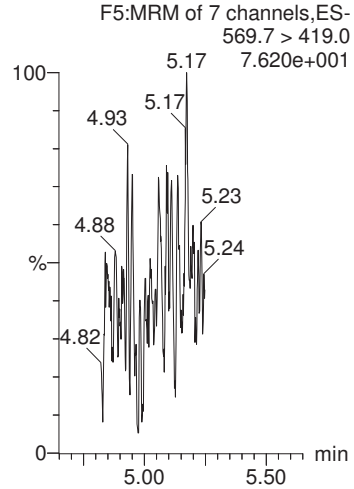
PFOS



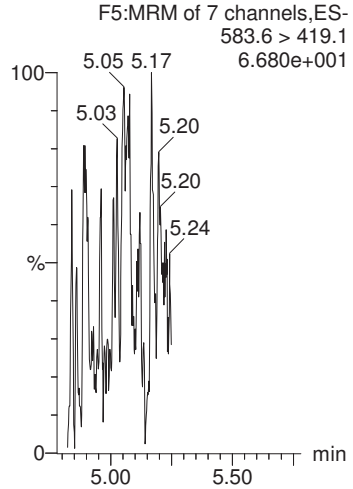
PFDA



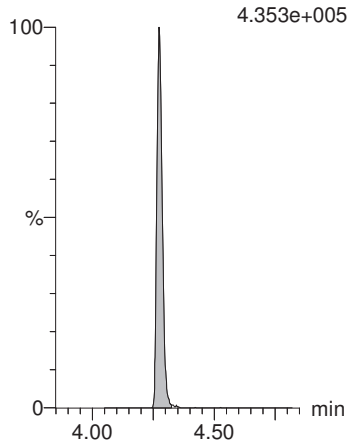
N-MeFOSAA



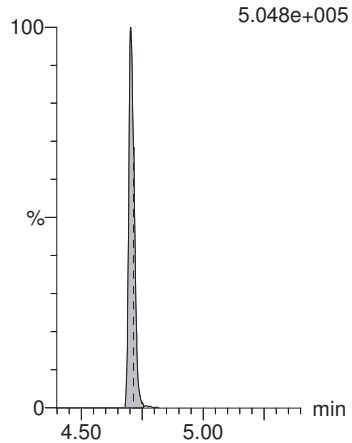
N-EtFOSAA



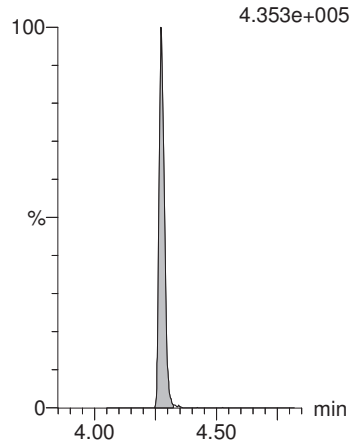
13C2-PFOA



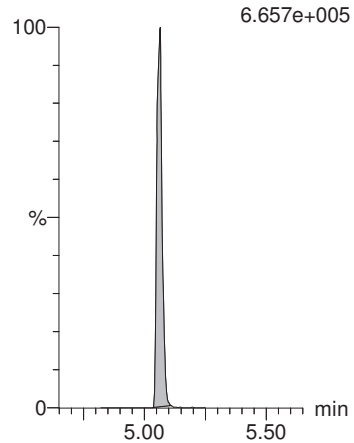
13C4-PFOS



13C2-PFOA



d3-N-MeFOSAA



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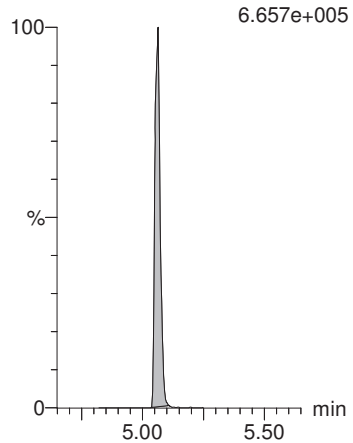


CGH 7/21/2018

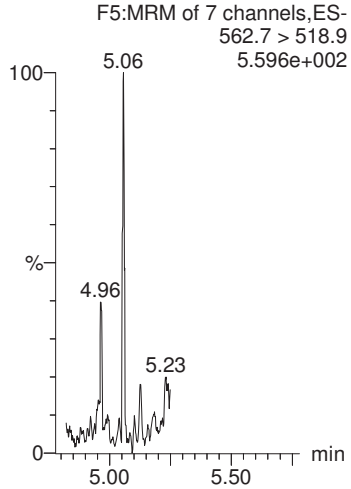
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-31.qld

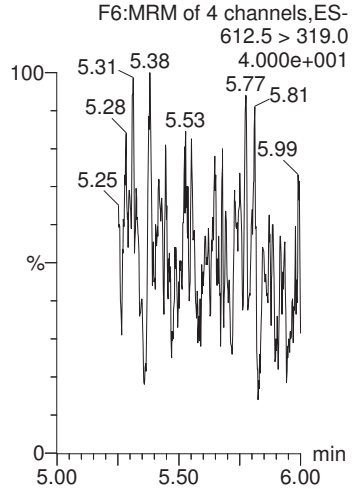
Last Altered: Saturday, July 21, 2018 17:12:15 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:13:07 Pacific Daylight Time

Name: 180720G2_31, Date: 20-Jul-2018, Time: 22:22:34, ID: 1801762-18 CBD-1FB09-0718 0.24956, Description: CBD-1FB09-0718

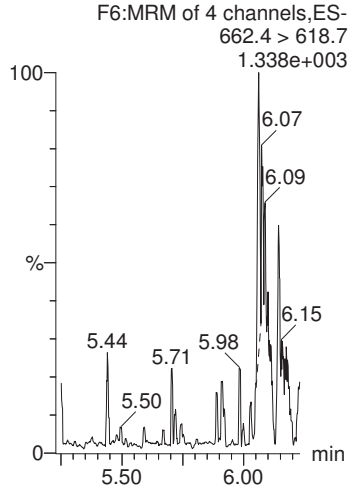
PFUnA



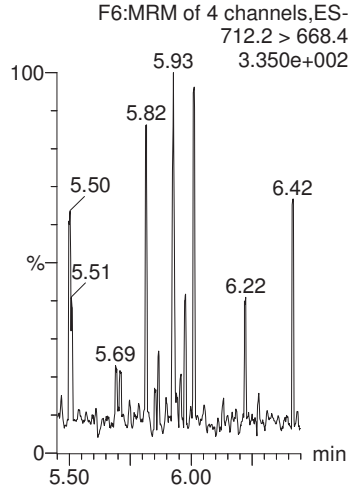
PFDoA



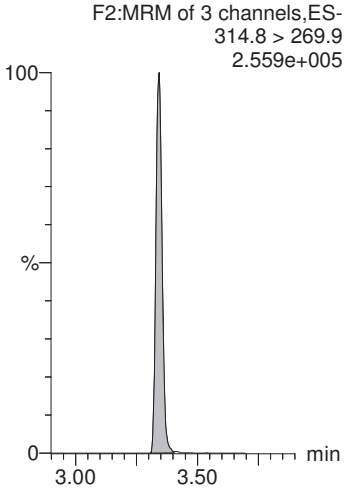
PFTrDA



PFTeDA



13C2-PFHxA



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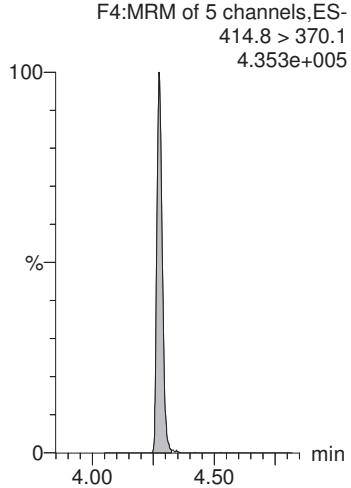

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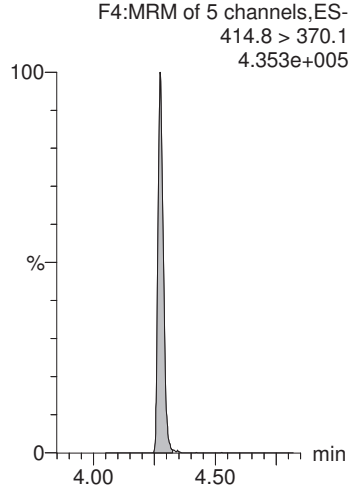

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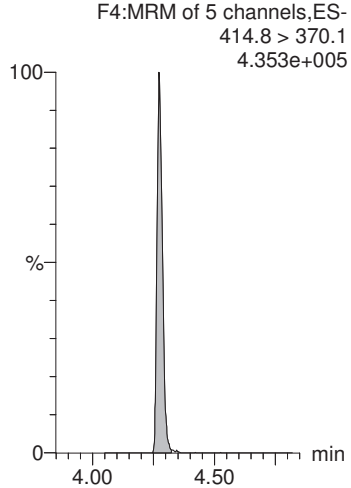

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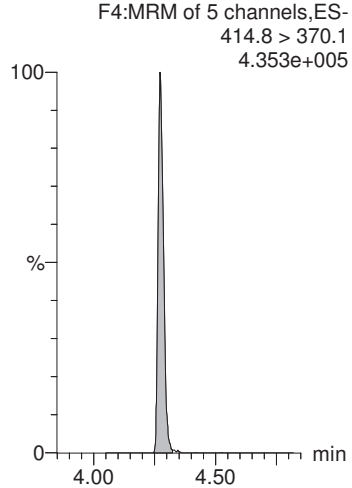
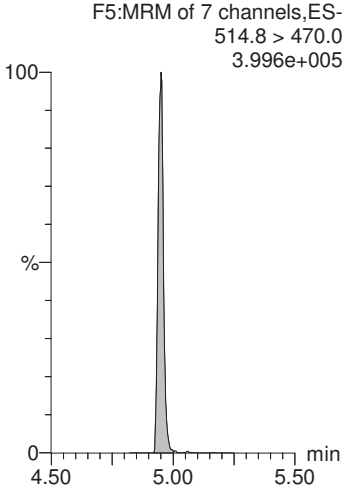


13C2-PFDA



CGH 7/21/2018

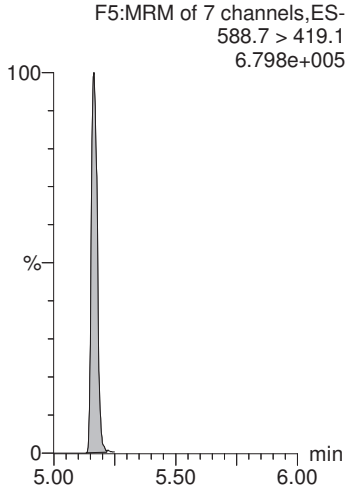
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-31.qld

Last Altered: Saturday, July 21, 2018 17:12:15 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:13:07 Pacific Daylight Time

Name: 180720G2_31, Date: 20-Jul-2018, Time: 22:22:34, ID: 1801762-18 CBD-1FB09-0718 0.24956, Description: CBD-1FB09-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-32.qld

Last Altered: Saturday, July 21, 2018 17:15:34 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:16:09 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_32, Date: 20-Jul-2018, Time: 22:35:25, ID: 1801762-19 CBD-1RW10-0718 0.23841, Description: CBD-1RW10-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.03e4	0.238		2.96				
2	2	PFHxA	312.7 > 268.8	4.61e1	8.74e3	0.238		3.34	3.34	0.0528	0.272	
3	3	PFHpA	362.7 > 318.8	9.72e0	8.74e3	0.238		3.85	3.87	0.0111	0.0532	
4	4	PFHxS	398.7 > 80.7		1.03e4	0.238		3.98				
5	5	PFOA	412.8 > 369.0	2.52e1	8.74e3	0.238		4.27	4.28	0.0288	0.166	
6	6	PFNA	462.9 > 419.1	1.48e0	8.74e3	0.238		4.64	4.64	0.00169	0.00812	
7	7	PFOS	498.8 >80.7		1.03e4	0.238		4.70				
8	8	PFDA	512.8 > 469.0	1.67e1	8.74e3	0.238		4.92	4.95	0.0191	0.0919	
9	9	N-MeFOSAA	569.7 > 419.0		1.33e4	0.238		5.07				
10	10	N-EtFOSAA	583.6 >419.1		1.33e4	0.238		5.18				
11	11	PFUnA	562.7 > 518.9	3.01e0	8.74e3	0.238		5.16	5.18	0.00344	0.0150	
12	12	PFDoA	612.5 > 319.0		8.74e3	0.238		5.40				
13	13	PFTrDA	662.4 > 618.7		8.74e3	0.238		5.61				
14	14	PFTeDA	712.2>668.4		8.74e3	0.238		5.79				
15	15	13C2-PFHxA	314.8 > 269.9	5.99e3	8.74e3	0.238	0.753	3.43	3.34	6.85	38.2	91.0
16	16	13C2-PFDA	514.8 > 470.0	7.43e3	8.74e3	0.238	1.023	4.87	4.94	8.49	34.8	83.1
17	17	d5-N-EtFOSAA	588.7> 419.1	1.51e4	1.33e4	0.238	1.264	5.06	5.16	45.7	152	90.3
18	18	13C2-PFOA	414.8 > 370.1	8.74e3	8.74e3	0.238	1.000	4.28	4.27	10.0	41.9	100.0
19	19	13C4-PFOS	502.8>80.7	1.03e4	1.03e4	0.238	1.000	4.71	4.70	28.7	120	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.33e4	1.33e4	0.238	1.000	5.04	5.06	40.0	168	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-32.qld

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Printed: Saturday, July 21, 2018 17:16:09 Pacific Daylight Time

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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_32, Date: 20-Jul-2018, Time: 22:35:25, ID: 1801762-19 CBD-1RW10-0718 0.23841, Description: CBD-1RW10-0718

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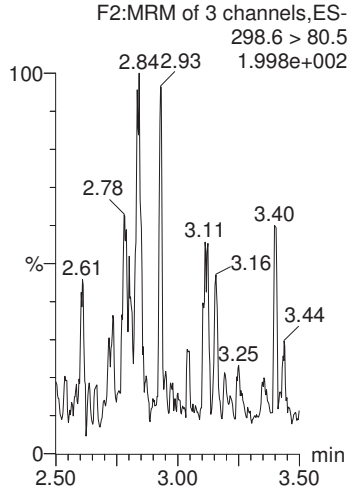

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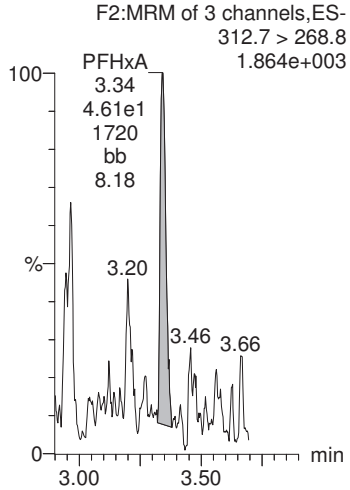

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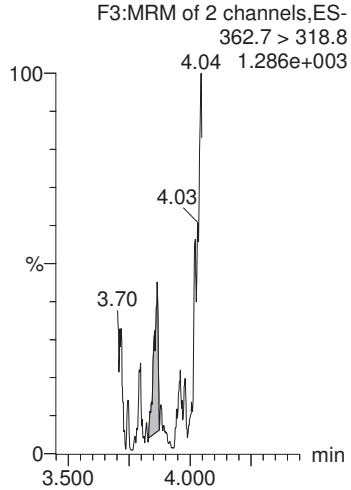

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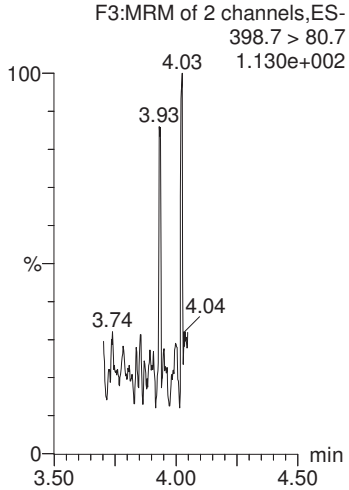

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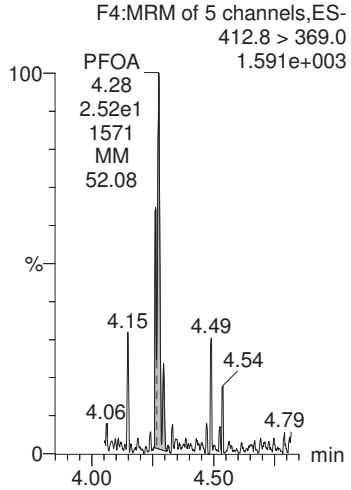

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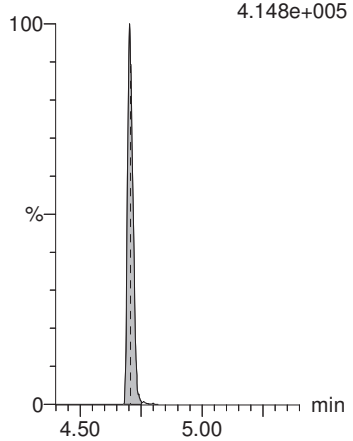

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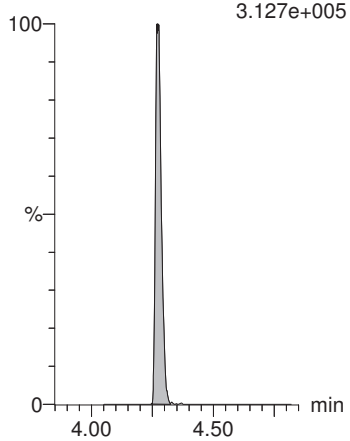

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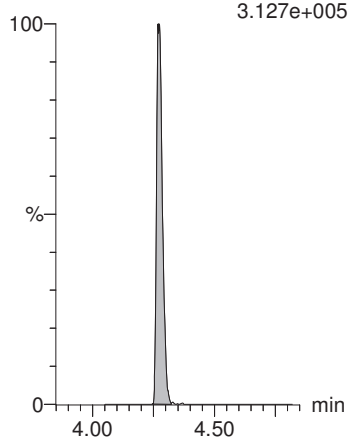

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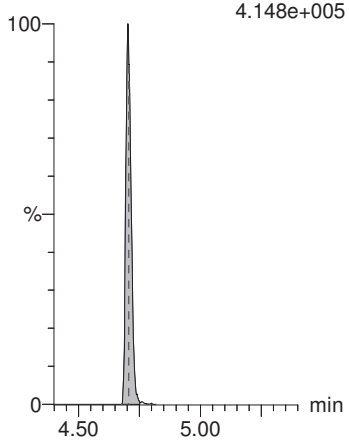

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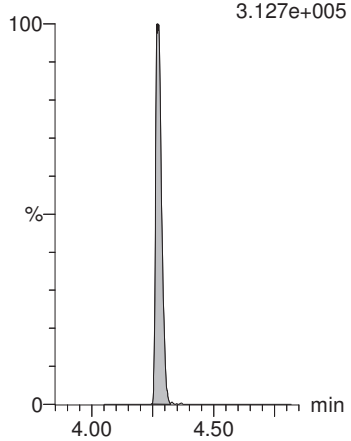

CGH 7/21/2018

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MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-32.qld

Last Altered: Saturday, July 21, 2018 17:15:34 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:16:09 Pacific Daylight Time

Name: 180720G2_32, Date: 20-Jul-2018, Time: 22:35:25, ID: 1801762-19 CBD-1RW10-0718 0.23841, Description: CBD-1RW10-0718

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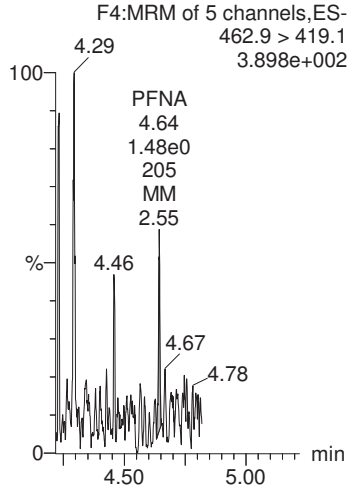

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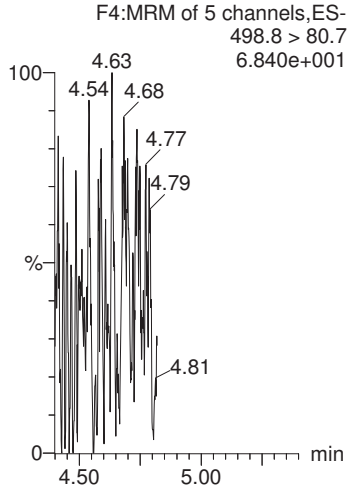

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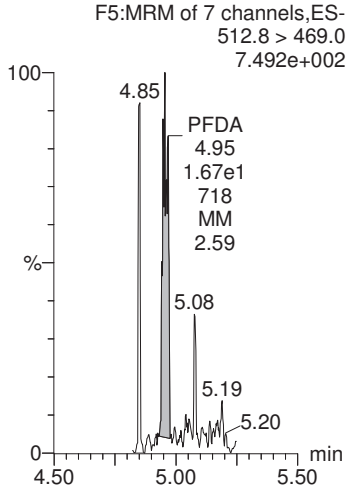

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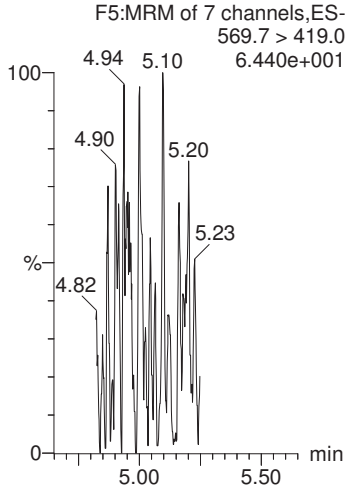

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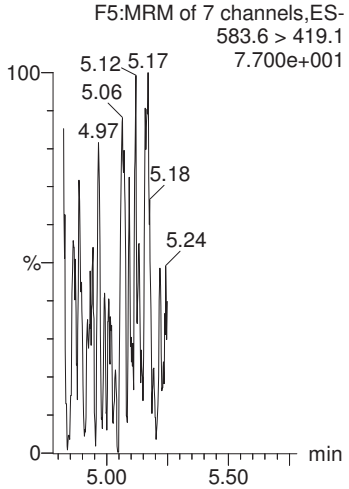

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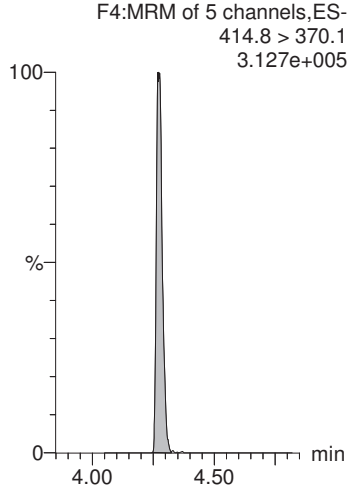

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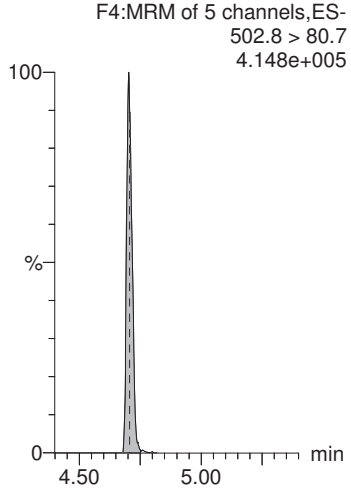

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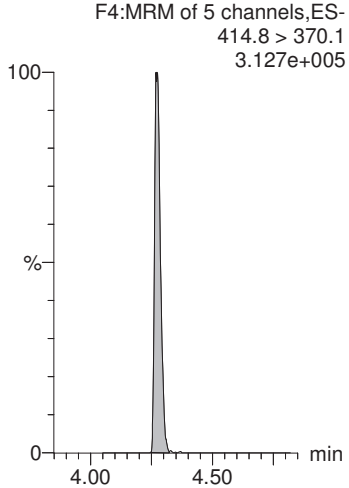

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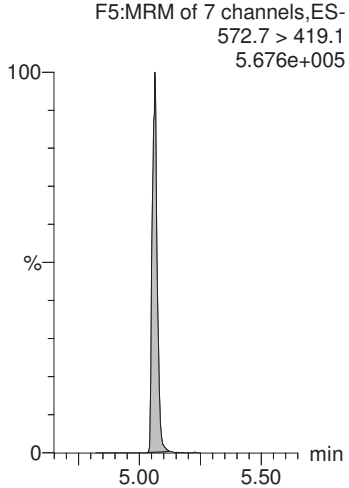

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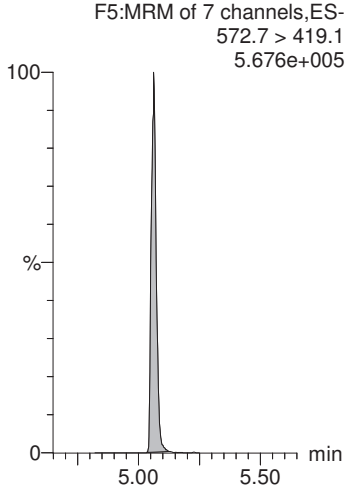

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-32.qld

Last Altered: Saturday, July 21, 2018 17:15:34 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:16:09 Pacific Daylight Time

Name: 180720G2_32, Date: 20-Jul-2018, Time: 22:35:25, ID: 1801762-19 CBD-1RW10-0718 0.23841, Description: CBD-1RW10-0718

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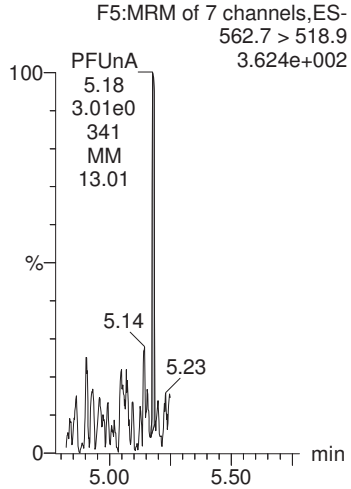

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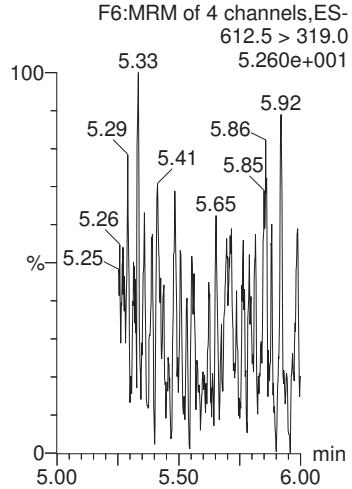

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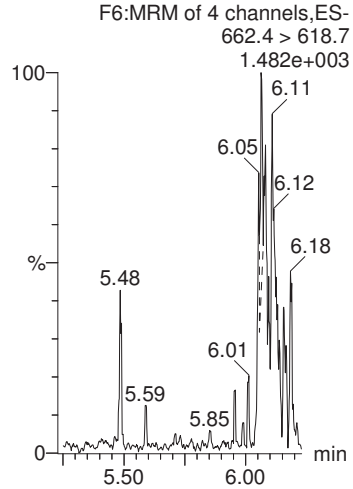

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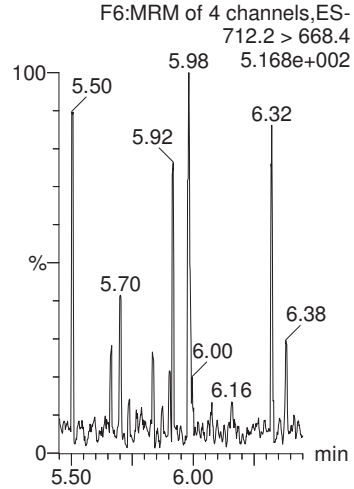

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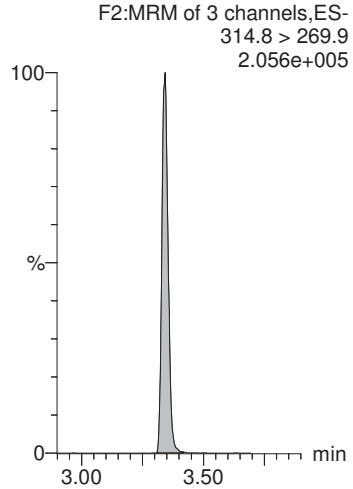

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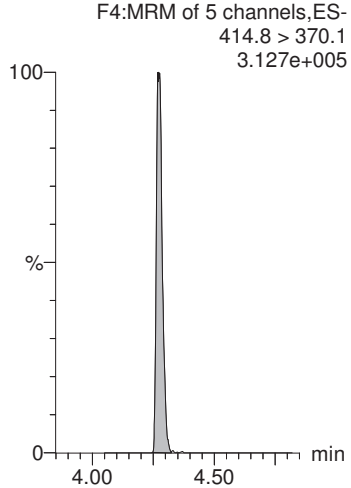

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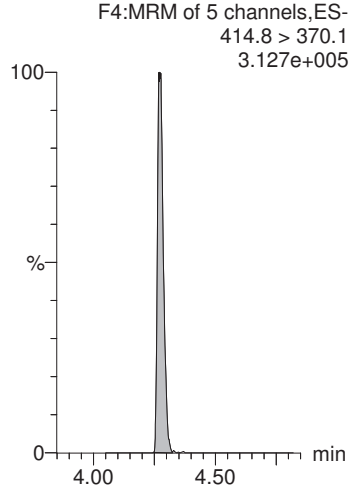

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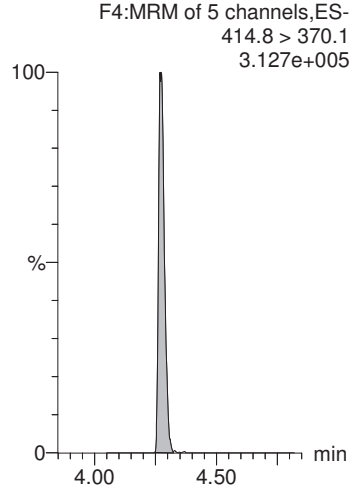

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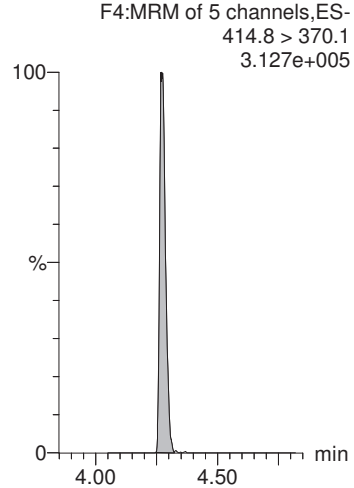

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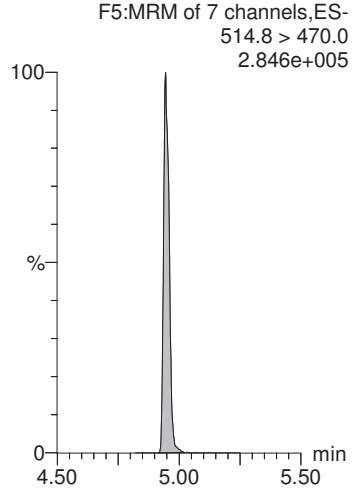

CGH 7/21/2018

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-32.qld

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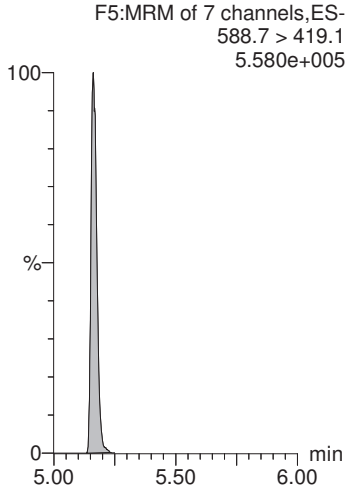
Printed: Saturday, July 21, 2018 17:16:09 Pacific Daylight Time

Name: 180720G2_32, Date: 20-Jul-2018, Time: 22:35:25, ID: 1801762-19 CBD-1RW10-0718 0.23841, Description: CBD-1RW10-0718

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-12.qld

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Printed: Saturday, July 21, 2018 15:41:17 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_12, Date: 20-Jul-2018, Time: 18:19:08, ID: B8G0137-MS1 LFSM 0.23526, Description: LFSM

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	7.39e3	1.16e4	0.235		2.96	2.96	18.3	81.7	
2	2	PFHxA	312.7 > 268.8	1.48e4	9.40e3	0.235		3.34	3.34	15.8	82.4	
3	3	PFHpA	362.7 > 318.8	1.66e4	9.40e3	0.235		3.85	3.86	17.6	85.6	
4	4	PFHxS	398.7 > 80.7	8.71e3	1.16e4	0.235		3.98	3.98	21.6	81.2	
5	5	PFOA	412.8 > 369.0	1.47e4	9.40e3	0.235		4.27	4.27	15.7	91.5	
6	6	PFNA	462.9 > 419.1	1.47e4	9.40e3	0.235		4.64	4.63	15.6	76.1	
7	7	PFOS	498.8 >80.7	2.65e3	1.16e4	0.235		4.70	4.70	6.56	75.5	
8	8	PFDA	512.8 > 469.0	1.49e4	9.40e3	0.235		4.92	4.94	15.8	77.2	
9	9	N-MeFOSAA	569.7 > 419.0	8.35e3	1.43e4	0.235		5.06	5.06	23.4	86.1	
10	10	N-EtFOSAA	583.6 >419.1	6.92e3	1.43e4	0.235		5.18	5.17	19.4	82.8	
11	11	PFUnA	562.7 > 518.9	1.65e4	9.40e3	0.235		5.16	5.18	17.5	77.6	
12	12	PFDoA	612.5 > 319.0	2.38e3	9.40e3	0.235		5.40	5.40	2.54	73.4	
13	13	PFTrDA	662.4 > 618.7	1.48e4	9.40e3	0.235		5.61	5.61	15.7	74.1	
14	14	PFTeDA	712.2>668.4	1.47e4	9.40e3	0.235		5.79	5.80	15.6	71.6	
15	15	13C2-PFHxA	314.8 > 269.9	6.77e3	9.40e3	0.235	0.753	3.43	3.34	7.20	40.7	95.7
16	16	13C2-PFDA	514.8 > 470.0	8.80e3	9.40e3	0.235	1.023	4.87	4.94	9.37	38.9	91.6
17	17	d5-N-EtFOSAA	588.7> 419.1	1.50e4	1.43e4	0.235	1.264	5.06	5.16	42.1	142	83.3
18	18	13C2-PFOA	414.8 > 370.1	9.40e3	9.40e3	0.235	1.000	4.28	4.27	10.0	42.5	100.0
19	19	13C4-PFOS	502.8>80.7	1.16e4	1.16e4	0.235	1.000	4.71	4.70	28.7	122	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.43e4	1.43e4	0.235	1.000	5.04	5.06	40.0	170	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-12.qld

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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_12, Date: 20-Jul-2018, Time: 18:19:08, ID: B8G0137-MS1 LFSM 0.23526, Description: LFSM

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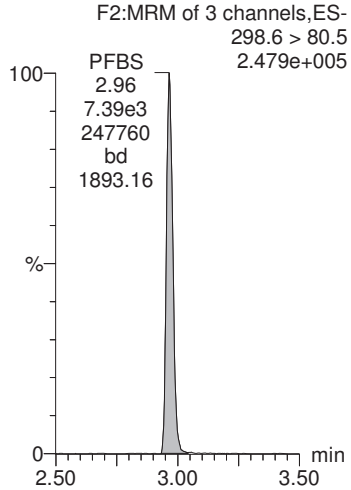

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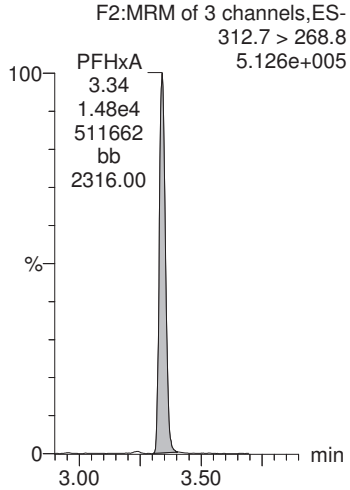

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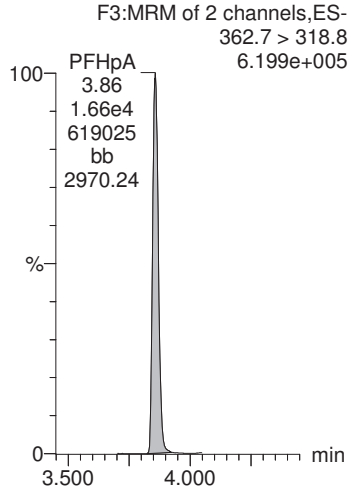

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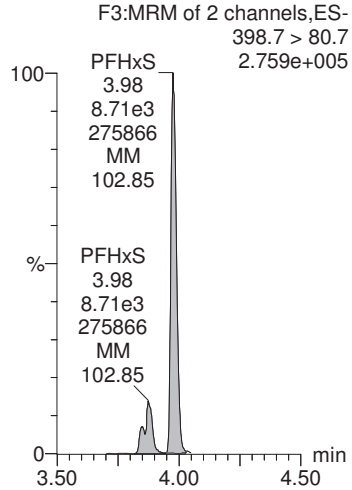

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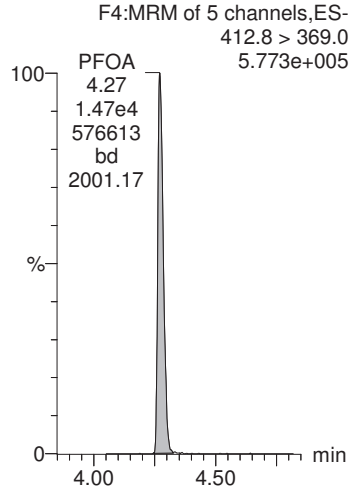

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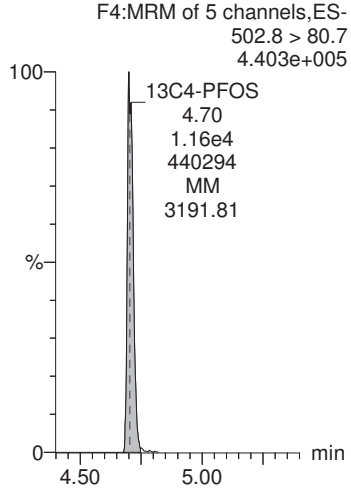
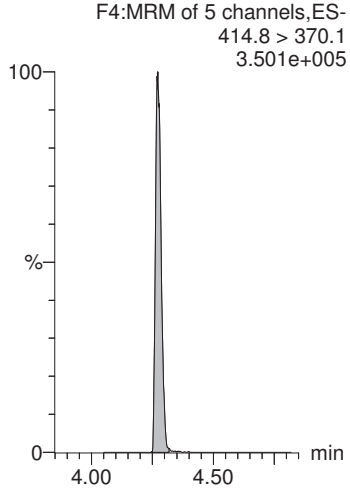


13C2-PFOA



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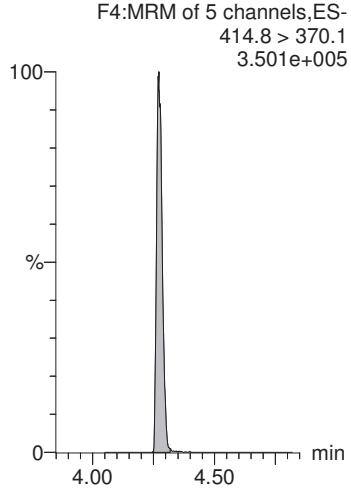
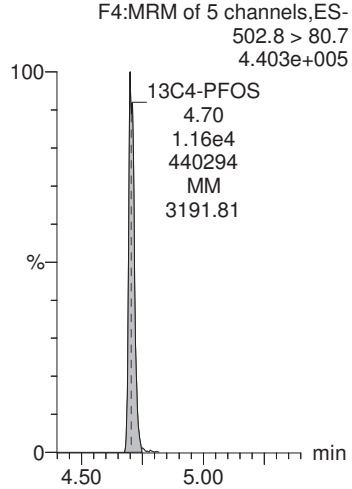


13C4-PFOS



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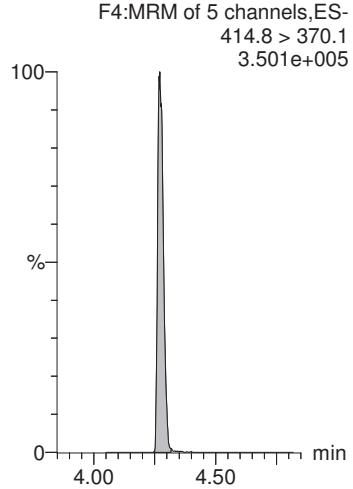

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-12.qld

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Printed: Saturday, July 21, 2018 15:41:17 Pacific Daylight Time

Name: 180720G2_12, Date: 20-Jul-2018, Time: 18:19:08, ID: B8G0137-MS1 LFSM 0.23526, Description: LFSM

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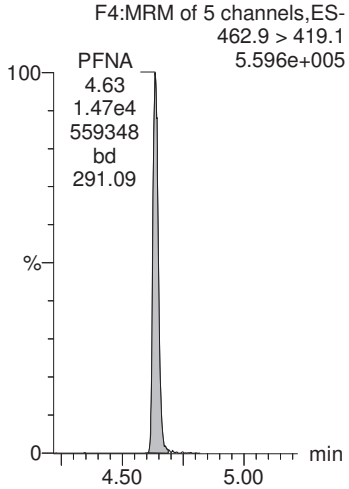

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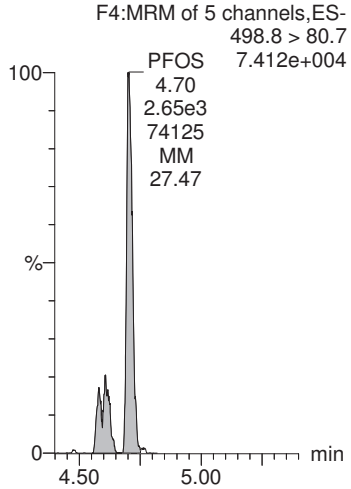

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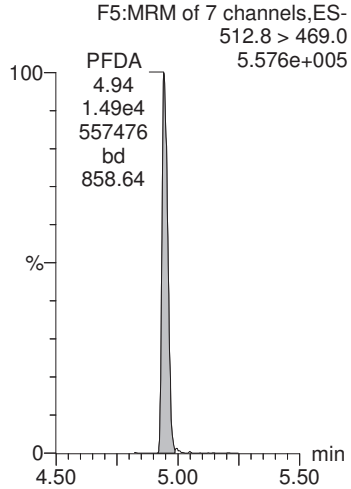

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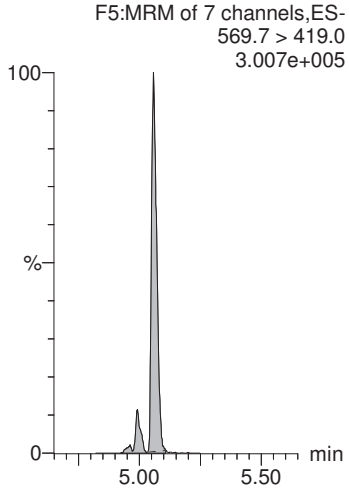

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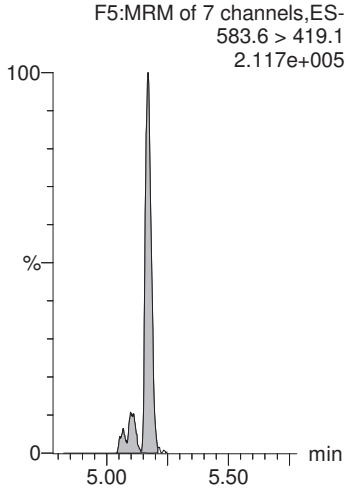

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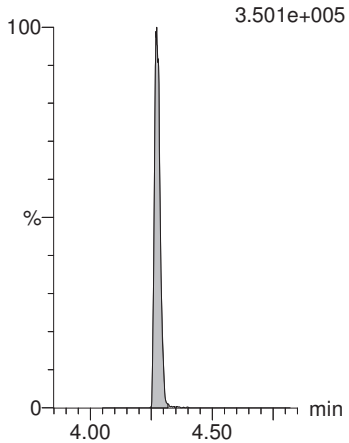

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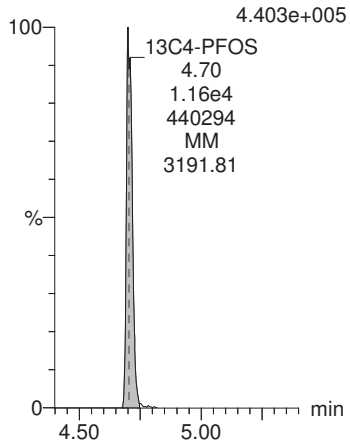

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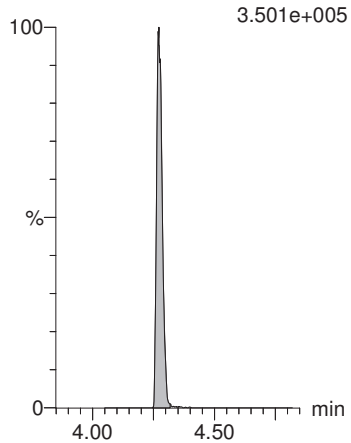

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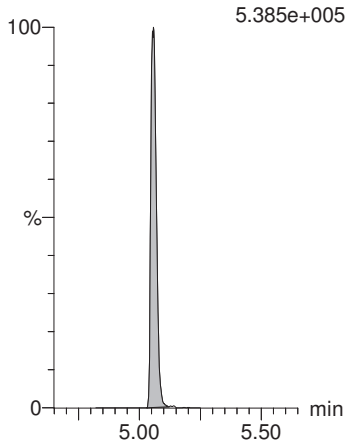

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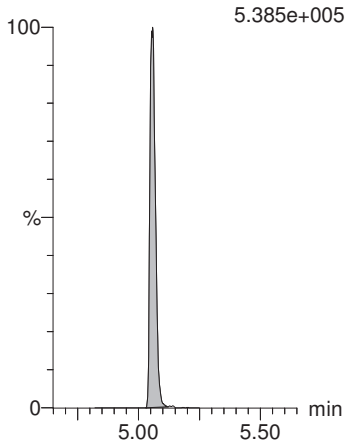

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-12.qld

Last Altered: Saturday, July 21, 2018 15:40:30 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:41:17 Pacific Daylight Time

Name: 180720G2_12, Date: 20-Jul-2018, Time: 18:19:08, ID: B8G0137-MS1 LFSM 0.23526, Description: LFSM

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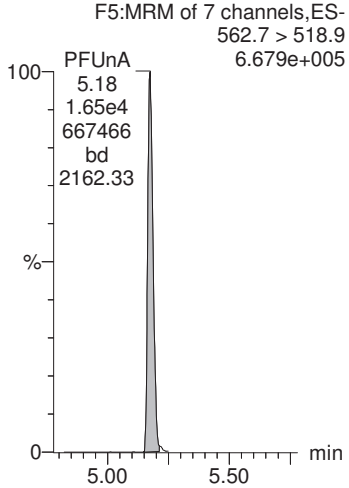

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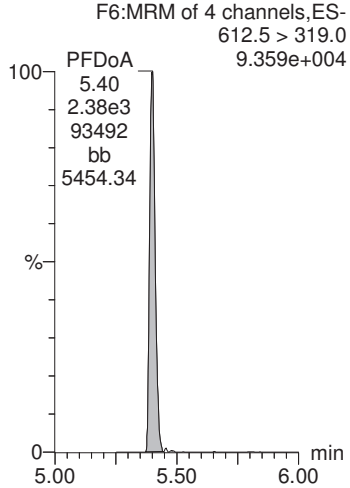

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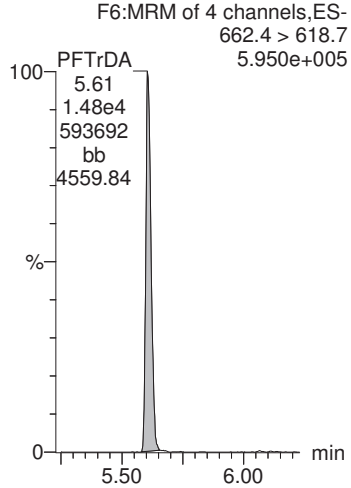

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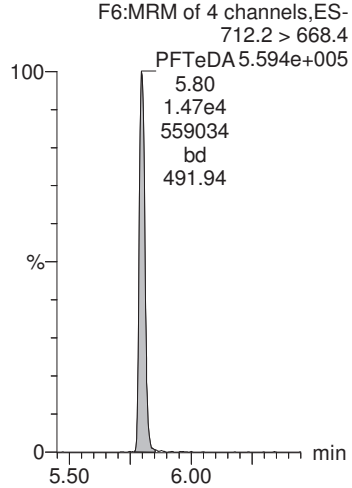

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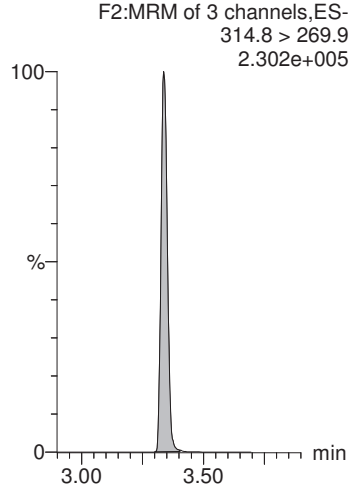

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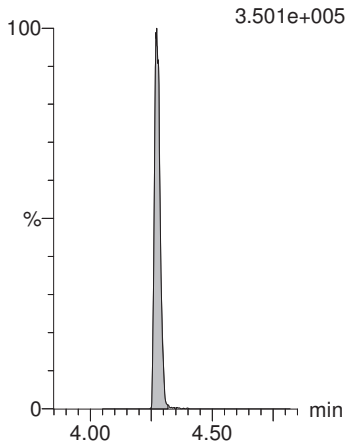

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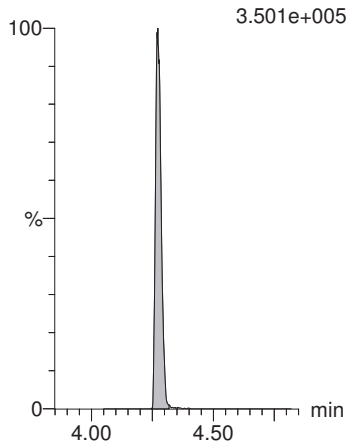

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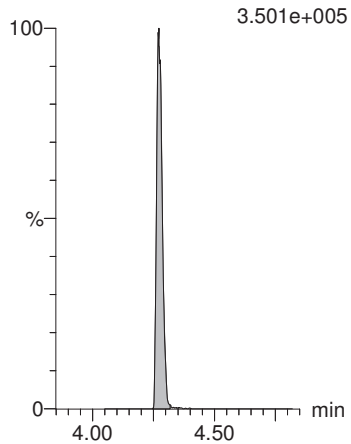

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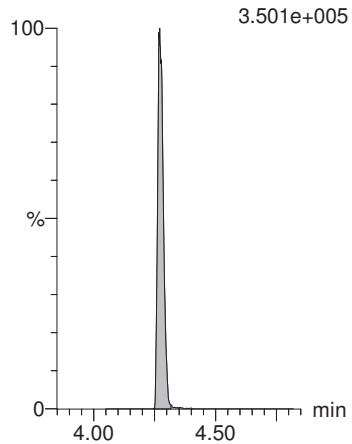

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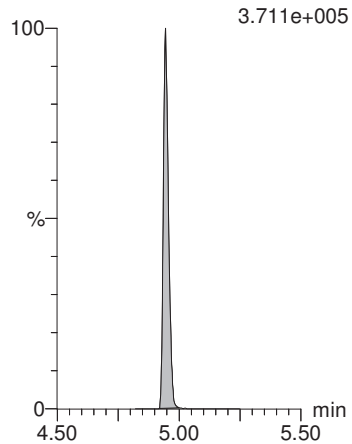


CGH 7/21/2018

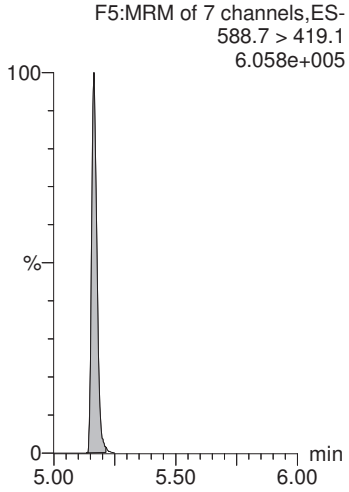
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-12.qld

Last Altered: Saturday, July 21, 2018 15:40:30 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:41:17 Pacific Daylight Time

Name: 180720G2_12, Date: 20-Jul-2018, Time: 18:19:08, ID: B8G0137-MS1 LFSM 0.23526, Description: LFSM

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/23/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-13.qld

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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_13, Date: 20-Jul-2018, Time: 18:31:53, ID: B8G0137-MSD1 LFSMD 0.24884, Description: LFSMD

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	6.78e3	9.98e3	0.249		2.96	2.96	19.5	82.4	
2	2	PFHxA	312.7 > 268.8	1.36e4	8.33e3	0.249		3.34	3.34	16.4	80.8	
3	3	PFHpA	362.7 > 318.8	1.49e4	8.33e3	0.249		3.85	3.86	17.8	81.7	
4	4	PFHxS	398.7 > 80.7	7.71e3	9.98e3	0.249		3.98	3.98	22.2	78.9	
5	5	PFOA	412.8 > 369.0	1.21e4	8.33e3	0.249		4.28	4.27	14.5	79.9	
6	6	PFNA	462.9 > 419.1	1.33e4	8.33e3	0.249		4.64	4.64	16.0	73.6	
7	7	PFOS	498.8 >80.7	2.44e3	9.98e3	0.249		4.70	4.70	7.01	76.2	
8	8	PFDA	512.8 > 469.0	1.27e4	8.33e3	0.249		4.92	4.94	15.3	70.4	
9	9	N-MeFOSAA	569.7 > 419.0	7.40e3	1.35e4	0.249		5.06	5.06	21.9	76.0	
10	10	N-EtFOSAA	583.6 >419.1	5.73e3	1.35e4	0.249		5.18	5.17	16.9	68.3	
11	11	PFUnA	562.7 > 518.9	1.56e4	8.33e3	0.249		5.16	5.17	18.7	78.3	
12	12	PFDoA	612.5 > 319.0	2.24e3	8.33e3	0.249		5.40	5.40	2.69	73.5	
13	13	PFTrDA	662.4 > 618.7	1.37e4	8.33e3	0.249		5.61	5.61	16.5	73.5	
14	14	PFTeDA	712.2>668.4	1.44e4	8.33e3	0.249		5.80	5.80	17.3	74.9	
15	15	13C2-PFHxA	314.8 > 269.9	6.15e3	8.33e3	0.249	0.753	3.43	3.34	7.38	39.4	98.0
16	16	13C2-PFDA	514.8 > 470.0	7.90e3	8.33e3	0.249	1.023	4.87	4.95	9.48	37.3	92.8
17	17	d5-N-EtFOSAA	588.7> 419.1	1.33e4	1.35e4	0.249	1.264	5.06	5.16	39.2	125	77.6
18	18	13C2-PFOA	414.8 > 370.1	8.33e3	8.33e3	0.249	1.000	4.28	4.27	10.0	40.2	100.0
19	19	13C4-PFOS	502.8>80.7	9.98e3	9.98e3	0.249	1.000	4.71	4.70	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.35e4	1.35e4	0.249	1.000	5.04	5.06	40.0	161	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/23/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-13.qld

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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_13, Date: 20-Jul-2018, Time: 18:31:53, ID: B8G0137-MSD1 LFSMD 0.24884, Description: LFSMD

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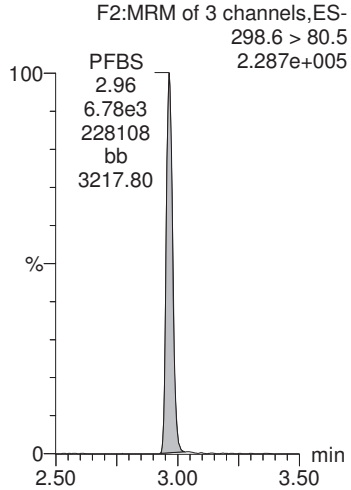

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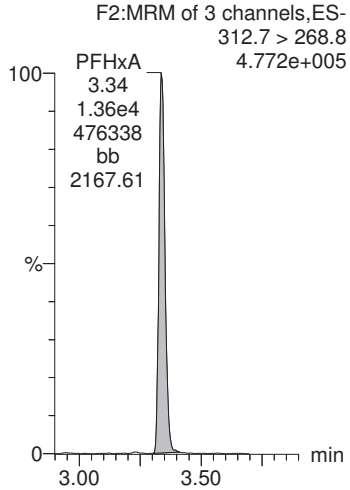
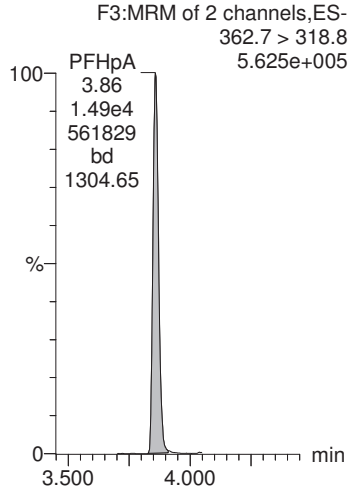
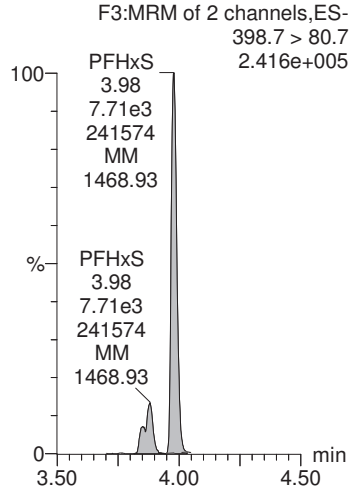


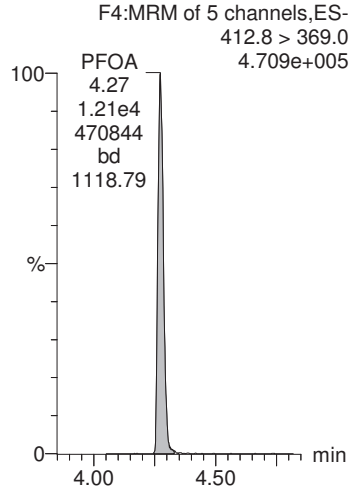
PFHpA



PFHxS



PFOA



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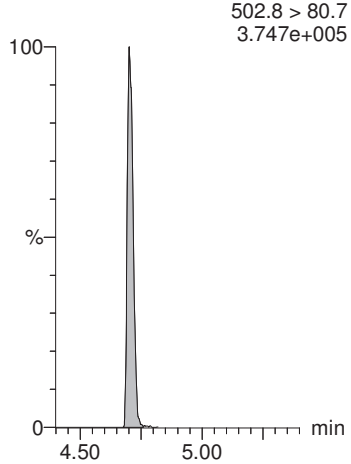

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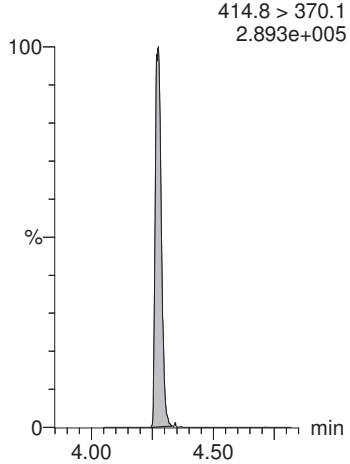

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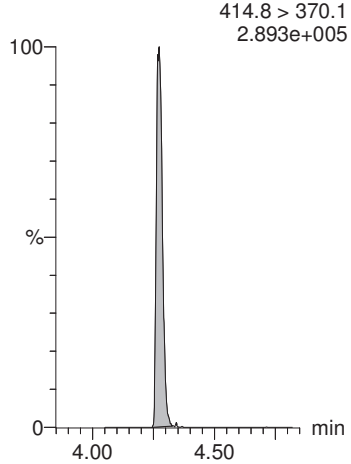

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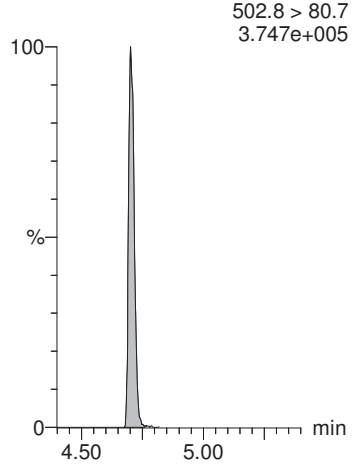

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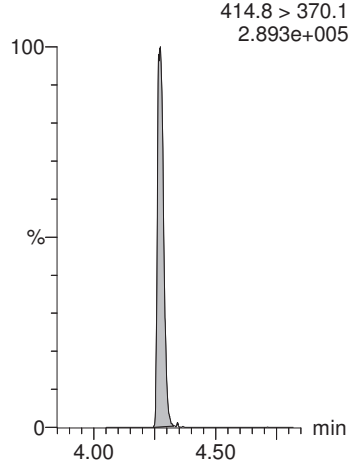

CGH 7/21/2018

MMM 7/23/2018

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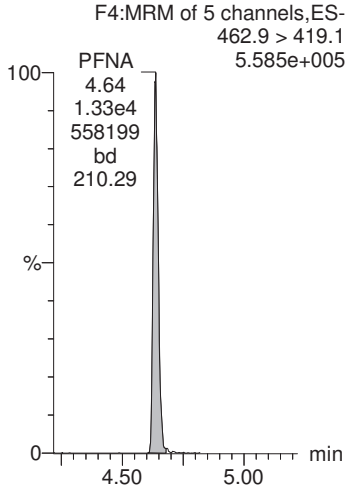

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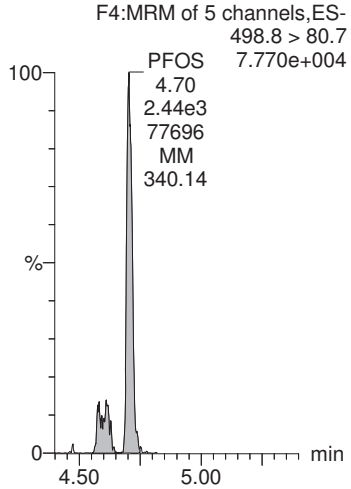

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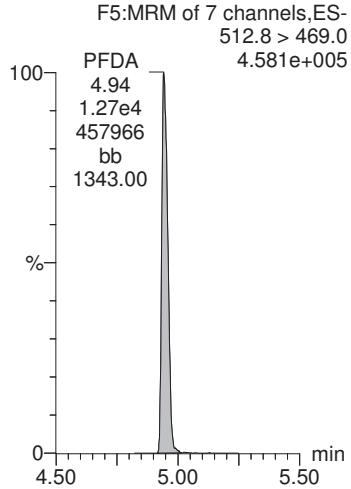

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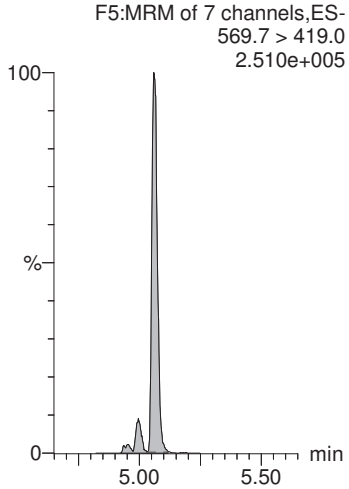

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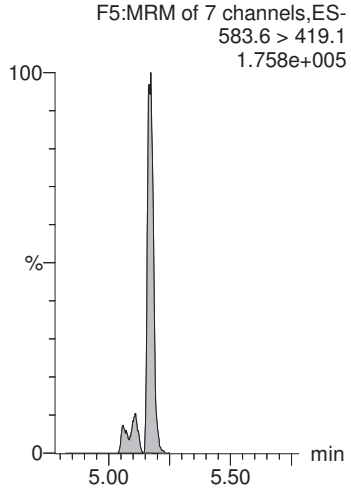

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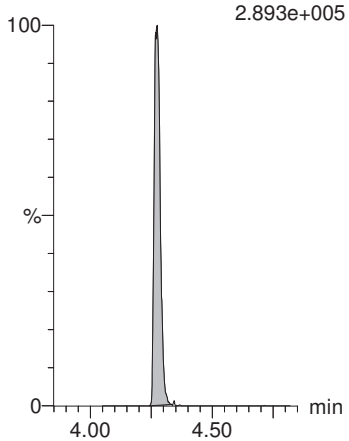

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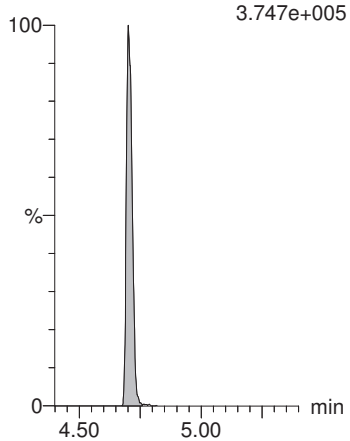

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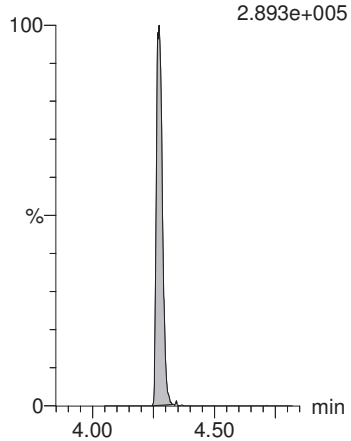
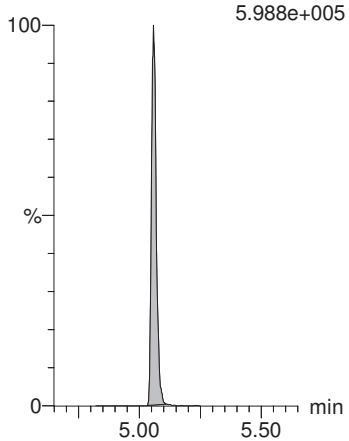


d3-N-MeFOSAA



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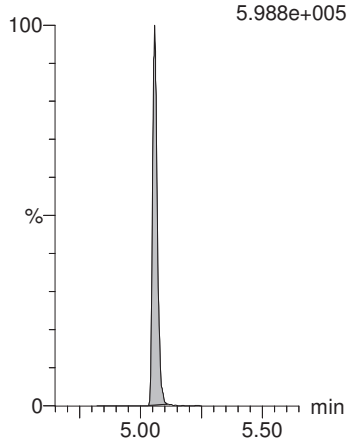

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/23/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-13.qld

Last Altered: Saturday, July 21, 2018 15:44:00 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:44:45 Pacific Daylight Time

Name: 180720G2_13, Date: 20-Jul-2018, Time: 18:31:53, ID: B8G0137-MSD1 LFSMD 0.24884, Description: LFSMD

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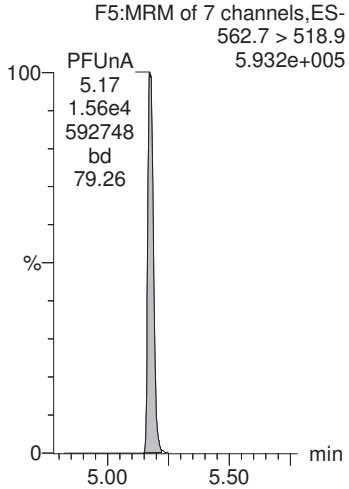
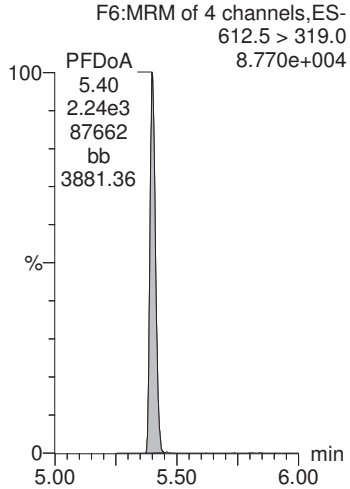
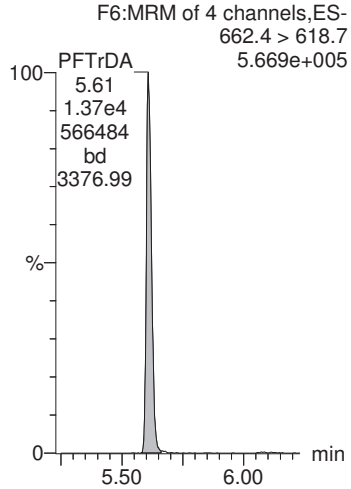


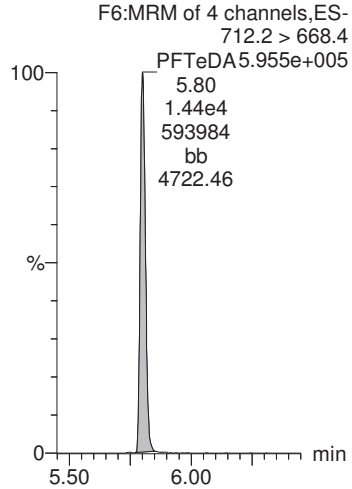
PFDoA



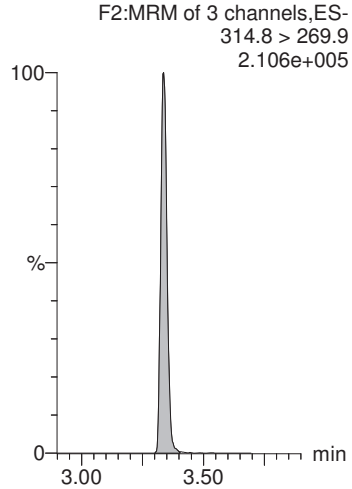
PFTrDA



PFTeDA



13C2-PFHxA



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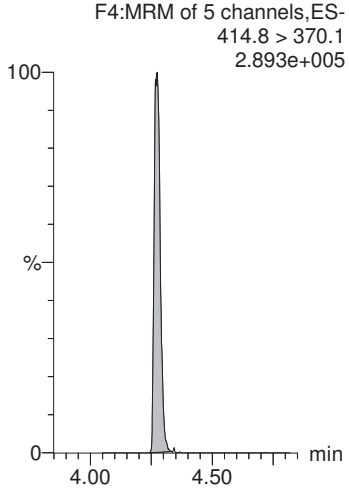

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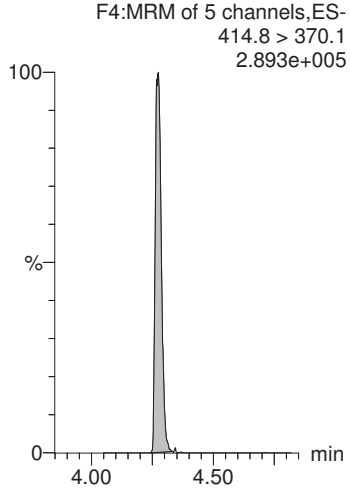

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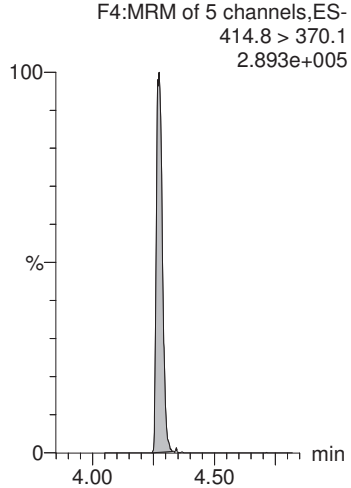

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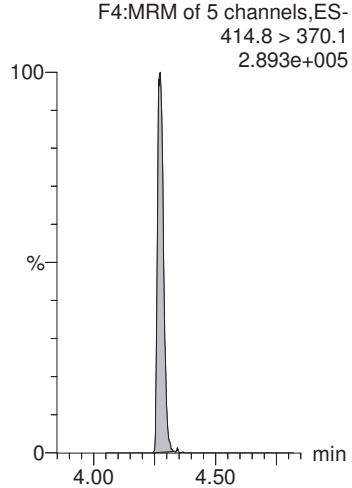

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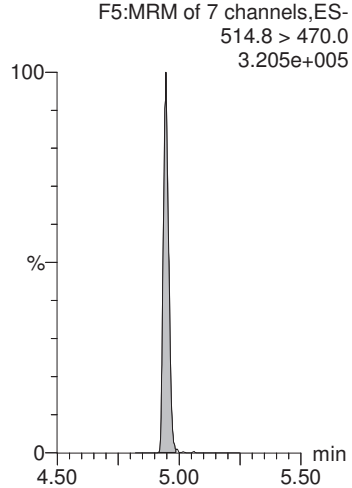


CGH 7/21/2018

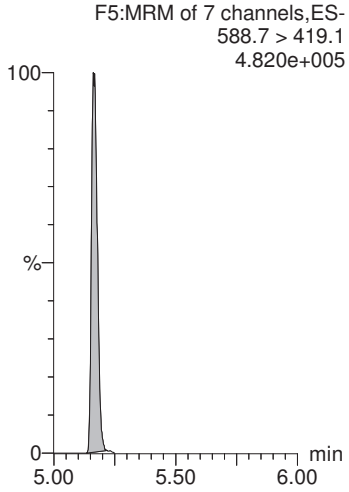
MMM 7/23/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-13.qld

Last Altered: Saturday, July 21, 2018 15:44:00 Pacific Daylight Time
Printed: Saturday, July 21, 2018 15:44:45 Pacific Daylight Time

Name: 180720G2_13, Date: 20-Jul-2018, Time: 18:31:53, ID: B8G0137-MSD1 LFSMD 0.24884, Description: LFSMD

d5-N-EtFOSAA



CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-33.qld

Last Altered: Saturday, July 21, 2018 17:17:30 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:18:14 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_33, Date: 20-Jul-2018, Time: 22:48:13, ID: 1801762-20 CBD-1FB10-0718 0.24465, Description: CBD-1FB10-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.11e4	0.245		2.96				
2	2	PFHxA	312.7 > 268.8	4.99e1	9.67e3	0.245		3.34	3.35	0.0517	0.260	
3	3	PFHpA	362.7 > 318.8		9.67e3	0.245		3.85				
4	4	PFHxS	398.7 > 80.7		1.11e4	0.245		3.99				
5	5	PFOA	412.8 > 369.0	1.68e1	9.67e3	0.245		4.28	4.28	0.0173	0.0972	
6	6	PFNA	462.9 > 419.1		9.67e3	0.245		4.64				
7	7	PFOS	498.8 >80.7		1.11e4	0.245		4.70				
8	8	PFDA	512.8 > 469.0	2.50e1	9.67e3	0.245		4.92	4.97	0.0258	0.121	
9	9	N-MeFOSAA	569.7 > 419.0		1.47e4	0.245		5.07				
10	10	N-EtFOSAA	583.6 >419.1		1.47e4	0.245		5.18				
11	11	PFUnA	562.7 > 518.9		9.67e3	0.245		5.16				
12	12	PFDoA	612.5 > 319.0		9.67e3	0.245		5.40				
13	13	PFTrDA	662.4 > 618.7		9.67e3	0.245		5.61				
14	14	PFTeDA	712.2>668.4		9.67e3	0.245		5.80				
15	15	13C2-PFHxA	314.8 > 269.9	6.54e3	9.67e3	0.245	0.753	3.43	3.34	6.77	36.7	89.9
16	16	13C2-PFDA	514.8 > 470.0	8.22e3	9.67e3	0.245	1.023	4.87	4.95	8.50	34.0	83.2
17	17	d5-N-EtFOSAA	588.7> 419.1	1.64e4	1.47e4	0.245	1.264	5.06	5.17	44.6	144	88.2
18	18	13C2-PFOA	414.8 > 370.1	9.67e3	9.67e3	0.245	1.000	4.28	4.28	10.0	40.9	100.0
19	19	13C4-PFOS	502.8>80.7	1.11e4	1.11e4	0.245	1.000	4.71	4.71	28.7	117	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.47e4	1.47e4	0.245	1.000	5.04	5.06	40.0	163	100.0

CGH 7/21/2018

Vista Analytical Laboratory

MMM 7/22/2018

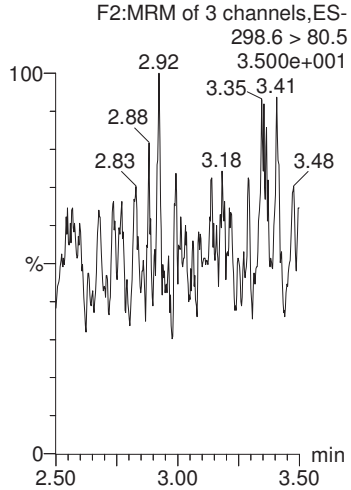
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-33.qld

Last Altered: Saturday, July 21, 2018 17:17:30 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:18:14 Pacific Daylight Time

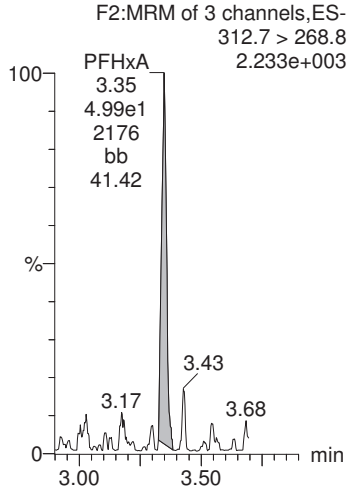
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_33, Date: 20-Jul-2018, Time: 22:48:13, ID: 1801762-20 CBD-1FB10-0718 0.24465, Description: CBD-1FB10-0718

PFBS



PFHxA



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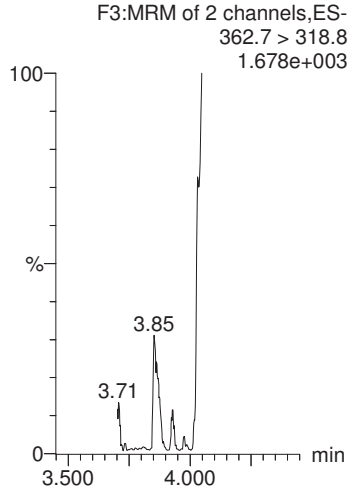
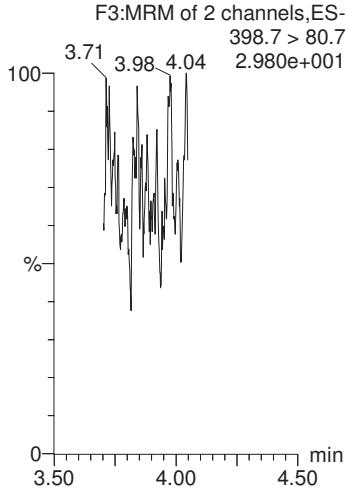
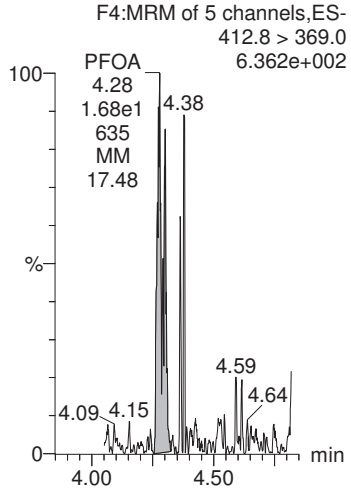


PFHxS



PFOA



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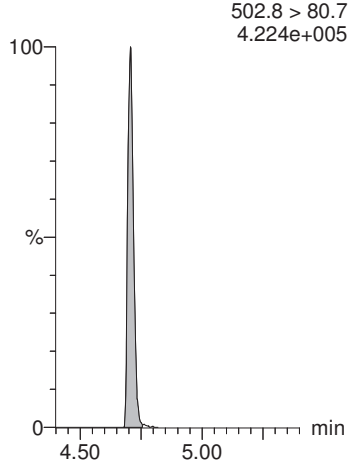

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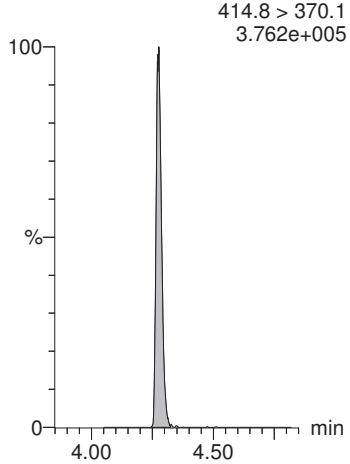

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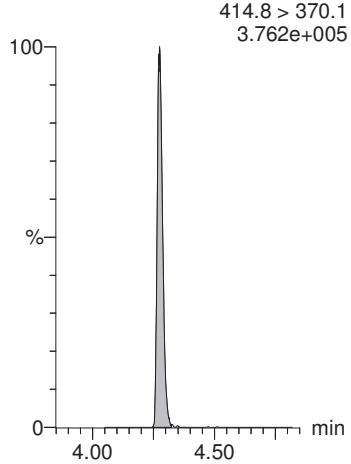

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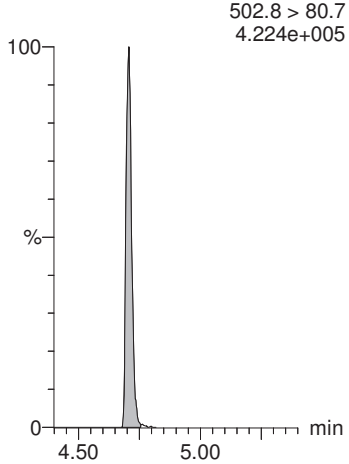

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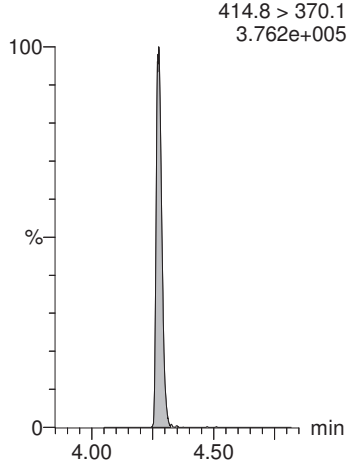


CGH 7/21/2018

Vista Analytical Laboratory

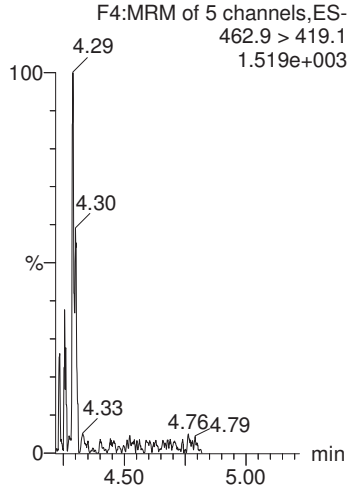
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-33.qld

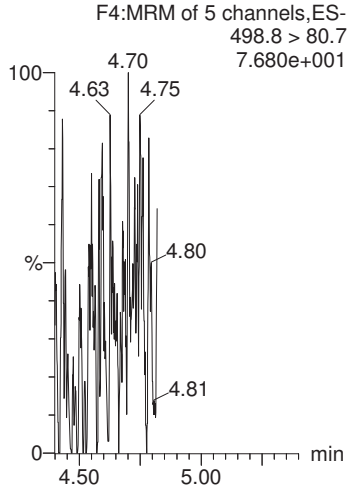
Last Altered: Saturday, July 21, 2018 17:17:30 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:18:14 Pacific Daylight Time

Name: 180720G2_33, Date: 20-Jul-2018, Time: 22:48:13, ID: 1801762-20 CBD-1FB10-0718 0.24465, Description: CBD-1FB10-0718

PFNA



PFOS



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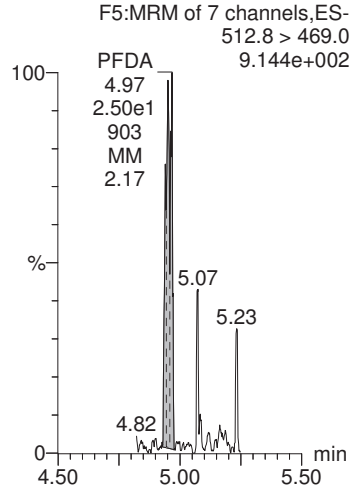
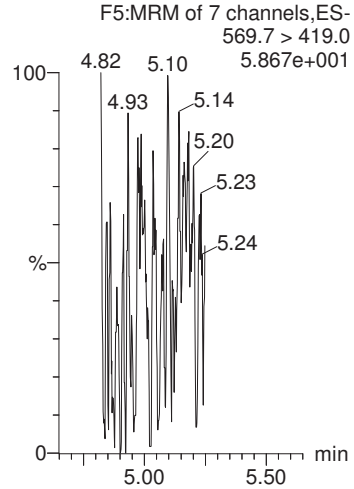
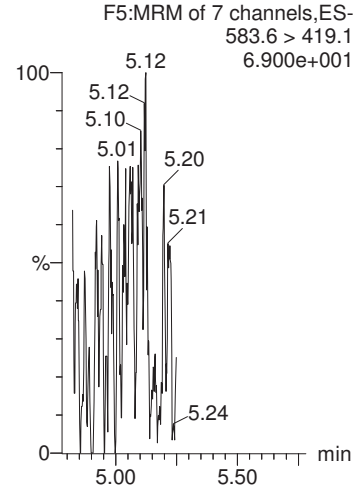


N-MeFOSAA



N-EtFOSAA



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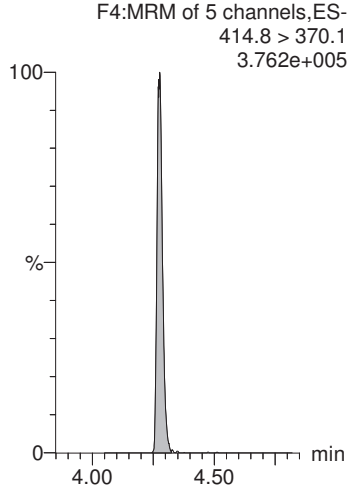

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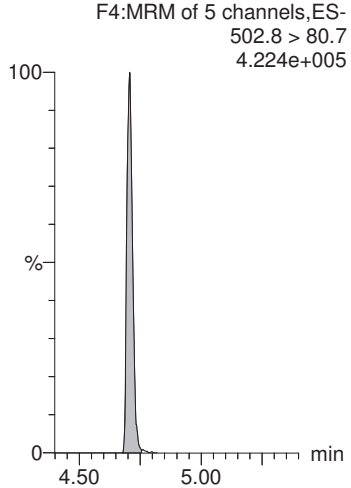

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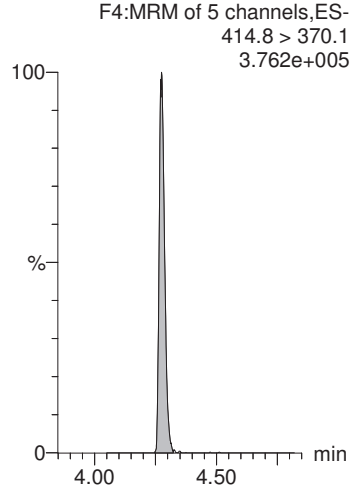
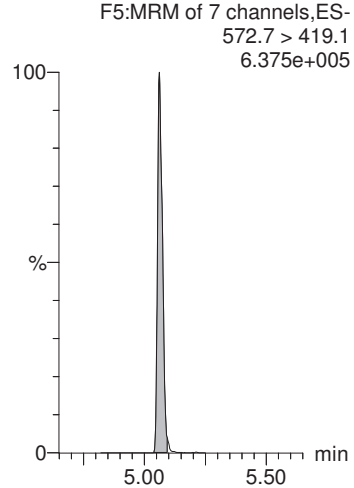


d3-N-MeFOSAA



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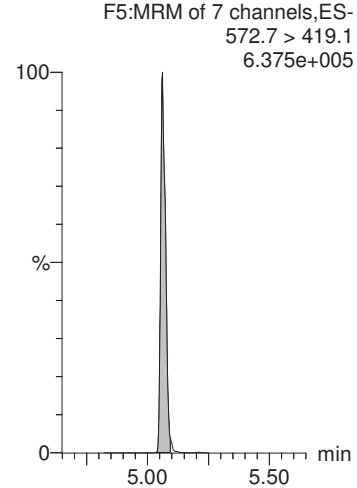


CGH 7/21/2018

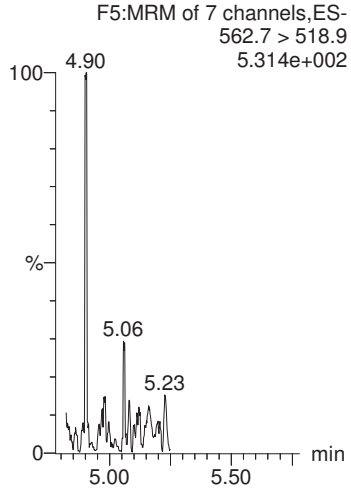
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-33.qld

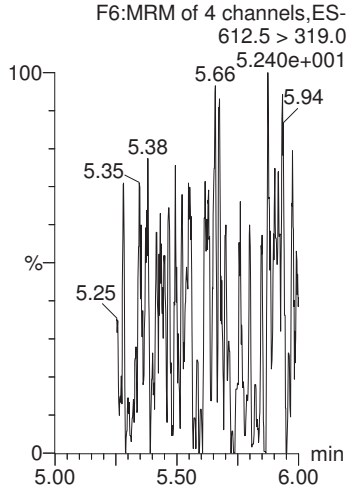
Last Altered: Saturday, July 21, 2018 17:17:30 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:18:14 Pacific Daylight Time

Name: 180720G2_33, Date: 20-Jul-2018, Time: 22:48:13, ID: 1801762-20 CBD-1FB10-0718 0.24465, Description: CBD-1FB10-0718

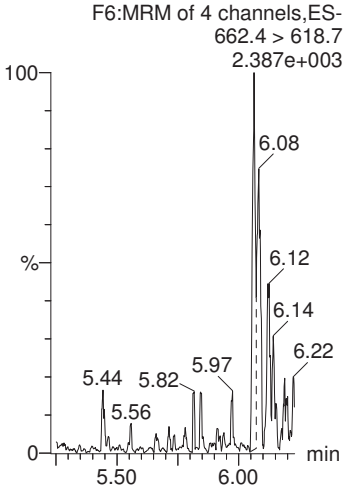
PFUnA



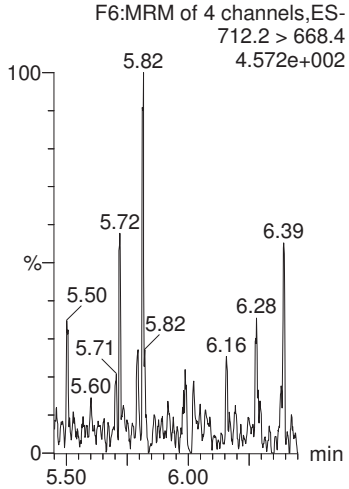
PFDoA



PFTrDA



PFTeDA



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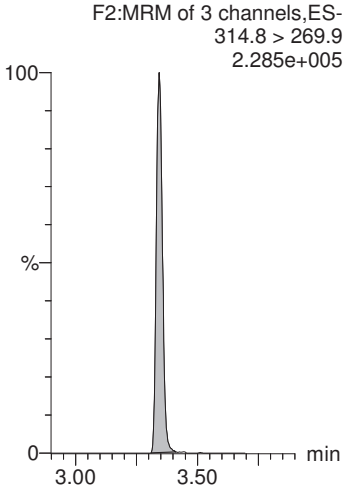

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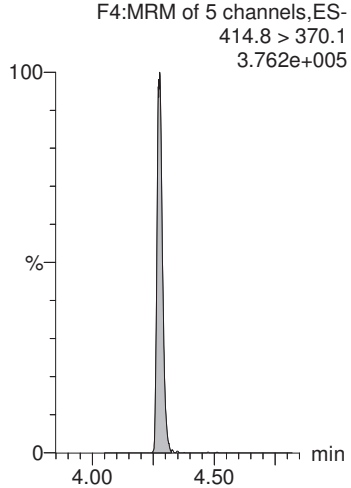

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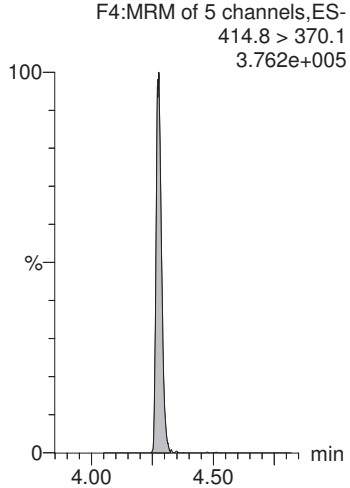

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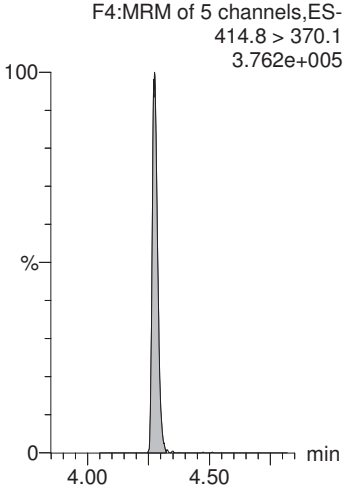

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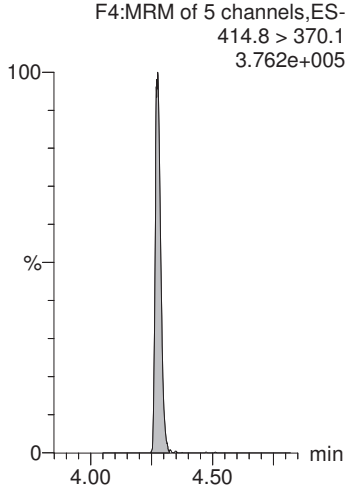

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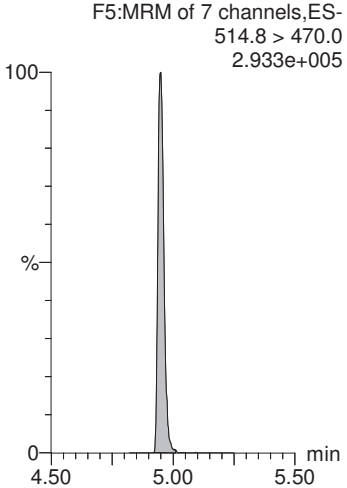


CGH 7/21/2018

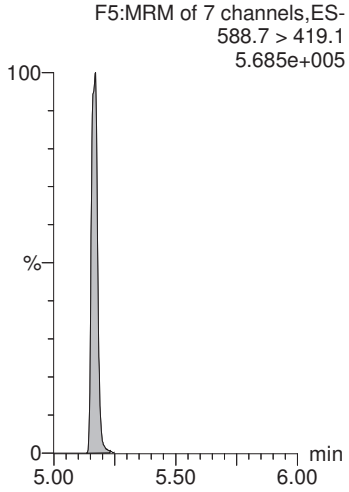
MMM 7/22/2018

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-33.qld

Last Altered: Saturday, July 21, 2018 17:17:30 Pacific Daylight Time
Printed: Saturday, July 21, 2018 17:18:14 Pacific Daylight Time

Name: 180720G2_33, Date: 20-Jul-2018, Time: 22:48:13, ID: 1801762-20 CBD-1FB10-0718 0.24465, Description: CBD-1FB10-0718

d5-N-EtFOSAA



CGH 7/21/2018

INJECTION INTERNAL STANDARD (IIS) AREAS,

INSTRUMENT BLANKS (IB)

AND

CONTINUTING CALIBRATION VERIFICATIONS CCV)

ICAL

50-150%

Compound 18: 13C2-PFOA

	ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	%AREA
1	IPA	180720G2_1	Analyte	10			9398.7218	0.00
2	ST180720G2-1 PFC CS-1 537 18G1804	180720G2_2	Analyte	10	4.27	9762.008	9398.7218	103.87
3	IPA	180720G2_3	Analyte	10			9398.7218	0.00
4	B8G0137-BLK1 LRB 0.25	180720G2_4	Analyte	10	4.27	9054.315	9398.7218	96.34
5	B8G0137-BS1 LFB 0.25	180720G2_5	Analyte	10	4.27	9953.49	9398.7218	105.90
6	B8G0140-BLK1 LRB 0.25	180720G2_6	Analyte	10	4.27	10819.86	9398.7218	115.12
7	B8G0140-BS1 LFB 0.25	180720G2_7	Analyte	10	4.27	11047.72	9398.7218	117.54
8	B8G0140-BSD1 LFBD 0.25	180720G2_8	Analyte	10	4.28	10622.05	9398.7218	113.02
9	B8G0141-BLK1 LRB 0.25	180720G2_9	Analyte	10	4.28	10877.47	9398.7218	115.73
10	B8G0141-BS1 LFB 0.25	180720G2_10	Analyte	10	4.28	8881.688	9398.7218	94.50
11	B8G0141-BSD1 LFBD 0.25	180720G2_11	Analyte	10	4.27	10316.02	9398.7218	109.76
12	B8G0137-MS1 LFSM 0.23526	180720G2_12	Analyte	10	4.27	9395.049	9398.7218	99.96
13	B8G0137-MSD1 LFSMD 0.24884	180720G2_13	Analyte	10	4.27	8333.088	9398.7218	88.66
14	1801762-01 CBD-1RW01-0718 0.25352	180720G2_14	Analyte	10	4.27	11013.86	9398.7218	117.18
15	1801762-02 CBD-1FB01-0718 0.25162	180720G2_15	Analyte	10	4.28	9810.497	9398.7218	104.38
16	1801762-03 CBD-1RW02-0718 0.24766	180720G2_16	Analyte	10	4.28	10474.09	9398.7218	111.44
17	1801762-04 CBD-1FB02-0718 0.25449	180720G2_17	Analyte	10	4.27	9876.678	9398.7218	105.09
18	1801762-05 CBD-1RW03-0718 0.24854	180720G2_18	Analyte	10	4.27	9730.403	9398.7218	103.53
19	1801762-06 CBD-1FB03-0718 0.245	180720G2_19	Analyte	10	4.27	9390.577	9398.7218	99.91
20	1801762-07 CBD-1RW04-0718 0.24138	180720G2_20	Analyte	10	4.28	10760.86	9398.7218	114.49
21	1801762-08 CBD-1FB04-0718 0.25347	180720G2_21	Analyte	10	4.28	8930.206	9398.7218	95.02
22	1801762-09 CBD-1RW05-0718 0.24577	180720G2_22	Analyte	10	4.27	8561.631	9398.7218	91.09
23	1801762-10 CBD-1FB05-0718 0.25646	180720G2_23	Analyte	10	4.27	9706.938	9398.7218	103.28
24	1801762-11 CBD-1RW06-0718 0.24786	180720G2_24	Analyte	10	4.27	10776.77	9398.7218	114.66
25	1801762-12 CBD-1FB06-0718 0.23737	180720G2_25	Analyte	10	4.27	9852.508	9398.7218	104.83
26	1801762-13 CBD-1RW07-0718 0.24944	180720G2_26	Analyte	10	4.27	10284.04	9398.7218	109.42
27	1801762-14 CBD-1FB07-0718 0.25003	180720G2_27	Analyte	10	4.27	8688.968	9398.7218	92.45

28	1801762-15 CBD-1RW08-0718 0.24846	180720G2_28	Analyte	10	4.27	10634.86	9398.7218	113.15
29	1801762-16 CBD-1FB08-0718 0.25211	180720G2_29	Analyte	10	4.27	9077.692	9398.7218	96.58
30	1801762-17 CBD-1RW09-0718 0.24149	180720G2_30	Analyte	10	4.27	9219.362	9398.7218	98.09
31	1801762-18 CBD-1FB09-0718 0.24956	180720G2_31	Analyte	10	4.27	11017.73	9398.7218	117.23
32	1801762-19 CBD-1RW10-0718 0.23841	180720G2_32	Analyte	10	4.27	8744.795	9398.7218	93.04
33	1801762-20 CBD-1FB10-0718 0.24465	180720G2_33	Analyte	10	4.28	9665.84	9398.7218	102.84
34	IPA	180720G2_34	Analyte	10			9398.7218	0.00
35	ST180720G2-2 PFC CS1 537 18G1806	180720G2_35	Analyte	10	4.27	10398.08	9398.7218	110.63
36	IPA	180720G2_36	Analyte	10			9398.7218	0.00
37	1801773-01 CBD-1RW21-0718 0.24583	180720G2_37	Analyte	10	4.28	10281.95	9398.7218	109.40
38	1801773-02 CBD-1FB21-0718 0.24213	180720G2_38	Analyte	10	4.27	10705.84	9398.7218	113.91
39	1801773-03 CBD-1RW22-0718 0.24817	180720G2_39	Analyte	10	4.27	11713.58	9398.7218	124.63
40	1801773-04 CBD-1FB22-0718 0.25009	180720G2_40	Analyte	10	4.27	11539.81	9398.7218	122.78
41	1801769-01 CBD-1RW11-0718 0.25494	180720G2_41	Analyte	10	4.27	8806.732	9398.7218	93.70
42	1801769-02 CBD-1FB11-0718 0.25628	180720G2_42	Analyte	10	4.27	10196.3	9398.7218	108.49
43	1801769-03 CBD-1RW12-0718 0.25502	180720G2_43	Analyte	10	4.27	10817.98	9398.7218	115.10
44	1801769-04 CBD-1FB12-0718 0.25622	180720G2_44	Analyte	10	4.27	10877.87	9398.7218	115.74
45	1801769-05 CBD-1RW13-0718 0.25294	180720G2_45	Analyte	10	4.27	9389.886	9398.7218	99.91
46	1801769-06 CBD-1FB13-0718 0.25649	180720G2_46	Analyte	10	4.27	9820.634	9398.7218	104.49
47	1801769-07 CBD-1RW14-0718 0.25141	180720G2_47	Analyte	10	4.27	10511.59	9398.7218	111.84
48	1801769-08 CBD-1FB14-0718 0.2554	180720G2_48	Analyte	10	4.27	9895.157	9398.7218	105.28
49	1801769-09 CBD-1RW15-0718 0.2534	180720G2_49	Analyte	10	4.27	11368.72	9398.7218	120.96
50	1801769-10 CBD-1FB15-0718 0.25327	180720G2_50	Analyte	10	4.28	12020.76	9398.7218	127.90
58	ST180720G2-3 PFC CS3 537 18G1808	180720G2_58	Analyte	10	4.28	10142.01	9398.7218	107.91

Compound 19: 13C4-PFOS

	ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	%AREA
1	IPA	180720G2_1	Analyte	28.7			12778.71	0.00
2	ST180720G2-1 PFC CS-1 537 18G1804	180720G2_2	Analyte	28.7	4.7	12602.14	12778.71	98.62
3	IPA	180720G2_3	Analyte	28.7			12778.71	0.00
4	B8G0137-BLK1 LRB 0.25	180720G2_4	Analyte	28.7	4.71	11387.07	12778.71	89.11
5	B8G0137-BS1 LFB 0.25	180720G2_5	Analyte	28.7	4.7	12979.07	12778.71	101.57
6	B8G0140-BLK1 LRB 0.25	180720G2_6	Analyte	28.7	4.7	13650.31	12778.71	106.82

7	B8G0140-BS1 LFB 0.25	180720G2_7	Analyte	28.7	4.7	13717.95	12778.71	107.35
8	B8G0140-BSD1 LFBD 0.25	180720G2_8	Analyte	28.7	4.7	12933.47	12778.71	101.21
9	B8G0141-BLK1 LRB 0.25	180720G2_9	Analyte	28.7	4.7	13496.58	12778.71	105.62
10	B8G0141-BS1 LFB 0.25	180720G2_10	Analyte	28.7	4.71	11907.25	12778.71	93.18
11	B8G0141-BSD1 LFBD 0.25	180720G2_11	Analyte	28.7	4.7	13428.78	12778.71	105.09
12	B8G0137-MS1 LFSM 0.23526	180720G2_12	Analyte	28.7	4.7	11601.09	12778.71	90.78
13	B8G0137-MSD1 LFSMD 0.24884	180720G2_13	Analyte	28.7	4.7	9982.51	12778.71	78.12
14	1801762-01 CBD-1RW01-0718 0.25352	180720G2_14	Analyte	28.7	4.7	12992.5	12778.71	101.67
15	1801762-02 CBD-1FB01-0718 0.25162	180720G2_15	Analyte	28.7	4.71	12735.54	12778.71	99.66
16	1801762-03 CBD-1RW02-0718 0.24766	180720G2_16	Analyte	28.7	4.7	12268.32	12778.71	96.01
17	1801762-04 CBD-1FB02-0718 0.25449	180720G2_17	Analyte	28.7	4.7	11132.17	12778.71	87.11
18	1801762-05 CBD-1RW03-0718 0.24854	180720G2_18	Analyte	28.7	4.71	11686.4	12778.71	91.45
19	1801762-06 CBD-1FB03-0718 0.245	180720G2_19	Analyte	28.7	4.71	11451.3	12778.71	89.61
20	1801762-07 CBD-1RW04-0718 0.24138	180720G2_20	Analyte	28.7	4.71	13445.59	12778.71	105.22
21	1801762-08 CBD-1FB04-0718 0.25347	180720G2_21	Analyte	28.7	4.71	11408.47	12778.71	89.28
22	1801762-09 CBD-1RW05-0718 0.24577	180720G2_22	Analyte	28.7	4.7	10673.93	12778.71	83.53
23	1801762-10 CBD-1FB05-0718 0.25646	180720G2_23	Analyte	28.7	4.71	12212.39	12778.71	95.57
24	1801762-11 CBD-1RW06-0718 0.24786	180720G2_24	Analyte	28.7	4.71	12954.2	12778.71	101.37
25	1801762-12 CBD-1FB06-0718 0.23737	180720G2_25	Analyte	28.7	4.71	11202.64	12778.71	87.67
26	1801762-13 CBD-1RW07-0718 0.24944	180720G2_26	Analyte	28.7	4.7	12845.62	12778.71	100.52
27	1801762-14 CBD-1FB07-0718 0.25003	180720G2_27	Analyte	28.7	4.7	10255.59	12778.71	80.26
28	1801762-15 CBD-1RW08-0718 0.24846	180720G2_28	Analyte	28.7	4.7	12564.15	12778.71	98.32
29	1801762-16 CBD-1FB08-0718 0.25211	180720G2_29	Analyte	28.7	4.7	10489.16	12778.71	82.08
30	1801762-17 CBD-1RW09-0718 0.24149	180720G2_30	Analyte	28.7	4.7	10584.68	12778.71	82.83
31	1801762-18 CBD-1FB09-0718 0.24956	180720G2_31	Analyte	28.7	4.7	12749.17	12778.71	99.77
32	1801762-19 CBD-1RW10-0718 0.23841	180720G2_32	Analyte	28.7	4.7	10300.32	12778.71	80.61
33	1801762-20 CBD-1FB10-0718 0.24465	180720G2_33	Analyte	28.7	4.71	11054.95	12778.71	86.51
34	IPA	180720G2_34	Analyte	28.7			12778.71	0.00
35	ST180720G2-2 PFC CS1 537 18G1806	180720G2_35	Analyte	28.7	4.71	11951.58	12778.71	93.53
36	IPA	180720G2_36	Analyte	28.7			12778.71	0.00
37	1801773-01 CBD-1RW21-0718 0.24583	180720G2_37	Analyte	28.7	4.7	12359.66	12778.71	96.72
38	1801773-02 CBD-1FB21-0718 0.24213	180720G2_38	Analyte	28.7	4.71	12446.45	12778.71	97.40
39	1801773-03 CBD-1RW22-0718 0.24817	180720G2_39	Analyte	28.7	4.71	12026.33	12778.71	94.11
40	1801773-04 CBD-1FB22-0718 0.25009	180720G2_40	Analyte	28.7	4.7	13186.31	12778.71	103.19

41	1801769-01 CBD-1RW11-0718 0.25494	180720G2_41	Analyte	28.7	4.7	10111.83	12778.71	79.13
42	1801769-02 CBD-1FB11-0718 0.25628	180720G2_42	Analyte	28.7	4.71	11628.5	12778.71	91.00
43	1801769-03 CBD-1RW12-0718 0.25502	180720G2_43	Analyte	28.7	4.71	12115.64	12778.71	94.81
44	1801769-04 CBD-1FB12-0718 0.25622	180720G2_44	Analyte	28.7	4.71	12171.47	12778.71	95.25
45	1801769-05 CBD-1RW13-0718 0.25294	180720G2_45	Analyte	28.7	4.7	10856.78	12778.71	84.96
46	1801769-06 CBD-1FB13-0718 0.25649	180720G2_46	Analyte	28.7	4.71	10992.61	12778.71	86.02
47	1801769-07 CBD-1RW14-0718 0.25141	180720G2_47	Analyte	28.7	4.71	11161.68	12778.71	87.35
48	1801769-08 CBD-1FB14-0718 0.2554	180720G2_48	Analyte	28.7	4.71	10991.62	12778.71	86.02
49	1801769-09 CBD-1RW15-0718 0.2534	180720G2_49	Analyte	28.7	4.7	12767.2	12778.71	99.91
50	1801769-10 CBD-1FB15-0718 0.25327	180720G2_50	Analyte	28.7	4.71	13347.72	12778.71	104.45
58	ST180720G2-3 PFC CS3 537 18G1808	180720G2_58	Analyte	28.7	4.71	12203.42	12779.71	95.49

Compound 20: d3-N-MeFOSAA

	ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	%AREA
1	IPA	180720G2_1	Analyte	40			15301.08	0.00
2	ST180720G2-1 PFC CS-1 537 18G1804	180720G2_2	Analyte	40	5.05	14322.86	15301.08	93.61
3	IPA	180720G2_3	Analyte	40			15301.08	0.00
4	B8G0137-BLK1 LRB 0.25	180720G2_4	Analyte	40	5.05	13839.38	15301.08	90.45
5	B8G0137-BS1 LFB 0.25	180720G2_5	Analyte	40	5.05	16325.06	15301.08	106.69
6	B8G0140-BLK1 LRB 0.25	180720G2_6	Analyte	40	5.06	17516.36	15301.08	114.48
7	B8G0140-BS1 LFB 0.25	180720G2_7	Analyte	40	5.06	17275.9	15301.08	112.91
8	B8G0140-BSD1 LFBD 0.25	180720G2_8	Analyte	40	5.05	17026.77	15301.08	111.28
9	B8G0141-BLK1 LRB 0.25	180720G2_9	Analyte	40	5.05	15692.08	15301.08	102.56
10	B8G0141-BS1 LFB 0.25	180720G2_10	Analyte	40	5.05	14688.23	15301.08	95.99
11	B8G0141-BSD1 LFBD 0.25	180720G2_11	Analyte	40	5.06	17142.64	15301.08	112.04
12	B8G0137-MS1 LFSM 0.23526	180720G2_12	Analyte	40	5.06	14251	15301.08	93.14
13	B8G0137-MSD1 LFSMD 0.24884	180720G2_13	Analyte	40	5.06	13525.37	15301.08	88.39
14	1801762-01 CBD-1RW01-0718 0.25352	180720G2_14	Analyte	40	5.05	16629.2	15301.08	108.68
15	1801762-02 CBD-1FB01-0718 0.25162	180720G2_15	Analyte	40	5.06	15043.75	15301.08	98.32
16	1801762-03 CBD-1RW02-0718 0.24766	180720G2_16	Analyte	40	5.05	15298.76	15301.08	99.98
17	1801762-04 CBD-1FB02-0718 0.25449	180720G2_17	Analyte	40	5.06	13658.45	15301.08	89.26
18	1801762-05 CBD-1RW03-0718 0.24854	180720G2_18	Analyte	40	5.05	15047.42	15301.08	98.34
19	1801762-06 CBD-1FB03-0718 0.245	180720G2_19	Analyte	40	5.05	13969.71	15301.08	91.30

20	1801762-07 CBD-1RW04-0718 0.24138	180720G2_20	Analyte	40	5.05	15683.05	15301.08	102.50
21	1801762-08 CBD-1FB04-0718 0.25347	180720G2_21	Analyte	40	5.05	13584.54	15301.08	88.78
22	1801762-09 CBD-1RW05-0718 0.24577	180720G2_22	Analyte	40	5.05	12586.47	15301.08	82.26
23	1801762-10 CBD-1FB05-0718 0.25646	180720G2_23	Analyte	40	5.05	15072.66	15301.08	98.51
24	1801762-11 CBD-1RW06-0718 0.24786	180720G2_24	Analyte	40	5.05	17573.79	15301.08	114.85
25	1801762-12 CBD-1FB06-0718 0.23737	180720G2_25	Analyte	40	5.05	13885.27	15301.08	90.75
26	1801762-13 CBD-1RW07-0718 0.24944	180720G2_26	Analyte	40	5.06	16007.92	15301.08	104.62
27	1801762-14 CBD-1FB07-0718 0.25003	180720G2_27	Analyte	40	5.06	13118.29	15301.08	85.73
28	1801762-15 CBD-1RW08-0718 0.24846	180720G2_28	Analyte	40	5.05	15782.74	15301.08	103.15
29	1801762-16 CBD-1FB08-0718 0.25211	180720G2_29	Analyte	40	5.06	13381.36	15301.08	87.45
30	1801762-17 CBD-1RW09-0718 0.24149	180720G2_30	Analyte	40	5.06	15021.88	15301.08	98.18
31	1801762-18 CBD-1FB09-0718 0.24956	180720G2_31	Analyte	40	5.06	16710.75	15301.08	109.21
32	1801762-19 CBD-1RW10-0718 0.23841	180720G2_32	Analyte	40	5.06	13262.34	15301.08	86.68
33	1801762-20 CBD-1FB10-0718 0.24465	180720G2_33	Analyte	40	5.06	14736.14	15301.08	96.31
34	IPA	180720G2_34	Analyte	40			15301.08	0.00
35	ST180720G2-2 PFC CS1 537 18G1806	180720G2_35	Analyte	40	5.06	15656.65	15301.08	102.32
36	IPA	180720G2_36	Analyte	40			15301.08	0.00
37	1801773-01 CBD-1RW21-0718 0.24583	180720G2_37	Analyte	40	5.07	16934.76	15301.08	110.68
38	1801773-02 CBD-1FB21-0718 0.24213	180720G2_38	Analyte	40	5.06	16569.02	15301.08	108.29
39	1801773-03 CBD-1RW22-0718 0.24817	180720G2_39	Analyte	40	5.07	15869.68	15301.08	103.72
40	1801773-04 CBD-1FB22-0718 0.25009	180720G2_40	Analyte	40	5.07	16341.55	15301.08	106.80
41	1801769-01 CBD-1RW11-0718 0.25494	180720G2_41	Analyte	40	5.07	13039.04	15301.08	85.22
42	1801769-02 CBD-1FB11-0718 0.25628	180720G2_42	Analyte	40	5.07	14813.4	15301.08	96.81
43	1801769-03 CBD-1RW12-0718 0.25502	180720G2_43	Analyte	40	5.07	14239.89	15301.08	93.06
44	1801769-04 CBD-1FB12-0718 0.25622	180720G2_44	Analyte	40	5.07	15465.5	15301.08	101.07
45	1801769-05 CBD-1RW13-0718 0.25294	180720G2_45	Analyte	40	5.08	13934.25	15301.08	91.07
46	1801769-06 CBD-1FB13-0718 0.25649	180720G2_46	Analyte	40	5.07	15639.78	15301.08	102.21
47	1801769-07 CBD-1RW14-0718 0.25141	180720G2_47	Analyte	40	5.08	16081.8	15301.08	105.10
48	1801769-08 CBD-1FB14-0718 0.2554	180720G2_48	Analyte	40	5.07	14170.38	15301.08	92.61
49	1801769-09 CBD-1RW15-0718 0.2534	180720G2_49	Analyte	40	5.06	16945.59	15301.08	110.75
50	1801769-10 CBD-1FB15-0718 0.25327	180720G2_50	Analyte	40	5.05	16688.93	15301.08	109.07
58	ST180720G2-3 PFC CS3 537 18G1808	180720G2_58	Analyte	40	5.05	16630.38	15302.08	108.68

CCAL

Compound 18: 13C2-PFOA **ST180720G2-1 PFC CS-1 537 18G1804**

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
2	ST180720G2-1 PFC CS-1 537 18G1804	180720G2_2	Analyte	10	4.27	9762.008	9762.008	130
3	IPA	180720G2_3	Analyte	10			9762.008	0
4	B8G0137-BLK1 LRB 0.25	180720G2_4	Analyte	10	4.27	9054.315	9762.008	92.75054
5	B8G0137-BS1 LFB 0.25	180720G2_5	Analyte	10	4.27	9953.49	9762.008	101.9615
6	B8G0140-BLK1 LRB 0.25	180720G2_6	Analyte	10	4.27	10819.86	9762.008	110.8364
7	B8G0140-BS1 LFB 0.25	180720G2_7	Analyte	10	4.27	11047.72	9762.008	113.1705
8	B8G0140-BSD1 LFBD 0.25	180720G2_8	Analyte	10	4.28	10622.05	9762.008	108.8101
9	B8G0141-BLK1 LRB 0.25	180720G2_9	Analyte	10	4.28	10877.47	9762.008	111.4266
10	B8G0141-BS1 LFB 0.25	180720G2_10	Analyte	10	4.28	8881.688	9762.008	90.98218
11	B8G0141-BSD1 LFBD 0.25	180720G2_11	Analyte	10	4.27	10316.02	9762.008	105.6752
12	B8G0137-MS1 LFSM 0.23526	180720G2_12	Analyte	10	4.27	9395.049	9762.008	96.24095
13	B8G0137-MSD1 LFSMD 0.24884	180720G2_13	Analyte	10	4.27	8333.088	9762.008	85.36244
14	1801762-01 CBD-1RW01-0718 0.25352	180720G2_14	Analyte	10	4.27	11013.86	9762.008	112.8238
15	1801762-02 CBD-1FB01-0718 0.25162	180720G2_15	Analyte	10	4.28	9810.497	9762.008	100.4967
16	1801762-03 CBD-1RW02-0718 0.24766	180720G2_16	Analyte	10	4.28	10474.09	9762.008	107.2944
17	1801762-04 CBD-1FB02-0718 0.25449	180720G2_17	Analyte	10	4.27	9876.678	9762.008	101.1747
18	1801762-05 CBD-1RW03-0718 0.24854	180720G2_18	Analyte	10	4.27	9730.403	9762.008	99.67624
19	1801762-06 CBD-1FB03-0718 0.245	180720G2_19	Analyte	10	4.27	9390.577	9762.008	96.19514
20	1801762-07 CBD-1RW04-0718 0.24138	180720G2_20	Analyte	10	4.28	10760.86	9762.008	110.2321
21	1801762-08 CBD-1FB04-0718 0.25347	180720G2_21	Analyte	10	4.28	8930.206	9762.008	91.47919
22	1801762-09 CBD-1RW05-0718 0.24577	180720G2_22	Analyte	10	4.27	8561.631	9762.008	87.70359
23	1801762-10 CBD-1FB05-0718 0.25646	180720G2_23	Analyte	10	4.27	9706.938	9762.008	99.43587
24	1801762-11 CBD-1RW06-0718 0.24786	180720G2_24	Analyte	10	4.27	10776.77	9762.008	110.395
25	1801762-12 CBD-1FB06-0718 0.23737	180720G2_25	Analyte	10	4.27	9852.508	9762.008	100.9271
26	1801762-13 CBD-1RW07-0718 0.24944	180720G2_26	Analyte	10	4.27	10284.04	9762.008	105.3476
27	1801762-14 CBD-1FB07-0718 0.25003	180720G2_27	Analyte	10	4.27	8688.968	9762.008	89.008
28	1801762-15 CBD-1RW08-0718 0.24846	180720G2_28	Analyte	10	4.27	10634.86	9762.008	108.9413
29	1801762-16 CBD-1FB08-0718 0.25211	180720G2_29	Analyte	10	4.27	9077.692	9762.008	92.99001
30	1801762-17 CBD-1RW09-0718 0.24149	180720G2_30	Analyte	10	4.27	9219.362	9762.008	94.44125
31	1801762-18 CBD-1FB09-0718 0.24956	180720G2_31	Analyte	10	4.27	11017.73	9762.008	112.8634

32	1801762-19 CBD-1RW10-0718 0.23841	180720G2_32	Analyte	10	4.27	8744.795	9762.008	89.57988
33	1801762-20 CBD-1FB10-0718 0.24465	180720G2_33	Analyte	10	4.28	9665.84	9762.008	99.01487
34	IPA	180720G2_34	Analyte	10			9762.008	0
35	ST180720G2-2 PFC CS1 537 18G1806	180720G2_35	Analyte	10	4.27	10398.08	9762.008	106.5158

ST180720G2-2 PFC CS1 537 18G1806

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
35	ST180720G2-2 PFC CS1 537 18G1806	180720G2_35	Analyte	10	4.27	10398.08	10398.082	100
36	IPA	180720G2_36	Analyte	10			10398.082	0
37	1801773-01 CBD-1RW21-0718 0.24583	180720G2_37	Analyte	10	4.28	10281.95	10398.082	98.88315
38	1801773-02 CBD-1FB21-0718 0.24213	180720G2_38	Analyte	10	4.27	10705.84	10398.082	102.9597
39	1801773-03 CBD-1RW22-0718 0.24817	180720G2_39	Analyte	10	4.27	11713.58	10398.082	112.6514
40	1801773-04 CBD-1FB22-0718 0.25009	180720G2_40	Analyte	10	4.27	11539.81	10398.082	110.9802
41	1801769-01 CBD-1RW11-0718 0.25494	180720G2_41	Analyte	10	4.27	8806.732	10398.082	84.69574
42	1801769-02 CBD-1FB11-0718 0.25628	180720G2_42	Analyte	10	4.27	10196.3	10398.082	98.05947
43	1801769-03 CBD-1RW12-0718 0.25502	180720G2_43	Analyte	10	4.27	10817.98	10398.082	104.0382
44	1801769-04 CBD-1FB12-0718 0.25622	180720G2_44	Analyte	10	4.27	10877.87	10398.082	104.6142
45	1801769-05 CBD-1RW13-0718 0.25294	180720G2_45	Analyte	10	4.27	9389.886	10398.082	90.30402
46	1801769-06 CBD-1FB13-0718 0.25649	180720G2_46	Analyte	10	4.27	9820.634	10398.082	94.44659
47	1801769-07 CBD-1RW14-0718 0.25141	180720G2_47	Analyte	10	4.27	10511.59	10398.082	101.0916
48	1801769-08 CBD-1FB14-0718 0.2554	180720G2_48	Analyte	10	4.27	9895.157	10398.082	95.16329
49	1801769-09 CBD-1RW15-0718 0.2534	180720G2_49	Analyte	10	4.27	11368.72	10398.082	109.3348
50	1801769-10 CBD-1FB15-0718 0.25327	180720G2_50	Analyte	10	4.28	12020.76	10398.082	115.6056
58	ST180720G2-3 PFC CS3 537 18G1808	180720G2_58	Analyte	10	4.28	10142.01	10398.082	97.53733

Compound 19: 13C4-PFOS **ST180720G2-1 PFC CS-1 537 18G1804**

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
2	ST180720G2-1 PFC CS-1 537 18G1804	180720G2_2	Analyte	28.7	4.7	12602.14	12602.141	100
3	IPA	180720G2_3	Analyte	28.7			12602.141	0
4	B8G0137-BLK1 LRB 0.25	180720G2_4	Analyte	28.7	4.71	11387.07	12602.141	90.35821

5	B8G0137-BS1 LFB 0.25	180720G2_5	Analyte	28.7	4.7	12979.07	12602.141	102.991
6	B8G0140-BLK1 LRB 0.25	180720G2_6	Analyte	28.7	4.7	13650.31	12602.141	108.3174
7	B8G0140-BS1 LFB 0.25	180720G2_7	Analyte	28.7	4.7	13717.95	12602.141	108.8541
8	B8G0140-BSD1 LFBD 0.25	180720G2_8	Analyte	28.7	4.7	12933.47	12602.141	102.6291
9	B8G0141-BLK1 LRB 0.25	180720G2_9	Analyte	28.7	4.7	13496.58	12602.141	107.0975
10	B8G0141-BS1 LFB 0.25	180720G2_10	Analyte	28.7	4.71	11907.25	12602.141	94.4859
11	B8G0141-BSD1 LFBD 0.25	180720G2_11	Analyte	28.7	4.7	13428.78	12602.141	106.5595
12	B8G0137-MS1 LFSM 0.23526	180720G2_12	Analyte	28.7	4.7	11601.09	12602.141	92.05648
13	B8G0137-MSD1 LFSMD 0.24884	180720G2_13	Analyte	28.7	4.7	9982.51	12602.141	79.21281
14	1801762-01 CBD-1RW01-0718 0.25352	180720G2_14	Analyte	28.7	4.7	12992.5	12602.141	103.0976
15	1801762-02 CBD-1FB01-0718 0.25162	180720G2_15	Analyte	28.7	4.71	12735.54	12602.141	101.0585
16	1801762-03 CBD-1RW02-0718 0.24766	180720G2_16	Analyte	28.7	4.7	12268.32	12602.141	97.35109
17	1801762-04 CBD-1FB02-0718 0.25449	180720G2_17	Analyte	28.7	4.7	11132.17	12602.141	88.33552
18	1801762-05 CBD-1RW03-0718 0.24854	180720G2_18	Analyte	28.7	4.71	11686.4	12602.141	92.73346
19	1801762-06 CBD-1FB03-0718 0.245	180720G2_19	Analyte	28.7	4.71	11451.3	12602.141	90.86791
20	1801762-07 CBD-1RW04-0718 0.24138	180720G2_20	Analyte	28.7	4.71	13445.59	12602.141	106.6929
21	1801762-08 CBD-1FB04-0718 0.25347	180720G2_21	Analyte	28.7	4.71	11408.47	12602.141	90.52801
22	1801762-09 CBD-1RW05-0718 0.24577	180720G2_22	Analyte	28.7	4.7	10673.93	12602.141	84.69932
23	1801762-10 CBD-1FB05-0718 0.25646	180720G2_23	Analyte	28.7	4.71	12212.39	12602.141	96.90728
24	1801762-11 CBD-1RW06-0718 0.24786	180720G2_24	Analyte	28.7	4.71	12954.2	12602.141	102.7936
25	1801762-12 CBD-1FB06-0718 0.23737	180720G2_25	Analyte	28.7	4.71	11202.64	12602.141	88.89474
26	1801762-13 CBD-1RW07-0718 0.24944	180720G2_26	Analyte	28.7	4.7	12845.62	12602.141	101.932
27	1801762-14 CBD-1FB07-0718 0.25003	180720G2_27	Analyte	28.7	4.7	10255.59	12602.141	81.37974
28	1801762-15 CBD-1RW08-0718 0.24846	180720G2_28	Analyte	28.7	4.7	12564.15	12602.141	99.69857
29	1801762-16 CBD-1FB08-0718 0.25211	180720G2_29	Analyte	28.7	4.7	10489.16	12602.141	83.23312
30	1801762-17 CBD-1RW09-0718 0.24149	180720G2_30	Analyte	28.7	4.7	10584.68	12602.141	83.9911
31	1801762-18 CBD-1FB09-0718 0.24956	180720G2_31	Analyte	28.7	4.7	12749.17	12602.141	101.1667
32	1801762-19 CBD-1RW10-0718 0.23841	180720G2_32	Analyte	28.7	4.7	10300.32	12602.141	81.73468
33	1801762-20 CBD-1FB10-0718 0.24465	180720G2_33	Analyte	28.7	4.71	11054.95	12602.141	87.72276
34	IPA	180720G2_34	Analyte	28.7			12602.141	0
35	ST180720G2-2 PFC CS1 537 18G1806	180720G2_35	Analyte	28.7	4.71	11951.58	12602.141	94.83768

ST180720G2-2 PFC CS1 537 18G1806

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
35	ST180720G2-2 PFC CS1 537 18G1806	180720G2_35	Analyte	28.7	4.71	11951.58	11951.578	100
36	IPA	180720G2_36	Analyte	28.7			11951.578	0
37	1801773-01 CBD-1RW21-0718 0.24583	180720G2_37	Analyte	28.7	4.7	12359.66	11951.578	103.4144
38	1801773-02 CBD-1FB21-0718 0.24213	180720G2_38	Analyte	28.7	4.71	12446.45	11951.578	104.1406
39	1801773-03 CBD-1RW22-0718 0.24817	180720G2_39	Analyte	28.7	4.71	12026.33	11951.578	100.6255
40	1801773-04 CBD-1FB22-0718 0.25009	180720G2_40	Analyte	28.7	4.7	13186.31	11951.578	110.3311
41	1801769-01 CBD-1RW11-0718 0.25494	180720G2_41	Analyte	28.7	4.7	10111.83	11951.578	84.60663
42	1801769-02 CBD-1FB11-0718 0.25628	180720G2_42	Analyte	28.7	4.71	11628.5	11951.578	97.29681
43	1801769-03 CBD-1RW12-0718 0.25502	180720G2_43	Analyte	28.7	4.71	12115.64	11951.578	101.3728
44	1801769-04 CBD-1FB12-0718 0.25622	180720G2_44	Analyte	28.7	4.71	12171.47	11951.578	101.8398
45	1801769-05 CBD-1RW13-0718 0.25294	180720G2_45	Analyte	28.7	4.7	10856.78	11951.578	90.83969
46	1801769-06 CBD-1FB13-0718 0.25649	180720G2_46	Analyte	28.7	4.71	10992.61	11951.578	91.97618
47	1801769-07 CBD-1RW14-0718 0.25141	180720G2_47	Analyte	28.7	4.71	11161.68	11951.578	93.39086
48	1801769-08 CBD-1FB14-0718 0.2554	180720G2_48	Analyte	28.7	4.71	10991.62	11951.578	91.96791
49	1801769-09 CBD-1RW15-0718 0.2534	180720G2_49	Analyte	28.7	4.7	12767.2	11951.578	106.8244
50	1801769-10 CBD-1FB15-0718 0.25327	180720G2_50	Analyte	28.7	4.71	13347.72	11951.578	111.6817
58	ST180720G2-3 PFC CS3 537 18G1808	180720G2_58	Analyte	28.7	4.71	12203.42	11951.578	102.1072

Compound 20: d3-N-MeFOSAA **ST180720G2-1 PFC CS-1 537 18G1804**

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
2	ST180720G2-1 PFC CS-1 537 18G1804	180720G2_2	Analyte	40	5.05	14322.86	14322.861	100
3	IPA	180720G2_3	Analyte	40			14322.861	0
4	B8G0137-BLK1 LRB 0.25	180720G2_4	Analyte	40	5.05	13839.38	14322.861	96.62443
5	B8G0137-BS1 LFB 0.25	180720G2_5	Analyte	40	5.05	16325.06	14322.861	113.9791
6	B8G0140-BLK1 LRB 0.25	180720G2_6	Analyte	40	5.06	17516.36	14322.861	122.2965
7	B8G0140-BS1 LFB 0.25	180720G2_7	Analyte	40	5.06	17275.9	14322.861	120.6176
8	B8G0140-BSD1 LFBD 0.25	180720G2_8	Analyte	40	5.05	17026.77	14322.861	118.8782
9	B8G0141-BLK1 LRB 0.25	180720G2_9	Analyte	40	5.05	15692.08	14322.861	109.5597
10	B8G0141-BS1 LFB 0.25	180720G2_10	Analyte	40	5.05	14688.23	14322.861	102.551
11	B8G0141-BSD1 LFBD 0.25	180720G2_11	Analyte	40	5.06	17142.64	14322.861	119.6872
12	B8G0137-MS1 LFSM 0.23526	180720G2_12	Analyte	40	5.06	14251	14322.861	99.4983

13	B8G0137-MSD1 LFSMD 0.24884	180720G2_13	Analyte	40	5.06	13525.37	14322.861	94.43203
14	1801762-01 CBD-1RW01-0718 0.25352	180720G2_14	Analyte	40	5.05	16629.2	14322.861	116.1025
15	1801762-02 CBD-1FB01-0718 0.25162	180720G2_15	Analyte	40	5.06	15043.75	14322.861	105.0332
16	1801762-03 CBD-1RW02-0718 0.24766	180720G2_16	Analyte	40	5.05	15298.76	14322.861	106.8136
17	1801762-04 CBD-1FB02-0718 0.25449	180720G2_17	Analyte	40	5.06	13658.45	14322.861	95.36121
18	1801762-05 CBD-1RW03-0718 0.24854	180720G2_18	Analyte	40	5.05	15047.42	14322.861	105.0587
19	1801762-06 CBD-1FB03-0718 0.245	180720G2_19	Analyte	40	5.05	13969.71	14322.861	97.53434
20	1801762-07 CBD-1RW04-0718 0.24138	180720G2_20	Analyte	40	5.05	15683.05	14322.861	109.4966
21	1801762-08 CBD-1FB04-0718 0.25347	180720G2_21	Analyte	40	5.05	13584.54	14322.861	94.84514
22	1801762-09 CBD-1RW05-0718 0.24577	180720G2_22	Analyte	40	5.05	12586.47	14322.861	87.87678
23	1801762-10 CBD-1FB05-0718 0.25646	180720G2_23	Analyte	40	5.05	15072.66	14322.861	105.235
24	1801762-11 CBD-1RW06-0718 0.24786	180720G2_24	Analyte	40	5.05	17573.79	14322.861	122.6975
25	1801762-12 CBD-1FB06-0718 0.23737	180720G2_25	Analyte	40	5.05	13885.27	14322.861	96.9448
26	1801762-13 CBD-1RW07-0718 0.24944	180720G2_26	Analyte	40	5.06	16007.92	14322.861	111.7648
27	1801762-14 CBD-1FB07-0718 0.25003	180720G2_27	Analyte	40	5.06	13118.29	14322.861	91.58986
28	1801762-15 CBD-1RW08-0718 0.24846	180720G2_28	Analyte	40	5.05	15782.74	14322.861	110.1926
29	1801762-16 CBD-1FB08-0718 0.25211	180720G2_29	Analyte	40	5.06	13381.36	14322.861	93.42658
30	1801762-17 CBD-1RW09-0718 0.24149	180720G2_30	Analyte	40	5.06	15021.88	14322.861	104.8804
31	1801762-18 CBD-1FB09-0718 0.24956	180720G2_31	Analyte	40	5.06	16710.75	14322.861	116.6719
32	1801762-19 CBD-1RW10-0718 0.23841	180720G2_32	Analyte	40	5.06	13262.34	14322.861	92.59559
33	1801762-20 CBD-1FB10-0718 0.24465	180720G2_33	Analyte	40	5.06	14736.14	14322.861	102.8854
34	IPA	180720G2_34	Analyte	40			14322.861	0
35	ST180720G2-2 PFC CS1 537 18G1806	180720G2_35	Analyte	40	5.06	15656.65	14322.861	109.3123

ST180720G2-2 PFC CS1 537 18G1806

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
35	ST180720G2-2 PFC CS1 537 18G1806	180720G2_35	Analyte	40	5.06	15656.65	15656.653	100
36	IPA	180720G2_36	Analyte	40			15656.653	0
37	1801773-01 CBD-1RW21-0718 0.24583	180720G2_37	Analyte	40	5.07	16934.76	15656.653	108.1633
38	1801773-02 CBD-1FB21-0718 0.24213	180720G2_38	Analyte	40	5.06	16569.02	15656.653	105.8273
39	1801773-03 CBD-1RW22-0718 0.24817	180720G2_39	Analyte	40	5.07	15869.68	15656.653	101.3606
40	1801773-04 CBD-1FB22-0718 0.25009	180720G2_40	Analyte	40	5.07	16341.55	15656.653	104.3745
41	1801769-01 CBD-1RW11-0718 0.25494	180720G2_41	Analyte	40	5.07	13039.04	15656.653	83.28115

42	1801769-02 CBD-1FB11-0718 0.25628	180720G2_42	Analyte	40	5.07	14813.4	15656.653	94.61411
43	1801769-03 CBD-1RW12-0718 0.25502	180720G2_43	Analyte	40	5.07	14239.89	15656.653	90.95105
44	1801769-04 CBD-1FB12-0718 0.25622	180720G2_44	Analyte	40	5.07	15465.5	15656.653	98.77909
45	1801769-05 CBD-1RW13-0718 0.25294	180720G2_45	Analyte	40	5.08	13934.25	15656.653	88.99892
46	1801769-06 CBD-1FB13-0718 0.25649	180720G2_46	Analyte	40	5.07	15639.78	15656.653	99.89223
47	1801769-07 CBD-1RW14-0718 0.25141	180720G2_47	Analyte	40	5.08	16081.8	15656.653	102.7154
48	1801769-08 CBD-1FB14-0718 0.2554	180720G2_48	Analyte	40	5.07	14170.38	15656.653	90.50706
49	1801769-09 CBD-1RW15-0718 0.2534	180720G2_49	Analyte	40	5.06	16945.59	15656.653	108.2325
50	1801769-10 CBD-1FB15-0718 0.25327	180720G2_50	Analyte	40	5.05	16688.93	15656.653	106.5932
58	ST180720G2-3 PFC CS3 537 18G1808	180720G2_58	Analyte	40	5.05	16630.38	15656.653	106.2192

LC Calibration Standards Review Checklist Q1

		ION Ratio N/A	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	N/A
Calibration ID: ST18072062-1	L M H	☐	☑	☑	☑	☑	☑	☐
Calibration ID: -2	L M H	☐	☑	☑	☑	☑	☑	☐
Calibration ID: -3	L M H	☑	☑	☑	☑	☑	☑	☑
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 7/12/18

Run Log Present: ☑

# of Samples per Sequence Checked: ☑

Instrument Blank Saved ☐ N/A

IIS Area Saved ☑

Reviewed By: AD 7/22/18
Initials/Date

Comments:
DW LH

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

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-02.qld

Last Altered: Friday, July 20, 2018 16:32:40 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:41:19 Pacific Daylight Time

VAB 7/22/18

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_2, Date: 20-Jul-2018, Time: 16:10:52, ID: ST180720G2-1 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	6.52e2	1.26e4	1.00		2.96	2.96	1.49	1.56	87.7
2	2	PFHxA	312.7 > 268.8	1.48e3	9.66e3	1.00		3.34	3.34	1.53	1.88	94.1
3	3	PFHpA	362.7 > 318.8	1.58e3	9.66e3	1.00		3.85	3.86	1.64	1.87	93.5
4	4	PFHxS	398.7 > 80.7	8.46e2	1.26e4	1.00		3.98	3.98	1.93	1.71	93.7
5	5	PFOA	412.8 > 369.0	1.30e3	9.66e3	1.00		4.27	4.27	1.35	1.84	92.2
6	6	PFNA	462.9 > 419.1	1.51e3	9.66e3	1.00		4.64	4.64	1.56	1.79	89.6
7	7	PFOS	498.8 >80.7	2.66e2	1.26e4	1.00		4.70	4.71	0.606	1.64	88.1
8	8	PFDA	512.8 > 469.0	1.52e3	9.66e3	1.00		4.92	4.94	1.58	1.81	90.4
9	9	N-MeFOSAA	569.7 > 419.0	8.49e2	1.43e4	1.00		5.06	5.05	2.37	2.05	102.4
10	10	N-EtFOSAA	583.6 >419.1	8.64e2	1.43e4	1.00		5.17	5.17	2.41	2.42	120.9
11	11	PFUnA	562.7 > 518.9	1.69e3	9.66e3	1.00		5.16	5.18	1.75	1.82	90.8
12	12	PFDoA	612.5 > 319.0	2.40e2	9.66e3	1.00		5.40	5.40	0.249	1.69	84.7
13	13	PFTrDA	662.4 > 618.7	1.53e3	9.66e3	1.00		5.61	5.61	1.59	1.76	87.9
14	14	PFTeDA	712.2>668.4	1.60e3	9.66e3	1.00		5.79	5.80	1.65	1.78	89.1
15	15	13C2-PFHxA	314.8 > 269.9	6.91e3	9.66e3	1.00	0.753	3.43	3.34	7.15	9.50	95.0
16	16	13C2-PFDA	514.8 > 470.0	9.29e3	9.66e3	1.00	1.023	4.87	4.94	9.62	9.41	94.1
17	17	d5-N-EtFOSAA	588.7> 419.1	1.82e4	1.43e4	1.00	1.264	5.05	5.16	50.8	40.2	100.5
18	18	13C2-PFOA	414.8 > 370.1	9.66e3	9.66e3	1.00	1.000	4.28	4.27	10.0	10.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.26e4	1.26e4	1.00	1.000	4.71	4.70	28.7	28.7	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.43e4	1.43e4	1.00	1.000	5.04	5.05	40.0	40.0	100.0

CAH 7/21/18

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Saturday, July 21, 2018 16:46:14 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:47:02 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Compound name: PFBS

	#	Name	ID	Acq.Date	Acq.Time
1	1	180720G2_1	IPA	20-Jul-18	15:58:46
2	2	180720G2_2	ST180720G2-1 PFC CS-1 537 18G1804	20-Jul-18	16:10:52
3	3	180720G2_3	IPA	20-Jul-18	16:23:45
4	4	180720G2_4	B8G0137-BLK1 LRB 0.25	20-Jul-18	16:36:36
5	5	180720G2_5	B8G0137-BS1 LFB 0.25	20-Jul-18	16:49:22
6	6	180720G2_6	B8G0140-BLK1 LRB 0.25	20-Jul-18	17:02:12
7	7	180720G2_7	B8G0140-BS1 LFB 0.25	20-Jul-18	17:15:01
8	8	180720G2_8	B8G0140-BSD1 LFBD 0.25	20-Jul-18	17:27:51
9	9	180720G2_9	B8G0141-BLK1 LRB 0.25	20-Jul-18	17:40:41
10	10	180720G2_10	B8G0141-BS1 LFB 0.25	20-Jul-18	17:53:30
11	11	180720G2_11	B8G0141-BSD1 LFBD 0.25	20-Jul-18	18:06:18
12	12	180720G2_12	B8G0137-MS1 LFSM 0.23526	20-Jul-18	18:19:08
13	13	180720G2_13	B8G0137-MSD1 LFSMD 0.24884	20-Jul-18	18:31:53
14	14	180720G2_14	1801762-01 CBD-1RW01-0718 0.25352	20-Jul-18	18:44:43
15	15	180720G2_15	1801762-02 CBD-1FB01-0718 0.25162	20-Jul-18	18:57:32
16	16	180720G2_16	1801762-03 CBD-1RW02-0718 0.24766	20-Jul-18	19:10:22
17	17	180720G2_17	1801762-04 CBD-1FB02-0718 0.25449	20-Jul-18	19:23:11
18	18	180720G2_18	1801762-05 CBD-1RW03-0718 0.24854	20-Jul-18	19:36:00
19	19	180720G2_19	1801762-06 CBD-1FB03-0718 0.245	20-Jul-18	19:48:50
20	20	180720G2_20	1801762-07 CBD-1RW04-0718 0.24138	20-Jul-18	20:01:39
21	21	180720G2_21	1801762-08 CBD-1FB04-0718 0.25347	20-Jul-18	20:14:25
22	22	180720G2_22	1801762-09 CBD-1RW05-0718 0.24577	20-Jul-18	20:27:14
23	23	180720G2_23	1801762-10 CBD-1FB05-0718 0.25646	20-Jul-18	20:40:03
24	24	180720G2_24	1801762-11 CBD-1RW06-0718 0.24786	20-Jul-18	20:52:53
25	25	180720G2_25	1801762-12 CBD-1FB06-0718 0.23737	20-Jul-18	21:05:41
26	26	180720G2_26	1801762-13 CBD-1RW07-0718 0.24944	20-Jul-18	21:18:31
27	27	180720G2_27	1801762-14 CBD-1FB07-0718 0.25003	20-Jul-18	21:31:21
28	28	180720G2_28	1801762-15 CBD-1RW08-0718 0.24846	20-Jul-18	21:44:10
29	29	180720G2_29	1801762-16 CBD-1FB08-0718 0.25211	20-Jul-18	21:56:56
30	30	180720G2_30	1801762-17 CBD-1RW09-0718 0.24149	20-Jul-18	22:09:45
31	31	180720G2_31	1801762-18 CBD-1FB09-0718 0.24956	20-Jul-18	22:22:34
32	32	180720G2_32	1801762-19 CBD-1RW10-0718 0.23841	20-Jul-18	22:35:25

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

Dataset: Untitled

Last Altered: Saturday, July 21, 2018 16:46:14 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:47:02 Pacific Daylight Time

Compound name: PFBS

	#	Name	ID	Acq.Date	Acq.Time
33	33	180720G2_33	1801762-20 CBD-1FB10-0718 0.24465	20-Jul-18	22:48:13
34	34	180720G2_34	IPA	20-Jul-18	23:01:04
35	35	180720G2_35	ST180720G2-2 PFC CS1 537 18G1806	20-Jul-18	23:13:53
36	36	180720G2_36	IPA	20-Jul-18	23:26:40
37	37	180720G2_37	1801773-01 CBD-1RW21-0718 0.24583	20-Jul-18	23:39:30
38	38	180720G2_38	1801773-02 CBD-1FB21-0718 0.24213	20-Jul-18	23:52:19
39	39	180720G2_39	1801773-03 CBD-1RW22-0718 0.24817	21-Jul-18	00:05:08
40	40	180720G2_40	1801773-04 CBD-1FB22-0718 0.25009	21-Jul-18	00:17:53
41	41	180720G2_41	1801769-01 CBD-1RW11-0718 0.25494	21-Jul-18	00:30:43
42	42	180720G2_42	1801769-02 CBD-1FB11-0718 0.25628	21-Jul-18	00:43:32
43	43	180720G2_43	1801769-03 CBD-1RW12-0718 0.25502	21-Jul-18	00:56:22
44	44	180720G2_44	1801769-04 CBD-1FB12-0718 0.25622	21-Jul-18	01:09:11
45	45	180720G2_45	1801769-05 CBD-1RW13-0718 0.25294	21-Jul-18	01:22:03
46	46	180720G2_46	1801769-06 CBD-1FB13-0718 0.25649	21-Jul-18	01:34:50
47	47	180720G2_47	1801769-07 CBD-1RW14-0718 0.25141	21-Jul-18	01:47:40
48	48	180720G2_48	1801769-08 CBD-1FB14-0718 0.2554	21-Jul-18	02:00:25
49	49	180720G2_49	1801769-09 CBD-1RW15-0718 0.2534	21-Jul-18	02:13:14
50	50	180720G2_50	1801769-10 CBD-1FB15-0718 0.25327	21-Jul-18	02:26:03
51	51	180720G2_51	1801769-11 CBD-1RW16-0718 0.25533	21-Jul-18	02:38:53
52	52	180720G2_52	1801769-12 CBD-1FB16-0718 0.25881	21-Jul-18	02:51:41
53	53	180720G2_53	1801769-13 CBD-1RW17-0718 0.25403	21-Jul-18	03:04:31
54	54	180720G2_54	1801769-14 CBD-1FB17-0718 0.25434	21-Jul-18	03:17:20
55	55	180720G2_55	1801769-15 CBD-1RW18-0718 0.25298	21-Jul-18	03:30:10
56	56	180720G2_56	1801769-16 CBD-1FB18-0718 0.25721	21-Jul-18	03:42:58
57	57	180720G2_57	IPA	21-Jul-18	03:55:48
58	58	180720G2_58	ST180720G2-3 PFC CS3 537 18G1808	21-Jul-18	04:08:37
59	59	180720G2_59	IPA	21-Jul-18	04:21:26
60	60	180720G2_60	1801769-17 CBD-1RW19-0718 0.25305	21-Jul-18	04:34:15
61	61	180720G2_61	1801769-18 CBD-1FB19-0718 0.25356	21-Jul-18	04:47:04
62	62	180720G2_62	1801769-19 CBD-1RW20-0718 0.2509	21-Jul-18	04:59:54
63	63	180720G2_63	1801769-20 CBD-1FB20-0718 0.25184	21-Jul-18	05:12:39
64	64	180720G2_64	IPA	21-Jul-18	05:25:28
65	65	180720G2_65	ST180720G2-4 PFC CS-1 537 18G1804	21-Jul-18	05:38:20
66	66	180720G2_66	IPA	21-Jul-18	05:51:07

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

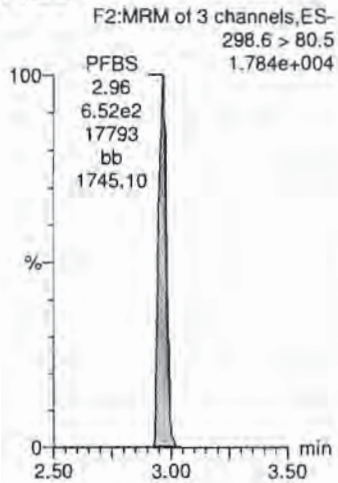
Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-02.qld

Last Altered: Friday, July 20, 2018 16:32:40 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:41:19 Pacific Daylight Time

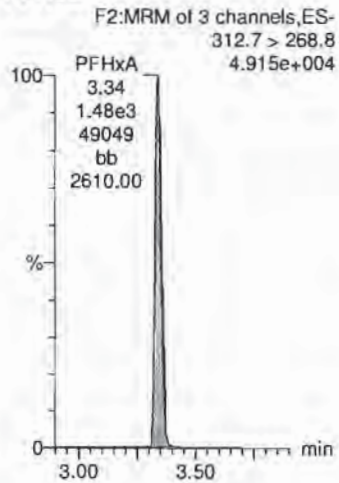
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_2, Date: 20-Jul-2018, Time: 16:10:52, ID: ST180720G2-1 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

PFBS



PFHxA



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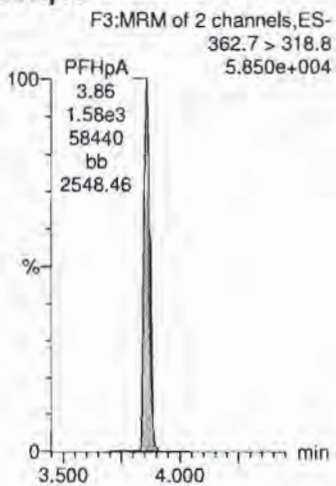

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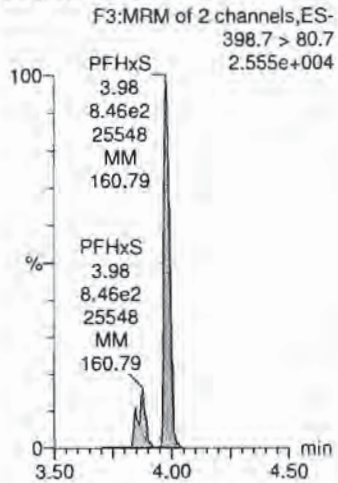
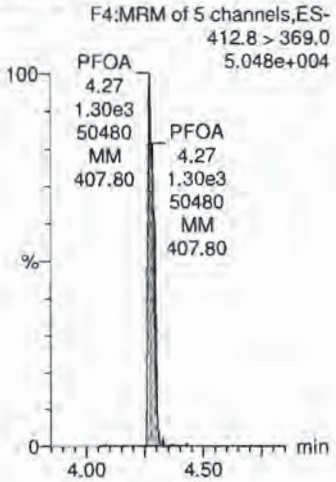


PFOA



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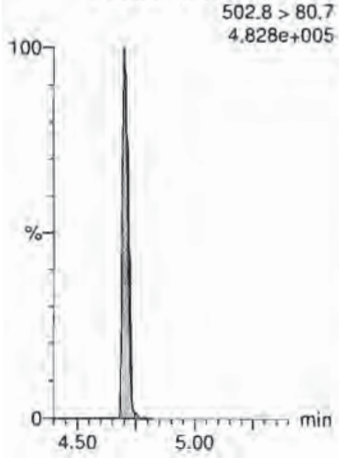

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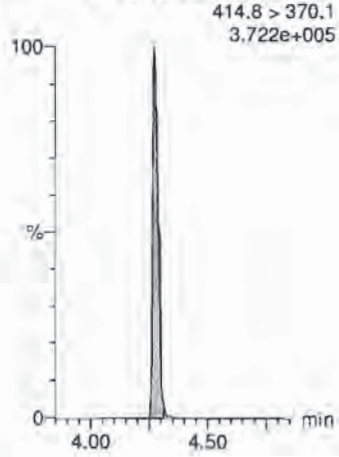

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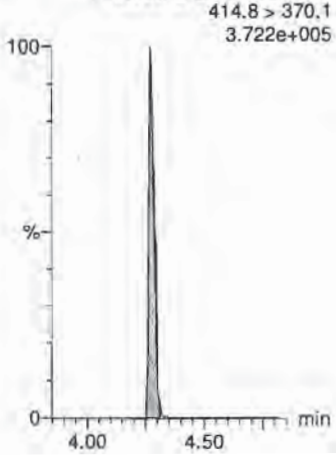

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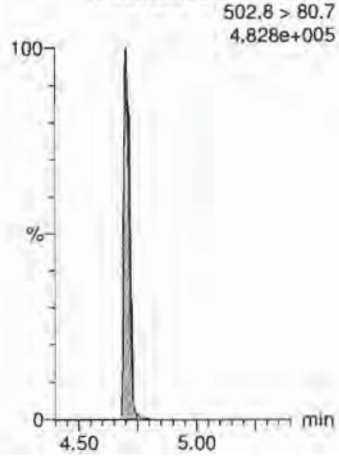

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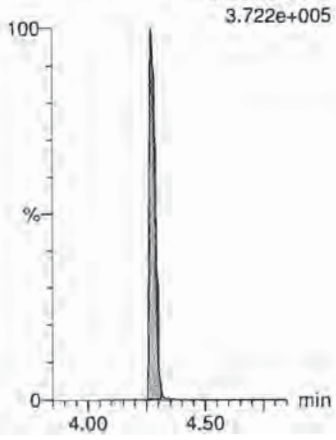
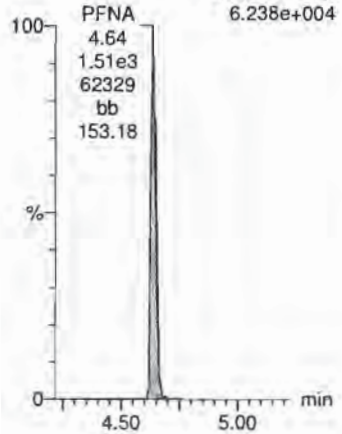


Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-02.qld

Last Altered: Friday, July 20, 2018 16:32:40 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:41:19 Pacific Daylight Time

Name: 180720G2_2, Date: 20-Jul-2018, Time: 16:10:52, ID: ST180720G2-1 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

PFNA



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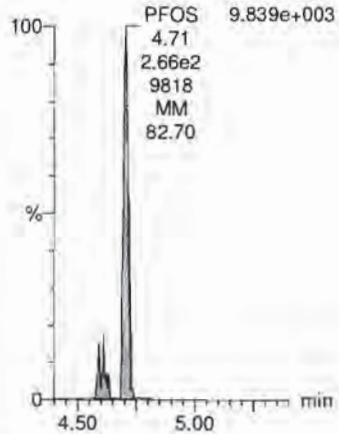

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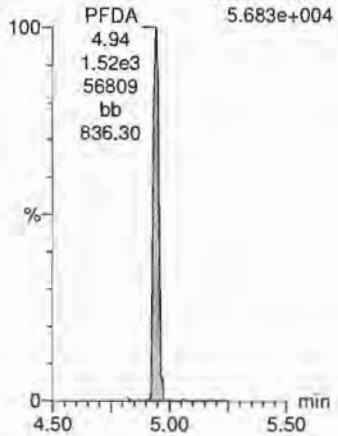

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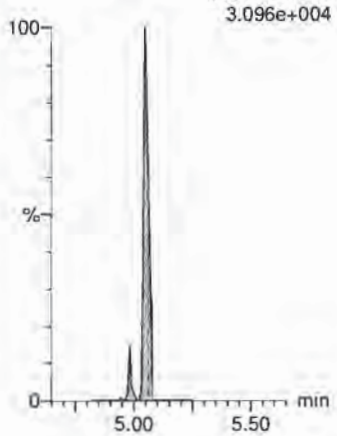

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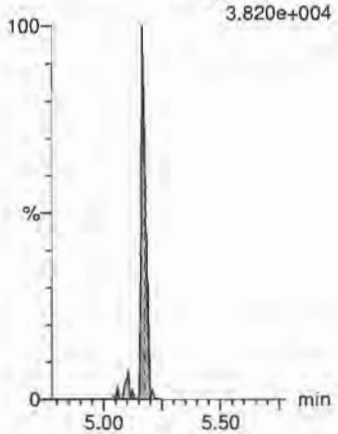

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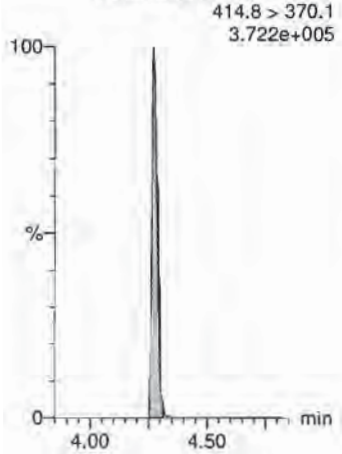

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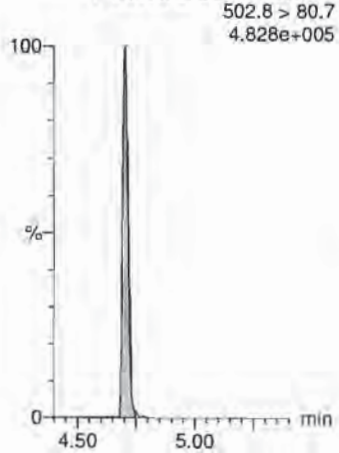

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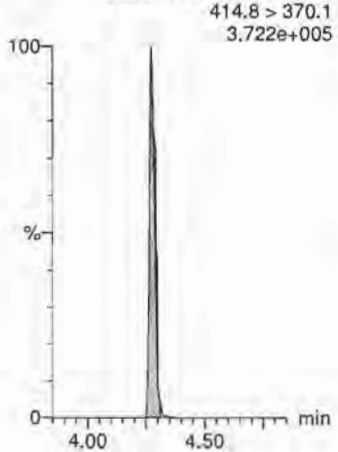

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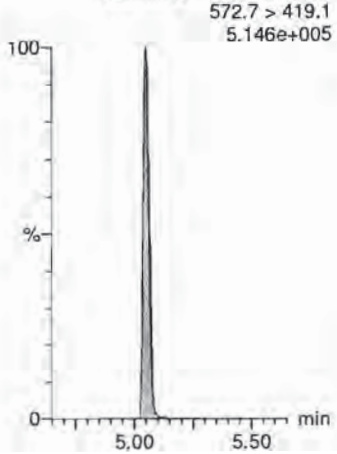

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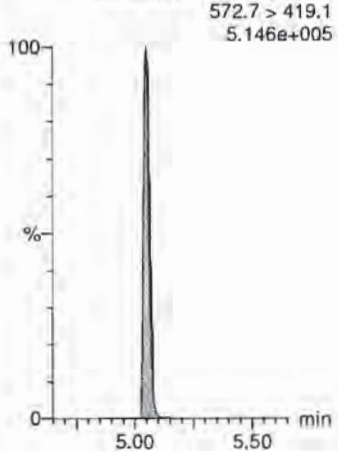


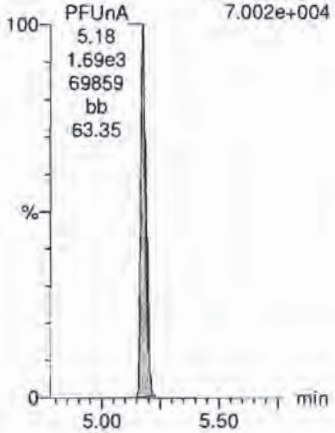
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-02.qld

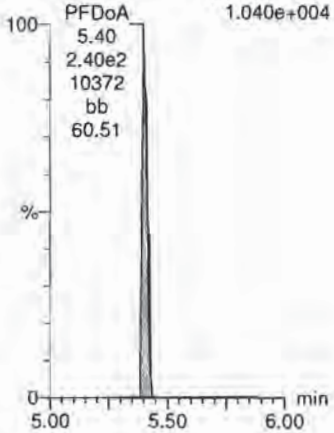
Last Altered: Friday, July 20, 2018 16:32:40 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:41:19 Pacific Daylight Time

Name: 180720G2_2, Date: 20-Jul-2018, Time: 16:10:52, ID: ST180720G2-1 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

PFUnA



PFDoA



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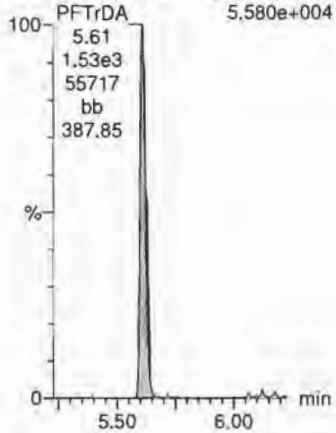

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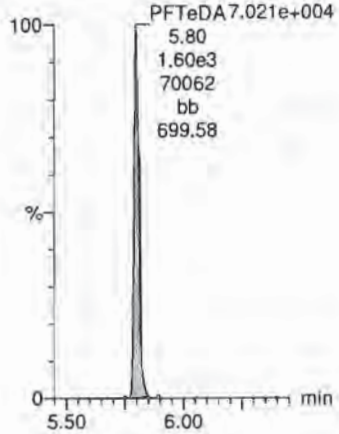
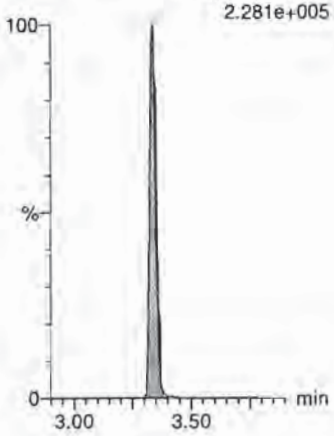


13C2-PFHxA



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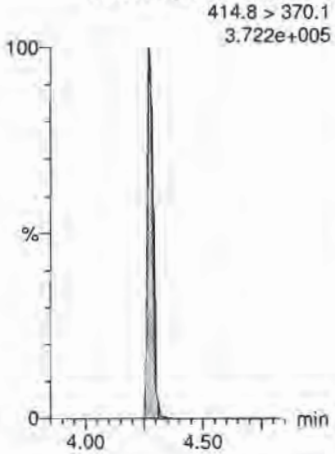

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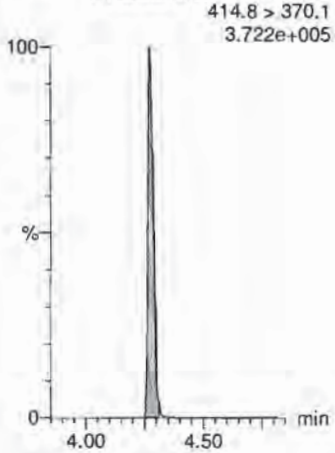

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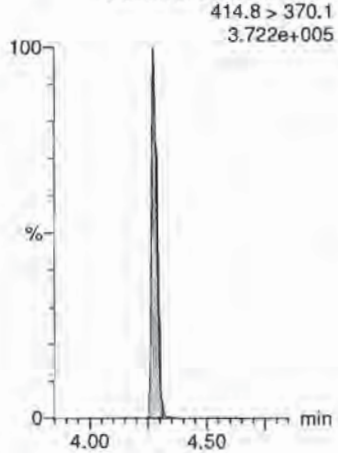

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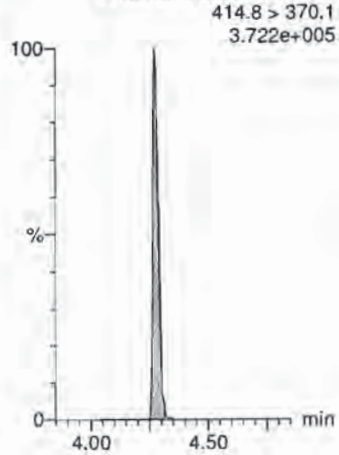

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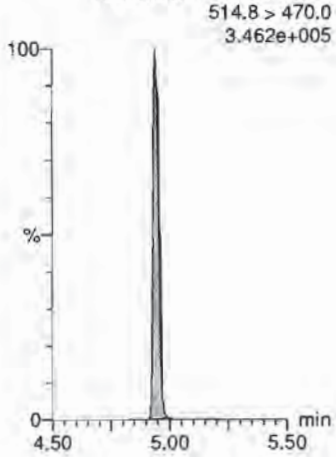

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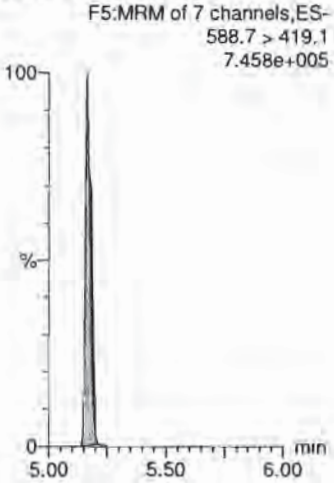
Printed: Saturday, July 21, 2018 16:41:19 Pacific Daylight Time

Name: 180720G2_2, Date: 20-Jul-2018, Time: 16:10:52, ID: ST180720G2-1 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

d5-N-EtFOSAA



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

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-35.qld

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Printed: Saturday, July 21, 2018 16:43:25 Pacific Daylight Time

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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_35, Date: 20-Jul-2018, Time: 23:13:53, ID: ST180720G2-2 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	3.96e3	1.20e4	1.00		2.96	2.97	9.52	10.0	113.2
2	2	PFHxA	312.7 > 268.8	8.11e3	1.04e4	1.00		3.34	3.34	7.80	9.59	95.9
3	3	PFHpA	362.7 > 318.8	8.98e3	1.04e4	1.00		3.85	3.86	8.64	9.85	98.5
4	4	PFHxS	398.7 > 80.7	4.35e3	1.20e4	1.00		3.98	3.98	10.5	9.26	101.6
5	5	PFOA	412.8 > 369.0	7.09e3	1.04e4	1.00		4.28	4.28	6.82	9.35	93.5
6	6	PFNA	462.9 > 419.1	7.83e3	1.04e4	1.00		4.64	4.64	7.53	8.64	86.4
7	7	PFOS	498.8 >80.7	1.31e3	1.20e4	1.00		4.70	4.70	3.14	8.51	92.1
8	8	PFDA	512.8 > 469.0	7.47e3	1.04e4	1.00		4.92	4.95	7.19	8.25	82.5
9	9	N-MeFOSAA	569.7 > 419.0	4.97e3	1.57e4	1.00		5.07	5.07	12.7	11.0	109.8
10	10	N-EtFOSAA	583.6 >419.1	4.00e3	1.57e4	1.00		5.18	5.17	10.2	10.2	102.4
11	11	PFUnA	562.7 > 518.9	9.59e3	1.04e4	1.00		5.16	5.18	9.22	9.59	95.9
12	12	PFDoA	612.5 > 319.0	1.56e3	1.04e4	1.00		5.40	5.40	1.50	10.2	102.2
13	13	PFTrDA	662.4 > 618.7	8.99e3	1.04e4	1.00		5.61	5.61	8.64	9.58	95.8
14	14	PFTeDA	712.2>668.4	8.73e3	1.04e4	1.00		5.80	5.80	8.39	9.06	90.6
15	15	13C2-PFHxA	314.8 > 269.9	7.41e3	1.04e4	1.00	0.753	3.43	3.34	7.12	9.46	94.6
16	16	13C2-PFDA	514.8 > 470.0	9.40e3	1.04e4	1.00	1.023	4.87	4.95	9.04	8.84	88.4
17	17	d5-N-EtFOSAA	588.7> 419.1	1.95e4	1.57e4	1.00	1.264	5.06	5.16	49.9	39.5	98.6
18	18	13C2-PFOA	414.8 > 370.1	1.04e4	1.04e4	1.00	1.000	4.28	4.27	10.0	10.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.20e4	1.20e4	1.00	1.000	4.71	4.71	28.7	28.7	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.57e4	1.57e4	1.00	1.000	5.04	5.06	40.0	40.0	100.0

√AD 7/22/18

Cad 7/21/18

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

Dataset: Untitled

Last Altered: Saturday, July 21, 2018 16:46:14 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:47:02 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
1	1 180720G2_1	IPA	20-Jul-18	15:58:46
2	2 180720G2_2	ST180720G2-1 PFC CS-1 537 18G1804	20-Jul-18	16:10:52
3	3 180720G2_3	IPA	20-Jul-18	16:23:45
4	4 180720G2_4	B8G0137-BLK1 LRB 0.25	20-Jul-18	16:36:36
5	5 180720G2_5	B8G0137-BS1 LFB 0.25	20-Jul-18	16:49:22
6	6 180720G2_6	B8G0140-BLK1 LRB 0.25	20-Jul-18	17:02:12
7	7 180720G2_7	B8G0140-BS1 LFB 0.25	20-Jul-18	17:15:01
8	8 180720G2_8	B8G0140-BSD1 LFBD 0.25	20-Jul-18	17:27:51
9	9 180720G2_9	B8G0141-BLK1 LRB 0.25	20-Jul-18	17:40:41
10	10 180720G2_10	B8G0141-BS1 LFB 0.25	20-Jul-18	17:53:30
11	11 180720G2_11	B8G0141-BSD1 LFBD 0.25	20-Jul-18	18:06:18
12	12 180720G2_12	B8G0137-MS1 LFSM 0.23526	20-Jul-18	18:19:08
13	13 180720G2_13	B8G0137-MSD1 LFSMD 0.24884	20-Jul-18	18:31:53
14	14 180720G2_14	1801762-01 CBD-1RW01-0718 0.25352	20-Jul-18	18:44:43
15	15 180720G2_15	1801762-02 CBD-1FB01-0718 0.25162	20-Jul-18	18:57:32
16	16 180720G2_16	1801762-03 CBD-1RW02-0718 0.24766	20-Jul-18	19:10:22
17	17 180720G2_17	1801762-04 CBD-1FB02-0718 0.25449	20-Jul-18	19:23:11
18	18 180720G2_18	1801762-05 CBD-1RW03-0718 0.24854	20-Jul-18	19:36:00
19	19 180720G2_19	1801762-06 CBD-1FB03-0718 0.245	20-Jul-18	19:48:50
20	20 180720G2_20	1801762-07 CBD-1RW04-0718 0.24138	20-Jul-18	20:01:39
21	21 180720G2_21	1801762-08 CBD-1FB04-0718 0.25347	20-Jul-18	20:14:25
22	22 180720G2_22	1801762-09 CBD-1RW05-0718 0.24577	20-Jul-18	20:27:14
23	23 180720G2_23	1801762-10 CBD-1FB05-0718 0.25646	20-Jul-18	20:40:03
24	24 180720G2_24	1801762-11 CBD-1RW06-0718 0.24786	20-Jul-18	20:52:53
25	25 180720G2_25	1801762-12 CBD-1FB06-0718 0.23737	20-Jul-18	21:05:41
26	26 180720G2_26	1801762-13 CBD-1RW07-0718 0.24944	20-Jul-18	21:18:31
27	27 180720G2_27	1801762-14 CBD-1FB07-0718 0.25003	20-Jul-18	21:31:21
28	28 180720G2_28	1801762-15 CBD-1RW08-0718 0.24846	20-Jul-18	21:44:10
29	29 180720G2_29	1801762-16 CBD-1FB08-0718 0.25211	20-Jul-18	21:56:56
30	30 180720G2_30	1801762-17 CBD-1RW09-0718 0.24149	20-Jul-18	22:09:45
31	31 180720G2_31	1801762-18 CBD-1FB09-0718 0.24956	20-Jul-18	22:22:34
32	32 180720G2_32	1801762-19 CBD-1RW10-0718 0.23841	20-Jul-18	22:35:25

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

Dataset: Untitled

Last Altered: Saturday, July 21, 2018 16:46:14 Pacific Daylight Time
Printed: Saturday, July 21, 2018 16:47:02 Pacific Daylight Time

Compound name: PFBS

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33	33 180720G2_33	1801762-20 CBD-1FB10-0718 0.24465	20-Jul-18	22:48:13
34	34 180720G2_34	IPA	20-Jul-18	23:01:04
35	35 180720G2_35	ST180720G2-2 PFC CS1 537 18G1806	20-Jul-18	23:13:53
36	36 180720G2_36	IPA	20-Jul-18	23:26:40
37	37 180720G2_37	1801773-01 CBD-1RW21-0718 0.24583	20-Jul-18	23:39:30
38	38 180720G2_38	1801773-02 CBD-1FB21-0718 0.24213	20-Jul-18	23:52:19
39	39 180720G2_39	1801773-03 CBD-1RW22-0718 0.24817	21-Jul-18	00:05:08
40	40 180720G2_40	1801773-04 CBD-1FB22-0718 0.25009	21-Jul-18	00:17:53
41	41 180720G2_41	1801769-01 CBD-1RW11-0718 0.25494	21-Jul-18	00:30:43
42	42 180720G2_42	1801769-02 CBD-1FB11-0718 0.25628	21-Jul-18	00:43:32
43	43 180720G2_43	1801769-03 CBD-1RW12-0718 0.25502	21-Jul-18	00:56:22
44	44 180720G2_44	1801769-04 CBD-1FB12-0718 0.25622	21-Jul-18	01:09:11
45	45 180720G2_45	1801769-05 CBD-1RW13-0718 0.25294	21-Jul-18	01:22:03
46	46 180720G2_46	1801769-06 CBD-1FB13-0718 0.25649	21-Jul-18	01:34:50
47	47 180720G2_47	1801769-07 CBD-1RW14-0718 0.25141	21-Jul-18	01:47:40
48	48 180720G2_48	1801769-08 CBD-1FB14-0718 0.2554	21-Jul-18	02:00:25
49	49 180720G2_49	1801769-09 CBD-1RW15-0718 0.2534	21-Jul-18	02:13:14
50	50 180720G2_50	1801769-10 CBD-1FB15-0718 0.25327	21-Jul-18	02:26:03
51	51 180720G2_51	1801769-11 CBD-1RW16-0718 0.25533	21-Jul-18	02:38:53
52	52 180720G2_52	1801769-12 CBD-1FB16-0718 0.25881	21-Jul-18	02:51:41
53	53 180720G2_53	1801769-13 CBD-1RW17-0718 0.25403	21-Jul-18	03:04:31
54	54 180720G2_54	1801769-14 CBD-1FB17-0718 0.25434	21-Jul-18	03:17:20
55	55 180720G2_55	1801769-15 CBD-1RW18-0718 0.25298	21-Jul-18	03:30:10
56	56 180720G2_56	1801769-16 CBD-1FB18-0718 0.25721	21-Jul-18	03:42:58
57	57 180720G2_57	IPA	21-Jul-18	03:55:48
58	58 180720G2_58	ST180720G2-3 PFC CS3 537 18G1808	21-Jul-18	04:08:37
59	59 180720G2_59	IPA	21-Jul-18	04:21:26
60	60 180720G2_60	1801769-17 CBD-1RW19-0718 0.25305	21-Jul-18	04:34:15
61	61 180720G2_61	1801769-18 CBD-1FB19-0718 0.25356	21-Jul-18	04:47:04
62	62 180720G2_62	1801769-19 CBD-1RW20-0718 0.2509	21-Jul-18	04:59:54
63	63 180720G2_63	1801769-20 CBD-1FB20-0718 0.25184	21-Jul-18	05:12:39
64	64 180720G2_64	IPA	21-Jul-18	05:25:28
65	65 180720G2_65	ST180720G2-4 PFC CS-1 537 18G1804	21-Jul-18	05:38:20
66	66 180720G2_66	IPA	21-Jul-18	05:51:07

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

Dataset: X:\G1.PRO\Results\2018\180720G2\180720G2-35.qld

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Printed: Saturday, July 21, 2018 16:43:25 Pacific Daylight Time

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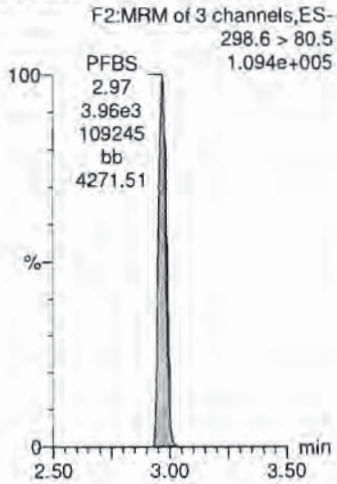
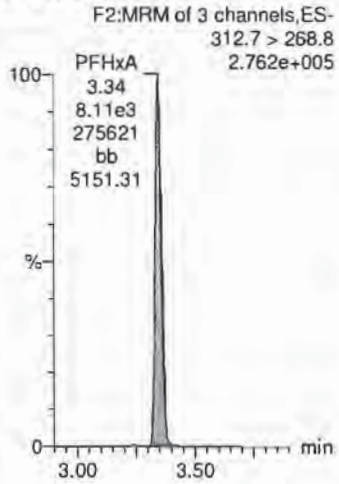
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180720G2_35, Date: 20-Jul-2018, Time: 23:13:53, ID: ST180720G2-2 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

PFBS



PFHxA



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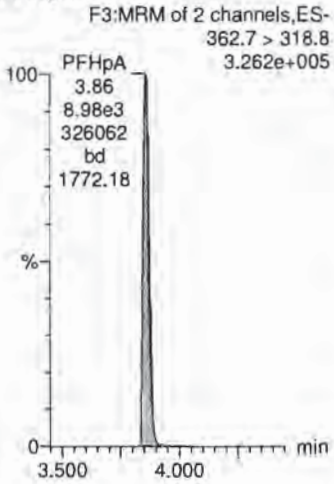

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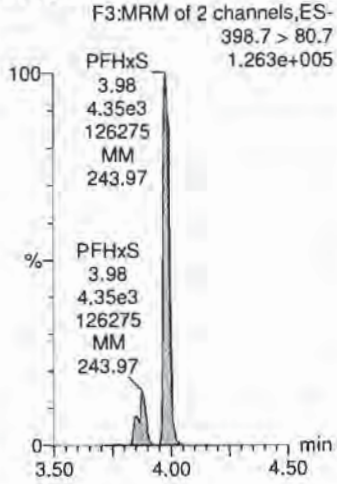
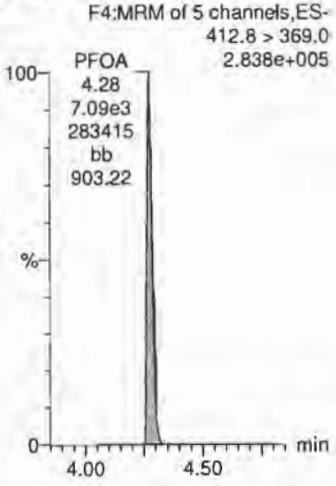
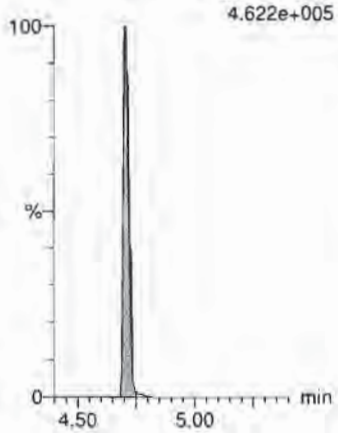


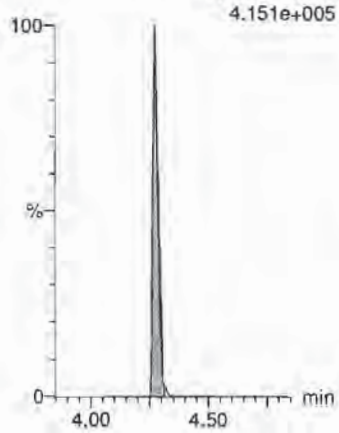
PFOA



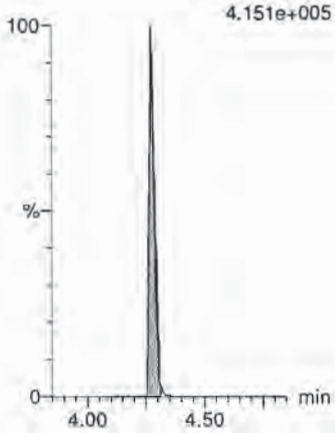
13C4-PFOS



13C2-PFOA



13C2-PFOA



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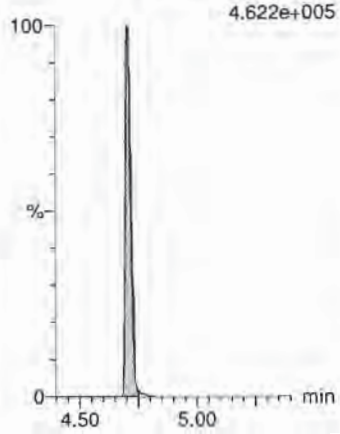

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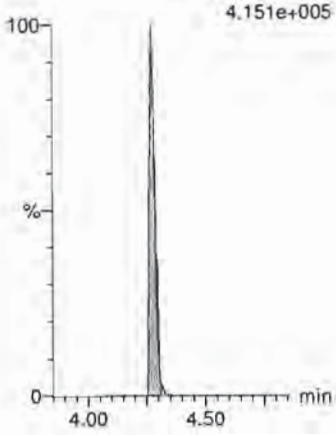

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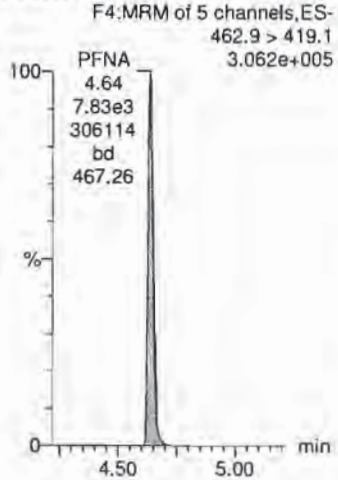
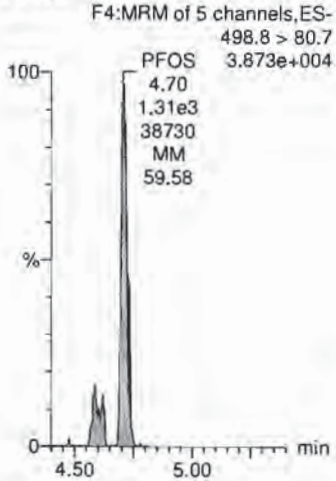
Printed: Saturday, July 21, 2018 16:43:25 Pacific Daylight Time

Name: 180720G2_35, Date: 20-Jul-2018, Time: 23:13:53, ID: ST180720G2-2 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

PFNA



PFOS



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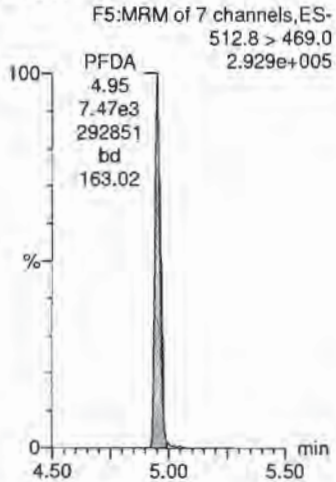
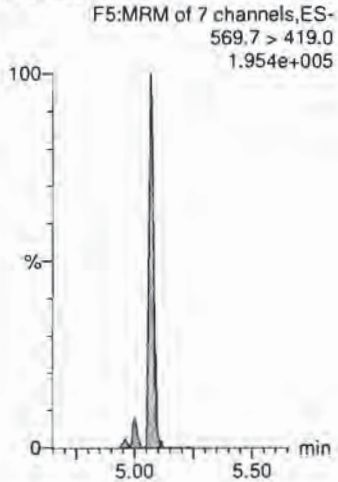


N-MeFOSAA



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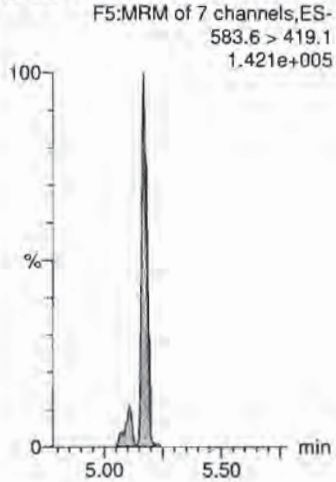

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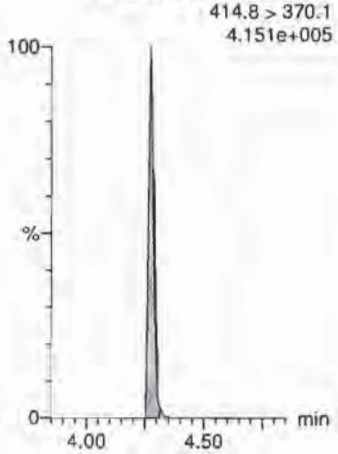
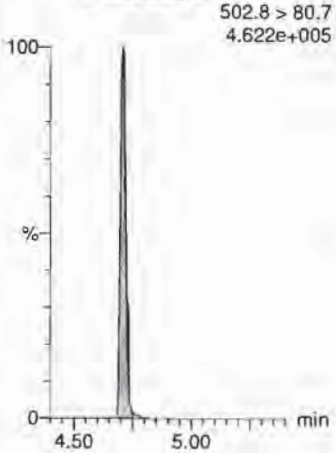
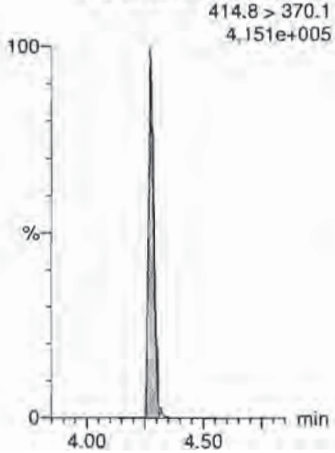


13C4-PFOS



13C2-PFOA



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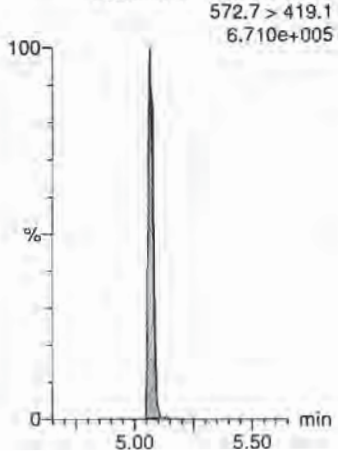

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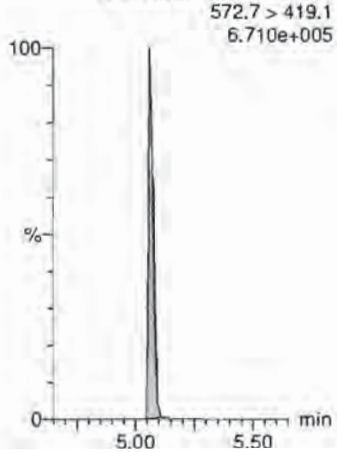

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Printed: Saturday, July 21, 2018 16:43:25 Pacific Daylight Time

Name: 180720G2_35, Date: 20-Jul-2018, Time: 23:13:53, ID: ST180720G2-2 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

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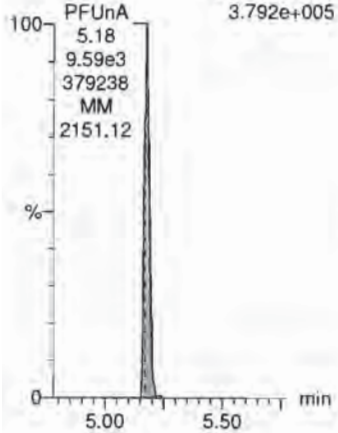

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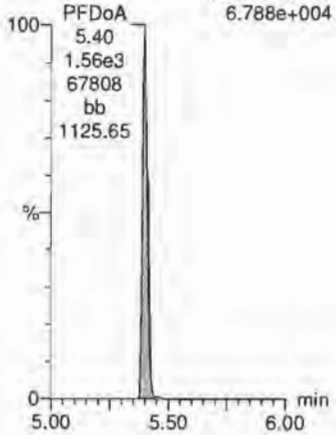

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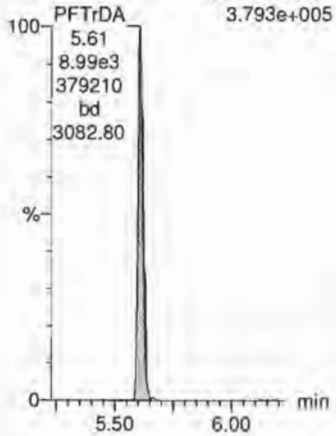
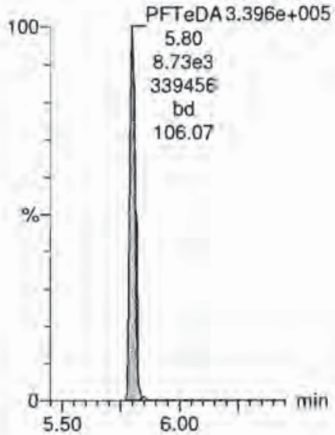


PFTeDA



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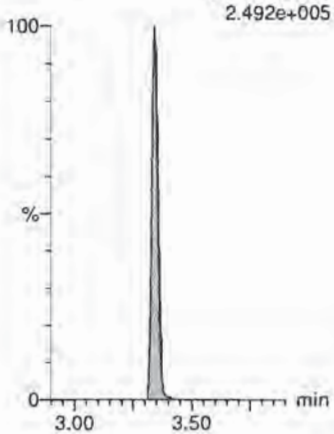

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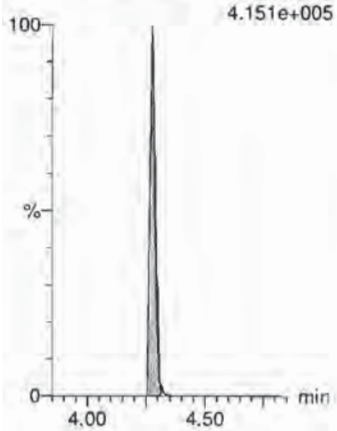

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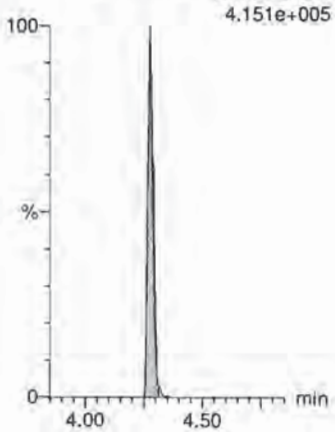

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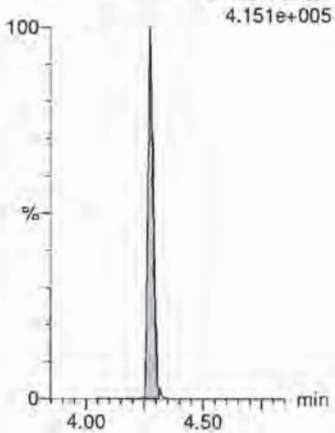

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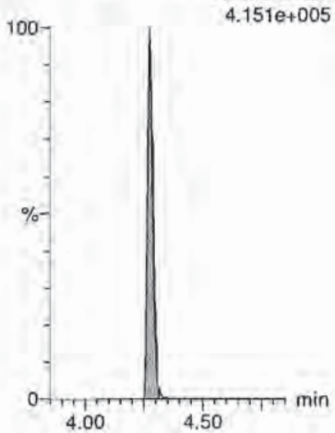

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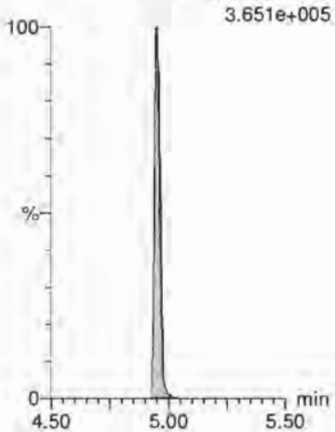

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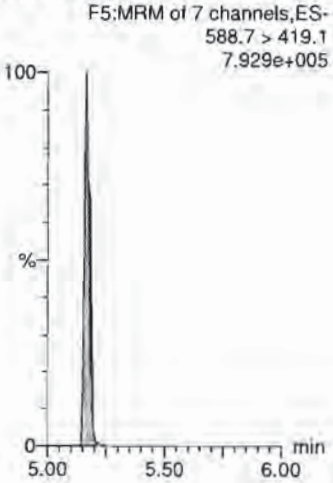
Printed: Saturday, July 21, 2018 16:43:25 Pacific Daylight Time

Name: 180720G2_35, Date: 20-Jul-2018, Time: 23:13:53, ID: ST180720G2-2 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

d5-N-EtFOSAA



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

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

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

Low pt.
MeFOSAA ≈ 0.5
PFDoA ↓
EtFOSAA = 1

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:39:31 Pacific Daylight Time

VAD 7/20/18

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999254
Calibration curve: 0.950953 * 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	180719G3_2	Standard	0.222	2.98	79.078	12524.291	0.181	0.2	-14.2	NO	0.999	NO	MM
2	2	180719G3_3	Standard	0.444	2.96	189.547	13531.768	0.402	0.4	-4.8	NO	0.999	NO	bb
3	3	180719G3_4	Standard	0.888	2.97	364.822	13253.347	0.790	0.8	-6.4	NO	0.999	NO	bb
4	4	180719G3_5	Standard	1.780	2.97	720.599	13367.935	1.547	1.6	-8.6	NO	0.999	NO	bb
5	5	180719G3_6	Standard	4.440	2.97	1837.066	13104.011	4.023	4.2	-4.7	NO	0.999	NO	bb
6	6	180719G3_7	Standard	8.840	2.97	3401.218	12817.154	7.616	8.0	-9.4	NO	0.999	NO	bd
7	7	180719G3_8	Standard	22.100	2.97	9191.506	13057.182	20.203	21.2	-3.9	NO	0.999	NO	bb
8	8	180719G3_9	Standard	44.200	2.97	18480.521	12535.142	42.312	44.5	0.7	NO	0.999	NO	bb
9	9	180719G3_10	Standard	66.400	2.97	26316.469	11870.359	63.628	66.9	0.8	NO	0.999	NO	bb
10	10	180719G3_11	Standard	88.500	2.97	34910.867	11725.865	85.447	89.9	1.5	NO	0.999	NO	bb

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998365
Calibration curve: 0.813355 * 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	180719G3_2	Standard	0.250	3.35	216.445	9607.558	0.225	0.3	10.8	NO	0.998	NO	MM
2	2	180719G3_3	Standard	0.500	3.35	379.840	10003.517	0.380	0.5	-6.6	NO	0.998	NO	MM
3	3	180719G3_4	Standard	1.000	3.35	727.371	9809.153	0.742	0.9	-8.8	NO	0.998	NO	bb
4	4	180719G3_5	Standard	2.000	3.35	1515.859	9349.009	1.621	2.0	-0.3	NO	0.998	NO	bb
5	5	180719G3_6	Standard	5.000	3.35	3877.906	10233.146	3.790	4.7	-6.8	NO	0.998	NO	MM
6	6	180719G3_7	Standard	10.000	3.35	7255.813	8950.334	8.107	10.0	-0.3	NO	0.998	NO	bd
7	7	180719G3_8	Standard	25.000	3.35	19145.990	9857.262	19.423	23.9	-4.5	NO	0.998	NO	bd
8	8	180719G3_9	Standard	50.000	3.35	37287.813	8593.062	43.393	53.4	6.7	NO	0.998	NO	bd
9	9	180719G3_10	Standard	75.000	3.35	52640.691	8955.572	58.780	72.3	-3.6	NO	0.998	NO	bd
10	10	180719G3_11	Standard	100.000	3.35	71689.805	8728.923	82.129	101.0	1.0	NO	0.998	NO	MM

CAH 7/20/18

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:39:31 Pacific Daylight Time

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.998925
Calibration curve: 0.876694 * 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	180719G3_2	Standard	0.250	3.86	187.909	9607.558	0.196	0.2	-10.8	NO	0.999	NO	MM
2	2	180719G3_3	Standard	0.500	3.86	396.545	10003.517	0.396	0.5	-9.6	NO	0.999	NO	MM
3	3	180719G3_4	Standard	1.000	3.86	776.772	9809.153	0.792	0.9	-9.7	NO	0.999	NO	bb
4	4	180719G3_5	Standard	2.000	3.87	1557.671	9349.009	1.666	1.9	-5.0	NO	0.999	NO	MM
5	5	180719G3_6	Standard	5.000	3.86	4098.867	10233.146	4.005	4.6	-8.6	NO	0.999	NO	bb
6	6	180719G3_7	Standard	10.000	3.86	7904.910	8950.334	8.832	10.1	0.7	NO	0.999	NO	bb
7	7	180719G3_8	Standard	25.000	3.86	20082.256	9857.262	20.373	23.2	-7.0	NO	0.999	NO	bb
8	8	180719G3_9	Standard	50.000	3.86	39159.559	8593.062	45.571	52.0	4.0	NO	0.999	NO	bb
9	9	180719G3_10	Standard	75.000	3.86	58417.047	8955.572	65.230	74.4	-0.8	NO	0.999	NO	bd
10	10	180719G3_11	Standard	100.000	3.86	77294.531	8728.923	88.550	101.0	1.0	NO	0.999	NO	bb

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.999072
Calibration curve: 1.12898 * 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	180719G3_2	Standard	0.228	3.98	95.875	12524.291	0.220	0.2	-14.6	NO	0.999	NO	MM
2	2	180719G3_3	Standard	0.456	3.99	229.626	13531.768	0.487	0.4	-5.4	NO	0.999	NO	MM
3	3	180719G3_4	Standard	0.912	3.98	401.635	13253.347	0.870	0.8	-15.5	NO	0.999	NO	MM
4	4	180719G3_5	Standard	1.820	3.99	833.141	13367.935	1.789	1.6	-12.9	NO	0.999	NO	MM
5	5	180719G3_6	Standard	4.560	3.99	2239.804	13104.011	4.906	4.3	-4.7	NO	0.999	NO	MM
6	6	180719G3_7	Standard	9.120	3.99	4365.842	12817.154	9.776	8.7	-5.1	NO	0.999	NO	MM
7	7	180719G3_8	Standard	22.800	3.98	11084.256	13057.182	24.363	21.6	-5.4	NO	0.999	NO	MM
8	8	180719G3_9	Standard	45.500	3.99	22376.348	12535.142	51.232	45.4	-0.3	NO	0.999	NO	MM
9	9	180719G3_10	Standard	68.200	3.98	32770.844	11870.359	79.233	70.2	2.9	NO	0.999	NO	MM
10	10	180719G3_11	Standard	91.000	3.99	42192.352	11725.865	103.269	91.5	0.5	NO	0.999	NO	MM

Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 13:11:24 Pacific Daylight Time
Printed: Friday, July 20, 2018 13:11:52 Pacific Daylight Time

Compound name: PFOA
Coefficient of Determination: R^2 = 0.998834
Calibration curve: 0.729381 * 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	180719G3_2	Standard	0.250	4.29	181.478	9607.558	0.189	0.3	3.6	NO	0.999	NO	MM
2	2	180719G3_3	Standard	0.500	4.28	345.007	10003.517	0.345	0.5	-5.4	NO	0.999	NO	MM
3	3	180719G3_4	Standard	1.000	4.28	639.844	9809.153	0.652	0.9	-10.6	NO	0.999	NO	MM
4	4	180719G3_5	Standard	2.000	4.29	1299.033	9349.009	1.389	1.9	-4.7	NO	0.999	NO	bb
5	5	180719G3_6	Standard	5.000	4.29	3271.357	10233.146	3.197	4.4	-12.3	NO	0.999	NO	bb
6	6	180719G3_7	Standard	10.000	4.28	6557.385	8950.334	7.326	10.0	0.4	NO	0.999	NO	bd
7	7	180719G3_8	Standard	25.000	4.29	16890.068	9857.262	17.135	23.5	-6.0	NO	0.999	NO	bd
8	8	180719G3_9	Standard	50.000	4.28	32798.785	8593.062	38.169	52.3	4.7	NO	0.999	NO	bd
9	9	180719G3_10	Standard	75.000	4.28	48639.875	8955.572	54.312	74.5	-0.7	NO	0.999	NO	bb
10	10	180719G3_11	Standard	100.000	4.28	63988.535	8728.923	73.306	100.5	0.5	NO	0.999	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998143
Calibration curve: 0.871051 * 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	180719G3_2	Standard	0.250	4.63	162.474	9607.558	0.169	0.2	-22.3	NO	0.998	NO	MM
2	2	180719G3_3	Standard	0.500	4.65	391.919	10003.517	0.392	0.4	-10.0	NO	0.998	NO	MM
3	3	180719G3_4	Standard	1.000	4.65	782.808	9809.153	0.798	0.9	-8.4	NO	0.998	NO	MM
4	4	180719G3_5	Standard	2.000	4.64	1517.712	9349.009	1.623	1.9	-6.8	NO	0.998	NO	MM
5	5	180719G3_6	Standard	5.000	4.64	4229.869	10233.146	4.133	4.7	-5.1	NO	0.998	NO	bb
6	6	180719G3_7	Standard	10.000	4.64	8167.393	8950.334	9.125	10.5	4.8	NO	0.998	NO	bb
7	7	180719G3_8	Standard	25.000	4.64	19446.463	9857.262	19.728	22.6	-9.4	NO	0.998	NO	bd
8	8	180719G3_9	Standard	50.000	4.64	39672.789	8593.062	46.168	53.0	6.0	NO	0.998	NO	bd
9	9	180719G3_10	Standard	75.000	4.64	58721.949	8955.572	65.570	75.3	0.4	NO	0.998	NO	bd
10	10	180719G3_11	Standard	100.000	4.64	75406.766	8728.923	86.387	99.2	-0.8	NO	0.998	NO	bd

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:39:31 Pacific Daylight Time

Compound name: PFOS
Coefficient of Determination: R^2 = 0.996082
Calibration curve: 0.369565 * 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	180719G3_2	Standard	0.232	4.72	12.458	12524.291	0.029	0.1	-66.7	NO	0.996	NO	MMX
2	2	180719G3_3	Standard	0.464	4.70	43.853	13531.768	0.093	0.3	-45.8	NO	0.996	NO	MM
3	3	180719G3_4	Standard	0.928	4.71	116.958	13253.347	0.253	0.7	-26.2	NO	0.996	NO	MM
4	4	180719G3_5	Standard	1.860	4.70	225.042	13367.935	0.483	1.3	-29.7	NO	0.996	NO	MM
5	5	180719G3_6	Standard	4.640	4.71	708.145	13104.011	1.551	4.2	-9.6	NO	0.996	NO	MM
6	6	180719G3_7	Standard	9.240	4.71	1384.264	12817.154	3.100	8.4	-9.2	NO	0.996	NO	MM
7	7	180719G3_8	Standard	23.100	4.71	3532.127	13057.182	7.764	21.0	-9.1	NO	0.996	NO	MM
8	8	180719G3_9	Standard	46.200	4.71	7234.786	12535.142	16.564	44.8	-3.0	NO	0.996	NO	MM
9	9	180719G3_10	Standard	69.400	4.71	10799.025	11870.359	26.110	70.6	1.8	NO	0.996	NO	MM
10	10	180719G3_11	Standard	92.500	4.71	14649.923	11725.865	35.857	97.0	4.9	NO	0.996	NO	MM

Compound name: PFDA
Coefficient of Determination: R^2 = 0.997051
Calibration curve: 0.871492 * 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	180719G3_2	Standard	0.250	4.93	246.374	9607.558	0.256	0.3	17.7	NO	0.997	NO	bb
2	2	180719G3_3	Standard	0.500	4.93	446.883	10003.517	0.447	0.5	2.5	NO	0.997	NO	MM
3	3	180719G3_4	Standard	1.000	4.93	805.683	9809.153	0.821	0.9	-5.8	NO	0.997	NO	MM
4	4	180719G3_5	Standard	2.000	4.94	1452.820	9349.009	1.554	1.8	-10.8	NO	0.997	NO	MM
5	5	180719G3_6	Standard	5.000	4.93	4209.125	10233.146	4.113	4.7	-5.6	NO	0.997	NO	bd
6	6	180719G3_7	Standard	10.000	4.93	7819.442	8950.334	8.736	10.0	0.2	NO	0.997	NO	MM
7	7	180719G3_8	Standard	25.000	4.93	19695.555	9857.262	19.981	22.9	-8.3	NO	0.997	NO	bb
8	8	180719G3_9	Standard	50.000	4.94	40205.723	8593.062	46.789	53.7	7.4	NO	0.997	NO	bb
9	9	180719G3_10	Standard	75.000	4.93	55569.367	8955.572	62.050	71.2	-5.1	NO	0.997	NO	bb
10	10	180719G3_11	Standard	100.000	4.93	78094.141	8728.923	89.466	102.7	2.7	NO	0.997	NO	bb

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 1.15659 * 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	180719G3_2	Standard	0.250	5.05	76.018	14900.215	0.204	0.2	-29.4	NO	0.998	NO	MMX
2	2	180719G3_3	Standard	0.500	5.05	206.538	14917.943	0.554	0.5	-4.2	NO	0.998	NO	MM
3	3	180719G3_4	Standard	1.000	5.05	459.121	15115.812	1.215	1.1	5.0	NO	0.998	NO	MM
4	4	180719G3_5	Standard	2.000	5.04	758.691	16168.233	1.877	1.6	-18.9	NO	0.998	NO	MM
5	5	180719G3_6	Standard	5.000	5.05	2024.494	15822.617	5.118	4.4	-11.5	NO	0.998	NO	MM
6	6	180719G3_7	Standard	10.000	5.05	4261.750	16013.813	10.645	9.2	-8.0	NO	0.998	NO	MM
7	7	180719G3_8	Standard	25.000	5.05	11640.010	15282.137	30.467	26.3	5.4	NO	0.998	NO	MM
8	8	180719G3_9	Standard	50.000	5.05	20775.996	13850.654	60.000	51.9	3.8	NO	0.998	NO	MM
9	9	180719G3_10	Standard	75.000	5.05	33719.148	15249.671	88.446	76.5	2.0	NO	0.998	NO	MM
10	10	180719G3_11	Standard	100.000	5.05	44018.918	15689.659	112.224	97.0	-3.0	NO	0.998	NO	MM

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.994002
Calibration curve: 0.997342 * 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	180719G3_2	Standard	0.250	5.17	74.608	14900.215	0.200	0.2	-19.7	NO	0.994	NO	MMX
2	2	180719G3_3	Standard	0.500	5.17	165.411	14917.943	0.444	0.4	-11.1	NO	0.994	NO	bbX
3	3	180719G3_4	Standard	1.000	5.17	233.848	15115.812	0.619	0.6	-38.0	NO	0.994	NO	MM
4	4	180719G3_5	Standard	2.000	5.17	681.068	16168.233	1.685	1.7	-15.5	NO	0.994	NO	MM
5	5	180719G3_6	Standard	5.000	5.17	2023.786	15822.617	5.116	5.1	2.6	NO	0.994	NO	MM
6	6	180719G3_7	Standard	10.000	5.17	3527.098	16013.813	8.810	8.8	-11.7	NO	0.994	NO	MM
7	7	180719G3_8	Standard	25.000	5.17	9761.256	15282.137	25.549	25.6	2.5	NO	0.994	NO	MM
8	8	180719G3_9	Standard	50.000	5.17	19588.977	13850.654	56.572	56.7	13.4	NO	0.994	NO	MM
9	9	180719G3_10	Standard	75.000	5.17	27387.066	15249.671	71.836	72.0	-4.0	NO	0.994	NO	MM
10	10	180719G3_11	Standard	100.000	5.17	38086.531	15689.659	97.100	97.4	-2.6	NO	0.994	NO	MM

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Compound name: PFUnA
Coefficient of Determination: R^2 = 0.998638
Calibration curve: 0.960831 * 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	180719G3_2	Standard	0.250	5.18	153.971	9607.558	0.160	0.2	-33.3	NO	0.999	NO	MM
2	2	180719G3_3	Standard	0.500	5.17	427.723	10003.517	0.428	0.4	-11.0	NO	0.999	NO	MM
3	3	180719G3_4	Standard	1.000	5.18	971.202	9809.153	0.990	1.0	3.0	NO	0.999	NO	MM
4	4	180719G3_5	Standard	2.000	5.18	1726.699	9349.009	1.847	1.9	-3.9	NO	0.999	NO	bb
5	5	180719G3_6	Standard	5.000	5.18	4548.829	10233.146	4.445	4.6	-7.5	NO	0.999	NO	MM
6	6	180719G3_7	Standard	10.000	5.18	8827.076	8950.334	9.862	10.3	2.6	NO	0.999	NO	bd
7	7	180719G3_8	Standard	25.000	5.18	22062.658	9857.262	22.382	23.3	-6.8	NO	0.999	NO	bb
8	8	180719G3_9	Standard	50.000	5.18	43424.051	8593.062	50.534	52.6	5.2	NO	0.999	NO	bd
9	9	180719G3_10	Standard	75.000	5.17	63418.094	8955.572	70.814	73.7	-1.7	NO	0.999	NO	bb
10	10	180719G3_11	Standard	100.000	5.17	84461.789	8728.923	96.761	100.7	0.7	NO	0.999	NO	bb

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 0.146969 * 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	180719G3_2	Standard	0.250	5.40	13.889	9607.558	0.014	0.1	-60.7	NO	0.998	NO	MMX
2	2	180719G3_3	Standard	0.500	5.41	73.771	10003.517	0.074	0.5	0.4	NO	0.998	NO	MM
3	3	180719G3_4	Standard	1.000	5.42	115.337	9809.153	0.118	0.8	-20.0	NO	0.998	NO	bb
4	4	180719G3_5	Standard	2.000	5.41	279.361	9349.009	0.299	2.0	1.7	NO	0.998	NO	bb
5	5	180719G3_6	Standard	5.000	5.41	669.160	10233.146	0.654	4.4	-11.0	NO	0.998	NO	MM
6	6	180719G3_7	Standard	10.000	5.41	1424.345	8950.334	1.591	10.8	8.3	NO	0.998	NO	bb
7	7	180719G3_8	Standard	25.000	5.41	3396.192	9857.262	3.445	23.4	-6.2	NO	0.998	NO	bd
8	8	180719G3_9	Standard	50.000	5.40	6682.467	8593.062	7.777	52.9	5.8	NO	0.998	NO	bb
9	9	180719G3_10	Standard	75.000	5.41	9891.307	8955.572	11.045	75.2	0.2	NO	0.998	NO	bd
10	10	180719G3_11	Standard	100.000	5.41	12621.056	8728.923	14.459	98.4	-1.6	NO	0.998	NO	bd

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998349
Calibration curve: 0.90204 * 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 180719G3_2	Standard	0.250	5.61	191.945	9607.558	0.200	0.2	-11.4	NO	0.998	NO	bb
2	2 180719G3_3	Standard	0.500	5.62	387.261	10003.517	0.387	0.4	-14.2	NO	0.998	NO	bb
3	3 180719G3_4	Standard	1.000	5.62	810.357	9809.153	0.826	0.9	-8.4	NO	0.998	NO	bd
4	4 180719G3_5	Standard	2.000	5.62	1478.241	9349.009	1.581	1.8	-12.4	NO	0.998	NO	bd
5	5 180719G3_6	Standard	5.000	5.62	4290.086	10233.146	4.192	4.6	-7.0	NO	0.998	NO	bd
6	6 180719G3_7	Standard	10.000	5.62	8479.044	8950.334	9.473	10.5	5.0	NO	0.998	NO	bb
7	7 180719G3_8	Standard	25.000	5.62	20581.932	9857.262	20.880	23.1	-7.4	NO	0.998	NO	bd
8	8 180719G3_9	Standard	50.000	5.62	40755.762	8593.062	47.429	52.6	5.2	NO	0.998	NO	bd
9	9 180719G3_10	Standard	75.000	5.62	59213.352	8955.572	66.119	73.3	-2.3	NO	0.998	NO	bd
10	10 180719G3_11	Standard	100.000	5.62	79726.117	8728.923	91.336	101.3	1.3	NO	0.998	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.997347
Calibration curve: 0.926257 * 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 180719G3_2	Standard	0.250	5.80	218.061	9607.558	0.227	0.2	-2.0	NO	0.997	NO	MM
2	2 180719G3_3	Standard	0.500	5.80	387.098	10003.517	0.387	0.4	-16.4	NO	0.997	NO	bb
3	3 180719G3_4	Standard	1.000	5.80	812.033	9809.153	0.828	0.9	-10.6	NO	0.997	NO	bd
4	4 180719G3_5	Standard	2.000	5.80	1446.245	9349.009	1.547	1.7	-16.5	NO	0.997	NO	bb
5	5 180719G3_6	Standard	5.000	5.81	4341.288	10233.146	4.242	4.6	-8.4	NO	0.997	NO	bd
6	6 180719G3_7	Standard	10.000	5.81	8295.102	8950.334	9.268	10.0	0.1	NO	0.997	NO	bd
7	7 180719G3_8	Standard	25.000	5.81	20309.916	9857.262	20.604	22.2	-11.0	NO	0.997	NO	bb
8	8 180719G3_9	Standard	50.000	5.81	42703.285	8593.062	49.695	53.7	7.3	NO	0.997	NO	bd
9	9 180719G3_10	Standard	75.000	5.80	62209.750	8955.572	69.465	75.0	-0.0	NO	0.997	NO	bd
10	10 180719G3_11	Standard	100.000	5.81	80889.742	8728.923	92.669	100.0	0.0	NO	0.997	NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.752548
RRF SD: 0.0282691, Relative SD: 3.75644
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	180719G3_2	Standard	10.000	3.34	7295.154	9607.558	7.593	10.1	0.9	NO		NO	bb
2	2	180719G3_3	Standard	10.000	3.34	7414.530	10003.517	7.412	9.8	-1.5	NO		NO	bd
3	3	180719G3_4	Standard	10.000	3.35	6825.012	9809.153	6.958	9.2	-7.5	NO		NO	bb
4	4	180719G3_5	Standard	10.000	3.35	7061.073	9349.009	7.553	10.0	0.4	NO		NO	bd
5	5	180719G3_6	Standard	10.000	3.35	7502.231	10233.146	7.331	9.7	-2.6	NO		NO	bb
6	6	180719G3_7	Standard	10.000	3.35	7030.619	8950.334	7.855	10.4	4.4	NO		NO	bd
7	7	180719G3_8	Standard	10.000	3.35	7291.253	9857.262	7.397	9.8	-1.7	NO		NO	bb
8	8	180719G3_9	Standard	10.000	3.35	6842.353	8593.062	7.963	10.6	5.8	NO		NO	bb
9	9	180719G3_10	Standard	10.000	3.34	6726.779	8955.572	7.511	10.0	-0.2	NO		NO	bd
10	10	180719G3_11	Standard	10.000	3.35	6705.550	8728.923	7.682	10.2	2.1	NO		NO	bb

Compound name: 13C2-PFDA
Response Factor: 1.02262
RRF SD: 0.0455983, Relative SD: 4.45898
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	180719G3_2	Standard	10.000	4.94	10188.513	9607.558	10.605	10.4	3.7	NO		NO	bd
2	2	180719G3_3	Standard	10.000	4.93	10494.740	10003.517	10.491	10.3	2.6	NO		NO	bd
3	3	180719G3_4	Standard	10.000	4.93	10018.575	9809.153	10.213	10.0	-0.1	NO		NO	bd
4	4	180719G3_5	Standard	10.000	4.93	9721.604	9349.009	10.399	10.2	1.7	NO		NO	bb
5	5	180719G3_6	Standard	10.000	4.93	9540.815	10233.146	9.323	9.1	-8.8	NO		NO	bb
6	6	180719G3_7	Standard	10.000	4.93	9415.412	8950.334	10.520	10.3	2.9	NO		NO	bd
7	7	180719G3_8	Standard	10.000	4.93	9558.210	9857.262	9.697	9.5	-5.2	NO		NO	bd
8	8	180719G3_9	Standard	10.000	4.93	9224.771	8593.062	10.735	10.5	5.0	NO		NO	bd
9	9	180719G3_10	Standard	10.000	4.93	8817.560	8955.572	9.846	9.6	-3.7	NO		NO	bb
10	10	180719G3_11	Standard	10.000	4.93	9107.061	8728.923	10.433	10.2	2.0	NO		NO	bd

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Compound name: d5-N-EtFOSAA
Response Factor: 1.2642
RRF SD: 0.0944702, Relative SD: 7.47271
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	180719G3_2	Standard	40.000	5.17	19521.926	14900.215	52.407	41.5	3.6	NO		NO	bd
2	2	180719G3_3	Standard	40.000	5.16	20995.799	14917.943	56.297	44.5	11.3	NO		NO	MM
3	3	180719G3_4	Standard	40.000	5.16	20424.537	15115.812	54.048	42.8	6.9	NO		NO	bb
4	4	180719G3_5	Standard	40.000	5.17	19734.184	16168.233	48.822	38.6	-3.5	NO		NO	bb
5	5	180719G3_6	Standard	40.000	5.16	18281.092	15822.617	46.215	36.6	-8.6	NO		NO	MM
6	6	180719G3_7	Standard	40.000	5.17	20019.535	16013.813	50.006	39.6	-1.1	NO		NO	bd
7	7	180719G3_8	Standard	40.000	5.17	20064.123	15282.137	52.517	41.5	3.9	NO		NO	bb
8	8	180719G3_9	Standard	40.000	5.16	18369.805	13850.654	53.051	42.0	4.9	NO		NO	bd
9	9	180719G3_10	Standard	40.000	5.16	18409.029	15249.671	48.287	38.2	-4.5	NO		NO	bb
10	10	180719G3_11	Standard	40.000	5.16	17271.014	15689.659	44.032	34.8	-12.9	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	180719G3_2	Standard	10.000	4.28	9607.558	9607.558	10.000	10.0	0.0	NO		NO	bd
2	2	180719G3_3	Standard	10.000	4.28	10003.517	10003.517	10.000	10.0	0.0	NO		NO	bb
3	3	180719G3_4	Standard	10.000	4.28	9809.153	9809.153	10.000	10.0	0.0	NO		NO	MM
4	4	180719G3_5	Standard	10.000	4.28	9349.009	9349.009	10.000	10.0	0.0	NO		NO	MM
5	5	180719G3_6	Standard	10.000	4.29	10233.146	10233.146	10.000	10.0	0.0	NO		NO	bd
6	6	180719G3_7	Standard	10.000	4.28	8950.334	8950.334	10.000	10.0	0.0	NO		NO	bd
7	7	180719G3_8	Standard	10.000	4.29	9857.262	9857.262	10.000	10.0	0.0	NO		NO	bb
8	8	180719G3_9	Standard	10.000	4.28	8593.062	8593.062	10.000	10.0	0.0	NO		NO	bb
9	9	180719G3_10	Standard	10.000	4.28	8955.572	8955.572	10.000	10.0	0.0	NO		NO	bd
10	10	180719G3_11	Standard	10.000	4.28	8728.923	8728.923	10.000	10.0	0.0	NO		NO	bd

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Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
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	180719G3_2	Standard	28.700	4.71	12524.291	12524.291	28.700	28.7	0.0	NO		NO	bd
2	2	180719G3_3	Standard	28.700	4.71	13531.768	13531.768	28.700	28.7	0.0	NO		NO	bb
3	3	180719G3_4	Standard	28.700	4.71	13253.347	13253.347	28.700	28.7	0.0	NO		NO	bb
4	4	180719G3_5	Standard	28.700	4.71	13367.935	13367.935	28.700	28.7	0.0	NO		NO	bb
5	5	180719G3_6	Standard	28.700	4.71	13104.011	13104.011	28.700	28.7	0.0	NO		NO	bd
6	6	180719G3_7	Standard	28.700	4.71	12817.154	12817.154	28.700	28.7	0.0	NO		NO	bd
7	7	180719G3_8	Standard	28.700	4.71	13057.182	13057.182	28.700	28.7	0.0	NO		NO	bb
8	8	180719G3_9	Standard	28.700	4.71	12535.142	12535.142	28.700	28.7	0.0	NO		NO	bd
9	9	180719G3_10	Standard	28.700	4.71	11870.359	11870.359	28.700	28.7	0.0	NO		NO	bd
10	10	180719G3_11	Standard	28.700	4.71	11725.865	11725.865	28.700	28.7	0.0	NO		NO	bd

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	180719G3_2	Standard	40.000	5.04	14900.215	14900.215	40.000	40.0	0.0	NO		NO	bb
2	2	180719G3_3	Standard	40.000	5.04	14917.943	14917.943	40.000	40.0	0.0	NO		NO	bb
3	3	180719G3_4	Standard	40.000	5.04	15115.812	15115.812	40.000	40.0	0.0	NO		NO	bd
4	4	180719G3_5	Standard	40.000	5.04	16168.233	16168.233	40.000	40.0	0.0	NO		NO	bd
5	5	180719G3_6	Standard	40.000	5.04	15822.617	15822.617	40.000	40.0	0.0	NO		NO	bd
6	6	180719G3_7	Standard	40.000	5.04	16013.813	16013.813	40.000	40.0	0.0	NO		NO	bd
7	7	180719G3_8	Standard	40.000	5.04	15282.137	15282.137	40.000	40.0	0.0	NO		NO	bd
8	8	180719G3_9	Standard	40.000	5.05	13850.654	13850.654	40.000	40.0	0.0	NO		NO	bd
9	9	180719G3_10	Standard	40.000	5.04	15249.671	15249.671	40.000	40.0	0.0	NO		NO	bd
10	10	180719G3_11	Standard	40.000	5.04	15689.659	15689.659	40.000	40.0	0.0	NO		NO	bb

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

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:16 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

	#	Name	IS#	CoD	CoD Flag	%RSD
1	1	PFBS	19	0.9993	NO	
2	2	PFHxA	18	0.9984	NO	
3	3	PFHpA	18	0.9989	NO	
4	4	PFHxS	19	0.9991	NO	
5	5	PFOA	18	0.9988	NO	
6	6	PFNA	18	0.9981	NO	
7	7	PFOS	19	0.9961	NO	
8	8	PFDA	18	0.9971	NO	
9	9	N-MeFOSAA	20	0.9981	NO	
10	10	N-EtFOSAA	20	0.9940	NO	
11	11	PFUnA	18	0.9986	NO	
12	12	PFDoA	18	0.9981	NO	
13	13	PFTrDA	18	0.9983	NO	
14	14	PFTeDA	18	0.9973	NO	
15	15	13C2-PFHxA	18		NO	3.756
16	16	13C2-PFDA	18		NO	4.459
17	17	d5-N-EtFOSAA	20		NO	7.473
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

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

Dataset: Untitled

Last Altered: Friday, July 20, 2018 11:22:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 11:23:00 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 10:51:38

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
1	1 180719G3_1	IPA	19-Jul-18	14:50:42
2	2 180719G3_2	ST180719G3-1 PFC CS-4 537 18G1801	19-Jul-18	15:03:28
3	3 180719G3_3	ST180719G3-2 PFC CS-3 537 18G1802	19-Jul-18	15:16:17
4	4 180719G3_4	ST180719G3-3 PFC CS-2 537 18G1803	19-Jul-18	15:29:06
5	5 180719G3_5	ST180719G3-4 PFC CS-1 537 18G1804	19-Jul-18	15:41:56
6	6 180719G3_6	ST180719G3-5 PFC CS0 537 18G1805	19-Jul-18	15:54:41
7	7 180719G3_7	ST180719G3-6 PFC CS1 537 18G1806	19-Jul-18	16:07:29
8	8 180719G3_8	ST180719G3-7 PFC CS2 537 18G1807	19-Jul-18	16:20:19
9	9 180719G3_9	ST180719G3-8 PFC CS3 537 18G1808	19-Jul-18	16:33:10
10	10 180719G3_10	ST180719G3-9 PFC CS4 537 18G1809	19-Jul-18	16:45:58
11	11 180719G3_11	ST180719G3-10 PFC CS5 537 18G1810	19-Jul-18	16:58:48
12	12 180719G3_12	IPA	19-Jul-18	17:11:52
13	13 180719G3_13	ST180719G3-1 PFC ICV 537 18G1811	19-Jul-18	17:24:26
14	14 180719G3_14	IPA	19-Jul-18	17:37:16

ICAL

Compound 18: 13C2-PFOA

high	10233.15	RPD
low	8593.062	17.42

	ID	Name	Type	Std. Cor RT		Area	IS Area	Response	Primary Flags
1	ST180719G3-1 PFC CS-4 537 18G1801	180719G3_2	Standard	10	4.28	9607.558	9607.558	10	MM
2	ST180719G3-2 PFC CS-3 537 18G1802	180719G3_3	Standard	10	4.28	10003.52	10003.52	10	MM
3	ST180719G3-3 PFC CS-2 537 18G1803	180719G3_4	Standard	10	4.28	9767.989	9767.989	10	MM
4	ST180719G3-4 PFC CS-1 537 18G1804	180719G3_5	Standard	10	4.28	9289.855	9289.855	10	MM
5	ST180719G3-5 PFC CS0 537 18G1805	180719G3_6	Standard	10	4.29	10233.15	10233.15	10	MM
6	ST180719G3-6 PFC CS1 537 18G1806	180719G3_7	Standard	10	4.28	8950.334	8950.334	10	MM
7	ST180719G3-7 PFC CS2 537 18G1807	180719G3_8	Standard	10	4.29	9857.262	9857.262	10	MM
8	ST180719G3-8 PFC CS3 537 18G1808	180719G3_9	Standard	10	4.28	8593.062	8593.062	10	MM
9	ST180719G3-9 PFC CS4 537 18G1809	180719G3_10	Standard	10	4.28	8955.572	8955.572	10	MM
10	ST180719G3-10 PFC CS5 537 18G1810	180719G3_11	Standard	10	4.28	8728.923	8728.923	10	MM
							average		
							9398.72		

Compound 19: 13C4-PFOS

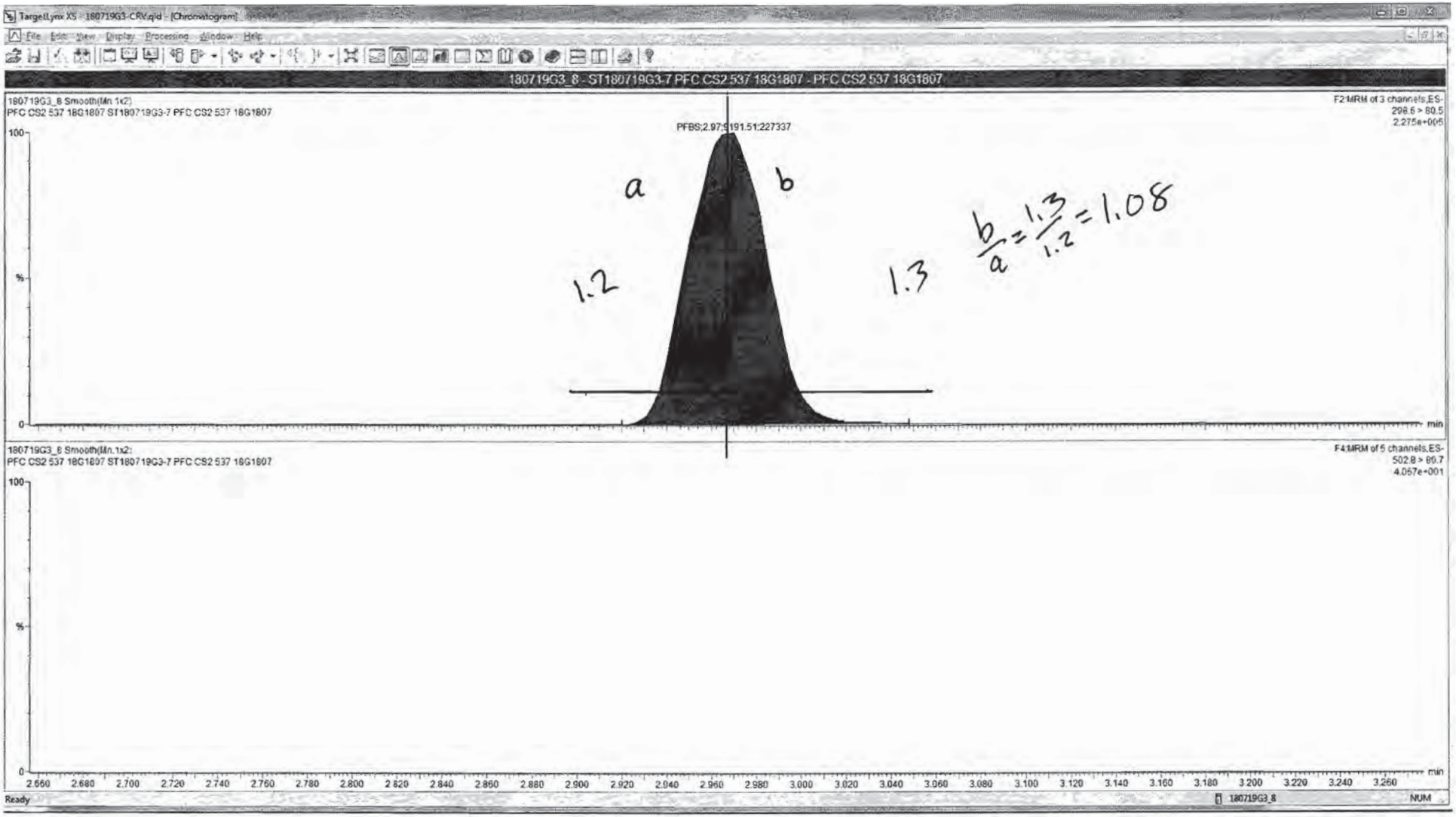
high	13531.77	RPD
low	11725.87	14.30

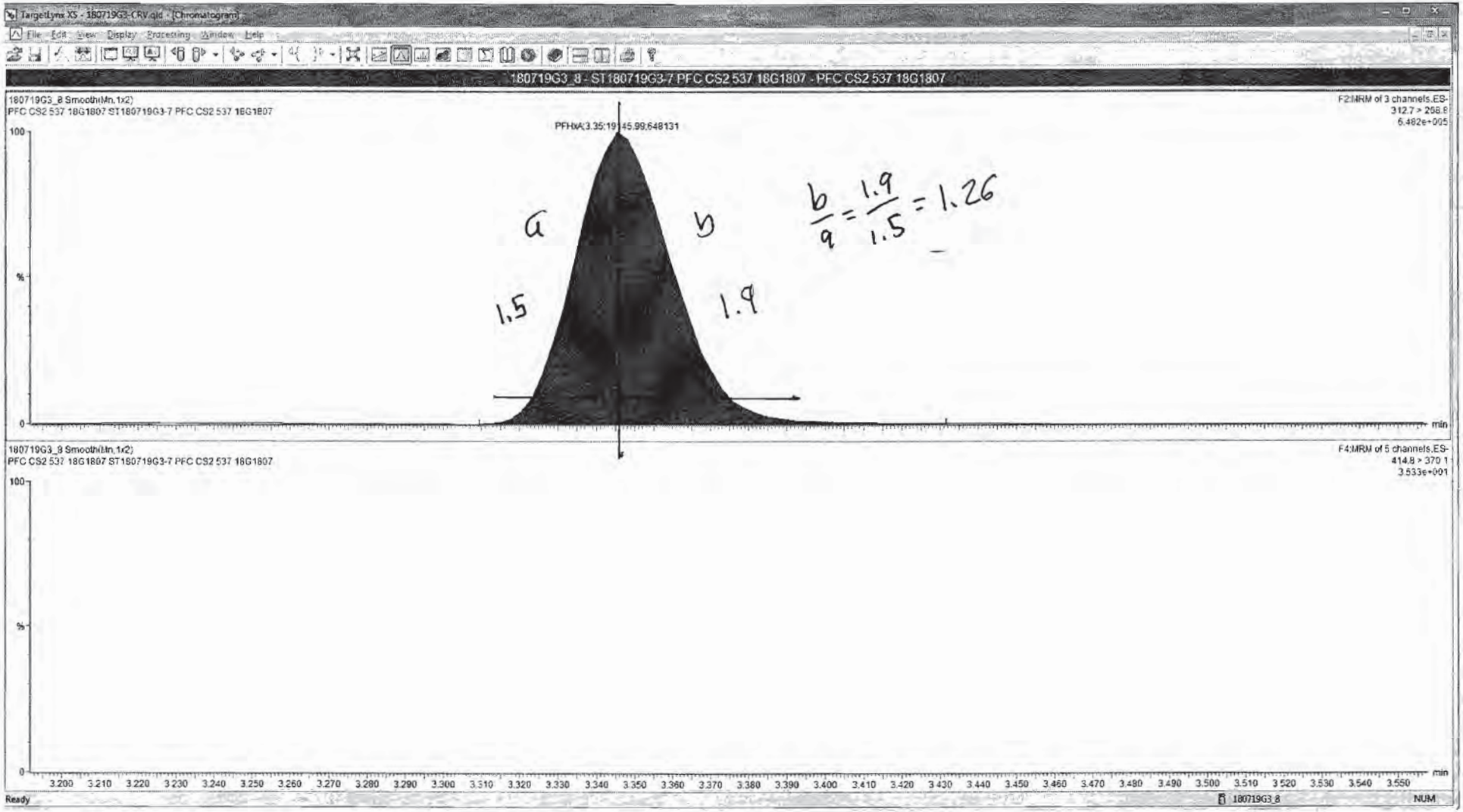
	ID	Name	Type	Std. Cor RT		Area	IS Area	Response	Primary Flags
1	ST180719G3-1 PFC CS-4 537 18G1801	180719G3_2	Standard	28.7	4.71	12524.29	12524.29	28.7	bd
2	ST180719G3-2 PFC CS-3 537 18G1802	180719G3_3	Standard	28.7	4.71	13531.77	13531.77	28.7	bb
3	ST180719G3-3 PFC CS-2 537 18G1803	180719G3_4	Standard	28.7	4.71	13253.35	13253.35	28.7	bb
4	ST180719G3-4 PFC CS-1 537 18G1804	180719G3_5	Standard	28.7	4.71	13367.94	13367.94	28.7	bb
5	ST180719G3-5 PFC CS0 537 18G1805	180719G3_6	Standard	28.7	4.71	13104.01	13104.01	28.7	bd
6	ST180719G3-6 PFC CS1 537 18G1806	180719G3_7	Standard	28.7	4.71	12817.15	12817.15	28.7	bd
7	ST180719G3-7 PFC CS2 537 18G1807	180719G3_8	Standard	28.7	4.71	13057.18	13057.18	28.7	bb
8	ST180719G3-8 PFC CS3 537 18G1808	180719G3_9	Standard	28.7	4.71	12535.14	12535.14	28.7	bd
9	ST180719G3-9 PFC CS4 537 18G1809	180719G3_10	Standard	28.7	4.71	11870.36	11870.36	28.7	bd
10	ST180719G3-10 PFC CS5 537 18G1810	180719G3_11	Standard	28.7	4.71	11725.87	11725.87	28.7	bd
							average		
							12778.71		

Compound 20: d3-N-MeFOSAA

high	16168.23	RPD	
low	13850.65	15.44	

	ID	Name	Type	Std. Cor RT		Area	IS Area	Response	Primary Flags
1	ST180719G3-1 PFC CS-4 537 18G1801	180719G3_2	Standard	40	5.04	14900.22	14900.22	40	bb
2	ST180719G3-2 PFC CS-3 537 18G1802	180719G3_3	Standard	40	5.04	14917.94	14917.94	40	bb
3	ST180719G3-3 PFC CS-2 537 18G1803	180719G3_4	Standard	40	5.04	15115.81	15115.81	40	bd
4	ST180719G3-4 PFC CS-1 537 18G1804	180719G3_5	Standard	40	5.04	16168.23	16168.23	40	bd
5	ST180719G3-5 PFC CS0 537 18G1805	180719G3_6	Standard	40	5.04	15822.62	15822.62	40	bd
6	ST180719G3-6 PFC CS1 537 18G1806	180719G3_7	Standard	40	5.04	16013.81	16013.81	40	bd
7	ST180719G3-7 PFC CS2 537 18G1807	180719G3_8	Standard	40	5.04	15282.14	15282.14	40	bd
8	ST180719G3-8 PFC CS3 537 18G1808	180719G3_9	Standard	40	5.05	13850.65	13850.65	40	bd
9	ST180719G3-9 PFC CS4 537 18G1809	180719G3_10	Standard	40	5.04	15249.67	15249.67	40	bd
10	ST180719G3-10 PFC CS5 537 18G1810	180719G3_11	Standard	40	5.04	15689.66	15689.66	40	bb
							average		
							15301.08		


TargetLynx XS - 180719G3-CRV.qid - [Chromatogram]
File Edit View Display Processing Window Help
180719G3_8 - ST180719G3-7 PFC CS2 537 18G1807 - PFC CS2 537 18G1807
180719G3_8 Smooth(Mn,1x2)
PFC CS2 537 18G1807 ST180719G3-7 PFC CS2 537 18G1807
F2:MRM of 3 channels,ES-
298.6 > 80.5
2.275e+005
PFBS;2.97;9191.51;227337
a
b
1.2
1.3
b/a = 1.3/1.2 = 1.08
100
%
0
min
180719G3_8 Smooth(Mn,1x2)
PFC CS2 537 18G1807 ST180719G3-7 PFC CS2 537 18G1807
F4:MRM of 5 channels,ES-
502.8 > 80.7
4.067e+001
2.660 2.680 2.700 2.720 2.740 2.760 2.780 2.800 2.820 2.840 2.860 2.880 2.900 2.920 2.940 2.960 2.980 3.000 3.020 3.040 3.060 3.080 3.100 3.120 3.140 3.160 3.180 3.200 3.220 3.240 3.260
Ready
180719G3_8
NUM


TargetLynx XS - 180719G3-CRV.qld - [Chromatogram]
File Edit View Display Processing Window Help
180719G3_8 - ST180719G3-7 PFC CS2 537 18G1807 - PFC CS2 537 18G1807
180719G3_8 Smooth(Mn,1x2)
PFC CS2 537 18G1807 ST180719G3-7 PFC CS2 537 18G1807
F2:MRM of 3 channels,ES-
312.7 > 258.8
6.482e+005
PFHxA(3.35:19:45.99,648131
a
b
1.5
1.9
b/a = 1.9/1.5 = 1.26
F4:MRM of 5 channels,ES-
414.8 > 370.1
3.533e+001
Ready
180719G3_8
NUM

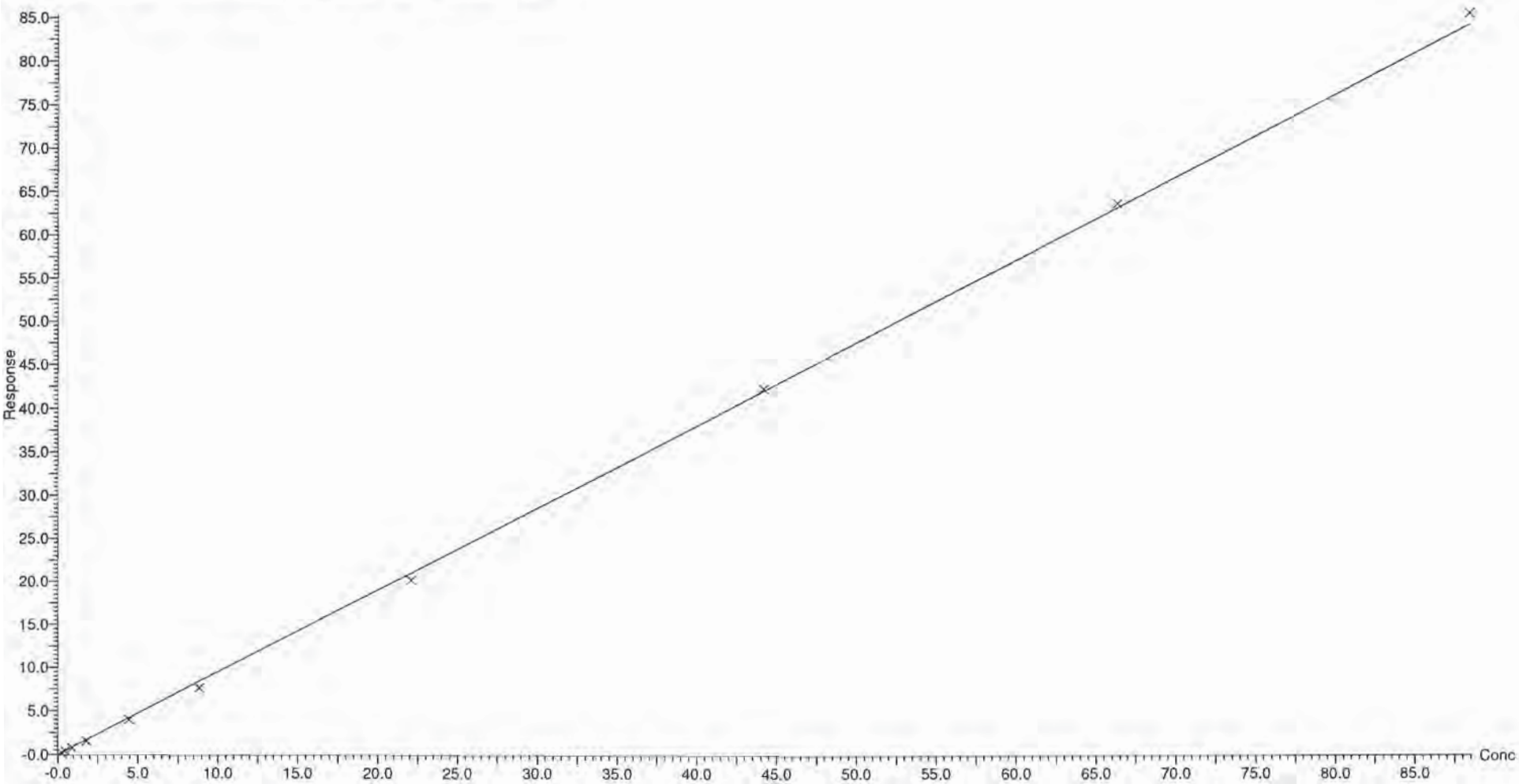
Vista Analytical Laboratory Q1

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

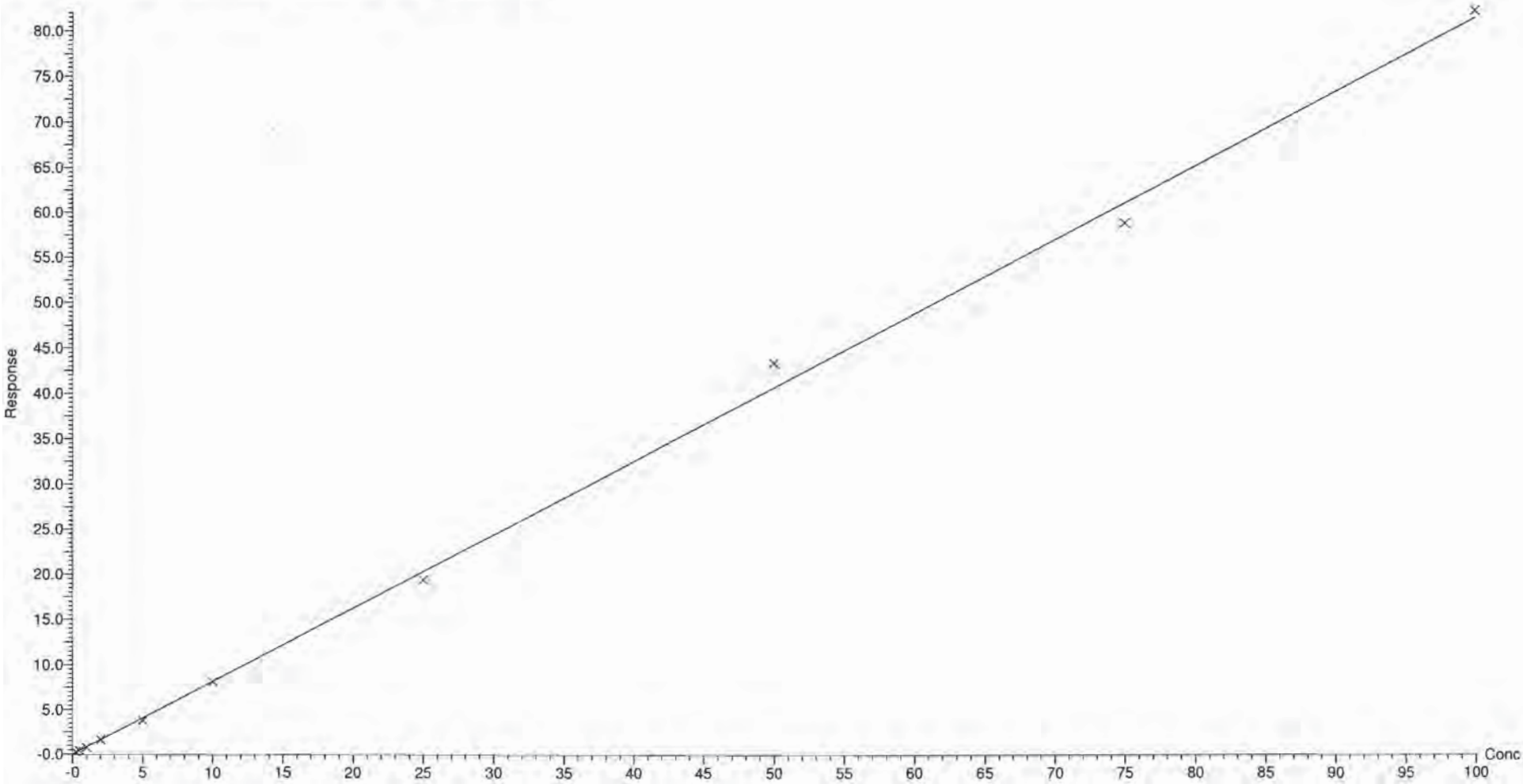
Compound name: PFBS
Coefficient of Determination: R^2 = 0.999254
Calibration curve: 0.950953 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998365
Calibration curve: 0.813355 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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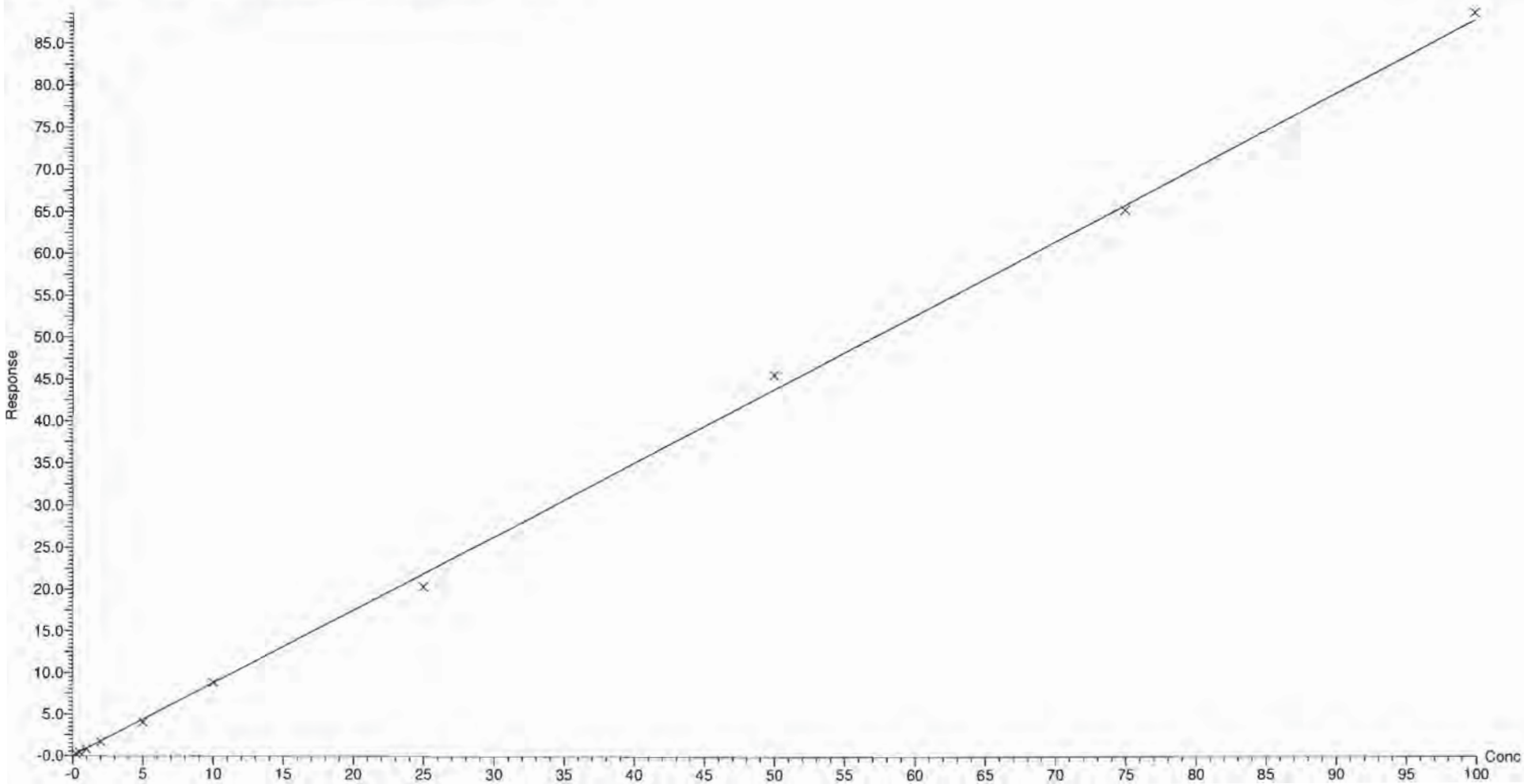
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.998925
Calibration curve: 0.876694 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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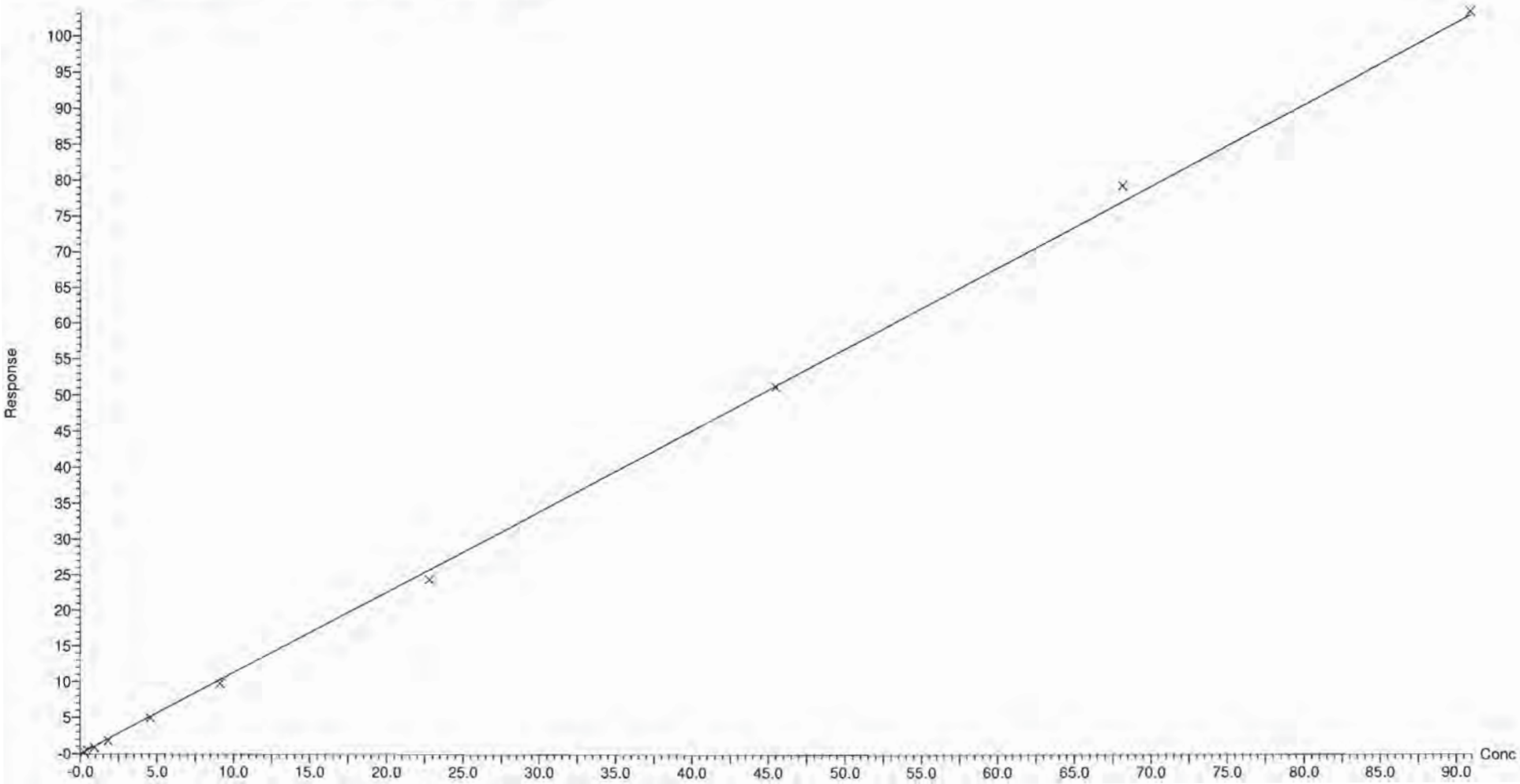
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.999072
Calibration curve: 1.12898 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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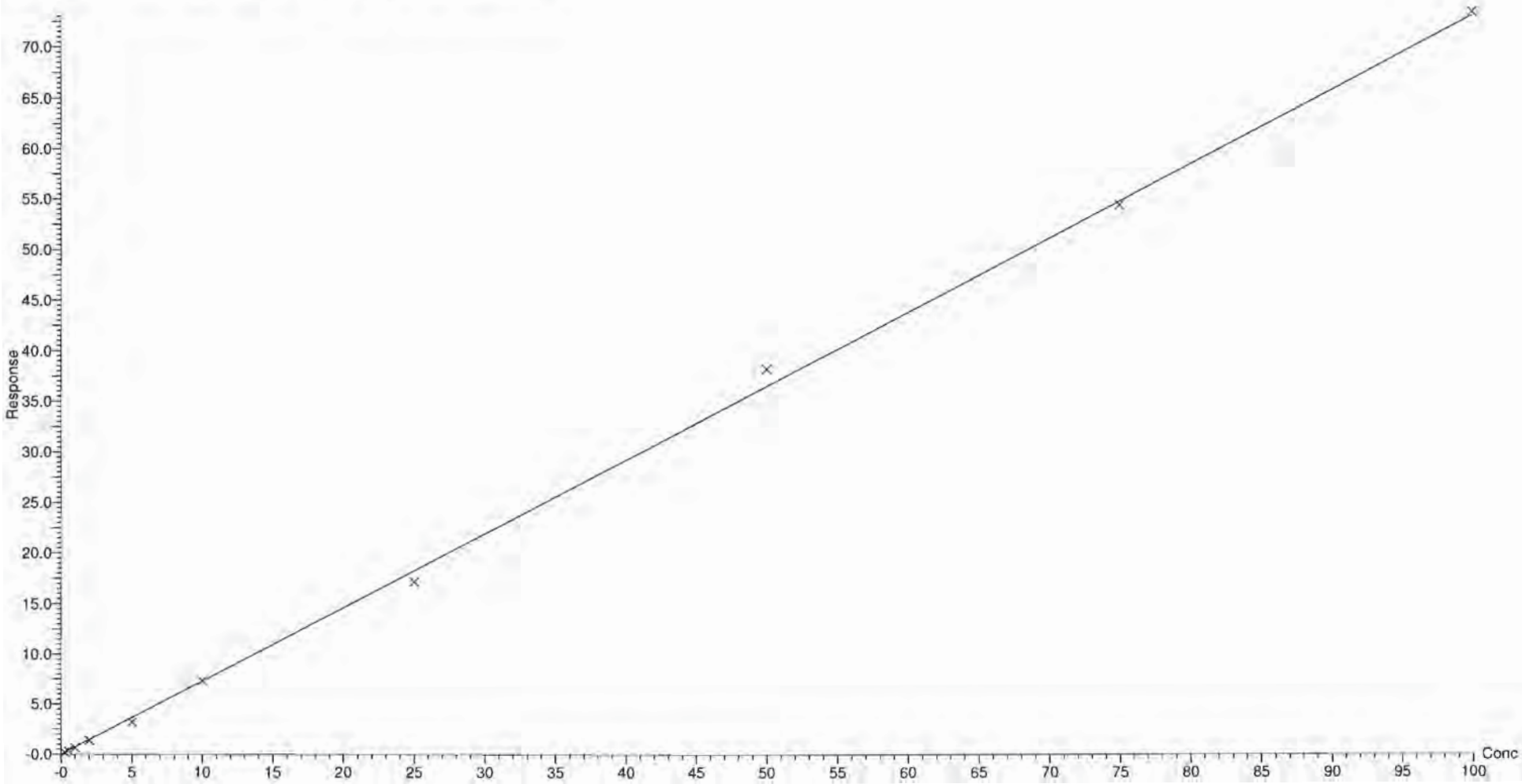
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFOA
Coefficient of Determination: R^2 = 0.998834
Calibration curve: 0.729381 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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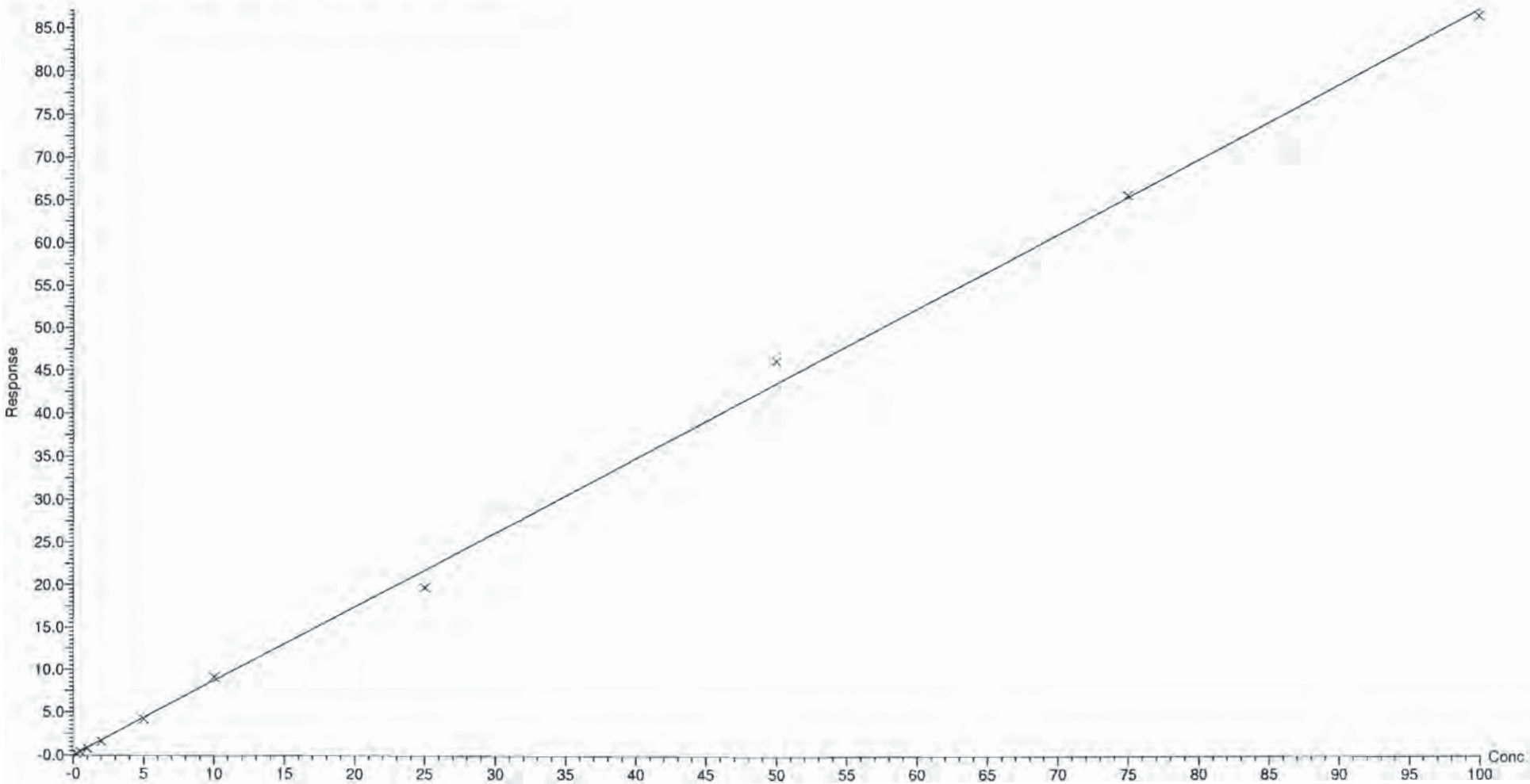
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998143
Calibration curve: 0.871051 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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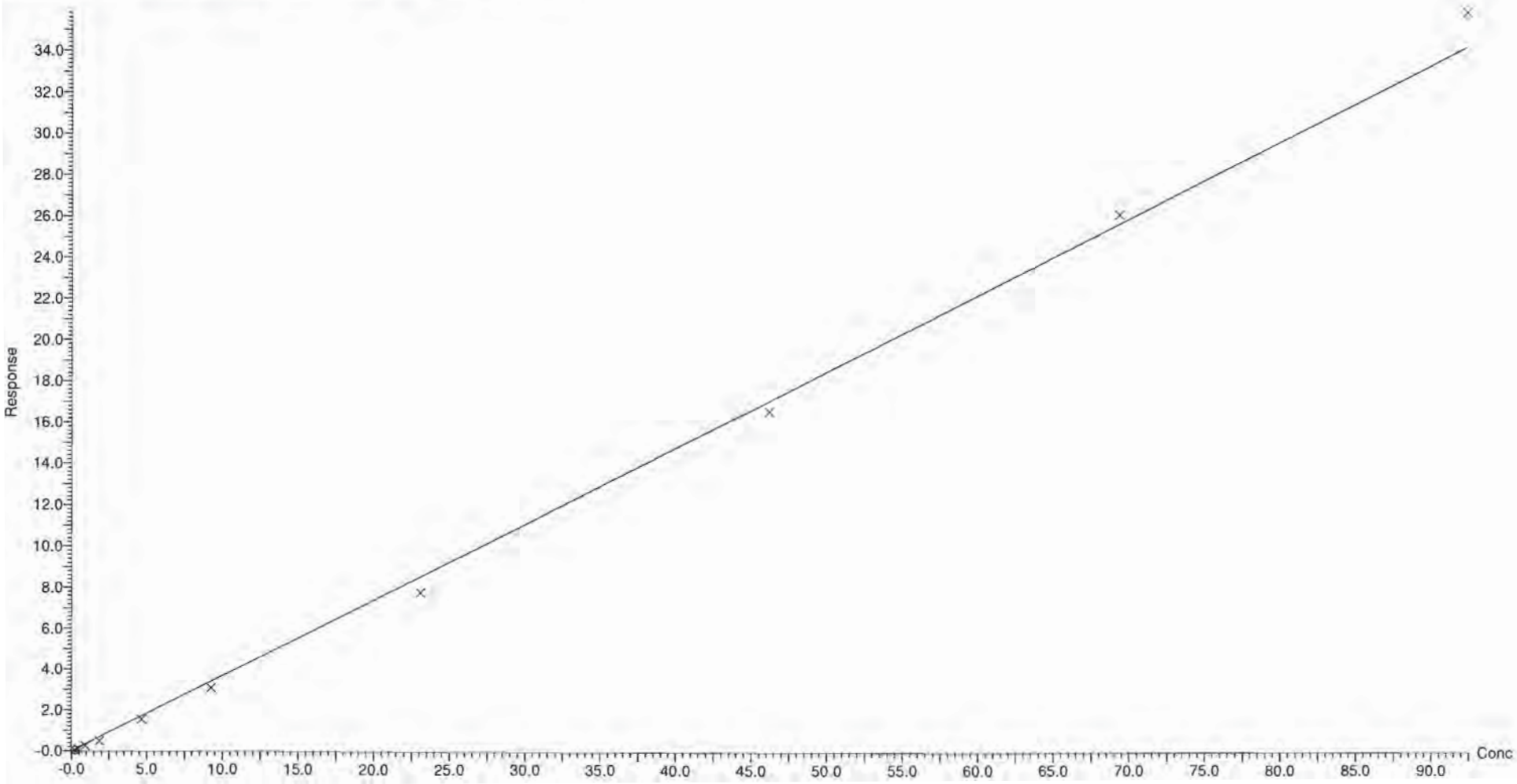
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFOS
Coefficient of Determination: R^2 = 0.996082
Calibration curve: 0.369565 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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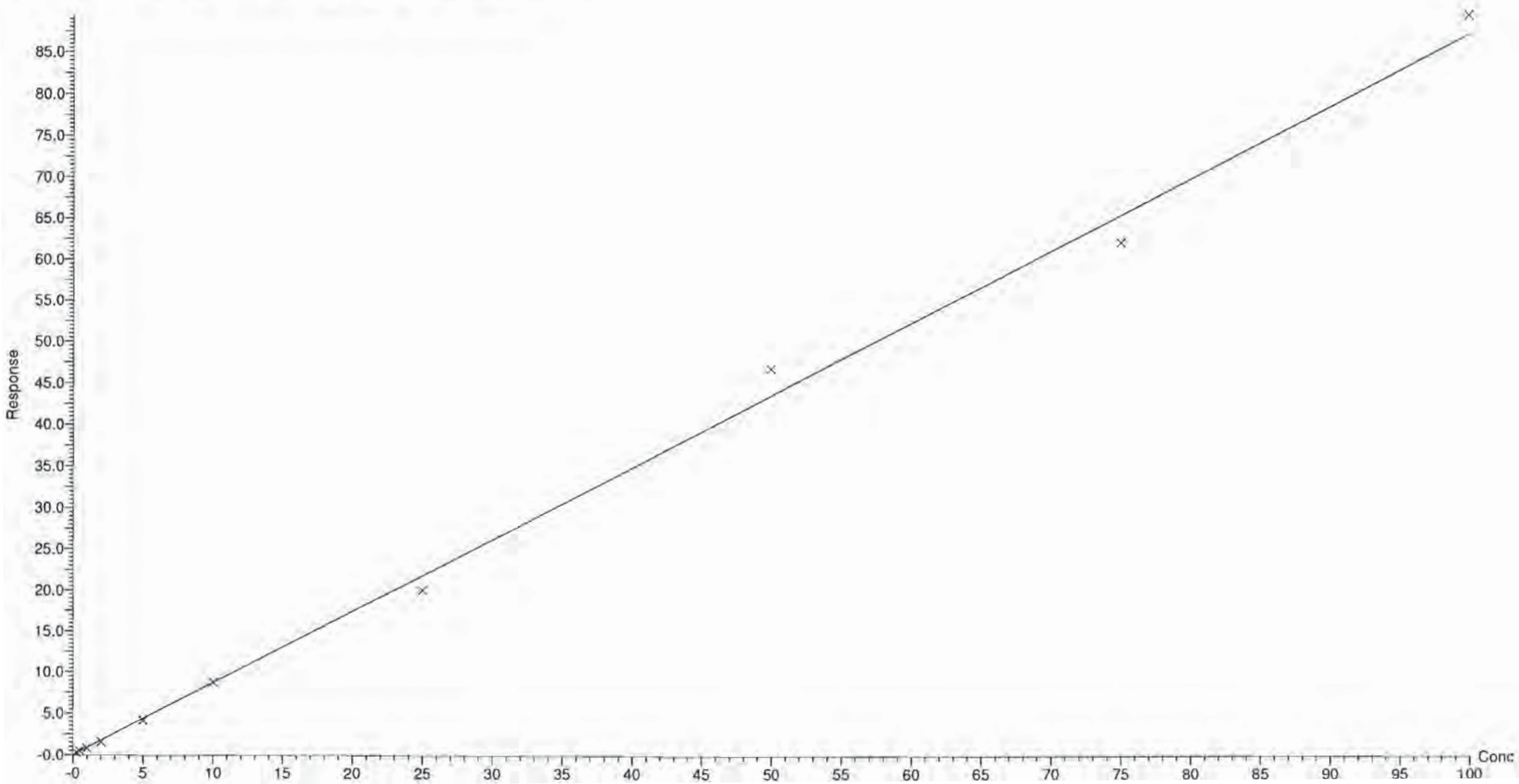
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFDA
Coefficient of Determination: R^2 = 0.997051
Calibration curve: 0.871492 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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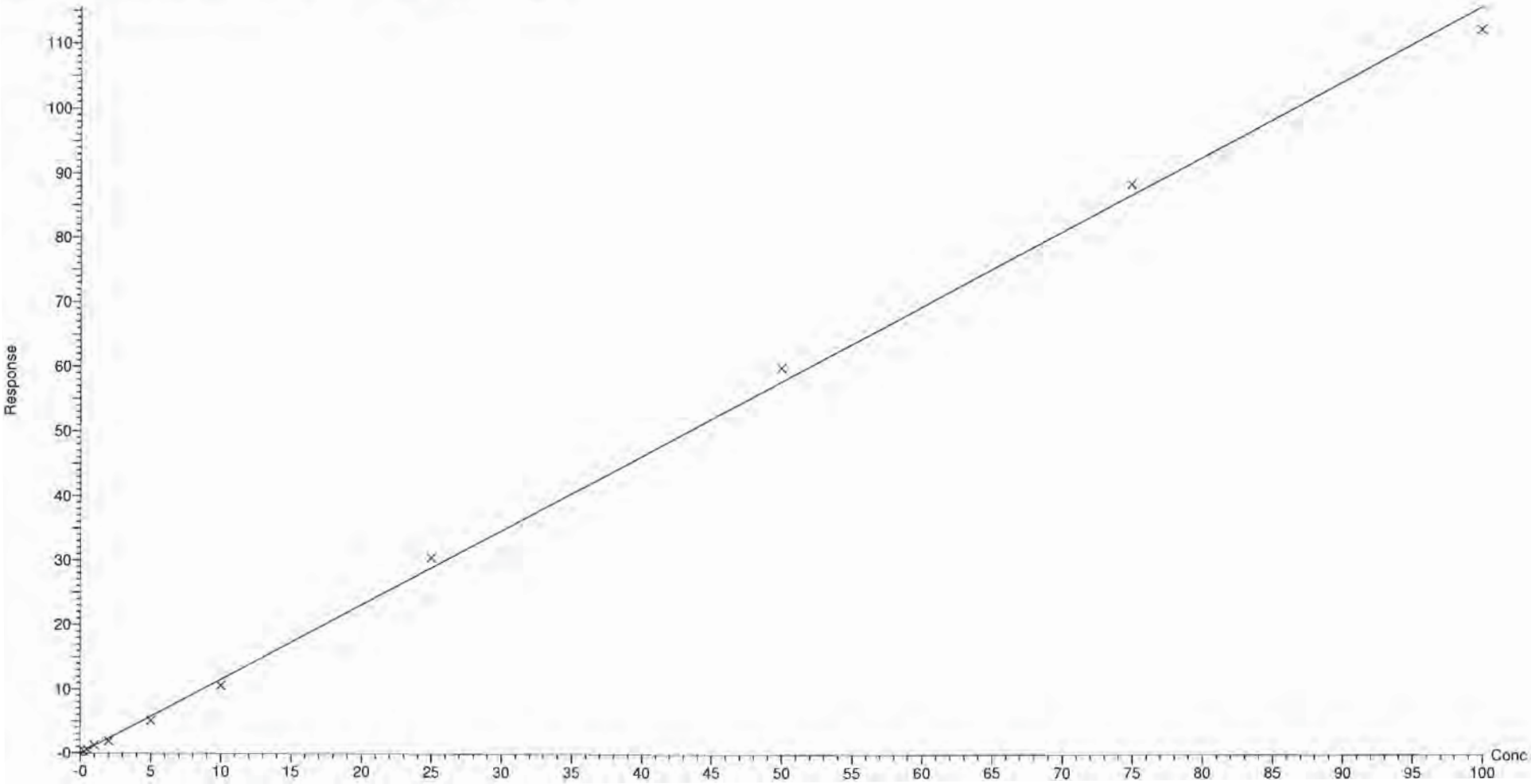
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 1.15659 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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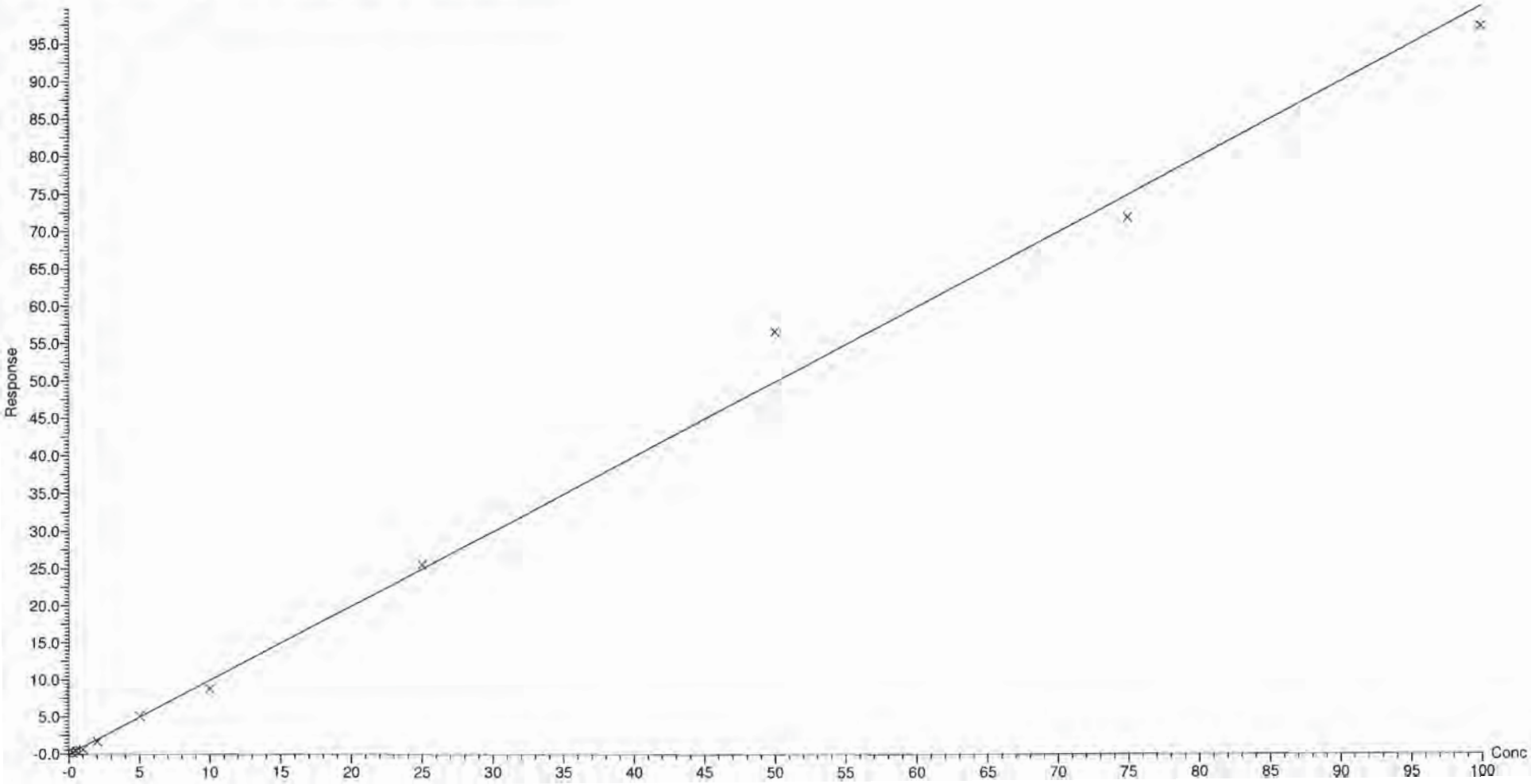
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

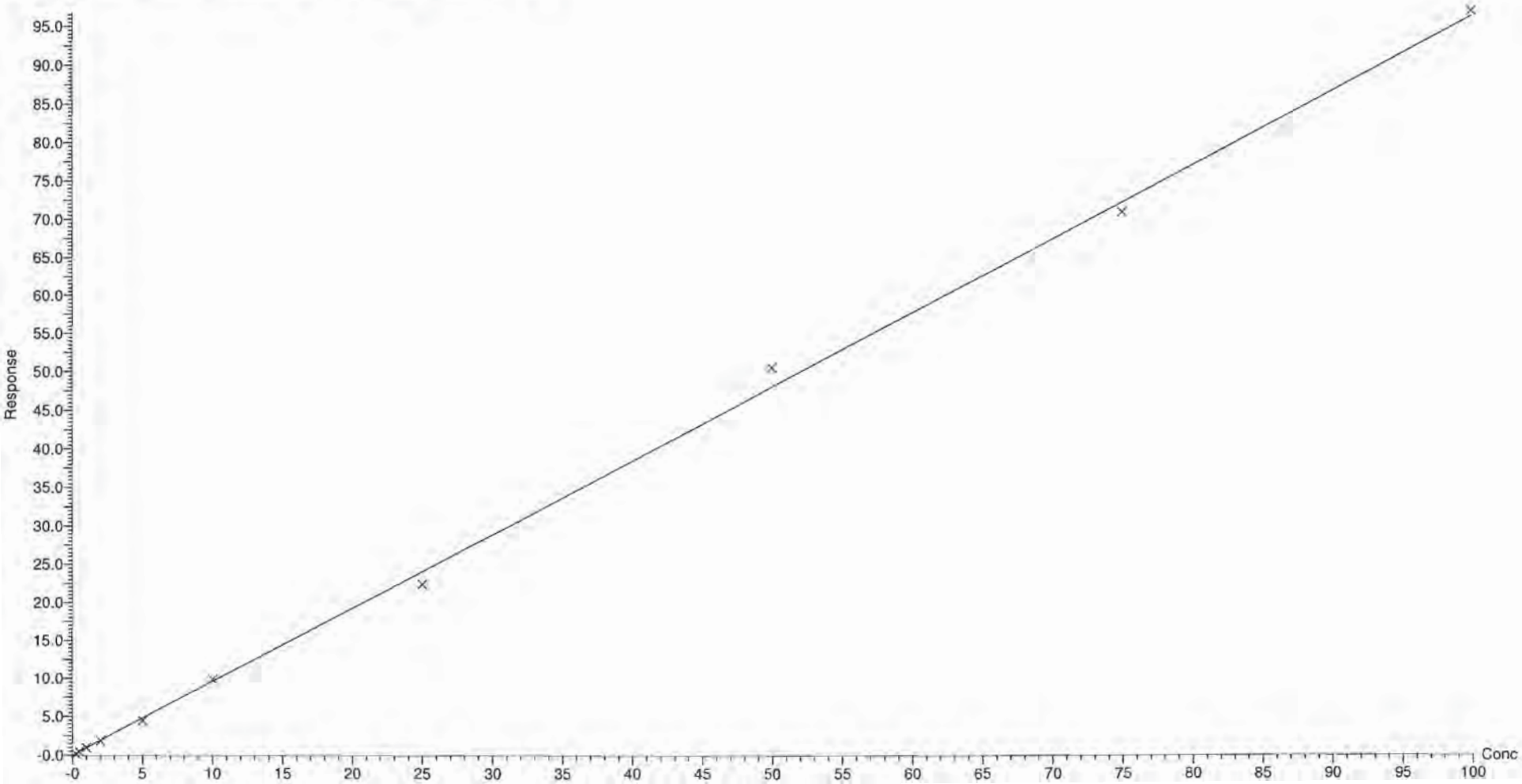
Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.994002
Calibration curve: 0.997342 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

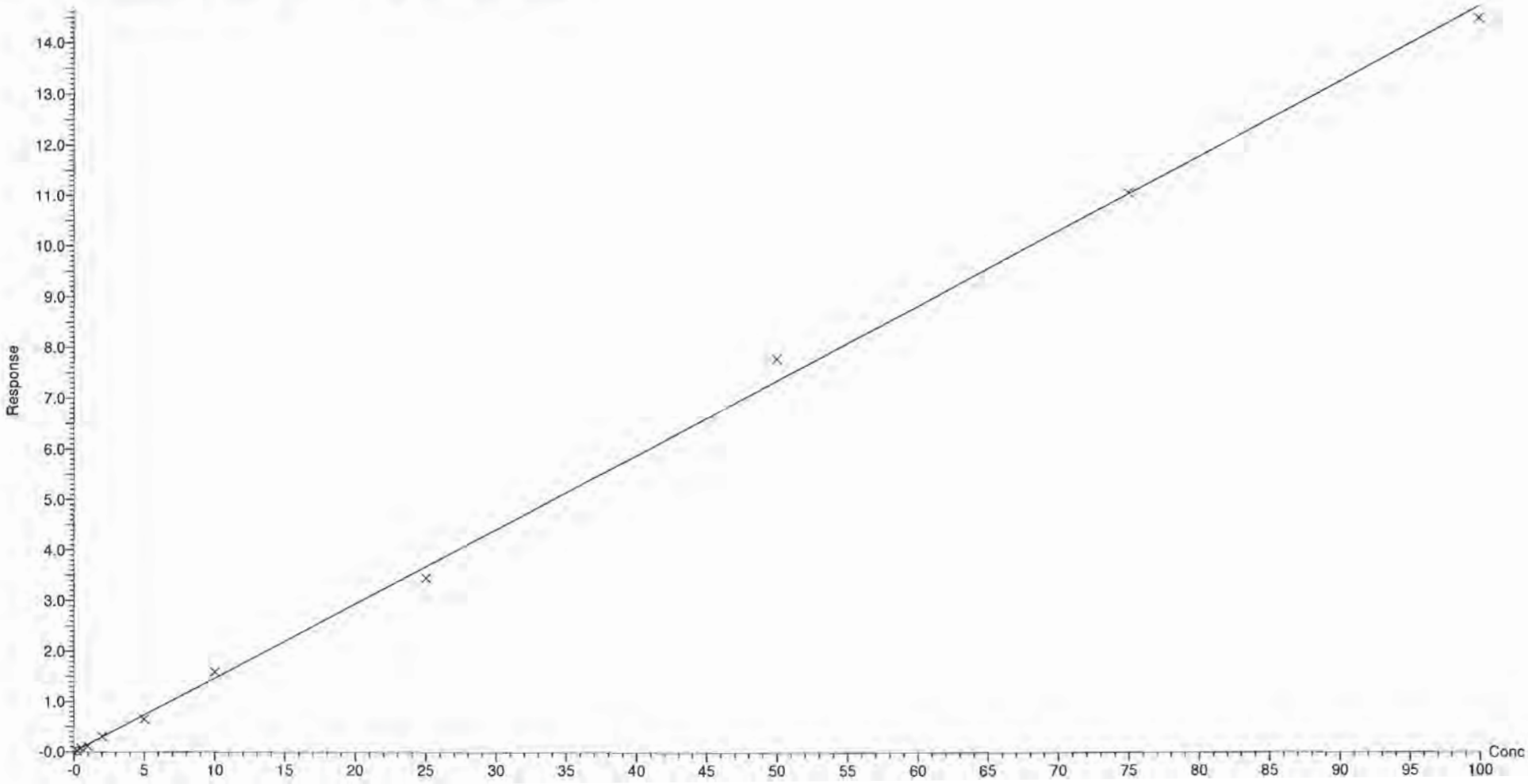
Compound name: PFUnA
Coefficient of Determination: R^2 = 0.998638
Calibration curve: 0.960831 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

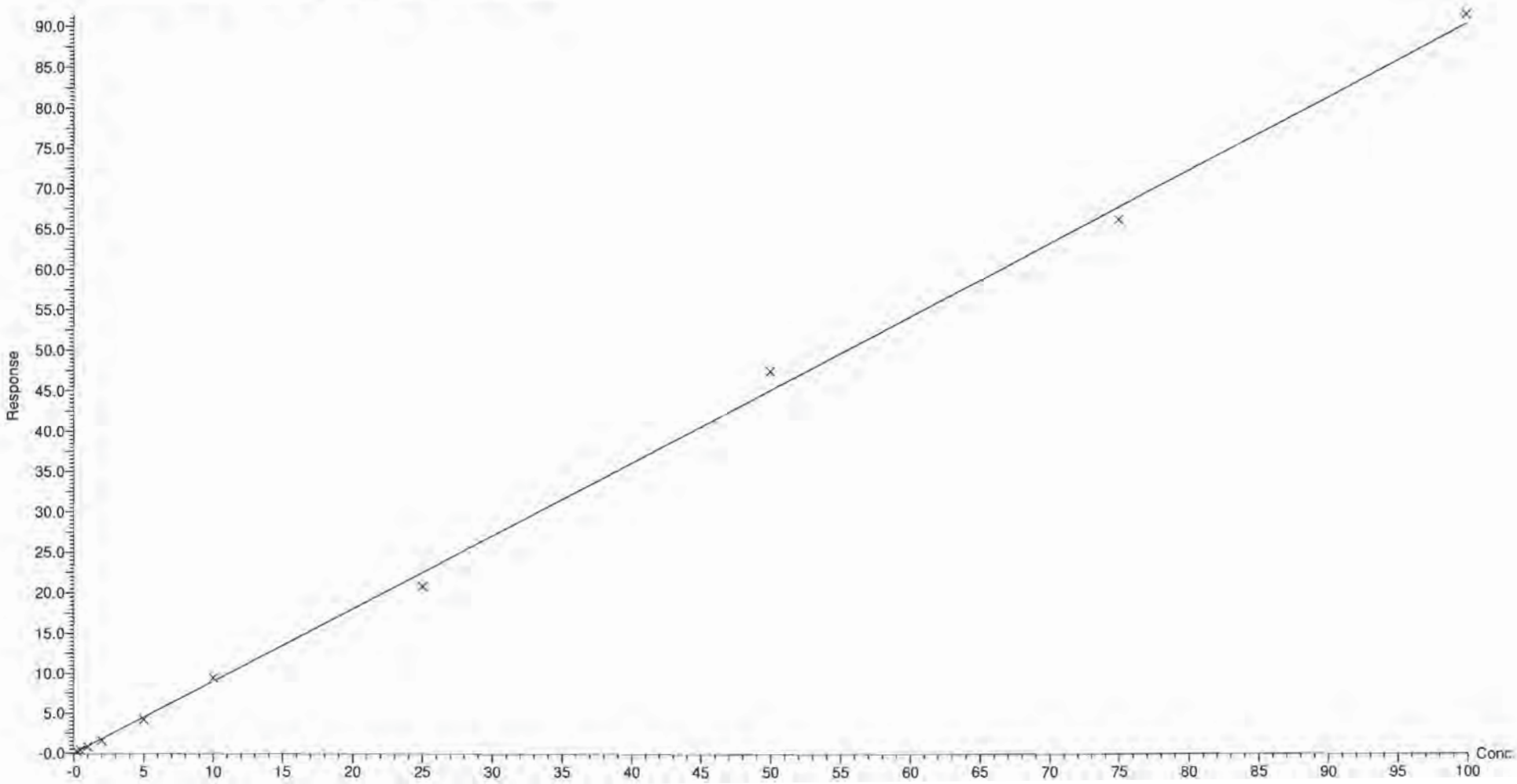
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 0.146969 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: X:\G1,PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

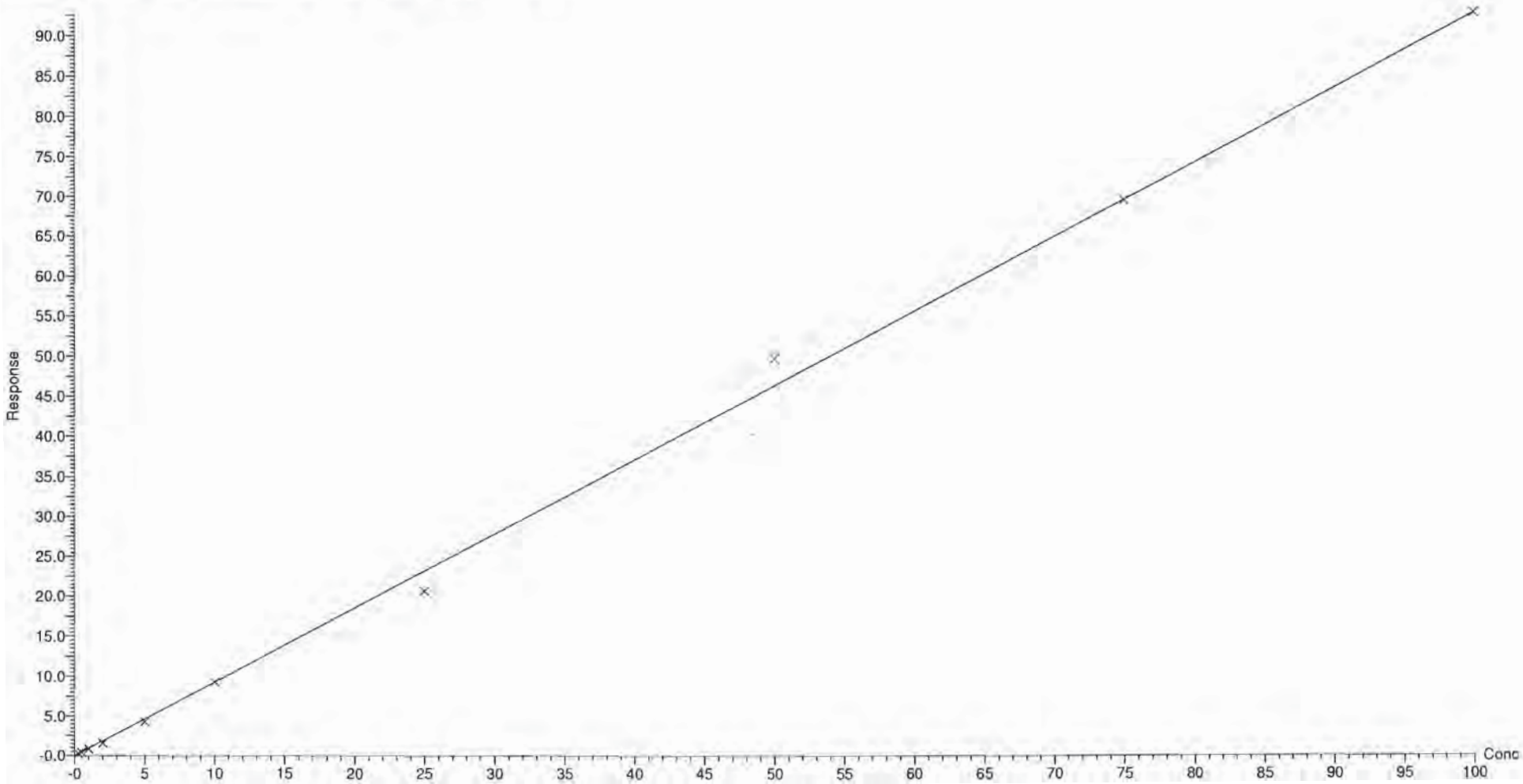
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998349
Calibration curve: 0.90204 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.997347
Calibration curve: 0.926257 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



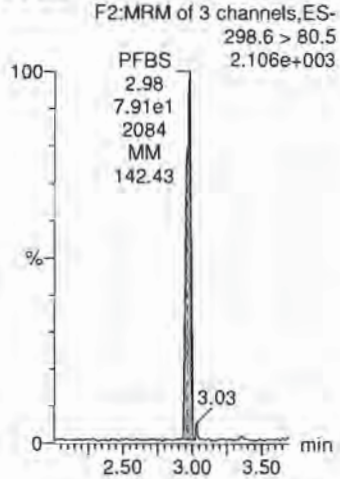
Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

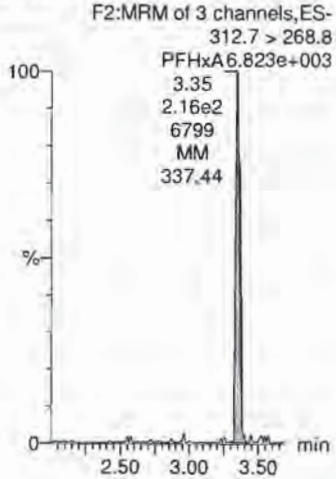
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

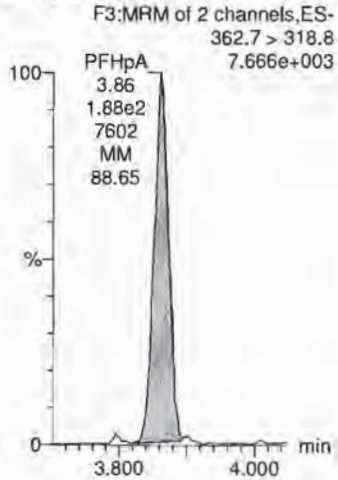
PFBS



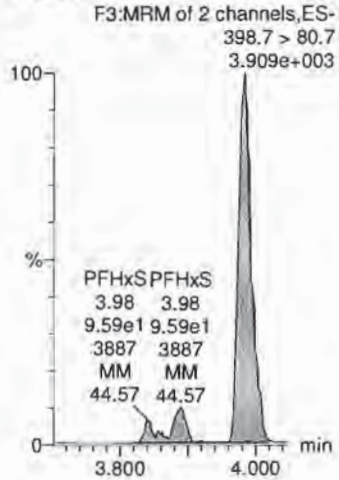
PFHxA



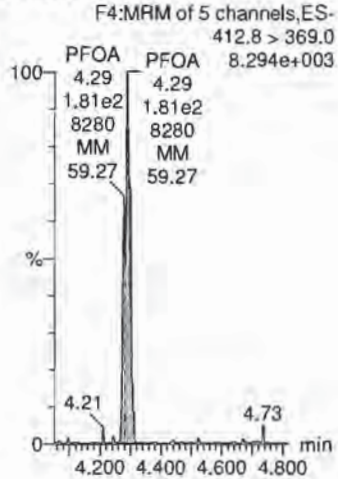
PFHpA



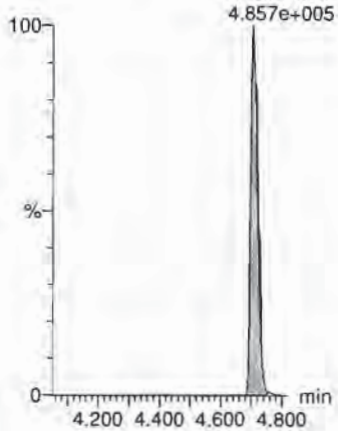
PFHxS



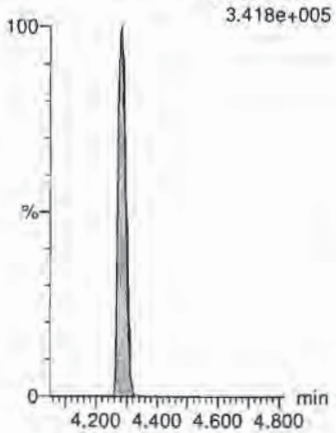
PFOA



13C4-PFOS



13C2-PFOA



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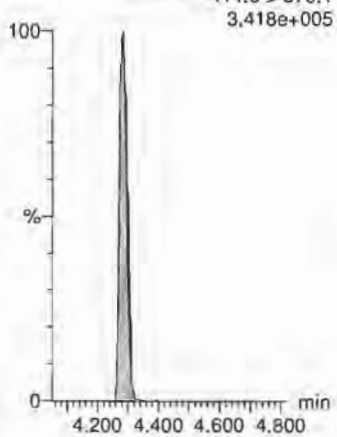
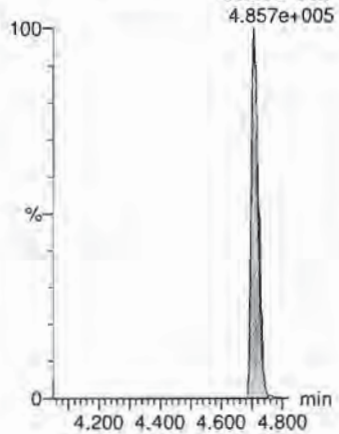


13C4-PFOS



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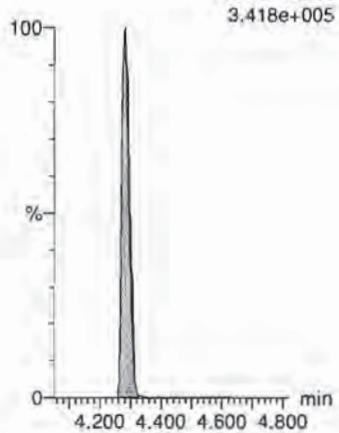

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

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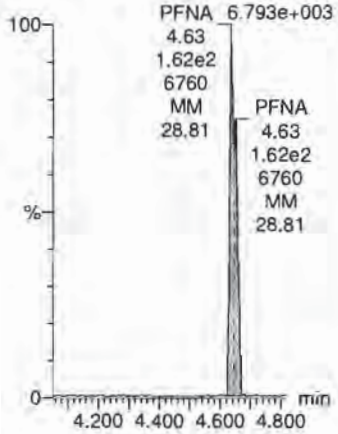
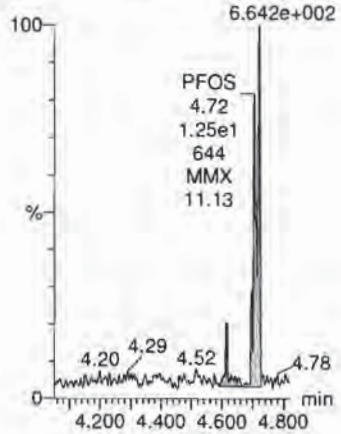
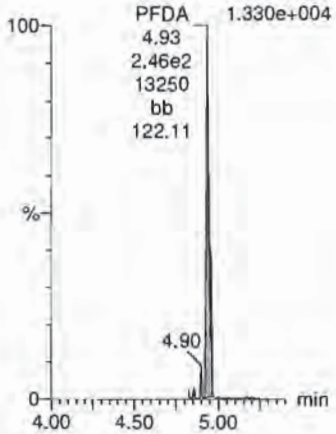


PFOS



PFDA



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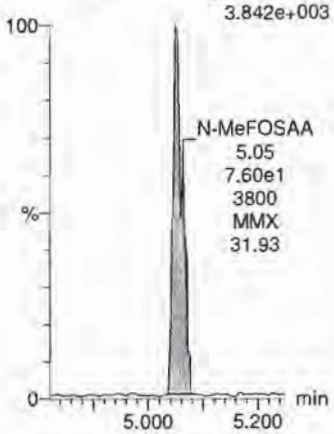

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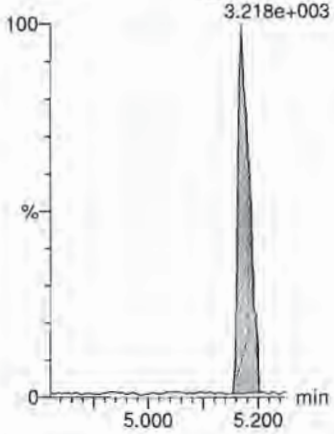
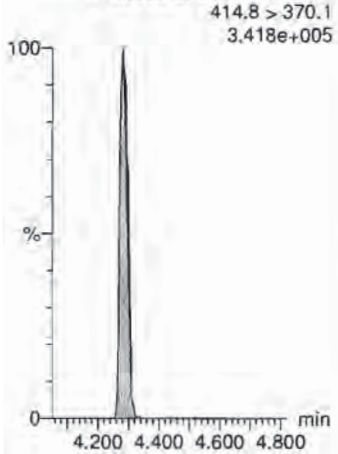


13C2-PFOA



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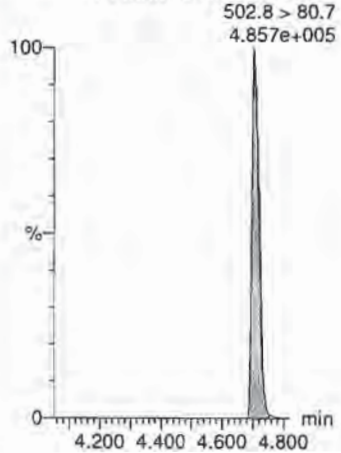

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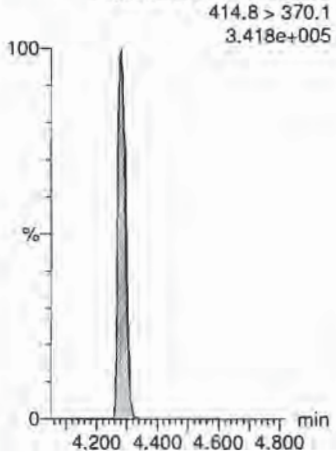

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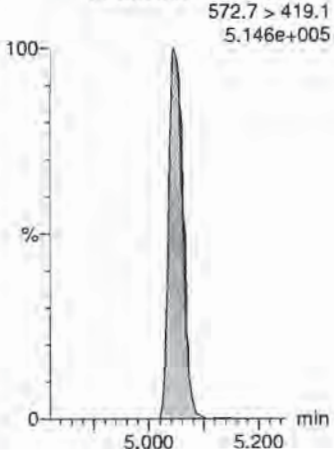

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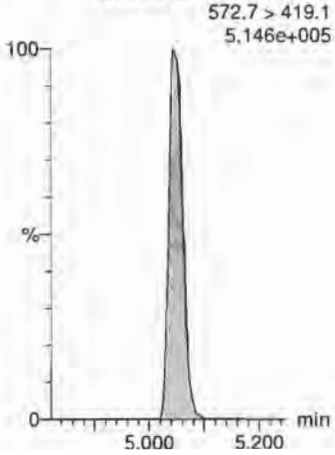
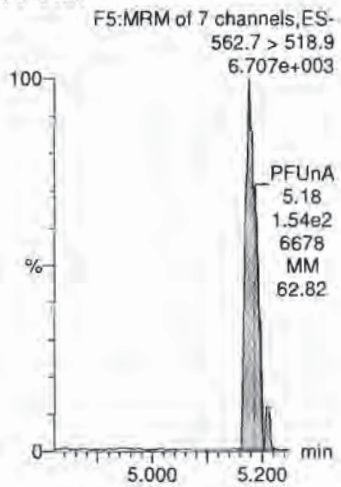


Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

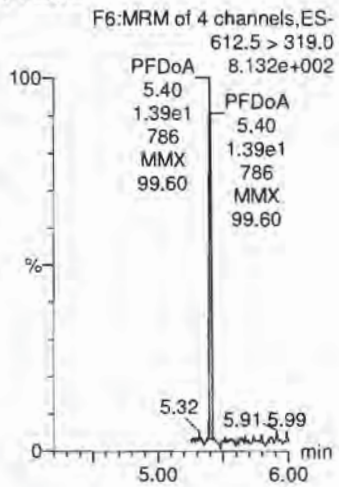
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

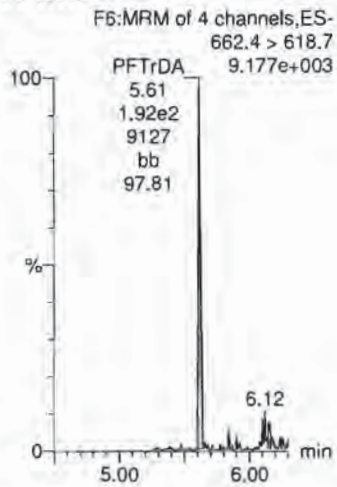
PFUnA



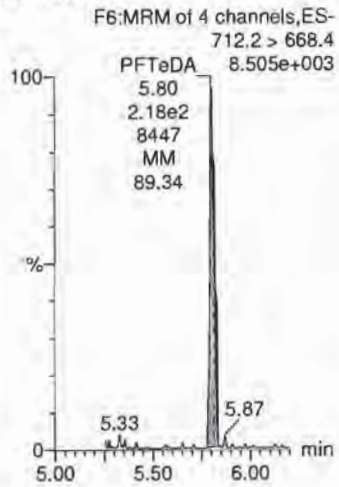
PFDoA



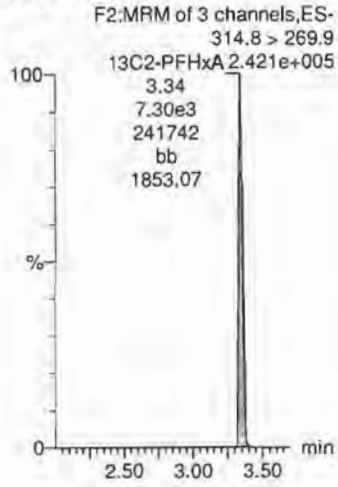
PFTrDA



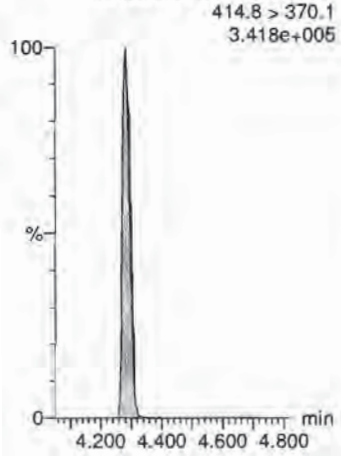
PFTeDA



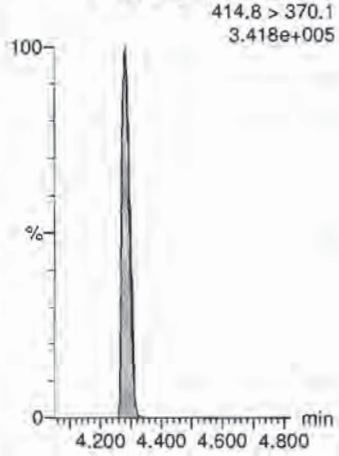
13C2-PFHxA



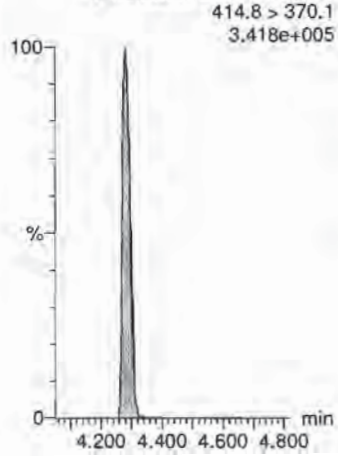
13C2-PFOA



13C2-PFOA



13C2-PFOA



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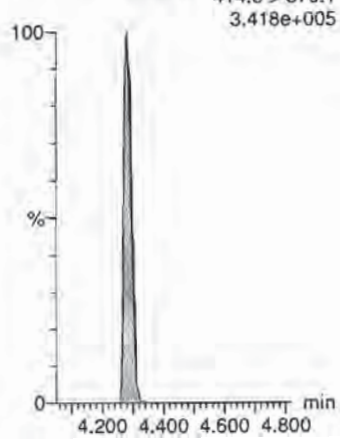

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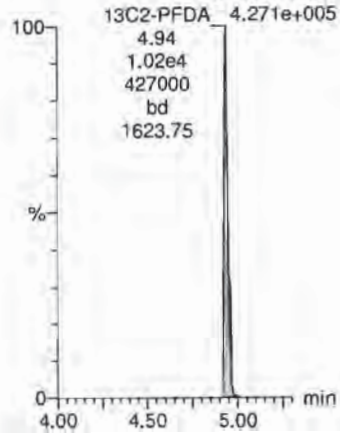
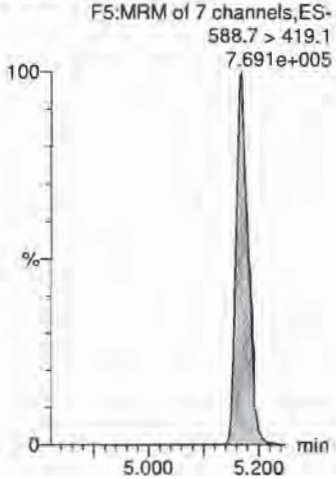


Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

d5-N-EtFOSAA



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Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_3, Date: 19-Jul-2018, Time: 15:16:17, ID: ST180719G3-2 PFC CS-3 537 18G1802, Description: PFC CS-3 537 18G1802

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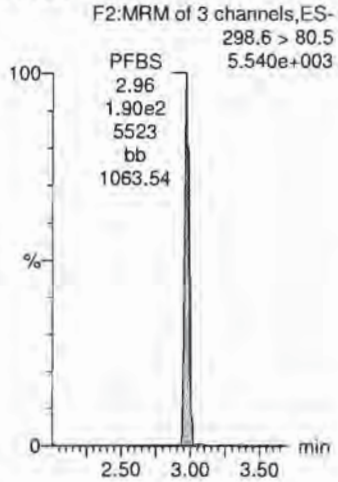
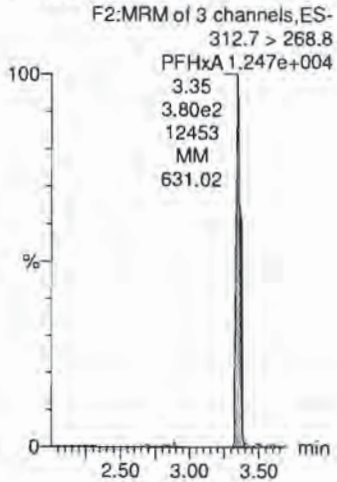
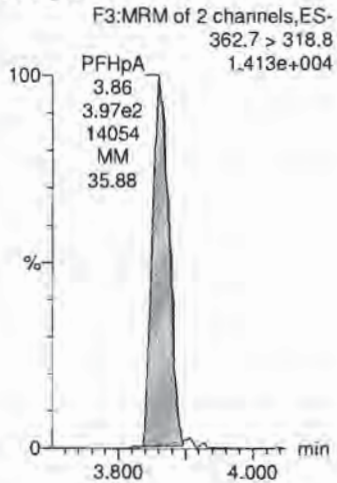


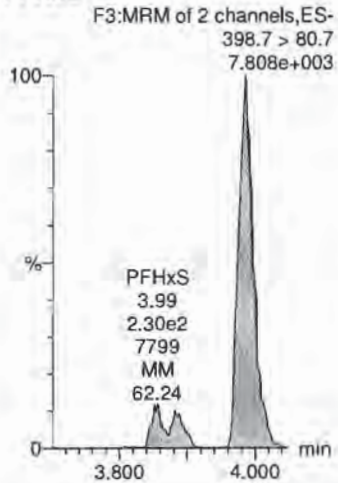
PFHxA



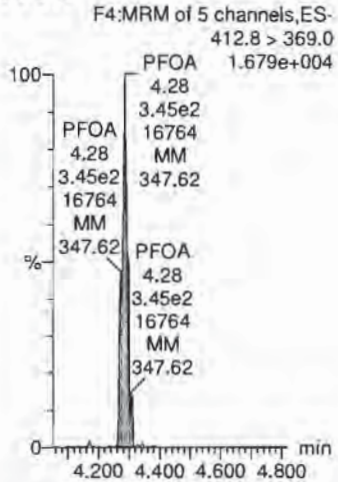
PFHpA



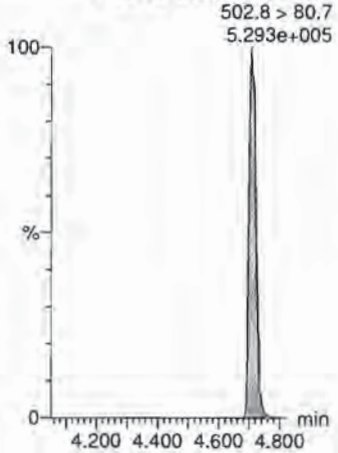
PFHxS



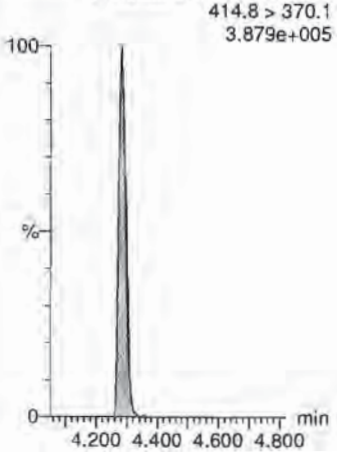
PFOA



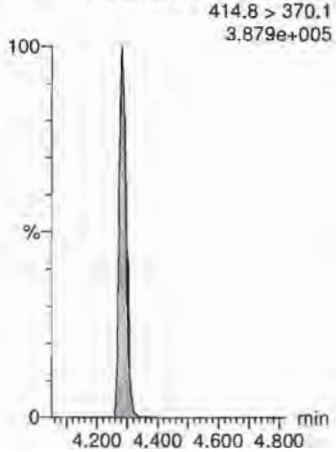
13C4-PFOS



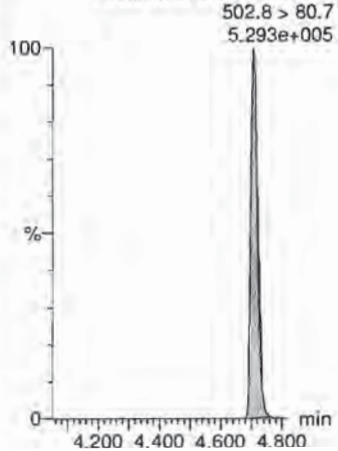
13C2-PFOA



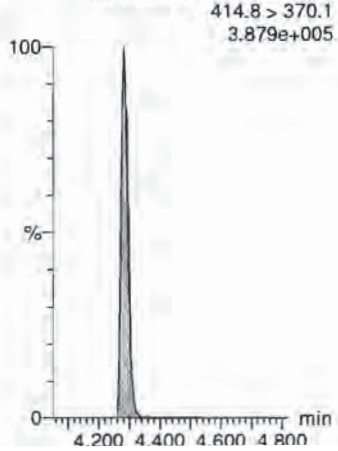
13C2-PFOA



13C4-PFOS



13C2-PFOA

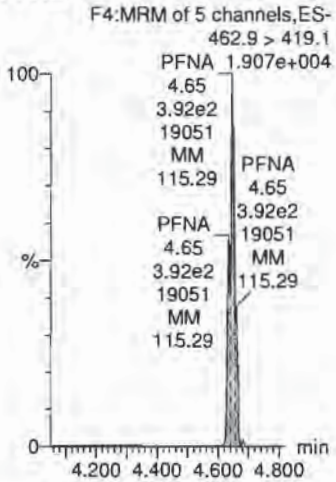


Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

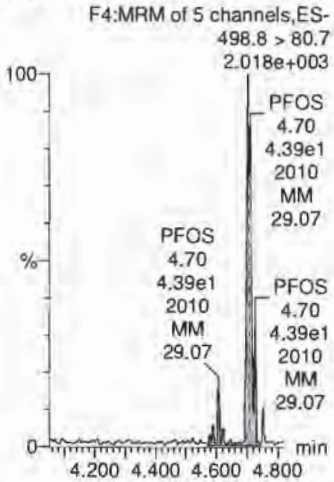
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_3, Date: 19-Jul-2018, Time: 15:16:17, ID: ST180719G3-2 PFC CS-3 537 18G1802, Description: PFC CS-3 537 18G1802

PFNA



PFOS



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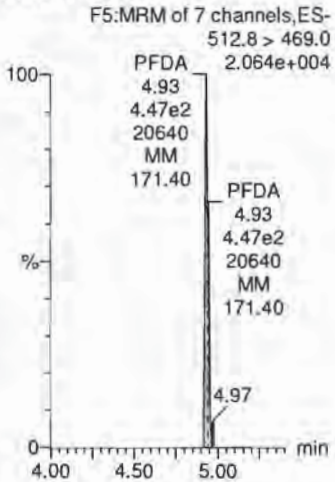

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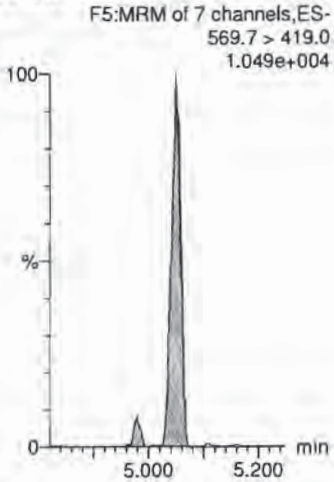

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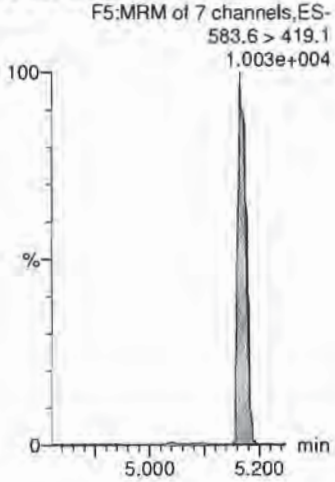

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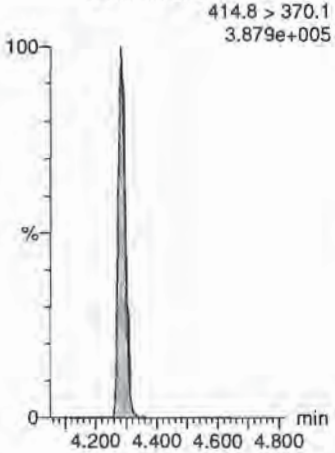

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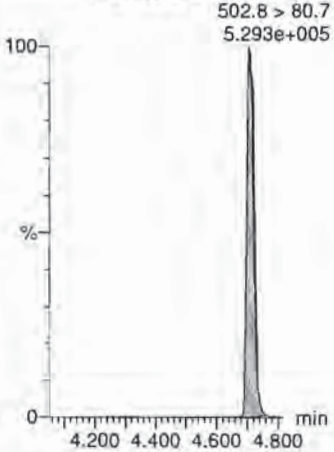

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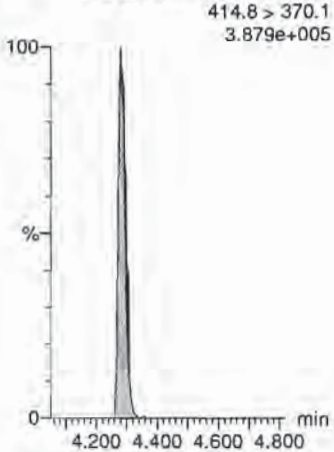

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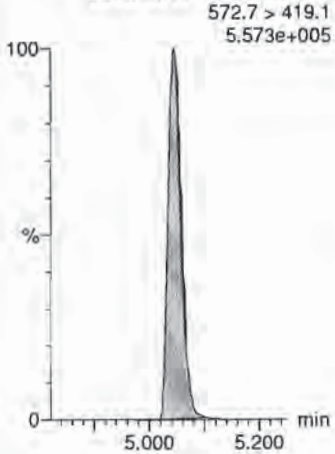

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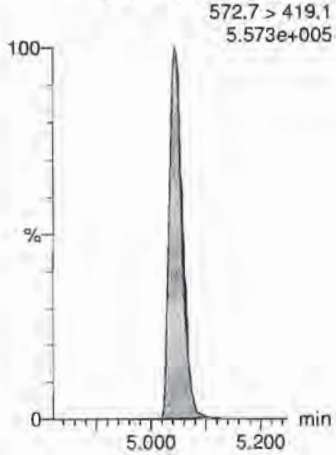

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_3, Date: 19-Jul-2018, Time: 15:16:17, ID: ST180719G3-2 PFC CS-3 537 18G1802, Description: PFC CS-3 537 18G1802

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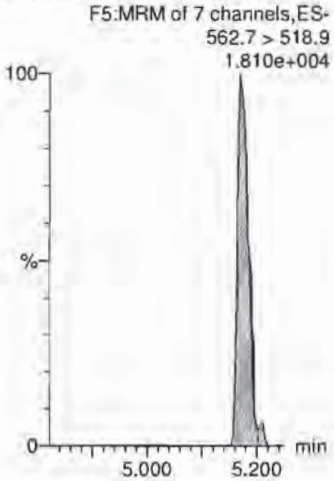

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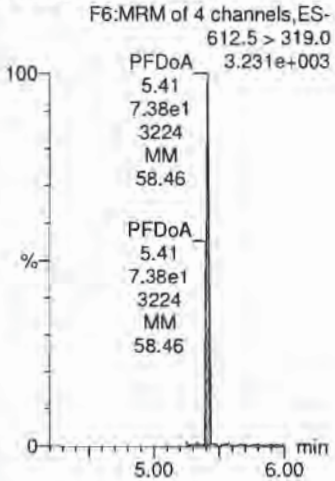

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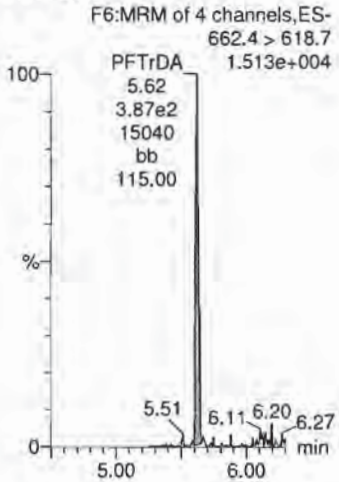

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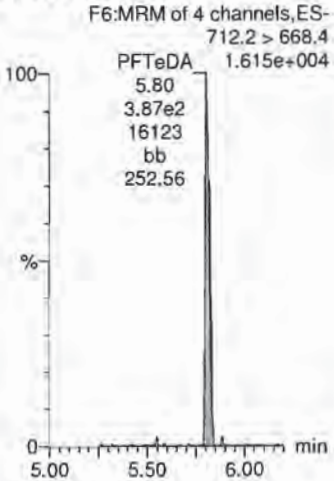

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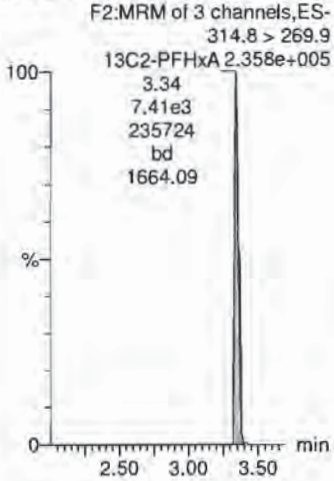

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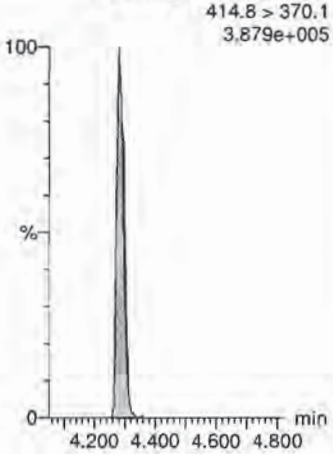

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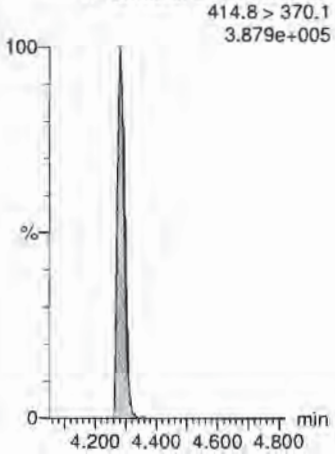

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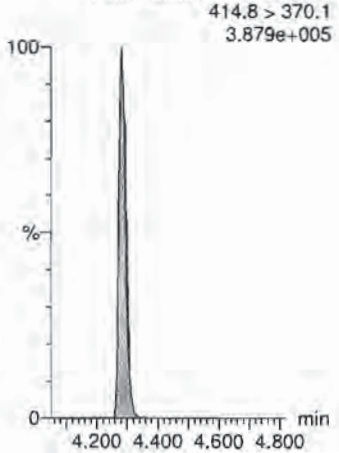

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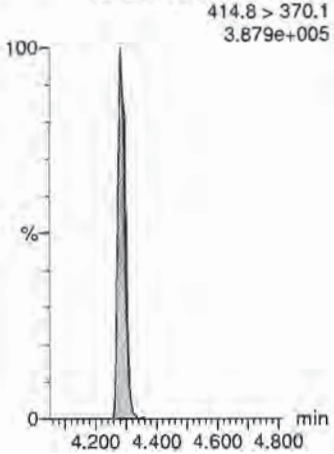

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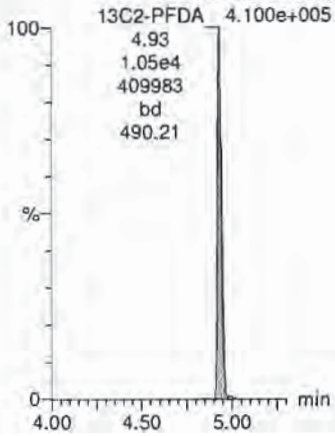

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_3, Date: 19-Jul-2018, Time: 15:16:17, ID: ST180719G3-2 PFC CS-3 537 18G1802, Description: PFC CS-3 537 18G1802

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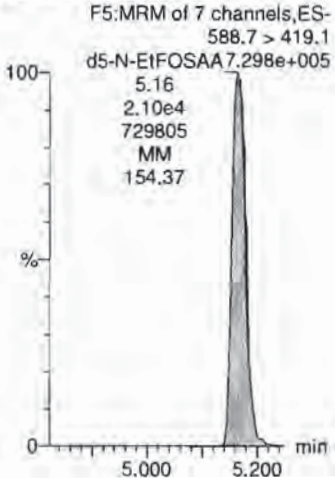

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_4, Date: 19-Jul-2018, Time: 15:29:06, ID: ST180719G3-3 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

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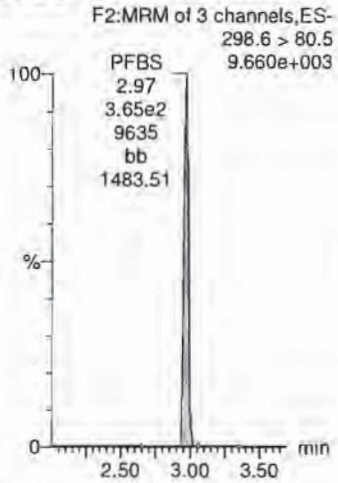

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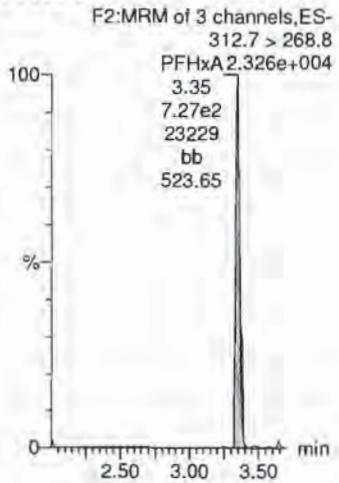

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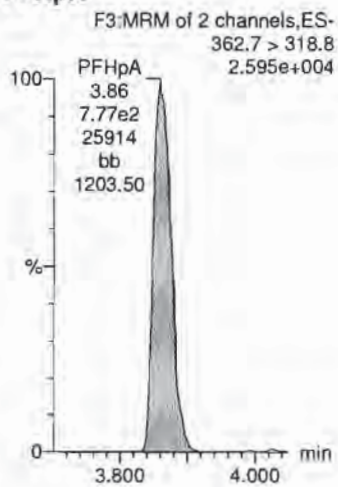

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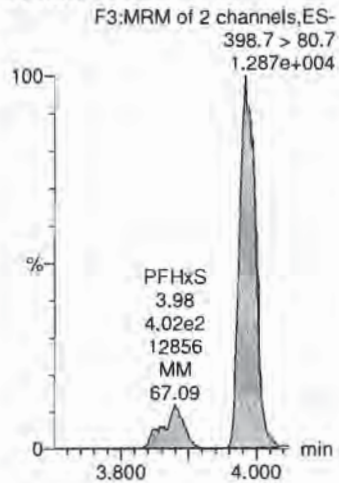

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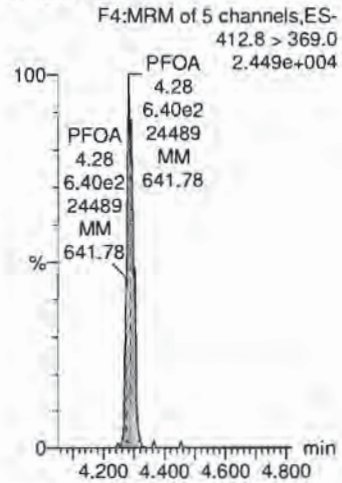

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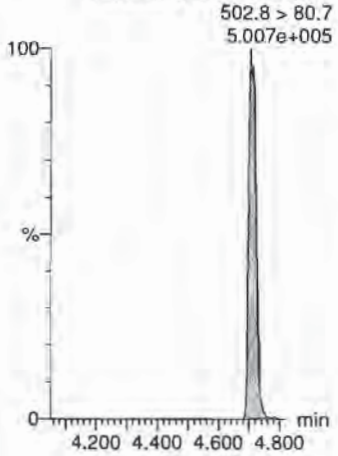

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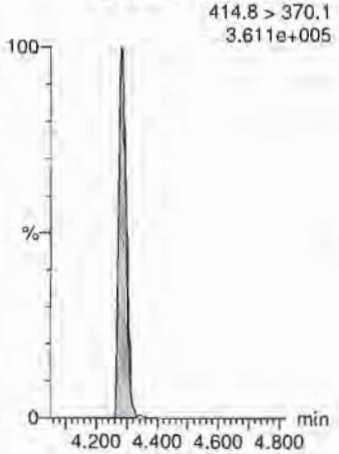

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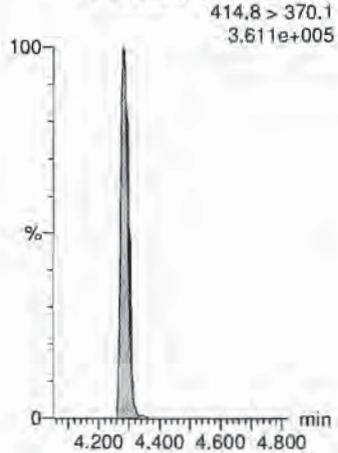

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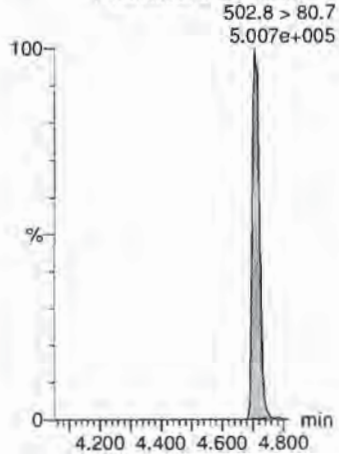

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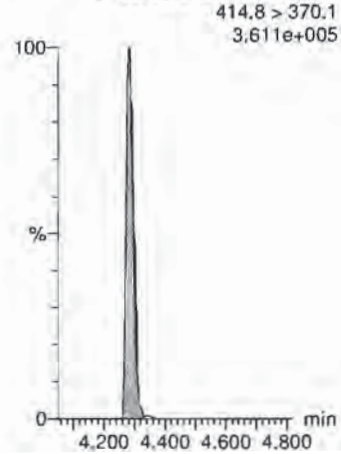

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Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_4, Date: 19-Jul-2018, Time: 15:29:06, ID: ST180719G3-3 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

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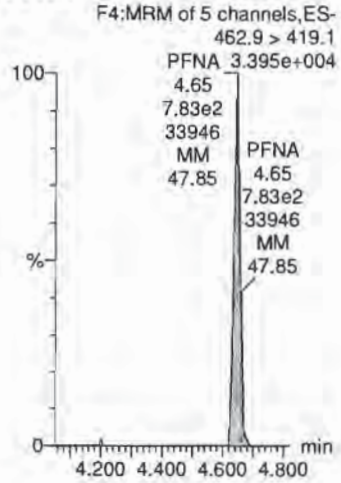

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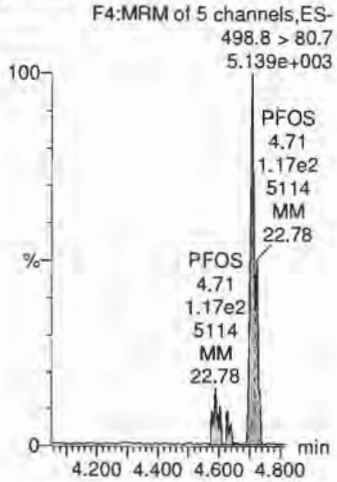

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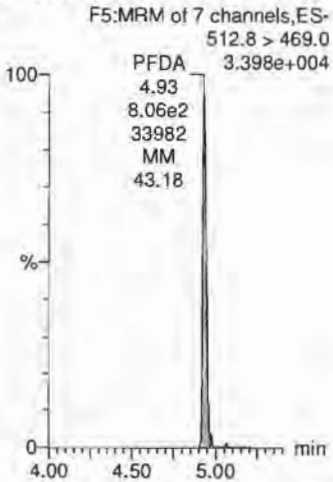

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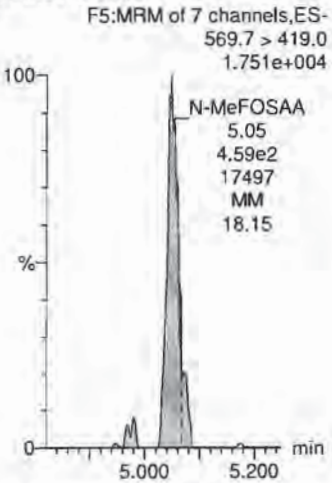

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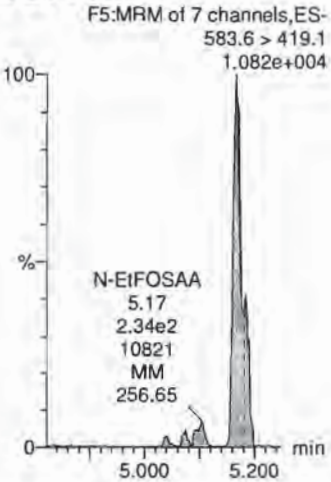

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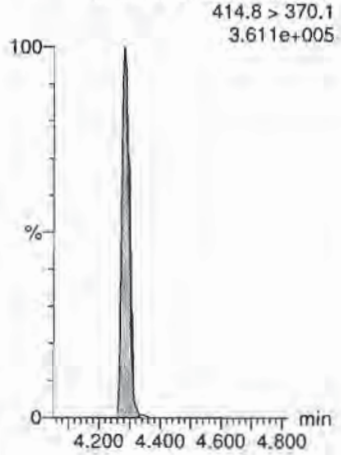

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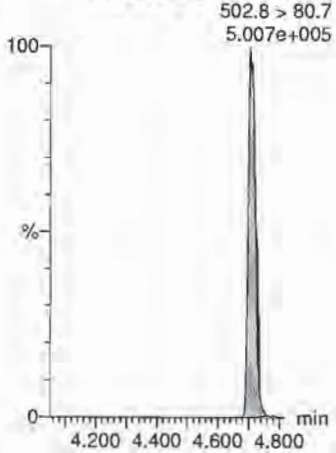

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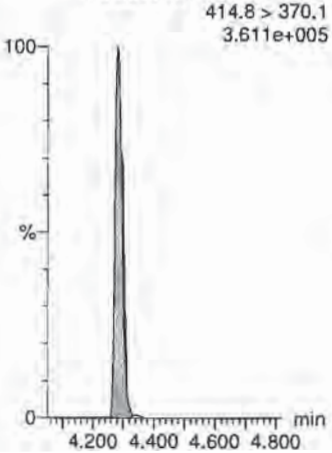

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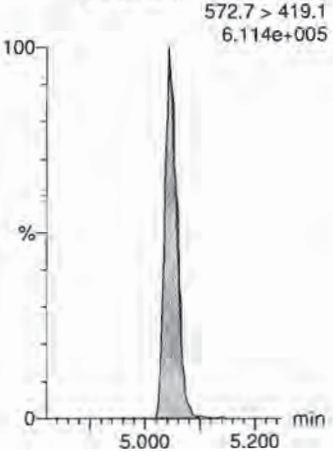

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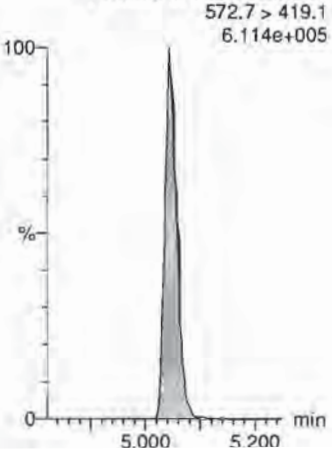

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_4, Date: 19-Jul-2018, Time: 15:29:06, ID: ST180719G3-3 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

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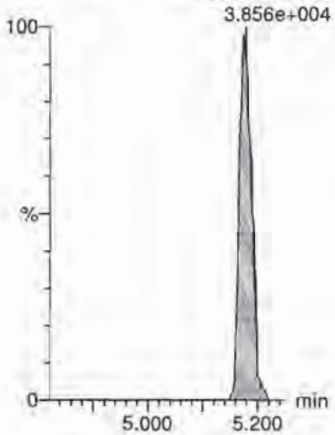

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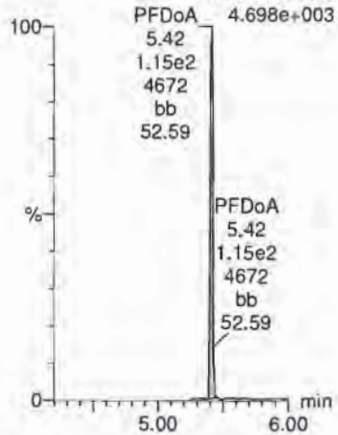

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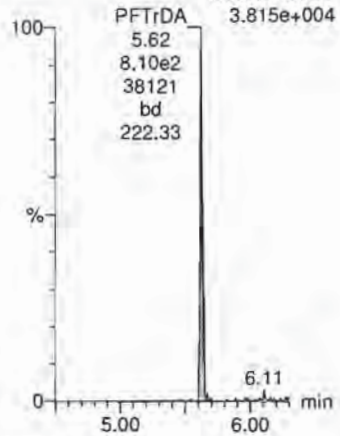
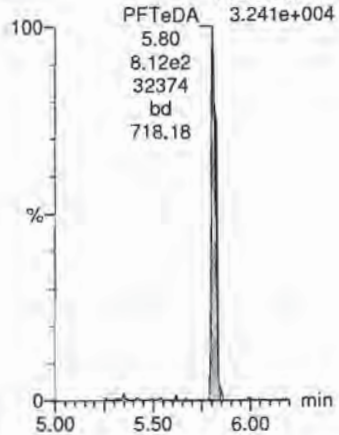


PFTeDA



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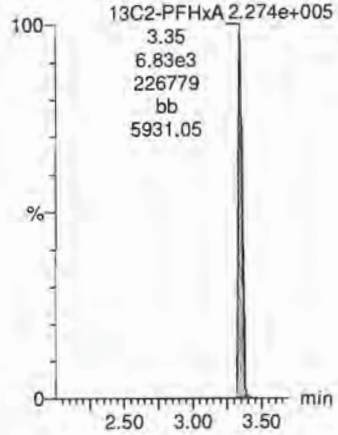

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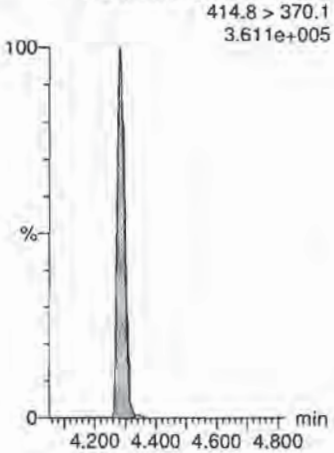

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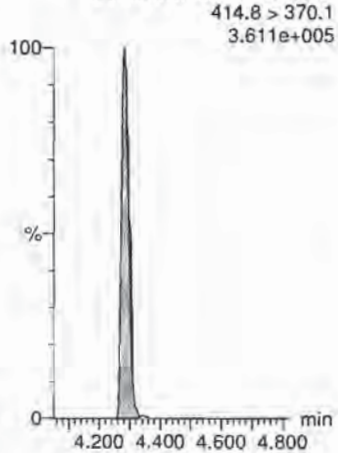

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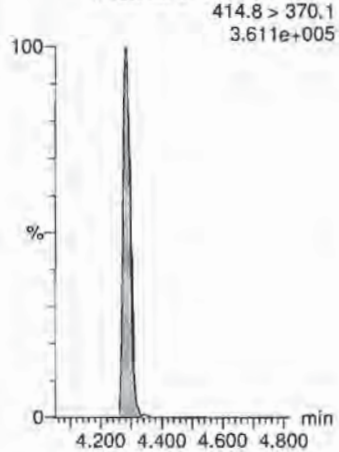

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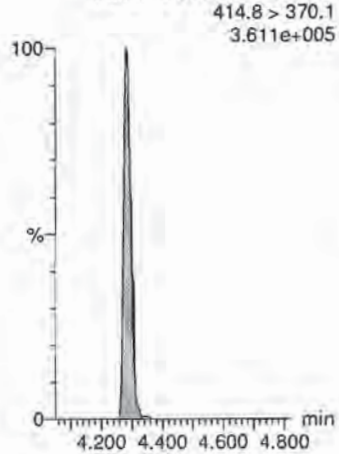

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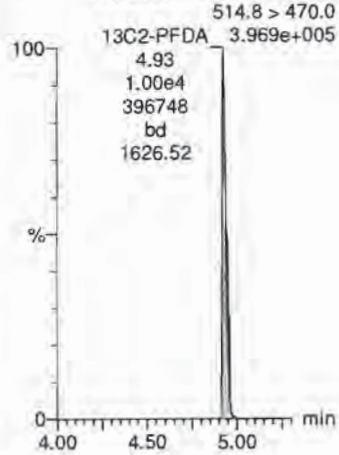

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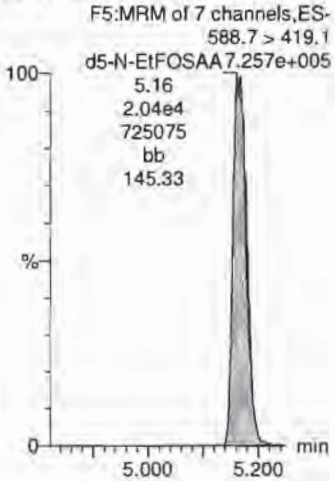
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_4, Date: 19-Jul-2018, Time: 15:29:06, ID: ST180719G3-3 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

d5-N-EtFOSAA



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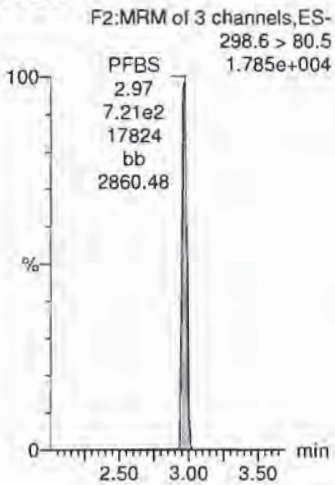
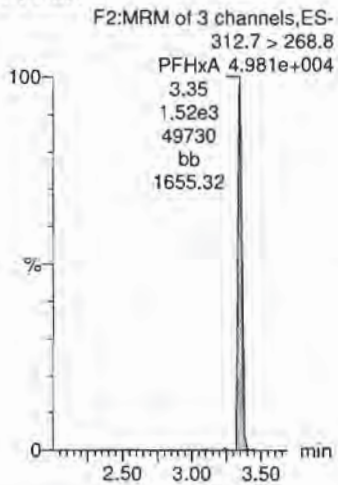
Name: 180719G3_5, Date: 19-Jul-2018, Time: 15:41:56, ID: ST180719G3-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

PFBS



PFHxA



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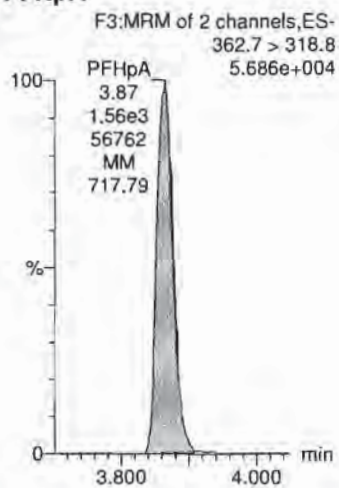

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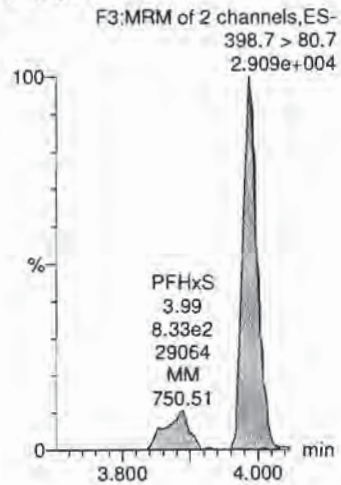

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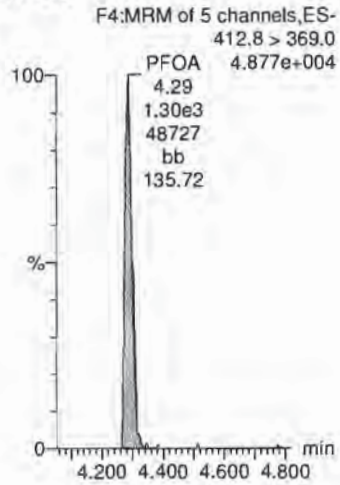

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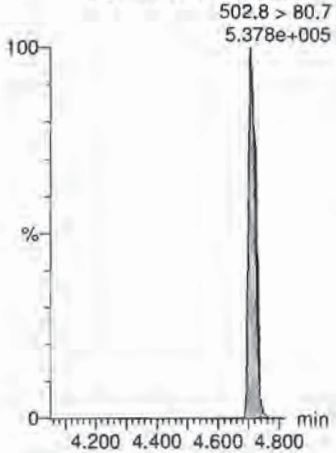

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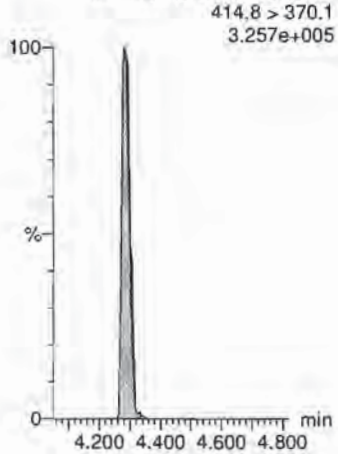

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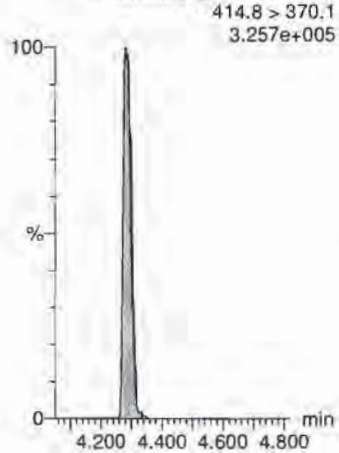

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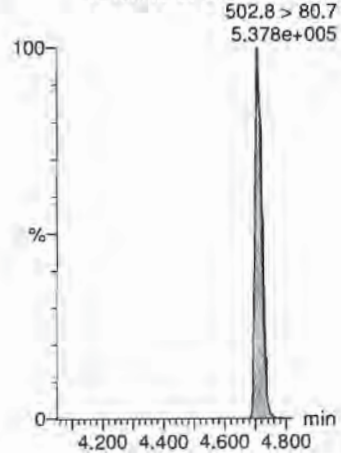

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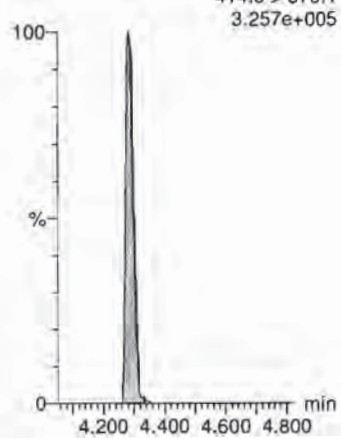

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_5, Date: 19-Jul-2018, Time: 15:41:56, ID: ST180719G3-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

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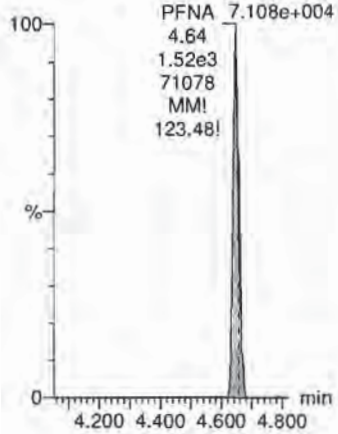

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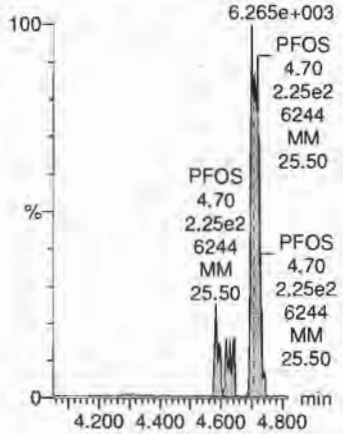

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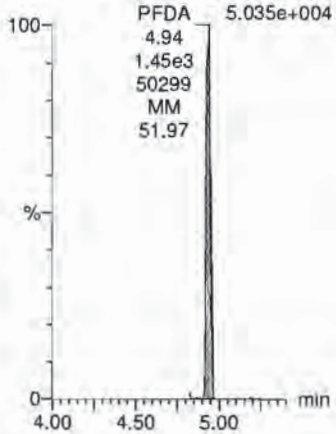

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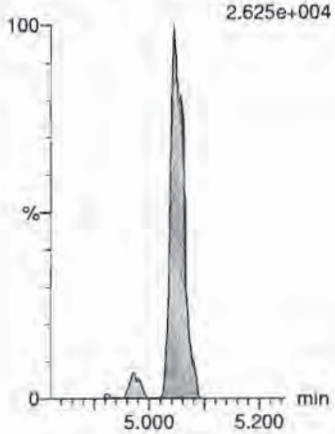

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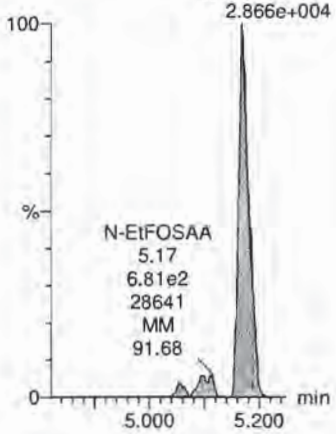

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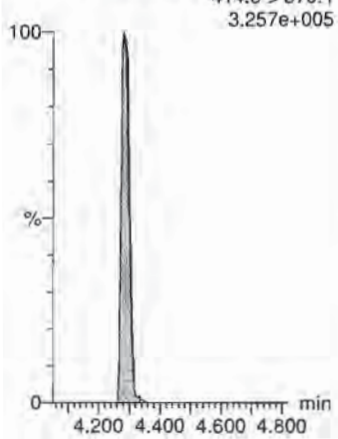

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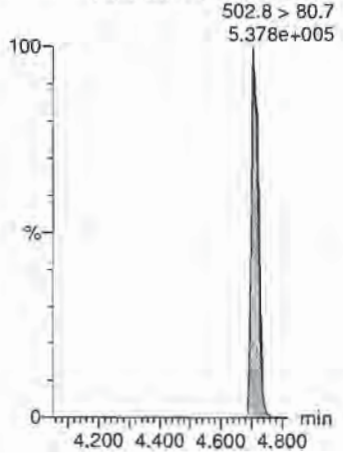

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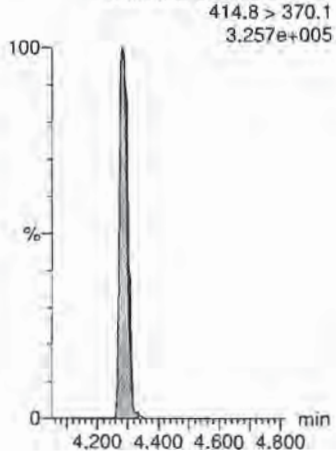

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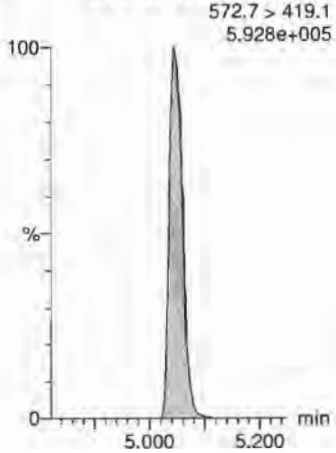

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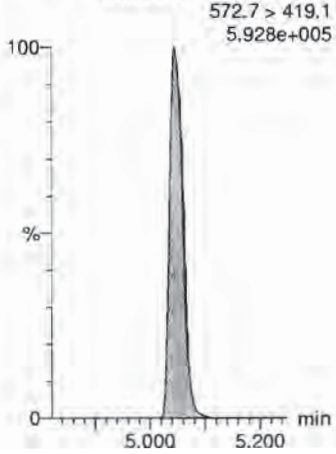

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Name: 180719G3_5, Date: 19-Jul-2018, Time: 15:41:56, ID: ST180719G3-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

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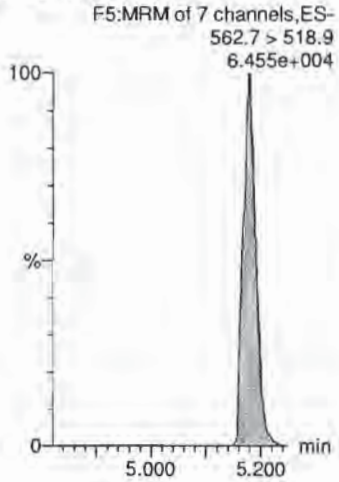

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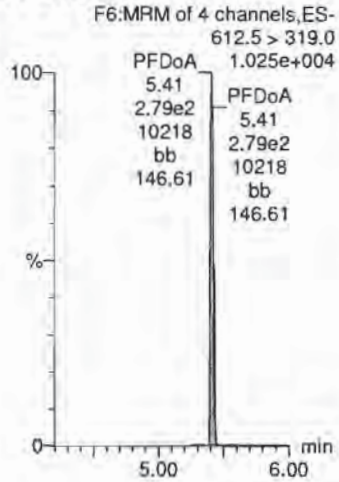

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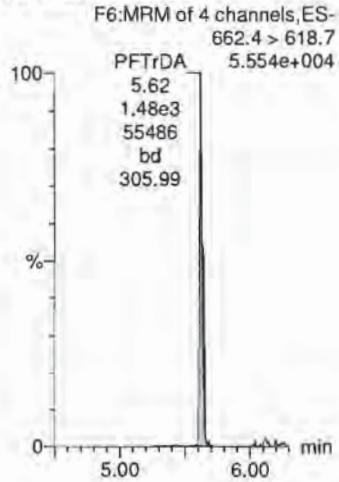

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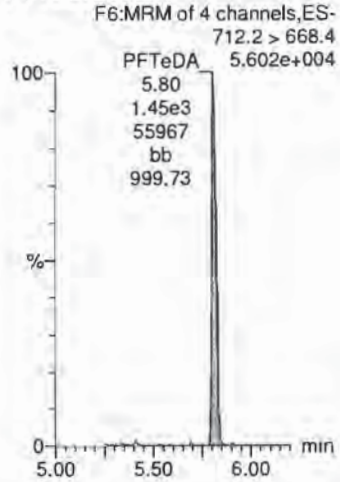

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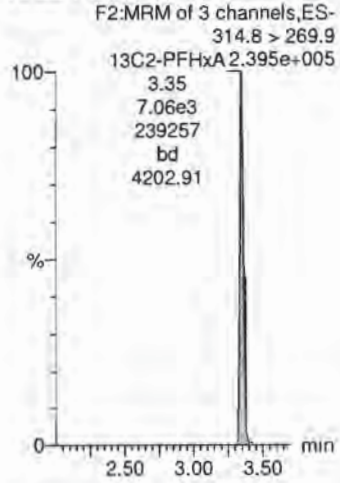

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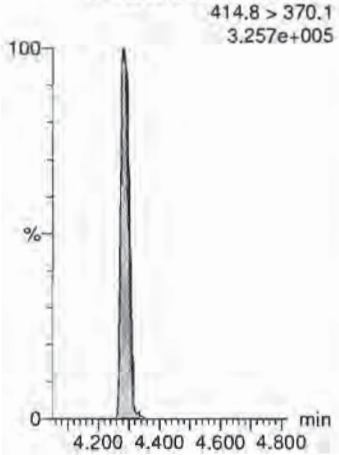

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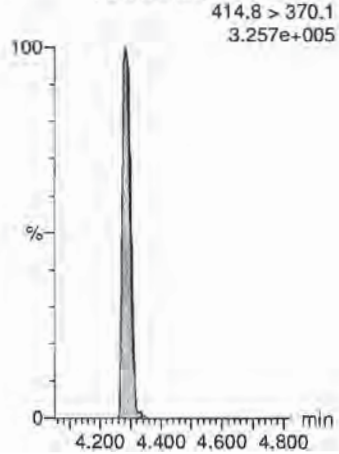

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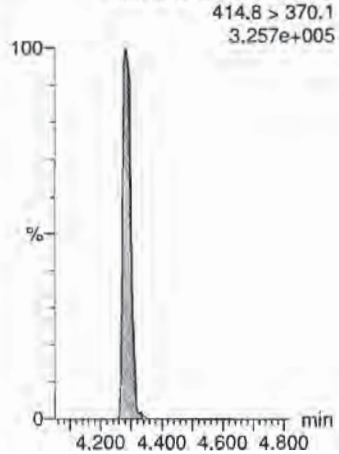

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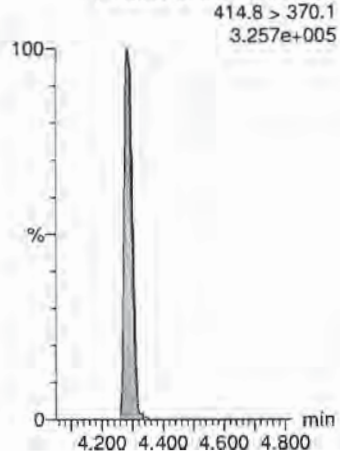

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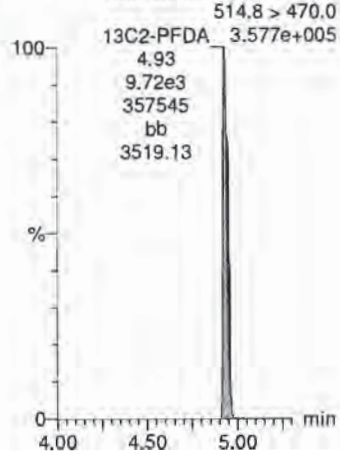

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Name: 180719G3_5, Date: 19-Jul-2018, Time: 15:41:56, ID: ST180719G3-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

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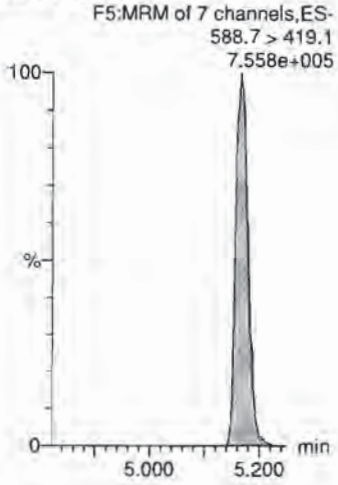

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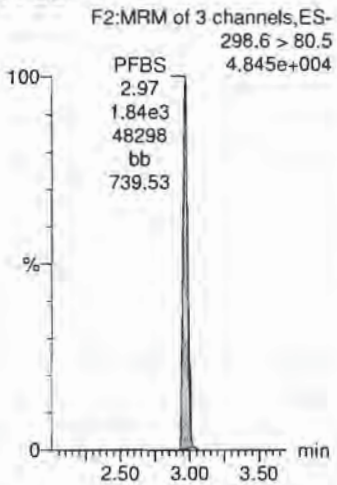

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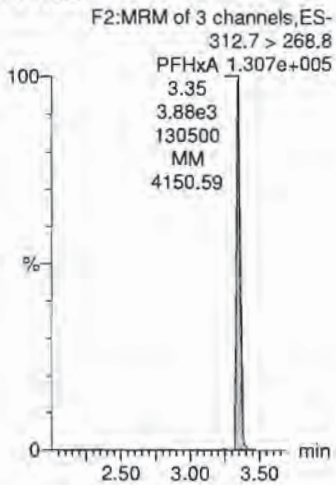

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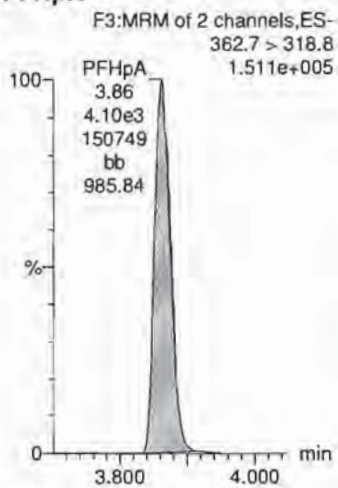

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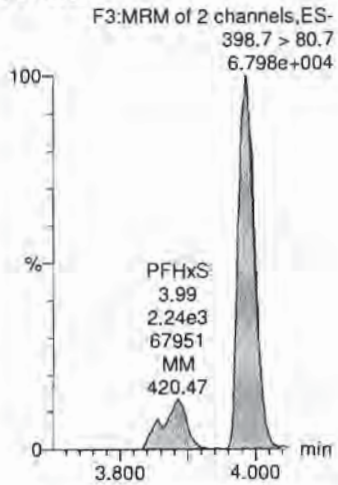

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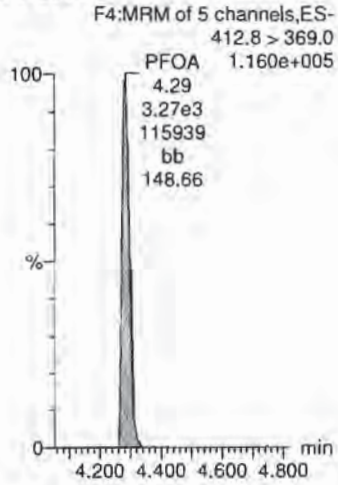

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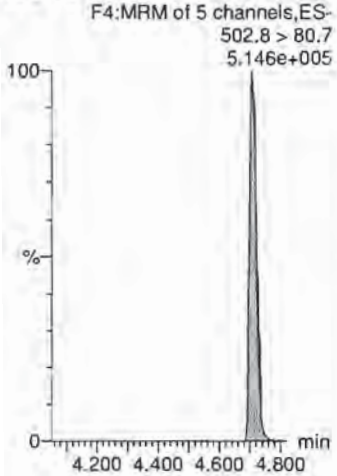

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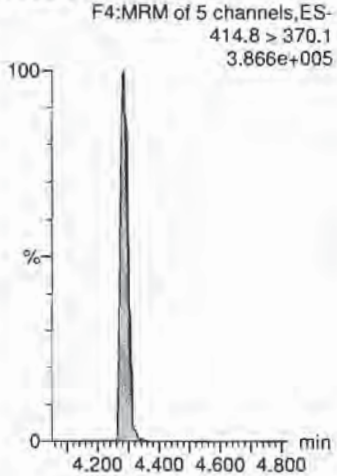

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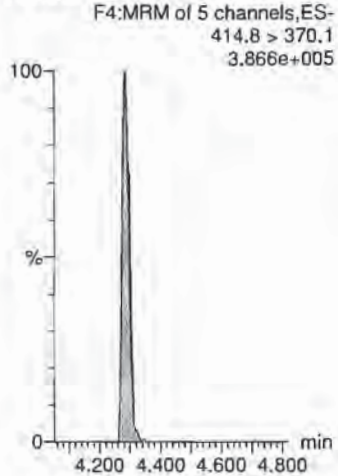

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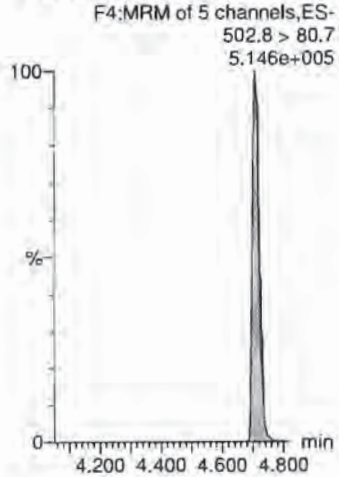

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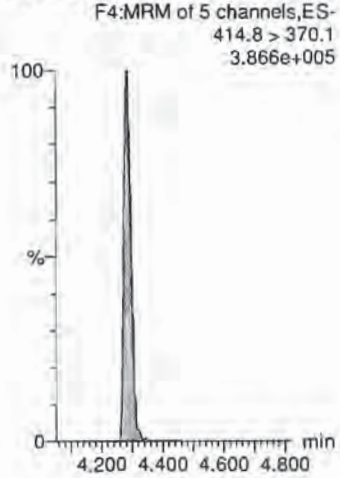

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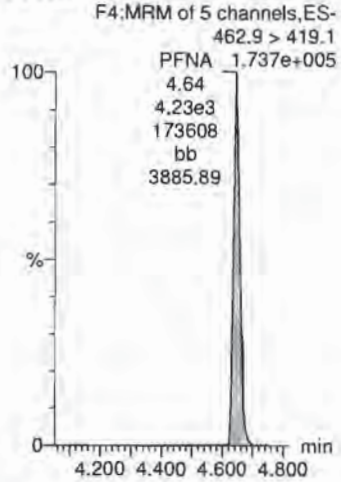

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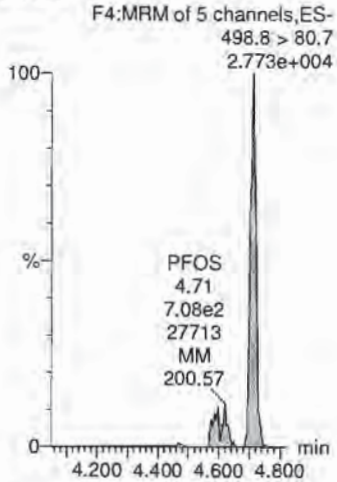

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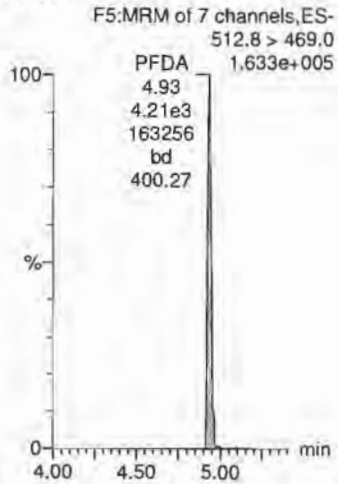

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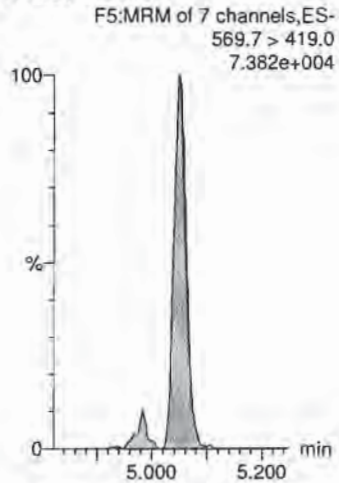

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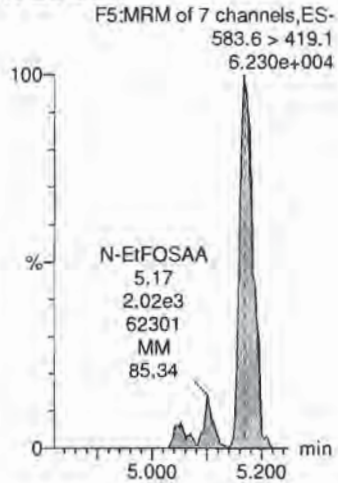

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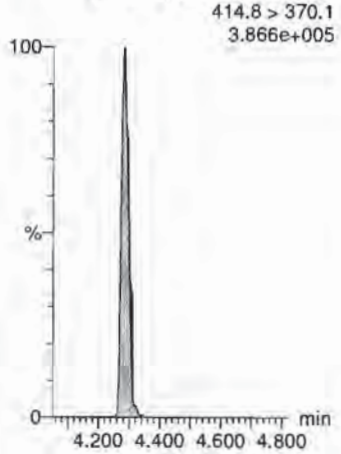

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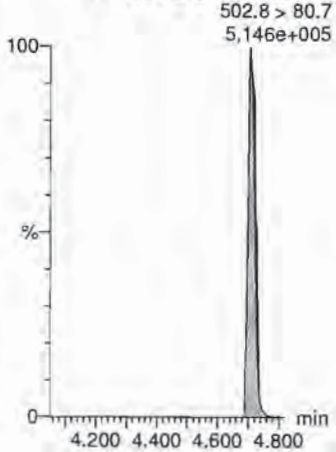

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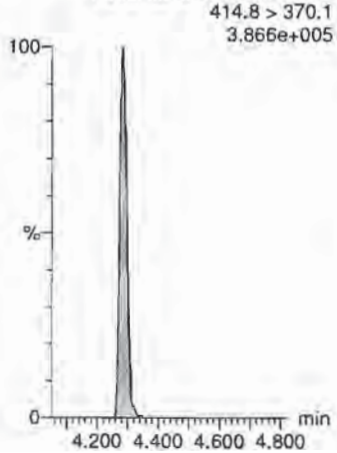

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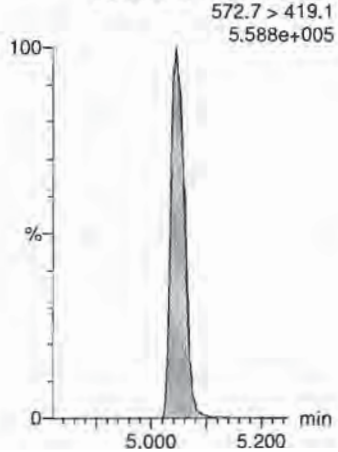

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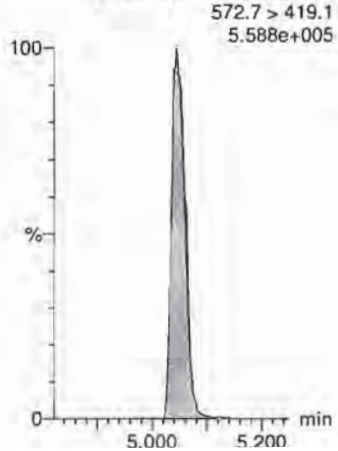

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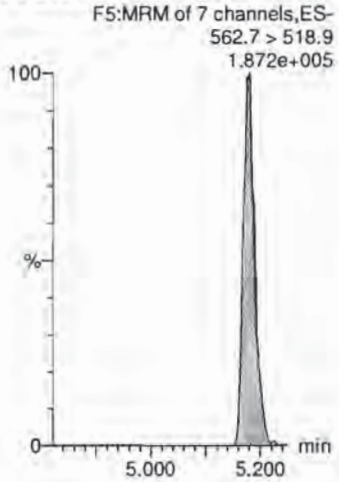

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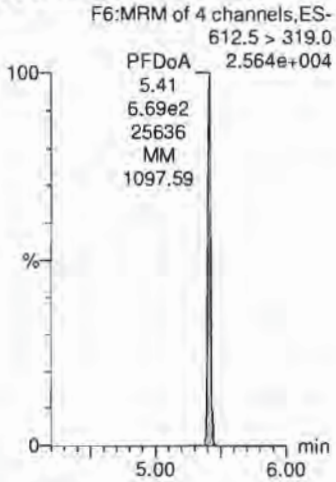

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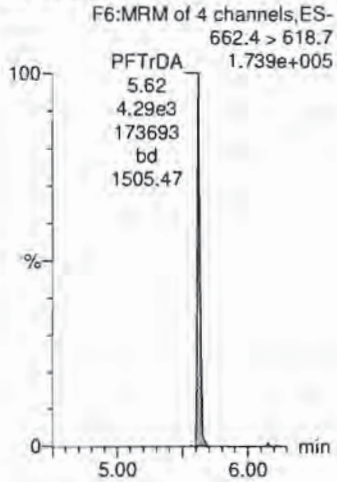

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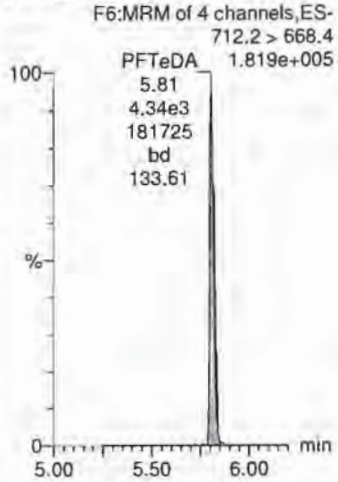

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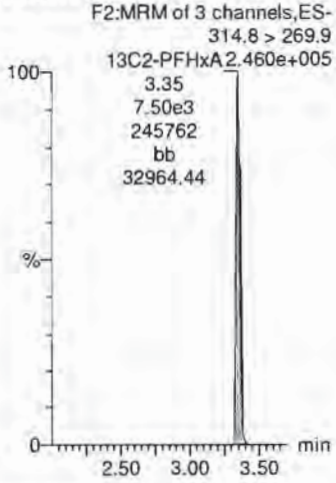

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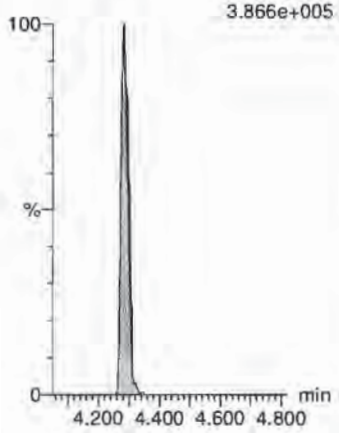

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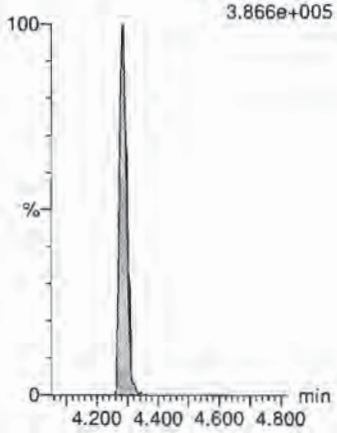

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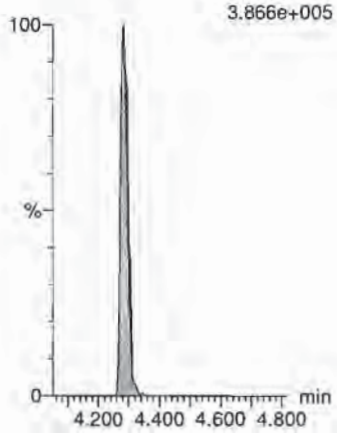

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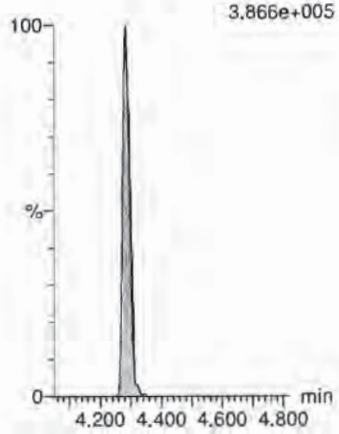

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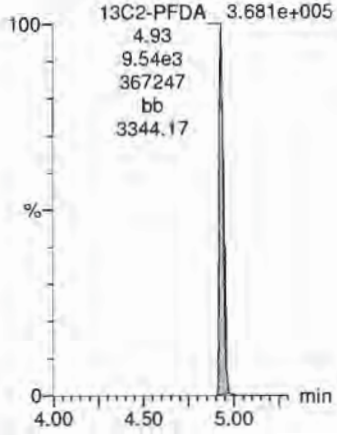

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_6, Date: 19-Jul-2018, Time: 15:54:41, ID: ST180719G3-5 PFC CS0 537 18G1805, Description: PFC CS0 537 18G1805

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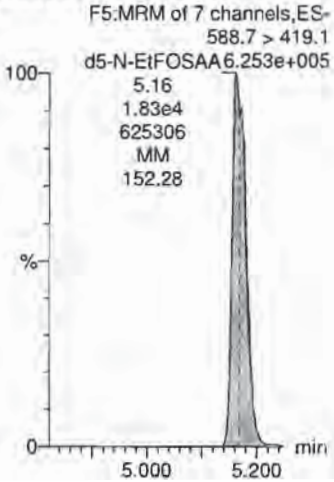

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Name: 180719G3_7, Date: 19-Jul-2018, Time: 16:07:29, ID: ST180719G3-6 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

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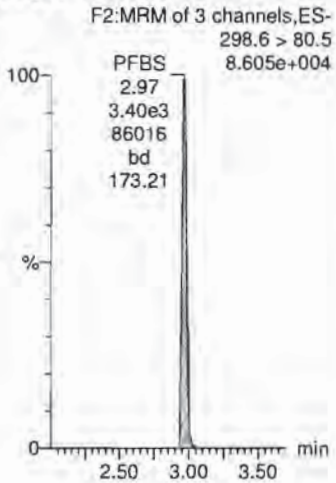

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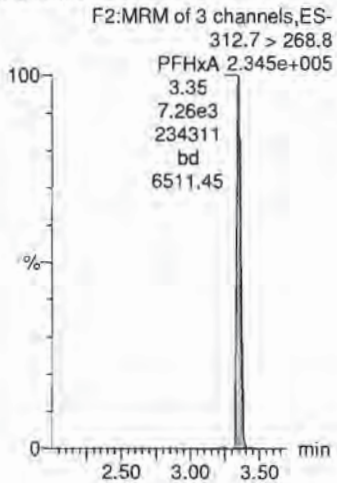

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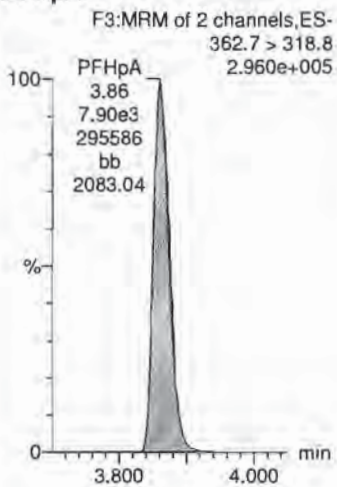

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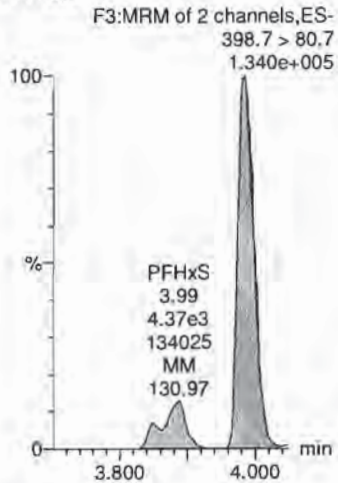

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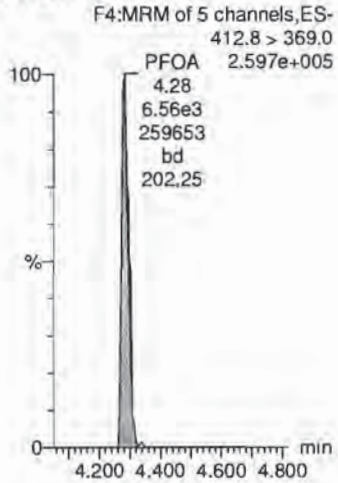

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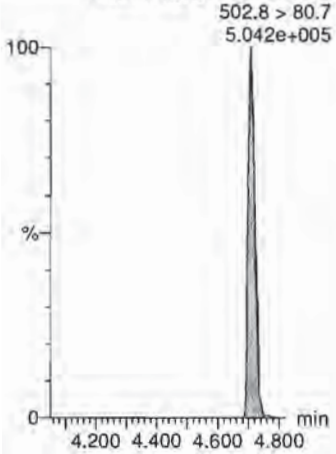

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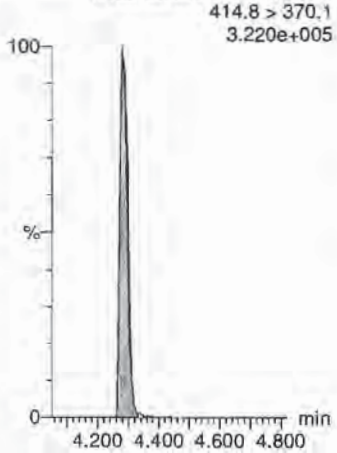

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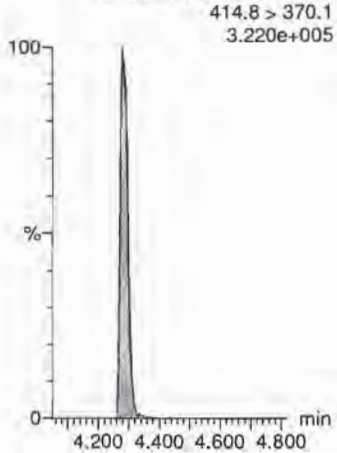

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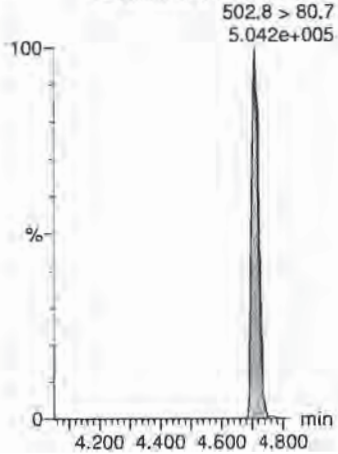

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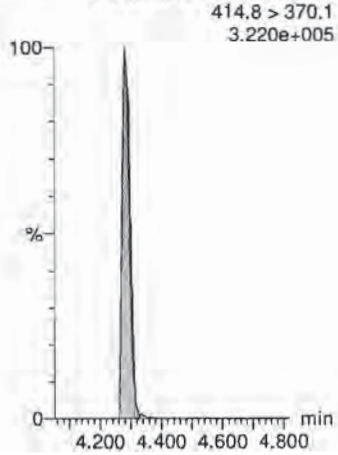

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Name: 180719G3_7, Date: 19-Jul-2018, Time: 16:07:29, ID: ST180719G3-6 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

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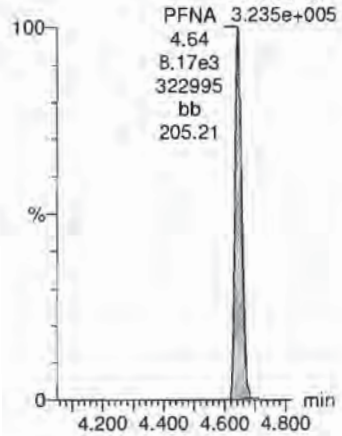

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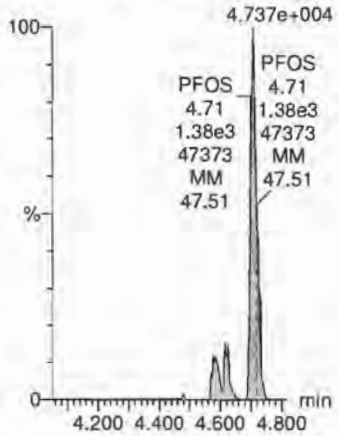

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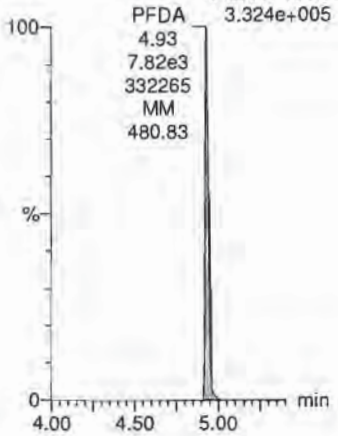

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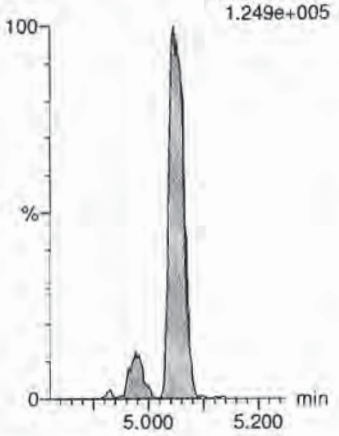

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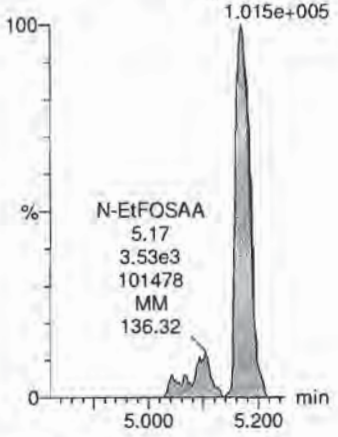

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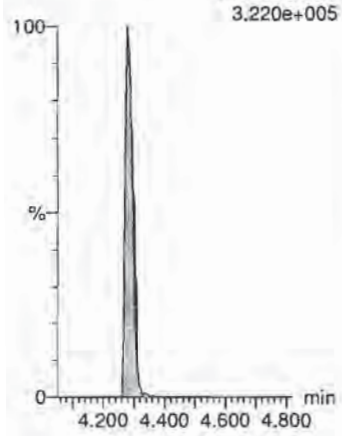

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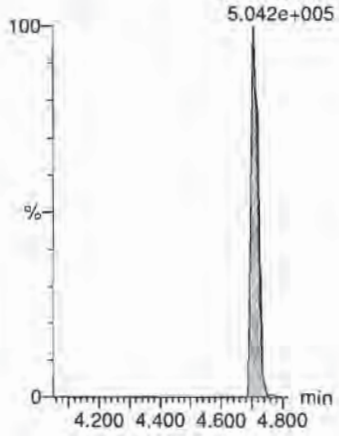

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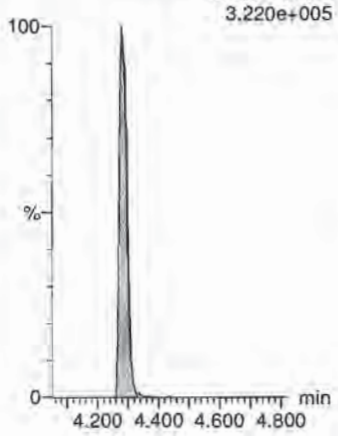

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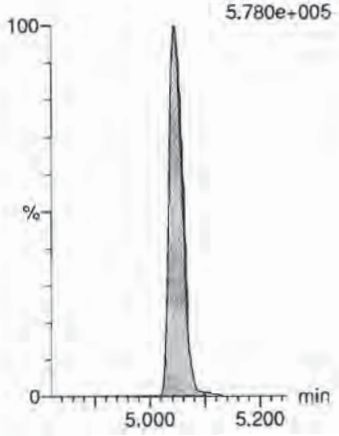

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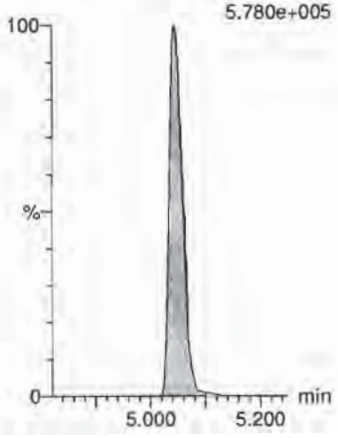

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Name: 180719G3_7, Date: 19-Jul-2018, Time: 16:07:29, ID: ST180719G3-6 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

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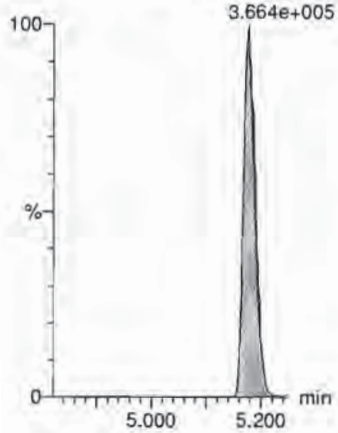

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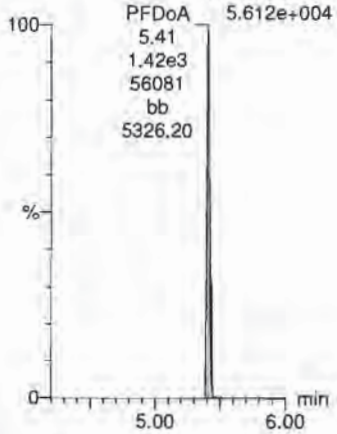

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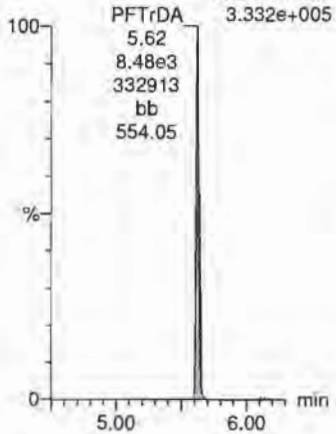

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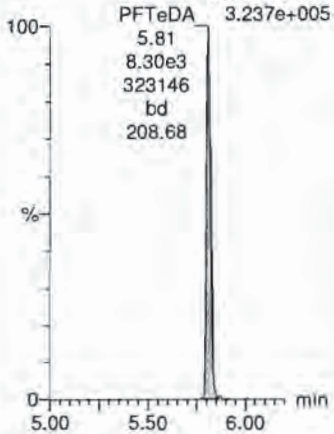

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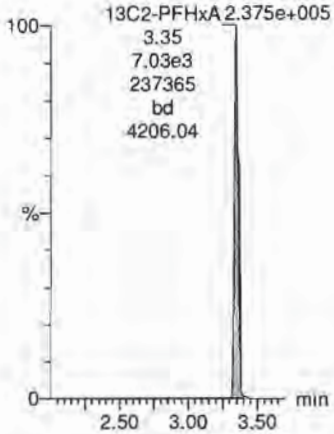

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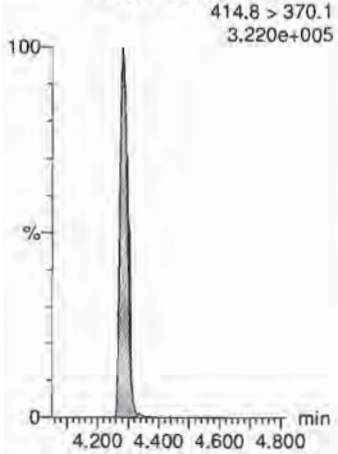

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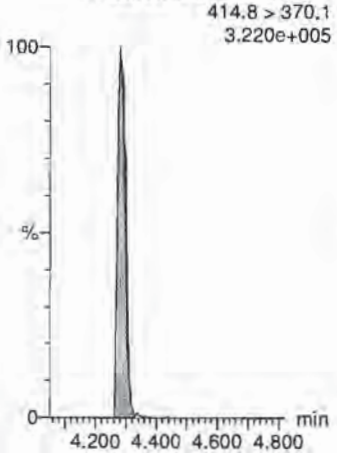

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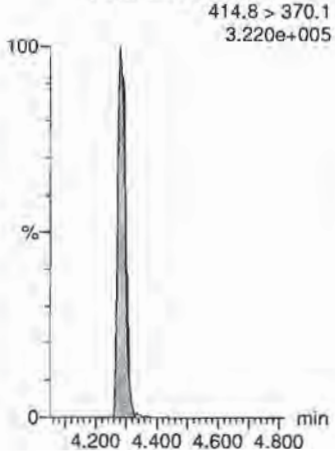

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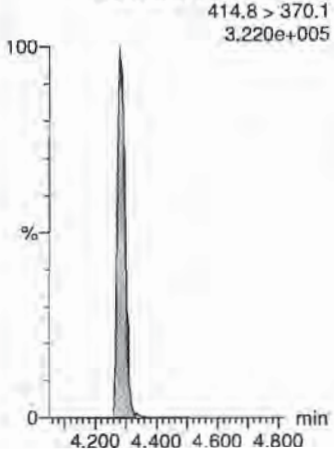

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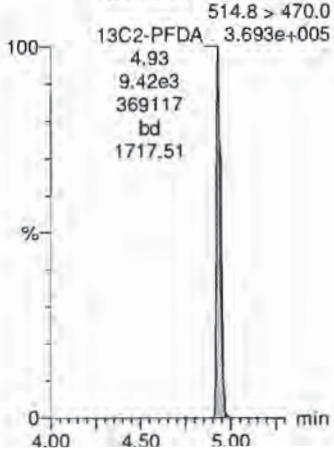

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Name: 180719G3_7, Date: 19-Jul-2018, Time: 16:07:29, ID: ST180719G3-6 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

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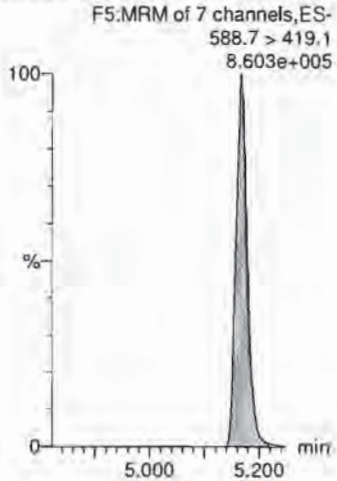

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Name: 180719G3_8, Date: 19-Jul-2018, Time: 16:20:19, ID: ST180719G3-7 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

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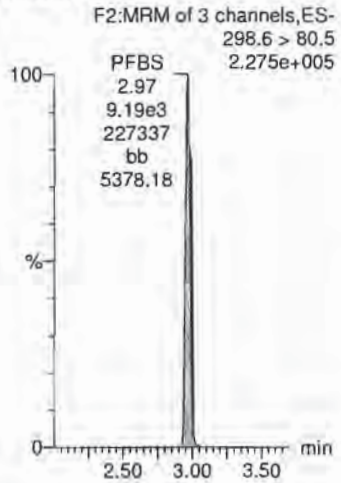

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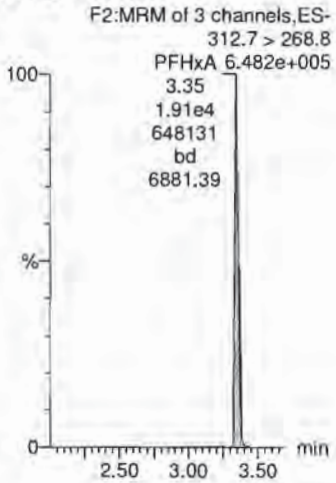

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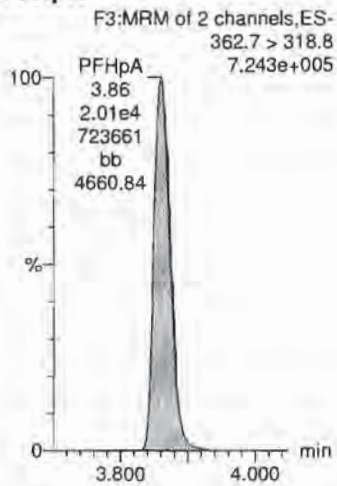

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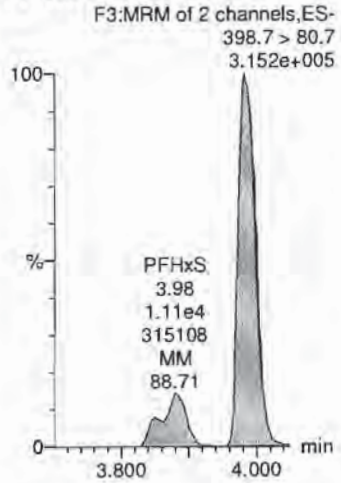

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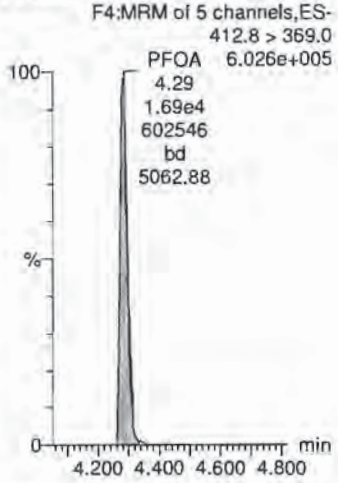

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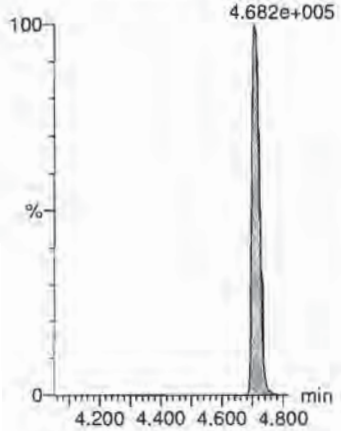

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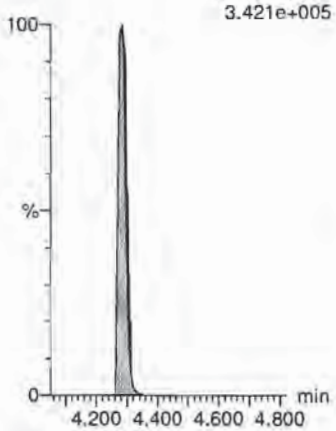

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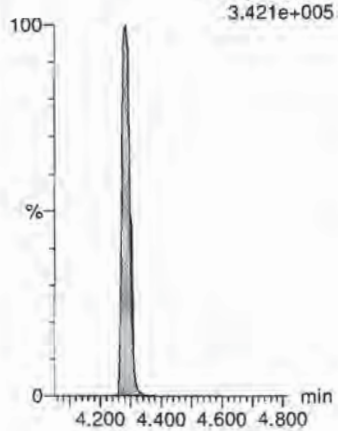

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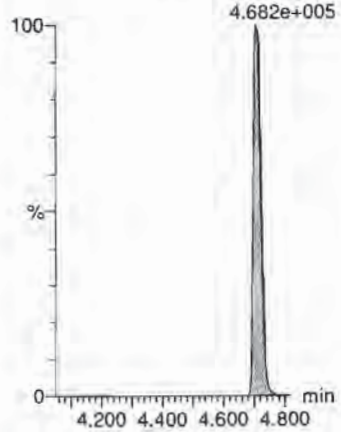

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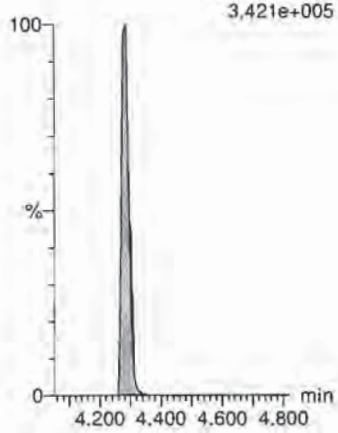

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Name: 180719G3_8, Date: 19-Jul-2018, Time: 16:20:19, ID: ST180719G3-7 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

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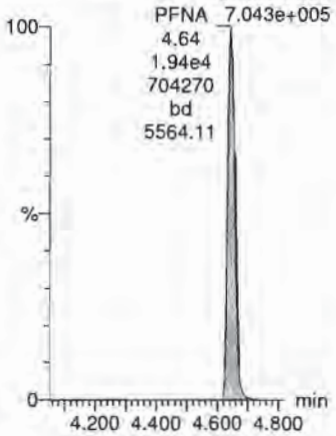

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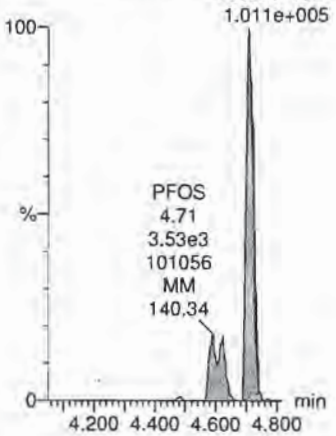

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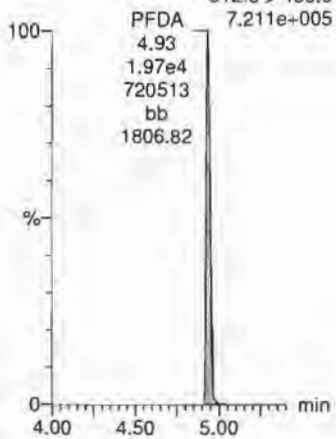

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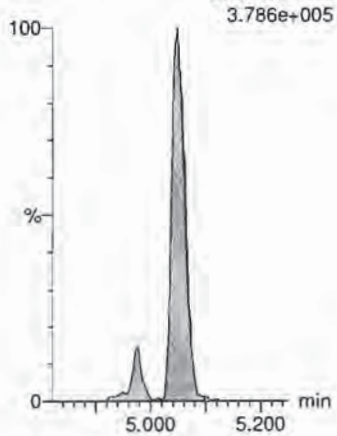

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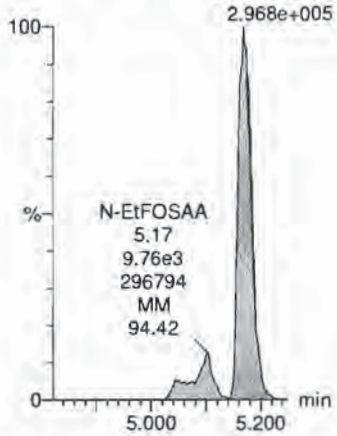

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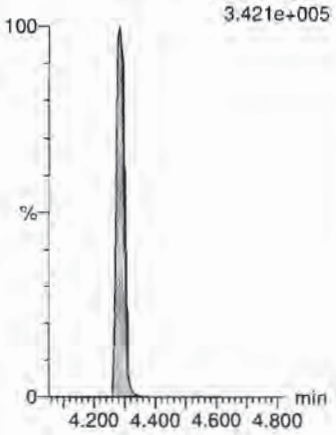

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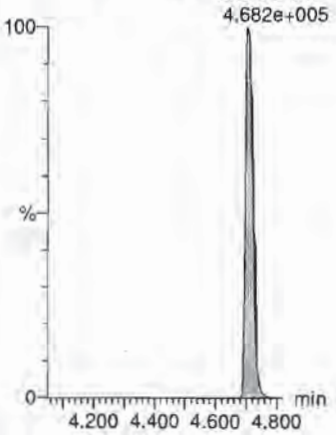

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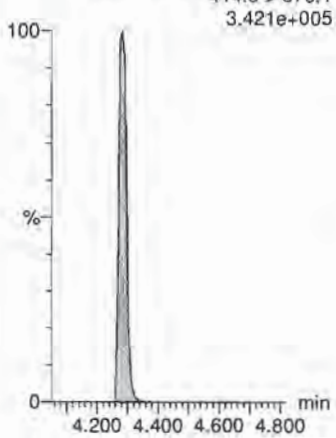

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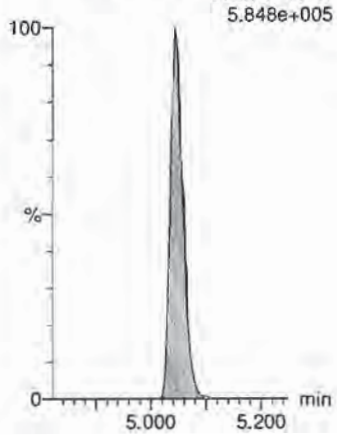

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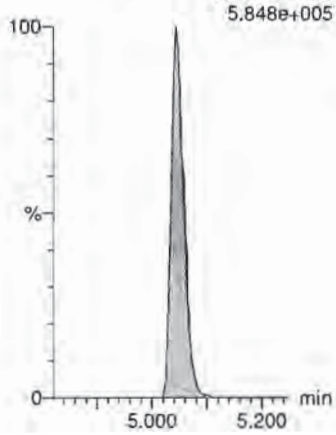

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_8, Date: 19-Jul-2018, Time: 16:20:19, ID: ST180719G3-7 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

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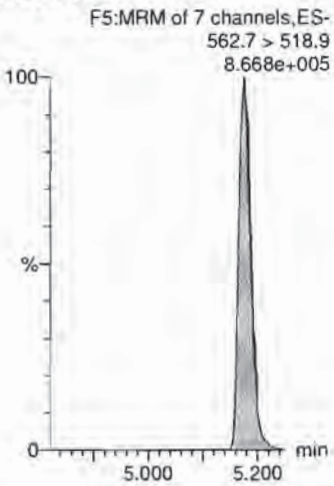

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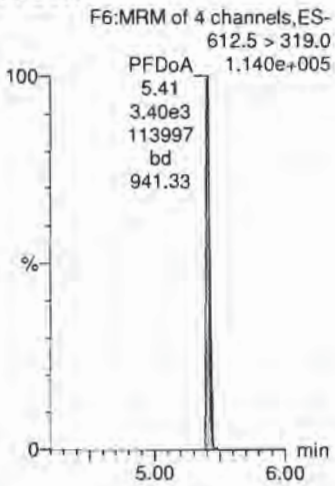

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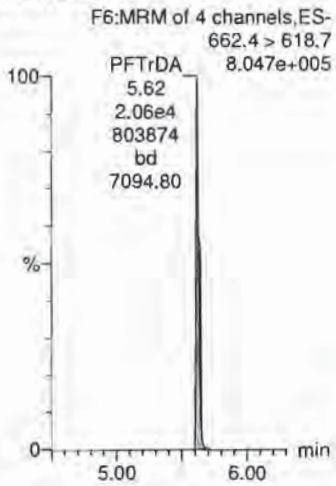

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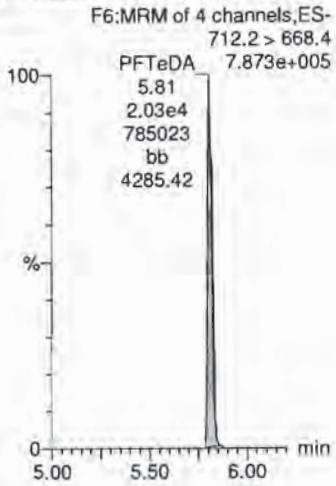

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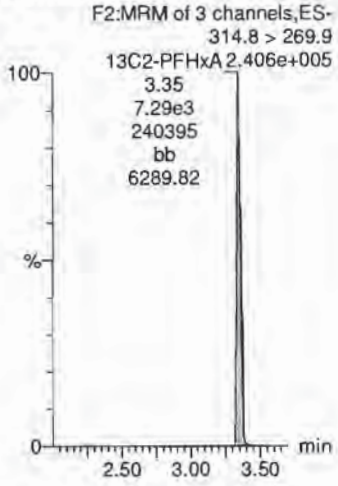

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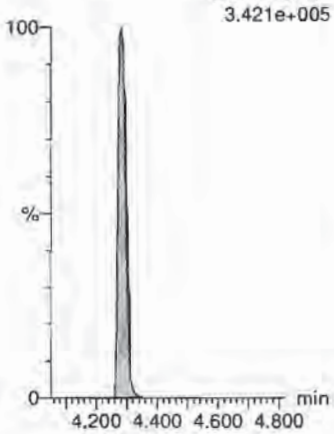

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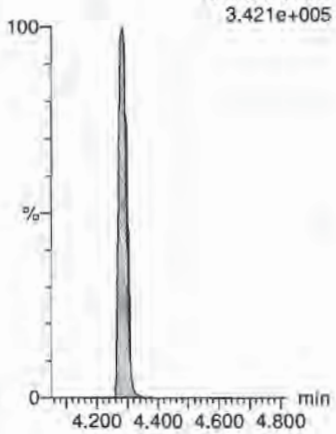

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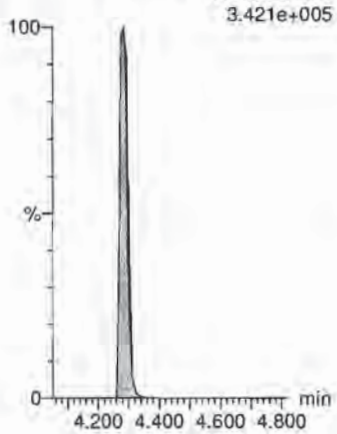

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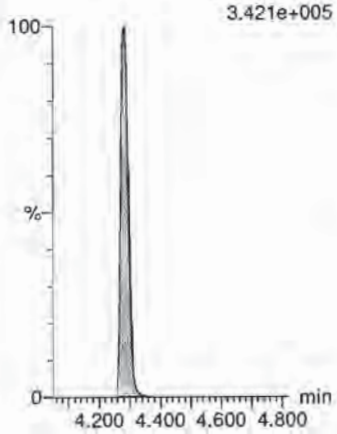

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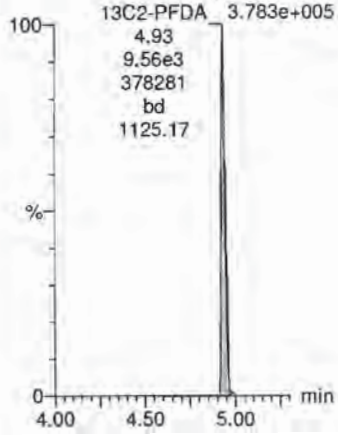

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_8, Date: 19-Jul-2018, Time: 16:20:19, ID: ST180719G3-7 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

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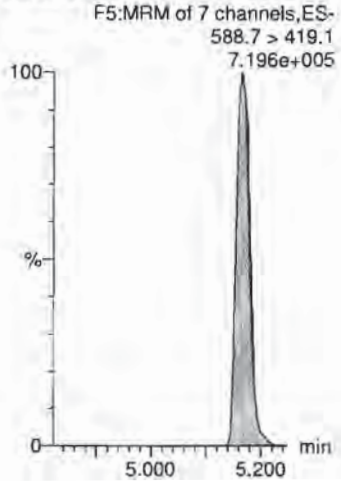

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Name: 180719G3_9, Date: 19-Jul-2018, Time: 16:33:10, ID: ST180719G3-8 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

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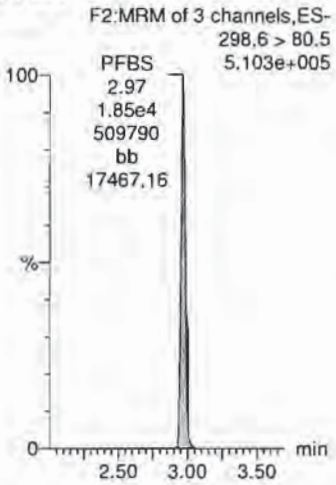

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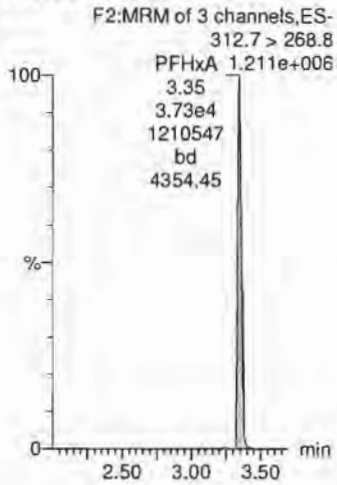

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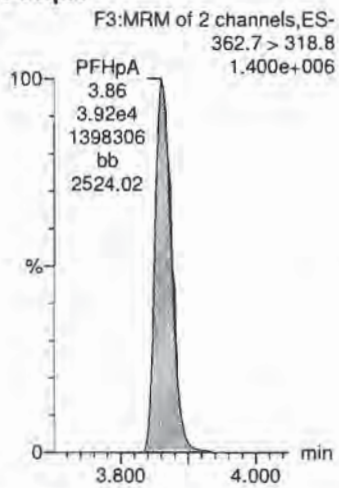

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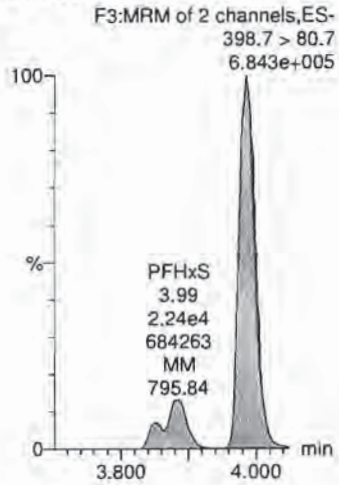

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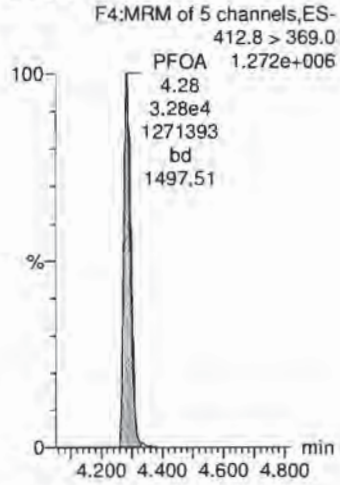

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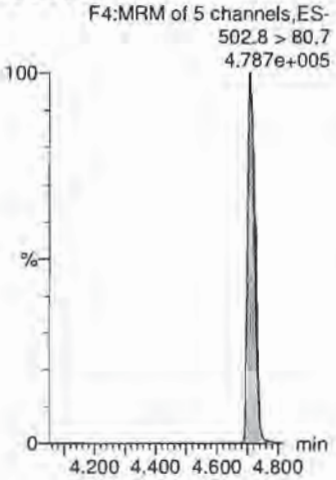

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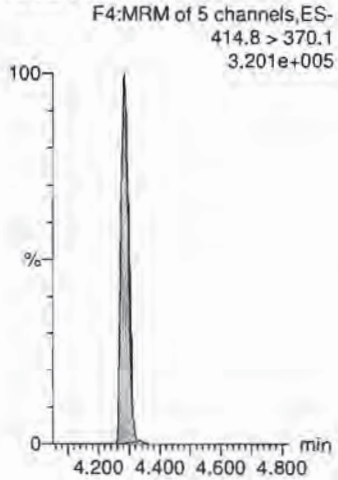

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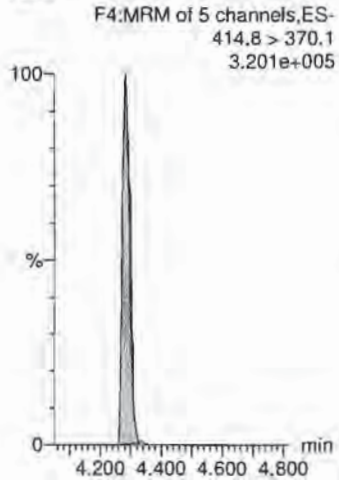

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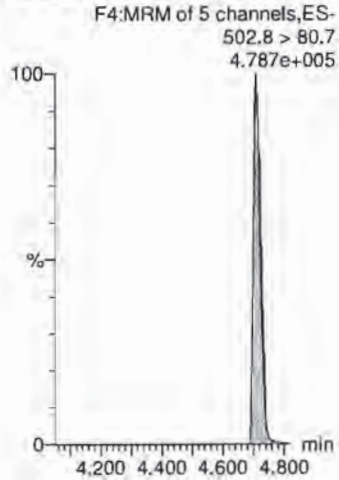

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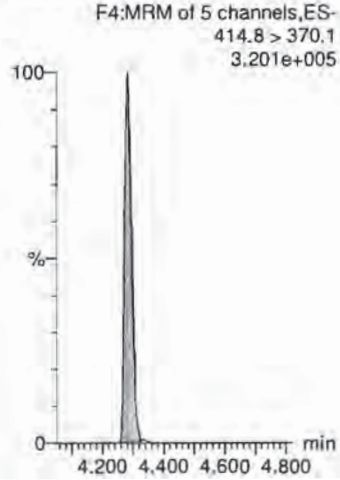

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Name: 180719G3_9, Date: 19-Jul-2018, Time: 16:33:10, ID: ST180719G3-8 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

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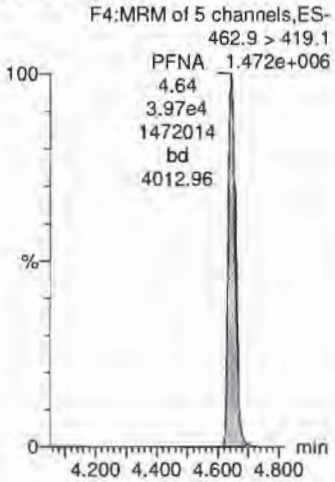

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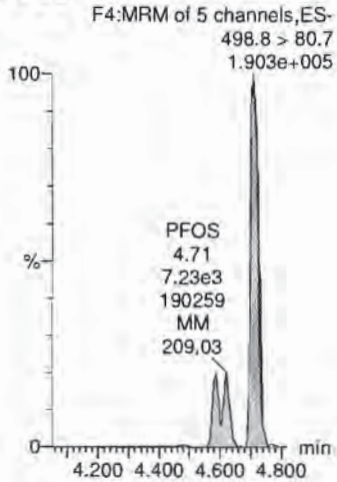

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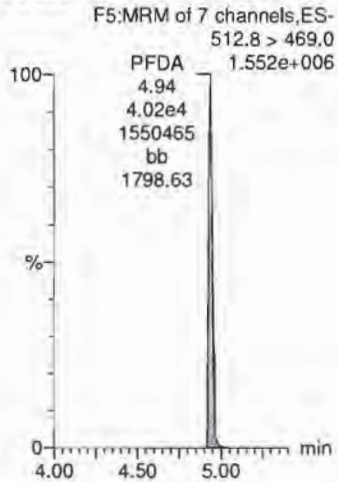

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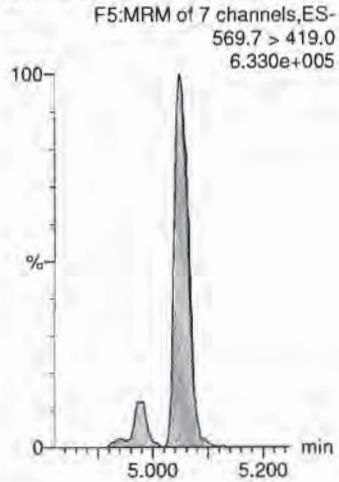

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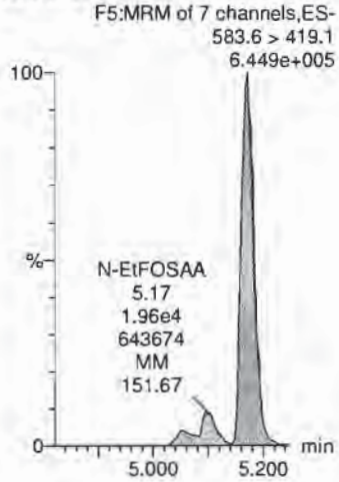

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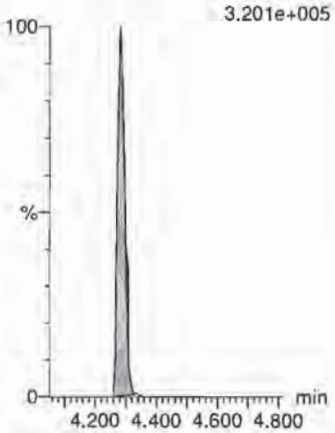

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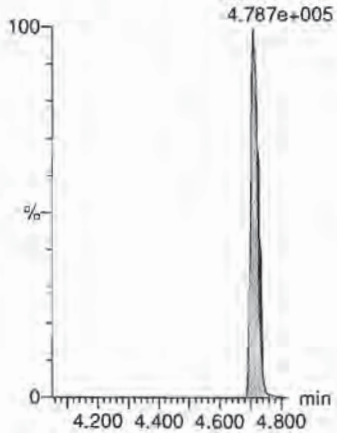

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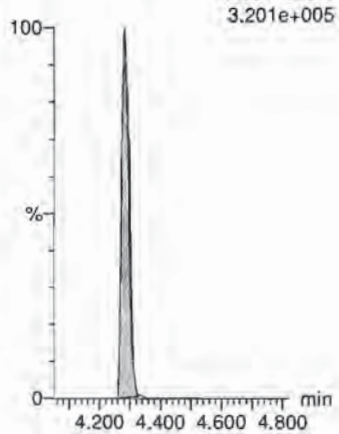

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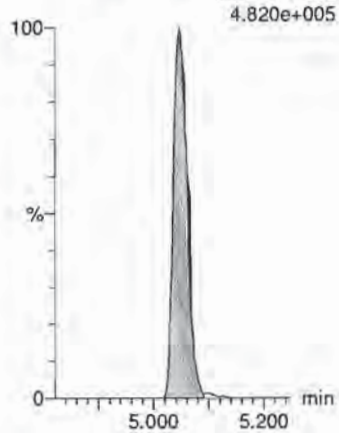

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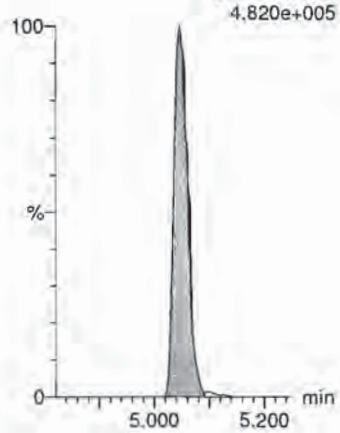

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Name: 180719G3_9, Date: 19-Jul-2018, Time: 16:33:10, ID: ST180719G3-8 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

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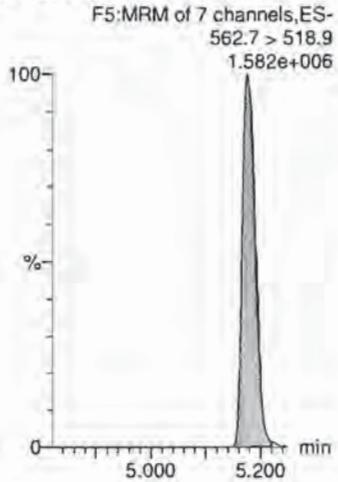

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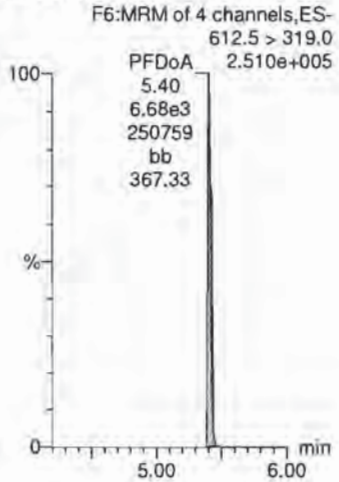

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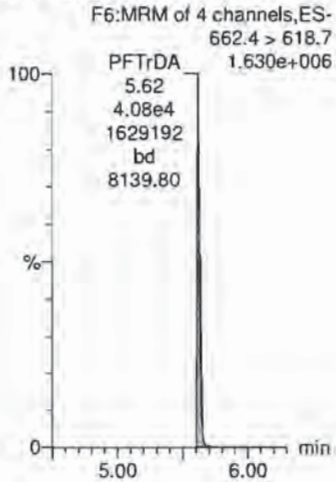

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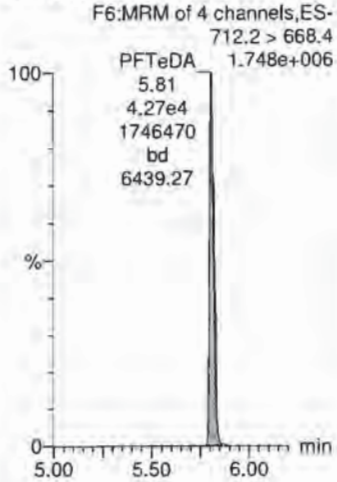

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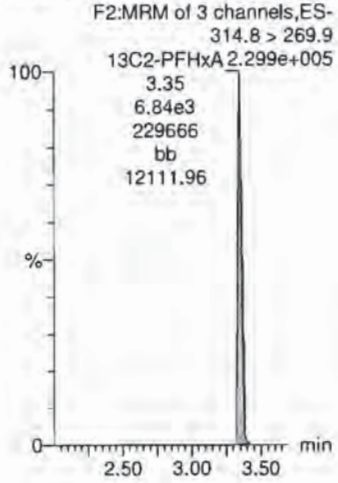

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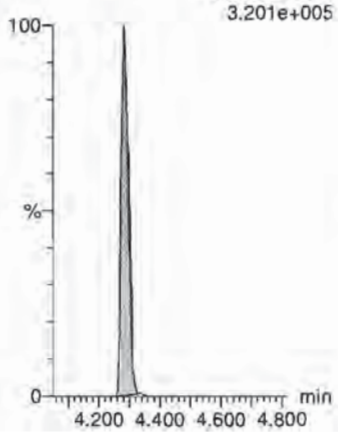

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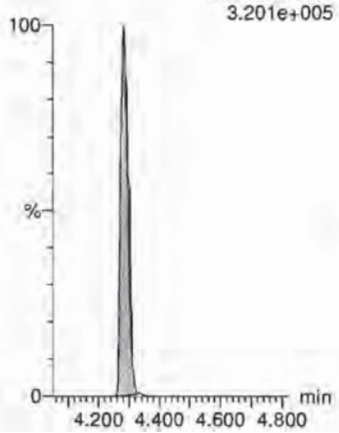

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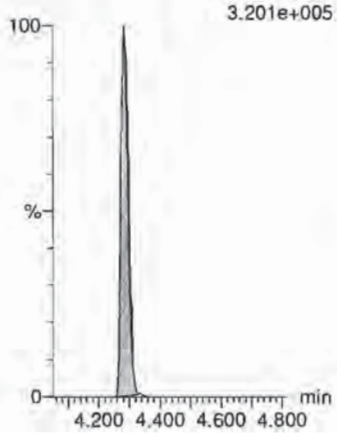

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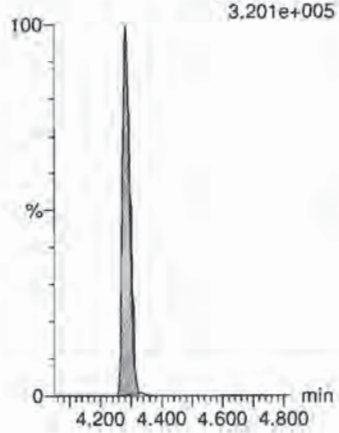

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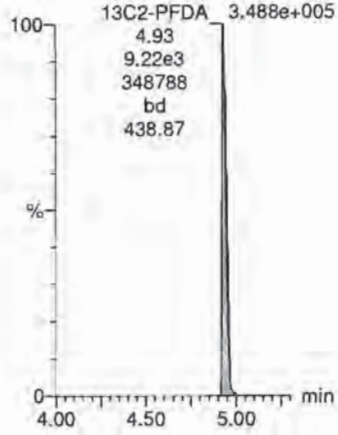

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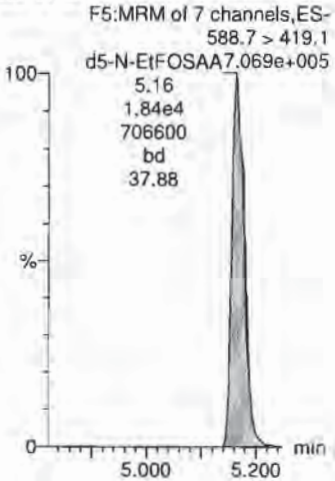
Name: 180719G3_9, Date: 19-Jul-2018, Time: 16:33:10, ID: ST180719G3-8 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

d5-N-EtFOSAA



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Name: 180719G3_10, Date: 19-Jul-2018, Time: 16:45:58, ID: ST180719G3-9 PFC CS4 537 18G1809, Description: PFC CS4 537 18G1809

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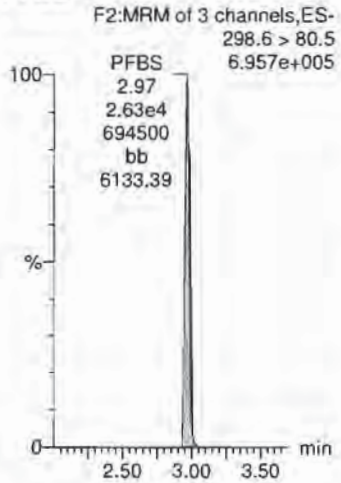

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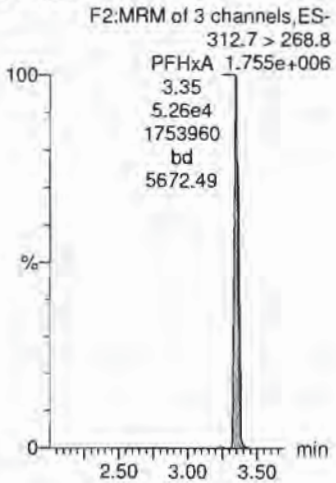

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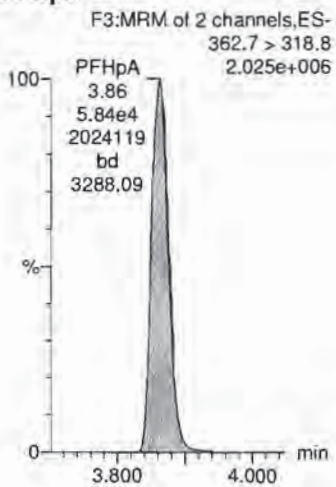

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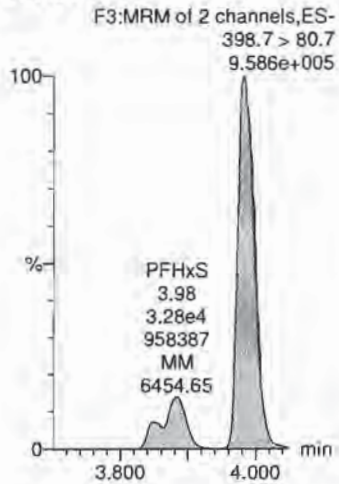

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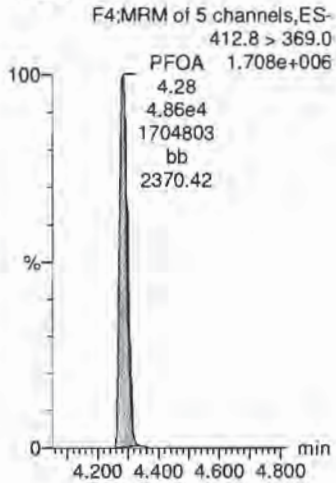

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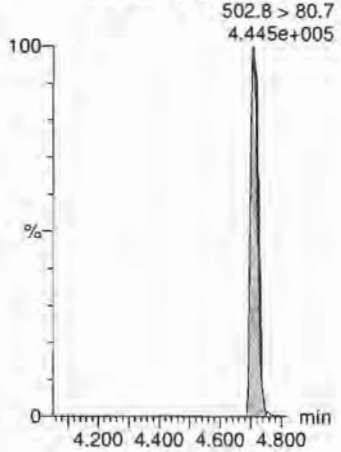

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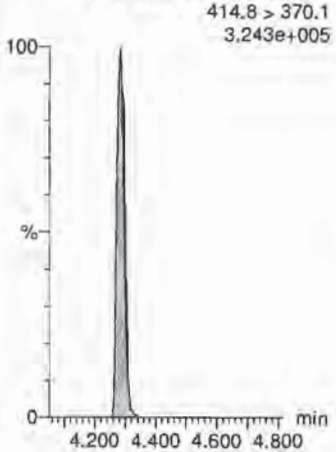

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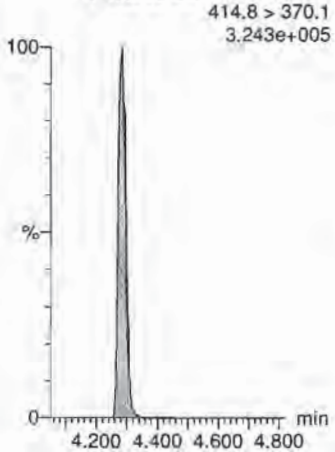

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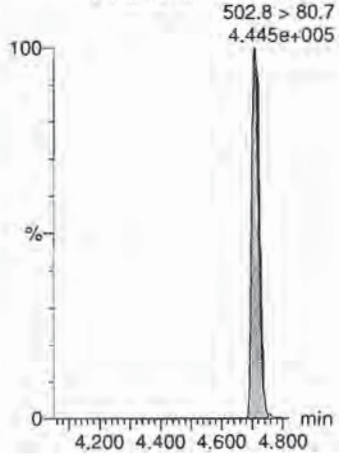

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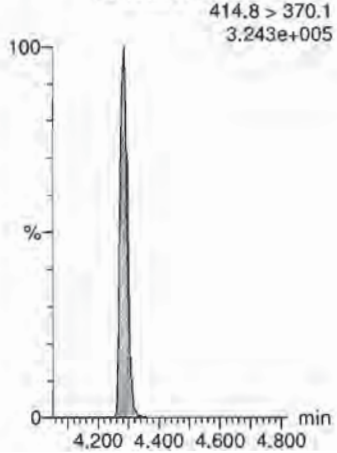

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_10, Date: 19-Jul-2018, Time: 16:45:58, ID: ST180719G3-9 PFC CS4 537 18G1809, Description: PFC CS4 537 18G1809

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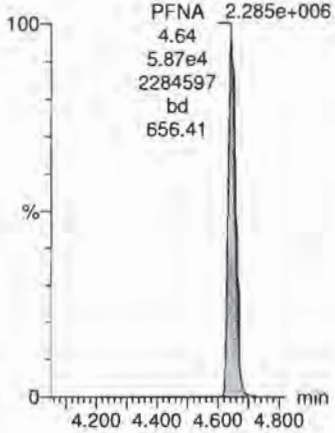

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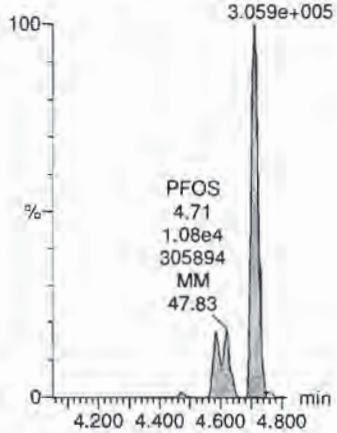

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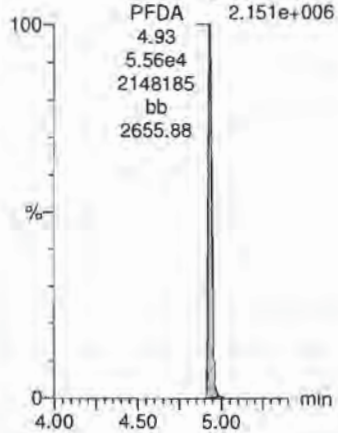

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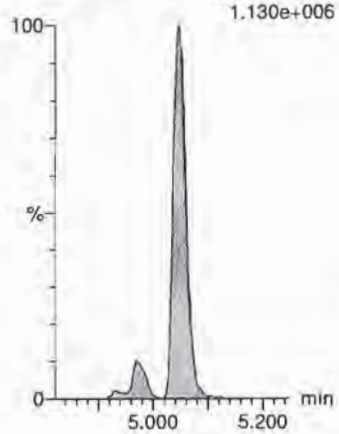

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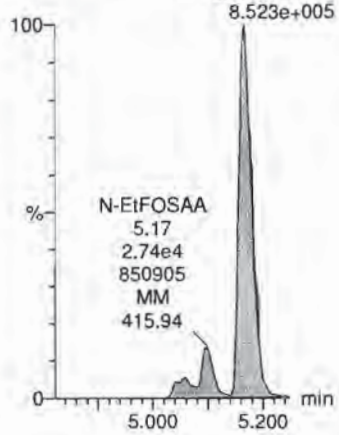

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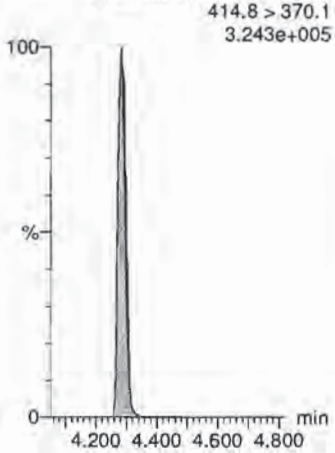

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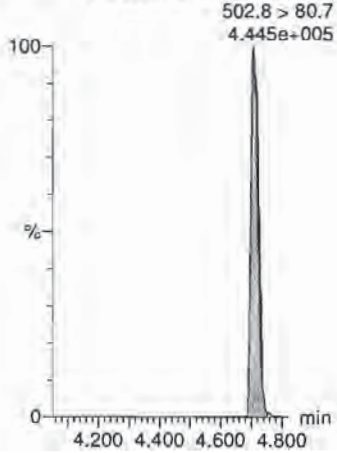

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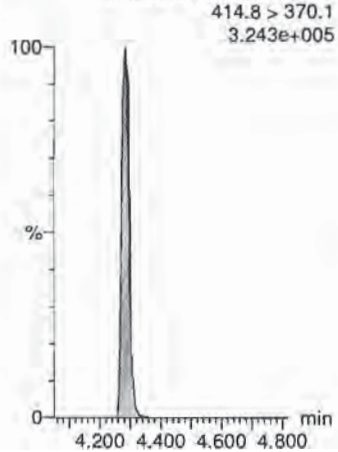

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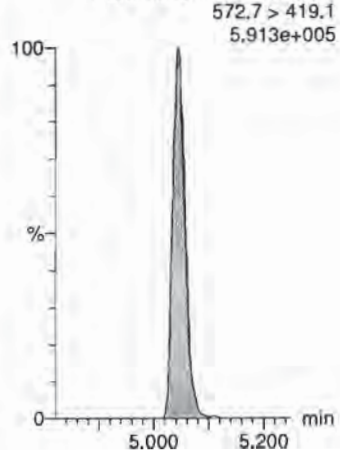

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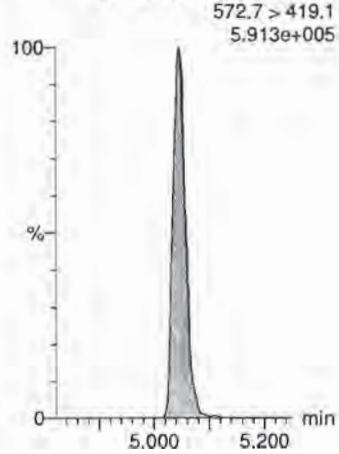

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Name: 180719G3_10, Date: 19-Jul-2018, Time: 16:45:58, ID: ST180719G3-9 PFC CS4 537 18G1809, Description: PFC CS4 537 18G1809

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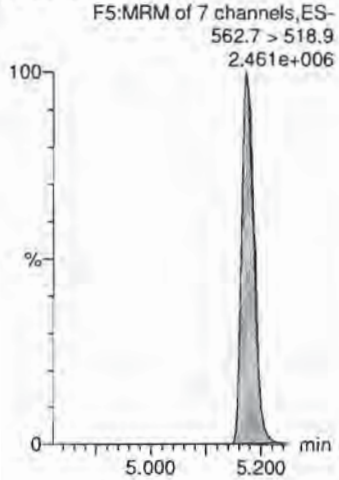

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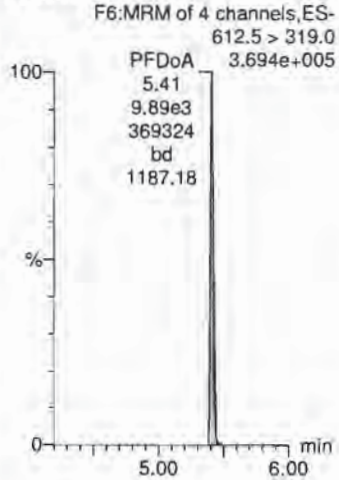

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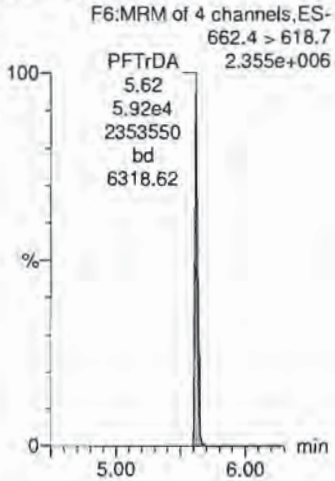

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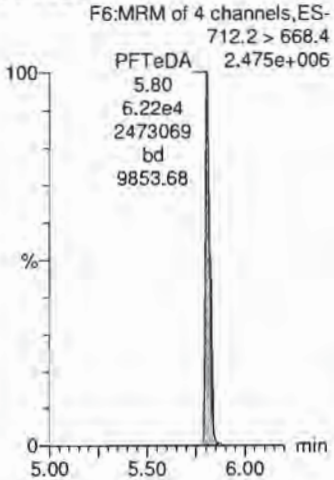

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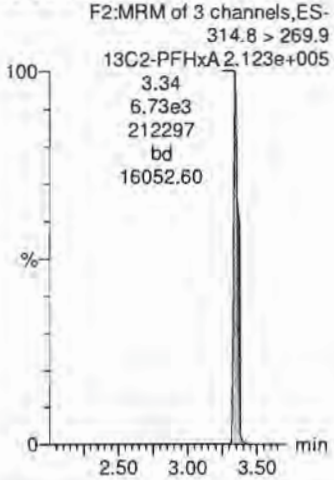

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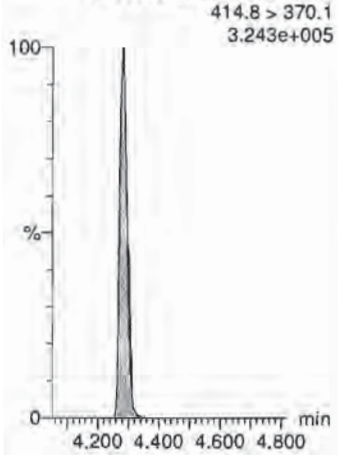

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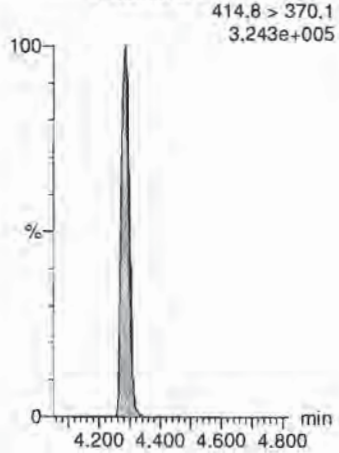

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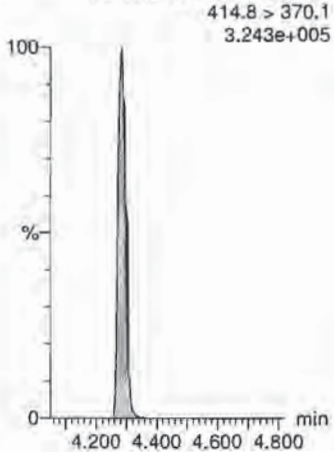

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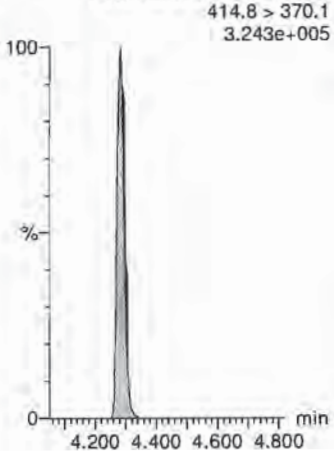

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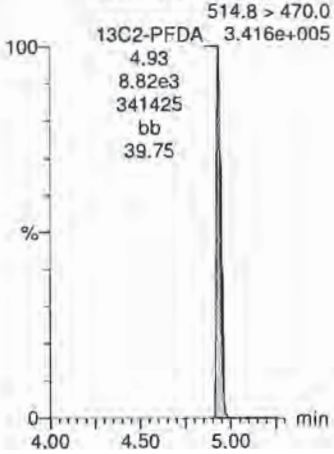

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Name: 180719G3_10, Date: 19-Jul-2018, Time: 16:45:58, ID: ST180719G3-9 PFC CS4 537 18G1809, Description: PFC CS4 537 18G1809

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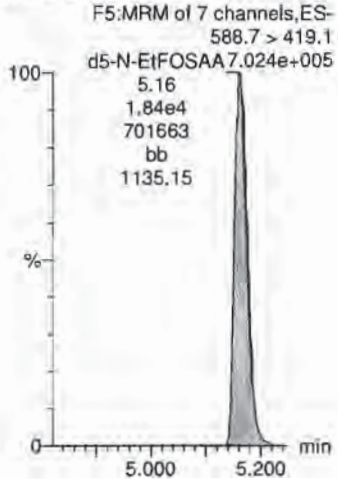

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Name: 180719G3_11, Date: 19-Jul-2018, Time: 16:58:48, ID: ST180719G3-10 PFC CS5 537 18G1810, Description: PFC CS5 537 18G1810

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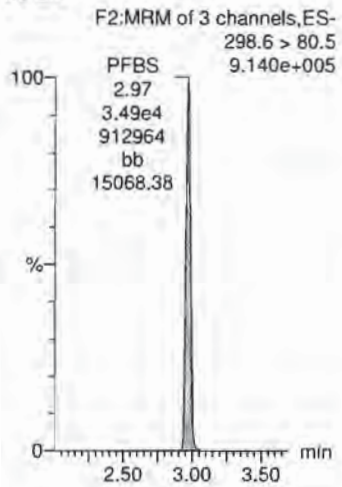

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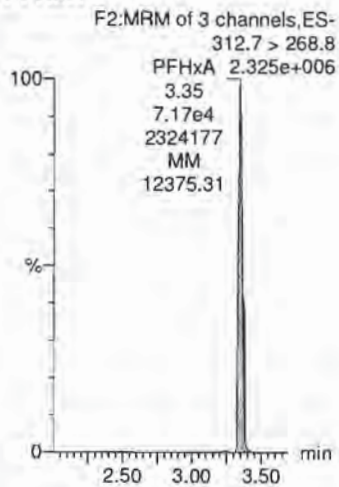

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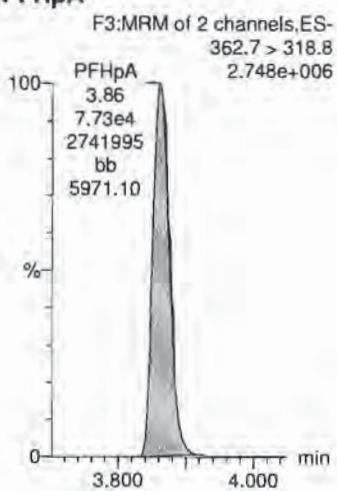

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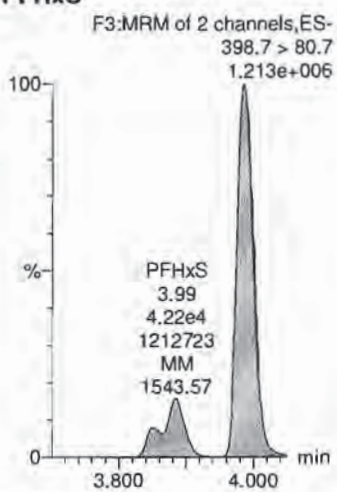

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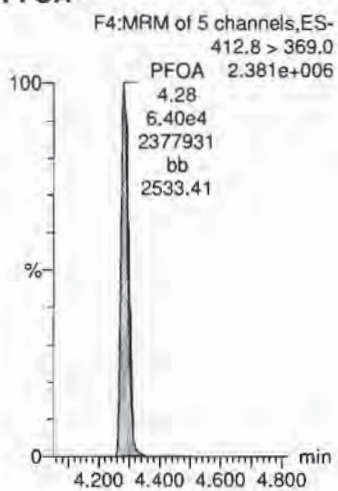

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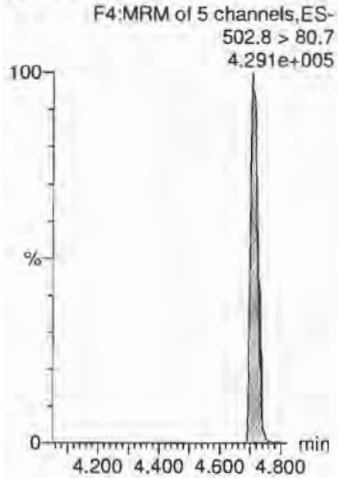

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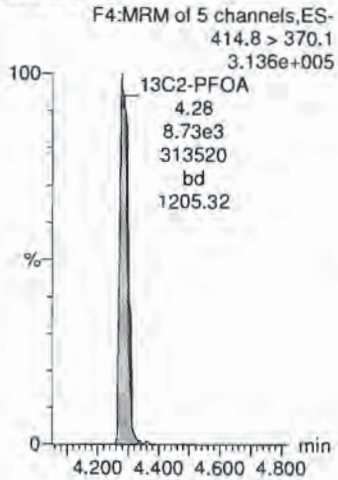

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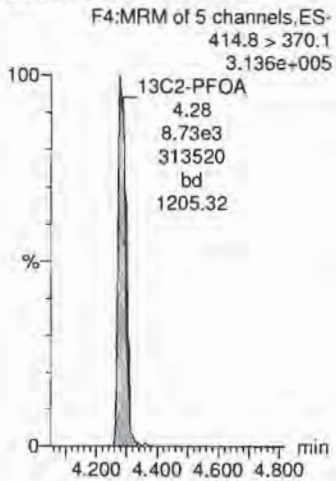

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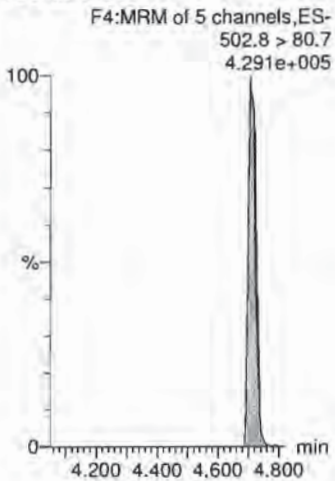

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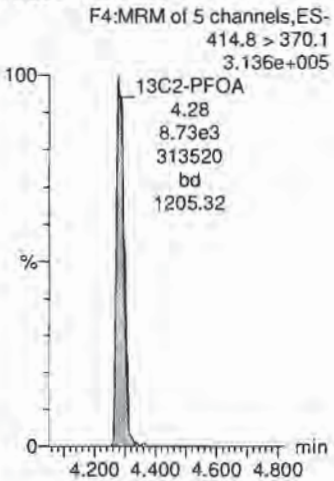

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Name: 180719G3_11, Date: 19-Jul-2018, Time: 16:58:48, ID: ST180719G3-10 PFC CS5 537 18G1810, Description: PFC CS5 537 18G1810

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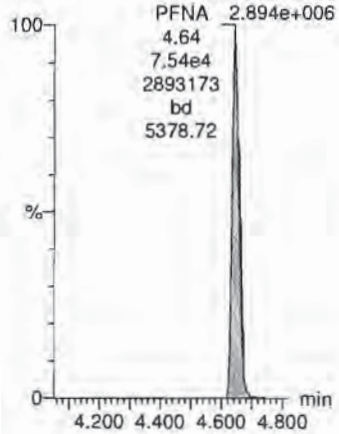

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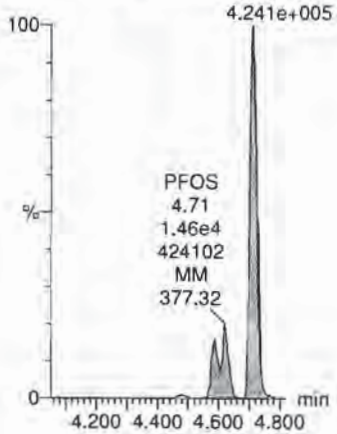

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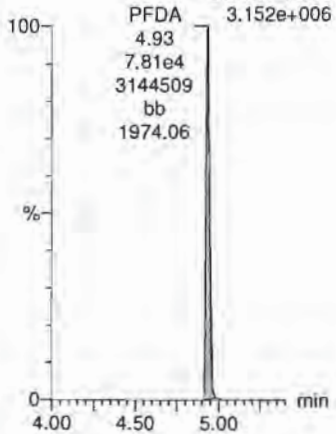

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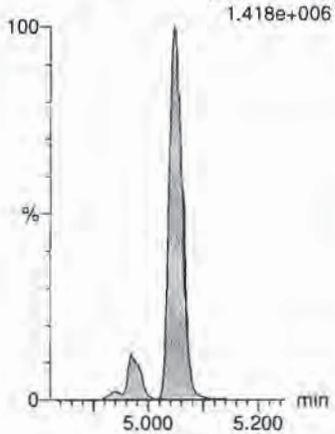

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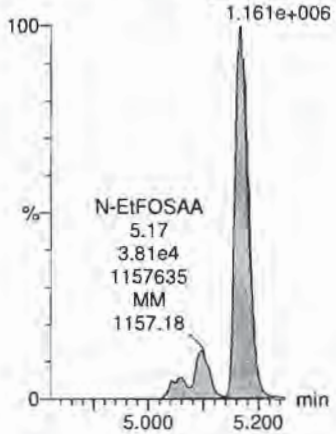

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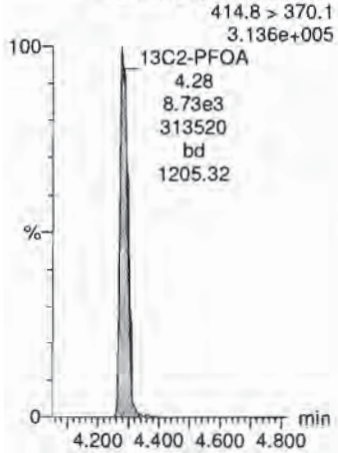

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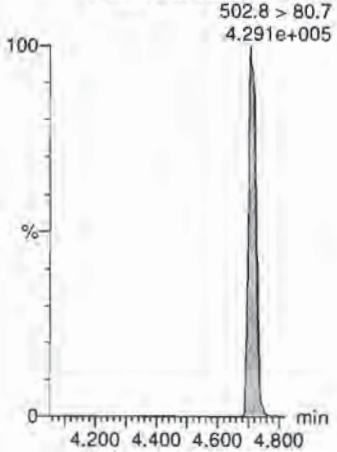

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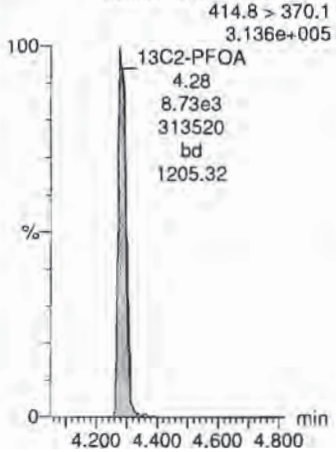

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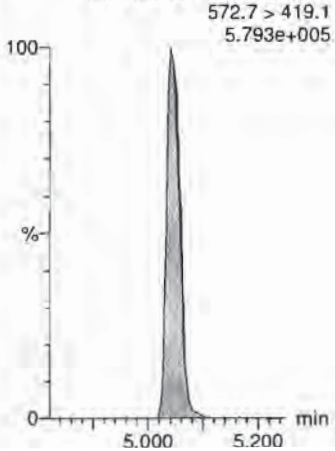

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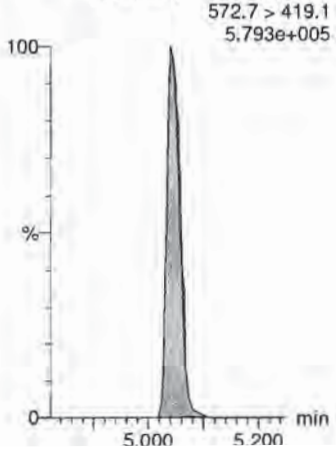

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Name: 180719G3_11, Date: 19-Jul-2018, Time: 16:58:48, ID: ST180719G3-10 PFC CS5 537 18G1810, Description: PFC CS5 537 18G1810

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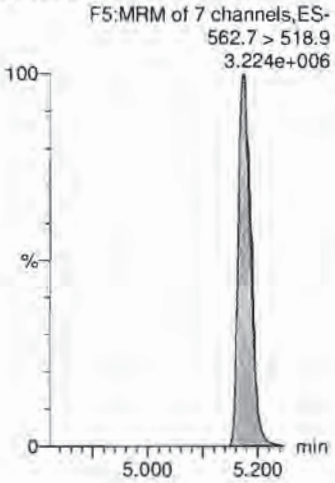

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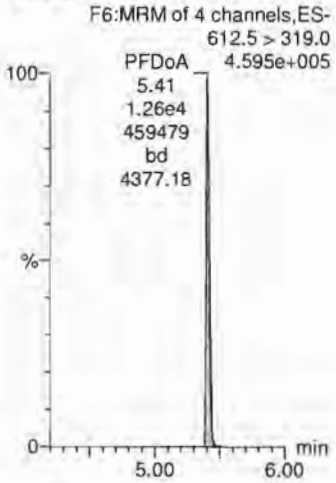

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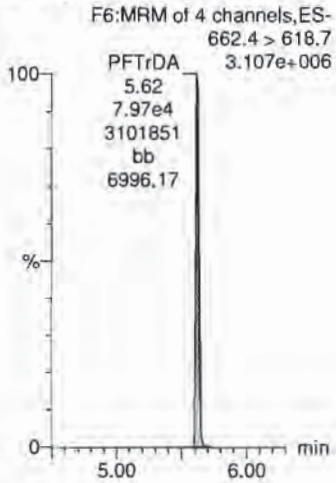

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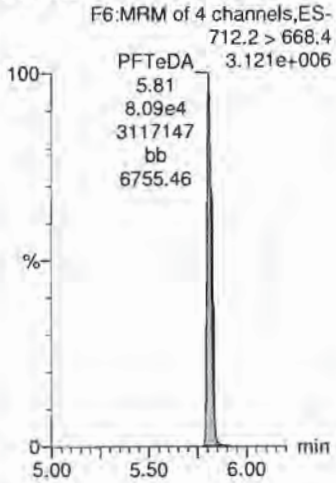

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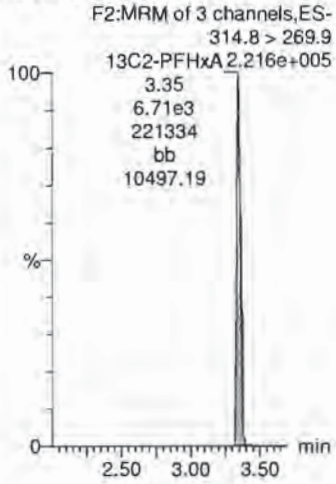

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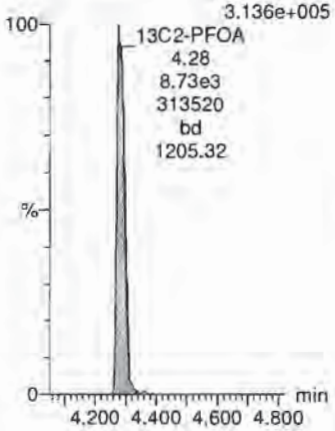

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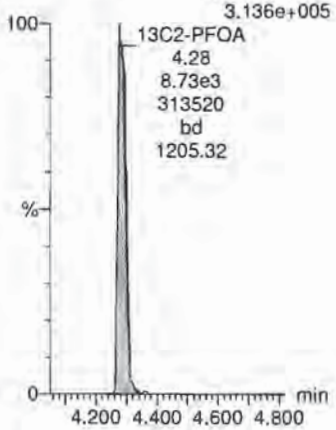
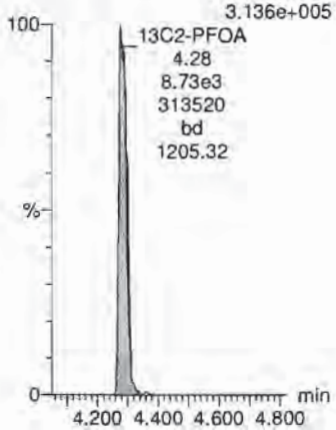


13C2-PFOA



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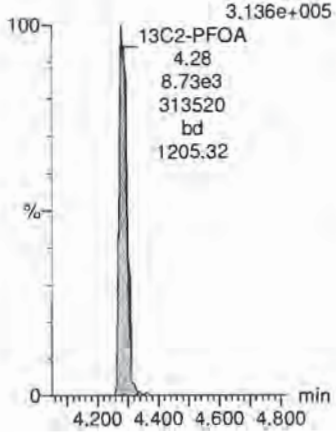
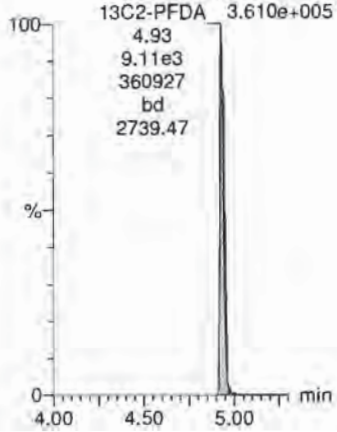


13C2-PFDA

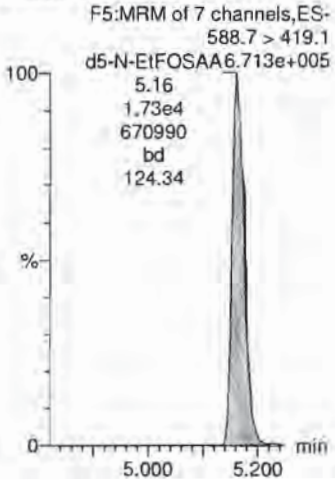


Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_11, Date: 19-Jul-2018, Time: 16:58:48, ID: ST180719G3-10 PFC CS5 537 18G1810, Description: PFC CS5 537 18G1810

d5-N-EtFOSAA



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

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-ICV.qld

Last Altered: Friday, July 20, 2018 12:49:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

JAD 7/20/18

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	4.66e3	1.35e4	1.00		2.96	2.97	9.90	10.4	104.1
2	2	PFHxA	312.7 > 268.8	8.30e3	1.01e4	1.00		3.35	3.35	8.23	10.1	101.2
3	3	PFHpA	362.7 > 318.8	9.01e3	1.01e4	1.00		3.86	3.86	8.93	10.2	101.8
4	4	PFHxS	398.7 > 80.7	5.35e3	1.35e4	1.00		3.98	3.99	11.3	10.1	100.5
5	5	PFOA	412.8 > 369.0	7.22e3	1.01e4	1.00		4.29	4.28	7.16	9.81	98.1
6	6	PFNA	462.9 > 419.1	9.36e3	1.01e4	1.00		4.65	4.64	9.27	10.6	106.5
7	7	PFOS	498.8 >80.7	1.61e3	1.35e4	1.00		4.70	4.71	3.43	9.27	92.7
8	8	PFDA	512.8 > 469.0	8.59e3	1.01e4	1.00		4.93	4.93	8.52	9.77	97.7
9	9	N-MeFOSAA	569.7 > 419.0	4.79e3	1.68e4	1.00		5.05	5.04	11.4	9.83	98.3
10	10	N-EtFOSAA	583.6 >419.1	4.15e3	1.68e4	1.00		5.17	5.17	9.85	9.88	98.8
11	11	PFUnA	562.7 > 518.9	9.54e3	1.01e4	1.00		5.17	5.17	9.46	9.84	98.4
12	12	PFDoA	612.5 > 319.0	1.56e3	1.01e4	1.00		5.41	5.41	1.55	10.5	105.2
13	13	PFTrDA	662.4 > 618.7	8.72e3	1.01e4	1.00		5.62	5.62	8.64	9.58	95.8
14	14	PFTeDA	712.2>668.4	9.24e3	1.01e4	1.00		5.81	5.81	9.16	9.89	98.9
15	15	13C2-PFHxA	314.8 > 269.9	7.91e3	1.01e4	1.00	0.753	3.44	3.34	7.84	10.4	104.2
16	16	13C2-PFDA	514.8 > 470.0	1.02e4	1.01e4	1.00	1.023	4.88	4.93	10.1	9.92	99.2
17	17	d5-N-EtFOSAA	588.7> 419.1	2.14e4	1.68e4	1.00	1.264	5.05	5.16	50.9	40.3	100.7
18	18	13C2-PFOA	414.8 > 370.1	1.01e4	1.01e4	1.00	1.000	4.28	4.28	10.0	10.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.35e4	1.35e4	1.00	1.000	4.71	4.71	28.7	28.7	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.68e4	1.68e4	1.00	1.000	5.04	5.05	40.0	40.0	100.0

Cal 7/20/18

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

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-ICV.qld

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Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

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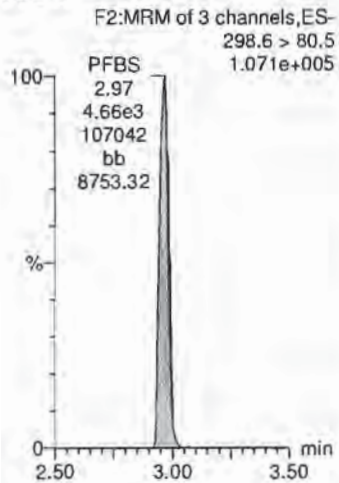
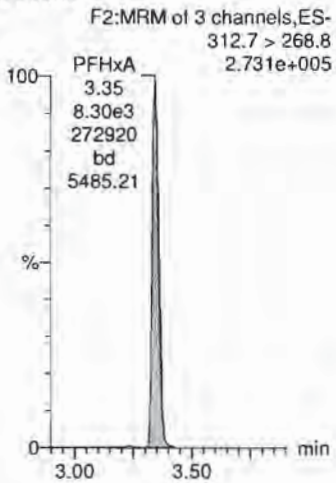
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

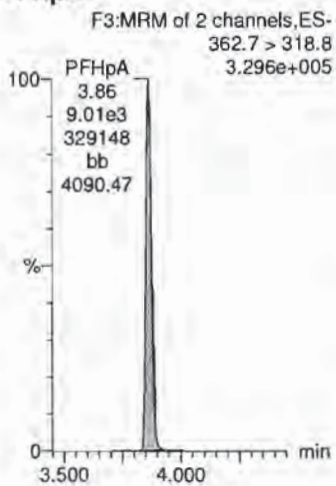
PFBS



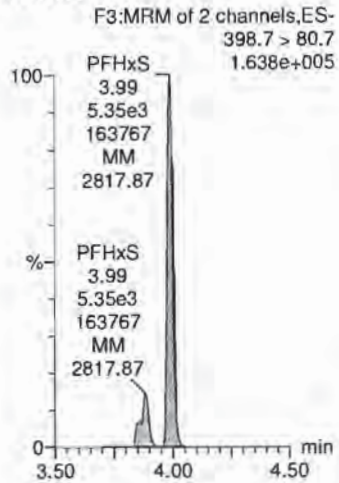
PFHxA



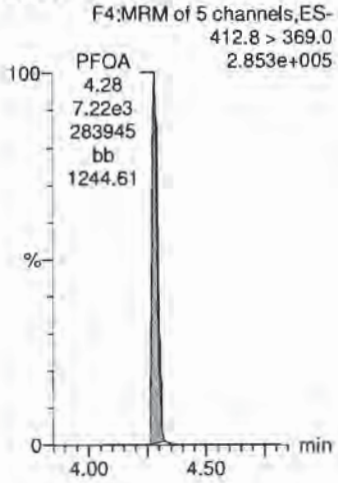
PFHpA



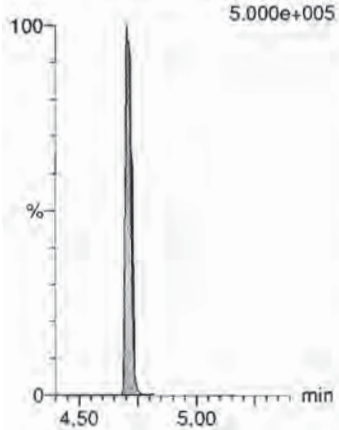
PFHxS



PFOA



13C4-PFOS



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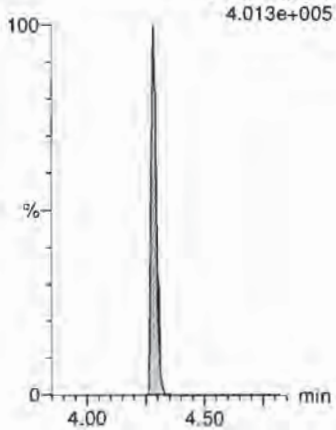

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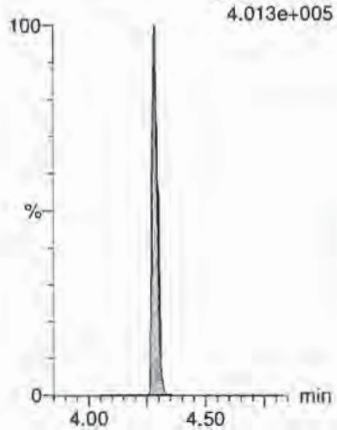

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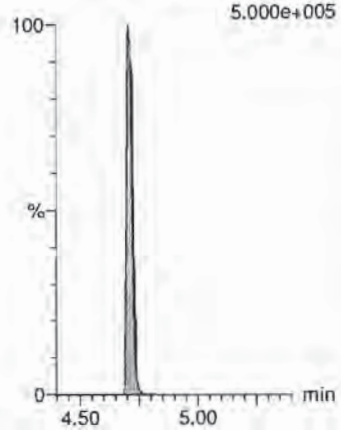

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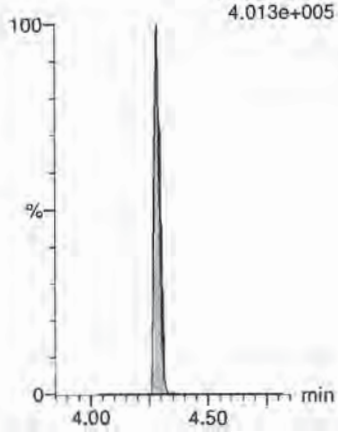
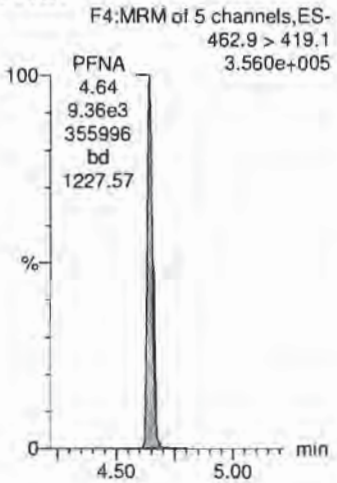


Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-ICV.qld

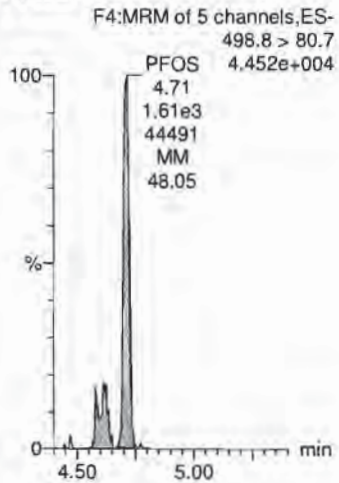
Last Altered: Friday, July 20, 2018 12:49:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

PFNA



PFOS



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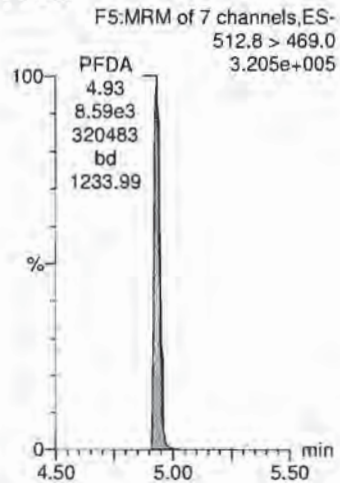

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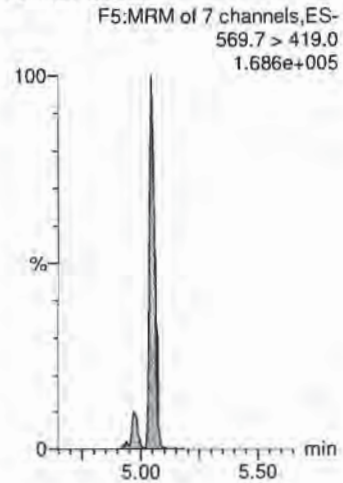
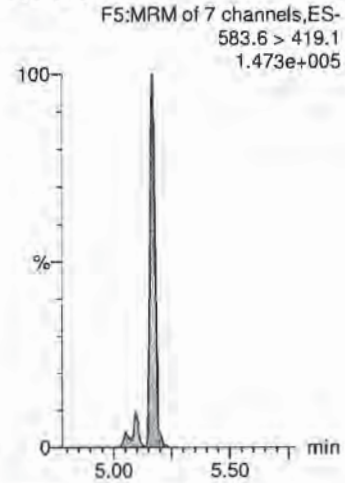


N-EtFOSAA



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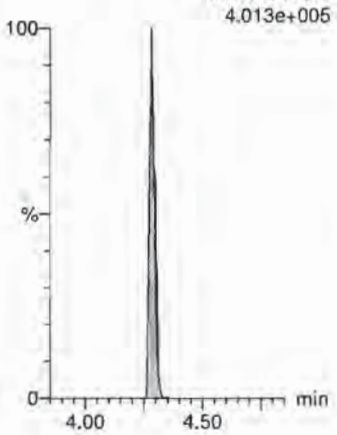
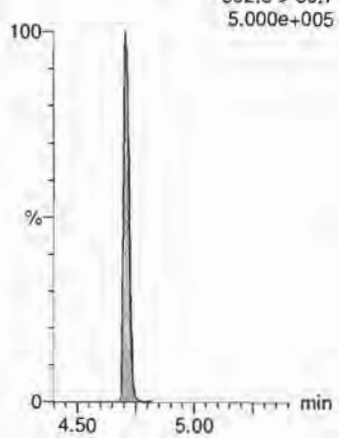


13C4-PFOS



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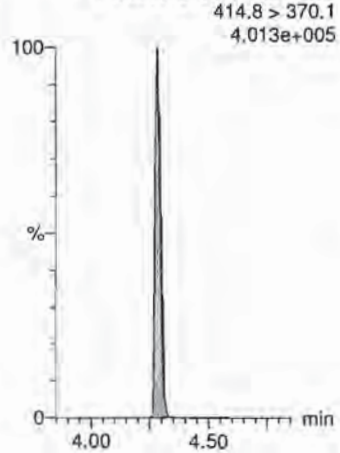
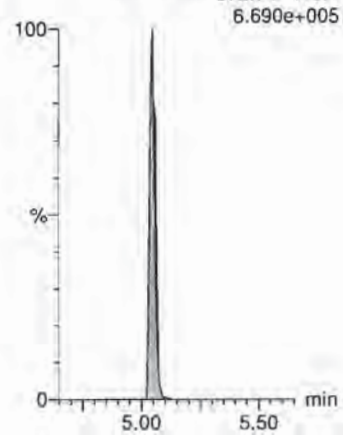


d3-N-MeFOSAA



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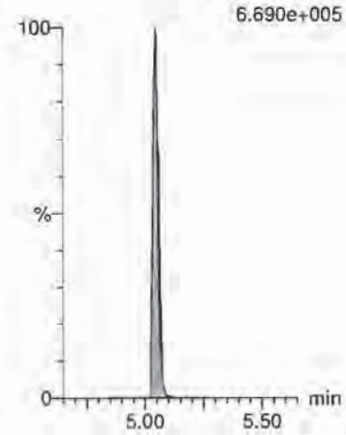
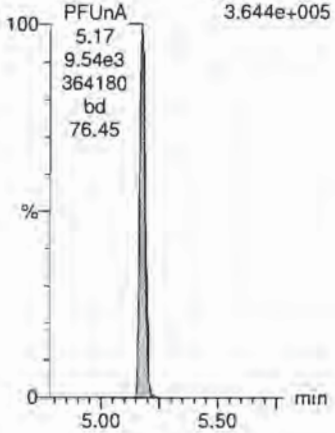


Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-ICV.qld

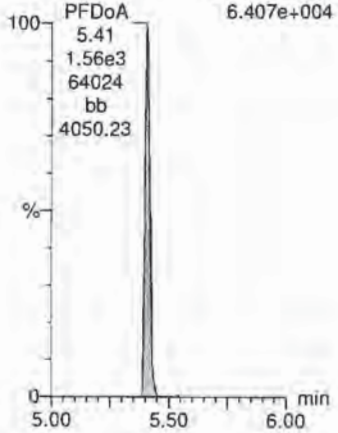
Last Altered: Friday, July 20, 2018 12:49:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

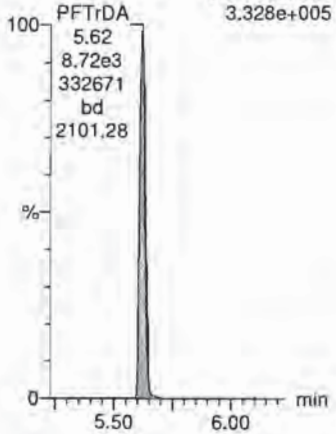
PFUnA



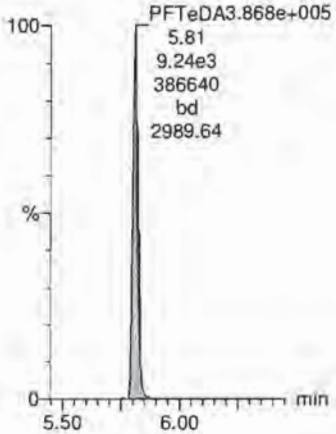
PFDoA



PFTrDA



PFTeDA



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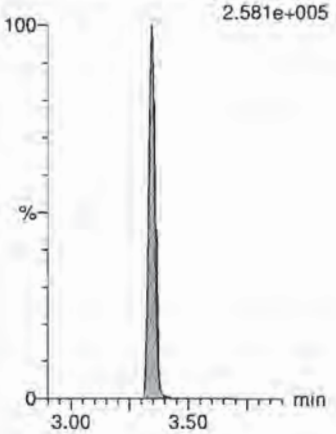
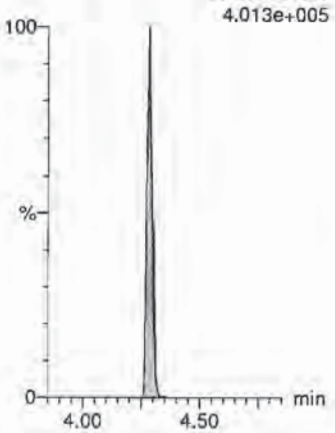
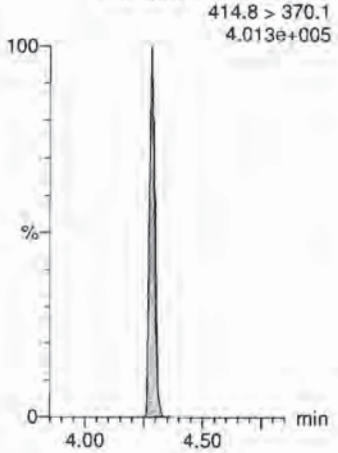


13C2-PFOA



13C2-PFOA



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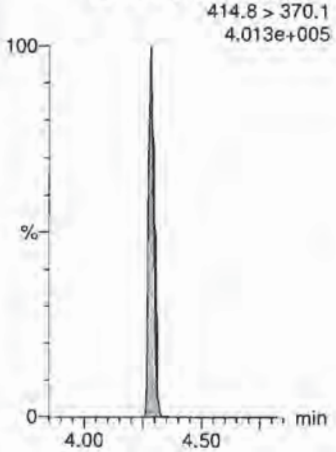

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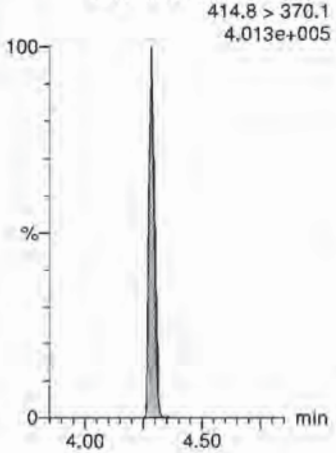

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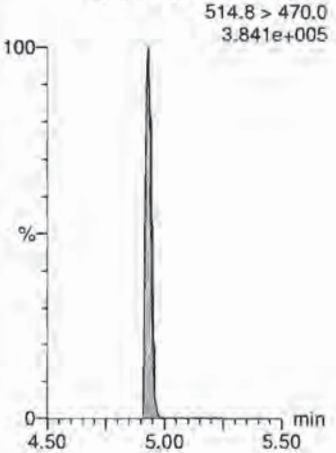
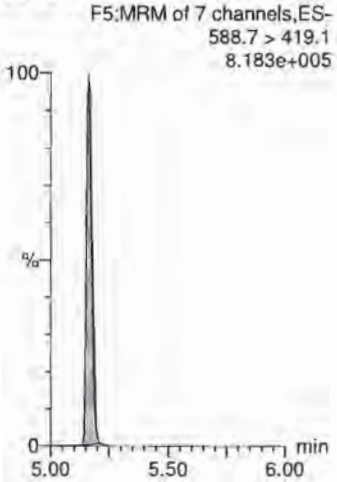


Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-ICV.qld

Last Altered: Friday, July 20, 2018 12:49:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

d5-N-EtFOSAA



Vista Analytical Laboratory

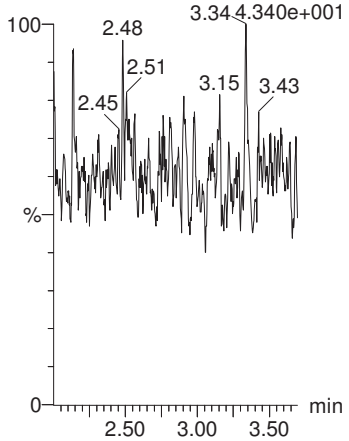
Dataset: Untitled

Last Altered: Friday, July 20, 2018 11:17:27 Pacific Daylight Time
Printed: Friday, July 20, 2018 11:17:53 Pacific Daylight Time

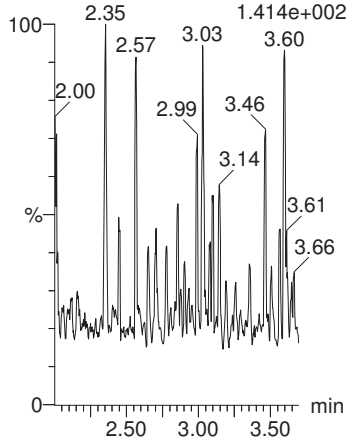
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 10:51:38

Name: 180719G3_12, Date: 19-Jul-2018, Time: 17:11:52, ID: IPA, Description: IPA

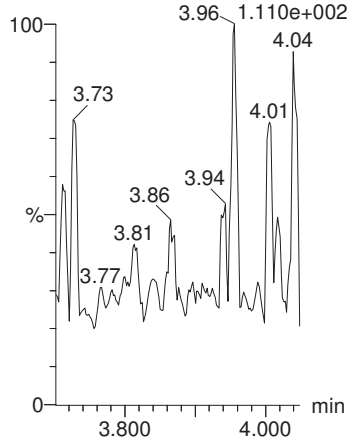
PFBS
IPA IPA F2:MRM of 3 channels,ES- 298.6 > 80.5 3.340e+001



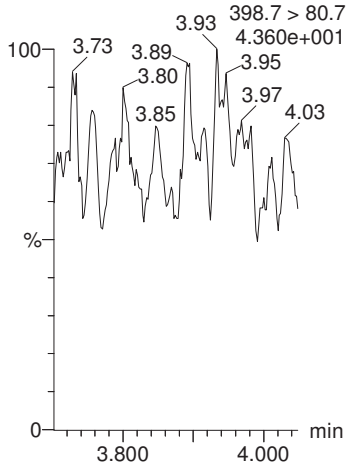
PFHxA
IPA IPA F2:MRM of 3 channels,ES- 312.7 > 268.8 1.414e+002



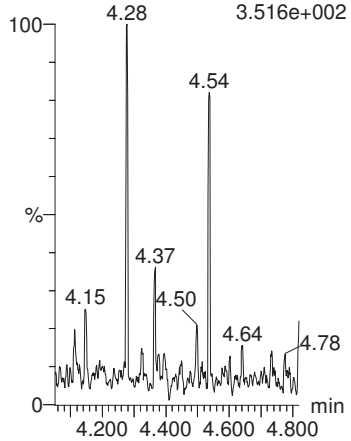
PFHpA
IPA IPA F3:MRM of 2 channels,ES- 362.7 > 318.8 1.110e+002



PFHxS
IPA IPA F3:MRM of 2 channels,ES- 398.7 > 80.7 4.360e+001



PFOA
IPA IPA F4:MRM of 5 channels,ES- 412.8 > 369.0 3.516e+002



13C4-PFOS
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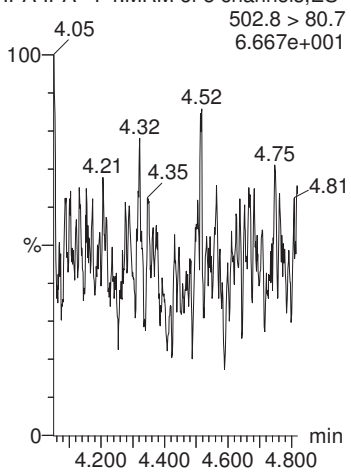

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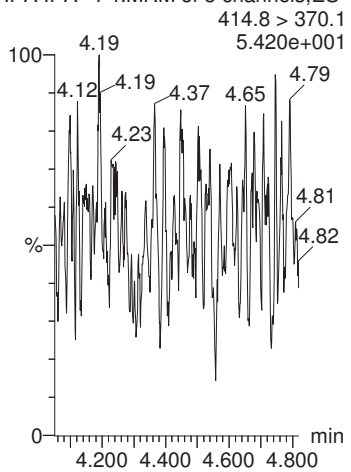

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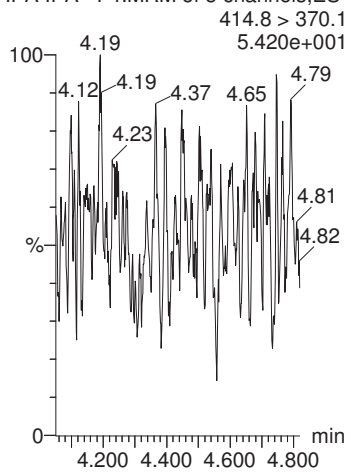

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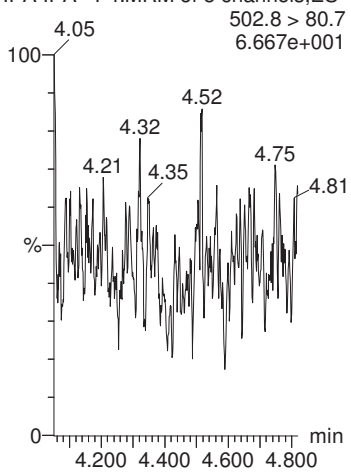

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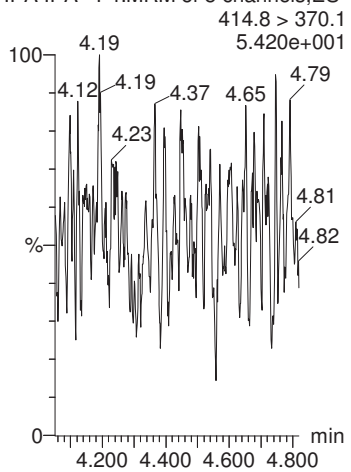

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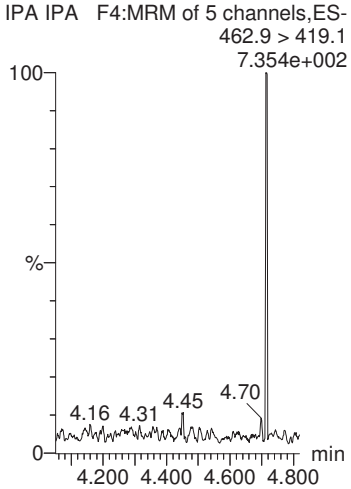

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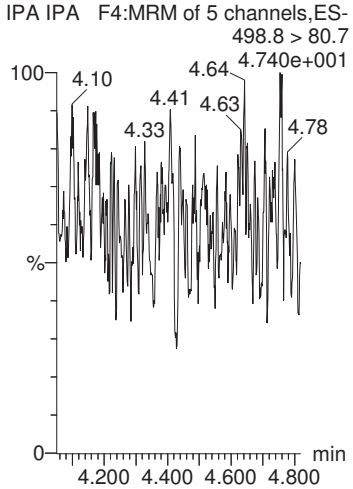

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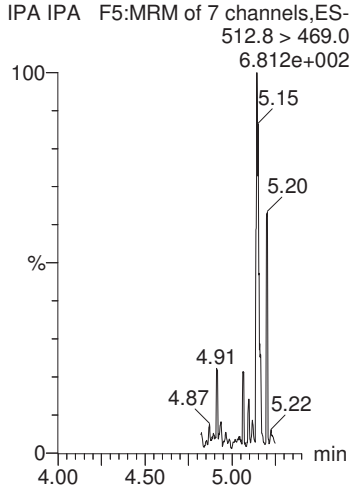

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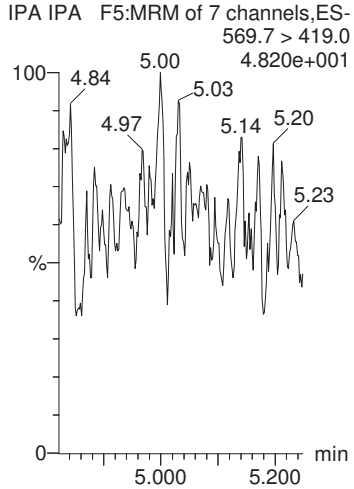

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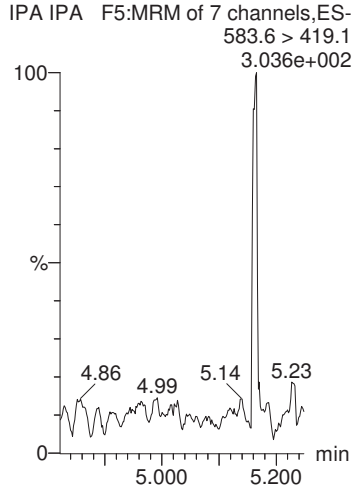

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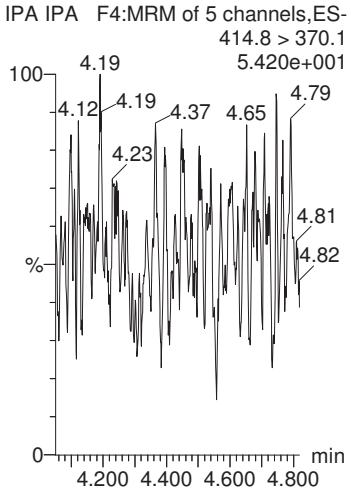

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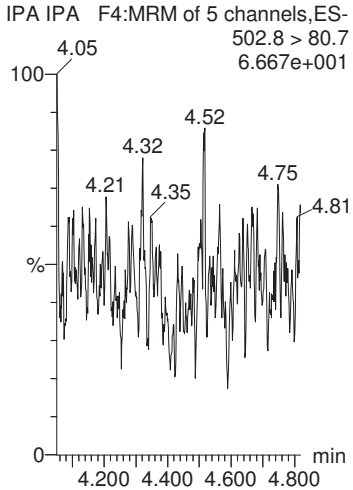

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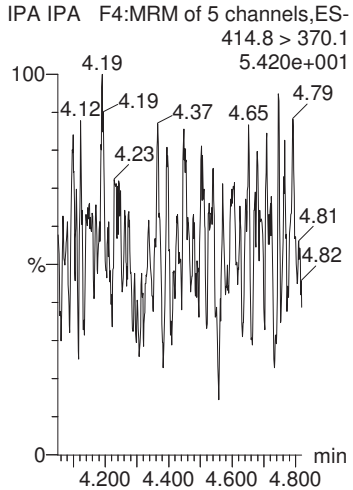

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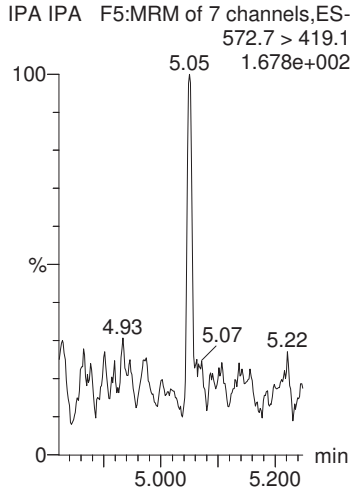

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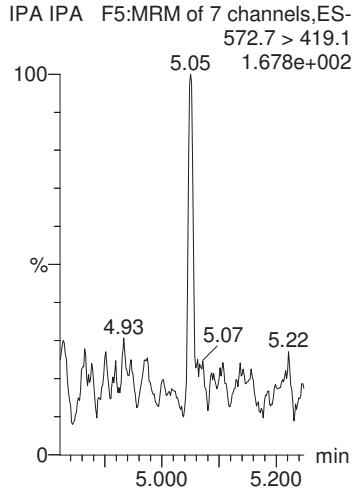

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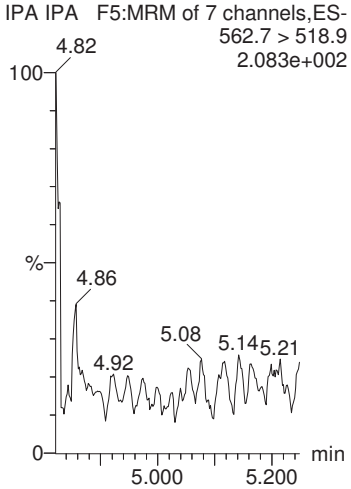

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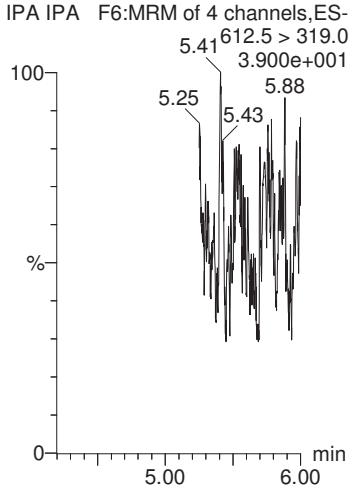

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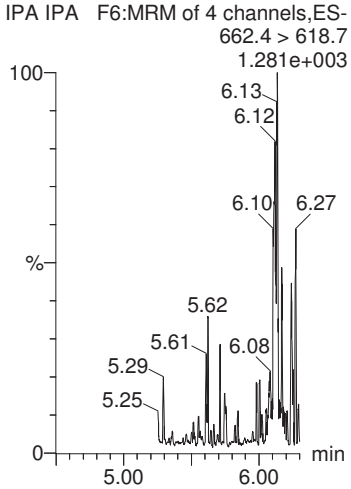

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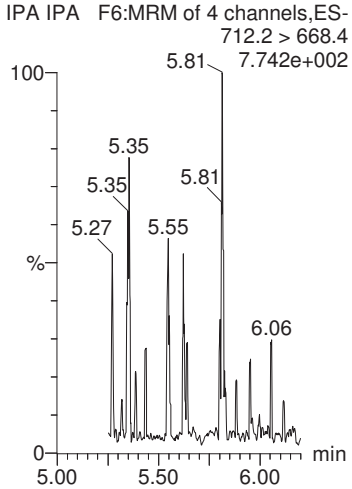

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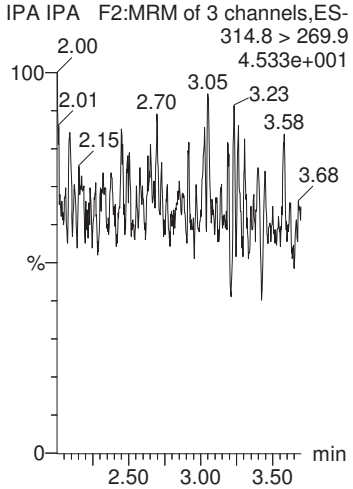

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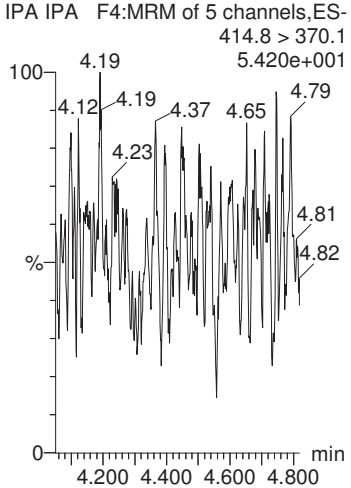

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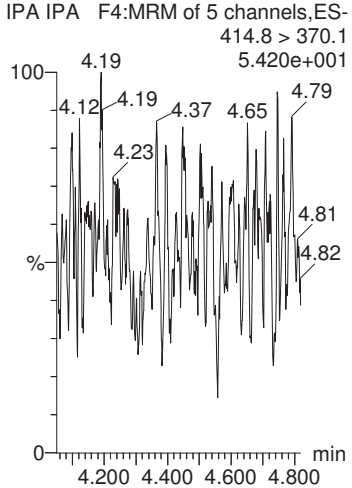

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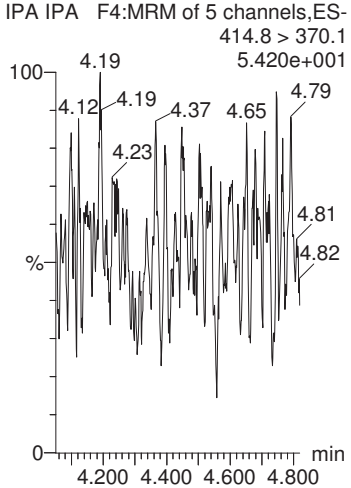

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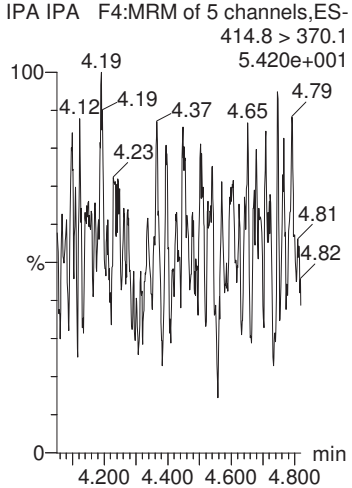

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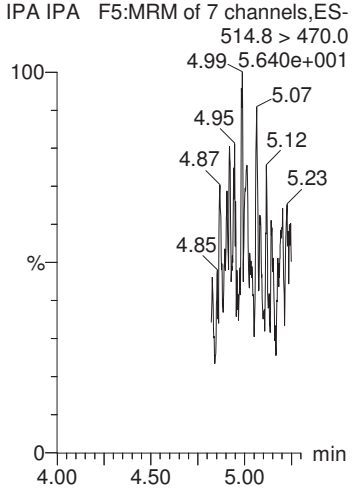

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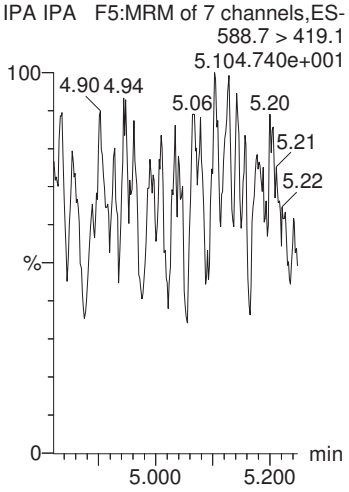

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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 10:35	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 10:35	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 10:35	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 10:35	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 10:35	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 10:35	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 10:35	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	CH2M_ Code	Analysis_ Group	Analytical_ Method	PRC_Code	Lab_Code	Lab_Name	Leachate_ Method	Sample_ Basis	Extraction_ Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_ Date	Leachate_ Time
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:18	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:20	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:46	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 11:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	CH2M_ Code	Analysis_ Group	Analytical_ Method	PRC_Code	Lab_Code	Lab_Name	Leachate_ Method	Sample_ Basis	Extraction_ Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_ Date	Leachate_ Time
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:03	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 12:05	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:19	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:19	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:19	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:21	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:21	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:21	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:21	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:21	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:21	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:21	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:21	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	CH2M_ Code	Analysis_ Group	Analytical_ Method	PRC_Code	Lab_Code	Lab_Name	Leachate_ Method	Sample_ Basis	Extraction_ Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_ Date	Leachate_ Time
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:55	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 14:57	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:48	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:48	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:50	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:50	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:50	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:50	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 15:50	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	CH2M_ Code	Analysis_ Group	Analytical_ Method	PRC_Code	Lab_Code	Lab_Name	Leachate_ Method	Sample_ Basis	Extraction_ Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_ Date	Leachate_ Time
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:25	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:27	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:40	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/13/2018 16:45	07/14/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	CH2M_ Code	Analysis_ Group	Analytical_ Method	PRC_Code	Lab_Code	Lab_Name	Leachate_ Method	Sample_ Basis	Extraction_ Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_ Date	Leachate_ Time
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2018 08:30	07/18/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/13/2018 16:40	07/18/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Extraction_ Date	Extraction_ Time	Analysis_ Date	Analysis_ Time	Lab_ Sample_ID	Dilution	Run_ Number	Percent_ Moisture	Percent_ Lipid	Chem_Name	Analyte_ID	Analyte_ Value	Original_ Analyte_ Value	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			13C2-PFHxA	13C2-PFHxA		96.5	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			13C2-PFDA	13C2-PFDA		85.5	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718	20180718	08:30:00	20180720	18:44:00	1801762-01	1	-999			d5-EtFOSAA	d5-EtFOSAA		92.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			13C2-PFHxA	13C2-PFHxA		93.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			13C2-PFDA	13C2-PFDA		87.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718	20180718	08:30:00	20180720	18:57:00	1801762-02	1	-999			d5-EtFOSAA	d5-EtFOSAA		92.4	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			13C2-PFHxA	13C2-PFHxA		88.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			13C2-PFDA	13C2-PFDA		87.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718	20180718	08:30:00	20180720	19:10:00	1801762-03	1	-999			d5-EtFOSAA	d5-EtFOSAA		94.9	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			13C2-PFHxA	13C2-PFHxA		86.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			13C2-PFDA	13C2-PFDA		86.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718	20180718	08:30:00	20180720	19:23:00	1801762-04	1	-999			d5-EtFOSAA	d5-EtFOSAA		105	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.02	NG_L	U

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Extraction_ Date	Extraction_ Time	Analysis_ Date	Analysis_ Time	Lab_ Sample_ID	Dilution	Run_ Number	Percent_ Moisture	Percent_ Lipid	Chem_Name	Analyte_ID	Analyte_ Value	Original_ Analyte_ Value	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			13C2-PFHxA	13C2-PFHxA		92.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			13C2-PFDA	13C2-PFDA		91.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718	20180718	08:30:00	20180720	19:36:00	1801762-05	1	-999			d5-EtFOSAA	d5-EtFOSAA		90.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			13C2-PFHxA	13C2-PFHxA		89.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			13C2-PFDA	13C2-PFDA		87.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718	20180718	08:30:00	20180720	19:48:00	1801762-06	1	-999			d5-EtFOSAA	d5-EtFOSAA		97.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			13C2-PFHxA	13C2-PFHxA		98.2	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			13C2-PFDA	13C2-PFDA		88.2	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718	20180718	08:30:00	20180720	20:01:00	1801762-07	1	-999			d5-EtFOSAA	d5-EtFOSAA		99.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			13C2-PFHxA	13C2-PFHxA		95.2	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			13C2-PFDA	13C2-PFDA		89.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718	20180718	08:30:00	20180720	20:14:00	1801762-08	1	-999			d5-EtFOSAA	d5-EtFOSAA		99.9	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.08	NG_L	U

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Extraction_ Date	Extraction_ Time	Analysis_ Date	Analysis_ Time	Lab_ Sample_ID	Dilution	Run_ Number	Percent_ Moisture	Percent_ Lipid	Chem_Name	Analyte_ID	Analyte_ Value	Original_ Analyte_ Value	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.08	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			13C2-PFHxA	13C2-PFHxA		94.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			13C2-PFDA	13C2-PFDA		90.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718	20180718	08:30:00	20180720	20:27:00	1801762-09	1	-999			d5-EtFOSAA	d5-EtFOSAA		97.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			13C2-PFHxA	13C2-PFHxA		97.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			13C2-PFDA	13C2-PFDA		91.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718	20180718	08:30:00	20180720	20:40:00	1801762-10	1	-999			d5-EtFOSAA	d5-EtFOSAA		91.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			13C2-PFHxA	13C2-PFHxA		95.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			13C2-PFDA	13C2-PFDA		83.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718	20180718	08:30:00	20180720	20:52:00	1801762-11	1	-999			d5-EtFOSAA	d5-EtFOSAA		81.2	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			13C2-PFHxA	13C2-PFHxA		91.4	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			13C2-PFDA	13C2-PFDA		83.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718	20180718	08:30:00	20180720	21:05:00	1801762-12	1	-999			d5-EtFOSAA	d5-EtFOSAA		102	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.02	NG_L	U

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Extraction_ Date	Extraction_ Time	Analysis_ Date	Analysis_ Time	Lab_ Sample_ID	Dilution	Run_ Number	Percent_ Moisture	Percent_ Lipid	Chem_Name	Analyte_ID	Analyte_ Value	Original_ Analyte_ Value	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.02	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			13C2-PFHxA	13C2-PFHxA		93.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			13C2-PFDA	13C2-PFDA		89.2	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718	20180718	08:30:00	20180720	21:18:00	1801762-13	1	-999			d5-EtFOSAA	d5-EtFOSAA		95.9	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			13C2-PFHxA	13C2-PFHxA		93.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			13C2-PFDA	13C2-PFDA		86.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718	20180718	08:30:00	20180720	21:31:00	1801762-14	1	-999			d5-EtFOSAA	d5-EtFOSAA		109	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.04	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			13C2-PFHxA	13C2-PFHxA		91.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			13C2-PFDA	13C2-PFDA		84.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718	20180718	08:30:00	20180720	21:44:00	1801762-15	1	-999			d5-EtFOSAA	d5-EtFOSAA		92.9	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			13C2-PFHxA	13C2-PFHxA		93.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			13C2-PFDA	13C2-PFDA		87.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718	20180718	08:30:00	20180720	21:56:00	1801762-16	1	-999			d5-EtFOSAA	d5-EtFOSAA		107	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.19	NG_L	U

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Extraction_ Date	Extraction_ Time	Analysis_ Date	Analysis_ Time	Lab_ Sample_ID	Dilution	Run_ Number	Percent_ Moisture	Percent_ Lipid	Chem_Name	Analyte_ID	Analyte_ Value	Original_ Analyte_ Value	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.19	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			13C2-PFHxA	13C2-PFHxA		95.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			13C2-PFDA	13C2-PFDA		89.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718	20180718	08:30:00	20180720	22:09:00	1801762-17	1	-999			d5-EtFOSAA	d5-EtFOSAA		83.5	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			13C2-PFHxA	13C2-PFHxA		88.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			13C2-PFDA	13C2-PFDA		89.5	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718	20180718	08:30:00	20180720	22:22:00	1801762-18	1	-999			d5-EtFOSAA	d5-EtFOSAA		90.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.25	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			13C2-PFHxA	13C2-PFHxA		91.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			13C2-PFDA	13C2-PFDA		83.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718	20180718	08:30:00	20180720	22:35:00	1801762-19	1	-999			d5-EtFOSAA	d5-EtFOSAA		90.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.10	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			13C2-PFHxA	13C2-PFHxA		89.9	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			13C2-PFDA	13C2-PFDA		83.2	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718	20180718	08:30:00	20180720	22:48:00	1801762-20	1	-999			d5-EtFOSAA	d5-EtFOSAA		88.2	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.00	NG_L	U

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Extraction_ Date	Extraction_ Time	Analysis_ Date	Analysis_ Time	Lab_ Sample_ID	Dilution	Run_ Number	Percent_ Moisture	Percent_ Lipid	Chem_Name	Analyte_ID	Analyte_ Value	Original_ Analyte_ Value	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			13C2-PFHxA	13C2-PFHxA		93.4	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			13C2-PFDA	13C2-PFDA		87.5	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180718	08:30:00	20180720	16:36:00	B8G0137-BLK1	1	-999			d5-EtFOSAA	d5-EtFOSAA		94.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		77.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		79.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		81.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		73.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		80.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		75.2	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		76.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		74.2	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		83.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		83.3	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		79.0	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		72.3	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		74.3	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		68.5	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			13C2-PFHxA	13C2-PFHxA		99.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			13C2-PFDA	13C2-PFDA		98.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180718	08:30:00	20180720	16:49:00	B8G0137-BS1	1	-999			d5-EtFOSAA	d5-EtFOSAA		93.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		81.7	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		82.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		85.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		81.2	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		91.5	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		76.1	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		75.5	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		77.2	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		86.1	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		82.8	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		77.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		73.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		74.1	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		71.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			13C2-PFHxA	13C2-PFHxA		95.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			13C2-PFDA	13C2-PFDA		91.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS	20180718	08:30:00	20180720	18:19:00	B8G0137-MS1	1	-999			d5-EtFOSAA	d5-EtFOSAA		83.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		82.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		80.8	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		81.7	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		78.9	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		79.9	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		73.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		76.2	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		70.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		76.0	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		68.3	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		78.3	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		73.5	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		73.5	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		74.9	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			13C2-PFHxA	13C2-PFHxA		98.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			13C2-PFDA	13C2-PFDA		92.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD	20180718	08:30:00	20180720	18:31:00	B8G0137-MSD1	1	-999			d5-EtFOSAA	d5-EtFOSAA		77.6	PCT_REC	

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_ Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_ Accuracy_ Upper	QC_ Accuracy_ Lower	Control_ Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	TRG									5.1	3.00	4.92	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW01-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	TRG									5.1	3.02	4.96	9.94	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB01-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW02-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	TRG									5.1	2.99	4.92	9.82	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB02-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_ Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_ Accuracy_ Upper	QC_ Accuracy_ Lower	Control_ Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	TRG									5.1	3.06	5.02	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW03-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	TRG									5.1	3.10	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB03-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW04-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	TRG									5.1	3.00	4.94	9.86	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB04-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_ Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_ Accuracy_ Upper	QC_ Accuracy_ Lower	Control_ Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	TRG									5.1	3.09	5.08	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW05-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	TRG									5.1	2.96	4.88	9.75	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB05-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	TRG									5.1	3.07	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW06-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	TRG									5.1	3.20	5.27	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB06-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_ Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_ Accuracy_ Upper	QC_ Accuracy_ Lower	Control_ Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	TRG									5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW07-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB07-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	TRG									5.1	3.06	5.04	10.1	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW08-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	TRG									5.1	3.01	4.96	9.92	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB08-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_ Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_ Accuracy_ Upper	QC_ Accuracy_ Lower	Control_ Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	TRG									5.1	3.15	5.19	10.4	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW09-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	TRG									5.1	3.05	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB09-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	TRG									5.1	3.19	5.25	10.5	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	TRG									5.1	3.11	5.10	10.2	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB10-0718		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_ Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_ Accuracy_ Upper	QC_ Accuracy_ Lower	Control_ Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	SURR		SLSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	SURR		LSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	SURR		LSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	SURR		LSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	TRG		LSA	130	70					5.1	3.23	5.32	10.6	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	SURR		LSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	SURR		LSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MS		PR	SURR		LSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	SURR		LSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	SURR		LSA	130	70					5.1				1801762	S8G0062		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW10-0718-MSD		PR	SURR		LSA	130	70					5.1				1801762	S8G0062		

ENVIRONMENTAL
Data Services, Inc.

DATA VALIDATION SUMMARY REPORT
NRL-CBD, MARYLAND

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 1801762
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: NRL-CBD, CTO-0008, Maryland
Date: August 13, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	CBD-1RW01-0718	1801762-01	Water
2	CBD-1FB01-0718	1801762-02	Water
3	CBD-1RW02-0718	1801762-03	Water
4	CBD-1FB02-0718	1801762-04	Water
5	CBD-1RW03-0718	1801762-05	Water
6	CBD-1FB03-0718	1801762-06	Water
7	CBD-1RW04-0718	1801762-07	Water
8	CBD-1FB04-0718	1801762-08	Water
9	CBD-1RW05-0718	1801762-09	Water
10	CBD-1FB05-0718	1801762-10	Water
11	CBD-1RW06-0718	1801762-11	Water
12	CBD-1FB06-0718	1801762-12	Water
13	CBD-1RW07-0718	1801762-13	Water
14	CBD-1FB07-0718	1801762-14	Water
15	CBD-1RW08-0718	1801762-15	Water
16	CBD-1FB08-0718	1801762-16	Water
17	CBD-1RW09-0718	1801762-17	Water
18	CBD-1FB09-0718	1801762-18	Water
19	CBD-1RW10-0718	1801762-19	Water
20	CBD-1FB10-0718	1801762-20	Water

A full data validation was performed on the analytical data for ten water samples and ten aqueous field blank samples collected on July 13, 2018 by CH2M HILL at the NRL-CBD site in Maryland. 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	*Method References*
PFCs	USEPA Method 537, Rev 1.1

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, and the U.S. Department of Defense (DoD) Quality Systems Manual (QSM),

Version 5.1 (2017) and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Organic Superfund 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
- Liquid Chromatography/Mass Spectrometry (LC/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 is acceptable for the intended purposes. There were no qualifications.

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.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent recovery (%R) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- Field QC samples were free of contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
CBD-1FB01-0718	None - ND	-	-	-
CBD-1FB02-0718	None - ND	-	-	-
CBD-1FB03-0718	None - ND	-	-	-
CBD-1FB04-0718	None - ND	-	-	-
CBD-1FB05-0718	None - ND	-	-	-
CBD-1FB06-0718	None - ND	-	-	-
CBD-1FB07-0718	None - ND	-	-	-
CBD-1FB08-0718	None - ND	-	-	-
CBD-1FB09-0718	None - ND	-	-	-
CBD-1FB10-0718	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/Laboratory Control Sample Duplicates

- The LCS/LCSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 8/13/18

Nancy Weaver
Senior Chemist

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.

Vista Analytical Laboratory

Sample ID: CBD-1RW01-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 09:50

Laboratory Data

Lab Sample: 1801762-01
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFHxA	307-24-4	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFHpA	375-85-9	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFHxS	355-46-4	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFOA	335-67-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFNA	375-95-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFOS	1763-23-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFDA	335-76-2	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
MeFOSAA	2355-31-9	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
EtFOSAA	2991-50-6	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFUnA	2058-94-8	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFDoA	307-55-1	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFTrDA	72629-94-8	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
PFTeDA	376-06-7	ND	3.00	4.92	9.86		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.5	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
13C2-PFDA	SURR	85.5	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1
d5-EtFOSAA	SURR	92.0	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 18:44	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB01-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 09:55

Laboratory Data

Lab Sample: 1801762-02
Date Received: 14-Jul-18 08:57
Column: BEH C18

2

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFHxA	307-24-4	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFHpA	375-85-9	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFHxS	355-46-4	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFOA	335-67-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFNA	375-95-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFOS	1763-23-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFDA	335-76-2	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
MeFOSAA	2355-31-9	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
EtFOSAA	2991-50-6	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFUnA	2058-94-8	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFDoA	307-55-1	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFTrDA	72629-94-8	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
PFTeDA	376-06-7	ND	3.02	4.96	9.94		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.8	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
13C2-PFDA	SURR	87.7	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1
d5-EtFOSAA	SURR	92.4	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 18:57	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW02-0718 **EPA Method 537**

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 10:31

Laboratory Data

Lab Sample: 1801762-03
Date Received: 14-Jul-18 08:57
Column: BEH C18

3

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFHxA	307-24-4	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFHpA	375-85-9	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFHxS	355-46-4	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFOA	335-67-1	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFNA	375-95-1	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFOS	1763-23-1	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFDA	335-76-2	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
MeFOSAA	2355-31-9	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
EtFOSAA	2991-50-6	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFUnA	2058-94-8	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFDoA	307-55-1	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFTrDA	72629-94-8	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
PFTeDA	376-06-7	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	88.1	70 - 130		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
13C2-PFDA	SURR	87.1	70 - 130		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1
d5-EtFOSAA	SURR	94.9	70 - 130		B8G0137	18-Jul-18	0.248 L	20-Jul-18 19:10	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB02-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 10:35

Laboratory Data

Lab Sample: 1801762-04
Date Received: 14-Jul-18 08:57
Column: BEH C18

4

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFHxA	307-24-4	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFHpA	375-85-9	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFHxS	355-46-4	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFOA	335-67-1	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFNA	375-95-1	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFOS	1763-23-1	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFDA	335-76-2	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
MeFOSAA	2355-31-9	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
EtFOSAA	2991-50-6	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFUnA	2058-94-8	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFDoA	307-55-1	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFTrDA	72629-94-8	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
PFTeDA	376-06-7	ND	2.99	4.92	9.82		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	86.7	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
13C2-PFDA	SURR	86.6	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1
d5-EtFOSAA	SURR	105	70 - 130		B8G0137	18-Jul-18	0.254 L	20-Jul-18 19:23	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL.
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW03-0718

EPA Method 537

5

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:18

Laboratory Data

Lab Sample: 1801762-05
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFHxA	307-24-4	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFHpA	375-85-9	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFHxS	355-46-4	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFOA	335-67-1	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFNA	375-95-1	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFOS	1763-23-1	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFDA	335-76-2	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
MeFOSAA	2355-31-9	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
EtFOSAA	2991-50-6	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFUnA	2058-94-8	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFDoA	307-55-1	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFTrDA	72629-94-8	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
PFTeDA	376-06-7	ND	3.06	5.02	10.1		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	92.1	70 - 130		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
13C2-PFDA	SURR	91.7	70 - 130		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1
d5-EtFOSAA	SURR	90.3	70 - 130		B8G0137	18-Jul-18	0.249 L	20-Jul-18 19:36	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB03-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:20

Laboratory Data

Lab Sample: 1801762-06
Date Received: 14-Jul-18 08:57
Column: BEH C18

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Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFHxA	307-24-4	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFHpA	375-85-9	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFHxS	355-46-4	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFOA	335-67-1	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFNA	375-95-1	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFOS	1763-23-1	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFDA	335-76-2	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
MeFOSAA	2355-31-9	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
EtFOSAA	2991-50-6	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFUnA	2058-94-8	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFDoA	307-55-1	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFTrDA	72629-94-8	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
PFTeDA	376-06-7	ND	3.10	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	89.8	70 - 130		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
13C2-PFDA	SURR	87.6	70 - 130		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1
d5-EtFOSAA	SURR	97.1	70 - 130		B8G0137	18-Jul-18	0.245 L	20-Jul-18 19:48	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW04-0718

EPA Method 537

7

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:46

Laboratory Data

Lab Sample: 1801762-07
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFHxA	307-24-4	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFHpA	375-85-9	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFHxS	355-46-4	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFOA	335-67-1	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFNA	375-95-1	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFOS	1763-23-1	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFDA	335-76-2	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
MeFOSAA	2355-31-9	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
EtFOSAA	2991-50-6	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFUnA	2058-94-8	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFDoA	307-55-1	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFTrDA	72629-94-8	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
PFTeDA	376-06-7	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.2	70 - 130		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
13C2-PFDA	SURR	88.2	70 - 130		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1
d5-EtFOSAA	SURR	99.3	70 - 130		B8G0137	18-Jul-18	0.241 L	20-Jul-18 20:01	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

MW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB04-0718

EPA Method 537

8

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 11:48

Laboratory Data

Lab Sample: 1801762-08
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFHxA	307-24-4	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFHpA	375-85-9	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFHxS	355-46-4	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFOA	335-67-1	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFNA	375-95-1	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFOS	1763-23-1	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFDA	335-76-2	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
MeFOSAA	2355-31-9	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
EtFOSAA	2991-50-6	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFUnA	2058-94-8	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFDoA	307-55-1	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFTrDA	72629-94-8	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
PFTeDA	376-06-7	ND	3.00	4.94	9.86		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.2	70 - 130		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
13C2-PFDA	SURR	89.0	70 - 130		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1
d5-EtFOSAA	SURR	99.9	70 - 130		B8G0137	18-Jul-18	0.253 L	20-Jul-18 20:14	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW05-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 12:03

Laboratory Data

Lab Sample: 1801762-09
Date Received: 14-Jul-18 08:57
Column: BEH C18

9

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFHxA	307-24-4	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFHpA	375-85-9	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFHxS	355-46-4	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFOA	335-67-1	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFNA	375-95-1	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFOS	1763-23-1	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFDA	335-76-2	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
MeFOSAA	2355-31-9	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
EtFOSAA	2991-50-6	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFUnA	2058-94-8	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFDoA	307-55-1	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFTrDA	72629-94-8	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
PFTeDA	376-06-7	ND	3.09	5.08	10.2		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	94.7	70 - 130		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
13C2-PFDA	SURR	90.3	70 - 130		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1
d5-EtFOSAA	SURR	97.0	70 - 130		B8G0137	18-Jul-18	0.246 L	20-Jul-18 20:27	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB05-0718 **EPA Method 537**

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 12:05

Laboratory Data

Lab Sample: 1801762-10
Date Received: 14-Jul-18 08:57
Column: BEH C18

10

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFHxA	307-24-4	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFHpA	375-85-9	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFHxS	355-46-4	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFOA	335-67-1	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFNA	375-95-1	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFOS	1763-23-1	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFDA	335-76-2	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
MeFOSAA	2355-31-9	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
EtFOSAA	2991-50-6	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFUnA	2058-94-8	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFDoA	307-55-1	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFTrDA	72629-94-8	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
PFTeDA	376-06-7	ND	2.96	4.88	9.75		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	97.6	70 - 130		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
13C2-PFDA	SURR	91.1	70 - 130		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1
d5-EtFOSAA	SURR	91.6	70 - 130		B8G0137	18-Jul-18	0.256 L	20-Jul-18 20:40	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW06-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 14:19

Laboratory Data

Lab Sample: 1801762-11
Date Received: 14-Jul-18 08:57
Column: BEH C18

11

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFHxA	307-24-4	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFHpA	375-85-9	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFHxS	355-46-4	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFOA	335-67-1	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFNA	375-95-1	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFOS	1763-23-1	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFDA	335-76-2	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
MeFOSAA	2355-31-9	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
EtFOSAA	2991-50-6	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFUnA	2058-94-8	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFDoA	307-55-1	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFTrDA	72629-94-8	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
PFTeDA	376-06-7	ND	3.07	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.7	70 - 130		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
13C2-PFDA	SURR	83.0	70 - 130		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1
d5-EtFOSAA	SURR	81.2	70 - 130		B8G0137	18-Jul-18	0.248 L	20-Jul-18 20:52	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB06-0718

EPA Method 537

12

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 14:21

Laboratory Data

Lab Sample: 1801762-12
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFHxA	307-24-4	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFHpA	375-85-9	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFHxS	355-46-4	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFOA	335-67-1	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFNA	375-95-1	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFOS	1763-23-1	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFDA	335-76-2	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
MeFOSAA	2355-31-9	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
EtFOSAA	2991-50-6	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFUnA	2058-94-8	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFDoA	307-55-1	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFTrDA	72629-94-8	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
PFTeDA	376-06-7	ND	3.20	5.27	10.5		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	91.4	70 - 130		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
13C2-PFDA	SURR	83.1	70 - 130		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1
d5-EtFOSAA	SURR	102	70 - 130		B8G0137	18-Jul-18	0.237 L	20-Jul-18 21:05	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW07-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 14:55

Laboratory Data

Lab Sample: 1801762-13
Date Received: 14-Jul-18 08:57
Column: BEH C18

13

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFHxA	307-24-4	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFHpA	375-85-9	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFHxS	355-46-4	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFOA	335-67-1	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFNA	375-95-1	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFOS	1763-23-1	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFDA	335-76-2	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
MeFOSAA	2355-31-9	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
EtFOSAA	2991-50-6	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFUnA	2058-94-8	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFDoA	307-55-1	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFTrDA	72629-94-8	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
PFTeDA	376-06-7	ND	3.05	5.02	10.0		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.6	70 - 130		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
13C2-PFDA	SURR	89.2	70 - 130		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1
d5-EtFOSAA	SURR	95.9	70 - 130		B8G0137	18-Jul-18	0.249 L	20-Jul-18 21:18	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB07-0718

EPA Method 537

14

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 14:57

Laboratory Data

Lab Sample: 1801762-14
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFHxA	307-24-4	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFHpA	375-85-9	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFHxS	355-46-4	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFOA	335-67-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFNA	375-95-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFOS	1763-23-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFDA	335-76-2	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
MeFOSAA	2355-31-9	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
EtFOSAA	2991-50-6	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFUnA	2058-94-8	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFDoA	307-55-1	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFTrDA	72629-94-8	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
PFTeDA	376-06-7	ND	3.04	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.1	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
13C2-PFDA	SURR	86.8	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1
d5-EtFOSAA	SURR	109	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 21:31	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW08-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 15:48

Laboratory Data

Lab Sample: 1801762-15
Date Received: 14-Jul-18 08:57
Column: BEH C18

15

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFHxA	307-24-4	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFHpA	375-85-9	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFHxS	355-46-4	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFOA	335-67-1	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFNA	375-95-1	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFOS	1763-23-1	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFDA	335-76-2	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
MeFOSAA	2355-31-9	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
EtFOSAA	2991-50-6	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFUnA	2058-94-8	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFDoA	307-55-1	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFTrDA	72629-94-8	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
PFTeDA	376-06-7	ND	3.06	5.04	10.1		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	91.6	70 - 130		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
13C2-PFDA	SURR	84.3	70 - 130		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1
d5-EtFOSAA	SURR	92.9	70 - 130		B8G0137	18-Jul-18	0.248 L	20-Jul-18 21:44	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB08-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 15:50

Laboratory Data

Lab Sample: 1801762-16
Date Received: 14-Jul-18 08:57
Column: BEH C18

16

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFHxA	307-24-4	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFHpA	375-85-9	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFHxS	355-46-4	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFOA	335-67-1	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFNA	375-95-1	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFOS	1763-23-1	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFDA	335-76-2	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
MeFOSAA	2355-31-9	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
EtFOSAA	2991-50-6	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFUnA	2058-94-8	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFDoA	307-55-1	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFTrDA	72629-94-8	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
PFTeDA	376-06-7	ND	3.01	4.96	9.92		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.0	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
13C2-PFDA	SURR	87.8	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1
d5-EtFOSAA	SURR	107	70 - 130		B8G0137	18-Jul-18	0.252 L	20-Jul-18 21:56	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW09-0718

EPA Method 537

17

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:25

Laboratory Data

Lab Sample: 1801762-17
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFHxA	307-24-4	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFHpA	375-85-9	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFHxS	355-46-4	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFOA	335-67-1	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFNA	375-95-1	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFOS	1763-23-1	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFDA	335-76-2	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
MeFOSAA	2355-31-9	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
EtFOSAA	2991-50-6	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFUnA	2058-94-8	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFDoA	307-55-1	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFTrDA	72629-94-8	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
PFTeDA	376-06-7	ND	3.15	5.19	10.4		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.6	70 - 130		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
13C2-PFDA	SURR	89.6	70 - 130		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1
d5-EtFOSAA	SURR	83.5	70 - 130		B8G0137	18-Jul-18	0.241 L	20-Jul-18 22:09	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

MW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB09-0718

EPA Method 537

18

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:27

Laboratory Data

Lab Sample: 1801762-18
Date Received: 14-Jul-18 08:57
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFHxA	307-24-4	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFHpA	375-85-9	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFHxS	355-46-4	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFOA	335-67-1	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFNA	375-95-1	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFOS	1763-23-1	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFDA	335-76-2	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
MeFOSAA	2355-31-9	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
EtFOSAA	2991-50-6	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFUnA	2058-94-8	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFDoA	307-55-1	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFTrDA	72629-94-8	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
PFTeDA	376-06-7	ND	3.05	5.00	10.0		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	88.8	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
13C2-PFDA	SURR	89.5	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1
d5-EtFOSAA	SURR	90.1	70 - 130		B8G0137	18-Jul-18	0.250 L	20-Jul-18 22:22	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW10-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:40

Laboratory Data

Lab Sample: 1801762-19
Date Received: 14-Jul-18 08:57
Column: BEH C18

19

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFHxA	307-24-4	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFHpA	375-85-9	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFHxS	355-46-4	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFOA	335-67-1	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFNA	375-95-1	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFOS	1763-23-1	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFDA	335-76-2	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
MeFOSAA	2355-31-9	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
EtFOSAA	2991-50-6	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFUnA	2058-94-8	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFDoA	307-55-1	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFTrDA	72629-94-8	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
PFTeDA	376-06-7	ND	3.19	5.25	10.5		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	91.0	70 - 130		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
13C2-PFDA	SURR	83.1	70 - 130		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1
d5-EtFOSAA	SURR	90.3	70 - 130		B8G0137	18-Jul-18	0.238 L	20-Jul-18 22:35	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL.
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB10-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS DW Investigation CTO-08 NRL CBD
Matrix: Drinking Water
Date Collected: 13-Jul-18 16:45

Laboratory Data

Lab Sample: 1801762-20
Date Received: 14-Jul-18 08:57
Column: BEH C18

20

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFHxA	307-24-4	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFHpA	375-85-9	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFHxS	355-46-4	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFOA	335-67-1	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFNA	375-95-1	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFOS	1763-23-1	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFDA	335-76-2	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
MeFOSAA	2355-31-9	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
EtFOSAA	2991-50-6	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFUnA	2058-94-8	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFDoA	307-55-1	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFTrDA	72629-94-8	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
PFTeDA	376-06-7	ND	3.11	5.10	10.2		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1

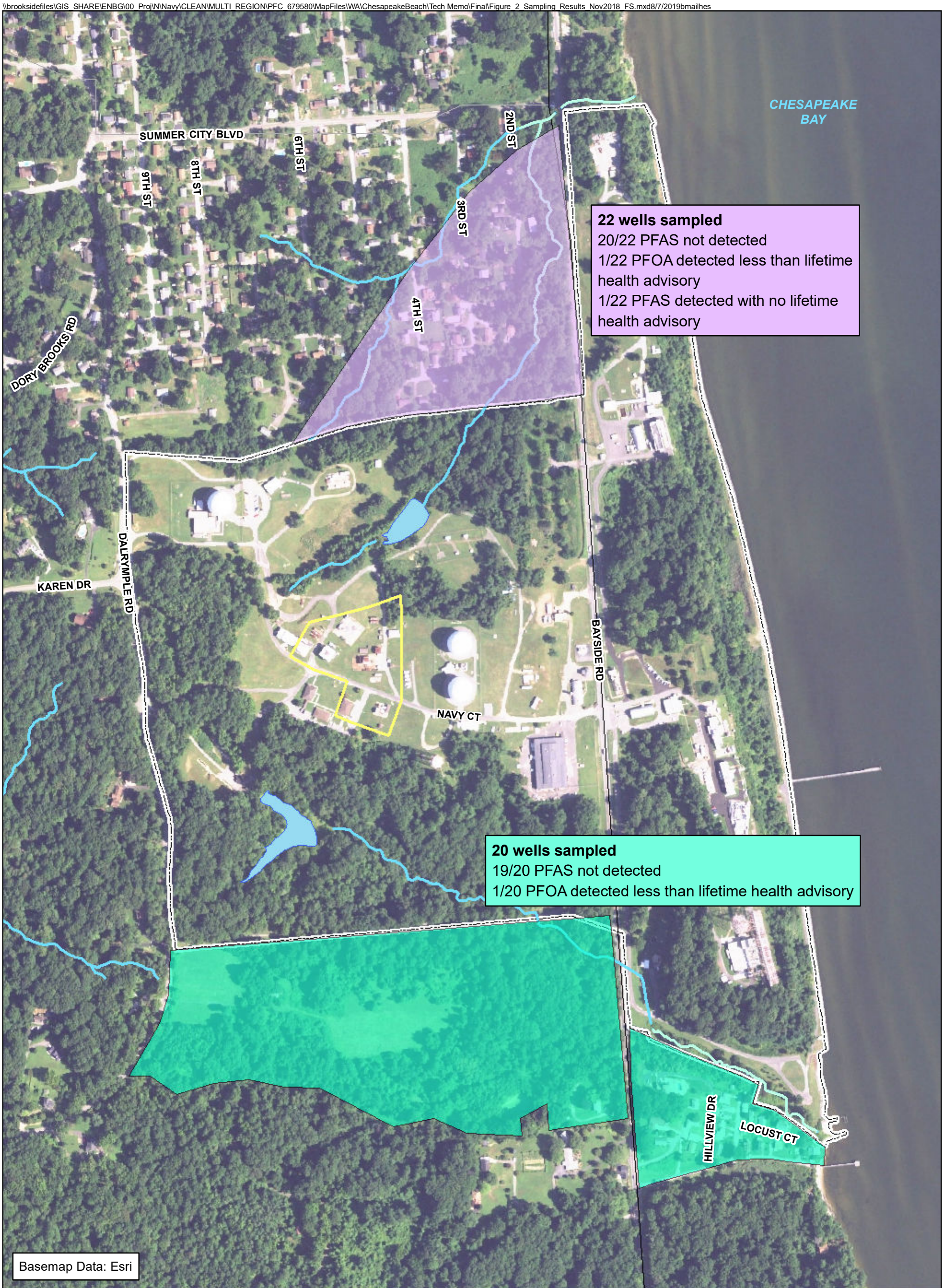
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	89.9	70 - 130		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
13C2-PFDA	SURR	83.2	70 - 130		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1
d5-EtFOSAA	SURR	88.2	70 - 130		B8G0137	18-Jul-18	0.245 L	20-Jul-18 22:48	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

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

NW 8/13/18

\\brooksidefiles\GIS_SHARE\ENBG\00_Proj\N\Navy\CLEAN\MULTI_REGION\PFC_679580\MapFiles\WA\ChesapeakeBeach\Tech Memo\Final\Figure_2_Sampling_Results_Nov2018_FS.mxd8/7/2019bmailhes



Legend

- Sampling Area
- Sampling Area
- Fire Testing Area (suspected source)
- Base Boundary
- Surface Water
- Assumed Stream Channel
- Stream

N

0 200 400 Feet

1 inch equals 400 feet

Figure 2
Off-Base Drinking Water Sampling Results through November 2018
NRL-Chesapeake Bay Detachment
Chesapeake Beach, Maryland