



**Groundwater Investigation Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
and the Sample Location Figure, SDG 1700355**

*Naval Research Laboratory – Chesapeake Bay
Detachment*

Chesapeake Beach, Maryland

February 2019

April 04, 2017

Vista Work Order No. 1700355

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 March 22, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name 'NRL-CBD PFAS'.

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

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

Sincerely,



Martha Maier
Laboratory Director



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

Vista Work Order No. 1700355

Case Narrative

Sample Condition on Receipt:

Thirteen groundwater samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

Modified EPA Method 537

The samples contained particulate and were centrifuged prior to the original extraction. Sample "CBD-AOA-MW01-0317", "CBD-AOA-MW02-0317", "CBD-AOA-MW03-0317" and "CBD-AOA-MW04-0317" required re-extraction (batch B7C0138) of a 1 mL aliquot. The results for PFOA and PFOS were reported from the re-extractions. In addition, the PFBS result for sample "CBD-AOA-MW03-0317" was reported from the re-extraction.

The aqueous samples were extracted and analyzed for PFBS, PFOA and PFOS using Modified EPA Method 537.

Holding Times

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

Quality Control

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

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The OPR recoveries were within the method acceptance criteria

The labeled standard recoveries outside the acceptance criteria are listed in the table below. The interferences that affected the recoveries did not affect the quantification of the associated analytes.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1700355-10	CBD-AOA-MW01-0317	Modified EPA Method 537	13C3-PFBS	H	255
1700355-11	CBD-AOA-MW02-0317	Modified EPA Method 537	13C3-PFBS	H	261
1700355-12	CBD-AOA-MW04-0317	Modified EPA Method 537	13C3-PFBS	H	266
1700355-13	CBD-AOA-MW03-0317	Modified EPA Method 537	13C8-PFOS	H	160

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1700355-01	CBD-BKG-MW02-0317	20-Mar-17 11:00	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-02	CBD-EB01-032017	20-Mar-17 11:40	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-03	CBD-BKG-MW01-0317	20-Mar-17 13:30	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-04	CBD-BKG-MW01P-0317	20-Mar-17 13:35	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-05	CBD-BKG-MW03-0317	20-Mar-17 16:05	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-06	CBD-AOA-MW10-0317	21-Mar-17 09:10	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-07	CBD-AOA-MW10P-0317	21-Mar-17 09:15	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-08	CBD-EB01-032117	21-Mar-17 10:05	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-09	CBD-FB01-032117	21-Mar-17 10:30	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-10	CBD-AOA-MW01-0317	21-Mar-17 11:00	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-11	CBD-AOA-MW02-0317	21-Mar-17 13:20	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-12	CBD-AOA-MW04-0317	21-Mar-17 14:45	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-13	CBD-AOA-MW03-0317	21-Mar-17 15:05	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL

ANALYTICAL RESULTS

Sample ID: Method Blank						Modified EPA Method 537			
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B7C0125 Date Extracted: 23-Mar-2017 9:58				Lab Sample: B7C0125-BLK1 Date Analyzed: 24-Mar-17 17:04 Column: BEH C18			
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.79	4.00	8.00		IS 13C3-PFBS	108	60 - 150	
PFOA	ND	0.651	2.00	8.00		IS 13C2-PFOA	118	60 - 150	
PFOS	ND	0.807	0.900	8.00		IS 13C8-PFOS	85.1	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: OPR					Modified EPA Method 537			
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B7C0125 Date Extracted: 23-Mar-2017 9:58			Lab Sample: B7C0125-BS1 Date Analyzed: 24-Mar-17 16:26 Column: BEH C18			
Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits	Labeled Standard		%R	LCL-UCL
PFBS	71.9	80.0	89.8	60 - 130	IS	13C3-PFBS	121	60 - 150
PFOA	68.0	80.0	85.0	70 - 130	IS	13C2-PFOA	121	60 - 150
PFOS	65.8	80.0	82.3	70 - 130	IS	13C8-PFOS	90.7	60 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: Method Blank						Modified EPA Method 537			
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B7C0138 Date Extracted: 27-Mar-2017 11:03				Lab Sample: B7C0138-BLK1 Date Analyzed: 28-Mar-17 16:44 Column: BEH C18			
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.79	4.00	8.00		IS 13C3-PFBS	109	60 - 150	
PFOA	ND	0.651	2.00	8.00		IS 13C2-PFOA	99.2	60 - 150	
PFOS	ND	0.807	0.900	8.00		IS 13C8-PFOS	104	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: OPR					Modified EPA Method 537			
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B7C0138 Date Extracted: 27-Mar-2017 11:03			Lab Sample: B7C0138-BS1 Date Analyzed: 28-Mar-17 14:28 Column: BEH C18			
Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits	Labeled Standard		%R	LCL-UCL
PFBS	64.3	80.0	80.4	60 - 130	IS	13C3-PFBS	121	60 - 150
PFOA	67.7	80.0	84.6	70 - 130	IS	13C2-PFOA	102	60 - 150
PFOS	66.7	80.0	83.4	70 - 130	IS	13C8-PFOS	112	60 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: CBD-BKG-MW02-0317						Modified EPA Method 537				
Client Data			Sample Data		Laboratory Data					
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-01	Date Received:	22-Mar-2017 9:03	
Project:	NRL-CBD PFAS		Sample Size:	0.126 L		QC Batch:	B7C0125	Date Extracted:	23-Mar-2017 9:58	
Date Collected:	20-Mar-2017 11:00					Date Analyzed:	24-Mar-17 17:29	Column: BEH C18		
Location:	BKG-MW02									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.77	3.97	7.91		IS	13C3-PFBS	109	60 - 150	
PFOA	ND	0.644	1.98	7.91		IS	13C2-PFOA	116	60 - 150	
PFOS	ND	0.798	0.893	7.91		IS	13C8-PFOS	104	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-EB01-032017						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-02		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.120 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 20-Mar-2017 11:40						Date Analyzed: 24-Mar-17 17:41 Column: BEH C18				
Location: Equipment Blank										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.86	4.17	8.33		IS	13C3-PFBS	89.5	60 - 150	
PFOA	ND	0.678	2.08	8.33		IS	13C2-PFOA	117	60 - 150	
PFOS	ND	0.840	0.938	8.33		IS	13C8-PFOS	96.2	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-BKG-MW01-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-03	Date Received:	22-Mar-2017 9:03	
Project:	NRL-CBD PFAS		Sample Size:	0.122 L		QC Batch:	B7C0125	Date Extracted:	23-Mar-2017 9:58	
Date Collected:	20-Mar-2017 13:30					Date Analyzed:	24-Mar-17 17:54	Column: BEH C18		
Location:	BKG-MW01									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.84	4.10	8.21		IS	13C3-PFBS	103	60 - 150	
PFOA	ND	0.668	2.05	8.21		IS	13C2-PFOA	114	60 - 150	
PFOS	5.63	0.828	0.922	8.21	J	IS	13C8-PFOS	99.8	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-BKG-MW01P-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-04		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.127 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 20-Mar-2017 13:35						Date Analyzed: 24-Mar-17 18:07 Column: BEH C18				
Location: BKG-MW01										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.76	3.94	7.88		IS	13C3-PFBS	110	60 - 150	
PFOA	ND	0.641	1.97	7.88		IS	13C2-PFOA	120	60 - 150	
PFOS	7.19	0.795	0.886	7.88	J	IS	13C8-PFOS	91.2	60 - 150	

DL - Detection limit
 RL - Reporting limit

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

Sample ID: CBD-BKG-MW03-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-05	Date Received:	22-Mar-2017 9:03	
Project:	NRL-CBD PFAS		Sample Size:	0.129 L		QC Batch:	B7C0125	Date Extracted:	23-Mar-2017 9:58	
Date Collected:	20-Mar-2017 16:05					Date Analyzed:	24-Mar-17 18:19 Column: BEH C18			
Location:	BKG-MW02									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.73	3.88	7.73		IS	13C3-PFBS	84.0	60 - 150	
PFOA	ND	0.629	1.94	7.73		IS	13C2-PFOA	118	60 - 150	
PFOS	1.30	0.780	0.872	7.73	J	IS	13C8-PFOS	99.2	60 - 150	

DL - Detection limit
 RL - Reporting limit

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

Sample ID: CBD-AOA-MW10-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-06		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.125 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 21-Mar-2017 9:10						Date Analyzed: 24-Mar-17 18:32 Column: BEH C18				
Location: BKG-MW10										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	28.7	1.80	4.00	8.03		IS	13C3-PFBS	112	60 - 150	
PFOA	365	0.653	2.00	8.03		IS	13C2-PFOA	109	60 - 150	
PFOS	341	0.810	0.900	8.03		IS	13C8-PFOS	97.6	60 - 150	

DL - Detection limit
 RL - Reporting limit

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

Sample ID: CBD-AOA-MW10P-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-07		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.123 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 21-Mar-2017 9:15						Date Analyzed: 24-Mar-17 18:45 Column: BEH C18				
Location: AOA-MW10										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	27.7	1.82	4.07	8.15		IS	13C3-PFBS	119	60 - 150	
PFOA	351	0.663	2.03	8.15		IS	13C2-PFOA	113	60 - 150	
PFOS	266	0.822	0.915	8.15		IS	13C8-PFOS	101	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-EB01-032117						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-08	Date Received:	22-Mar-2017 9:03	
Project:	NRL-CBD PFAS		Sample Size:	0.118 L		QC Batch:	B7C0125	Date Extracted:	23-Mar-2017 9:58	
Date Collected:	21-Mar-2017 10:05					Date Analyzed:	24-Mar-17 18:57 Column: BEH C18			
Location:	AOA-MW10									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.90	4.24	8.51		IS	13C3-PFBS	89.0	60 - 150	
PFOA	ND	0.692	2.12	8.51		IS	13C2-PFOA	119	60 - 150	
PFOS	1.44	0.858	0.953	8.51	J	IS	13C8-PFOS	98.8	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-FB01-032117						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-09		Date Received:	22-Mar-2017 9:03
Project:	NRL-CBD PFAS		Sample Size:	0.129 L		QC Batch:	B7C0125		Date Extracted:	23-Mar-2017 9:58
Date Collected:	21-Mar-2017 10:30					Date Analyzed: 24-Mar-17 19:10 Column: BEH C18				
Location:	Equipment Blank									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.73	3.88	7.74		IS	13C3-PFBS	116	60 - 150	
PFOA	ND	0.630	1.94	7.74		IS	13C2-PFOA	113	60 - 150	
PFOS	ND	0.780	0.872	7.74		IS	13C8-PFOS	90.1	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-AOA-MW01-0317						Modified EPA Method 537					
Client Data			Sample Data			Laboratory Data					
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-10		Date Received:	22-Mar-2017 9:03	
Project:	NRL-CBD PFAS		Sample Size:	0.119 L		QC Batch:	B7C0125		Date Extracted:	23-Mar-2017 9:58	
Date Collected:	21-Mar-2017 11:00					Date Analyzed:	24-Mar-17 19:22 Column: BEH C18				
Location:	AOA-MW01					30-Mar-17 01:27 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers	
PFBS	280	1.88	4.20	8.39		IS	13C3-PFBS	255	60 - 150	H	
PFOA	8260	74.0	227	909		IS	13C2-PFOA	122	60 - 150		
PFOS	65500	91.7	102	909		IS	13C8-PFOS	94.1	60 - 150		

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-AOA-MW02-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-11		Date Received:	22-Mar-2017 9:03
Project:	NRL-CBD PFAS		Sample Size:	0.126 L		QC Batch:	B7C0125		Date Extracted:	23-Mar-2017 9:58
Date Collected:	21-Mar-2017 13:20					Date Analyzed:	24-Mar-17 20:13 Column: BEH C18			
Location:	AOA-MW02					30-Mar-17 01:39 Column: BEH C18				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	215	1.78	3.97	7.96		IS	13C3-PFBS	261	60 - 150	H
PFOA	7110	66.7	205	820		IS	13C2-PFOA	130	60 - 150	
PFOS	234000	1650	1840	16400	D	IS	13C8-PFOS	111	60 - 150	D

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-AOA-MW04-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-12		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.128 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 21-Mar-2017 14:45						Date Analyzed: 24-Mar-17 20:25 Column: BEH C18				
Location: AOA-MW04						30-Mar-17 01:52 Column: BEH C18				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	222	1.74	3.91	7.79		IS	13C3-PFBS	266	60 - 150	H
PFOA	11300	79.0	243	971		IS	13C2-PFOA	130	60 - 150	
PFOS	73600	97.9	109	971		IS	13C8-PFOS	103	60 - 150	

DL - Detection limit
 RL - Reporting limit

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

Sample ID: CBD-AOA-MW03-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-13	Date Received:	22-Mar-2017 9:03	
Project:	NRL-CBD PFAS		Sample Size:	0.00112 L		QC Batch:	B7C0138	Date Extracted:	27-Mar-2017 11:03	
Date Collected:	21-Mar-2017 15:05					Date Analyzed:	30-Mar-17 01:14	Column: BEH C18		
Location:	AOA-MW03					30-Mar-17 02:04		Column: BEH C18		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	1220	200	446	893		IS	13C3-PFBS	136	60 - 150	
PFOA	14900	72.7	223	893		IS	13C2-PFOA	132	60 - 150	
PFOS	138000	1800	2010	17900	D	IS	13C8-PFOS	160	60 - 150	D, H

DL - Detection limit
RL - Reporting limit

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

DATA QUALIFIERS & ABBREVIATIONS

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

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-004
Pennsylvania Department of Environmental Protection	012
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	7923
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

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

NELAP Accredited Test Methods

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

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

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

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

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

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

CHAIN OF CUSTODY

For Laboratory Use Only

Laboratory Project ID: 1700355 Temp: 1.2 °C
Storage ID: WR-2 F-5 Storage Secured: Yes ☒ No ☐

Project ID: NRL-CBD AFAS P.O.#: 10006-7-106051 Sampler: Lisa Carter
(name)

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

Invoice to: Name _____ Company _____ Address _____ City _____ State _____ Ph# _____ Fax# _____

Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

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

Method of Shipment:

Fed-Ex

Tracking No.: _____

Add Analysis(es) Requested

Container(s)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	2378-TC	2378-TC	PCDD/F	2378-TC	2378-TC	PCDD/F	2378-TC	2378-TC	PCDD/F	TOTAL	COPLA	209 CO	PBDE	PAH	WHO-28	Mod. EF	Comments	
D-BKG-MW02-0317	3-20-17	1100	BKG-MW02	2	Poly	GC																X		
CBD-EB01-032017	3-20-17	1140	Eq-pment Blank	2	Poly	GC																X		QC-Eq-pment Blank
CBD-BKG-MW01-0317	3-20-17	1330	BKG-MW01	2	Poly	GC																X		
D-BKG-MW01P-0317	3-20-17	1335	BKG-MW01	2	Poly	GC																X		QC-Field dup
D-BKG-MW03-0317	3-20-17	1605	BKG-MW02	2	Poly	GC																X		
D-AOA-MW10-0317	3-21-17	0910	AOA-MW10	2	Poly	GC																X		
D-AOA-MW10P-0317	3-21-17	0915	AOA-MW10	2	Poly	GC																X		QC duplicate
CBD-EB01-032117	3-21-17	1005	Eq-pment Blank	2	Poly	GC																X		QC-Eq-pment Blank
CBD-FB01-032117	3-21-17	1030	Field Blank	2	Poly	GC																X		QC-Field Blank
CBD-AOA-MW01-0317	3-21-17	1100	AOA-MW01	2	Poly	GC																X		

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

Name: Tiffany Hill
Company: CH2M
Address: 1100 NE Curde Blvd Suite 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 Fax: _____
Email: Tiffany.Hill@ch2m.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = HDPE, O = Other: _____

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

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

SAMPLE LOG-IN CHECKLIST



Vista Project #: 1700355 TAT 7 days

Samples Arrival:	Date/Time <u>3/22/17 0903</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>3/22/17 1014</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>F-5</u>
Delivered By:	<u>FedEx</u>	UPS	On Trac
		DHL	Hand Delivered
Other			
Preservation:	<u>Ice</u>	Blue Ice	Dry Ice
		None	
Temp °C:	<u>0.9</u> (uncorrected)	Time: <u>0930</u>	Thermometer ID: IR-1
Temp °C:	<u>1.2</u> (corrected)	Probe used: Yes ☐ No ☒	

		YES	NO	NA
Adequate Sample Volume Received?		✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # <u>7859 7959 4600</u>	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?				✓
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?			✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				✓
Preservation Documented:	<u>Na₂S₂O₃</u> Trizma	Yes	<u>No</u>	NA
Shipping Container	<u>Vista</u> Client <u>Retain</u> Return Dispose			

Comments:

April 04, 2017

Vista Work Order No. 1700355

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 March 22, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name 'NRL-CBD PFAS'.

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

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

Sincerely,



Martha Maier
Laboratory Director



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

Vista Work Order No. 1700355

Case Narrative

Sample Condition on Receipt:

Thirteen groundwater samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

Modified EPA Method 537

The samples contained particulate and were centrifuged prior to the original extraction. Sample "CBD-AOA-MW01-0317", "CBD-AOA-MW02-0317", "CBD-AOA-MW03-0317" and "CBD-AOA-MW04-0317" required re-extraction (batch B7C0138) of a 1 mL aliquot. The results for PFOA and PFOS were reported from the re-extractions. In addition, the PFBS result for sample "CBD-AOA-MW03-0317" was reported from the re-extraction.

The aqueous samples were extracted and analyzed for PFBS, PFOA and PFOS using Modified EPA Method 537.

Holding Times

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

Quality Control

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

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The OPR recoveries were within the method acceptance criteria

The labeled standard recoveries outside the acceptance criteria are listed in the table below. The interferences that affected the recoveries did not affect the quantification of the associated analytes.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1700355-10	CBD-AOA-MW01-0317	Modified EPA Method 537	13C3-PFBS	H	255
1700355-11	CBD-AOA-MW02-0317	Modified EPA Method 537	13C3-PFBS	H	261
1700355-12	CBD-AOA-MW04-0317	Modified EPA Method 537	13C3-PFBS	H	266
1700355-13	CBD-AOA-MW03-0317	Modified EPA Method 537	13C8-PFOS	H	160

H = Recovery was outside laboratory acceptance criteria.

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Continuing Calibration.....	135
Initial Calibration.....	202

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1700355-01	CBD-BKG-MW02-0317	20-Mar-17 11:00	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-02	CBD-EB01-032017	20-Mar-17 11:40	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-03	CBD-BKG-MW01-0317	20-Mar-17 13:30	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-04	CBD-BKG-MW01P-0317	20-Mar-17 13:35	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-05	CBD-BKG-MW03-0317	20-Mar-17 16:05	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-06	CBD-AOA-MW10-0317	21-Mar-17 09:10	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-07	CBD-AOA-MW10P-0317	21-Mar-17 09:15	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-08	CBD-EB01-032117	21-Mar-17 10:05	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-09	CBD-FB01-032117	21-Mar-17 10:30	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-10	CBD-AOA-MW01-0317	21-Mar-17 11:00	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-11	CBD-AOA-MW02-0317	21-Mar-17 13:20	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-12	CBD-AOA-MW04-0317	21-Mar-17 14:45	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700355-13	CBD-AOA-MW03-0317	21-Mar-17 15:05	22-Mar-17 09:03	HDPE Bottle, 125 mL HDPE Bottle, 125 mL

ANALYTICAL RESULTS

Sample ID: Method Blank						Modified EPA Method 537			
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B7C0125 Date Extracted: 23-Mar-2017 9:58				Lab Sample: B7C0125-BLK1 Date Analyzed: 24-Mar-17 17:04 Column: BEH C18			
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.79	4.00	8.00		IS 13C3-PFBS	108	60 - 150	
PFOA	ND	0.651	2.00	8.00		IS 13C2-PFOA	118	60 - 150	
PFOS	ND	0.807	0.900	8.00		IS 13C8-PFOS	85.1	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: OPR

Modified EPA Method 537

Matrix: Aqueous
Sample Size: 0.125 L

QC Batch: B7C0125
Date Extracted: 23-Mar-2017 9:58

Lab Sample: B7C0125-BS1
Date Analyzed: 24-Mar-17 16:26 Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
PFBS	71.9	80.0	89.8	60 - 130	IS 13C3-PFBS	121	60 - 150
PFOA	68.0	80.0	85.0	70 - 130	IS 13C2-PFOA	121	60 - 150
PFOS	65.8	80.0	82.3	70 - 130	IS 13C8-PFOS	90.7	60 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: Method Blank						Modified EPA Method 537			
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B7C0138 Date Extracted: 27-Mar-2017 11:03				Lab Sample: B7C0138-BLK1 Date Analyzed: 28-Mar-17 16:44 Column: BEH C18			
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.79	4.00	8.00		IS 13C3-PFBS	109	60 - 150	
PFOA	ND	0.651	2.00	8.00		IS 13C2-PFOA	99.2	60 - 150	
PFOS	ND	0.807	0.900	8.00		IS 13C8-PFOS	104	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: OPR					Modified EPA Method 537			
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B7C0138 Date Extracted: 27-Mar-2017 11:03			Lab Sample: B7C0138-BS1 Date Analyzed: 28-Mar-17 14:28 Column: BEH C18			
Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits	Labeled Standard		%R	LCL-UCL
PFBS	64.3	80.0	80.4	60 - 130	IS	13C3-PFBS	121	60 - 150
PFOA	67.7	80.0	84.6	70 - 130	IS	13C2-PFOA	102	60 - 150
PFOS	66.7	80.0	83.4	70 - 130	IS	13C8-PFOS	112	60 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: CBD-BKG-MW02-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-01		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.126 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 20-Mar-2017 11:00						Date Analyzed: 24-Mar-17 17:29 Column: BEH C18				
Location: BKG-MW02										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.77	3.97	7.91		IS	13C3-PFBS	109	60 - 150	
PFOA	ND	0.644	1.98	7.91		IS	13C2-PFOA	116	60 - 150	
PFOS	ND	0.798	0.893	7.91		IS	13C8-PFOS	104	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-EB01-032017						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-02		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.120 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 20-Mar-2017 11:40						Date Analyzed: 24-Mar-17 17:41 Column: BEH C18				
Location: Equipment Blank										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.86	4.17	8.33		IS	13C3-PFBS	89.5	60 - 150	
PFOA	ND	0.678	2.08	8.33		IS	13C2-PFOA	117	60 - 150	
PFOS	ND	0.840	0.938	8.33		IS	13C8-PFOS	96.2	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-BKG-MW01-0317							Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data					
Name:		CH2M Hill	Matrix:		Groundwater	Lab Sample:		1700355-03	Date Received:		22-Mar-2017 9:03
Project:		NRL-CBD PFAS	Sample Size:		0.122 L	QC Batch:		B7C0125	Date Extracted:		23-Mar-2017 9:58
Date Collected:		20-Mar-2017 13:30				Date Analyzed:		24-Mar-17 17:54	Column: BEH C18		
Location:		BKG-MW01									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers	
PFBS	ND	1.84	4.10	8.21		IS	13C3-PFBS	103	60 - 150		
PFOA	ND	0.668	2.05	8.21		IS	13C2-PFOA	114	60 - 150		
PFOS	5.63	0.828	0.922	8.21	J	IS	13C8-PFOS	99.8	60 - 150		

DL - Detection limit
 RL - Reporting limit

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

Sample ID: CBD-BKG-MW01P-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-04	Date Received:	22-Mar-2017 9:03	
Project:	NRL-CBD PFAS		Sample Size:	0.127 L		QC Batch:	B7C0125	Date Extracted:	23-Mar-2017 9:58	
Date Collected:	20-Mar-2017 13:35					Date Analyzed:	24-Mar-17 18:07	Column: BEH C18		
Location:	BKG-MW01									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.76	3.94	7.88		IS	13C3-PFBS	110	60 - 150	
PFOA	ND	0.641	1.97	7.88		IS	13C2-PFOA	120	60 - 150	
PFOS	7.19	0.795	0.886	7.88	J	IS	13C8-PFOS	91.2	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-BKG-MW03-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-05	Date Received:	22-Mar-2017 9:03	
Project:	NRL-CBD PFAS		Sample Size:	0.129 L		QC Batch:	B7C0125	Date Extracted:	23-Mar-2017 9:58	
Date Collected:	20-Mar-2017 16:05					Date Analyzed:	24-Mar-17 18:19	Column: BEH C18		
Location:	BKG-MW02									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.73	3.88	7.73		IS	13C3-PFBS	84.0	60 - 150	
PFOA	ND	0.629	1.94	7.73		IS	13C2-PFOA	118	60 - 150	
PFOS	1.30	0.780	0.872	7.73	J	IS	13C8-PFOS	99.2	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-AOA-MW10-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-06		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.125 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 21-Mar-2017 9:10						Date Analyzed: 24-Mar-17 18:32 Column: BEH C18				
Location: BKG-MW10										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	28.7	1.80	4.00	8.03		IS	13C3-PFBS	112	60 - 150	
PFOA	365	0.653	2.00	8.03		IS	13C2-PFOA	109	60 - 150	
PFOS	341	0.810	0.900	8.03		IS	13C8-PFOS	97.6	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-AOA-MW10P-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-07		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.123 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 21-Mar-2017 9:15						Date Analyzed: 24-Mar-17 18:45 Column: BEH C18				
Location: AOA-MW10										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	27.7	1.82	4.07	8.15		IS	13C3-PFBS	119	60 - 150	
PFOA	351	0.663	2.03	8.15		IS	13C2-PFOA	113	60 - 150	
PFOS	266	0.822	0.915	8.15		IS	13C8-PFOS	101	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-EB01-032117						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-08	Date Received:	22-Mar-2017	9:03
Project:	NRL-CBD PFAS		Sample Size:	0.118 L		QC Batch:	B7C0125	Date Extracted:	23-Mar-2017	9:58
Date Collected:	21-Mar-2017 10:05					Date Analyzed:	24-Mar-17 18:57 Column: BEH C18			
Location:	AOA-MW10									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.90	4.24	8.51		IS	13C3-PFBS	89.0	60 - 150	
PFOA	ND	0.692	2.12	8.51		IS	13C2-PFOA	119	60 - 150	
PFOS	1.44	0.858	0.953	8.51	J	IS	13C8-PFOS	98.8	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-FB01-032117						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name: CH2M Hill			Matrix: Groundwater			Lab Sample: 1700355-09		Date Received: 22-Mar-2017 9:03		
Project: NRL-CBD PFAS			Sample Size: 0.129 L			QC Batch: B7C0125		Date Extracted: 23-Mar-2017 9:58		
Date Collected: 21-Mar-2017 10:30						Date Analyzed: 24-Mar-17 19:10 Column: BEH C18				
Location: Equipment Blank										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.73	3.88	7.74		IS	13C3-PFBS	116	60 - 150	
PFOA	ND	0.630	1.94	7.74		IS	13C2-PFOA	113	60 - 150	
PFOS	ND	0.780	0.872	7.74		IS	13C8-PFOS	90.1	60 - 150	

DL - Detection limit
RL - Reporting limit

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

Sample ID: CBD-AOA-MW01-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-10		Date Received:	22-Mar-2017 9:03
Project:	NRL-CBD PFAS		Sample Size:	0.119 L		QC Batch:	B7C0125		Date Extracted:	23-Mar-2017 9:58
Date Collected:	21-Mar-2017 11:00					Date Analyzed:	24-Mar-17 19:22 Column: BEH C18			
Location:	AOA-MW01					30-Mar-17 01:27 Column: BEH C18				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	280	1.88	4.20	8.39		IS	13C3-PFBS	255	60 - 150	H
PFOA	8260	74.0	227	909		IS	13C2-PFOA	122	60 - 150	
PFOS	65500	91.7	102	909		IS	13C8-PFOS	94.1	60 - 150	

DL - Detection limit
 RL - Reporting limit

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

Sample ID: CBD-AOA-MW02-0317						Modified EPA Method 537				
Client Data Name: CH2M Hill Project: NRL-CBD PFAS Date Collected: 21-Mar-2017 13:20 Location: AOA-MW02			Sample Data Matrix: Groundwater Sample Size: 0.126 L			Laboratory Data Lab Sample: 1700355-11 Date Received: 22-Mar-2017 9:03 QC Batch: B7C0125 Date Extracted: 23-Mar-2017 9:58 Date Analyzed: 24-Mar-17 20:13 Column: BEH C18 30-Mar-17 01:39 Column: BEH C18				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	215	1.78	3.97	7.96		IS	13C3-PFBS	261	60 - 150	H
PFOA	7110	66.7	205	820		IS	13C2-PFOA	130	60 - 150	
PFOS	234000	1650	1840	16400	D	IS	13C8-PFOS	111	60 - 150	D
DL - Detection limit						LCL-UCL - Lower control limit - upper control limit				
RL - Reporting limit						Results reported to DL.				
						When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.				
						Only the linear isomer is reported for all other analytes.				

Sample ID: CBD-AOA-MW04-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-12	Date Received:	22-Mar-2017	9:03
Project:	NRL-CBD PFAS		Sample Size:	0.128 L		QC Batch:	B7C0125	Date Extracted:	23-Mar-2017	9:58
Date Collected:	21-Mar-2017 14:45					Date Analyzed:	24-Mar-17 20:25	Column:	BEH C18	
Location:	AOA-MW04					30-Mar-17 01:52 Column: BEH C18				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	222	1.74	3.91	7.79		IS	13C3-PFBS	266	60 - 150	H
PFOA	11300	79.0	243	971		IS	13C2-PFOA	130	60 - 150	
PFOS	73600	97.9	109	971		IS	13C8-PFOS	103	60 - 150	

DL - Detection limit
 RL - Reporting limit

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

Sample ID: CBD-AOA-MW03-0317						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater		Lab Sample:	1700355-13	Date Received:	22-Mar-2017 9:03	
Project:	NRL-CBD PFAS		Sample Size:	0.00112 L		QC Batch:	B7C0138	Date Extracted:	27-Mar-2017 11:03	
Date Collected:	21-Mar-2017 15:05					Date Analyzed:	30-Mar-17 01:14	Column: BEH C18		
Location:	AOA-MW03					30-Mar-17 02:04		Column: BEH C18		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	1220	200	446	893		IS	13C3-PFBS	136	60 - 150	
PFOA	14900	72.7	223	893		IS	13C2-PFOA	132	60 - 150	
PFOS	138000	1800	2010	17900	D	IS	13C8-PFOS	160	60 - 150	D, H

DL - Detection limit
RL - Reporting limit

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

DATA QUALIFIERS & ABBREVIATIONS

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

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-004
Pennsylvania Department of Environmental Protection	012
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	7923
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

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

NELAP Accredited Test Methods

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

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

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

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

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

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

CHAIN OF CUSTODY

For Laboratory Use Only

Laboratory Project ID: 1700355 Temp: 1.2 °C
Storage ID: WR-2 F-5 Storage Secured: Yes ☒ No ☐

Project ID: NRL-CBD AFAS P.O.#: 10006-7-106051 Sampler: Lisa Carter
(name)

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

Invoice to: Name _____ Company _____ Address _____ City _____ State _____ Ph# _____ Fax# _____

Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

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Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

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

Method of Shipment:
Fed-Ex

Add Analysis(es) Requested

Container(s)

Tracking No.: _____

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	2378-TC	2378-TC	PCDD/F	2378-TC	2378-TC	PCDD/F	2378-TC	2378-TC	PCDD/F	TOTALS	COPLA	209 CO	PBDE	PAH	WHO-28	Mod. EPA	Comments
D-BKG-mw02-0317	3-20-17	1100	BKG-mw02	2	Poly	GC															X		
CBD-EB01-032017	3-20-17	1140	Eq-pment Blank	2	Poly	GC															X		QC-Eq-pment Blank
CBD-BKG-mw01-0317	3-20-17	1330	BKG-mw01	2	Poly	GC															X		
D-BKG-mw01P-0317	3-20-17	1335	BKG-mw01	2	Poly	GC															X		QC-Field dup
D-BKG-mw03-0317	3-20-17	1605	BKG-mw02	2	Poly	GC															X		
D-AOA-MW10-0317	3-21-17	0910	AOA-MW10	2	Poly	GC															X		
D-AOA-MW10P-0317	3-21-17	0915	AOA-MW10	2	Poly	GC															X		QC duplicate
CBD-EB01-032117	3-21-17	1005	Eq-pment Blank	2	Poly	GC															X		QC-Eq-pment Blank
CBD-FB01-032117	3-21-17	1030	Field Blank	2	Poly	GC															X		QC-Field Blank
CBD-AOA-MW01-0317	3-21-17	1100	AOA-MW01	2	Poly	GC															X		

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

Name: Tiffany Hill
Company: CH2M
Address: 1100 NE Curde Blvd Suite 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 Fax: _____
Email: Tiffany.Hill@ch2m.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = HDPE, O = Other: _____

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

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

SAMPLE LOG-IN CHECKLIST



Vista Project #: 1700355 TAT 7 days

Samples Arrival:	Date/Time <u>3/22/17 0903</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>3/22/17 1014</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>F-5</u>
Delivered By:	<u>FedEx</u>	UPS	On Trac
		DHL	Hand Delivered
Other			
Preservation:	<u>Ice</u>	Blue Ice	Dry Ice
		None	
Temp °C:	<u>0.9</u> (uncorrected)	Time: <u>0930</u>	Thermometer ID: IR-1
Temp °C:	<u>1.2</u> (corrected)	Probe used: Yes ☐ No ☒	

		YES	NO	NA
Adequate Sample Volume Received?		✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # <u>7859 7959 4600</u>	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?				✓
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?			✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				✓
Preservation Documented:	<u>Na₂S₂O₃</u>	Trizma	Yes	<u>No</u>
				NA
Shipping Container	<u>Vista</u>	Client	<u>Retain</u>	Return
				Dispose

Comments:

EXTRACTION INFORMATION

Process Sheet
Workorder: 1700355



Prep Expiration: 2017-Apr-03
Client: CH2M Hill

Workorder Due: 29-Mar-17 00:00

TAT: 7

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

Prep Batch: B7C0125

Prep Data Entered: 3/27/17
Date and Initials

Version: PFOA, PFOS, PFBS

Initial Sequence: _____

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1700355-01		CBD-BKG-MW02-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-02		CBD-EB01-032017	22-Mar-17 09:03	WR-2 F-5	
1700355-03		CBD-BKG-MW01-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-04		CBD-BKG-MW01P-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-05		CBD-BKG-MW03-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-06		CBD-AOA-MW10-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-07		CBD-AOA-MW10P-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-08		CBD-EB01-032117	22-Mar-17 09:03	WR-2 F-5	
1700355-09		CBD-FB01-032117	22-Mar-17 09:03	WR-2 F-5	
1700355-10		CBD-AOA-MW01-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-11		CBD-AOA-MW02-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-12		CBD-AOA-MW04-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-13		CBD-AOA-MW03-0317	22-Mar-17 09:03	WR-2 F-5	

Vista PM:Martha Maier

Vial Box ID: Graphic Park

Sample Reconciled By:

3/28/17

Balance ID: N/A

%Solids rmh 5/2011

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOO as mR

B7C0125

Chemist: G. Mendola

Prep Date/Time: 23-Mar-17 09:58

Prepared using: LCMS - SPE Extraction-LCMS

C	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	C 7C 0123 SPE	RS CHEM/WIT DATE
☐	B7C0125-BLK1	NA	NA	(0.125)	✓	On 7C 3/23/17	On 7C 3/23/17
☐	B7C0125-BSI	↓	↓	↓	✓		
☐	1700355-01	153.45	27.09	0.12636	✓		
☐	1700355-02	147.08	27.00	0.12008	✓		
☐	1700355-03	148.86	27.02	0.12184	✓		
☐	1700355-04	153.90	26.94	0.12696	✓		
☐	1700355-05	156.43	27.12	0.12931	✓		
☐	1700355-06	151.68	27.12	0.12456	✓		
☐	1700355-07	149.75	27.02	0.12273	✓		
☐	1700355-08	144.56	27.04	0.11752	✓		
☐	1700355-09	156.33	27.08	0.12925	✓		
☐	1700355-10	146.22	27.02	0.11920			
☐	1700355-11	152.54	26.94	0.12560			
☐	1700355-12	155.49	27.13	0.12836			
☐	1700355-13	155.26	27.08	0.12818			
☐	1700356-04	147.85	26.51	0.12134			

ⓐ Samples were centrifuged to remove gelatinous substance

IS Name <u>16L1920, 10µL</u> (V2)	NS Name <u>17C1521, 10µL</u> (V3)	RS Name <u>17A1201, 10µL</u> (V2)	Strato X-AW 33 cm 200 µg/6 µm SPE Chem <u>Strato X-1W 100 µm 200 µg/6 µm</u> Ele SOLV: <u>0.5% NH4OH in MeOH/MeOH</u> Final Volume(s) <u>1 mL</u>	Check Out: <u>7C 3/23/17</u> Chemist/Date: Check In: <u>NA</u> Chemist/Date: Balance ID: <u>HRMS-8</u>
---	---	---	--	--

Comments: Assume 1 g = 1 mL

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOO as mR

B7C0125

Chemist: G. Mendola

Prep Date/Time: 23-Mar-17 09:58

Prepared using: LCMS - SPE Extraction-LCMS

						B7C0125	
C	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☐	1700356-07 ^{phair}	144.63	26.60	0.11803	Am ZK 3/23/17	ZK 3/23/17	Am ZK 3/23/17

- Ⓐ Samples centrifuged to remove gelatinous substance Ac 3/23/17
- Ⓑ Samples clogged cartridge after ~ 5mL. The sample was blown through the cartridge using nitrogen & then the other ~120mL was extracted using a Strata-XL-4w beam Polymeric Weak Anion cartridge BP 3-23-17
- Ⓒ Samples clogged cartridge after ~ 5mL. Samples were centrifuged. Am 3/23/17
- Ⓓ Weight of sample + bottle after being centrifuged: 190.30g. Am 3/23/17
- Ⓔ Weight of sample + bottle after being centrifuged: 120.98g. Am 3/23/17.

IS Name	NS Name	RS Name	SPE Chem:	Check Out:
16L1920, 10µL (V2)	17C1521, 10µL (V3)	17A1201, 10µL (V2)	Strata X Aw 100µm 200mg/mL	Chemist/Date: ZK 3/23/17
			Ele SOLV: 0.5% NH ₄ OH in MeOH/MeOH	Check In:
			Final Volume(s) 1 mL	Chemist/Date: N/A
				Balance ID: HRMS-8

Comments: Assume 1 g = 1 mL

Work Order 1700355

Page 34 of 292

Process Sheet
Workorder: **1700355**

RX

Prep Expiration: 2017-Apr-03
Client: CH2M Hill

Workorder Due: 29-Mar-17 00:00

TAT: 7

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

Prep Batch: B7C0138

Prep Data Entered: BP 3.28.17
Date and Initials

Version: PFOA, PFOS, PFBS

Initial Sequence: _____

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1700355-01	☐	CBD-BKG-MW02-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-02	☐	CBD-EB01-032017	22-Mar-17 09:03	WR-2 F-5	
1700355-03	☐	CBD-BKG-MW01-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-04	☐	CBD-BKG-MW01P-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-05	☐	CBD-BKG-MW03-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-06	☐	CBD-AOA-MW10-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-07	☐	CBD-AOA-MW10P-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-08	☐	CBD-EB01-032117	22-Mar-17 09:03	WR-2 F-5	
1700355-09	☐	CBD-FB01-032117	22-Mar-17 09:03	WR-2 F-5	
1700355-10	☒	CBD-AOA-MW01-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-11	☒	CBD-AOA-MW02-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-12	☒	CBD-AOA-MW04-0317	22-Mar-17 09:03	WR-2 F-5	
1700355-13	☒	CBD-AOA-MW03-0317	22-Mar-17 09:03	WR-2 F-5	

1mL, 1:20 dil.

Vista PM: Martha Maier

Vial Box ID: Barry Potter

Sample Reconciled By: B. Parker 3/27/17

Balance ID: NA

%Solids rmh 5/2011

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOO as mR

B7C0138

Chemist: G. Mendida

Prep Date/Time: 27-Mar-17 11:03

Prepared using: LCMS - SPE Extraction-LCMS

C7C0128							
C	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☐	B7C0138-BLK1	NA	NA	(0.125) AC 3/30/17	BP 3/27/17	BP 3-27-17	BP 3/27/17
☐	B7C0138-BS1	↓	↓	↓	↓	↓	↓
☐	1700355-10RE1	27.46	26.36	0.00110 ✓	↓	↓	↓
☐	1700355-11RE1	27.53	26.31	0.00122 ✓	↓	↓	↓
☐	1700355-12RE1	27.45 27.42	26.39	0.00103 ✓	↓	↓	↓
☐	1700355-13RE1	27.19	26.37	0.00112 ✓	↓	↓	↓

④ ~1mL of sample was diluted to 125 mL BP 3-27-17

IS Name ② 16L1920, 10mL	NS Name ② 17C1621, 10mL	RS Name ② 17A1201, 10mL	SPE Chem. <u>Strata X-AW 23um 200mg/6mL</u> Ele SOLV: <u>0.5% MeOH in MeOH/M COH</u> Final Volume(s) <u>1mL</u>	Check Out: Chemist/Date: <u>BP 3-27-17</u> Check In: Chemist/Date: <u>BP 3-27-17</u> Balance ID: <u>HAWES</u>
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Comments: Assume 1 g = 1 mL

SAMPLE DATA – MODIFIED EPA METHOD 537

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-7.qld

Last Altered: Tuesday, April 04, 2017 12:19:46 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:20:09 Pacific Daylight Time

Method: Untitled 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: B7C0125-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170324G2_7, Date: 24-Mar-2017, Time: 17:04:18

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7		6.201e3		0.125			
2	4 PFOA	413 > 368.7	2.043e2	2.447e4		0.125	4.22		
3	6 PFOS	499 > 79.9		6.569e3		0.125			
4	7 13C3-PFBS	302.0 > 98.8	6.201e3	1.141e4	0.501	0.125	2.96		
5	10 13C2-PFOA	414.9 > 369.7	2.447e4	6.434e3	3.221	0.125	4.22		
6	12 13C8-PFOS	507.0 > 79.9	6.569e3	7.149e3	1.080	0.125	4.63		
7	14 13C3-PFHxS	401.9 > 79.9	1.141e4	1.141e4	1.000	0.125	3.94		
8	15 13C8-PFOA	421.3 > 376	6.434e3	6.434e3	1.000	0.125	4.22		
9	17 13C4-PFOS	503.0 > 79.9	7.149e3	7.149e3	1.000	0.125	4.63		

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-7.qld

Last Altered: Tuesday, April 04, 2017 12:19:46 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:20:45 Pacific Daylight Time

Method: Untitled 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: B7C0125-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170324G2_7, Date: 24-Mar-2017, Time: 17:04:18

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	18 Total PFBS	299 > 79.7		5.724e3		0.125			
2	20 Total PFOA	413 > 368.7		2.447e4		0.125			
3	21 Total PFOS	499 > 79.9		6.569e3		0.125			

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-7.qld

Last Altered: Tuesday, April 04, 2017 12:19:46 Pacific Daylight Time
Printed: Tuesday, April 04, 2017 12:20:09 Pacific Daylight Time

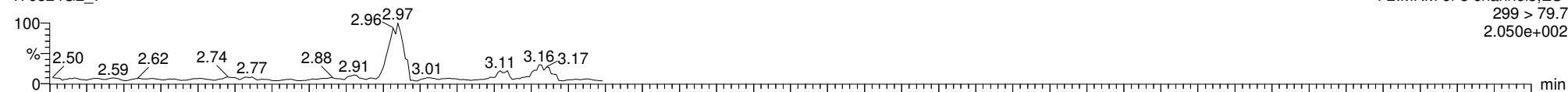
Method: Untitled 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

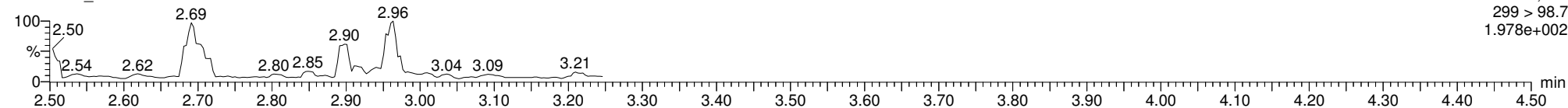
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Total PFBS

170324G2_7

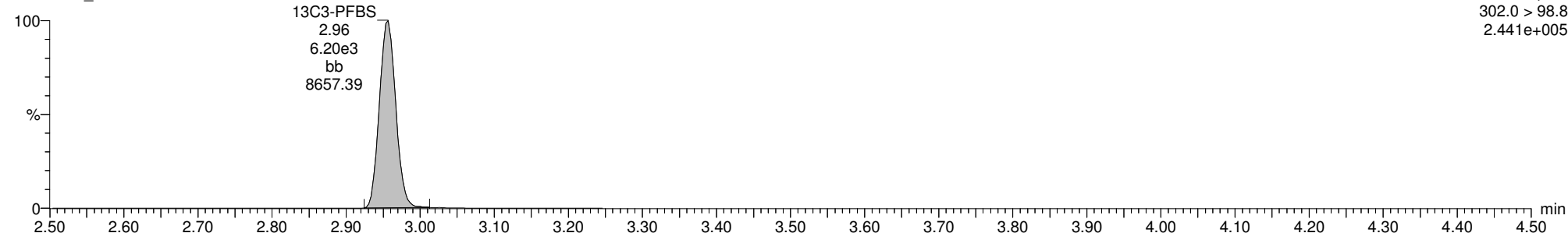


170324G2_7



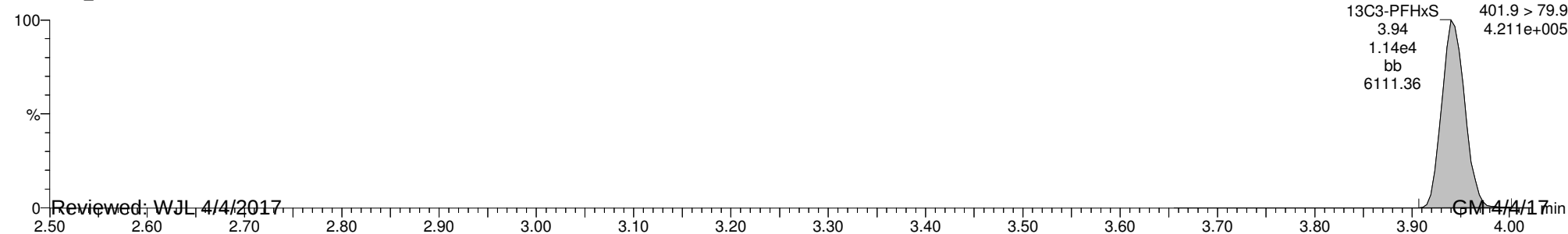
13C3-PFBS

170324G2_7



13C3-PFHxS

170324G2_7



Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-7.qld

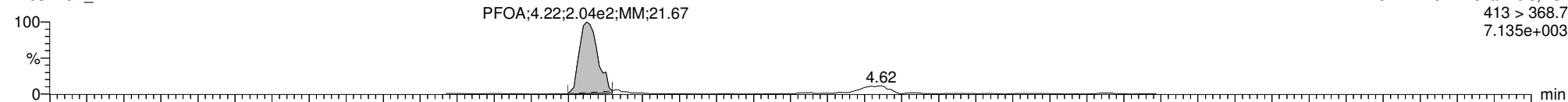
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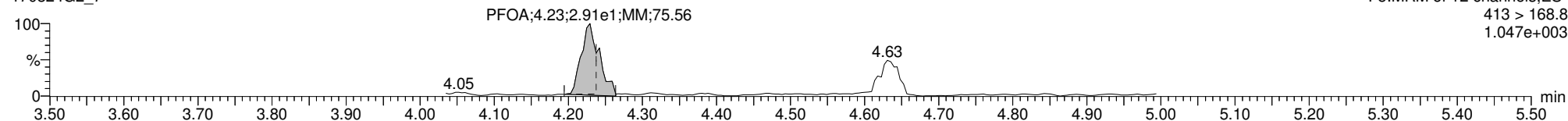
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Total PFOA

170324G2_7

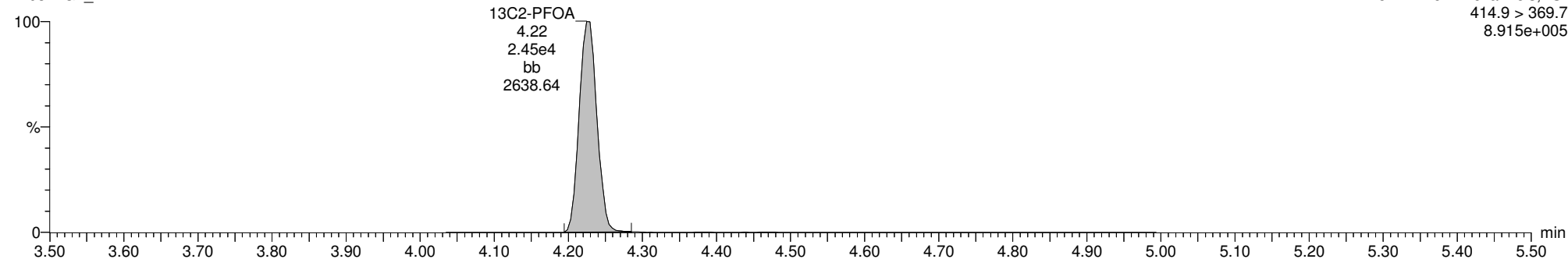


170324G2_7



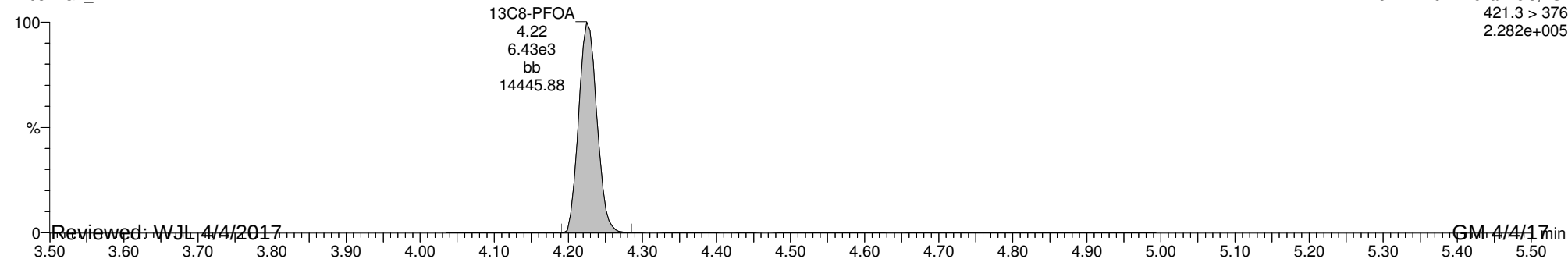
13C2-PFOA

170324G2_7



13C8-PFOA

170324G2_7



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-7.qld

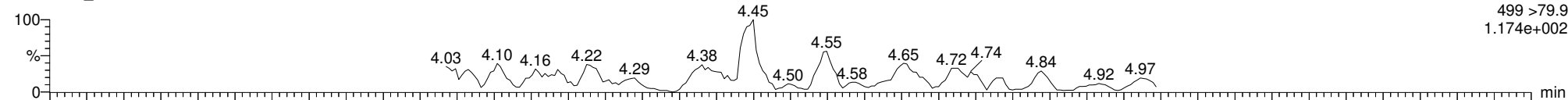
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Printed: Tuesday, April 04, 2017 12:20:09 Pacific Daylight Time

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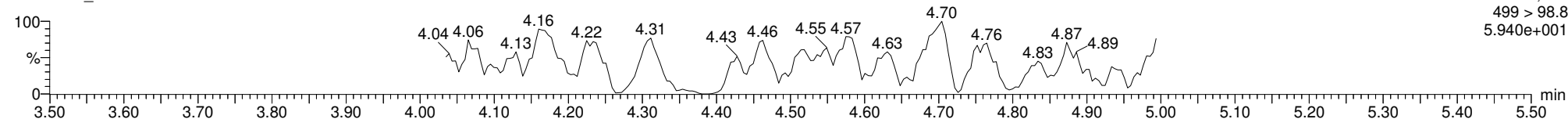
Total PFOS

170324G2_7



F5:MRM of 12 channels,ES-
499 >79.9
1.174e+002

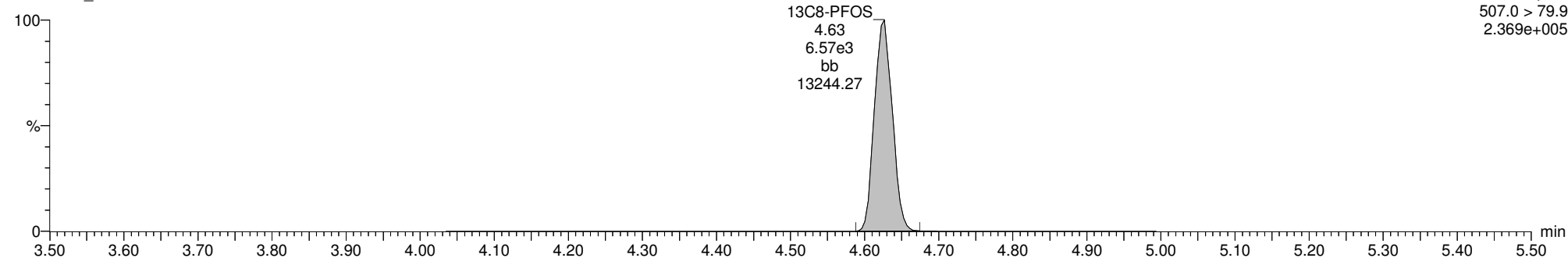
170324G2_7



F5:MRM of 12 channels,ES-
499 > 98.8
5.940e+001

13C8-PFOS

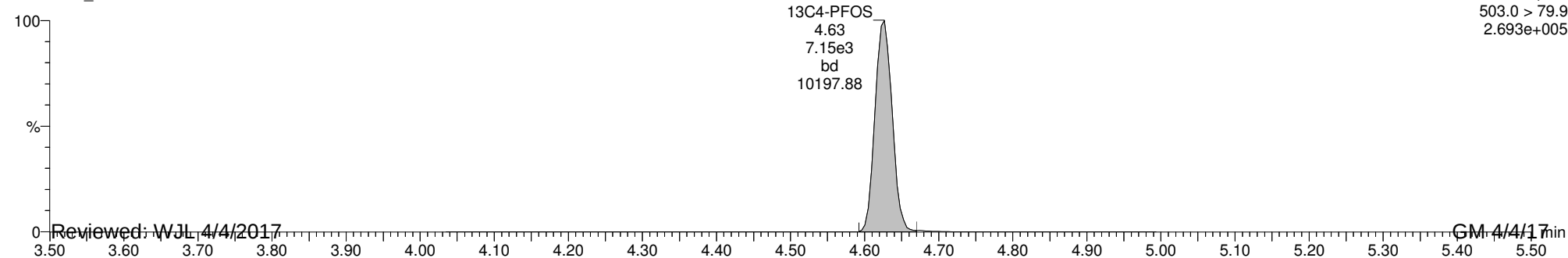
170324G2_7



F5:MRM of 12 channels,ES-
507.0 > 79.9
2.369e+005

13C4-PFOS

170324G2_7



F5:MRM of 12 channels,ES-
503.0 > 79.9
2.693e+005

Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-4.qld

Last Altered: Tuesday, March 28, 2017 14:03:09 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:15:35 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: B7C0125-BS1 OPR 0.125, Description: OPR, Name: 170324G2_4, Date: 24-Mar-2017, Time: 16:26:40

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.030e4	6.296e3		0.125	2.96	71.9	89.8
2	4 PFOA	413 > 368.7	1.463e4	2.424e4		0.125	4.22	68.0	85.0
3	6 PFOS	499 > 79.9	2.566e3	7.168e3		0.125	4.63	65.8	82.3
4	7 13C3-PFBS	302.0 > 98.8	6.296e3	1.043e4	0.501	0.125	2.95	120	120
5	10 13C2-PFOA	414.9 > 369.7	2.424e4	6.199e3	3.221	0.125	4.22	121	121
6	12 13C8-PFOS	507.0 > 79.9	7.168e3	7.322e3	1.080	0.125	4.62	90.7	90.7
7	14 13C3-PFHxS	401.9 > 79.9	1.043e4	1.043e4	1.000	0.125	3.94	100	100
8	15 13C8-PFOA	421.3 > 376	6.199e3	6.199e3	1.000	0.125	4.22	100	100
9	17 13C4-PFOS	503.0 > 79.9	7.322e3	7.322e3	1.000	0.125	4.62	100	100

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-4.qld

Last Altered: Tuesday, March 28, 2017 14:03:09 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:15:41 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: B7C0125-BS1 OPR 0.125, Description: OPR, Name: 170324G2_4, Date: 24-Mar-2017, Time: 16:26:40

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	18 Total PFBS	299 > 79.7		5.792e3		0.125		71.9	
2	20 Total PFOA	413 > 368.7		2.424e4		0.125		68.0	
3	21 Total PFOS	499 > 79.9		7.168e3		0.125		65.8	

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-4.qld

Last Altered: Tuesday, March 28, 2017 14:03:09 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:15:35 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

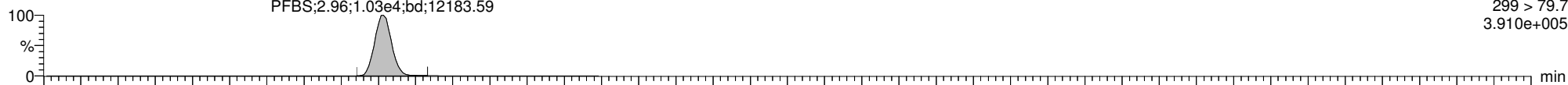
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Total PFBS

170324G2_4

PFBS;2.96;1.03e4;bd;12183.59

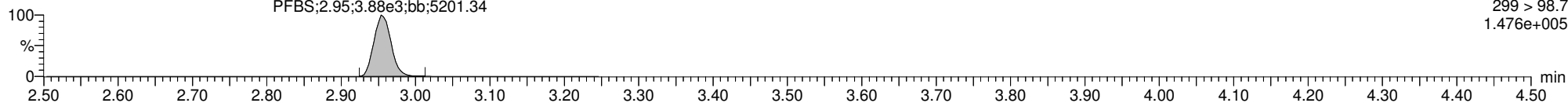
F2:MRM of 3 channels,ES-
299 > 79.7
3.910e+005



170324G2_4

PFBS;2.95;3.88e3;bb;5201.34

F2:MRM of 3 channels,ES-
299 > 98.7
1.476e+005

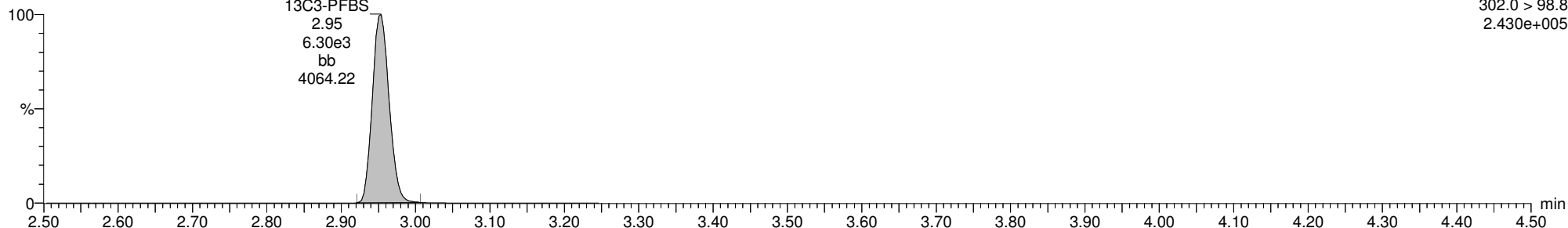


13C3-PFBS

170324G2_4

13C3-PFBS
2.95
6.30e3
bb
4064.22

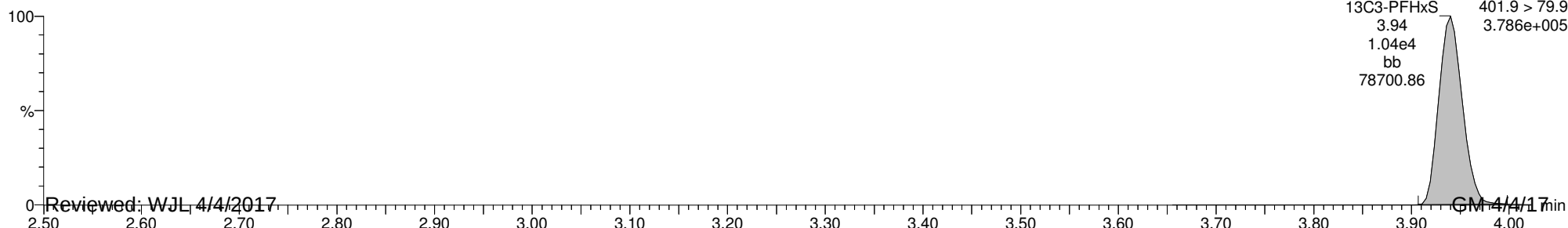
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.430e+005



13C3-PFHxS

170324G2_4

F4:MRM of 7 channels,ES-
13C3-PFHxS 401.9 > 79.9
3.94 3.786e+005
1.04e4
bb
78700.86



Reviewed: WJL 4/4/2017

Work Order 1700355

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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-4.qld

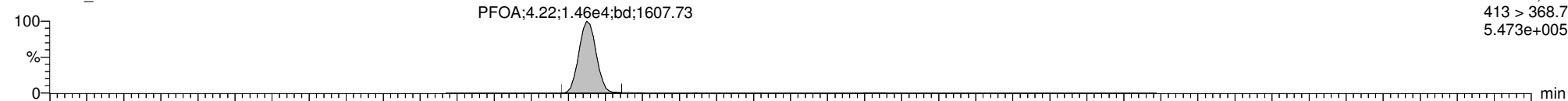
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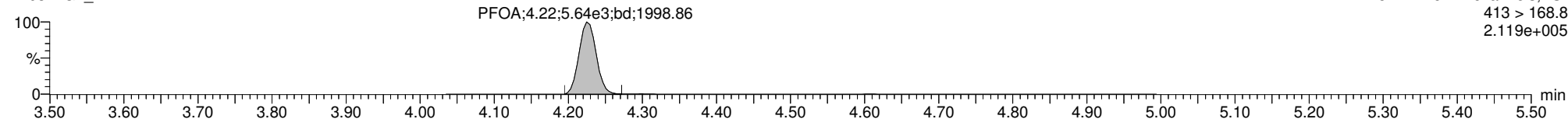
Total PFOA

170324G2_4



F5:MRM of 12 channels,ES-
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5.473e+005

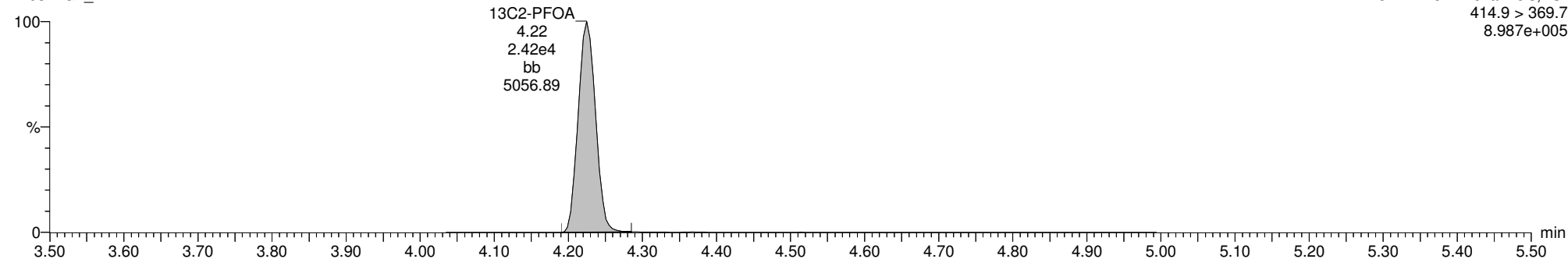
170324G2_4



F5:MRM of 12 channels,ES-
413 > 168.8
2.119e+005

13C2-PFOA

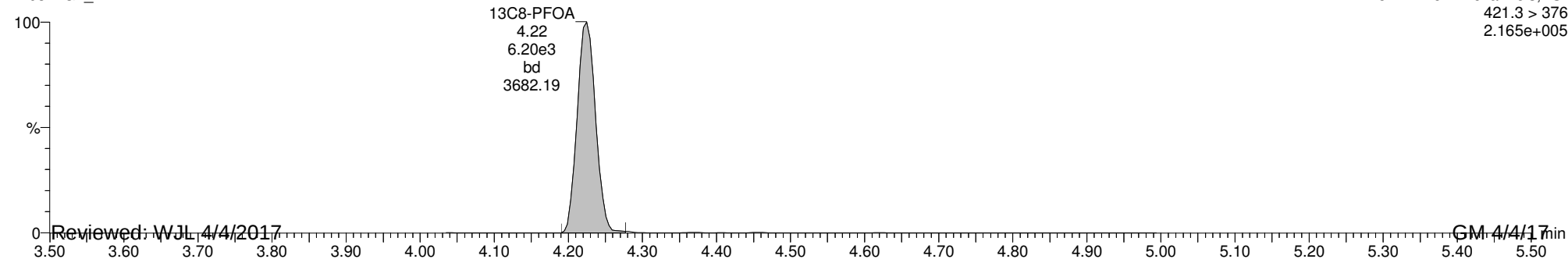
170324G2_4



F5:MRM of 12 channels,ES-
414.9 > 369.7
8.987e+005

13C8-PFOA

170324G2_4



F5:MRM of 12 channels,ES-
421.3 > 376
2.165e+005

Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-4.qld

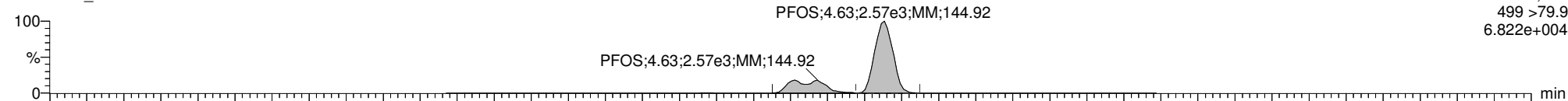
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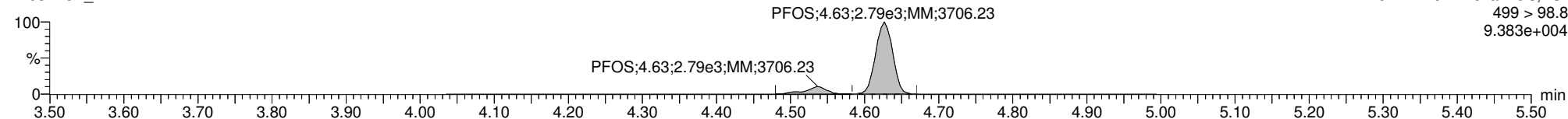
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Total PFOS

170324G2_4

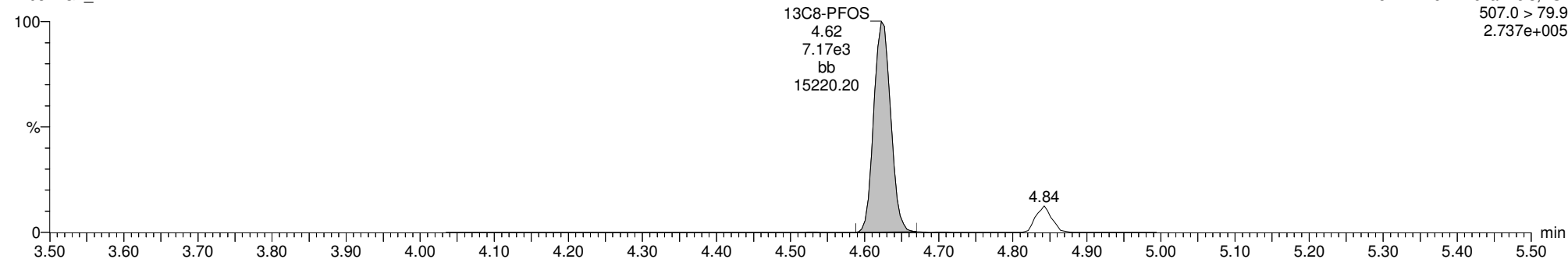


170324G2_4



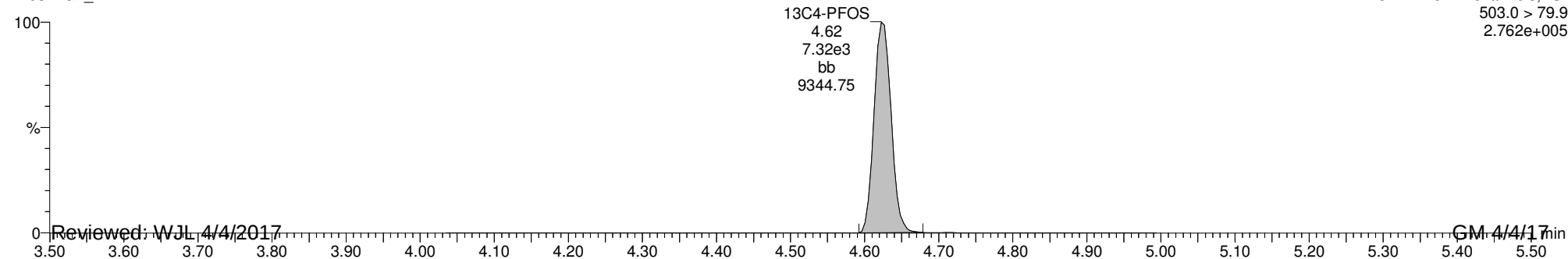
13C8-PFOS

170324G2_4



13C4-PFOS

170324G2_4



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-9.qld

Last Altered: Tuesday, April 04, 2017 12:25:30 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:25:49 Pacific Daylight Time

Method: Untitled 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: B7C0138-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170328G1_9, Date: 28-Mar-2017, Time: 16:44:22

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	4.174e0	7.541e3		0.125	2.94		
2	4 PFOA	413 > 368.7	1.775e2	2.848e4		0.125	4.23		
3	6 PFOS	499 > 79.9		9.091e3		0.125			
4	7 13C3-PFBS	302.0 > 98.8	7.541e3	1.385e4	0.501	0.125	2.94	109	109
5	10 13C2-PFOA	414.9 > 369.7	2.848e4	8.914e3	3.221	0.125	4.23	99.2	99.2
6	12 13C8-PFOS	507.0 > 79.9	9.091e3	8.112e3	1.080	0.125	4.63	104	104
7	14 13C3-PFHxS	401.9 > 79.9	1.385e4	1.385e4	1.000	0.125	3.94	100	100
8	15 13C8-PFOA	421.3 > 376	8.914e3	8.914e3	1.000	0.125	4.23	100	100
9	17 13C4-PFOS	503.0 > 79.9	8.112e3	8.112e3	1.000	0.125	4.63	100	100

Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-9.qld

Last Altered: Tuesday, April 04, 2017 12:25:30 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:25:55 Pacific Daylight Time

Method: Untitled 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: B7C0138-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170328G1_9, Date: 28-Mar-2017, Time: 16:44:22

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	18 Total PFBS	299 > 79.7		6.954e3		0.125			
2	20 Total PFOA	413 > 368.7		2.848e4		0.125			
3	21 Total PFOS	499 > 79.9		9.091e3		0.125			

Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-9.qld

Last Altered: Tuesday, April 04, 2017 12:25:30 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:25:49 Pacific Daylight Time

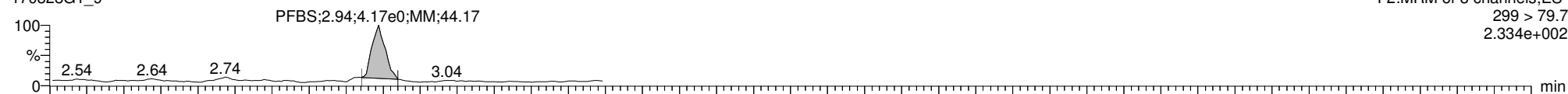
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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

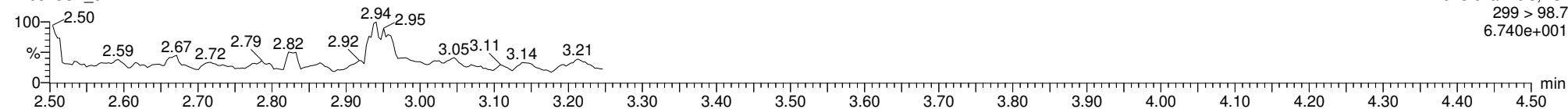
ID: B7C0138-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170328G1_9, Date: 28-Mar-2017, Time: 16:44:22, Instrument: , Lab: , User:

Total PFBS

170328G1_9

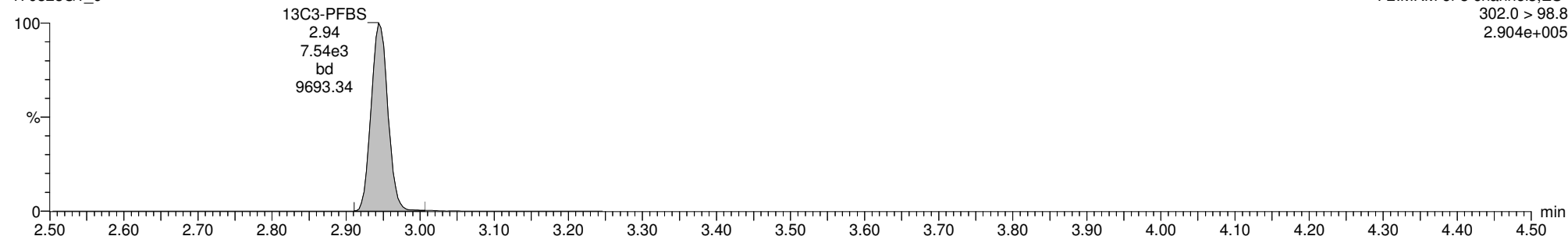


170328G1_9



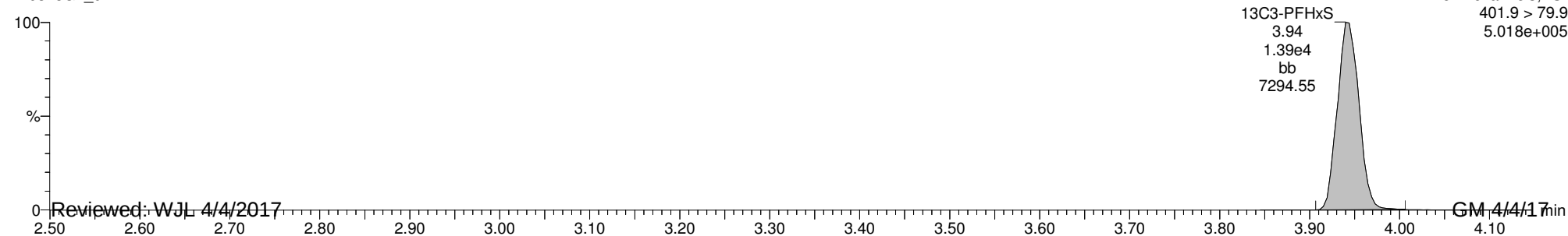
13C3-PFBS

170328G1_9



13C3-PFHxS

170328G1_9



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-9.qld

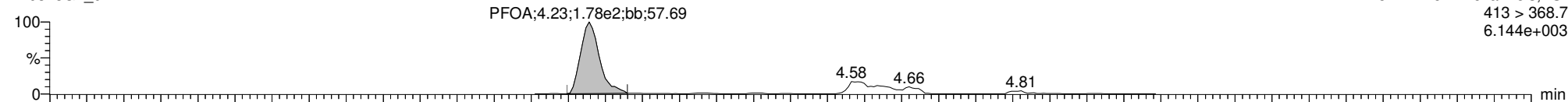
Last Altered: Tuesday, April 04, 2017 12:25:30 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:25:49 Pacific Daylight Time

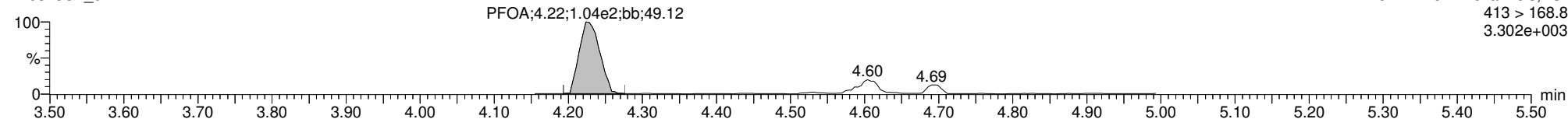
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Total PFOA

170328G1_9

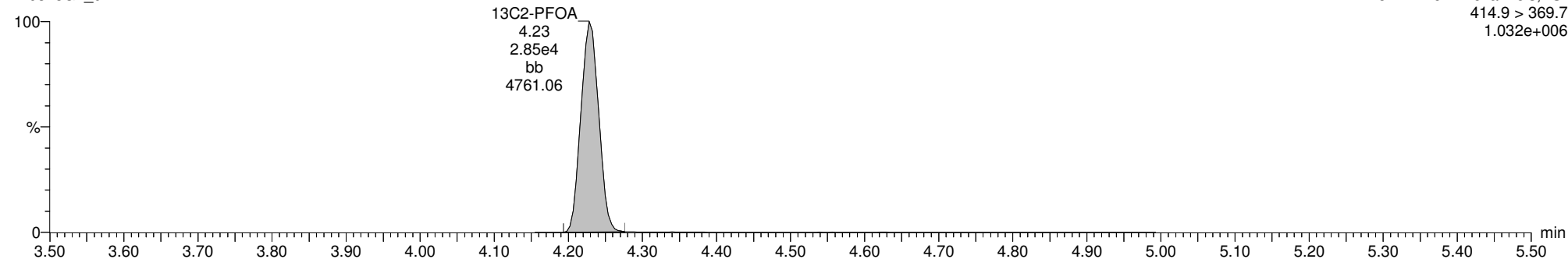


170328G1_9



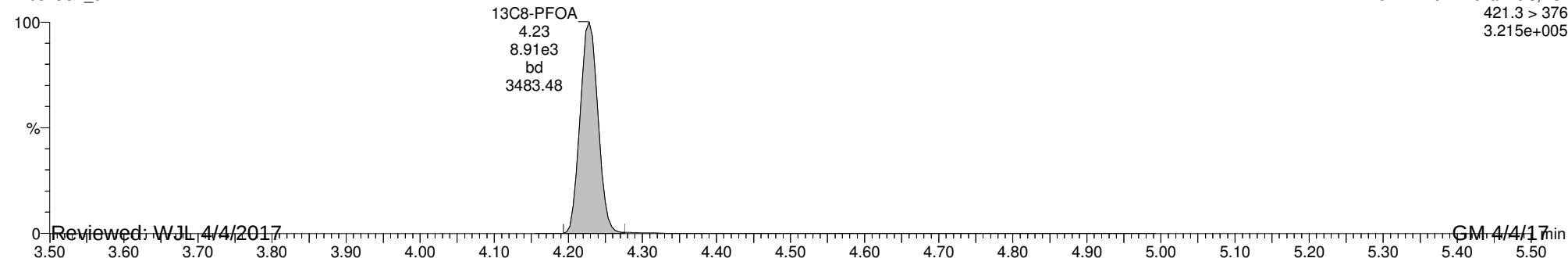
13C2-PFOA

170328G1_9



13C8-PFOA

170328G1_9



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-9.qld

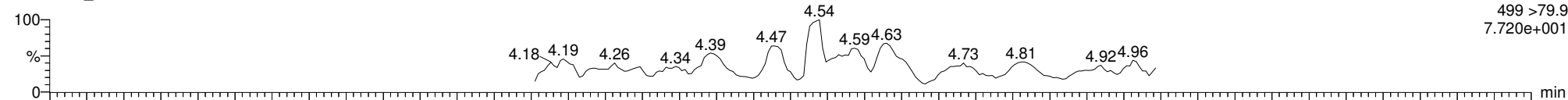
Last Altered: Tuesday, April 04, 2017 12:25:30 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:25:49 Pacific Daylight Time

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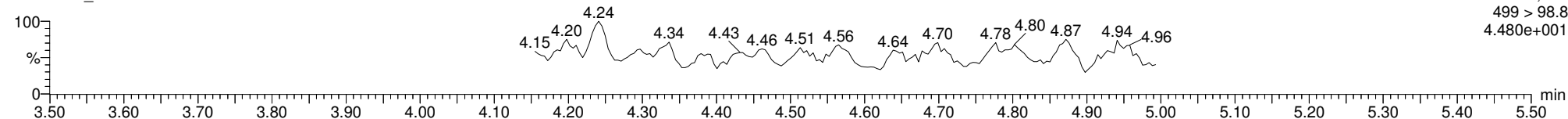
Total PFOS

170328G1_9



F5:MRM of 12 channels,ES-
499 >79.9
7.720e+001

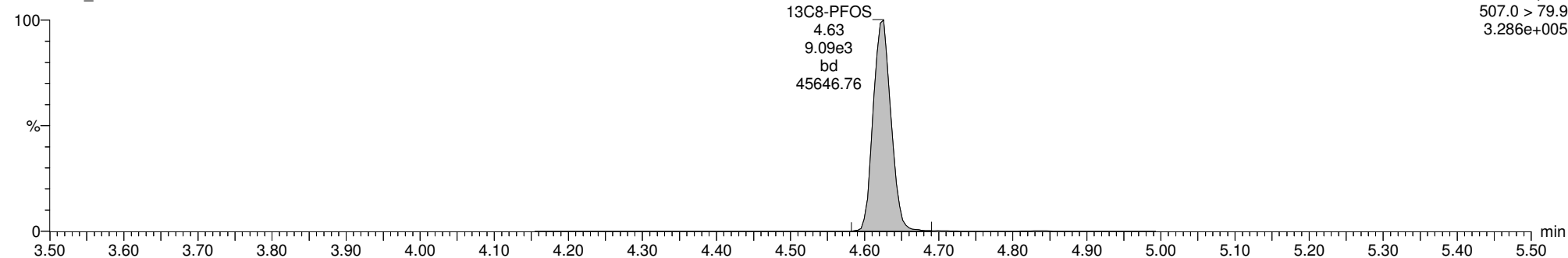
170328G1_9



F5:MRM of 12 channels,ES-
499 > 98.8
4.480e+001

13C8-PFOS

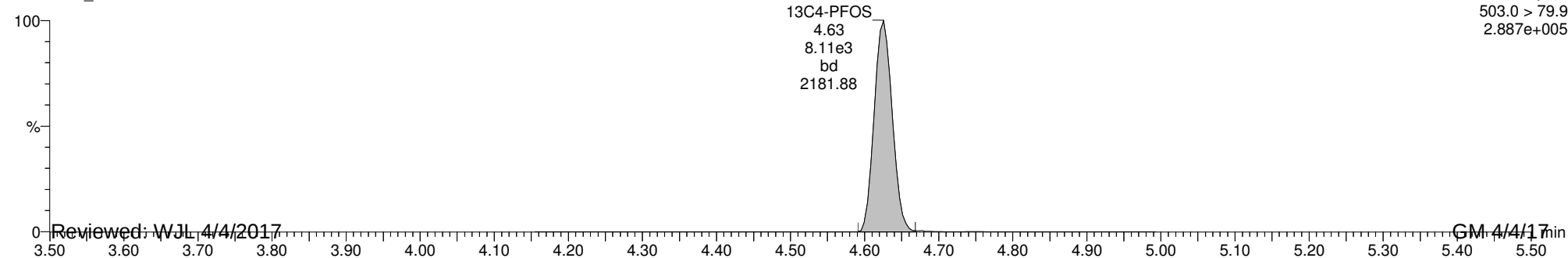
170328G1_9



F5:MRM of 12 channels,ES-
507.0 > 79.9
3.286e+005

13C4-PFOS

170328G1_9



F5:MRM of 12 channels,ES-
503.0 > 79.9
2.887e+005

Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-5.qld

Last Altered: Thursday, March 30, 2017 16:05:47 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:12:02 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: B7C0138-BS1 OPR 0.125, Description: OPR, Name: 170328G1_5, Date: 28-Mar-2017, Time: 14:28:38

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.059e4	7.224e3		0.125	3.08	64.3	80.4
2	4 PFOA	413 > 368.7	1.655e4	2.753e4		0.125	4.32	67.7	84.6
3	6 PFOS	499 > 79.9	3.081e3	8.493e3		0.125	4.70	66.7	83.4
4	7 13C3-PFBS	302.0 > 98.8	7.224e3	1.190e4	0.501	0.125	3.08	121	121
5	10 13C2-PFOA	414.9 > 369.7	2.753e4	8.360e3	3.221	0.125	4.32	102	102
6	12 13C8-PFOS	507.0 > 79.9	8.493e3	7.048e3	1.080	0.125	4.70	112	112
7	14 13C3-PFHxS	401.9 > 79.9	1.190e4	1.190e4	1.000	0.125	4.04	100	100
8	15 13C8-PFOA	421.3 > 376	8.360e3	8.360e3	1.000	0.125	4.31	100	100
9	17 13C4-PFOS	503.0 > 79.9	7.048e3	7.048e3	1.000	0.125	4.70	100	100

Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-5.qld

Last Altered: Thursday, March 30, 2017 16:05:47 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:12:09 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: B7C0138-BS1 OPR 0.125, Description: OPR, Name: 170328G1_5, Date: 28-Mar-2017, Time: 14:28:38

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	18 Total PFBS	299 > 79.7		6.744e3		0.125		64.3	
2	20 Total PFOA	413 > 368.7		2.753e4		0.125		67.7	
3	21 Total PFOS	499 > 79.9		8.493e3		0.125		66.7	

Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-5.qld

Last Altered: Thursday, March 30, 2017 16:05:47 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:12:02 Pacific Daylight Time

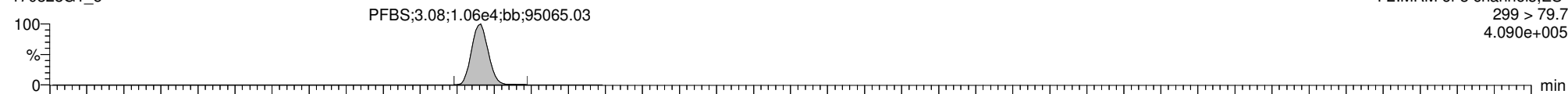
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

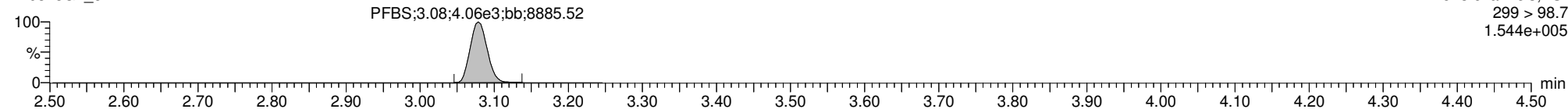
ID: B7C0138-BS1 OPR 0.125, Description: OPR, Name: 170328G1_5, Date: 28-Mar-2017, Time: 14:28:38, Instrument: , Lab: , User:

Total PFBS

170328G1_5

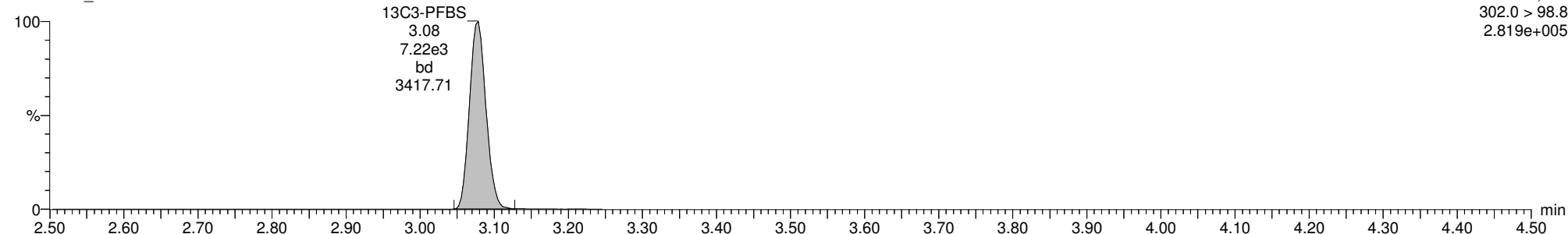


170328G1_5



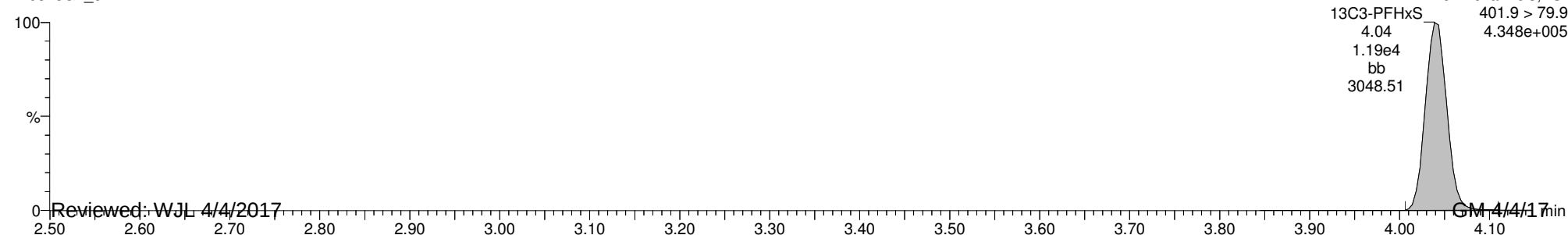
13C3-PFBS

170328G1_5



13C3-PFHxS

170328G1_5



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-5.qld

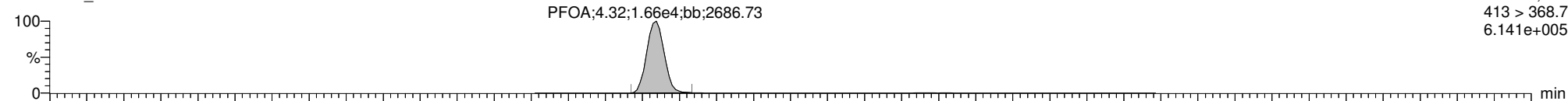
Last Altered: Thursday, March 30, 2017 16:05:47 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:12:02 Pacific Daylight Time

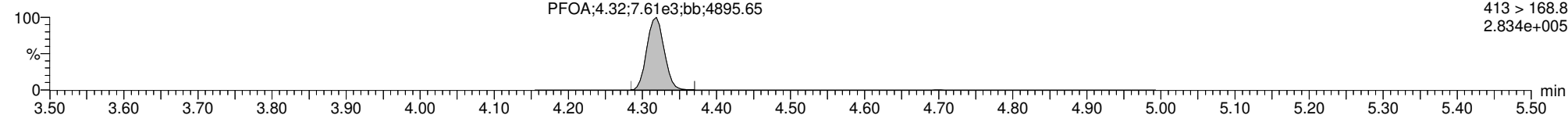
ID: B7C0138-BS1 OPR 0.125, Description: OPR, Name: 170328G1_5, Date: 28-Mar-2017, Time: 14:28:38, Instrument: , Lab: , User:

Total PFOA

170328G1_5

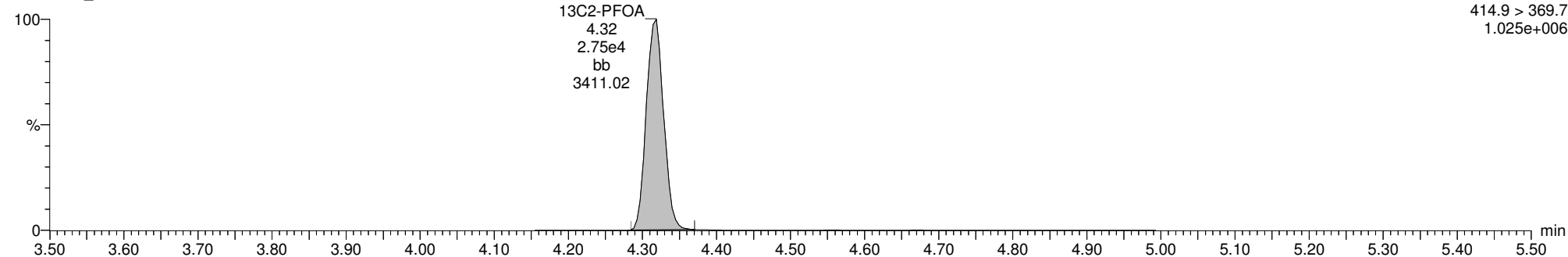


170328G1_5



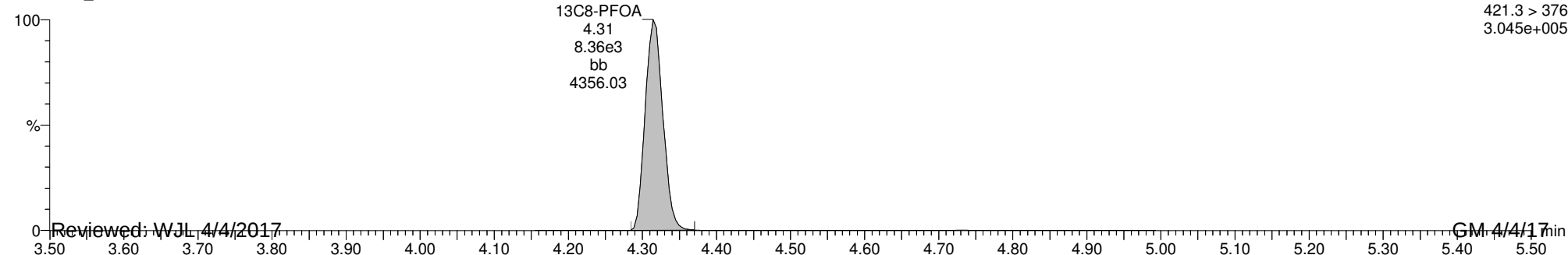
13C2-PFOA

170328G1_5



13C8-PFOA

170328G1_5



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170328G1\170328G1-5.qld

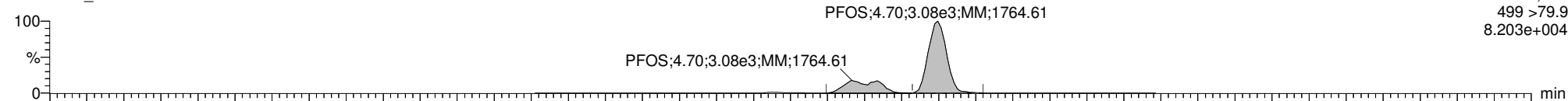
Last Altered: Thursday, March 30, 2017 16:05:47 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:12:02 Pacific Daylight Time

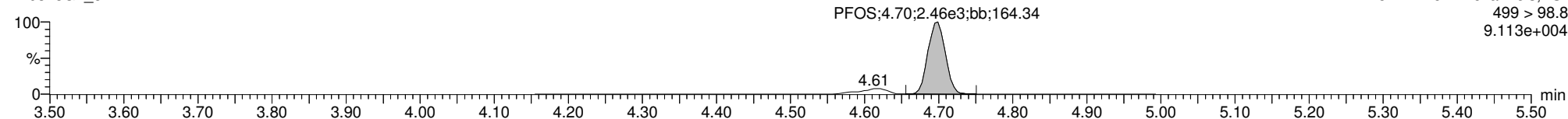
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Total PFOS

170328G1_5

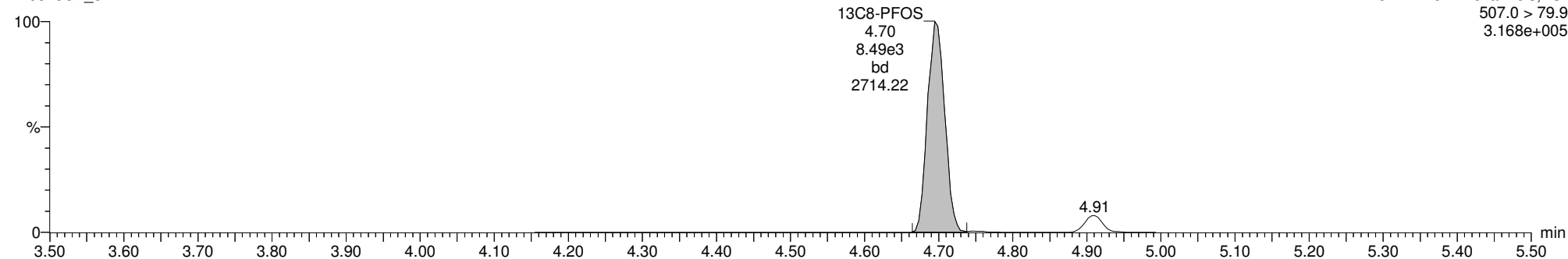


170328G1_5



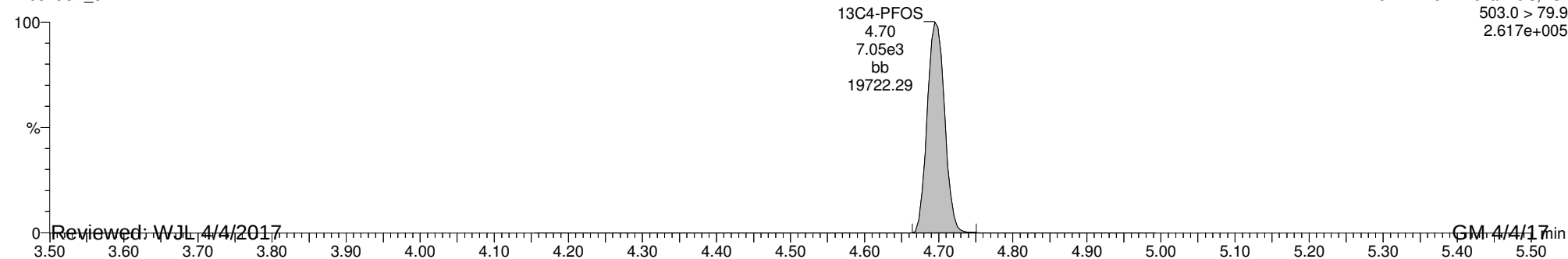
13C8-PFOS

170328G1_5



13C4-PFOS

170328G1_5



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-9.qld

Last Altered: Tuesday, March 28, 2017 15:01:23 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:09:59 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-01 CBD-BKG-MW02-0317 0.125, Description: CBD-BKG-MW02-0317, Name: 170324G2_9, Date: 24-Mar-2017, Time: 17:29:22

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	7.178e1	6.631e3		0.126	2.96	0.232	
2	4 PFOA	413 > 368.7	2.647e2	2.431e4		0.126	4.23		
3	6 PFOS	499 > 79.9		7.904e3		0.126			
4	7 13C3-PFBS	302.0 > 98.8	6.631e3	1.213e4	0.501	0.126	2.95	108	109
5	10 13C2-PFOA	414.9 > 369.7	2.431e4	6.502e3	3.221	0.126	4.23	115	116
6	12 13C8-PFOS	507.0 > 79.9	7.904e3	7.015e3	1.080	0.126	4.62	103	104
7	14 13C3-PFHxS	401.9 > 79.9	1.213e4	1.213e4	1.000	0.126	3.94	98.9	100
8	15 13C8-PFOA	421.3 > 376	6.502e3	6.502e3	1.000	0.126	4.23	98.9	100
9	16 13C9-PFNA	472.2 > 426.9	7.474e3	7.474e3	1.000	0.126	4.56	98.9	100
10	17 13C4-PFOS	503.0 > 79.9	7.015e3	7.015e3	1.000	0.126	4.63	98.9	100
11	18 Total PFBS	299 > 79.7		6.281e3		0.126		0.232	
12	20 Total PFOA	413 > 368.7		2.431e4		0.126			
13	21 Total PFOS	499 > 79.9		7.904e3		0.126			

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-9.qld

Last Altered: Tuesday, March 28, 2017 15:01:23 Pacific Daylight Time

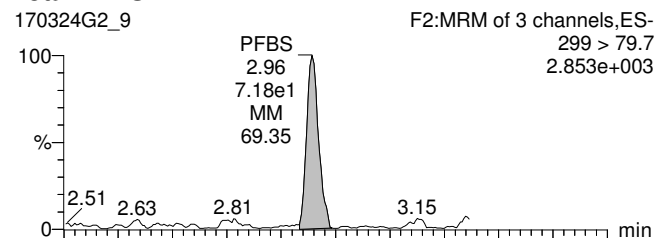
Printed: Tuesday, April 04, 2017 12:09:59 Pacific Daylight Time

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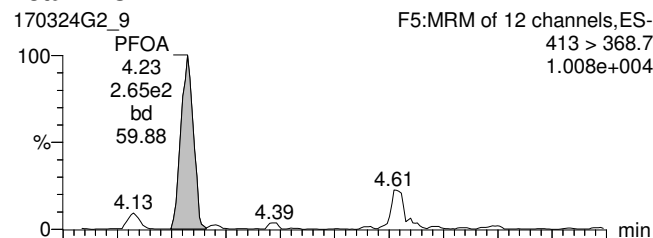
Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-01 CBD-BKG-MW02-0317 0.125, Description: CBD-BKG-MW02-0317, Name: 170324G2_9, Date: 24-Mar-2017, Time: 17:29:22, Instrument: , Lab: , User:

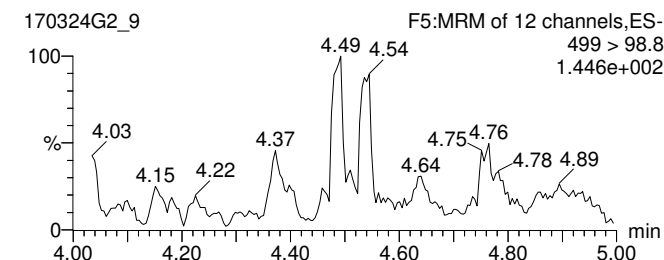
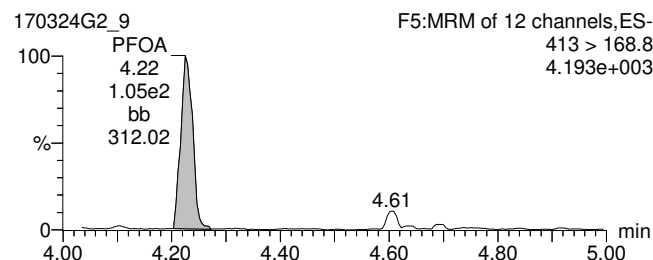
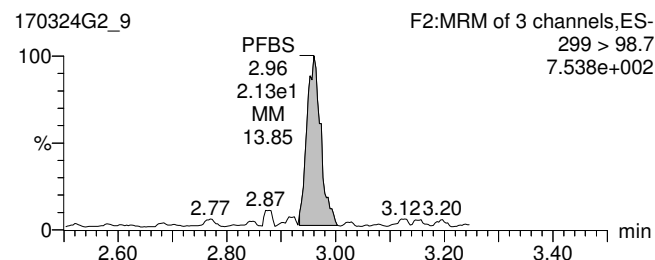
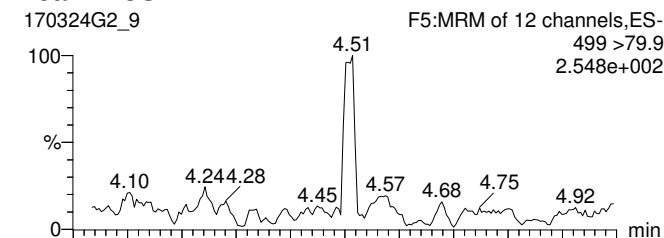
Total PFBS



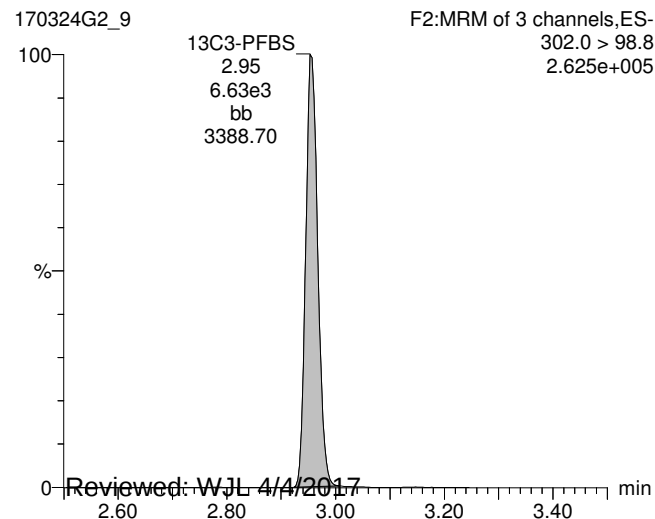
Total PFOA



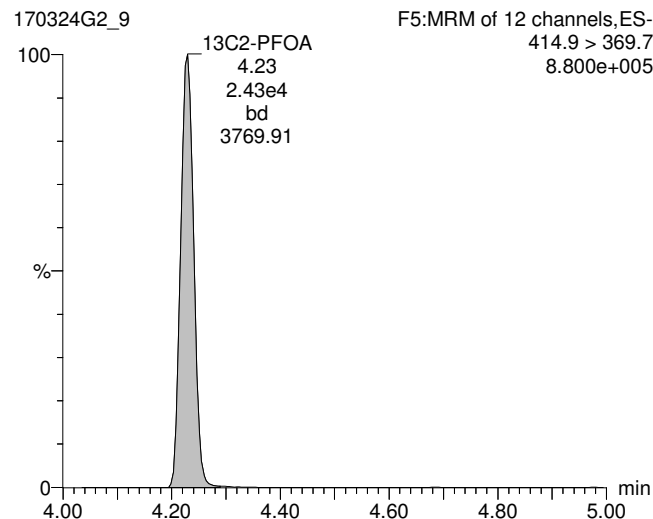
Total PFOS



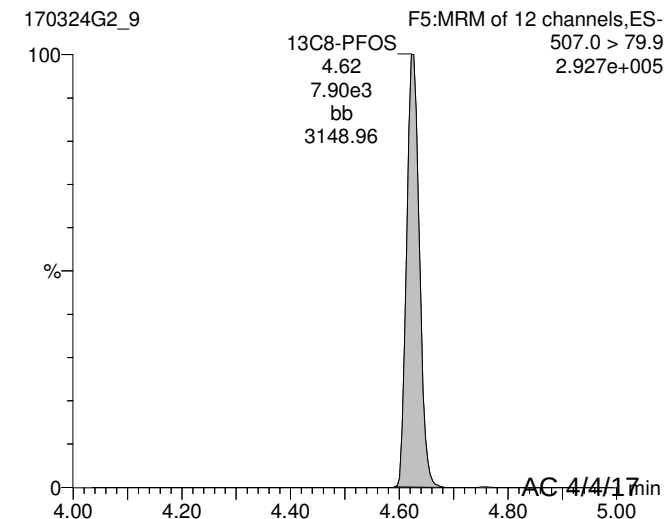
13C3-PFBS



13C2-PFOA



13C8-PFOS



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-9.qld

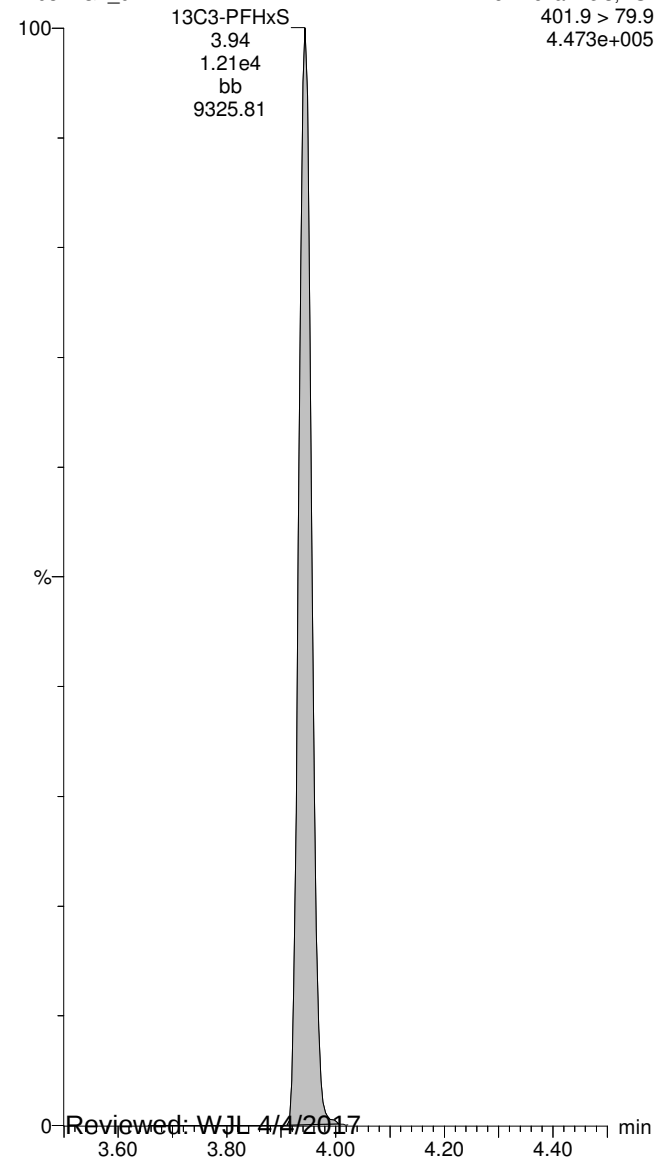
Last Altered: Tuesday, March 28, 2017 15:01:23 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:09:59 Pacific Daylight Time

ID: 1700355-01 CBD-BKG-MW02-0317 0.125, Description: CBD-BKG-MW02-0317, Name: 170324G2_9, Date: 24-Mar-2017, Time: 17:29:22, Instrument: , Lab: , User:

13C3-PFHxS

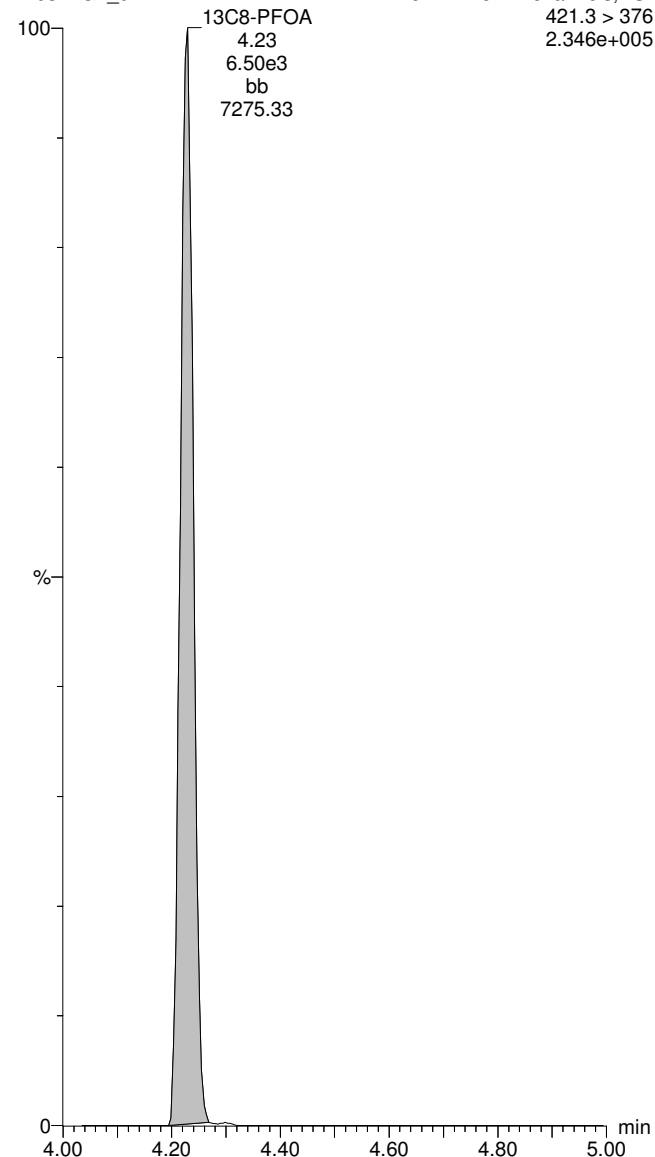
170324G2_9



Work Order 1700355

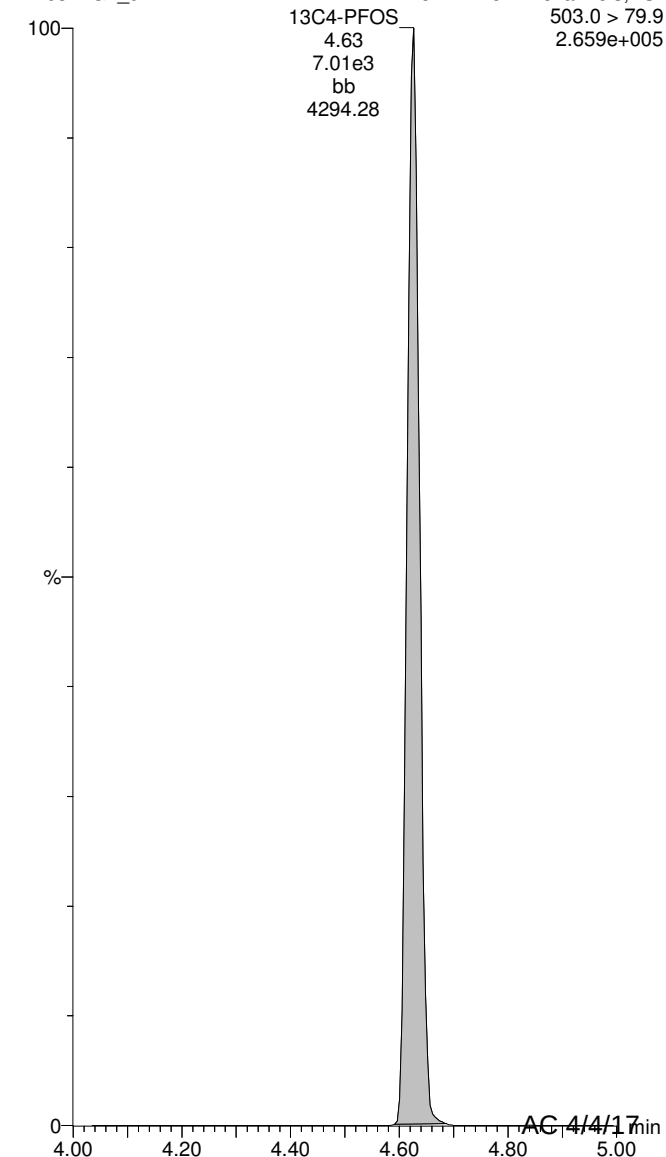
13C8-PFOA

170324G2_9



13C4-PFOS

170324G2_9



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-10.qld

Last Altered: Thursday, March 30, 2017 16:12:59 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:10:57 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-02 CBD-EB01-032017 0.125, Description: CBD-EB01-032017, Name: 170324G2_10, Date: 24-Mar-2017, Time: 17:41:55

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.251e0	6.739e3		0.120	2.95		
2	4 PFOA	413 > 368.7	2.853e2	3.428e4		0.120	4.23		
3	6 PFOS	499 > 79.9		1.053e4		0.120			
4	7 13C3-PFBS	302.0 > 98.8	6.739e3	1.503e4	0.501	0.120	2.96	93.1	89.5
5	10 13C2-PFOA	414.9 > 369.7	3.428e4	9.097e3	3.221	0.120	4.23	122	117
6	12 13C8-PFOS	507.0 > 79.9	1.053e4	1.013e4	1.080	0.120	4.63	100	96.2
7	14 13C3-PFHxS	401.9 > 79.9	1.503e4	1.503e4	1.000	0.120	3.94	104	100
8	15 13C8-PFOA	421.3 > 376	9.097e3	9.097e3	1.000	0.120	4.23	104	100
9	16 13C9-PFNA	472.2 > 426.9	1.185e4	1.185e4	1.000	0.120	4.56	104	100
10	17 13C4-PFOS	503.0 > 79.9	1.013e4	1.013e4	1.000	0.120	4.63	104	100
11	18 Total PFBS	299 > 79.7		7.439e3		0.120			
12	20 Total PFOA	413 > 368.7		3.428e4		0.120			
13	21 Total PFOS	499 > 79.9		1.053e4		0.120			

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-10.qld

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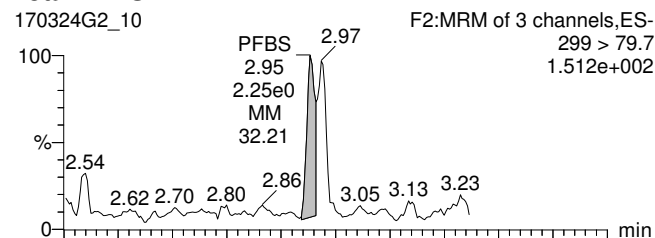
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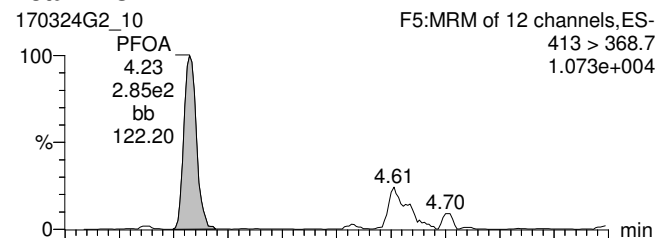
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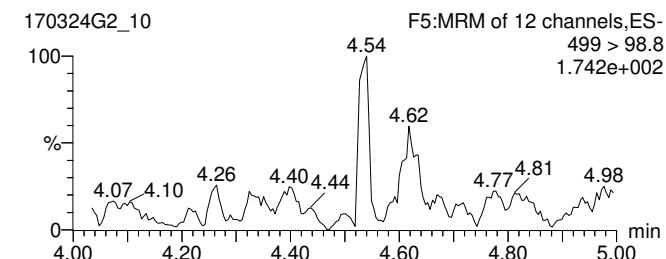
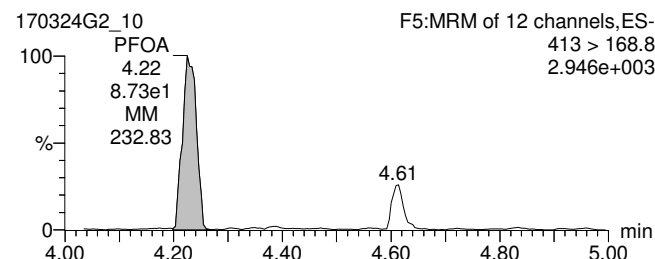
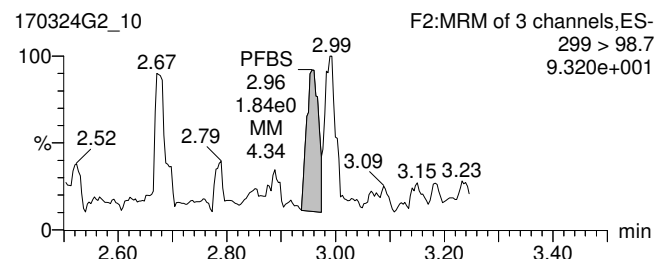
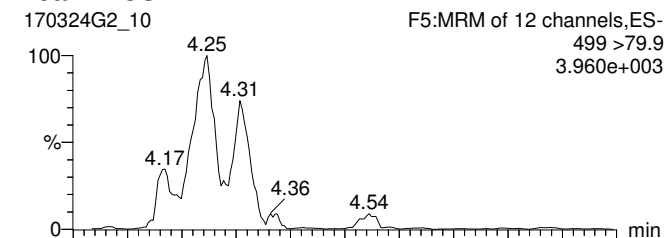
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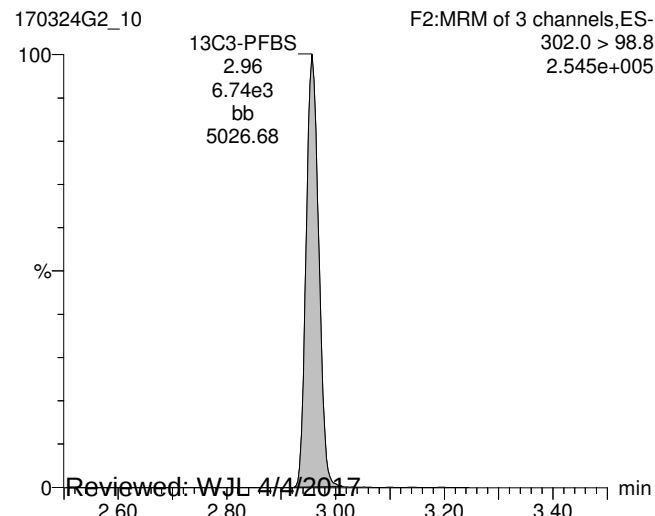
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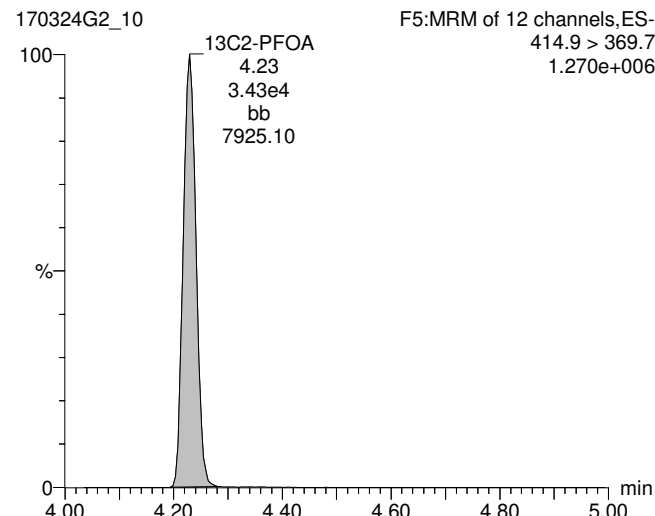
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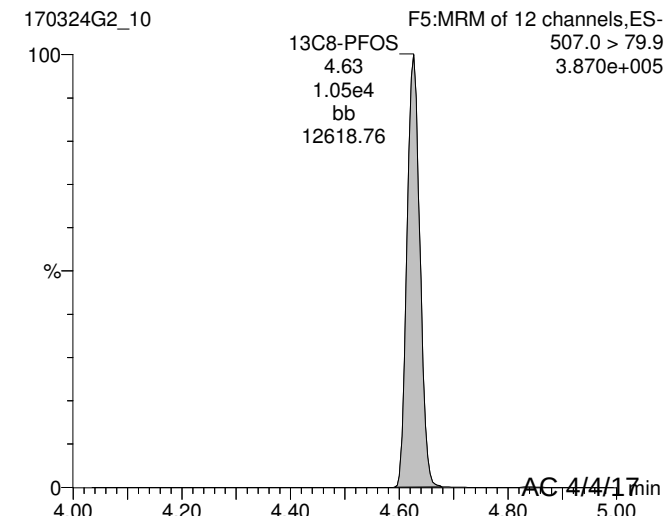
13C3-PFBS



13C2-PFOA



13C8-PFOS



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-10.qld

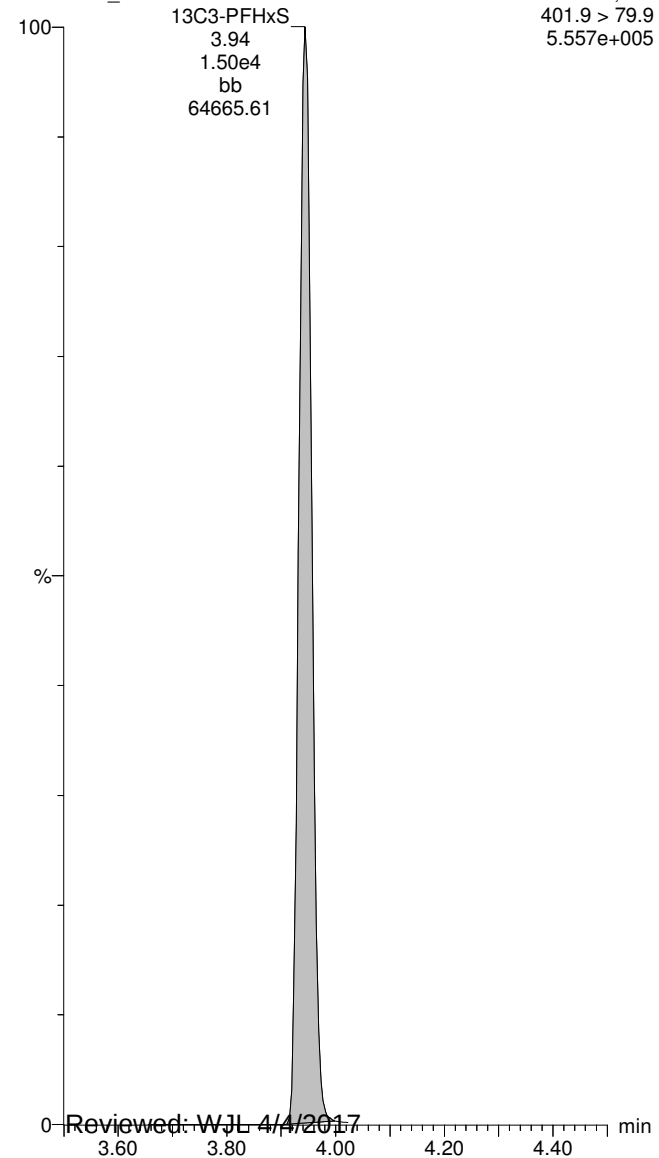
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13C3-PFHxS

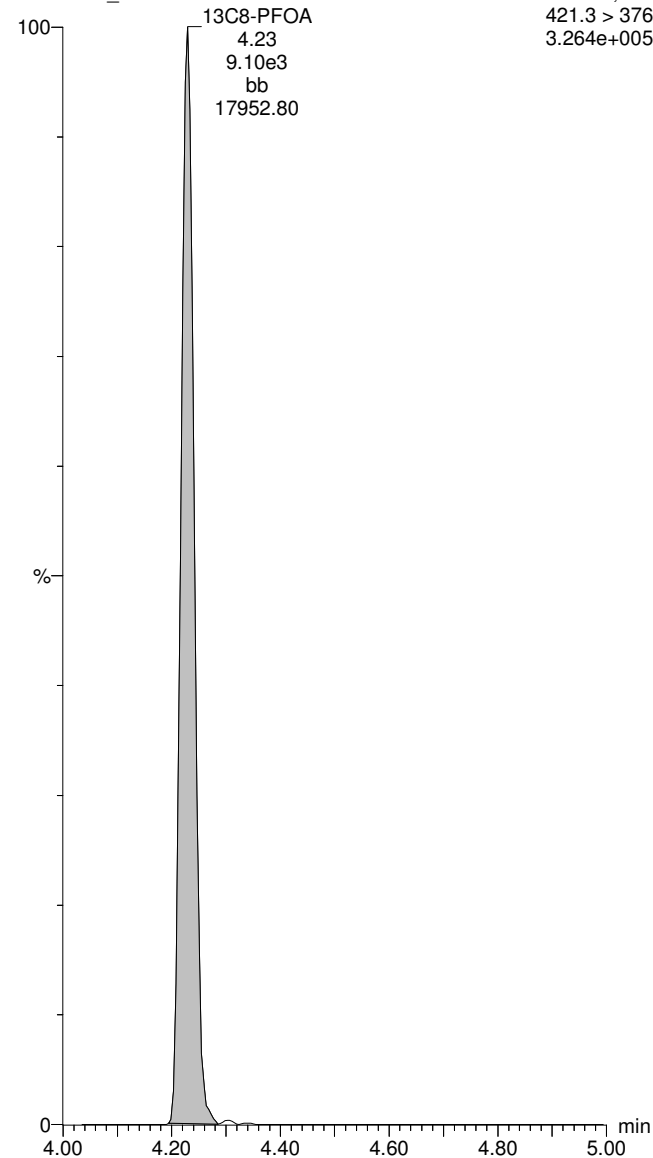
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Work Order 1700355

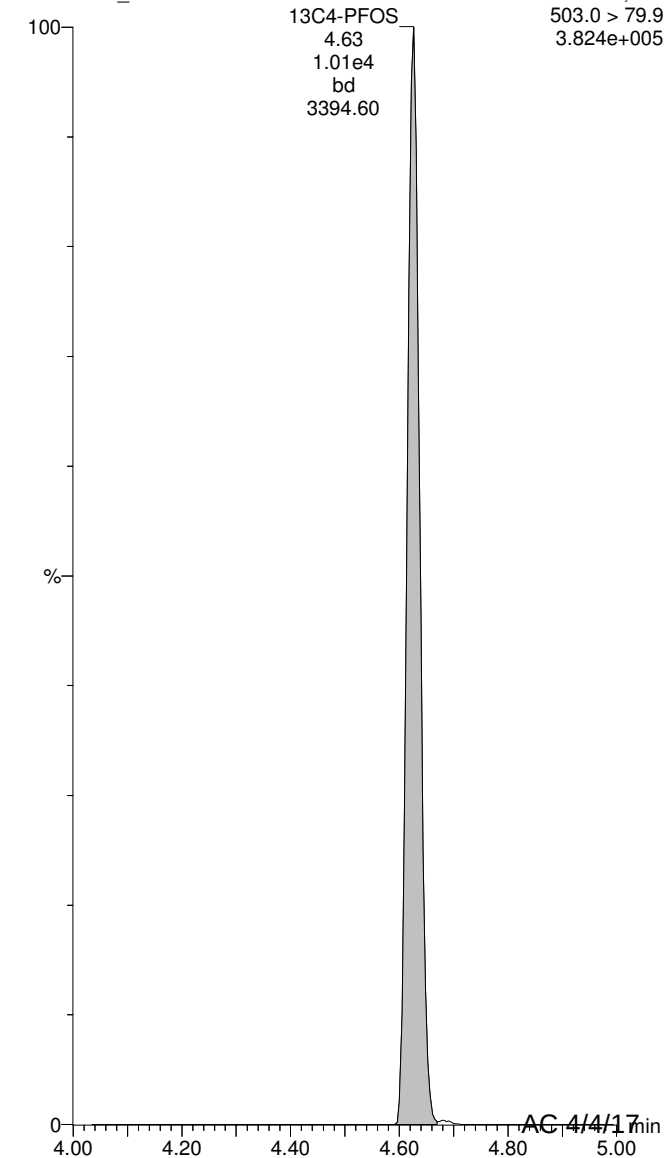
13C8-PFOA

170324G2_10



13C4-PFOS

170324G2_10



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-11.qld

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Printed: Tuesday, April 04, 2017 12:11:32 Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-03 CBD-BKG-MW01-0317 0.125, Description: CBD-BKG-MW01-0317, Name: 170324G2_11, Date: 24-Mar-2017, Time: 17:54:28

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.033e2	6.643e3		0.122	2.96	0.454	
2	4 PFOA	413 > 368.7	4.016e2	2.649e4		0.122	4.23	0.445	
3	6 PFOS	499 > 79.9	1.773e2	7.309e3		0.122	4.51	5.63	
4	7 13C3-PFBS	302.0 > 98.8	6.643e3	1.293e4	0.501	0.122	2.95	105	103
5	10 13C2-PFOA	414.9 > 369.7	2.649e4	7.224e3	3.221	0.122	4.23	117	114
6	12 13C8-PFOS	507.0 > 79.9	7.309e3	6.785e3	1.080	0.122	4.63	102	99.8
7	14 13C3-PFHxS	401.9 > 79.9	1.293e4	1.293e4	1.000	0.122	3.94	103	100
8	15 13C8-PFOA	421.3 > 376	7.224e3	7.224e3	1.000	0.122	4.22	103	100
9	16 13C9-PFNA	472.2 > 426.9	8.551e3	8.551e3	1.000	0.122	4.56	103	100
10	17 13C4-PFOS	503.0 > 79.9	6.785e3	6.785e3	1.000	0.122	4.63	103	100
11	18 Total PFBS	299 > 79.7		7.241e3		0.122		0.454	
12	20 Total PFOA	413 > 368.7		2.649e4		0.122		0.445	
13	21 Total PFOS	499 > 79.9		7.309e3		0.122		5.63	

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-11.qld

Last Altered: Tuesday, March 28, 2017 15:11:27 Pacific Daylight Time

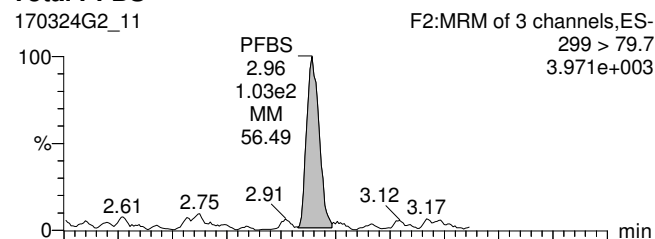
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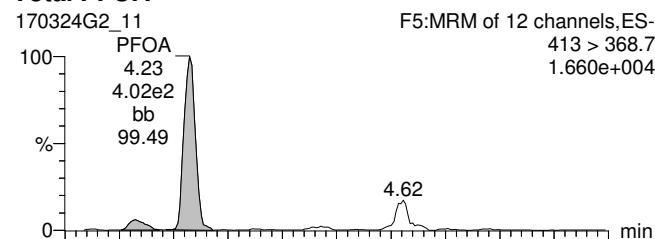
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ID: 1700355-03 CBD-BKG-MW01-0317 0.125, Description: CBD-BKG-MW01-0317, Name: 170324G2_11, Date: 24-Mar-2017, Time: 17:54:28, Instrument: , Lab: , User:

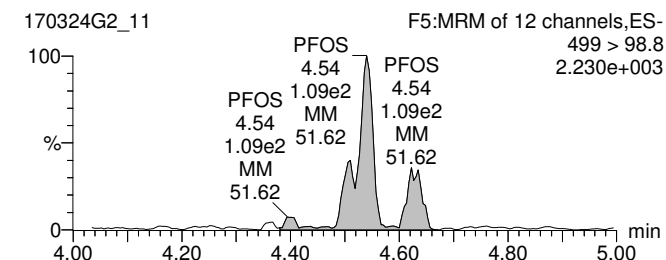
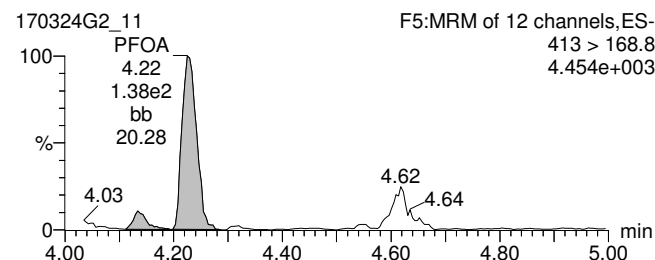
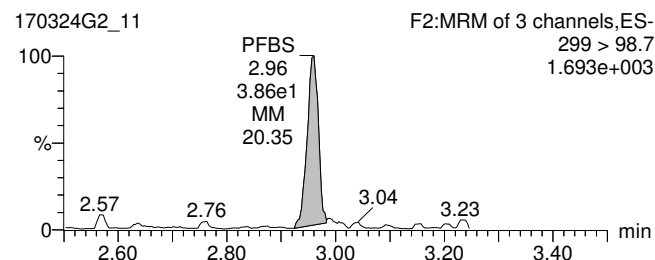
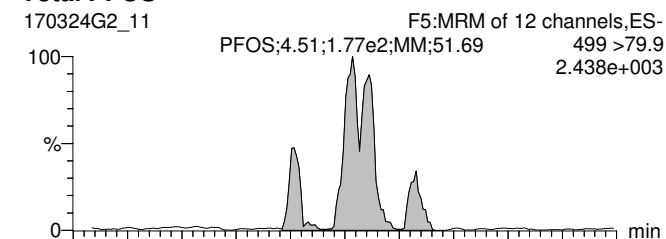
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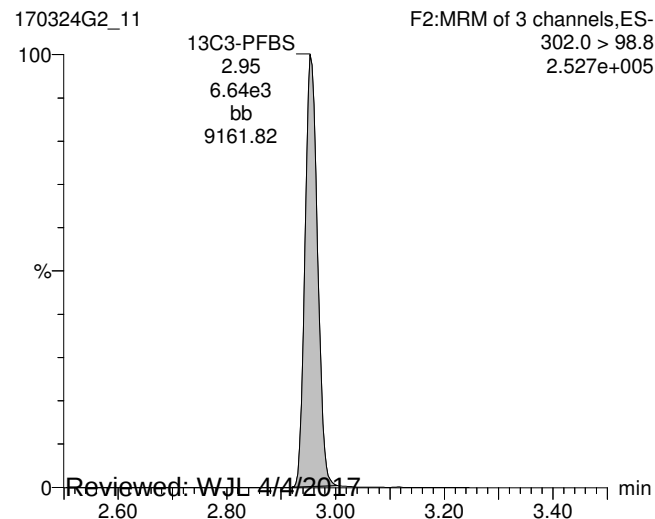
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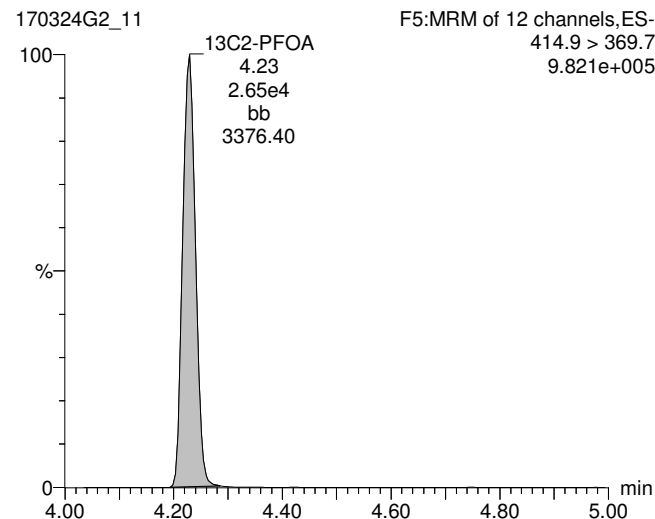
Total PFOS



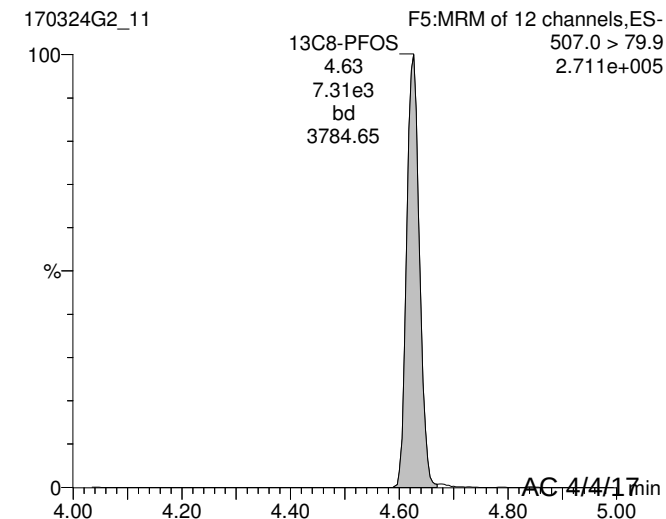
13C3-PFBS



13C2-PFOA



13C8-PFOS



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-11.qld

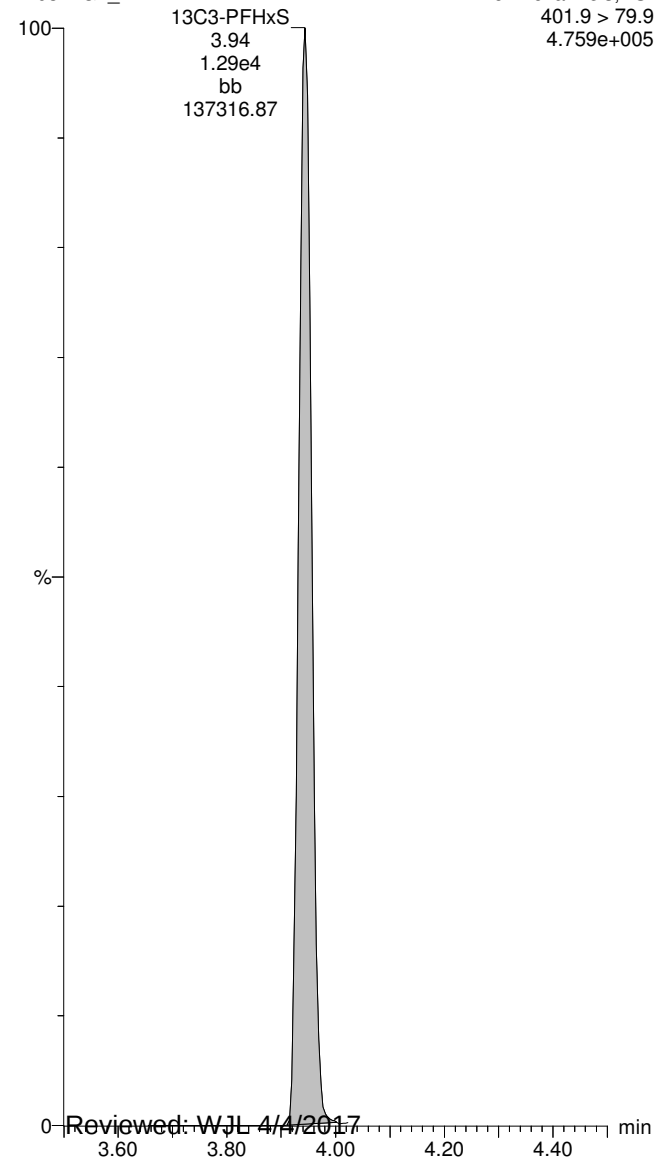
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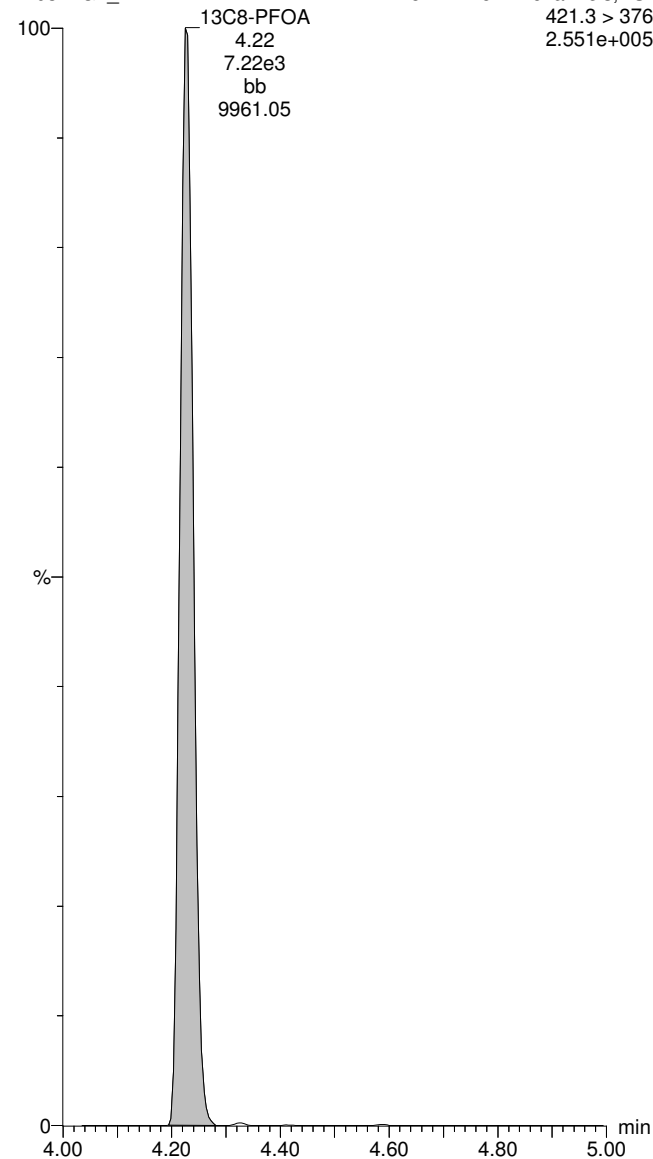
13C3-PFHxS

170324G2_11



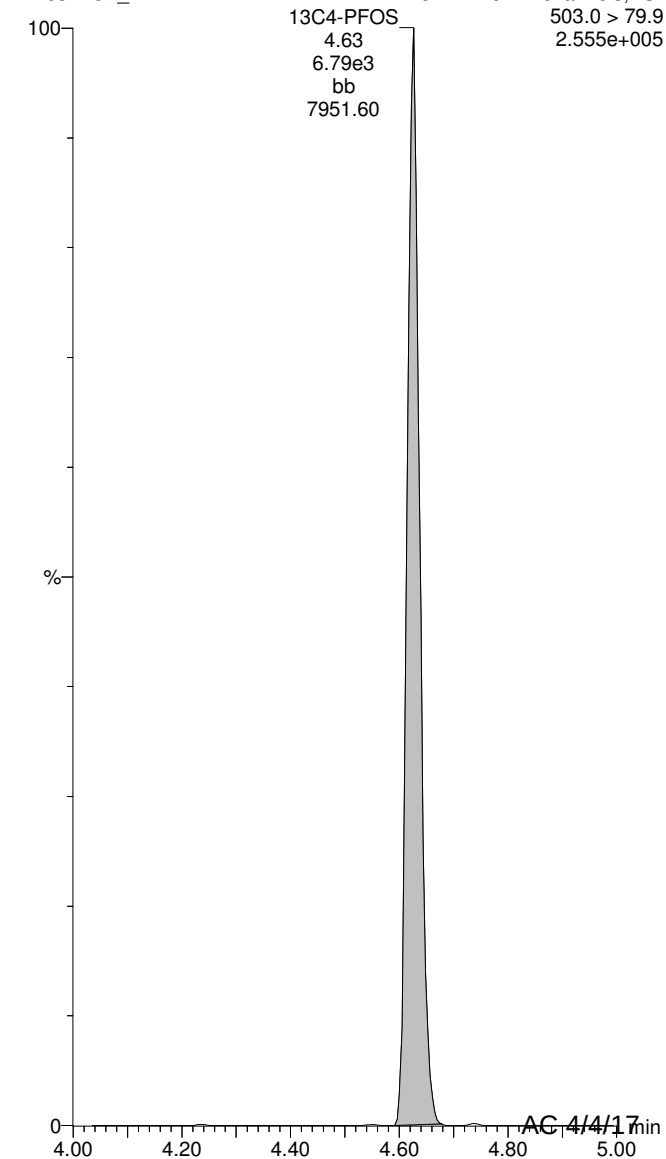
13C8-PFOA

170324G2_11



13C4-PFOS

170324G2_11



Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-12.qld

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Printed: Tuesday, April 04, 2017 12:12:06 Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-04 CBD-BKG-MW01P-0317 0.125, Description: CBD-BKG-MW01P-0317, Name: 170324G2_12, Date: 24-Mar-2017, Time: 18:07:00

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	9.506e1	6.961e3		0.127	2.96	0.354	
2	4 PFOA	413 > 368.7	4.278e2	2.526e4		0.127	4.23	0.628	
3	6 PFOS	499 > 79.9	2.232e2	6.509e3		0.127	4.51	7.19	
4	7 13C3-PFBS	302.0 > 98.8	6.961e3	1.262e4	0.501	0.127	2.96	108	110
5	10 13C2-PFOA	414.9 > 369.7	2.526e4	6.511e3	3.221	0.127	4.23	119	120
6	12 13C8-PFOS	507.0 > 79.9	6.509e3	6.613e3	1.080	0.127	4.63	89.7	91.2
7	14 13C3-PFHxS	401.9 > 79.9	1.262e4	1.262e4	1.000	0.127	3.94	98.5	100
8	15 13C8-PFOA	421.3 > 376	6.511e3	6.511e3	1.000	0.127	4.23	98.5	100
9	16 13C9-PFNA	472.2 > 426.9	8.445e3	8.445e3	1.000	0.127	4.57	98.5	100
10	17 13C4-PFOS	503.0 > 79.9	6.613e3	6.613e3	1.000	0.127	4.63	98.5	100
11	18 Total PFBS	299 > 79.7		6.132e3		0.127		0.354	
12	20 Total PFOA	413 > 368.7		2.526e4		0.127		0.628	
13	21 Total PFOS	499 > 79.9		6.509e3		0.127		7.19	

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-12.qld

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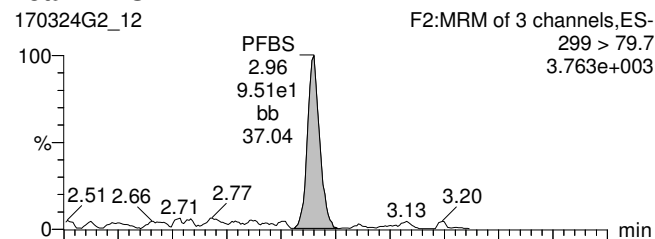
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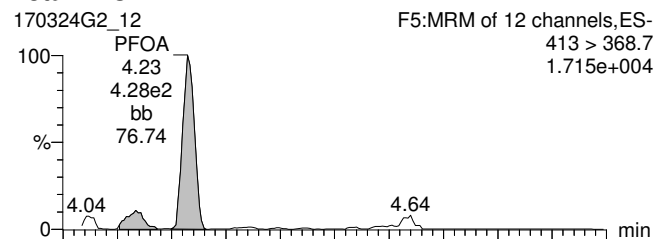
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ID: 1700355-04 CBD-BKG-MW01P-0317 0.125, Description: CBD-BKG-MW01P-0317, Name: 170324G2_12, Date: 24-Mar-2017, Time: 18:07:00, Instrument: , Lab: , User:

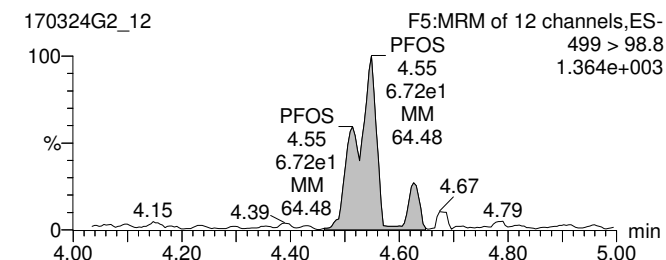
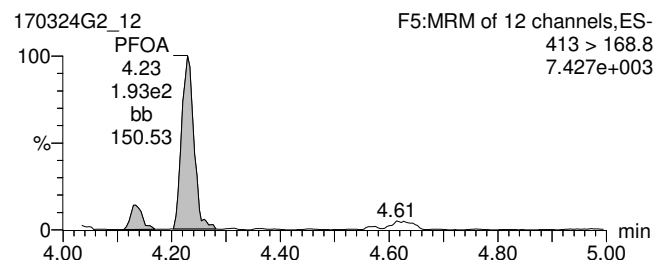
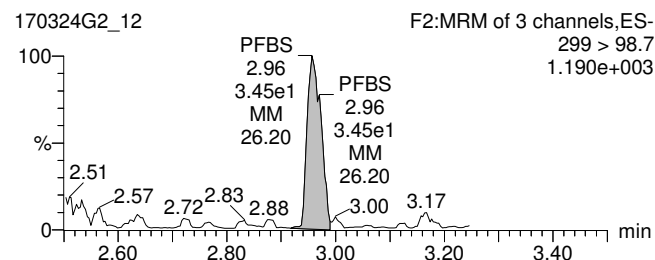
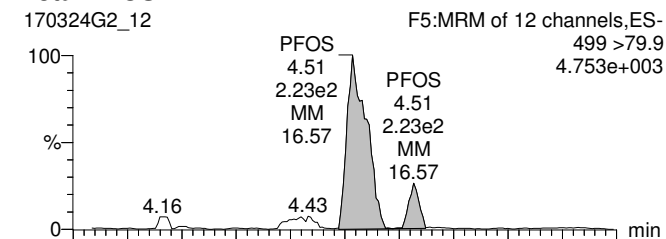
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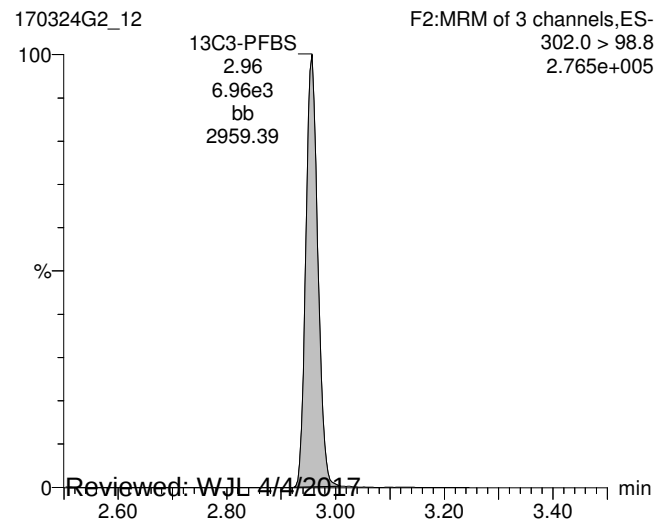
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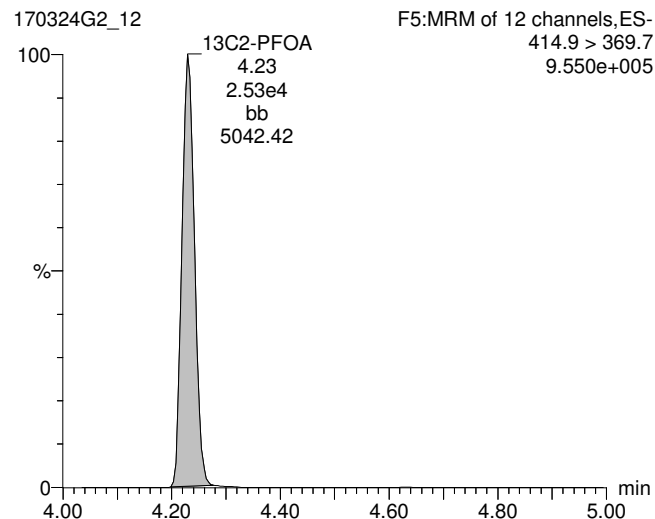
Total PFOS



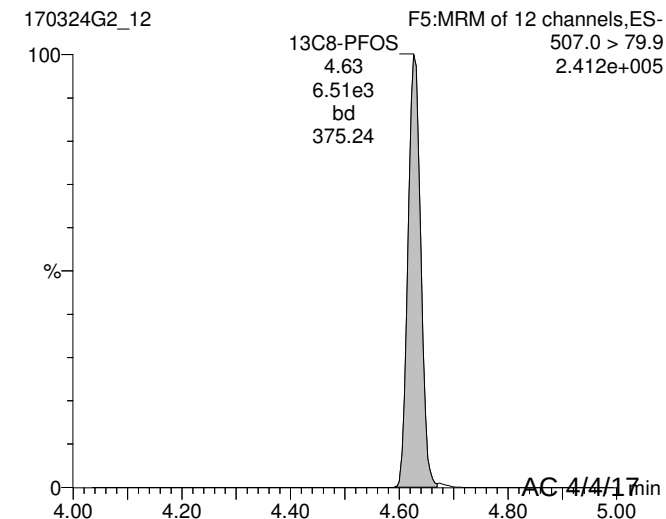
13C3-PFBS



13C2-PFOA



13C8-PFOS



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-12.qld

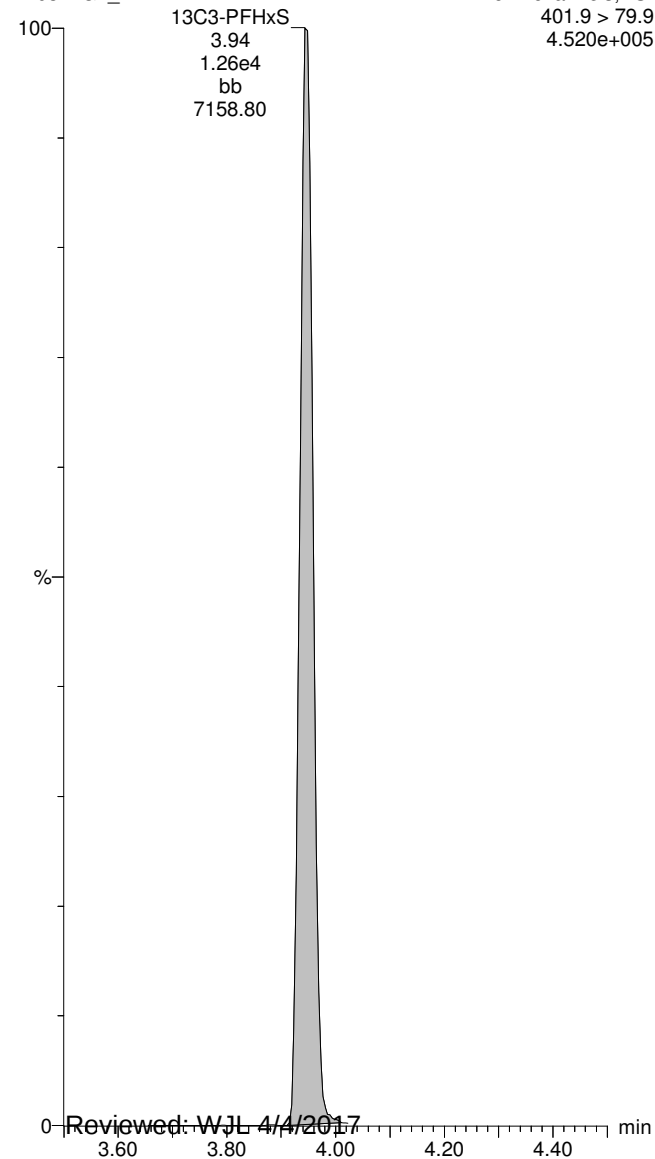
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13C3-PFHxS

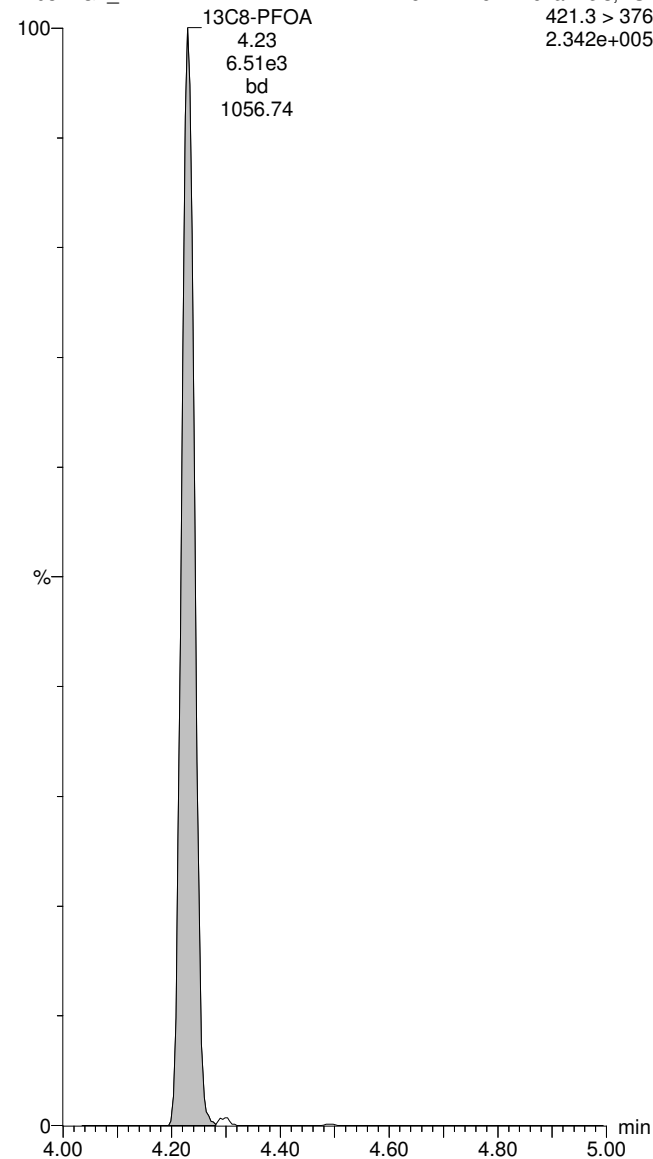
170324G2_12



Work Order 1700355

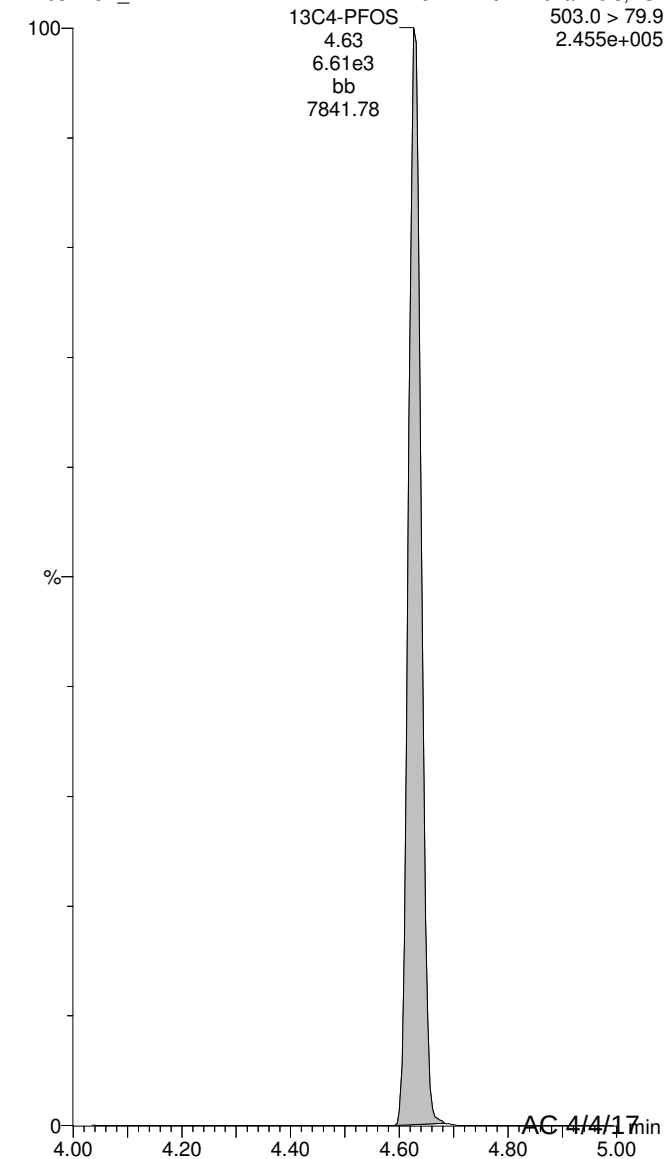
13C8-PFOA

170324G2_12



13C4-PFOS

170324G2_12



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-13.qld

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Printed: Tuesday, April 04, 2017 12:12:47 Pacific Daylight Time

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ID: 1700355-05 CBD-BKG-MW03-0317 0.125, Description: CBD-BKG-MW03-0317, Name: 170324G2_13, Date: 24-Mar-2017, Time: 18:19:30

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.470e2	7.902e3		0.129	2.96	0.558	
2	4 PFOA	413 > 368.7	4.483e2	4.016e4		0.129	4.23		
3	6 PFOS	499 > 79.9	2.080e1	1.561e4		0.129	4.55	1.30	
4	7 13C3-PFBS	302.0 > 98.8	7.902e3	1.877e4	0.501	0.129	2.96	81.2	84.0
5	10 13C2-PFOA	414.9 > 369.7	4.016e4	1.058e4	3.221	0.129	4.23	114	118
6	12 13C8-PFOS	507.0 > 79.9	1.561e4	1.457e4	1.080	0.129	4.63	95.9	99.2
7	14 13C3-PFHxS	401.9 > 79.9	1.877e4	1.877e4	1.000	0.129	3.94	96.7	100
8	15 13C8-PFOA	421.3 > 376	1.058e4	1.058e4	1.000	0.129	4.23	96.7	100
9	16 13C9-PFNA	472.2 > 426.9	1.436e4	1.436e4	1.000	0.129	4.56	96.7	100
10	17 13C4-PFOS	503.0 > 79.9	1.457e4	1.457e4	1.000	0.129	4.63	96.7	100
11	18 Total PFBS	299 > 79.7		9.181e3		0.129		0.558	
12	20 Total PFOA	413 > 368.7		4.016e4		0.129			
13	21 Total PFOS	499 > 79.9		1.561e4		0.129		1.30	

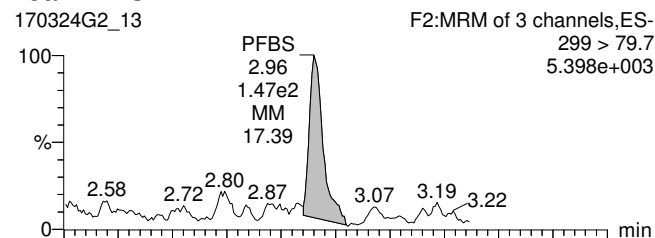
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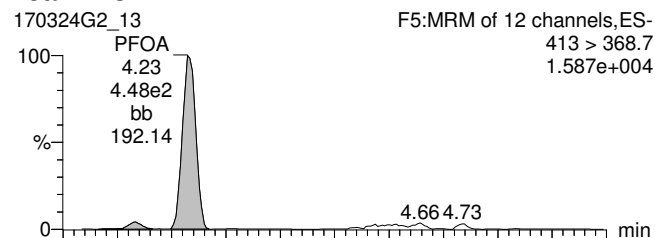
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ID: 1700355-05 CBD-BKG-MW03-0317 0.125, Description: CBD-BKG-MW03-0317, Name: 170324G2_13, Date: 24-Mar-2017, Time: 18:19:30, Instrument: , Lab: , User:

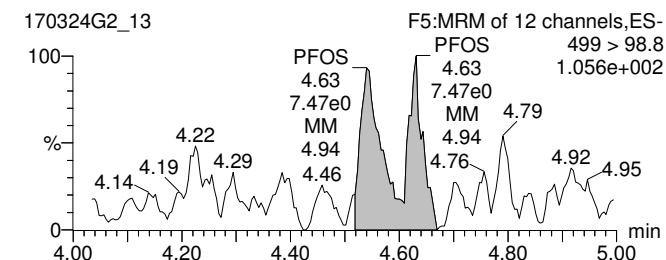
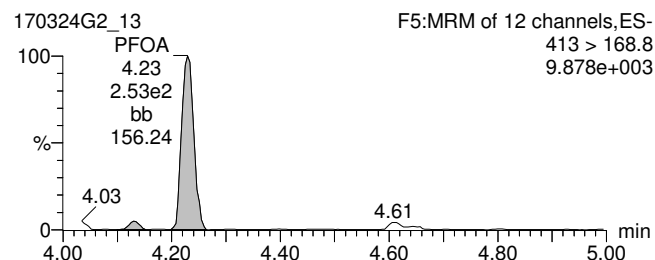
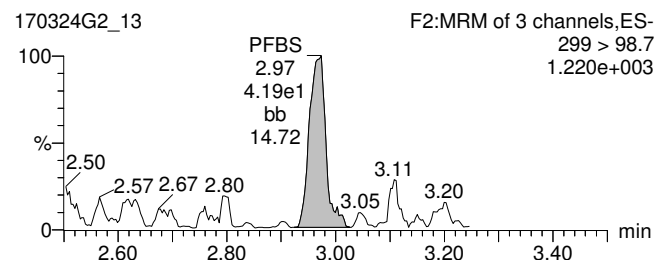
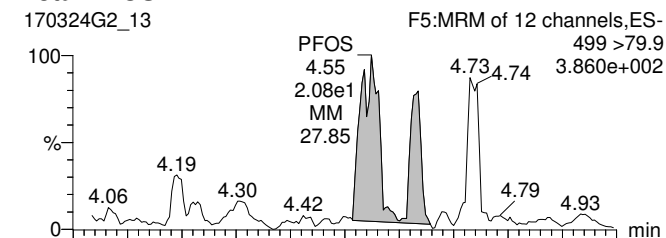
Total PFBS



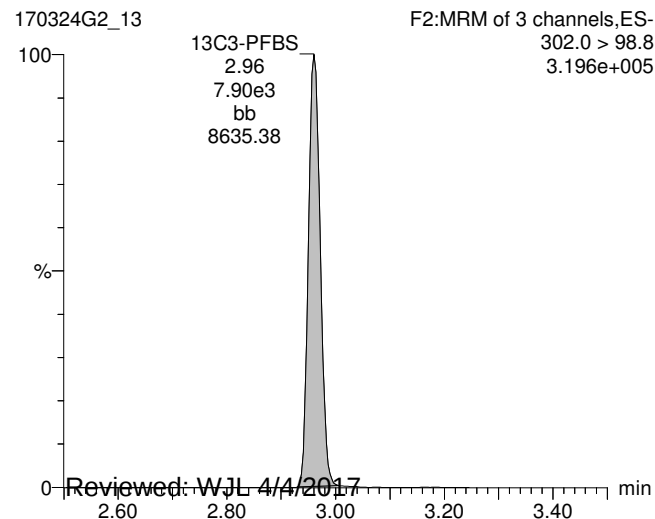
Total PFOA



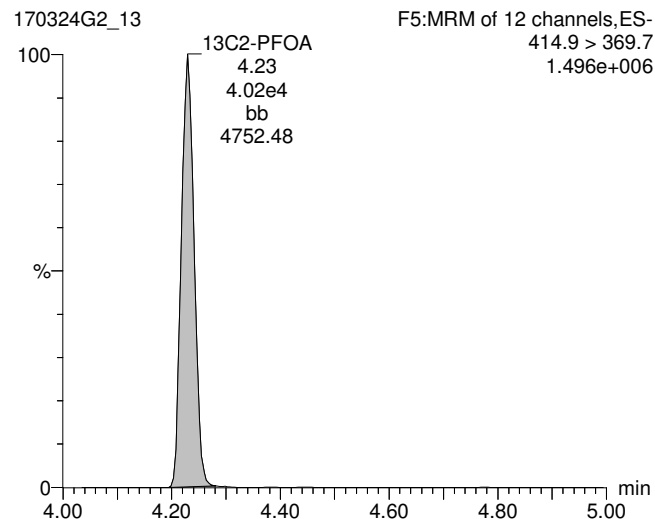
Total PFOS



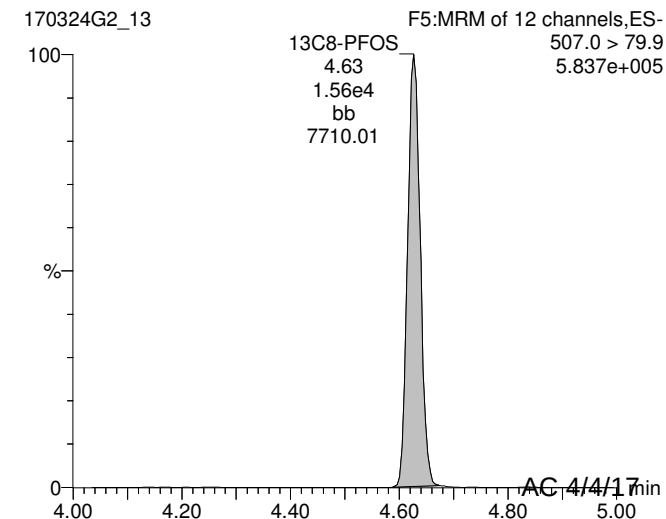
13C3-PFBS



13C2-PFOA



13C8-PFOS



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-13.qld

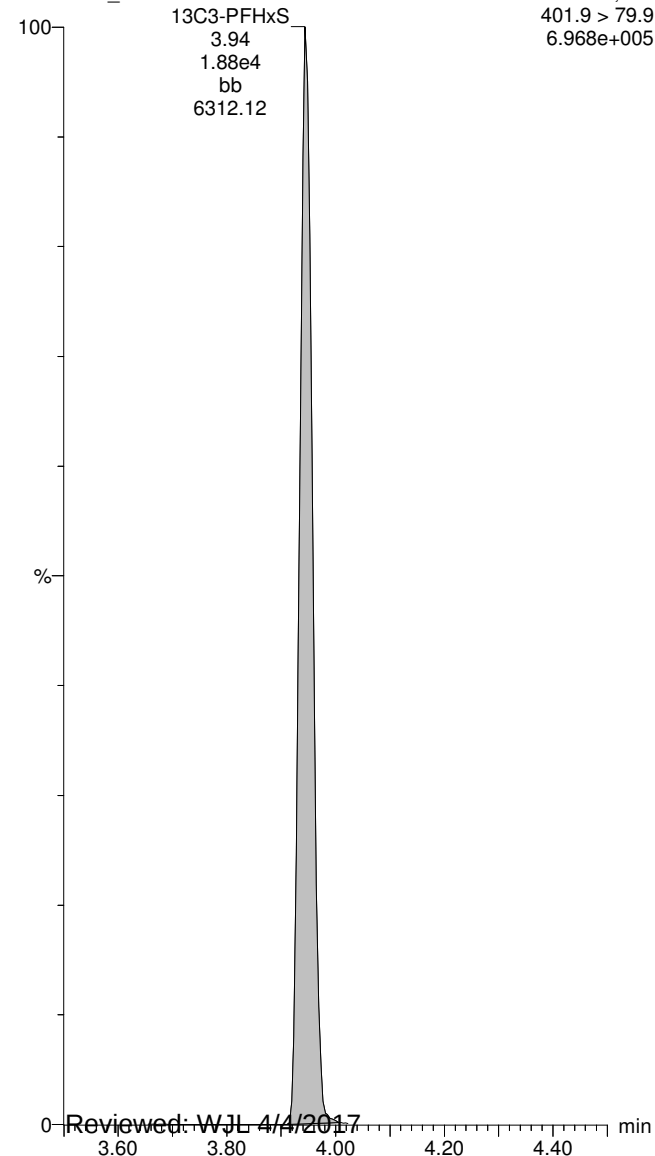
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Printed: Tuesday, April 04, 2017 12:12:47 Pacific Daylight Time

ID: 1700355-05 CBD-BKG-MW03-0317 0.125, Description: CBD-BKG-MW03-0317, Name: 170324G2_13, Date: 24-Mar-2017, Time: 18:19:30, Instrument: , Lab: , User:

13C3-PFHxS

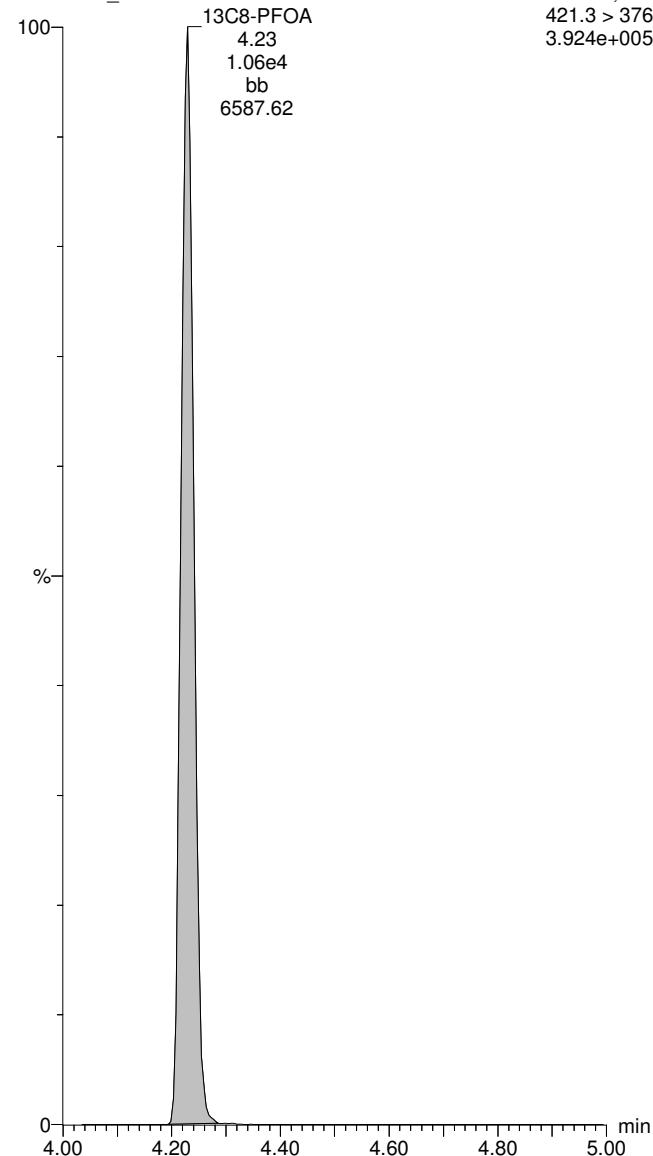
170324G2_13



Work Order 1700355

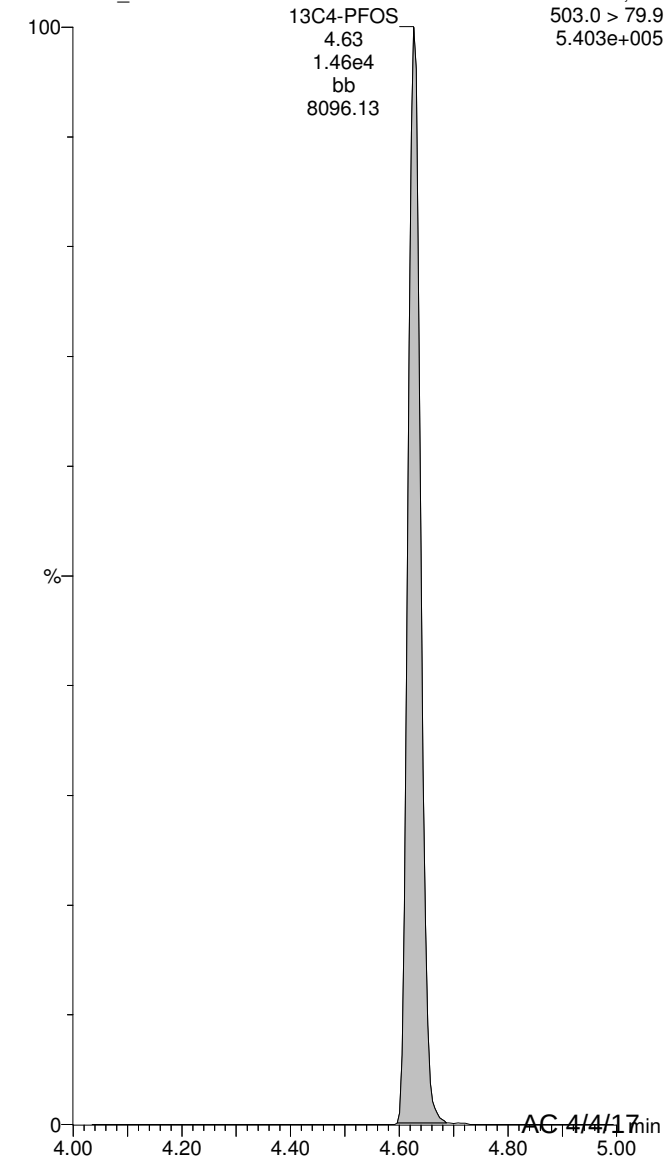
13C8-PFOA

170324G2_13



13C4-PFOS

170324G2_13



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-14.qld

Last Altered: Tuesday, March 28, 2017 15:26:17 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:13:30 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-06 CBD-AOA-MW10-0317 0.125, Description: CBD-AOA-MW10-0317, Name: 170324G2_14, Date: 24-Mar-2017, Time: 18:32:33

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	4.132e3	6.317e3		0.125	2.96	28.7	
2	4 PFOA	413 > 368.7	7.850e4	2.721e4		0.125	4.23	331	
3	6 PFOS	499 > 79.9	1.551e4	8.272e3		0.125	4.63	341	
4	7 13C3-PFBS	302.0 > 98.8	6.317e3	1.131e4	0.501	0.125	2.96	112	111
5	10 13C2-PFOA	414.9 > 369.7	2.721e4	7.749e3	3.221	0.125	4.23	109	109
6	12 13C8-PFOS	507.0 > 79.9	8.272e3	7.845e3	1.080	0.125	4.63	98.0	97.6
7	14 13C3-PFHxS	401.9 > 79.9	1.131e4	1.131e4	1.000	0.125	3.94	100	100
8	15 13C8-PFOA	421.3 > 376	7.749e3	7.749e3	1.000	0.125	4.23	100	100
9	16 13C9-PFNA	472.2 > 426.9	9.348e3	9.348e3	1.000	0.125	4.56	100	100
10	17 13C4-PFOS	503.0 > 79.9	7.845e3	7.845e3	1.000	0.125	4.63	100	100
11	18 Total PFBS	299 > 79.7		5.561e3		0.125		28.7	
12	20 Total PFOA	413 > 368.7		2.721e4		0.125		365	
13	21 Total PFOS	499 > 79.9		8.272e3		0.125		341	

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-14.qld

Last Altered: Tuesday, March 28, 2017 15:26:17 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:13:30 Pacific Daylight Time

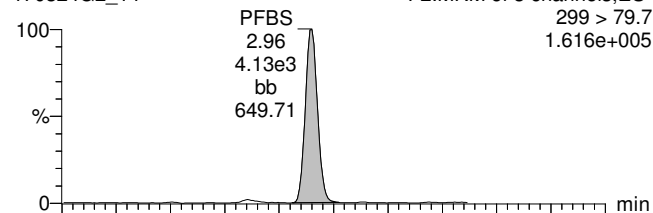
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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-06 CBD-AOA-MW10-0317 0.125, Description: CBD-AOA-MW10-0317, Name: 170324G2_14, Date: 24-Mar-2017, Time: 18:32:33, Instrument: , Lab: , User:

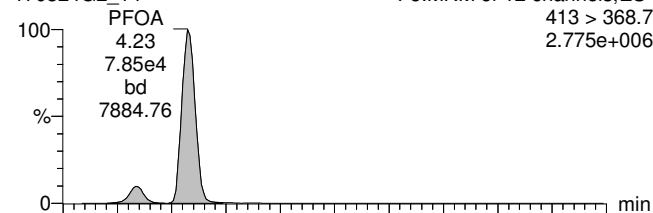
Total PFBS

170324G2_14



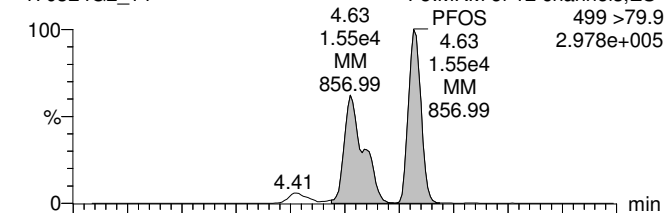
Total PFOA

170324G2_14

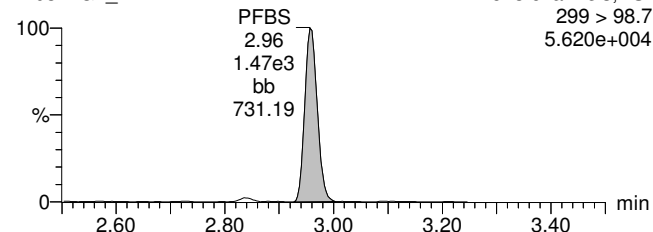


Total PFOS

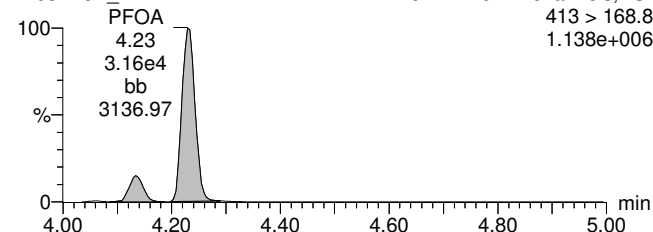
170324G2_14



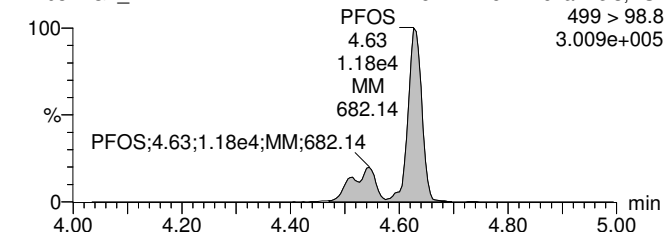
170324G2_14



170324G2_14

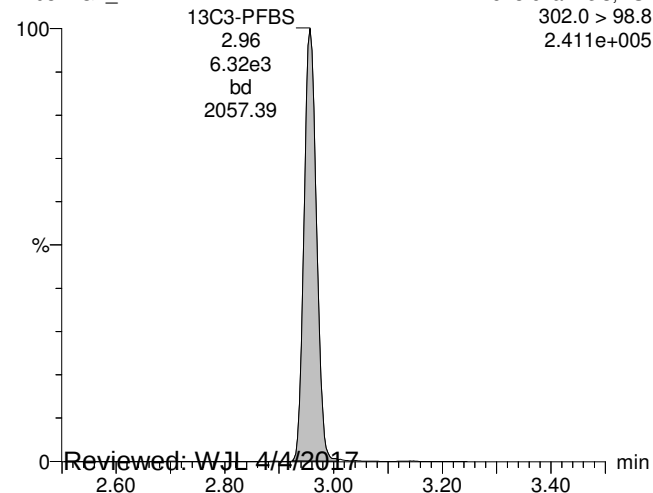


170324G2_14



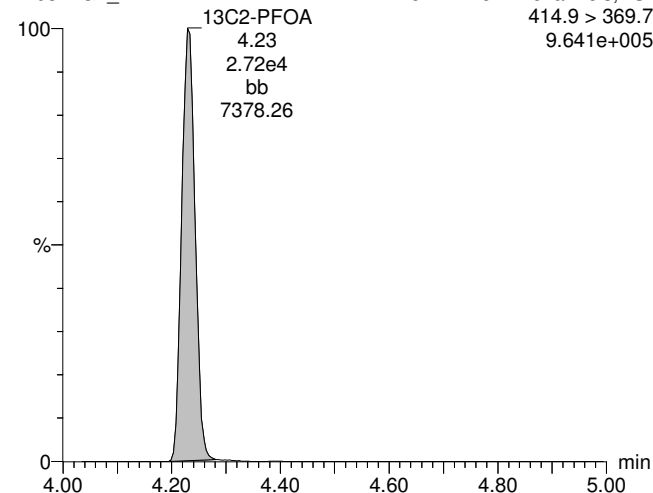
13C3-PFBS

170324G2_14



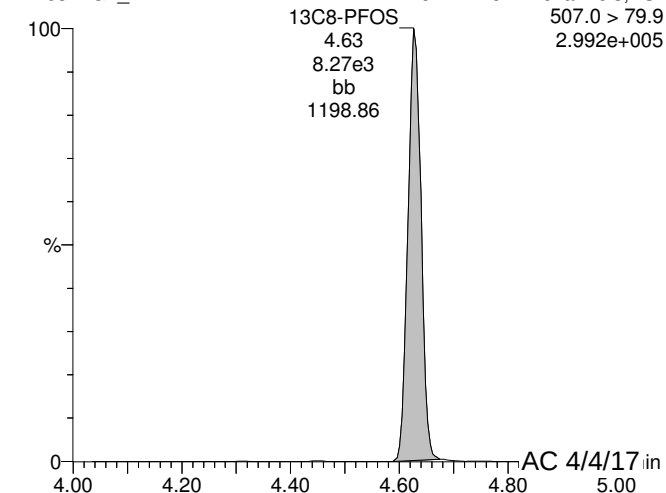
13C2-PFOA

170324G2_14



13C8-PFOS

170324G2_14



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-14.qld

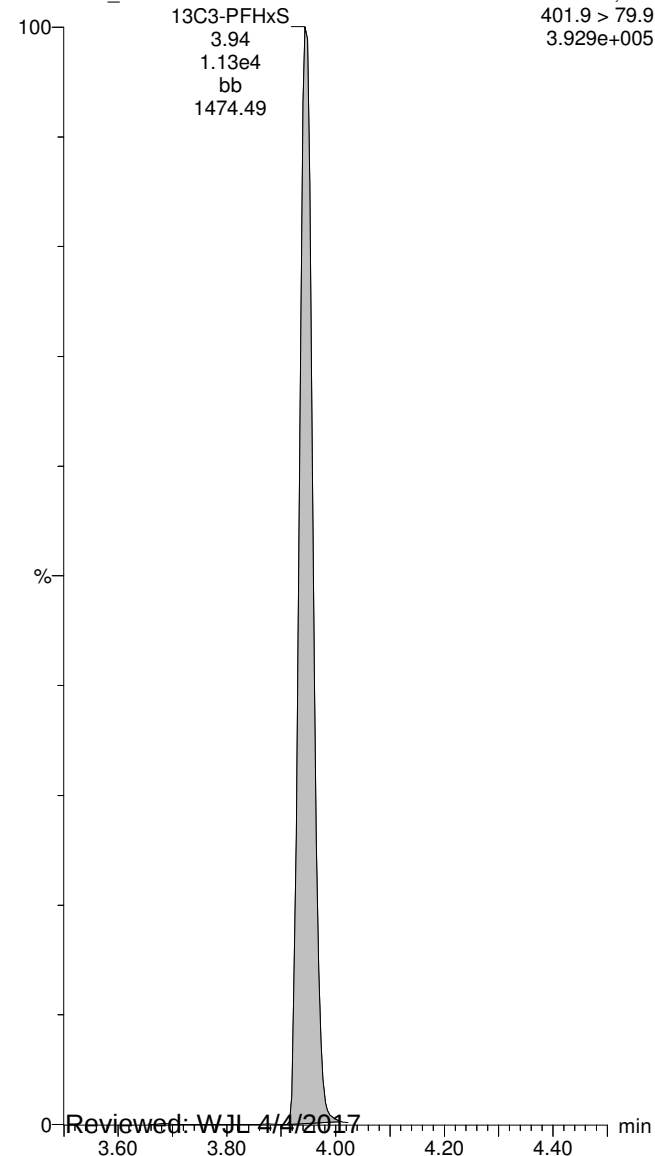
Last Altered: Tuesday, March 28, 2017 15:26:17 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:13:30 Pacific Daylight Time

ID: 1700355-06 CBD-AOA-MW10-0317 0.125, Description: CBD-AOA-MW10-0317, Name: 170324G2_14, Date: 24-Mar-2017, Time: 18:32:33, Instrument: , Lab: , User:

13C3-PFHxS

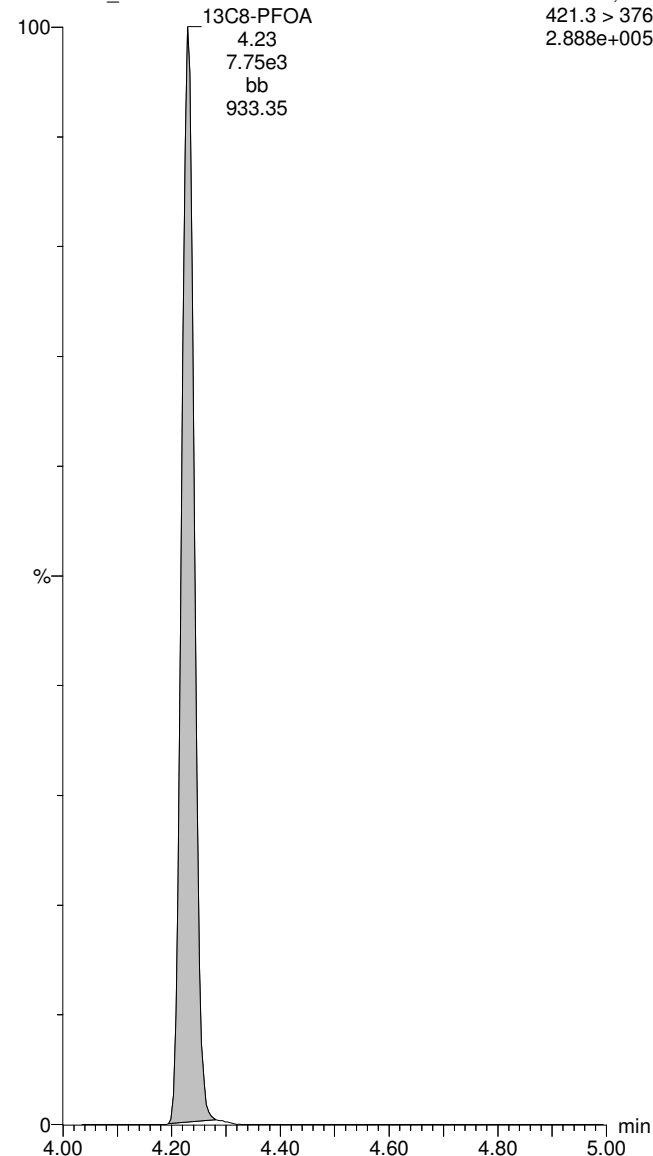
170324G2_14



Work Order 1700355

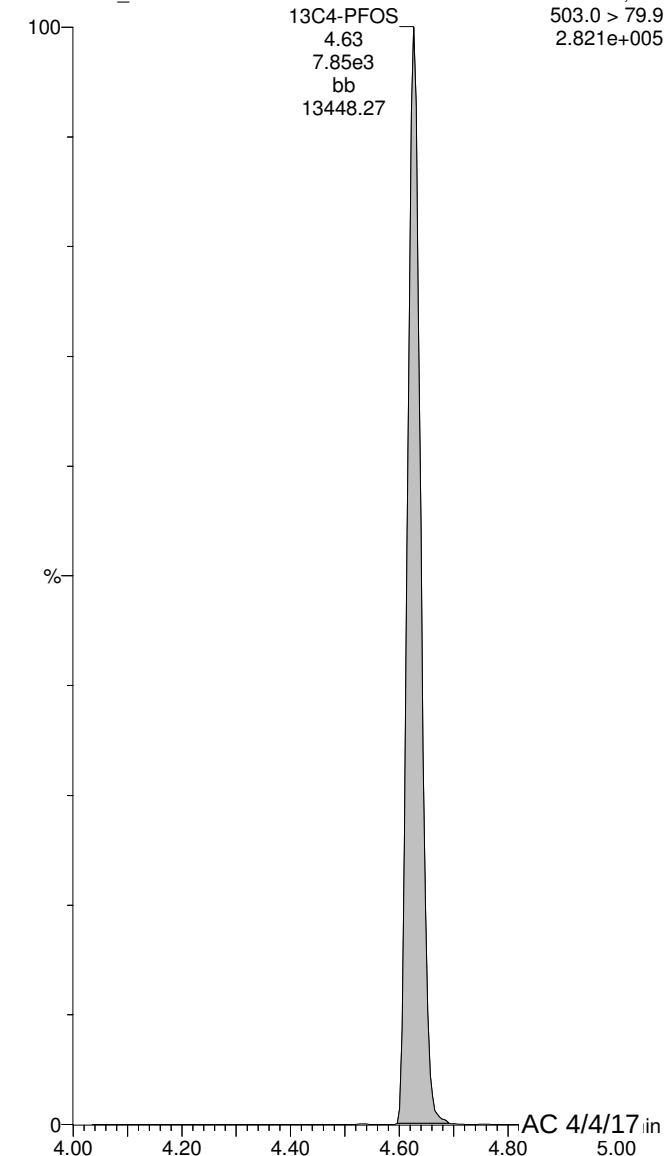
13C8-PFOA

170324G2_14



13C4-PFOS

170324G2_14



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-15.qld

Last Altered: Tuesday, March 28, 2017 15:29:29 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:14:28 Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-07 CBD-AOA-MW10P-0317 0.125, Description: CBD-AOA-MW10P-0317, Name: 170324G2_15, Date: 24-Mar-2017, Time: 18:45:08

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	4.239e3	6.802e3		0.123	2.96	27.7	
2	4 PFOA	413 > 368.7	7.341e4	2.693e4		0.123	4.23	317	
3	6 PFOS	499 > 79.9	1.233e4	8.564e3		0.123	4.63	266	
4	7 13C3-PFBS	302.0 > 98.8	6.802e3	1.145e4	0.501	0.123	2.96	121	119
5	10 13C2-PFOA	414.9 > 369.7	2.693e4	7.412e3	3.221	0.123	4.23	115	113
6	12 13C8-PFOS	507.0 > 79.9	8.564e3	7.894e3	1.080	0.123	4.63	102	100
7	14 13C3-PFHxS	401.9 > 79.9	1.145e4	1.145e4	1.000	0.123	3.95	102	100
8	15 13C8-PFOA	421.3 > 376	7.412e3	7.412e3	1.000	0.123	4.23	102	100
9	16 13C9-PFNA	472.2 > 426.9	8.942e3	8.942e3	1.000	0.123	4.57	102	100
10	17 13C4-PFOS	503.0 > 79.9	7.894e3	7.894e3	1.000	0.123	4.63	102	100
11	18 Total PFBS	299 > 79.7		5.933e3		0.123		27.7	
12	20 Total PFOA	413 > 368.7		2.693e4		0.123		351	
13	21 Total PFOS	499 > 79.9		8.564e3		0.123		266	

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-15.qld

Last Altered: Tuesday, March 28, 2017 15:29:29 Pacific Daylight Time

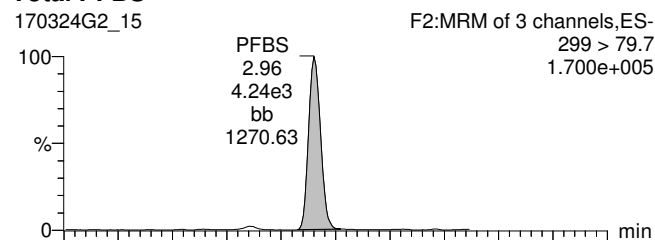
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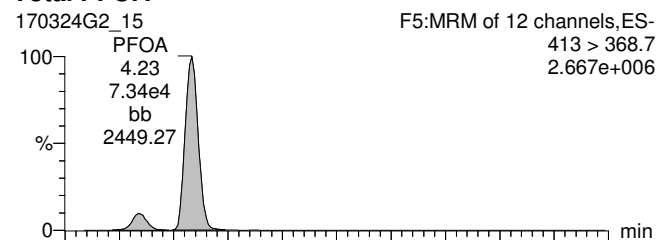
Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-07 CBD-AOA-MW10P-0317 0.125, Description: CBD-AOA-MW10P-0317, Name: 170324G2_15, Date: 24-Mar-2017, Time: 18:45:08, Instrument: , Lab: , User:

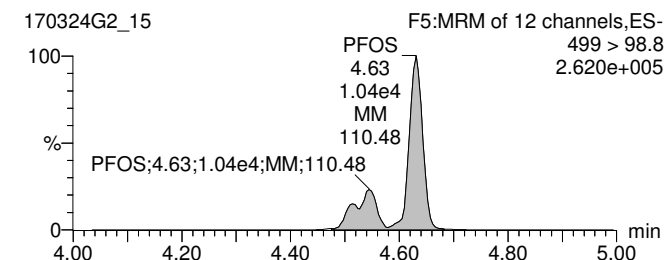
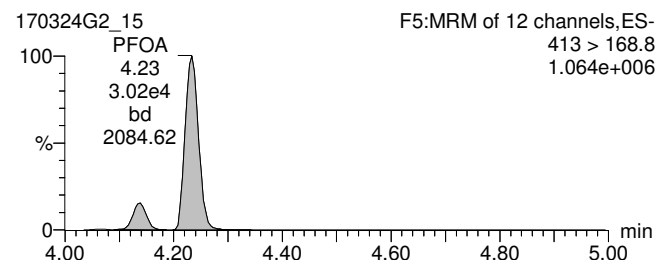
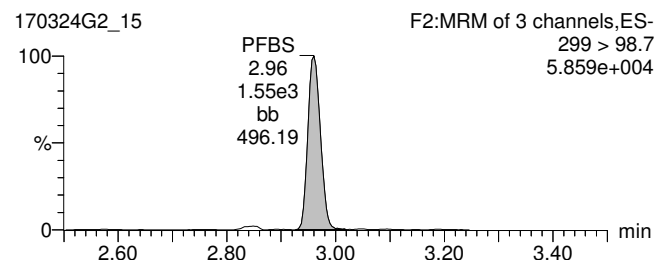
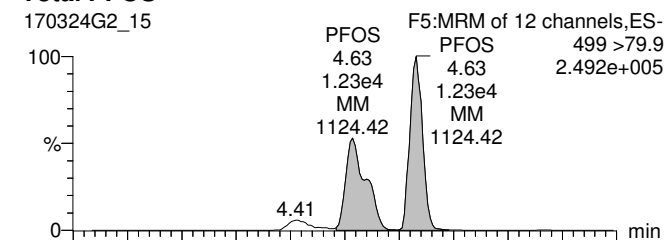
Total PFBS



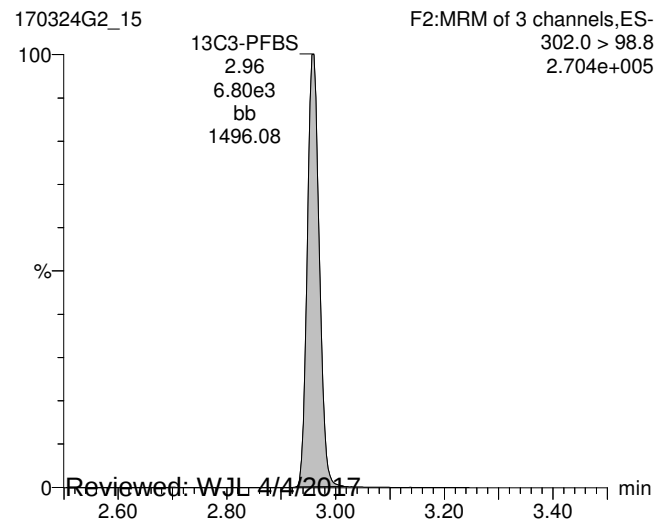
Total PFOA



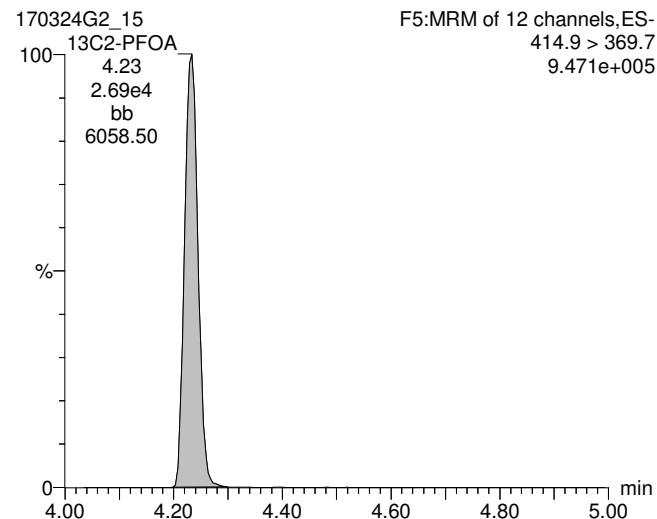
Total PFOS



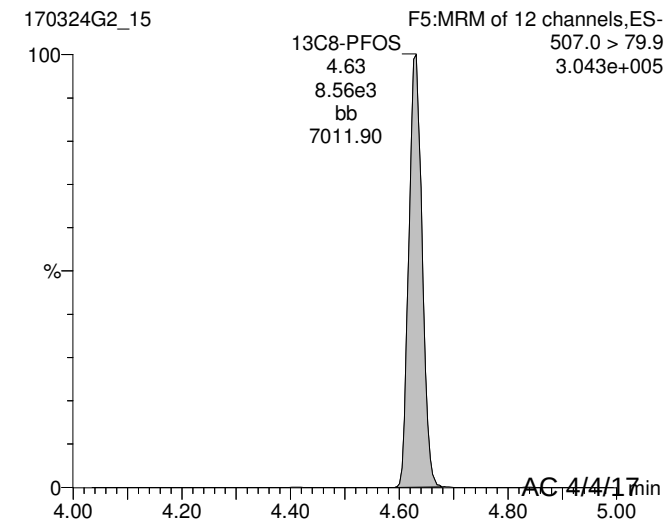
13C3-PFBS



13C2-PFOA



13C8-PFOS



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-15.qld

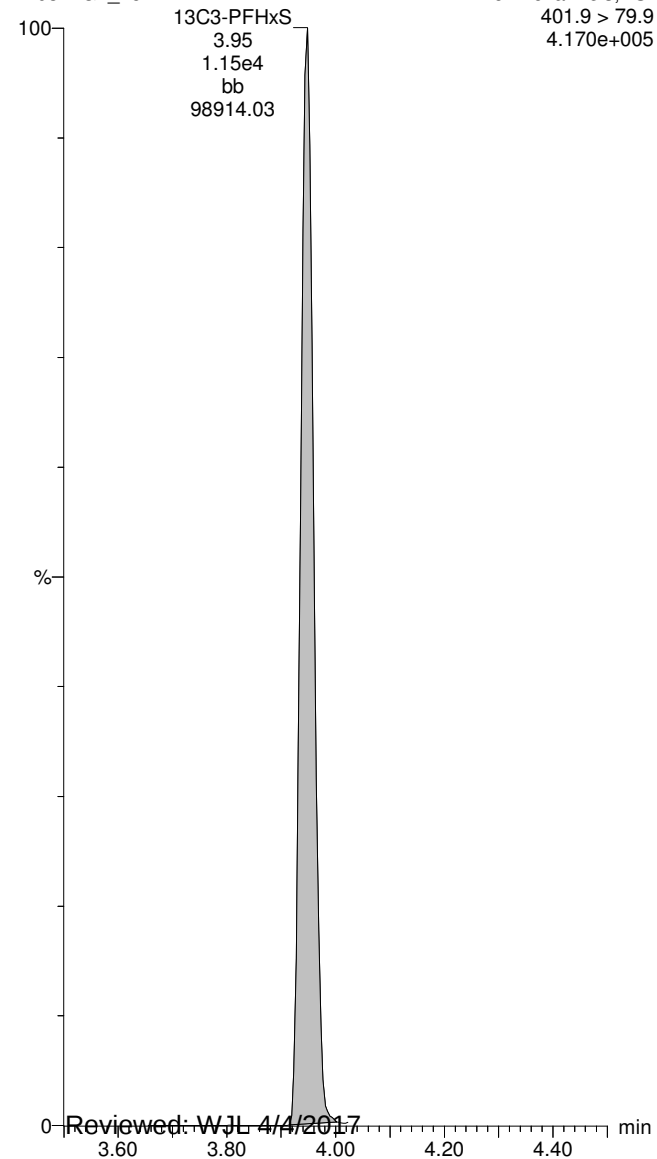
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Printed: Tuesday, April 04, 2017 12:14:28 Pacific Daylight Time

ID: 1700355-07 CBD-AOA-MW10P-0317 0.125, Description: CBD-AOA-MW10P-0317, Name: 170324G2_15, Date: 24-Mar-2017, Time: 18:45:08, Instrument: , Lab: , User:

13C3-PFHxS

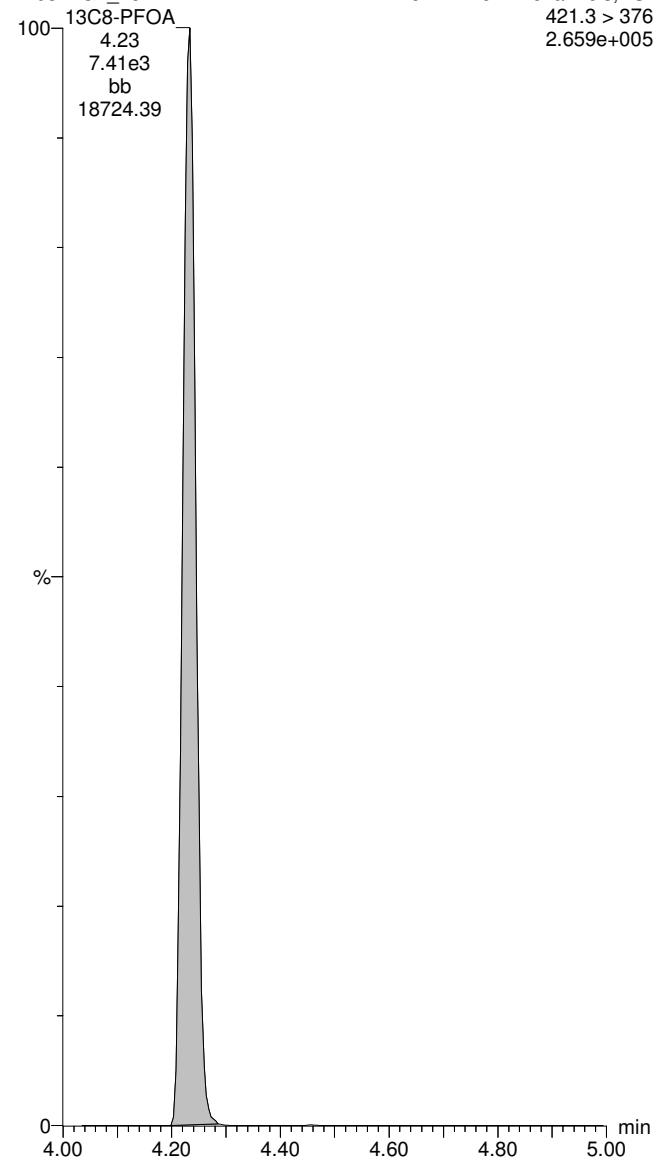
170324G2_15



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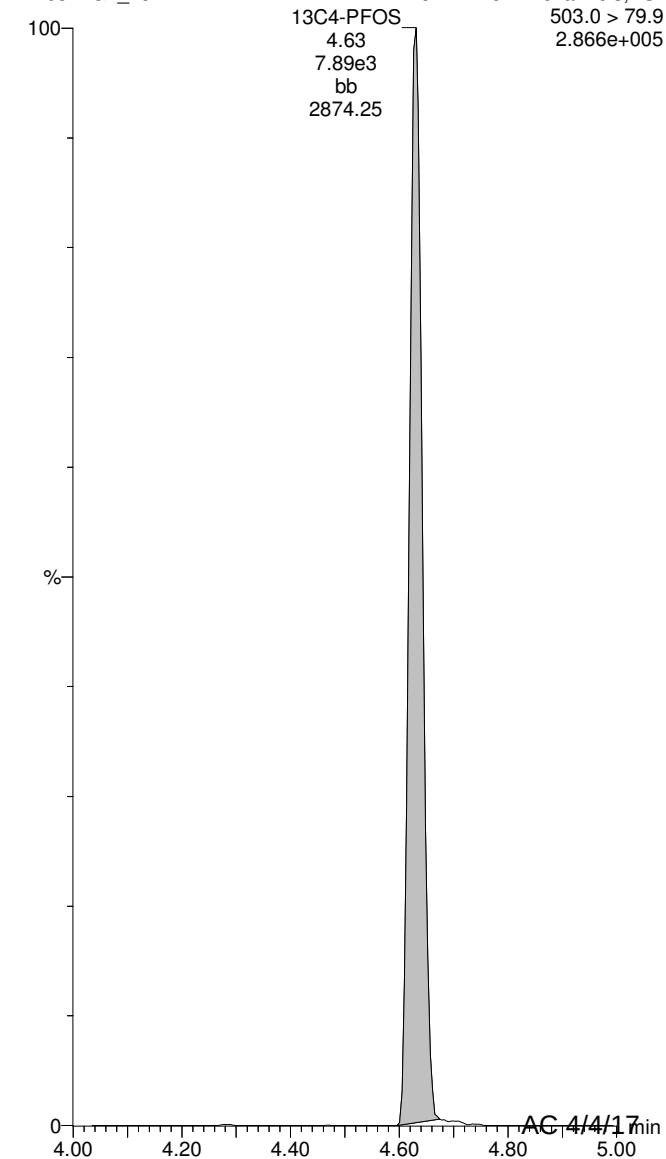
13C8-PFOA

170324G2_15



13C4-PFOS

170324G2_15



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-16.qld

Last Altered: Tuesday, March 28, 2017 15:31:50 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:15:38 Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-08 CBD-EB01-032117 0.125, Description: CBD-EB01-032117, Name: 170324G2_16, Date: 24-Mar-2017, Time: 18:57:41

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7		7.023e3		0.118			
2	4 PFOA	413 > 368.7	1.770e2	3.370e4		0.118	4.23		
3	6 PFOS	499 > 79.9	1.264e1	9.046e3		0.118	4.63	1.44	
4	7 13C3-PFBS	302.0 > 98.8	7.023e3	1.574e4	0.501	0.118	2.96	94.7	89.0
5	10 13C2-PFOA	414.9 > 369.7	3.370e4	8.819e3	3.221	0.118	4.23	126	119
6	12 13C8-PFOS	507.0 > 79.9	9.046e3	8.474e3	1.080	0.118	4.63	105	98.8
7	14 13C3-PFHxS	401.9 > 79.9	1.574e4	1.574e4	1.000	0.118	3.94	106	100
8	15 13C8-PFOA	421.3 > 376	8.819e3	8.819e3	1.000	0.118	4.23	106	100
9	16 13C9-PFNA	472.2 > 426.9	1.134e4	1.134e4	1.000	0.118	4.57	106	100
10	17 13C4-PFOS	503.0 > 79.9	8.474e3	8.474e3	1.000	0.118	4.63	106	100
11	18 Total PFBS	299 > 79.7		8.142e3		0.118			
12	20 Total PFOA	413 > 368.7		3.370e4		0.118			
13	21 Total PFOS	499 > 79.9		9.046e3		0.118		1.44	

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-16.qld

Last Altered: Tuesday, March 28, 2017 15:31:50 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:15:38 Pacific Daylight Time

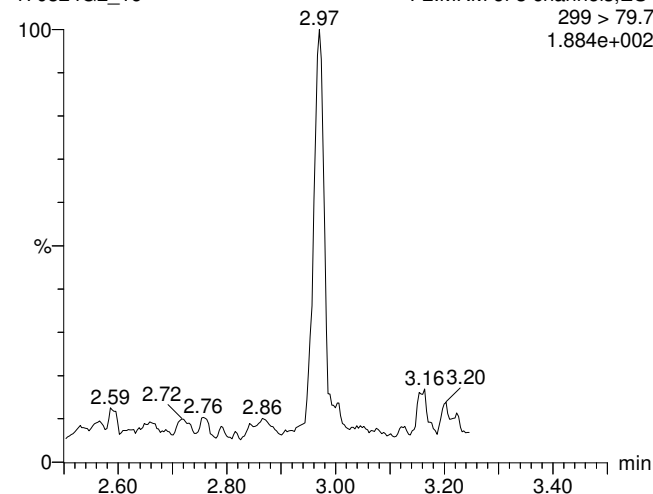
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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-08 CBD-EB01-032117 0.125, Description: CBD-EB01-032117, Name: 170324G2_16, Date: 24-Mar-2017, Time: 18:57:41, Instrument: , Lab: , User:

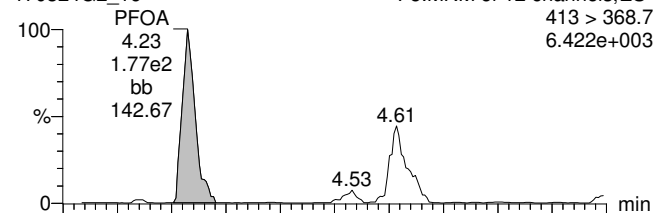
Total PFBS

170324G2_16



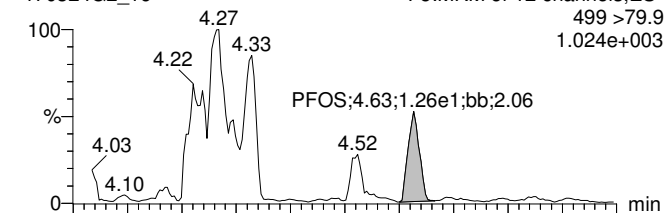
Total PFOA

170324G2_16

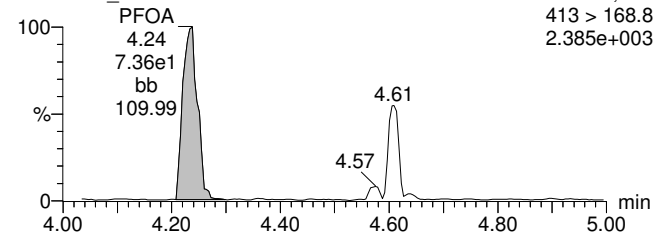


Total PFOS

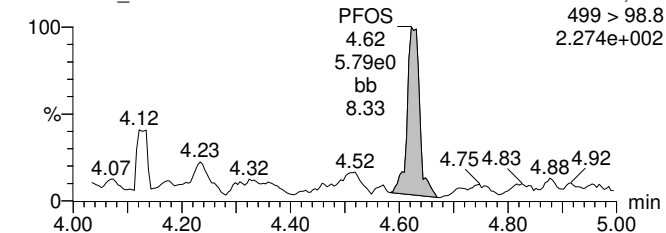
170324G2_16



170324G2_16

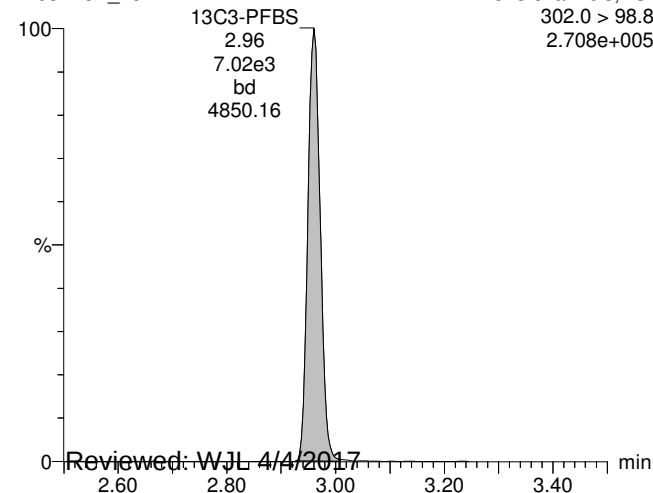


170324G2_16



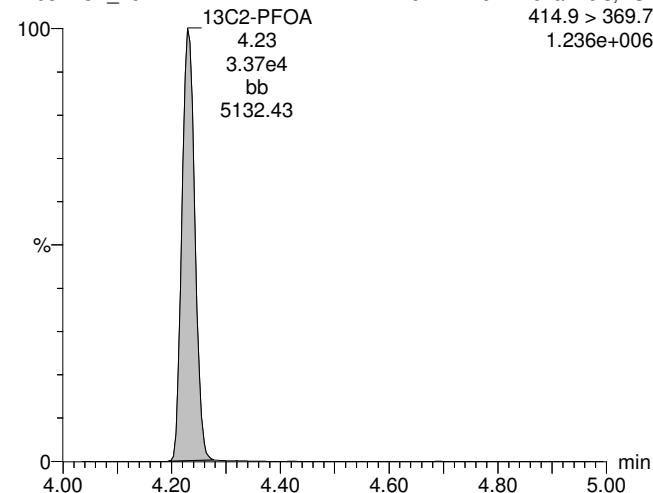
13C3-PFBS

170324G2_16



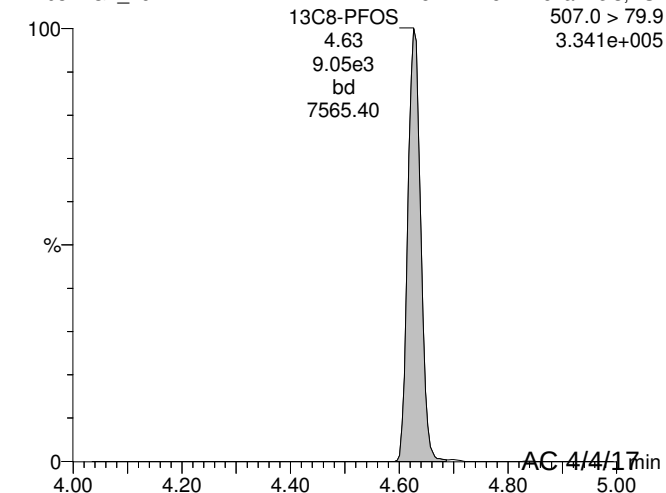
13C2-PFOA

170324G2_16



13C8-PFOS

170324G2_16



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-16.qld

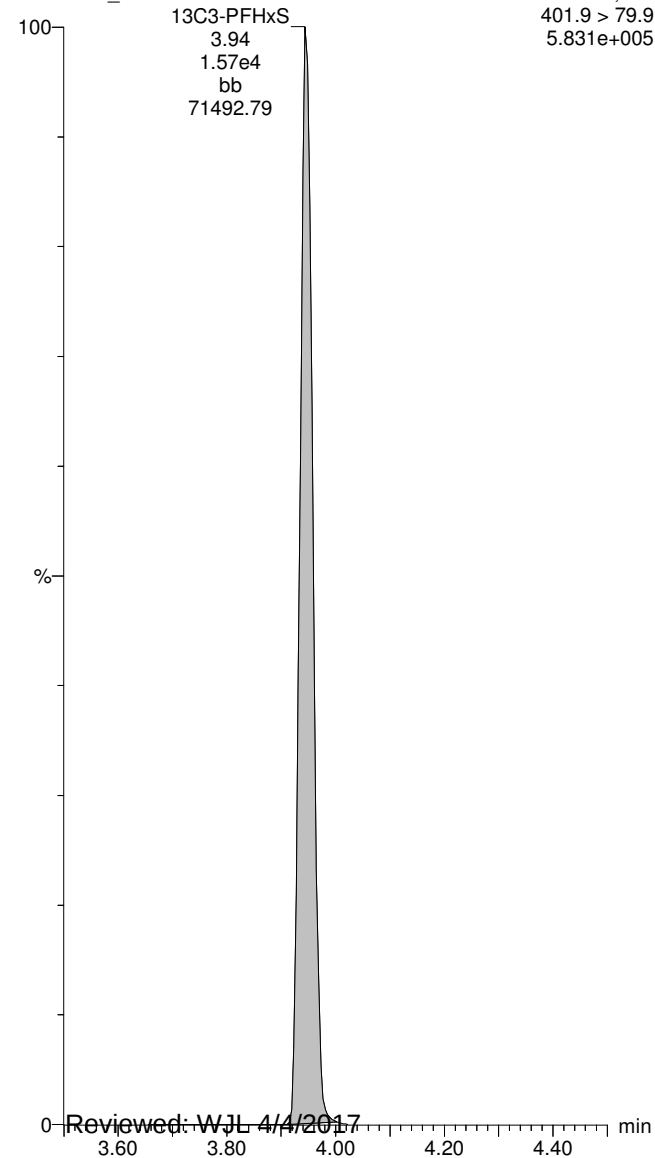
Last Altered: Tuesday, March 28, 2017 15:31:50 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:15:38 Pacific Daylight Time

ID: 1700355-08 CBD-EB01-032117 0.125, Description: CBD-EB01-032117, Name: 170324G2_16, Date: 24-Mar-2017, Time: 18:57:41, Instrument: , Lab: , User:

13C3-PFHxS

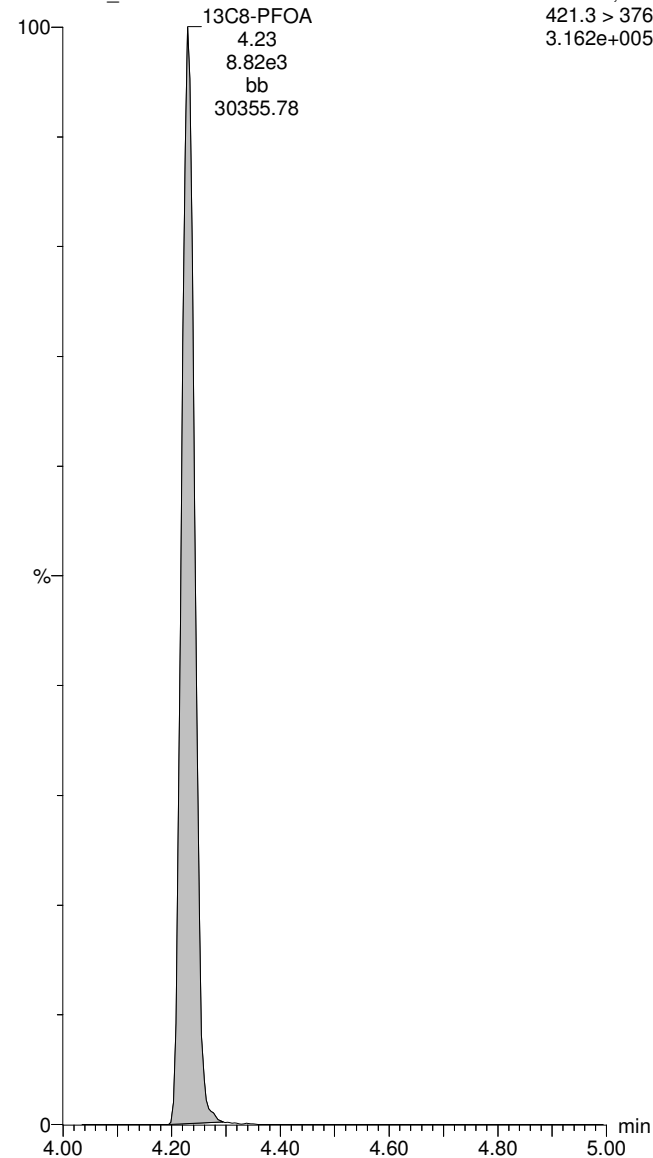
170324G2_16



Work Order 1700355

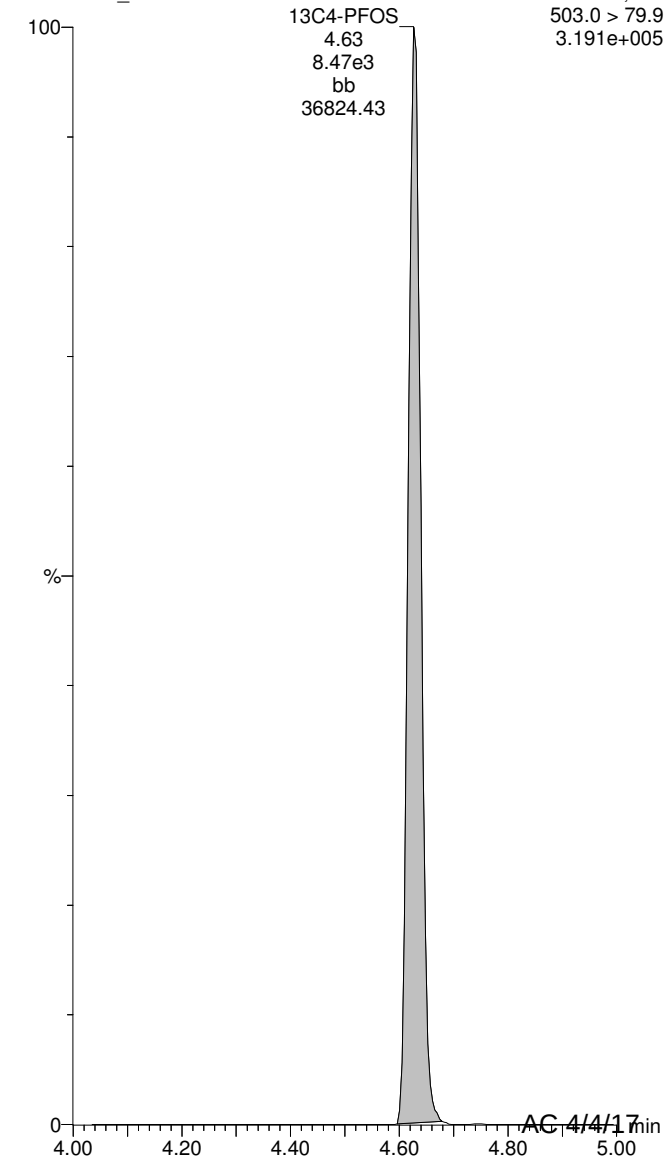
13C8-PFOA

170324G2_16



13C4-PFOS

170324G2_16



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-17.qld

Last Altered: Thursday, March 30, 2017 16:20:33 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:16:44 Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-09 CBD-FB01-032117 0.125, Description: CBD-FB01-032117, Name: 170324G2_17, Date: 24-Mar-2017, Time: 19:10:37

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	5.627e0	6.289e3		0.129	2.96		
2	4 PFOA	413 > 368.7	1.944e2	2.347e4		0.129	4.23		
3	6 PFOS	499 > 79.9		5.952e3		0.129			
4	7 13C3-PFBS	302.0 > 98.8	6.289e3	1.085e4	0.501	0.129	2.96	112	116
5	10 13C2-PFOA	414.9 > 369.7	2.347e4	6.445e3	3.221	0.129	4.23	109	113
6	12 13C8-PFOS	507.0 > 79.9	5.952e3	6.118e3	1.080	0.129	4.63	87.1	90.1
7	14 13C3-PFHxS	401.9 > 79.9	1.085e4	1.085e4	1.000	0.129	3.95	96.7	100
8	15 13C8-PFOA	421.3 > 376	6.445e3	6.445e3	1.000	0.129	4.23	96.7	100
9	16 13C9-PFNA	472.2 > 426.9	7.306e3	7.306e3	1.000	0.129	4.57	96.7	100
10	17 13C4-PFOS	503.0 > 79.9	6.118e3	6.118e3	1.000	0.129	4.63	96.7	100
11	18 Total PFBS	299 > 79.7		5.451e3		0.129			
12	20 Total PFOA	413 > 368.7		2.347e4		0.129			
13	21 Total PFOS	499 > 79.9		5.952e3		0.129			

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-17.qld

Last Altered: Thursday, March 30, 2017 16:20:33 Pacific Daylight Time

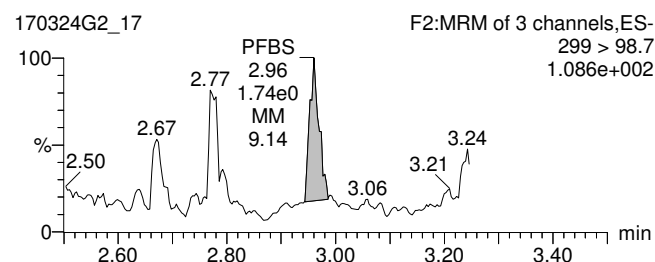
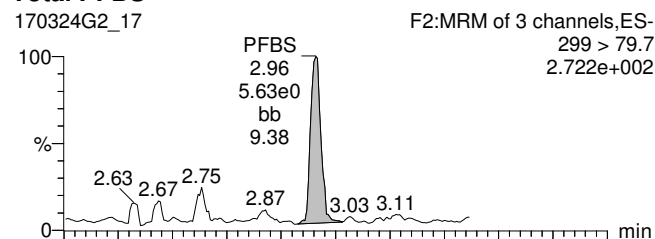
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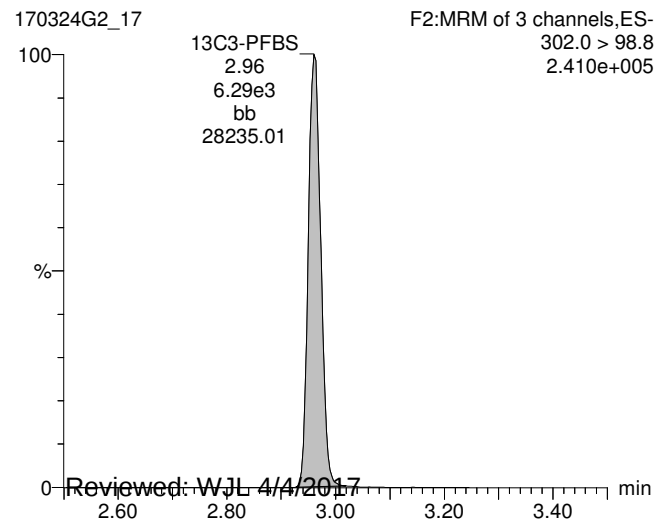
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ID: 1700355-09 CBD-FB01-032117 0.125, Description: CBD-FB01-032117, Name: 170324G2_17, Date: 24-Mar-2017, Time: 19:10:37, Instrument: , Lab: , User:

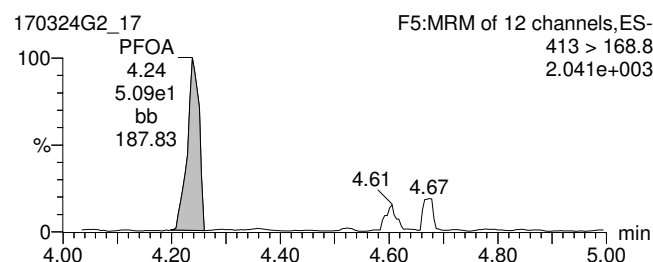
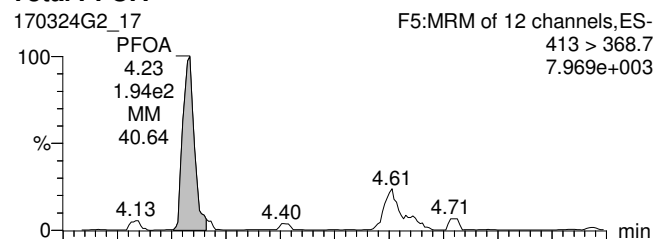
Total PFBS



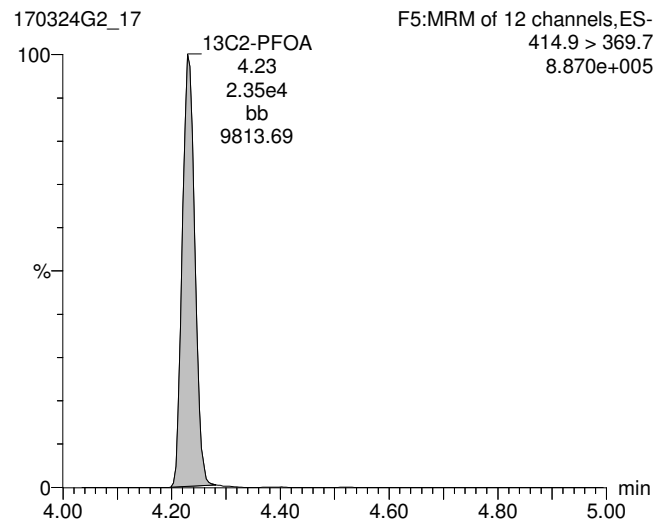
13C3-PFBS



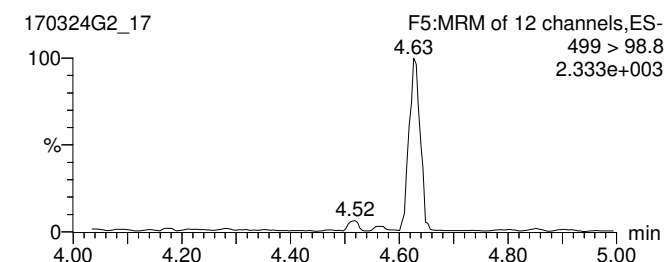
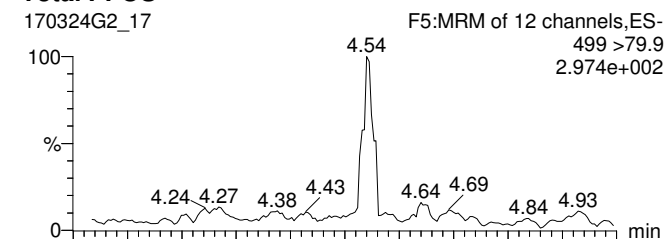
Total PFOA



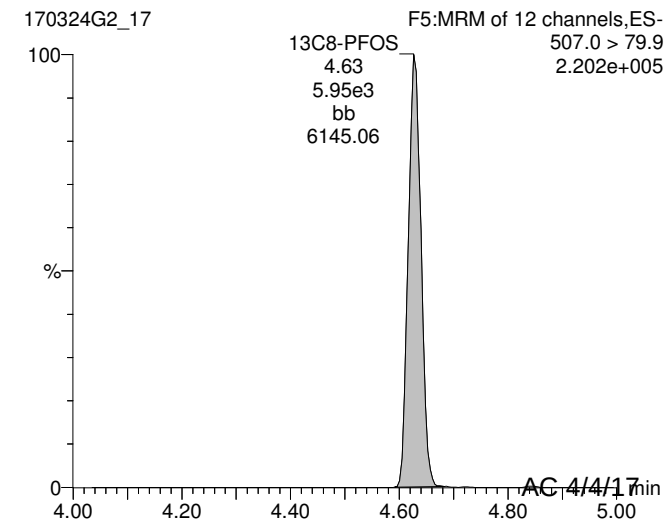
13C2-PFOA



Total PFOS



13C8-PFOS



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-17.qld

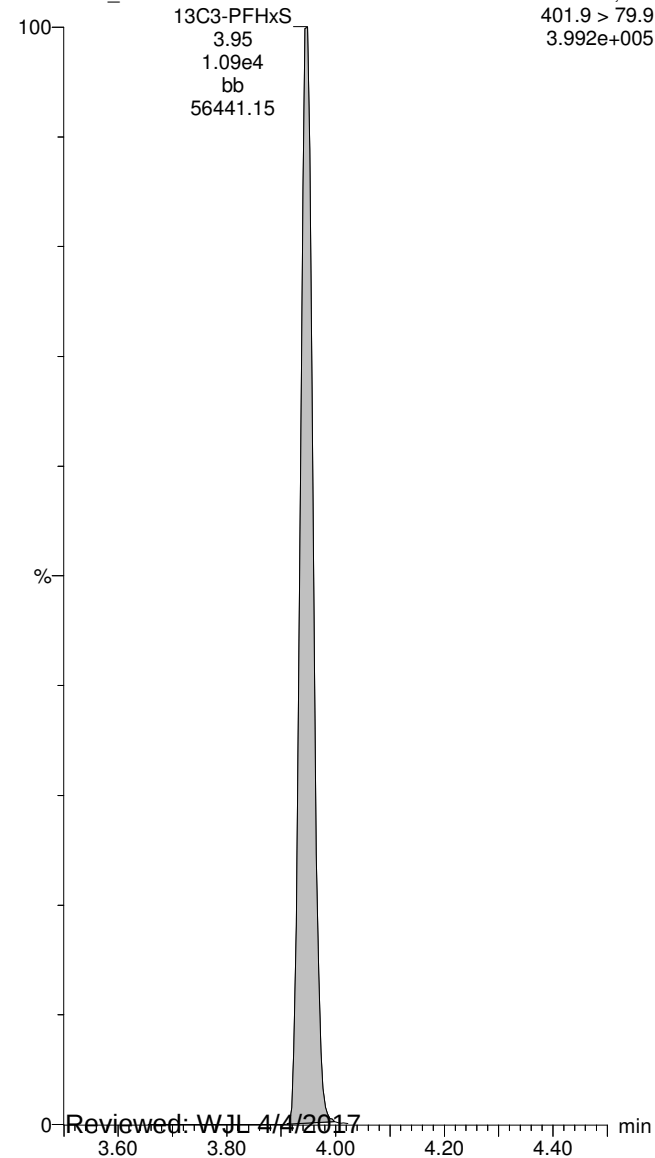
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13C3-PFHxS

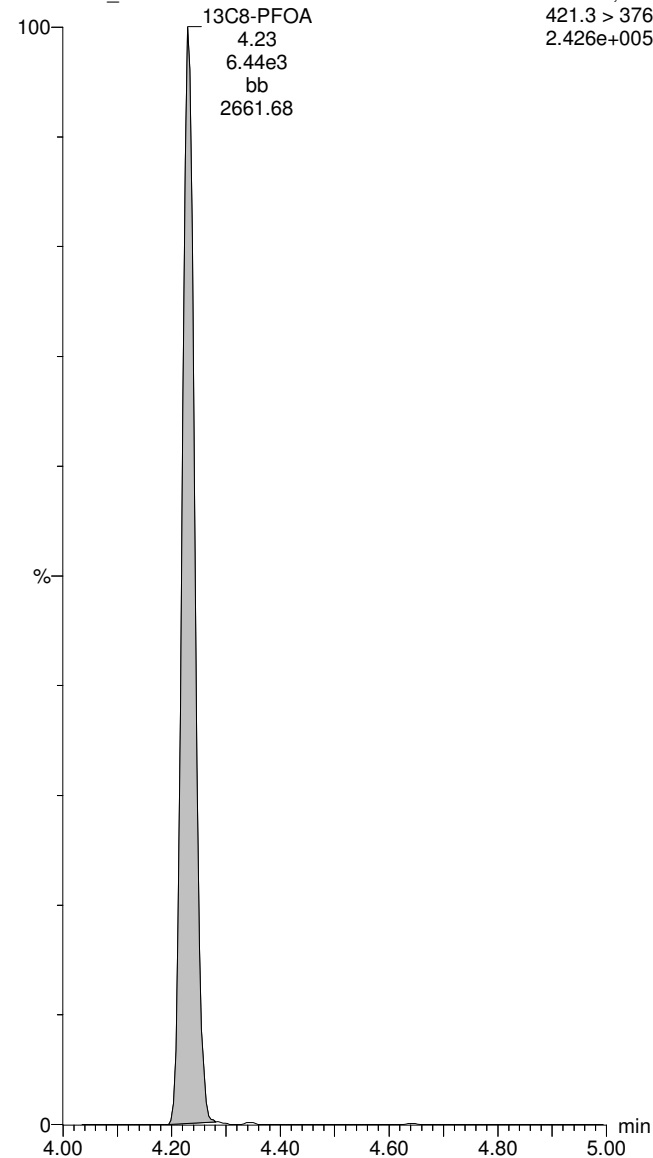
170324G2_17



Work Order 1700355

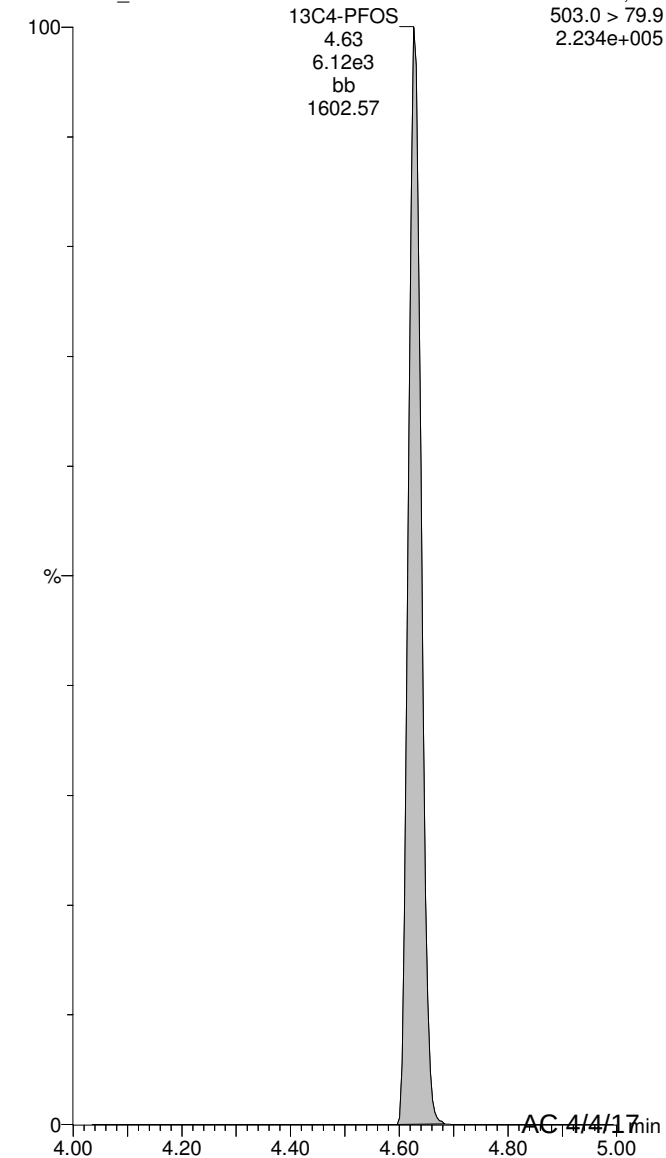
13C8-PFOA

170324G2_17



13C4-PFOS

170324G2_17



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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-18.qld

Last Altered: Thursday, March 30, 2017 16:43:50 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:18:46 Pacific Daylight Time

Method: Untitled 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-10 CBD-AOA-MW01-0317 0.125, Description: CBD-AOA-MW01-0317, Name: 170324G2_18, Date: 24-Mar-2017, Time: 19:22:53

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.549e4	5.841e3		0.119	2.96	280	
2	4 PFOA	413 > 368.7	4.482e5	1.358e4		0.119	4.23	3970 E	
3	6 PFOS	499 > 79.9	5.040e5	2.115e3		0.119	4.63	45200 E	
4	7 13C3-PFBS	302.0 > 98.8	5.841e3	4.573e3	0.501	0.119	2.96	267	255
5	10 13C2-PFOA	414.9 > 369.7	1.358e4	3.863e3	3.221	0.119	4.23	114	109
6	12 13C8-PFOS	507.0 > 79.9	2.115e3	2.373e3	1.080	0.119	4.63	86.6	82.6
7	14 13C3-PFHxS	401.9 > 79.9	4.573e3	4.573e3	1.000	0.119	3.94	105	100
8	15 13C8-PFOA	421.3 > 376	3.863e3	3.863e3	1.000	0.119	4.23	105	100
9	16 13C9-PFNA	472.2 > 426.9	4.521e3	4.521e3	1.000	0.119	4.56	105	100
10	17 13C4-PFOS	503.0 > 79.9	2.373e3	2.373e3	1.000	0.119	4.63	105	100
11	18 Total PFBS	299 > 79.7		2.618e3		0.119		280	
12	20 Total PFOA	413 > 368.7		1.358e4		0.119		4620	
13	21 Total PFOS	499 > 79.9		2.115e3					

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-18.qld

Last Altered: Thursday, March 30, 2017 16:43:50 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:18:46 Pacific Daylight Time

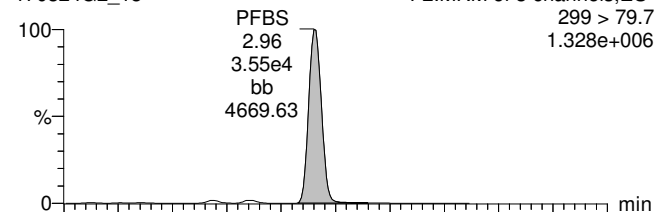
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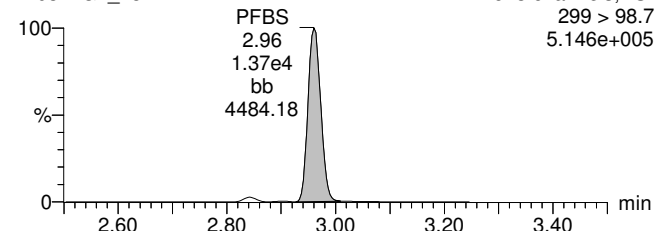
ID: 1700355-10 CBD-AOA-MW01-0317 0.125, Description: CBD-AOA-MW01-0317, Name: 170324G2_18, Date: 24-Mar-2017, Time: 19:22:53, Instrument: , Lab: , User:

Total PFBS

170324G2_18

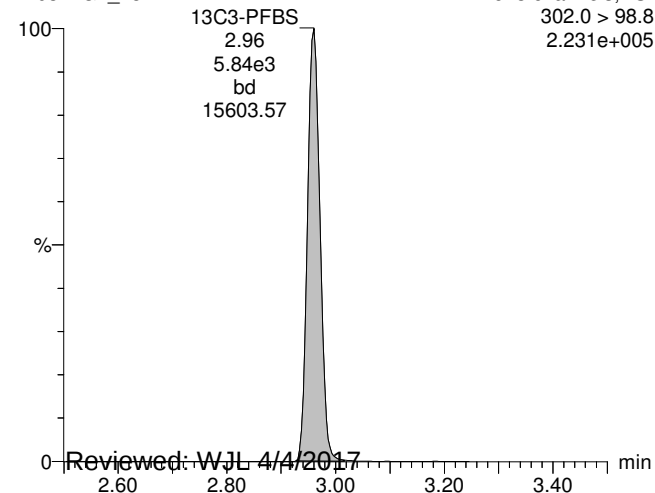


170324G2_18



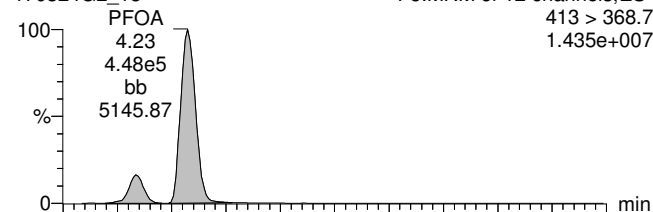
13C3-PFBS

170324G2_18

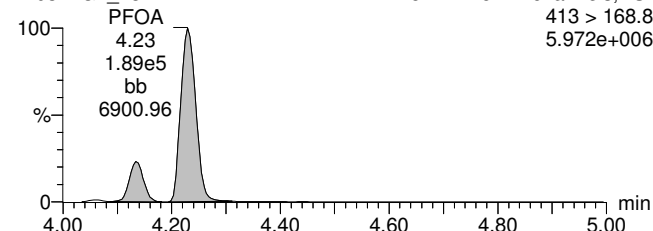


Total PFOA

170324G2_18

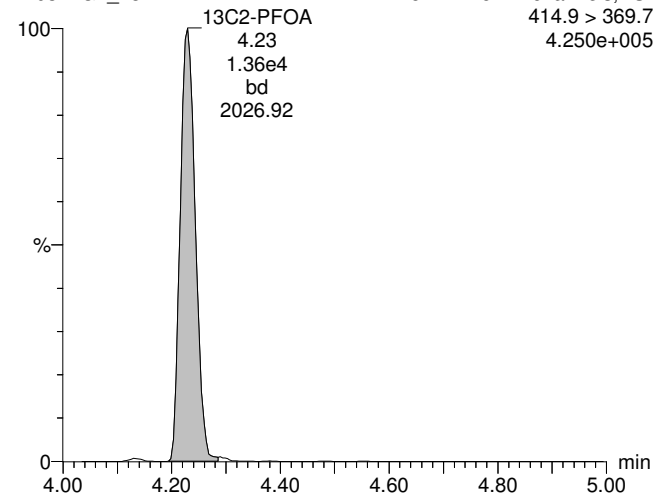


170324G2_18



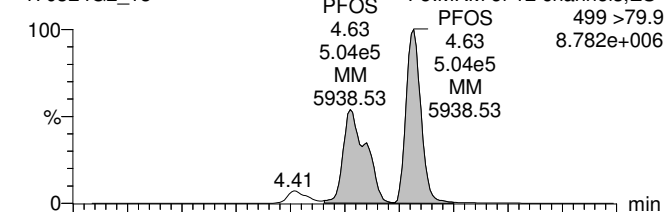
13C2-PFOA

170324G2_18

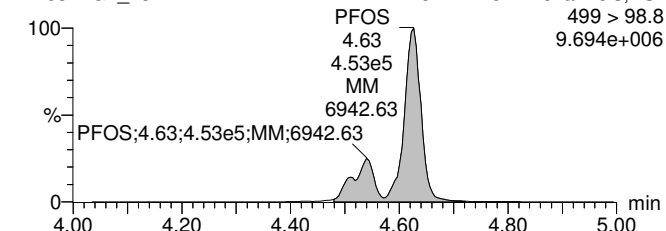


Total PFOS

170324G2_18

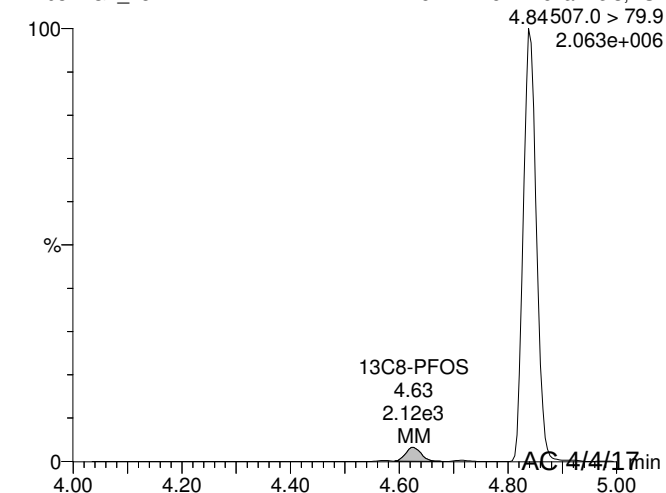


170324G2_18



13C8-PFOS

170324G2_18



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-18.qld

Last Altered: Thursday, March 30, 2017 16:43:50 Pacific Daylight Time

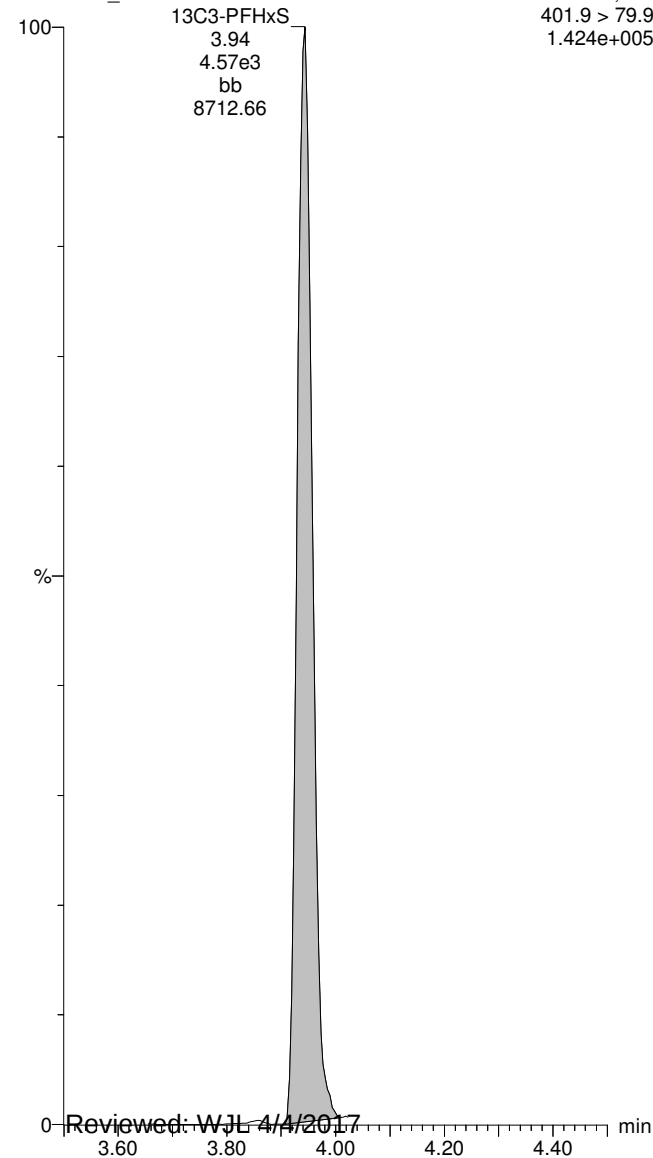
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13C3-PFHxS

170324G2_18

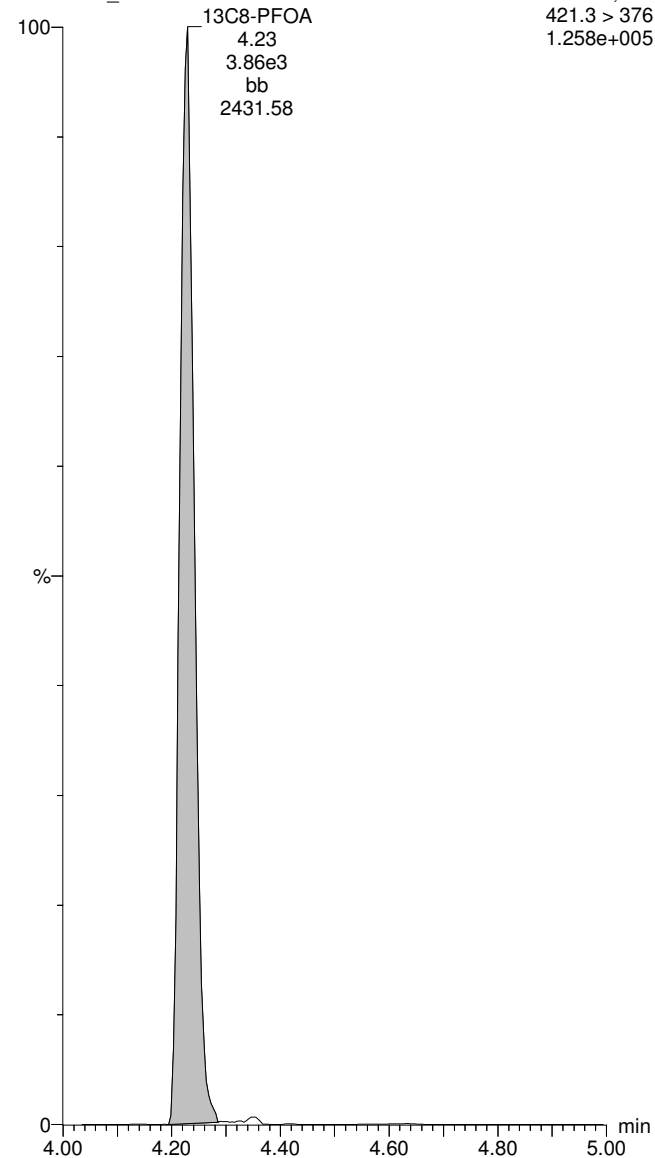
F4:MRM of 7 channels,ES-
401.9 > 79.9
1.424e+005



13C8-PFOA

170324G2_18

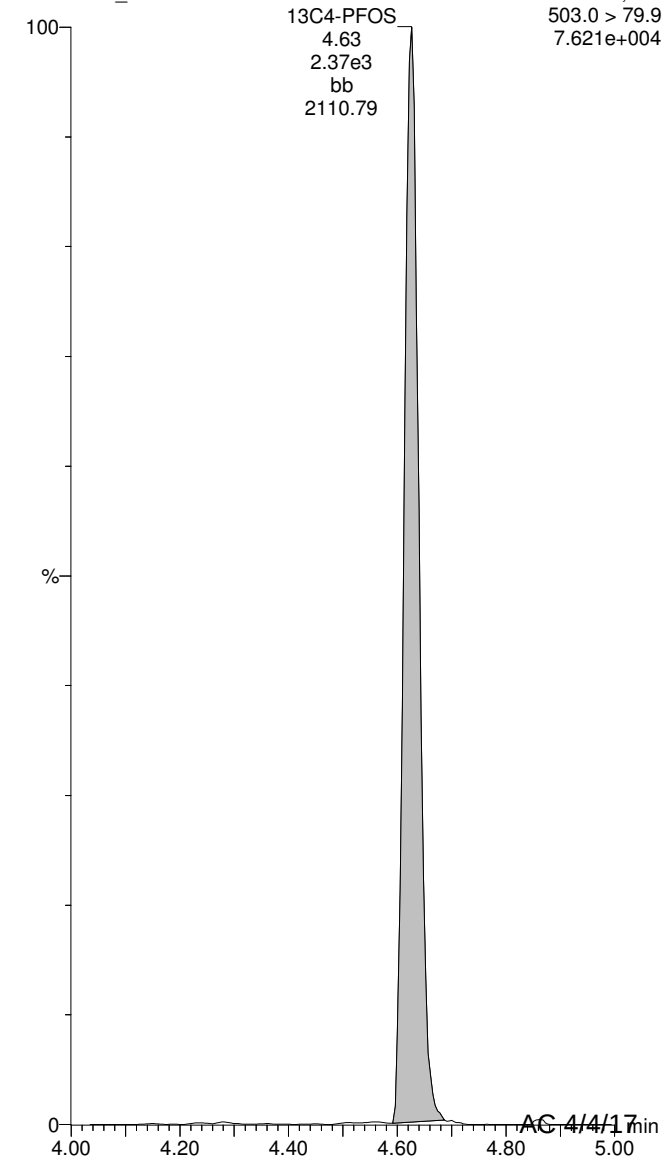
F5:MRM of 12 channels,ES-
421.3 > 376
1.258e+005



13C4-PFOS

170324G2_18

F5:MRM of 12 channels,ES-
503.0 > 79.9
7.621e+004



Reviewed: WJL 4/4/2017

AC 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-11.qld

Last Altered: Thursday, March 30, 2017 16:47:15 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:38:46 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-10RE1 CBD-AOA-MW01-0317 0.1192, Description: CBD-AOA-MW01-0317, Name: 170329G3_11, Date: 30-Mar-2017, Time: 01:27:14

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.778e2	6.992e3		0.00110	2.97	513	
2	4 PFOA	413 > 368.7	8.529e3	2.808e4		0.00110	4.24	7770	
3	6 PFOS	499 > 79.9	1.101e4	6.919e3		0.00110	4.64	65500	
4	7 13C3-PFBS	302.0 > 98.8	6.992e3	1.137e4	0.501	0.00110	2.97	27900	123
5	10 13C2-PFOA	414.9 > 369.7	2.808e4	7.146e3	3.221	0.00110	4.24	27700	122
6	12 13C8-PFOS	507.0 > 79.9	6.919e3	6.813e3	1.080	0.00110	4.64	21400	94.1
7	14 13C3-PFHxS	401.9 > 79.9	1.137e4	1.137e4	1.000	0.00110	3.96	22700	100
8	15 13C8-PFOA	421.3 > 376	7.146e3	7.146e3	1.000	0.00110	4.24	22700	100
9	17 13C4-PFOS	503.0 > 79.9	6.813e3	6.813e3	1.000	0.00110	4.64	22700	100

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-11.qld

Last Altered: Thursday, March 30, 2017 16:47:15 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:38:46 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

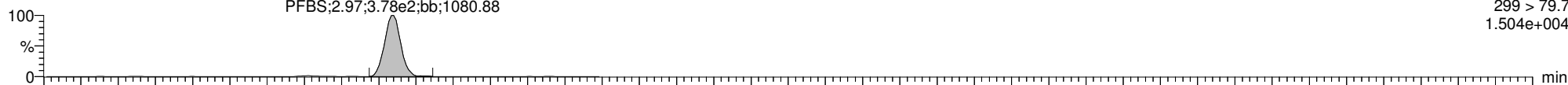
ID: 1700355-10RE1 CBD-AOA-MW01-0317 0.1192, Description: CBD-AOA-MW01-0317, Name: 170329G3_11, Date: 30-Mar-2017, Time: 01:27:14, Instrument: , Lab: , User:

Total PFBS

170329G3_11

PFBS;2.97;3.78e2;bb;1080.88

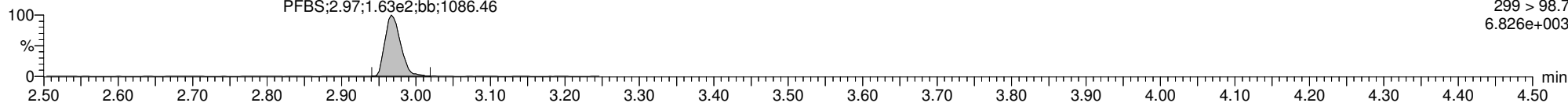
F2:MRM of 3 channels,ES-
299 > 79.7
1.504e+004



170329G3_11

PFBS;2.97;1.63e2;bb;1086.46

F2:MRM of 3 channels,ES-
299 > 98.7
6.826e+003

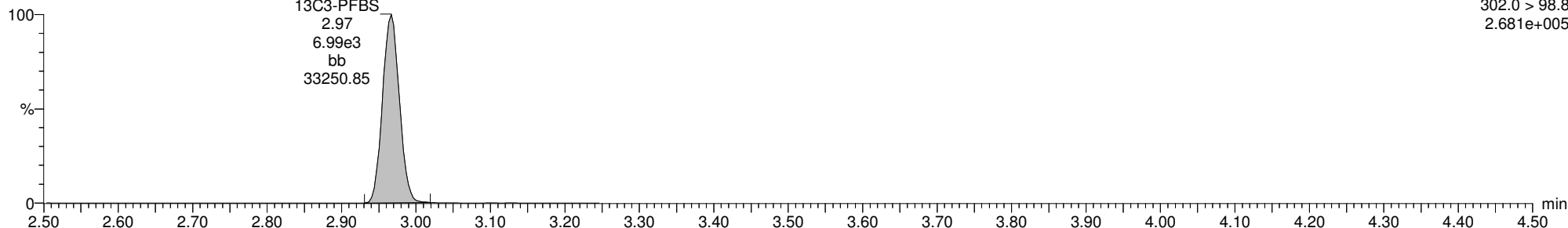


13C3-PFBS

170329G3_11

13C3-PFBS
2.97
6.99e3
bb
33250.85

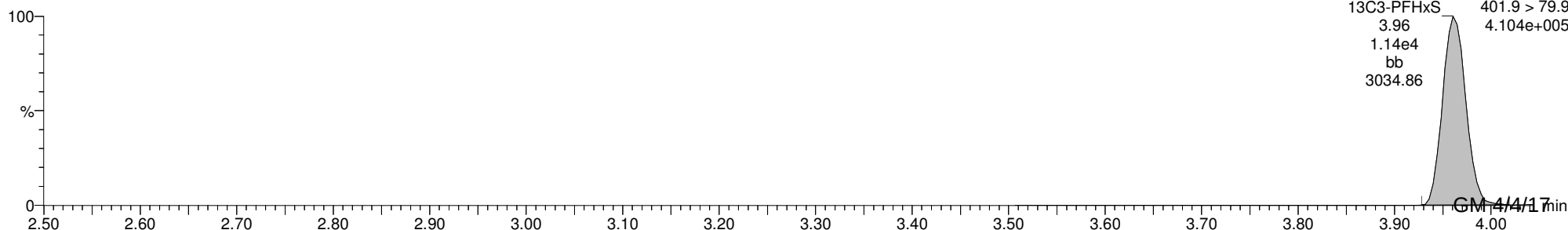
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.681e+005



13C3-PFHxS

170329G3_11

F4:MRM of 7 channels,ES-
13C3-PFHxS 401.9 > 79.9
3.96 4.104e+005
1.14e4
bb
3034.86

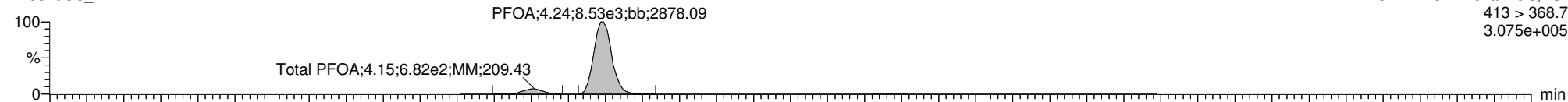


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Last Altered: Thursday, March 30, 2017 16:47:15 Pacific Daylight Time
Printed: Tuesday, April 04, 2017 12:38:46 Pacific Daylight Time

ID: 1700355-10RE1 CBD-AOA-MW01-0317 0.1192, Description: CBD-AOA-MW01-0317, Name: 170329G3_11, Date: 30-Mar-2017, Time: 01:27:14, Instrument: , Lab: , User:

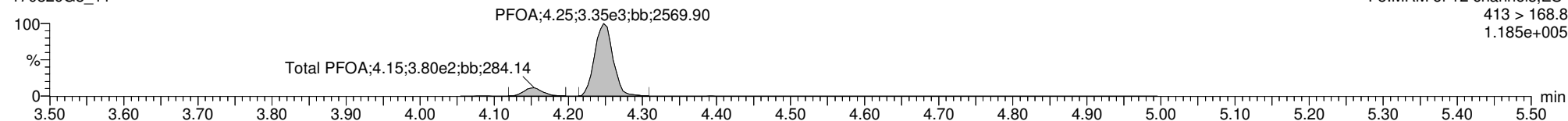
Total PFOA

170329G3_11



F5:MRM of 12 channels,ES-
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3.075e+005

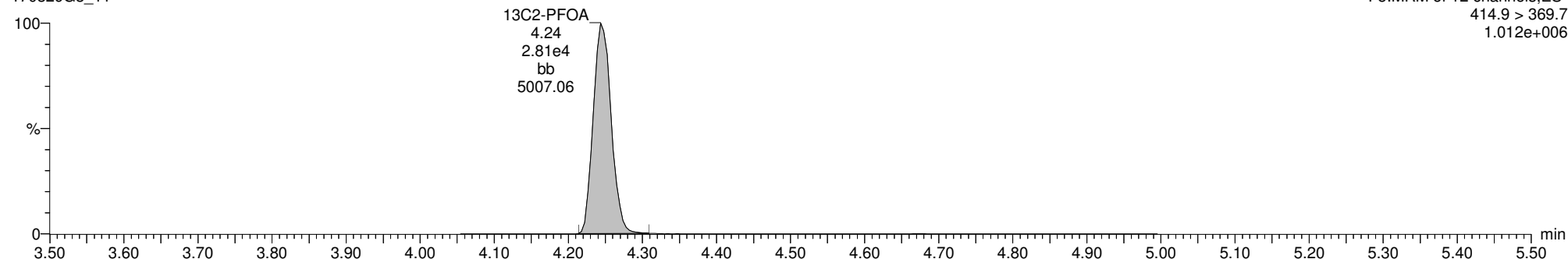
170329G3_11



F5:MRM of 12 channels,ES-
413 > 168.8
1.185e+005

13C2-PFOA

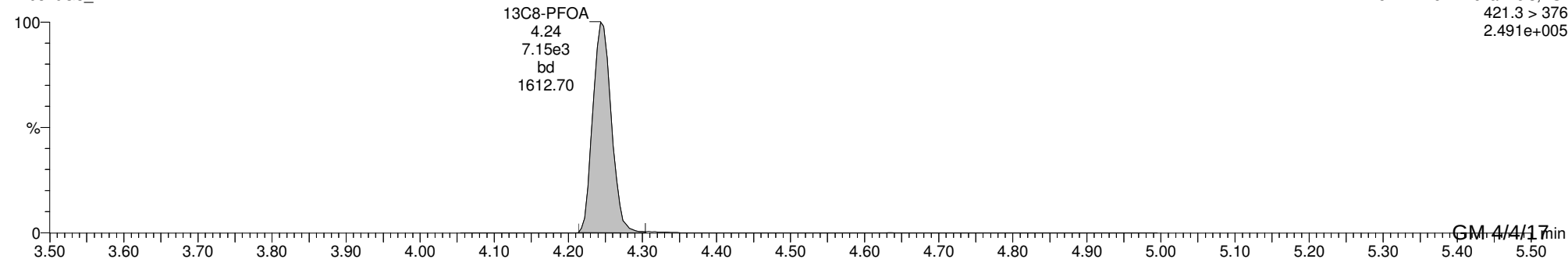
170329G3_11



F5:MRM of 12 channels,ES-
414.9 > 369.7
1.012e+006

13C8-PFOA

170329G3_11



F5:MRM of 12 channels,ES-
421.3 > 376
2.491e+005

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-11.qld

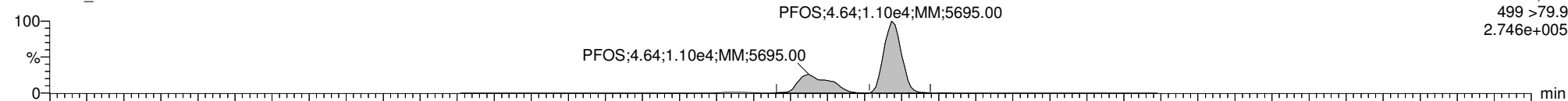
Last Altered: Thursday, March 30, 2017 16:47:15 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:38:46 Pacific Daylight Time

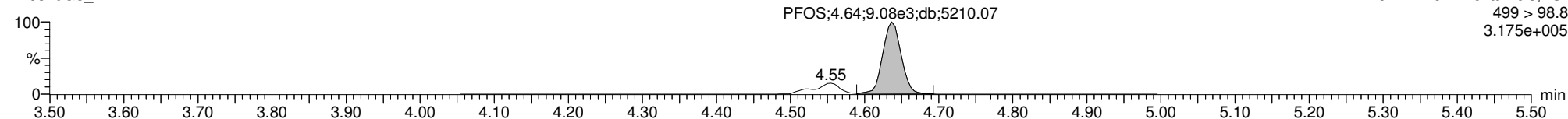
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Total PFOS

170329G3_11

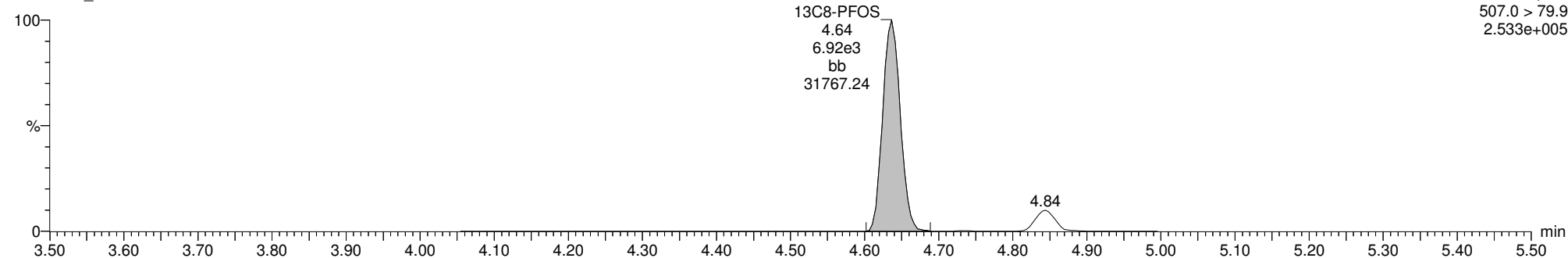


170329G3_11



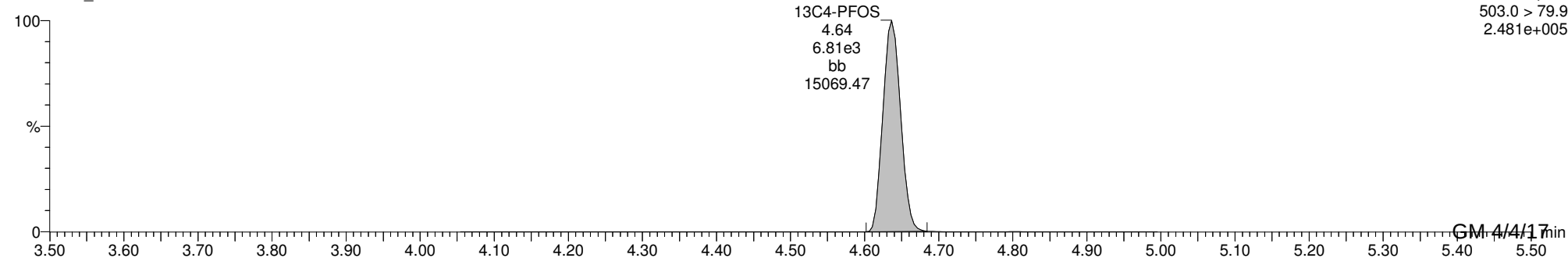
13C8-PFOS

170329G3_11



13C4-PFOS

170329G3_11



Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-11.qld

Last Altered: Thursday, March 30, 2017 16:47:15 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:38:53 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-10RE1 CBD-AOA-MW01-0317 0.1192, Description: CBD-AOA-MW01-0317, Name: 170329G3_11, Date: 30-Mar-2017, Time: 01:27:14

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	18 Total PFBS	299 > 79.7		6.549e3		0.00110		513	
2	20 Total PFOA	413 > 368.7		2.808e4		0.00110		8260	
3	21 Total PFOS	499 > 79.9		6.919e3		0.00110		65500	

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-11.qld

Last Altered: Thursday, March 30, 2017 16:47:15 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:38:53 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

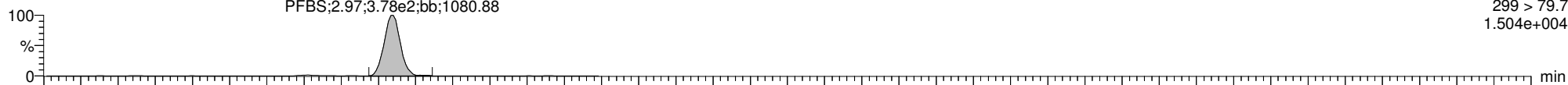
ID: 1700355-10RE1 CBD-AOA-MW01-0317 0.1192, Description: CBD-AOA-MW01-0317, Name: 170329G3_11, Date: 30-Mar-2017, Time: 01:27:14, Instrument: , Lab: , User:

Total PFBS

170329G3_11

PFBS;2.97;3.78e2;bb;1080.88

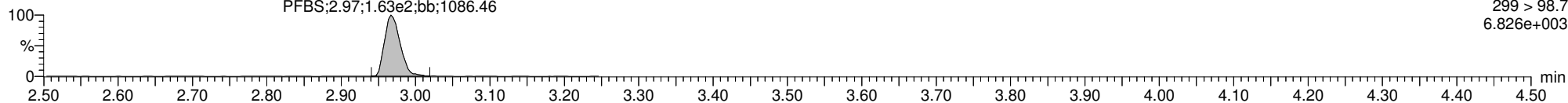
F2:MRM of 3 channels,ES-
299 > 79.7
1.504e+004



170329G3_11

PFBS;2.97;1.63e2;bb;1086.46

F2:MRM of 3 channels,ES-
299 > 98.7
6.826e+003

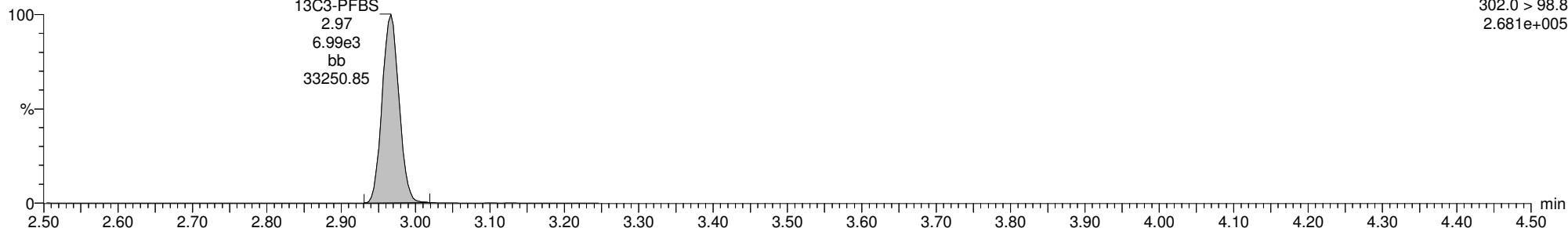


13C3-PFBS

170329G3_11

13C3-PFBS
2.97
6.99e3
bb
33250.85

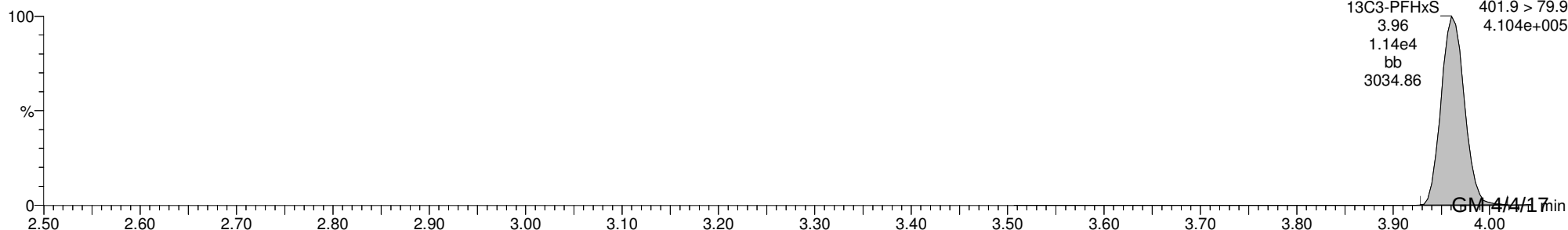
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.681e+005



13C3-PFHxS

170329G3_11

F4:MRM of 7 channels,ES-
13C3-PFHxS 401.9 > 79.9
3.96 4.104e+005
1.14e4
bb
3034.86

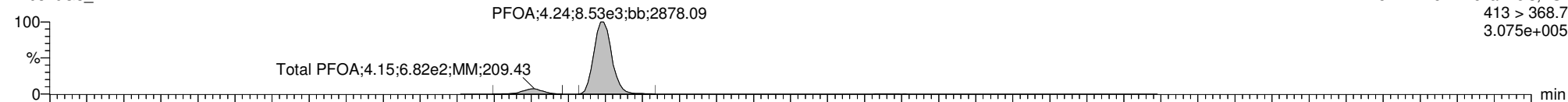


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Last Altered: Thursday, March 30, 2017 16:47:15 Pacific Daylight Time
Printed: Tuesday, April 04, 2017 12:38:53 Pacific Daylight Time

ID: 1700355-10RE1 CBD-AOA-MW01-0317 0.1192, Description: CBD-AOA-MW01-0317, Name: 170329G3_11, Date: 30-Mar-2017, Time: 01:27:14, Instrument: , Lab: , User:

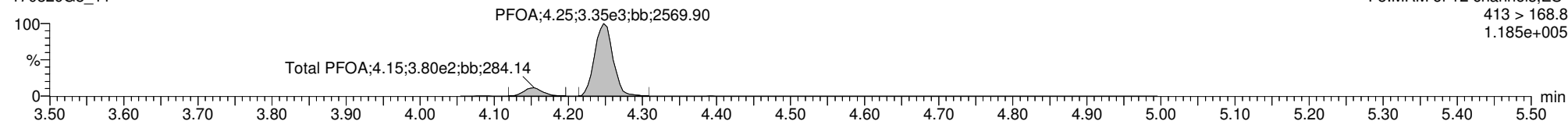
Total PFOA

170329G3_11



F5:MRM of 12 channels,ES-
413 > 368.7
3.075e+005

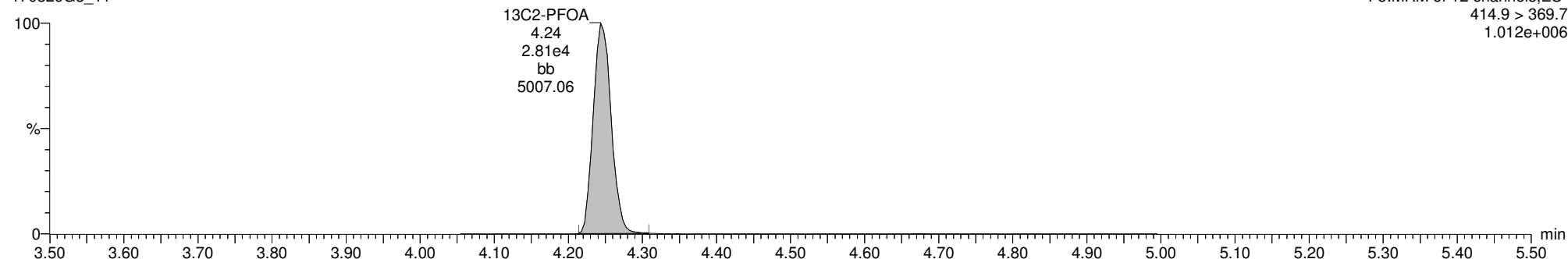
170329G3_11



F5:MRM of 12 channels,ES-
413 > 168.8
1.185e+005

13C2-PFOA

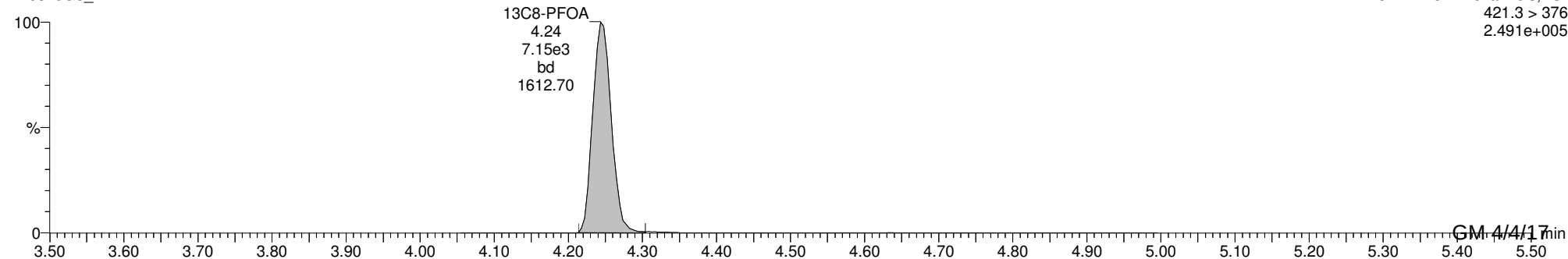
170329G3_11



F5:MRM of 12 channels,ES-
414.9 > 369.7
1.012e+006

13C8-PFOA

170329G3_11



F5:MRM of 12 channels,ES-
421.3 > 376
2.491e+005

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-11.qld

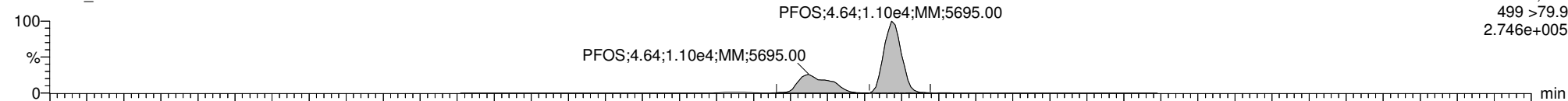
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Printed: Tuesday, April 04, 2017 12:38:53 Pacific Daylight Time

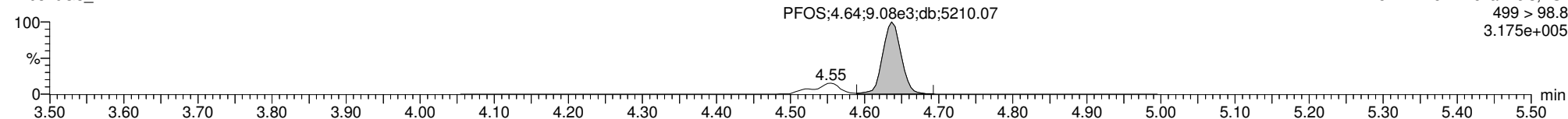
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Total PFOS

170329G3_11

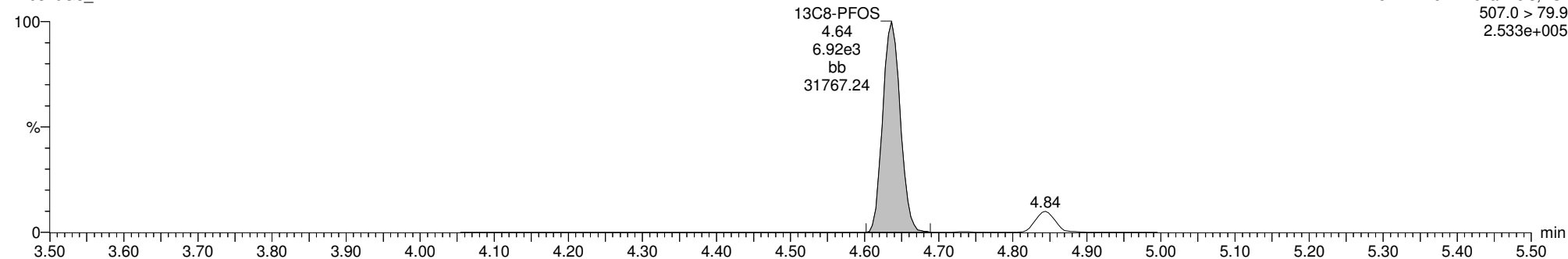


170329G3_11



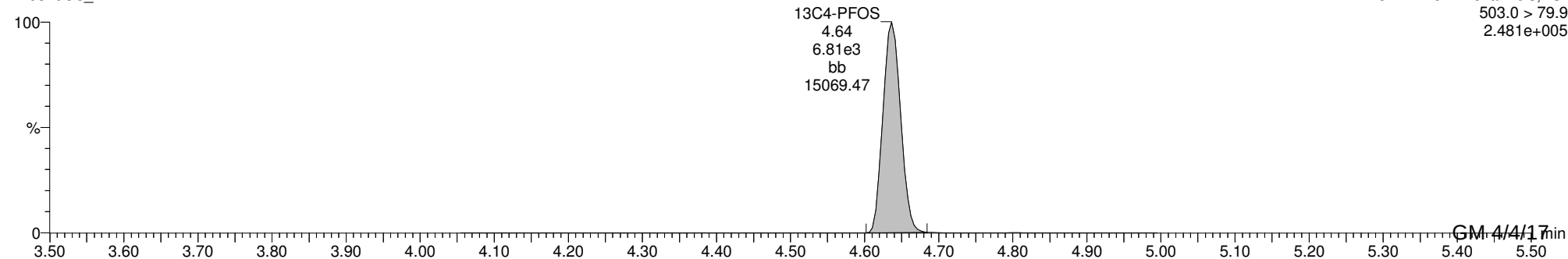
13C8-PFOS

170329G3_11



13C4-PFOS

170329G3_11



Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-22.qld

Last Altered: Thursday, March 30, 2017 12:44:04 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:23:15 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-11 CBD-AOA-MW02-0317 0.125, Description: CBD-AOA-MW02-0317, Name: 170324G2_22, Date: 24-Mar-2017, Time: 20:13:16

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.075e4	6.263e3		0.126	2.96	215	
2	4 PFOA	413 > 368.7	4.792e5	1.437e4		0.126	4.23	3810 E	
3	6 PFOS	499 > 79.9	1.096e6	4.611e4		0.126	4.62	4280 E	
4	7 13C3-PFBS	302.0 > 98.8	6.263e3	4.785e3	0.501	0.126	2.96	260	261
5	10 13C2-PFOA	414.9 > 369.7	1.437e4	3.896e3	3.221	0.126	4.23	114	115
6	12 13C8-PFOS	507.0 > 79.9	4.611e4	1.552e3	1.080	0.126	4.85	2740	2750
7	14 13C3-PFHxS	401.9 > 79.9	4.785e3	4.785e3	1.000	0.126	3.94	99.5	100
8	15 13C8-PFOA	421.3 > 376	3.896e3	3.896e3	1.000	0.126	4.23	99.5	100
9	16 13C9-PFNA	472.2 > 426.9	2.272e3	2.272e3	1.000	0.126	4.56	99.5	100
10	17 13C4-PFOS	503.0 > 79.9	1.552e3	1.552e3	1.000	0.126	4.62	99.5	100
11	18 Total PFBS	299 > 79.7		2.484e3		0.126		215	
12	20 Total PFOA	413 > 368.7		1.437e4		0.126		4570	
13	21 Total PFOS	499 > 79.9		4.611e4		0.126		4280	

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-22.qld

Last Altered: Thursday, March 30, 2017 12:44:04 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:23:15 Pacific Daylight Time

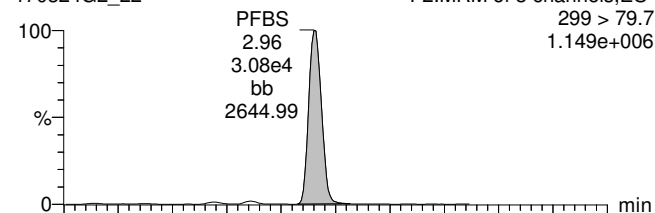
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-11 CBD-AOA-MW02-0317 0.125, Description: CBD-AOA-MW02-0317, Name: 170324G2_22, Date: 24-Mar-2017, Time: 20:13:16, Instrument: , Lab: , User:

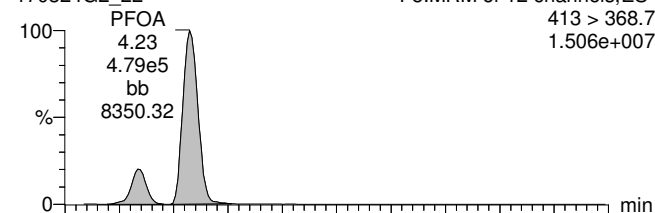
Total PFBS

170324G2_22



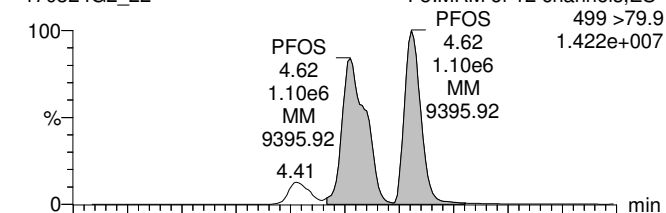
Total PFOA

170324G2_22

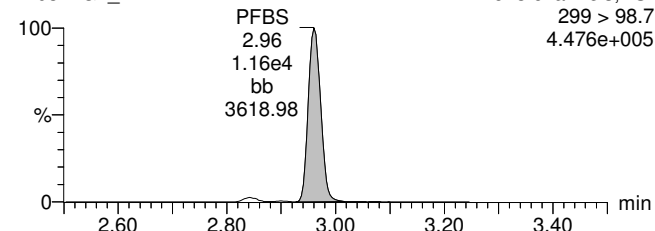


Total PFOS

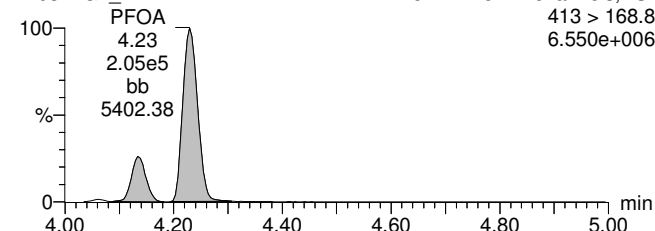
170324G2_22



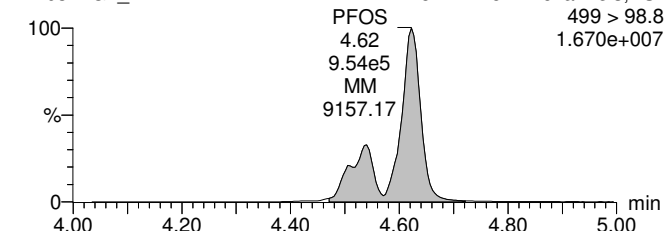
170324G2_22



170324G2_22

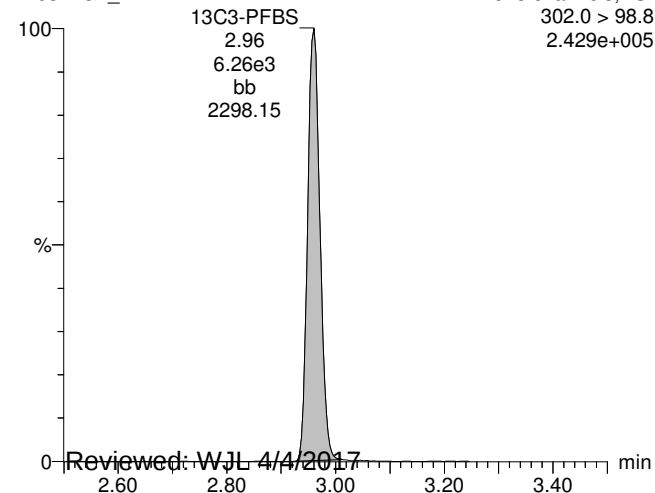


170324G2_22



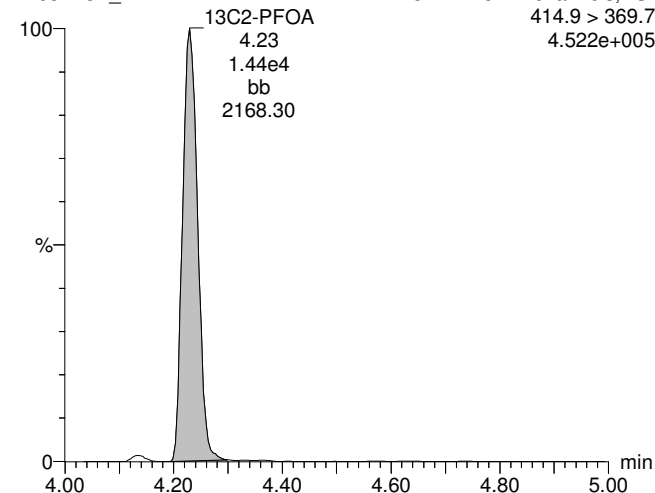
13C3-PFBS

170324G2_22



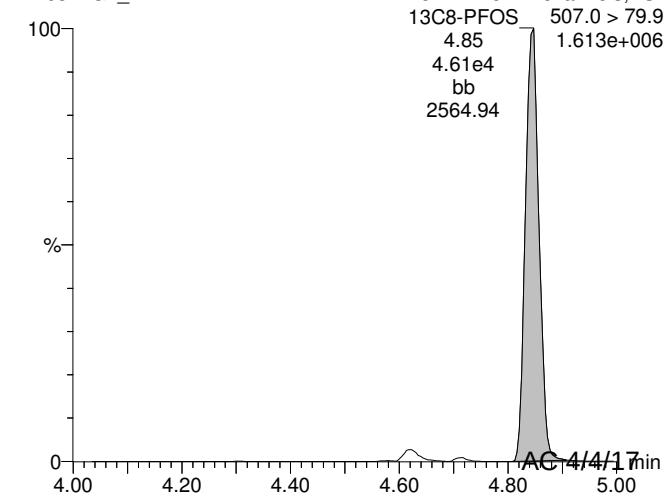
13C2-PFOA

170324G2_22



13C8-PFOS

170324G2_22



Reviewed: WJL 4/4/2017

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AC 4/4/17

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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-22.qld

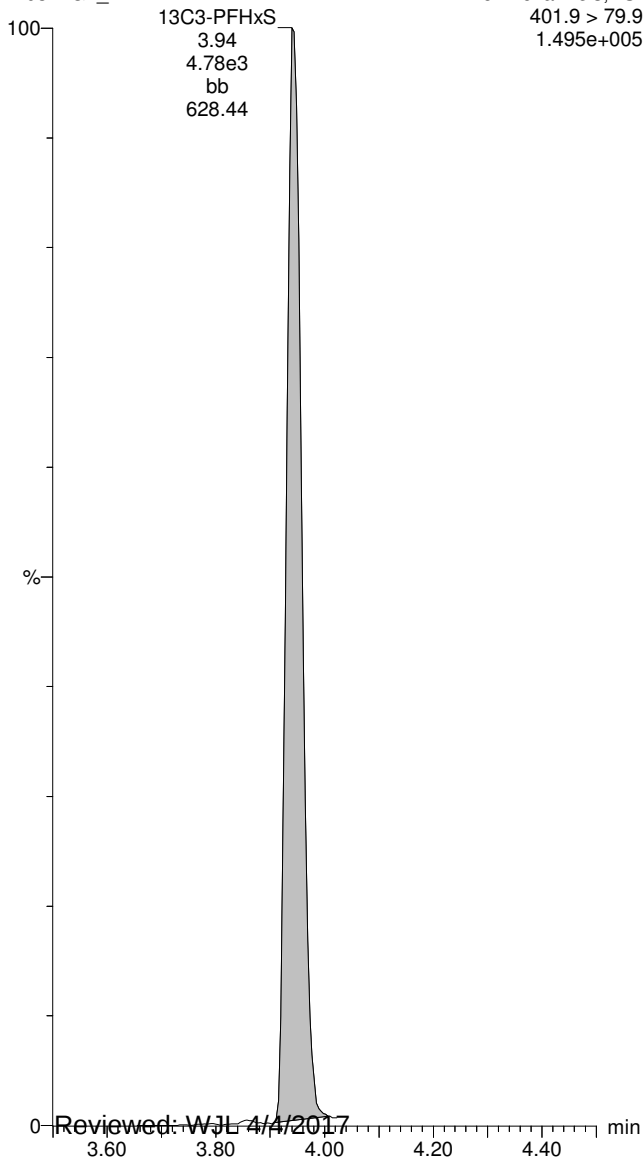
Last Altered: Thursday, March 30, 2017 12:44:04 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:23:15 Pacific Daylight Time

ID: 1700355-11 CBD-AOA-MW02-0317 0.125, Description: CBD-AOA-MW02-0317, Name: 170324G2_22, Date: 24-Mar-2017, Time: 20:13:16, Instrument: , Lab: , User:

13C3-PFHxS

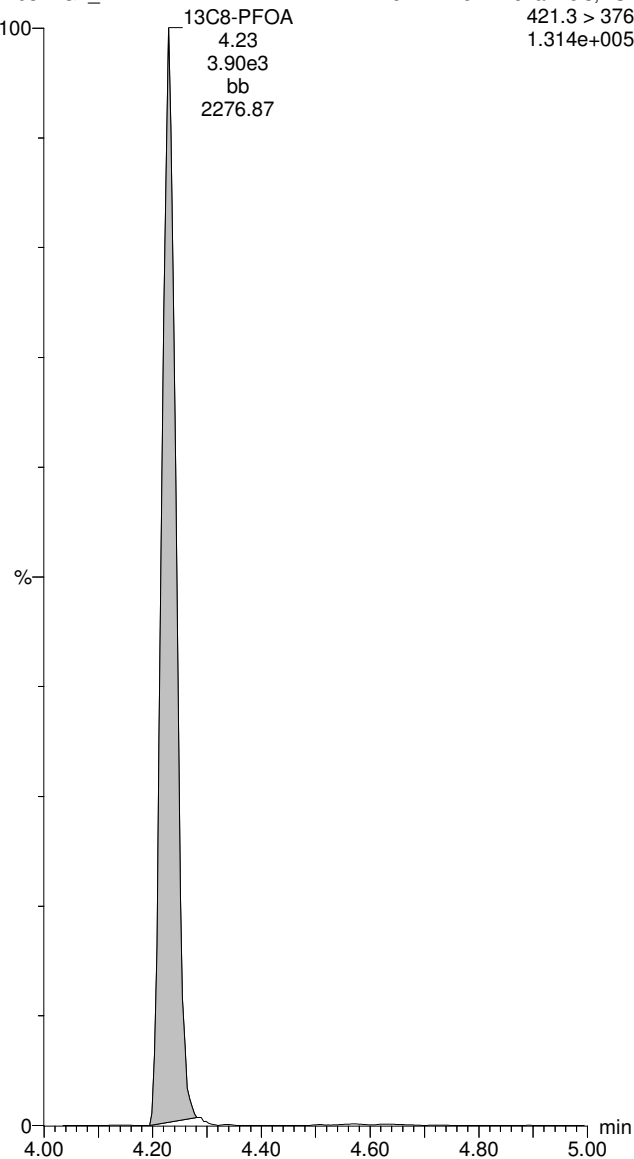
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Work Order 1700355

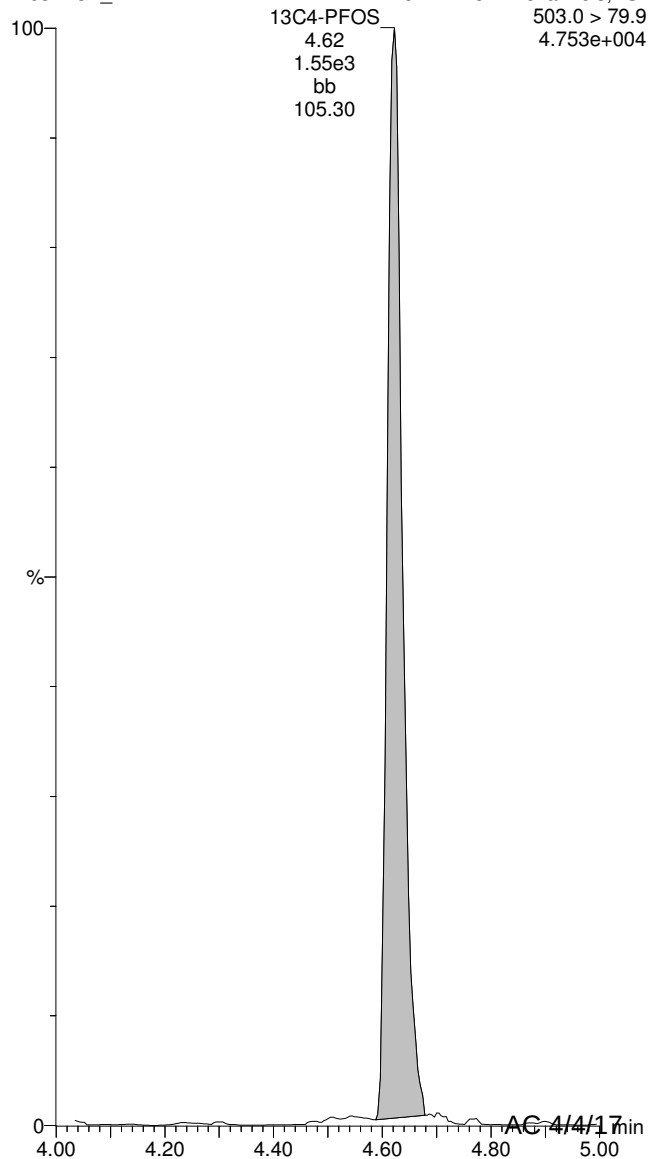
13C8-PFOA

170324G2_22



13C4-PFOS

170324G2_22



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Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-12.qld

Last Altered: Thursday, March 30, 2017 15:34:30 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:42:36 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-11RE1 CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_12, Date: 30-Mar-2017, Time: 01:39:47

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.851e2	7.225e3		0.00122	2.97	331	
2	4 PFOA	413 > 368.7	8.899e3	3.141e4		0.00122	4.25	6530	
3	6 PFOS	499 > 79.9	3.128e4	7.543e3		0.00122	4.64	154000 E *	
4	7 13C3-PFBS	302.0 > 98.8	7.225e3	1.257e4	0.501	0.00122	2.97	23500	115
5	10 13C2-PFOA	414.9 > 369.7	3.141e4	7.532e3	3.221	0.00122	4.25	26500	129
6	12 13C8-PFOS	507.0 > 79.9	7.543e3	6.630e3	1.080	0.00122	4.64	21600	105
7	14 13C3-PFHxS	401.9 > 79.9	1.257e4	1.257e4	1.000	0.00122	3.96	20500	100
8	15 13C8-PFOA	421.3 > 376	7.532e3	7.532e3	1.000	0.00122	4.25	20500	100
9	17 13C4-PFOS	503.0 > 79.9	6.630e3	6.630e3	1.000	0.00122	4.64	20500	100

* See dilution.

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-12.qld

Last Altered: Thursday, March 30, 2017 15:34:30 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:42:46 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-11RE1 CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_12, Date: 30-Mar-2017, Time: 01:39:47

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	18 Total PFBS	299 > 79.7		6.916e3		0.00122		331	
2	20 Total PFOA	413 > 368.7		3.141e4		0.00122		7110	
3	21 Total PFOS	499 > 79.9		7.543e3		0.00122		154000	

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-12.qld

Last Altered: Thursday, March 30, 2017 15:34:30 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:42:36 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

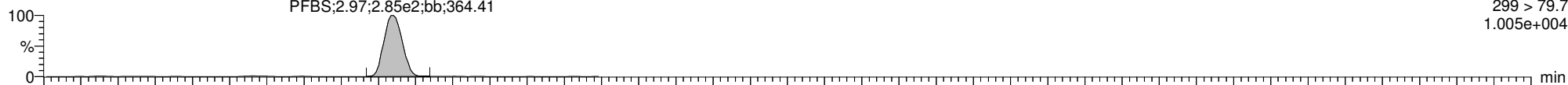
ID: 1700355-11RE1 CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_12, Date: 30-Mar-2017, Time: 01:39:47, Instrument: , Lab: , User:

Total PFBS

170329G3_12

PFBS;2.97;2.85e2;bb;364.41

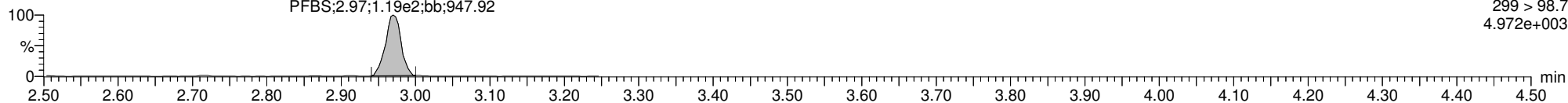
F2:MRM of 3 channels,ES-
299 > 79.7
1.005e+004



170329G3_12

PFBS;2.97;1.19e2;bb;947.92

F2:MRM of 3 channels,ES-
299 > 98.7
4.972e+003

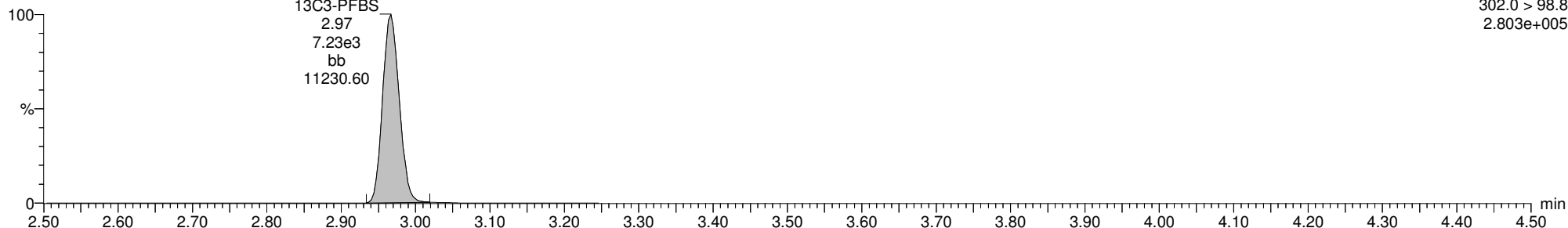


13C3-PFBS

170329G3_12

13C3-PFBS
2.97
7.23e3
bb
11230.60

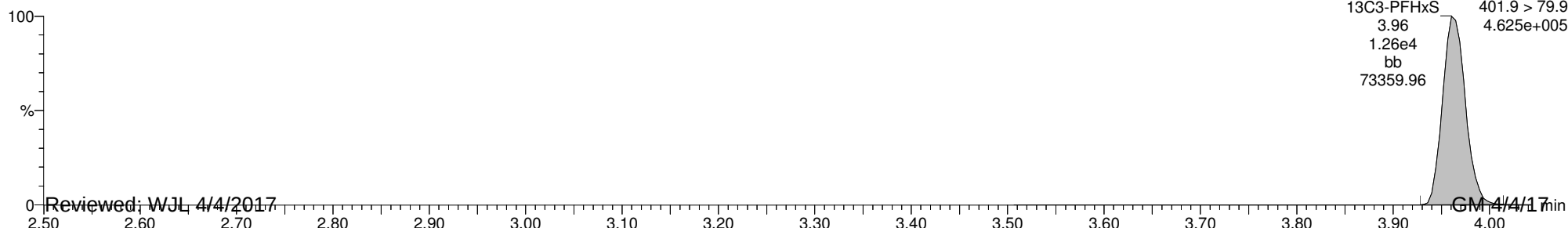
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.803e+005



13C3-PFHxS

170329G3_12

F4:MRM of 7 channels,ES-
13C3-PFHxS 401.9 > 79.9
3.96 4.625e+005
1.26e4
bb
73359.96



Reviewed: WJL 4/4/2017

Work Order 1700355

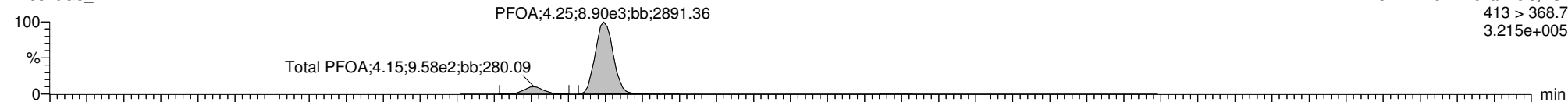
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Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-12.qld
Last Altered: Thursday, March 30, 2017 15:34:30 Pacific Daylight Time
Printed: Tuesday, April 04, 2017 12:42:36 Pacific Daylight Time

ID: 1700355-11RE1 CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_12, Date: 30-Mar-2017, Time: 01:39:47, Instrument: , Lab: , User:

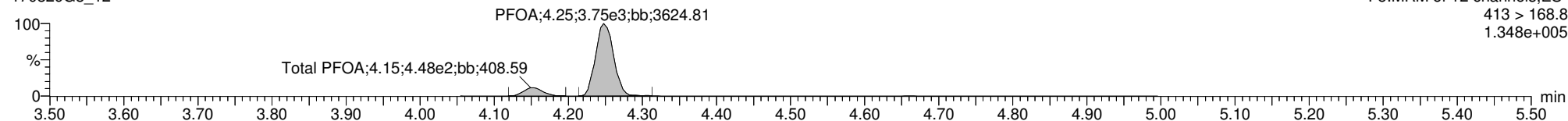
Total PFOA

170329G3_12



F5:MRM of 12 channels,ES-
413 > 368.7
3.215e+005

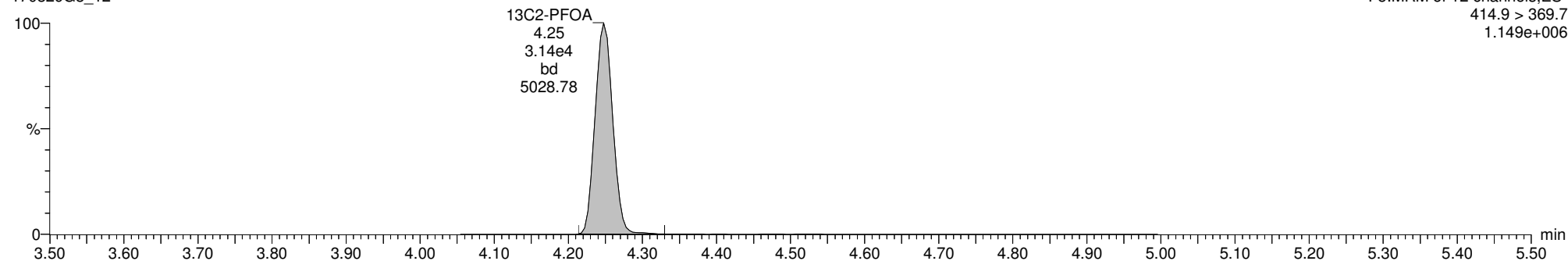
170329G3_12



F5:MRM of 12 channels,ES-
413 > 168.8
1.348e+005

13C2-PFOA

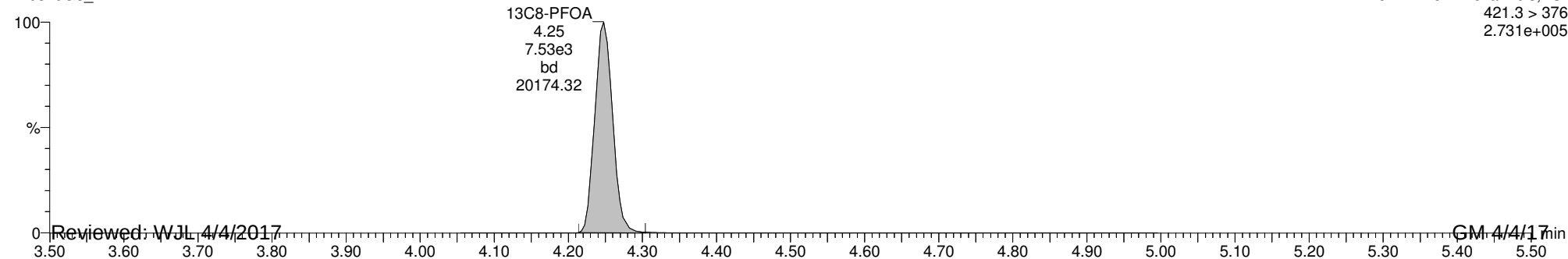
170329G3_12



F5:MRM of 12 channels,ES-
414.9 > 369.7
1.149e+006

13C8-PFOA

170329G3_12



F5:MRM of 12 channels,ES-
421.3 > 376
2.731e+005

Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-12.qld

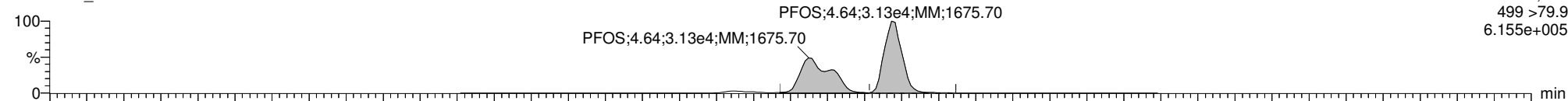
Last Altered: Thursday, March 30, 2017 15:34:30 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:42:36 Pacific Daylight Time

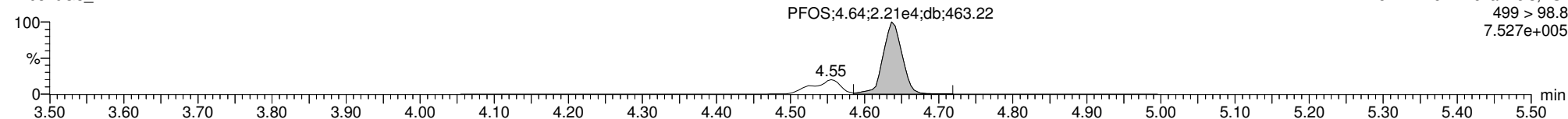
ID: 1700355-11RE1 CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_12, Date: 30-Mar-2017, Time: 01:39:47, Instrument: , Lab: , User:

Total PFOS

170329G3_12

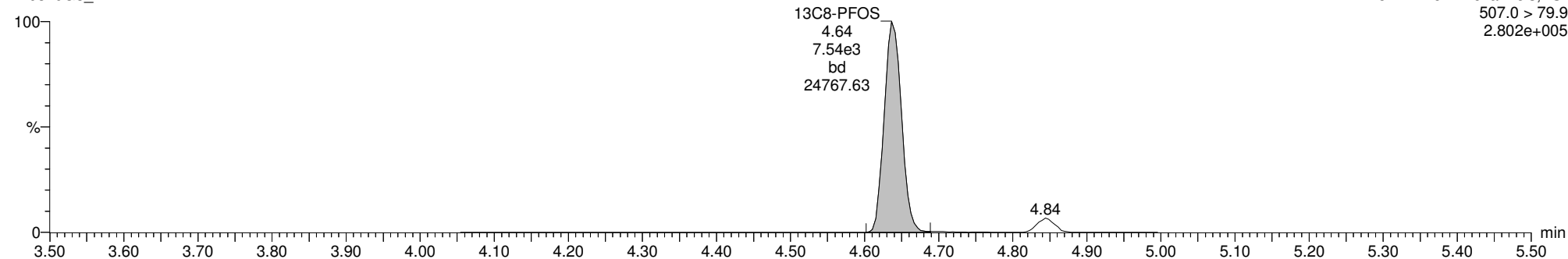


170329G3_12



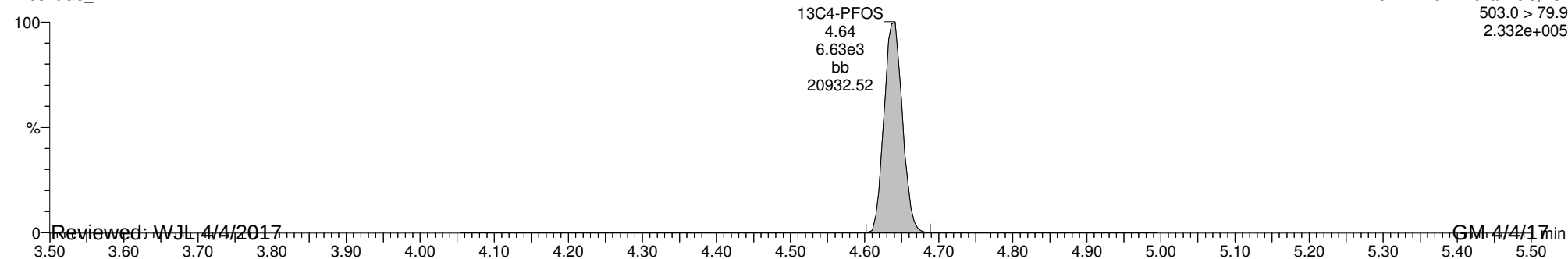
13C8-PFOS

170329G3_12



13C4-PFOS

170329G3_12



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

Last Altered: Tuesday, April 04, 2017 11:28:18 AM Pacific Daylight Time

Printed: Tuesday, April 04, 2017 11:29:15 AM Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-11RE1@20X CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_8, Date: 30-Mar-2017, Time: 00:49:36

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.194e1	3.941e2		0.00122	2.97	249	
2	4 PFOA	413 > 368.7	3.498e2	1.079e3		0.00122	4.25	7490	
3	6 PFOS	499 > 79.9	7.080e2	1.121e2		0.00122	4.64	234000	
4	7 13C3-PFBS	302.0 > 98.8	3.941e2	6.175e2	0.501	0.00122	2.96	26100	127
5	10 13C2-PFOA	414.9 > 369.7	1.079e3	2.996e2	3.221	0.00122	4.24	22900	112
6	12 13C8-PFOS	507.0 > 79.9	1.121e2	9.397e1	1.080	0.00122	4.64	22600	111
7	14 13C3-PFHxS	401.9 > 79.9	6.175e2	6.175e2	1.000	0.00122	3.96	20500	100
8	15 13C8-PFOA	421.3 > 376	2.996e2	2.996e2	1.000	0.00122	4.24	20500	100
9	17 13C4-PFOS	503.0 > 79.9	9.397e1	9.397e1	1.000	0.00122	4.64	20500	100

Use only

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

Last Altered: Tuesday, April 04, 2017 11:28:18 AM Pacific Daylight Time

Printed: Tuesday, April 04, 2017 11:29:15 AM Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-11RE1@20X CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_8, Date: 30-Mar-2017, Time: 00:49:36

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.97	11.937	394.097	248.6

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.96	546.543	343.340	18268.7
2	19 Total PFHxS	398.9 > 79.6	3.87	54.693	343.340	1791.4

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.25	349.785	1079.067	7488.6

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.64	707.971	112.130	23401...

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

Last Altered: Tuesday, April 04, 2017 11:28:18 AM Pacific Daylight Time

Printed: Tuesday, April 04, 2017 11:29:15 AM Pacific Daylight Time

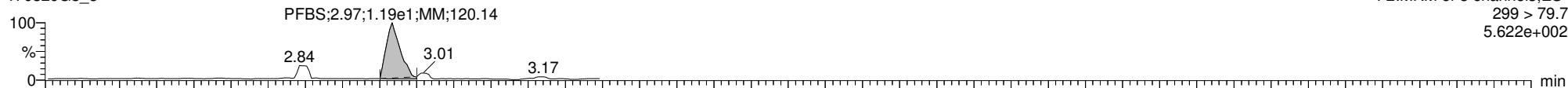
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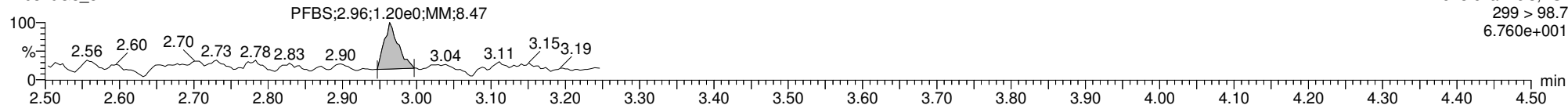
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Total PFBS

170329G3_8

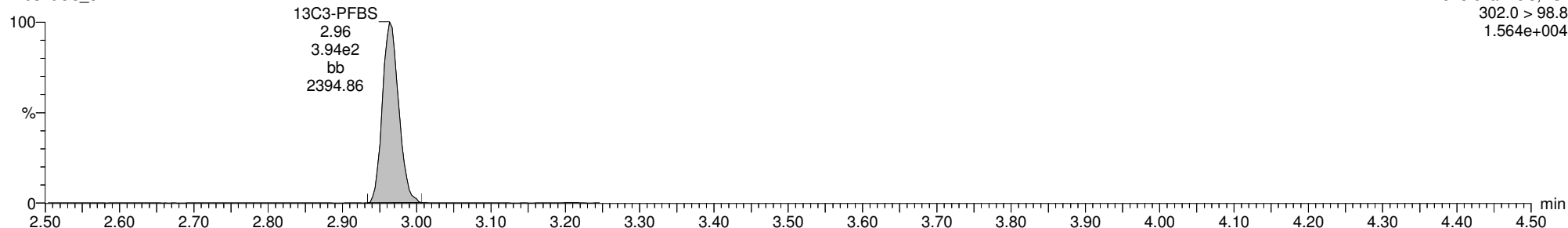


170329G3_8



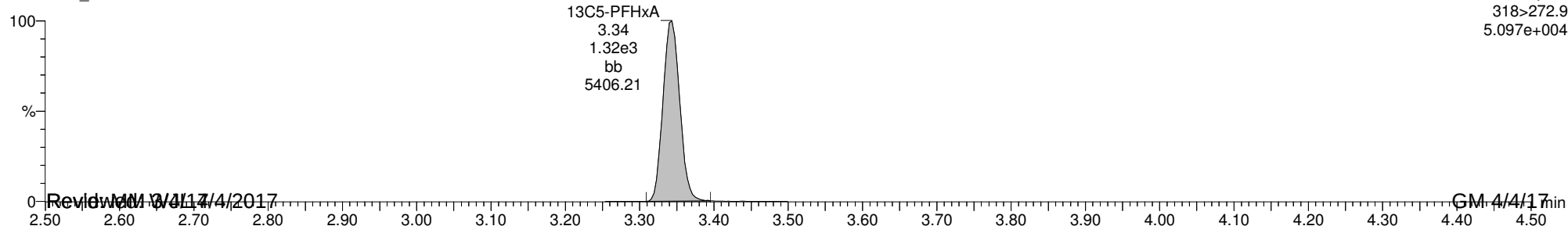
13C3-PFBS

170329G3_8



13C5-PFHxA

170329G3_8



Reviewed: 4/4/17

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

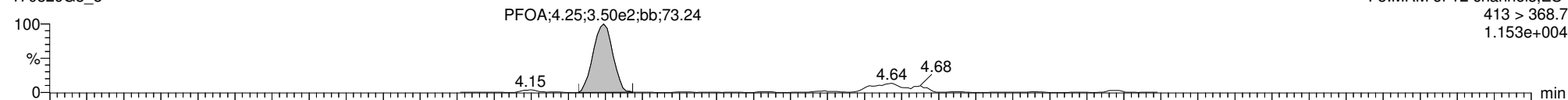
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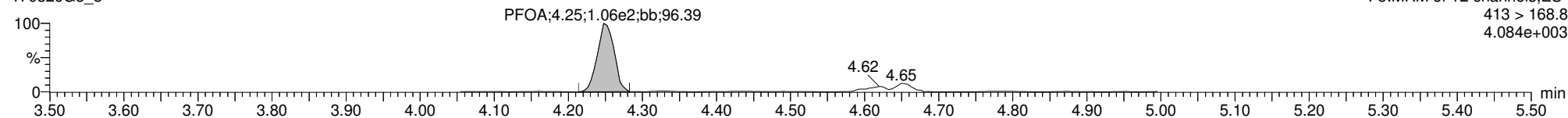
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Total PFOA

170329G3_8

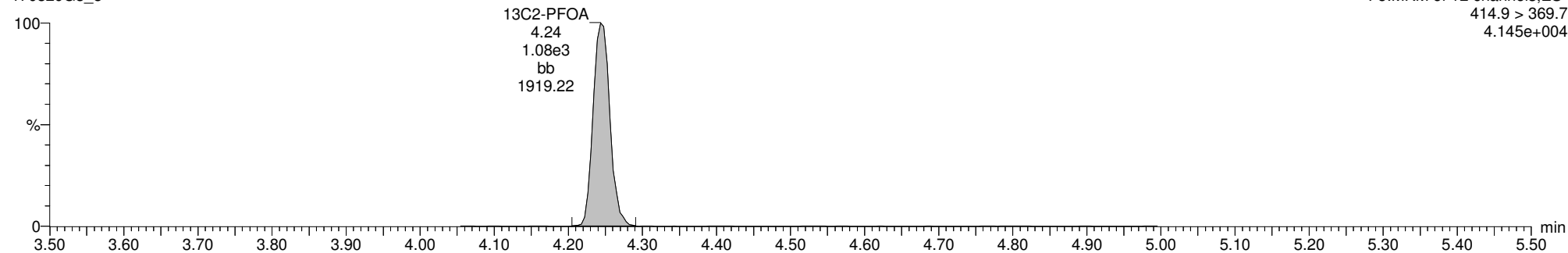


170329G3_8



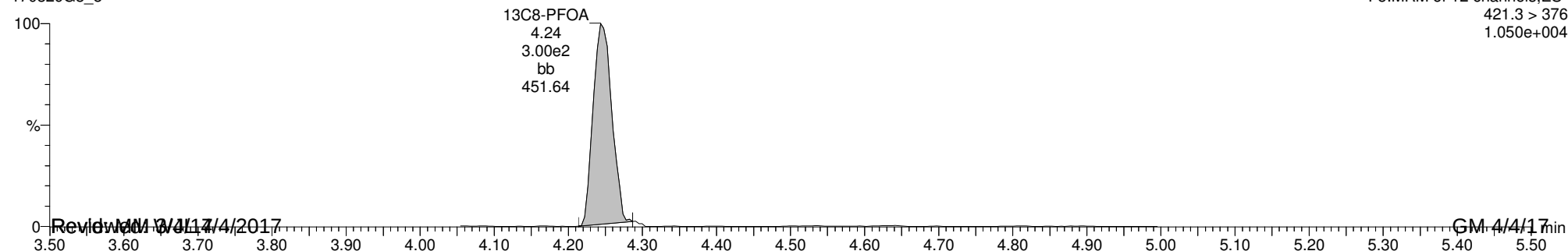
13C2-PFOA

170329G3_8



13C8-PFOA

170329G3_8



Reviewed: 4/11/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

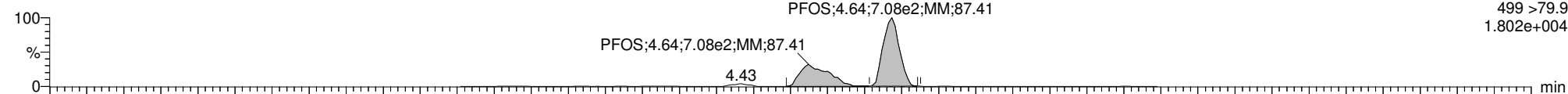
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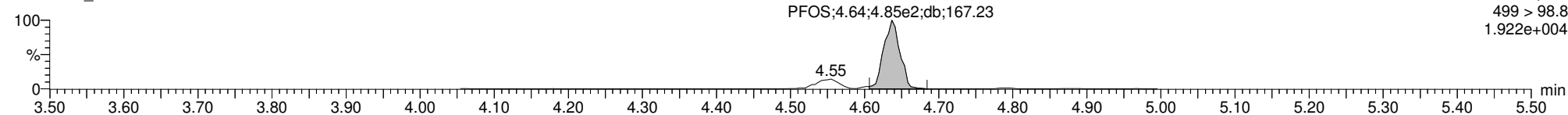
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Total PFOS

170329G3_8

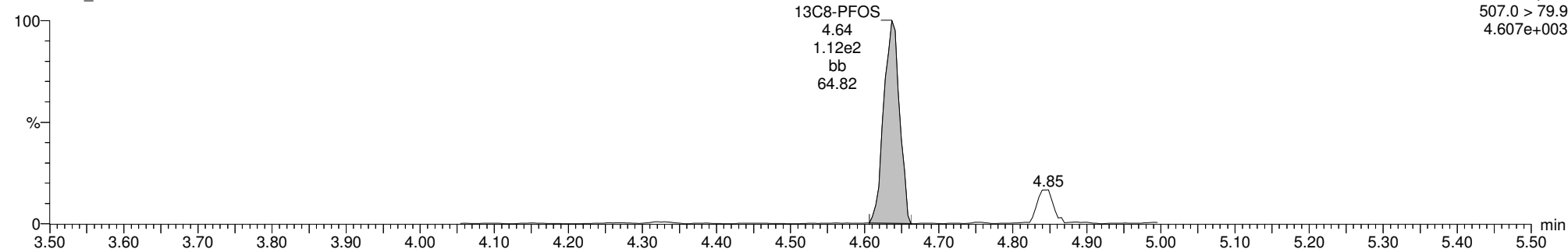


170329G3_8



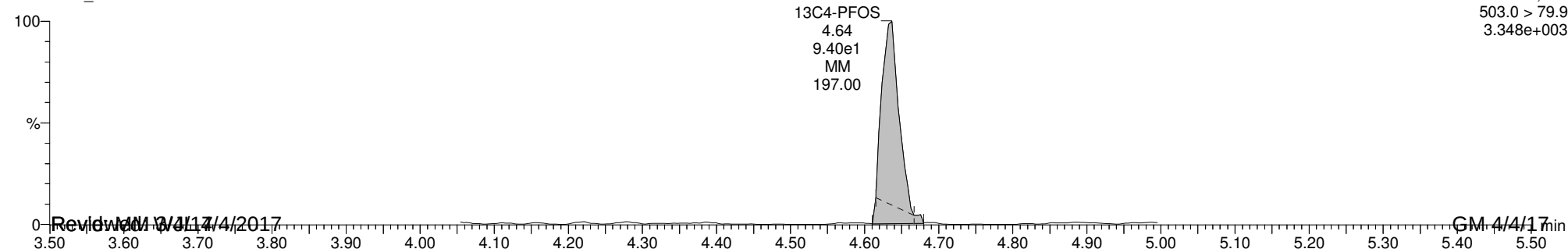
13C8-PFOS

170329G3_8



13C4-PFOS

170329G3_8



Reviewed: 4/11/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

Last Altered: Tuesday, April 04, 2017 11:28:18 AM Pacific Daylight Time

Printed: Tuesday, April 04, 2017 11:29:23 AM Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-11RE1@20X CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_8, Date: 30-Mar-2017, Time: 00:49:36

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	18 Total PFBS	299 > 79.7		3.433e2		0.00122		249	
2	20 Total PFOA	413 > 368.7		1.079e3		0.00122		7490	
3	21 Total PFOS	499 > 79.9		1.121e2		0.00122		234000	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

Last Altered: Tuesday, April 04, 2017 11:28:18 AM Pacific Daylight Time

Printed: Tuesday, April 04, 2017 11:29:23 AM Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-11RE1@20X CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_8, Date: 30-Mar-2017, Time: 00:49:36

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.97	11.937	394.097	248.6

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.96	546.543	343.340	18268.7
2	19 Total PFHxS	398.9 > 79.6	3.87	54.693	343.340	1791.4

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.25	349.785	1079.067	7488.6

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.64	707.971	112.130	23401...

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

Last Altered: Tuesday, April 04, 2017 11:28:18 AM Pacific Daylight Time

Printed: Tuesday, April 04, 2017 11:29:23 AM Pacific Daylight Time

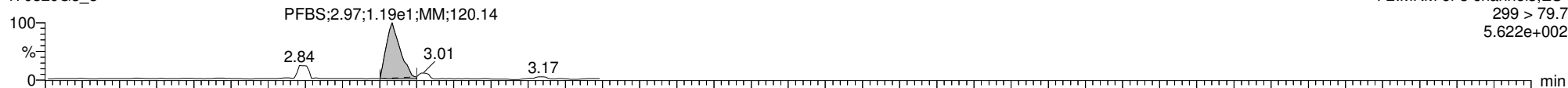
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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-11RE1@20X CBD-AOA-MW02-0317 0.1256, Description: CBD-AOA-MW02-0317, Name: 170329G3_8, Date: 30-Mar-2017, Time: 00:49:36, Instrument: , Lab: , User:

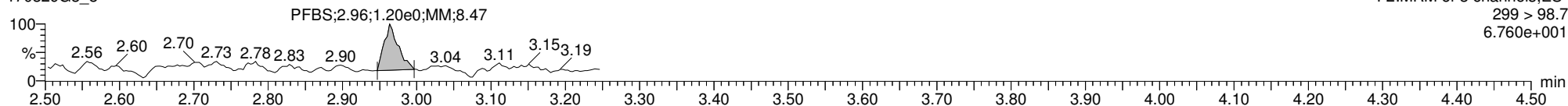
Total PFBS

170329G3_8



F2:MRM of 3 channels,ES-
299 > 79.7
5.622e+002

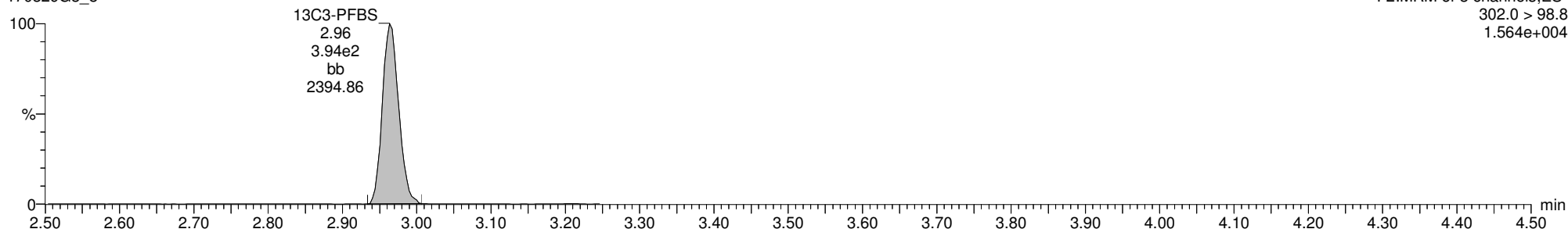
170329G3_8



F2:MRM of 3 channels,ES-
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6.760e+001

13C3-PFBS

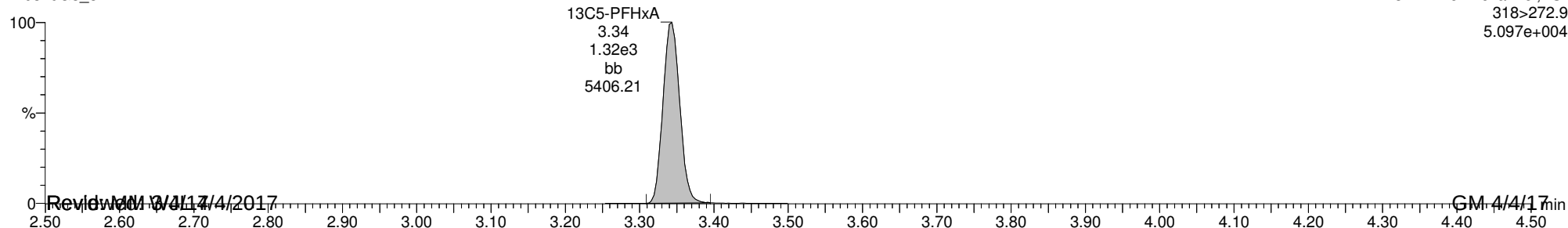
170329G3_8



F2:MRM of 3 channels,ES-
302.0 > 98.8
1.564e+004

13C5-PFHxA

170329G3_8



F3:MRM of 1 channel,ES-
318>272.9
5.097e+004

Reviewed: 4/4/17

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

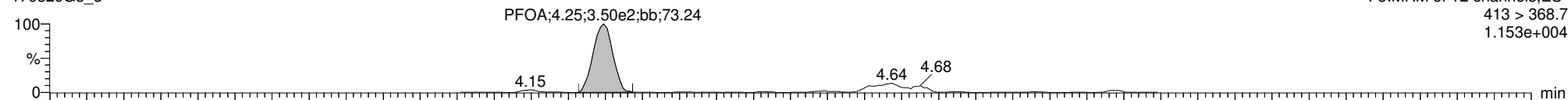
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Printed: Tuesday, April 04, 2017 11:29:23 AM Pacific Daylight Time

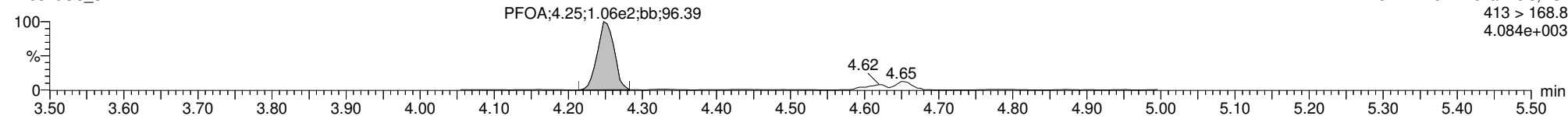
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Total PFOA

170329G3_8

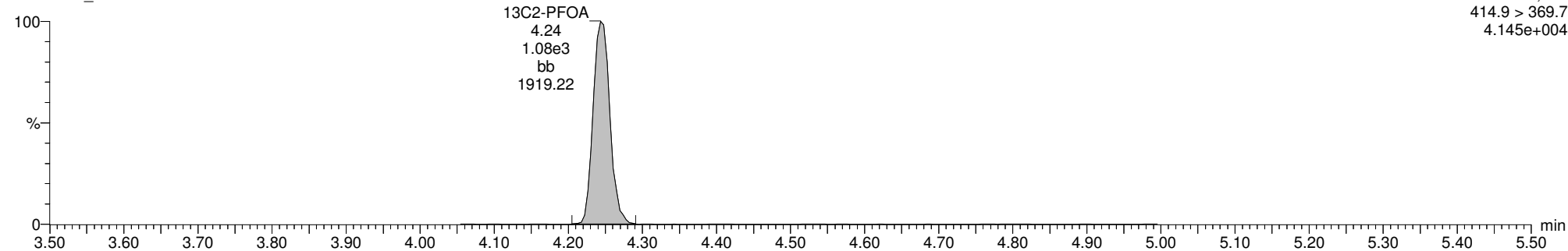


170329G3_8



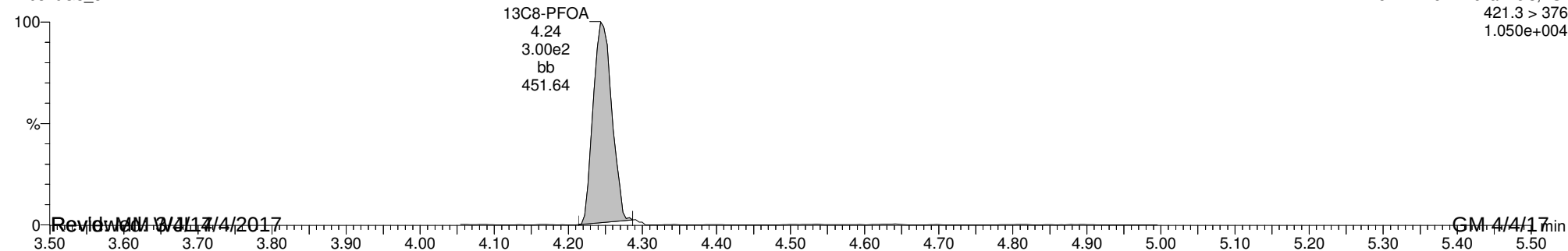
13C2-PFOA

170329G3_8



13C8-PFOA

170329G3_8



Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-8.qld

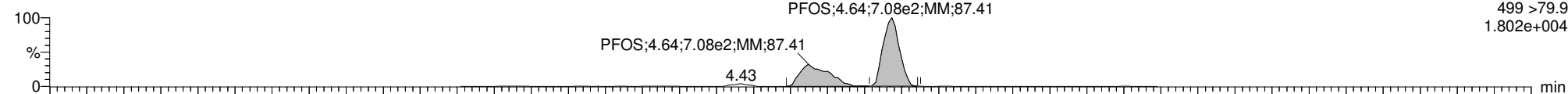
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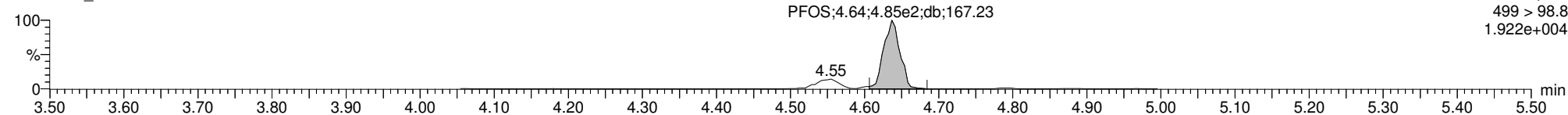
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Total PFOS

170329G3_8

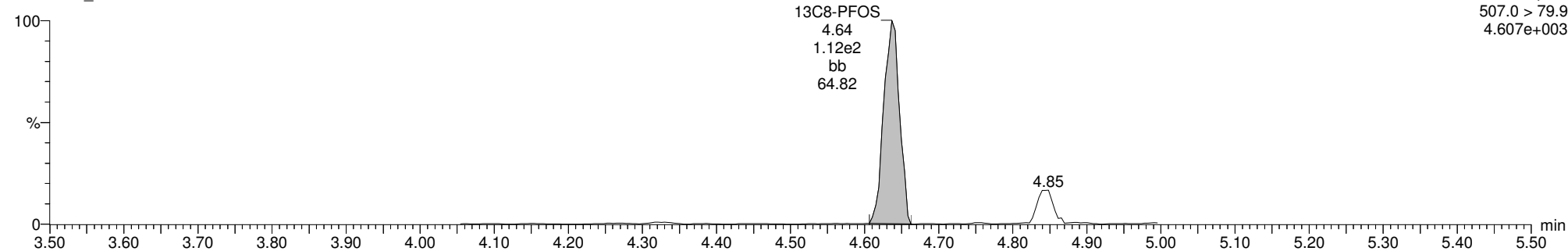


170329G3_8



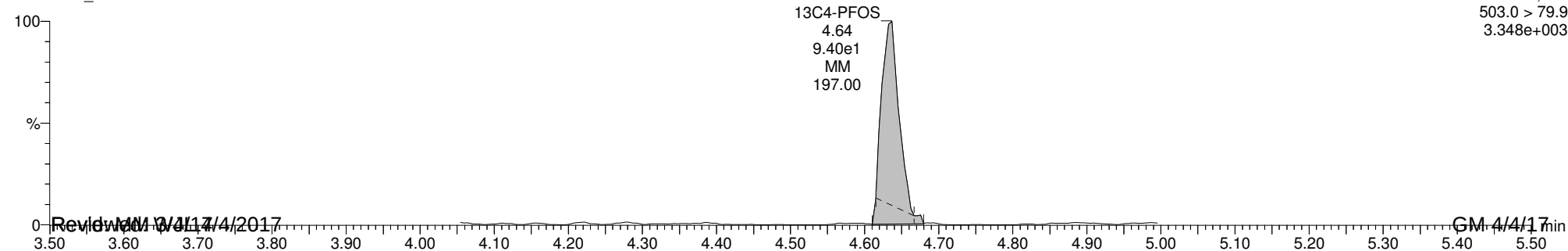
13C8-PFOS

170329G3_8



13C4-PFOS

170329G3_8



Reviewed: 4/11/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-23.qld

Last Altered: Thursday, March 30, 2017 12:48:50 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:25:18 Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-12 CBD-AOA-MW04-0317 0.125, Description: CBD-AOA-MW04-0317, Name: 170324G2_23, Date: 24-Mar-2017, Time: 20:25:51

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.120e4	6.023e3		0.128	2.96	222	
2	4 PFOA	413 > 368.7	5.909e5	1.185e4		0.128	4.23	5570 E	
3	6 PFOS	499 > 79.9	6.372e5	9.752e4		0.128	4.63	1150 E	
4	7 13C3-PFBS	302.0 > 98.8	6.023e3	4.520e3	0.501	0.128	2.96	259	266
5	10 13C2-PFOA	414.9 > 369.7	1.185e4	3.326e3	3.221	0.128	4.23	108	111
6	12 13C8-PFOS	507.0 > 79.9	9.752e4	2.290e3	1.080	0.128	4.84	3840	3940
7	14 13C3-PFHxS	401.9 > 79.9	4.520e3	4.520e3	1.000	0.128	3.94	97.4	100
8	15 13C8-PFOA	421.3 > 376	3.326e3	3.326e3	1.000	0.128	4.23	97.4	100
9	16 13C9-PFNA	472.2 > 426.9	5.089e3	5.089e3	1.000	0.128	4.57	97.4	100
10	17 13C4-PFOS	503.0 > 79.9	2.290e3	2.290e3	1.000	0.128	4.63	97.4	100
11	18 Total PFBS	299 > 79.7		2.284e3		0.128		222	
12	20 Total PFOA	413 > 368.7		1.185e4		0.128		6950	
13	21 Total PFOS	499 > 79.9		9.752e4		0.128		1150	

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-23.qld

Last Altered: Thursday, March 30, 2017 12:48:50 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:25:18 Pacific Daylight Time

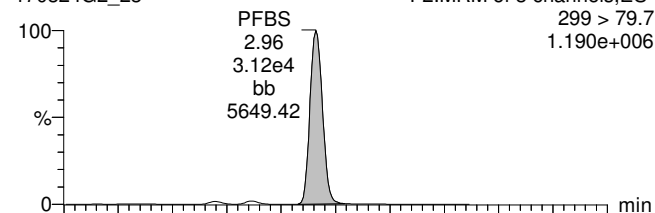
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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-12 CBD-AOA-MW04-0317 0.125, Description: CBD-AOA-MW04-0317, Name: 170324G2_23, Date: 24-Mar-2017, Time: 20:25:51, Instrument: , Lab: , User:

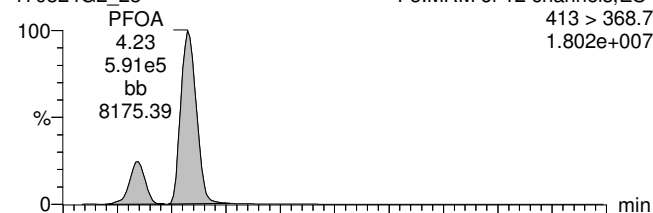
Total PFBS

170324G2_23



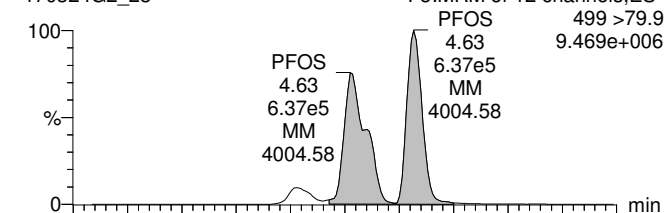
Total PFOA

170324G2_23

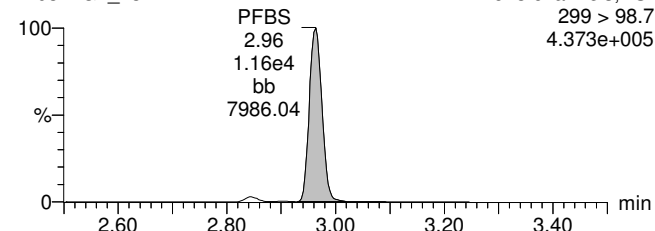


Total PFOS

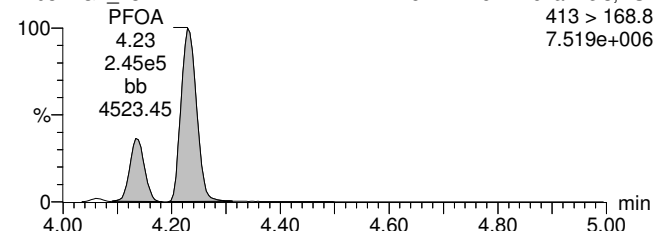
170324G2_23



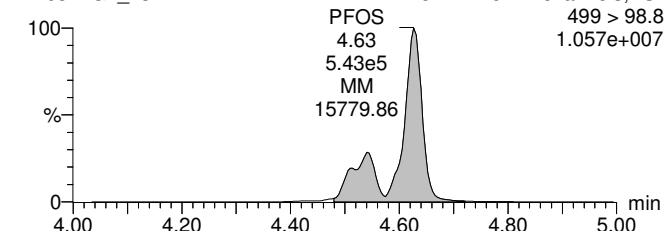
170324G2_23



170324G2_23

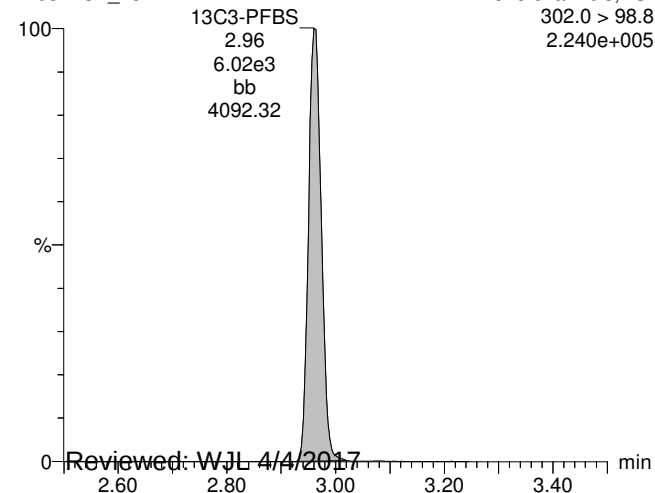


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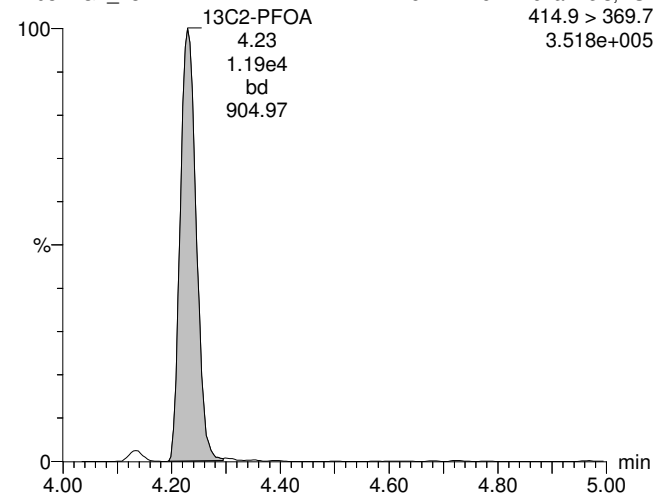
13C3-PFBS

170324G2_23



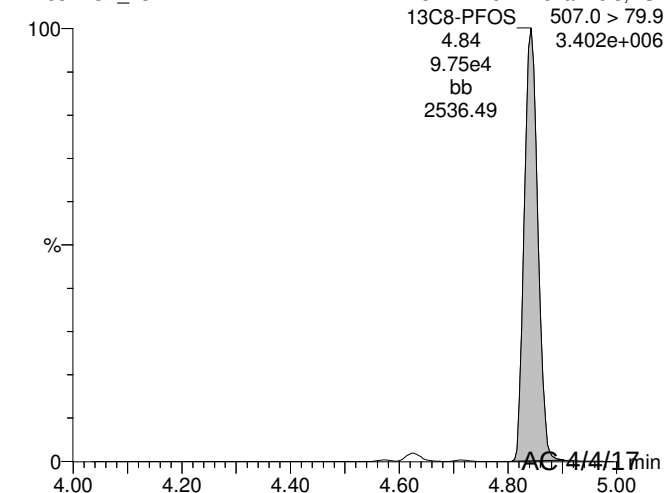
13C2-PFOA

170324G2_23



13C8-PFOS

170324G2_23



Reviewed: WJL 4/4/2017

Work Order 1700355

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Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-23.qld

Last Altered: Thursday, March 30, 2017 12:48:50 Pacific Daylight Time

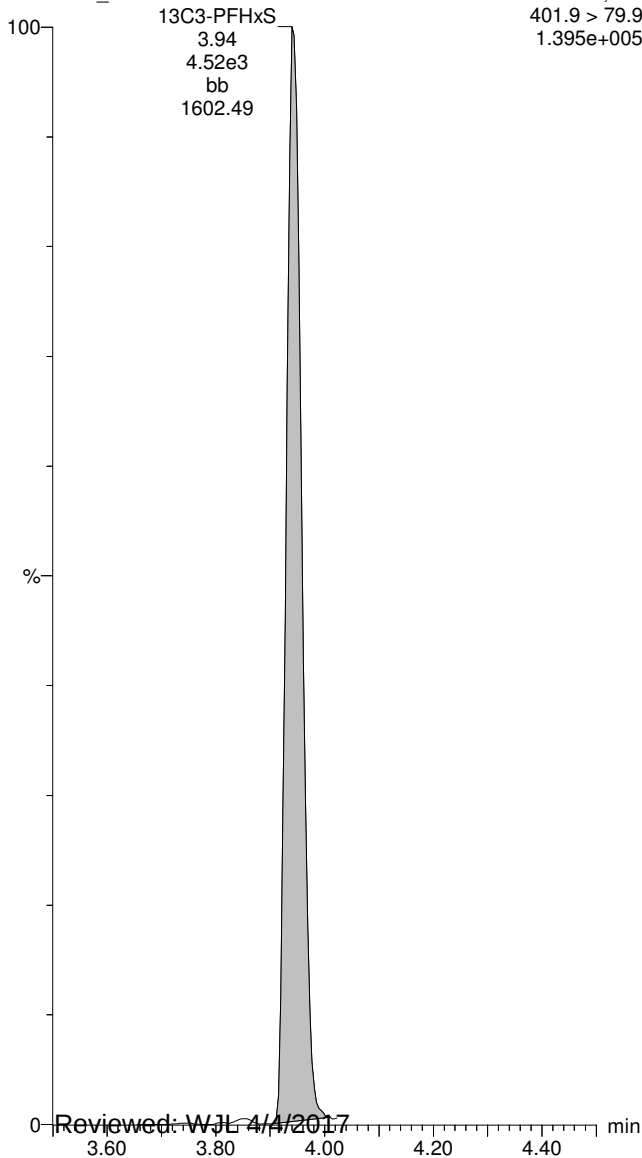
Printed: Tuesday, April 04, 2017 12:25:18 Pacific Daylight Time

ID: 1700355-12 CBD-AOA-MW04-0317 0.125, Description: CBD-AOA-MW04-0317, Name: 170324G2_23, Date: 24-Mar-2017, Time: 20:25:51, Instrument: , Lab: , User:

13C3-PFHxS

170324G2_23

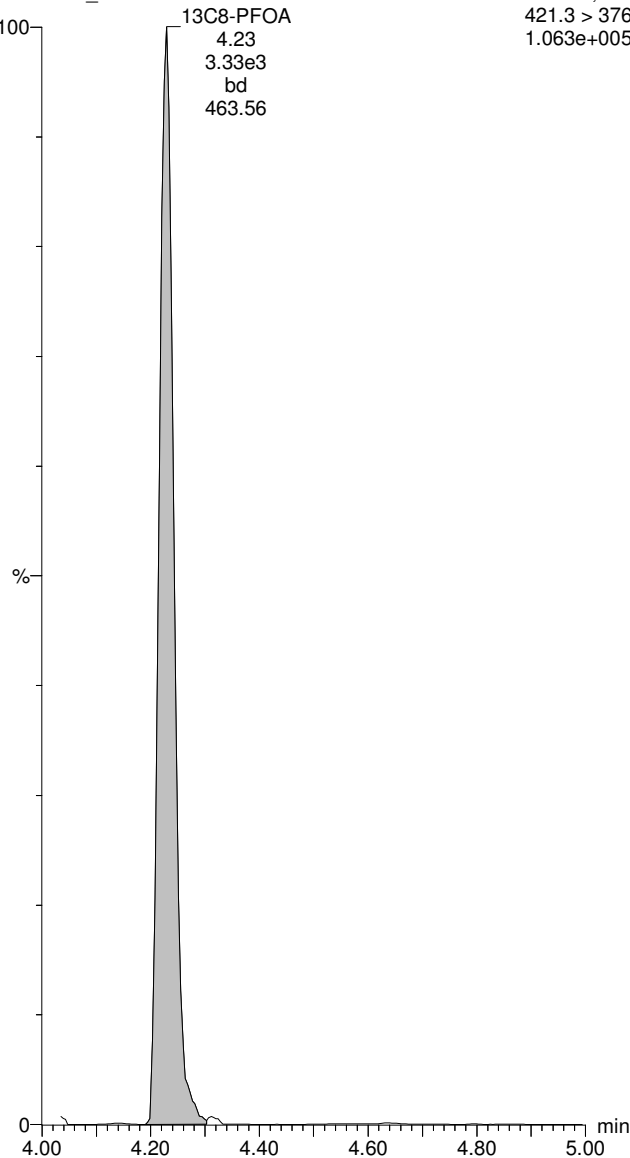
F4:MRM of 7 channels,ES-
401.9 > 79.9
1.395e+005



13C8-PFOA

170324G2_23

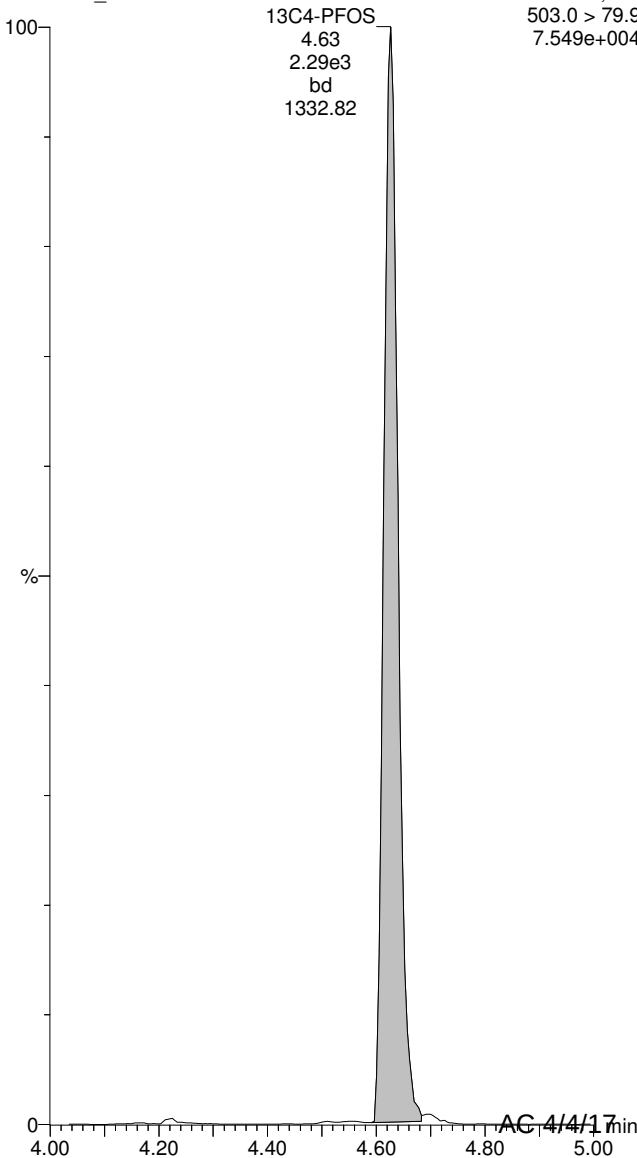
F5:MRM of 12 channels,ES-
421.3 > 376
1.063e+005



13C4-PFOS

170324G2_23

F5:MRM of 12 channels,ES-
503.0 > 79.9
7.549e+004



Reviewed: WJL 4/4/2017

AC 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-13.qld

Last Altered: Thursday, March 30, 2017 15:45:38 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:34:25 Pacific Daylight Time

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ID: 1700355-12RE1 CBD-AOA-MW04-0317 0.12836, Description: CBD-AOA-MW04-0317, Name: 170329G3_13, Date: 30-Mar-2017, Time: 01:52:21

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.692e2	7.579e3		0.00103	2.97	350	
2	4 PFOA	413 > 368.7	1.065e4	2.859e4		0.00103	4.25	10200	
3	6 PFOS	499 > 79.9	9.633e3	5.757e3		0.00103	4.64	73600	
4	7 13C3-PFBS	302.0 > 98.8	7.579e3	1.208e4	0.501	0.00103	2.97	30400	125
5	10 13C2-PFOA	414.9 > 369.7	2.859e4	6.805e3	3.221	0.00103	4.24	31700	130
6	12 13C8-PFOS	507.0 > 79.9	5.757e3	5.187e3	1.080	0.00103	4.64	24900	103
7	14 13C3-PFHxS	401.9 > 79.9	1.208e4	1.208e4	1.000	0.00103	3.96	24300	100
8	15 13C8-PFOA	421.3 > 376	6.805e3	6.805e3	1.000	0.00103	4.24	24300	100
9	17 13C4-PFOS	503.0 > 79.9	5.187e3	5.187e3	1.000	0.00103	4.64	24300	100

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-13.qld

Last Altered: Thursday, March 30, 2017 15:45:38 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:34:39 Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-12RE1 CBD-AOA-MW04-0317 0.12836, Description: CBD-AOA-MW04-0317, Name: 170329G3_13, Date: 30-Mar-2017, Time: 01:52:21

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	18 Total PFBS	299 > 79.7		6.511e3		0.00103		350	
2	20 Total PFOA	413 > 368.7		2.859e4		0.00103		11300	
3	21 Total PFOS	499 > 79.9		5.757e3		0.00103		73600	

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-13.qld

Last Altered: Thursday, March 30, 2017 15:45:38 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:34:25 Pacific Daylight Time

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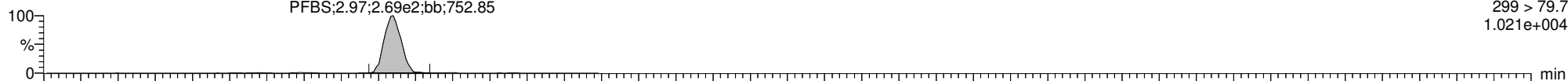
ID: 1700355-12RE1 CBD-AOA-MW04-0317 0.12836, Description: CBD-AOA-MW04-0317, Name: 170329G3_13, Date: 30-Mar-2017, Time: 01:52:21, Instrument: , Lab: , User:

Total PFBS

170329G3_13

PFBS;2.97;2.69e2;bb;752.85

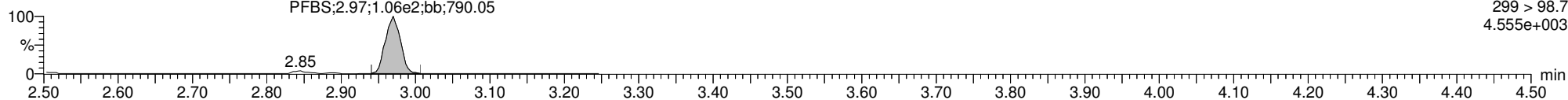
F2:MRM of 3 channels,ES-
299 > 79.7
1.021e+004



170329G3_13

PFBS;2.97;1.06e2;bb;790.05

F2:MRM of 3 channels,ES-
299 > 98.7
4.555e+003

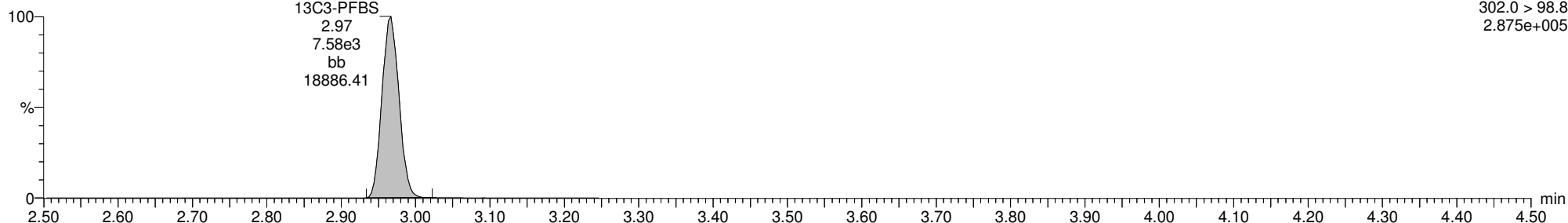


13C3-PFBS

170329G3_13

13C3-PFBS
2.97
7.58e3
bb
18886.41

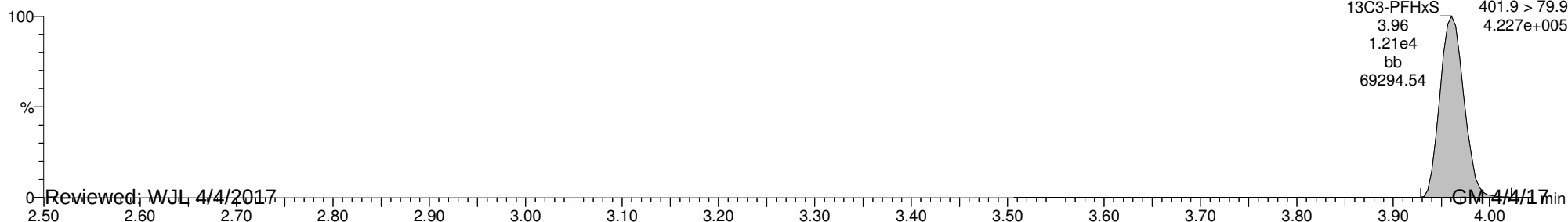
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.875e+005



13C3-PFHxS

170329G3_13

F4:MRM of 7 channels,ES-
13C3-PFHxS 401.9 > 79.9
3.96 4.227e+005
1.21e4
bb
69294.54



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-13.qld

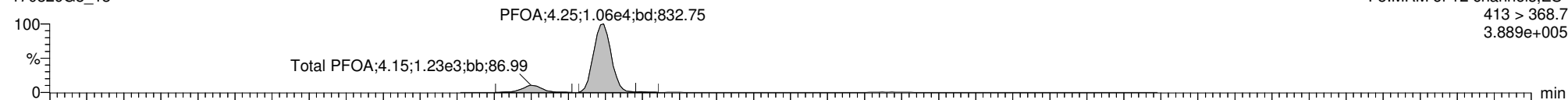
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Printed: Tuesday, April 04, 2017 12:34:25 Pacific Daylight Time

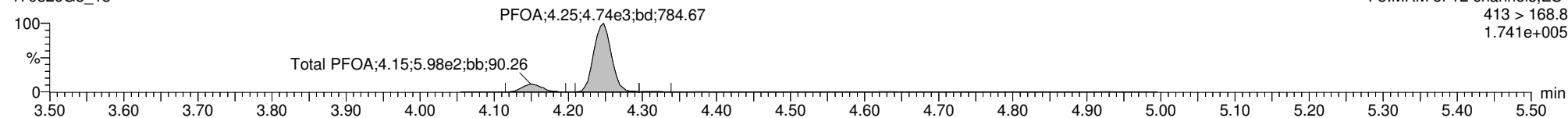
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Total PFOA

170329G3_13

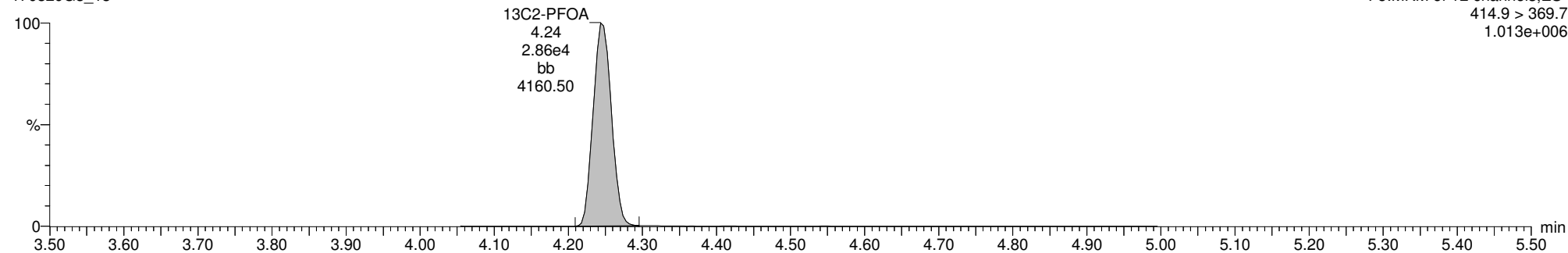


170329G3_13



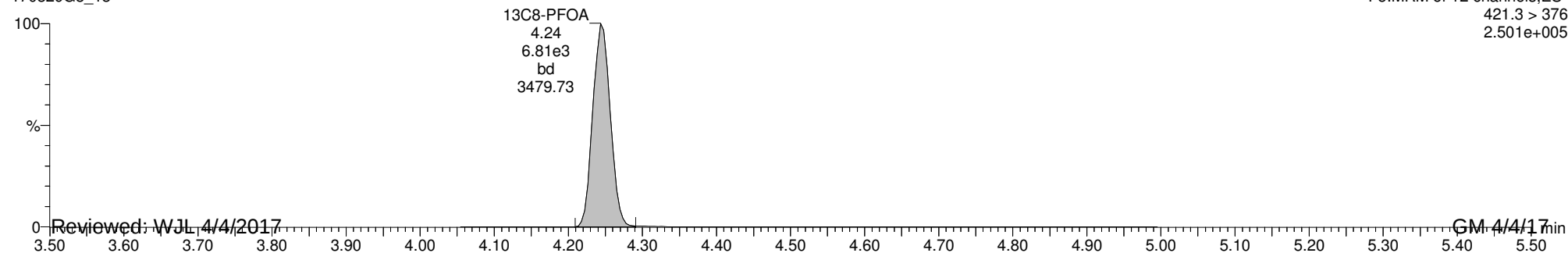
13C2-PFOA

170329G3_13



13C8-PFOA

170329G3_13



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-13.qld

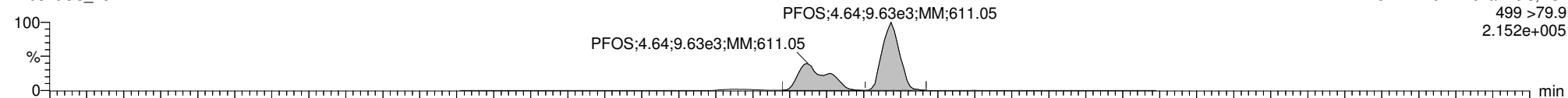
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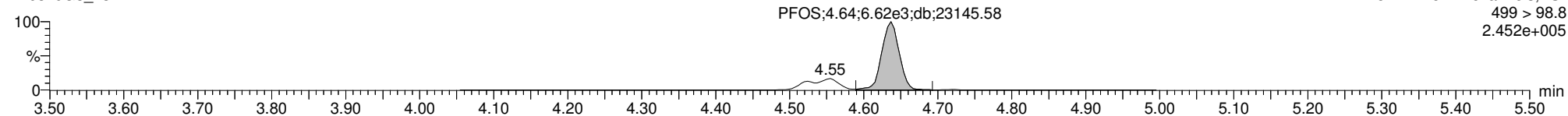
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Total PFOS

170329G3_13

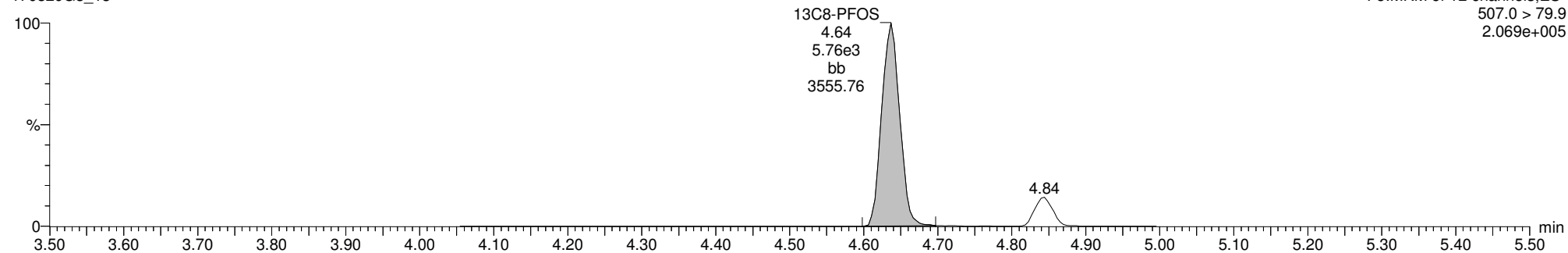


170329G3_13



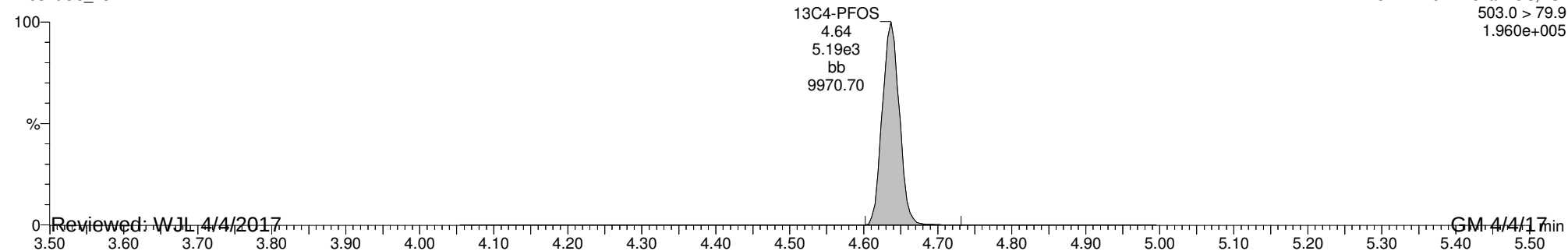
13C8-PFOS

170329G3_13



13C4-PFOS

170329G3_13



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-14.qld

Last Altered: Thursday, March 30, 2017 15:53:31 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:30:38 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-13RE1 CBD-AOA-MW03-0317 0.12818, Description: CBD-AOA-MW03-0317, Name: 170329G3_14, Date: 30-Mar-2017, Time: 02:04:54

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	8.654e2	6.825e3		0.00112	2.97	1220	
2	4 PFOA	413 > 368.7	1.403e4	2.469e4		0.00112	4.24	14400	
3	6 PFOS	499 > 79.9	2.335e4	5.302e3		0.00112	4.64	178000	E *
4	7 13C3-PFBS	302.0 > 98.8	6.825e3	1.000e4	0.501	0.00112	2.97	30400	136
5	10 13C2-PFOA	414.9 > 369.7	2.469e4	5.823e3	3.221	0.00112	4.24	29400	132
6	12 13C8-PFOS	507.0 > 79.9	5.302e3	4.842e3	1.080	0.00112	4.64	22600	101
7	14 13C3-PFHxS	401.9 > 79.9	1.000e4	1.000e4	1.000	0.00112	3.96	22300	100
8	15 13C8-PFOA	421.3 > 376	5.823e3	5.823e3	1.000	0.00112	4.24	22300	100
9	17 13C4-PFOS	503.0 > 79.9	4.842e3	4.842e3	1.000	0.00112	4.64	22300	100

* See dilution.

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-14.qld

Last Altered: Thursday, March 30, 2017 15:53:31 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:30:38 Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

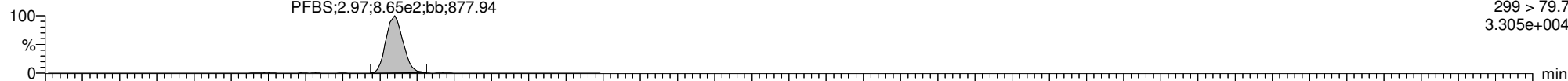
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Total PFBS

170329G3_14

PFBS;2.97;8.65e2;bb;877.94

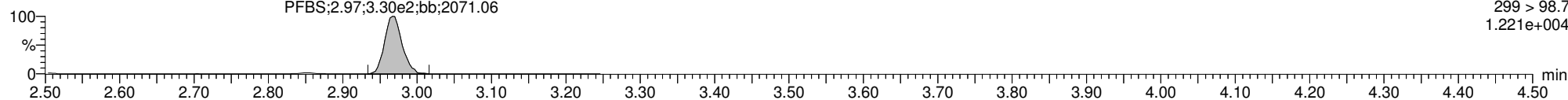
F2:MRM of 3 channels,ES-
299 > 79.7
3.305e+004



170329G3_14

PFBS;2.97;3.30e2;bb;2071.06

F2:MRM of 3 channels,ES-
299 > 98.7
1.221e+004

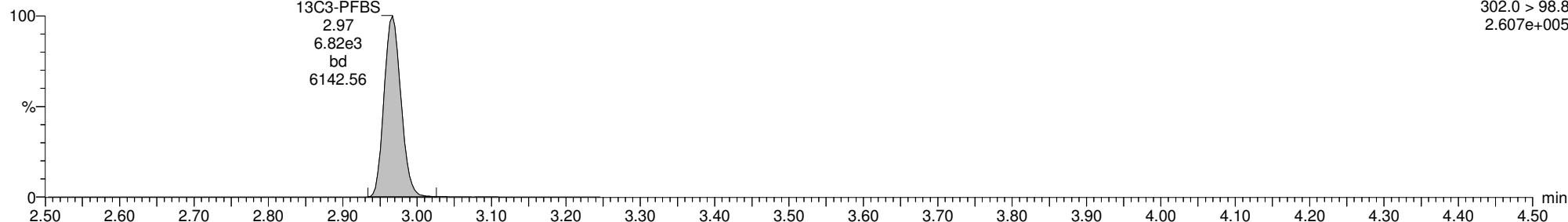


13C3-PFBS

170329G3_14

13C3-PFBS
2.97
6.82e3
bd
6142.56

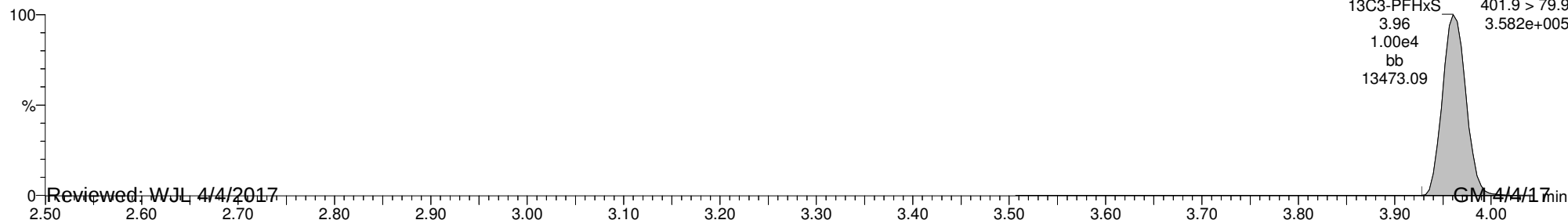
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.607e+005



13C3-PFHxS

170329G3_14

F4:MRM of 7 channels,ES-
13C3-PFHxS 401.9 > 79.9
3.96 3.582e+005
1.00e4
bb
13473.09



Reviewed: WJL 4/4/2017

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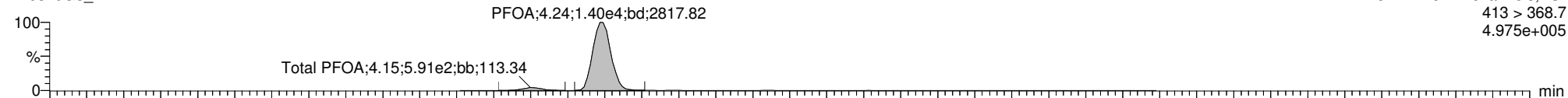
Page 124 of 292

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-14.qld
Last Altered: Thursday, March 30, 2017 15:53:31 Pacific Daylight Time
Printed: Tuesday, April 04, 2017 12:30:38 Pacific Daylight Time

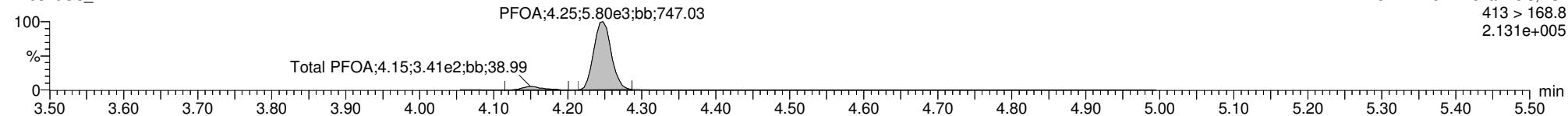
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Total PFOA

170329G3_14

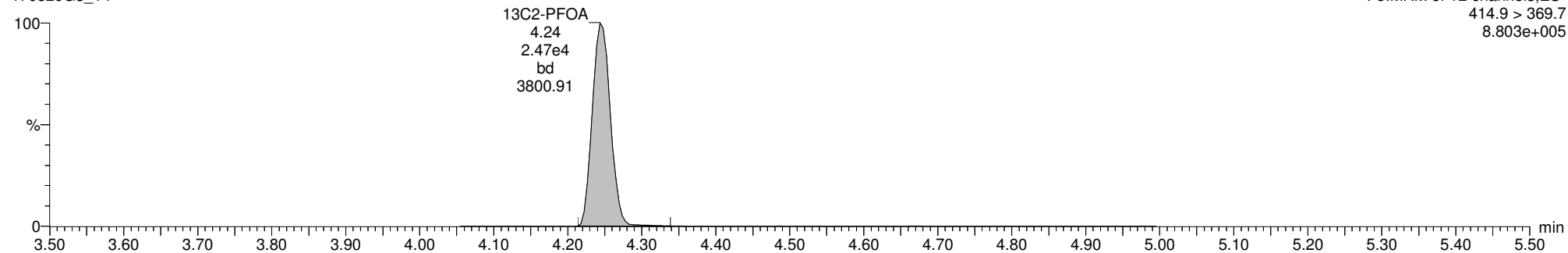


170329G3_14



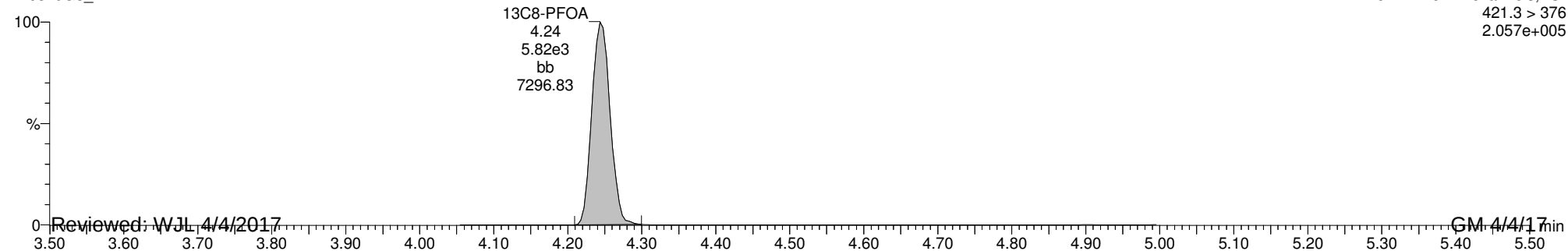
13C2-PFOA

170329G3_14



13C8-PFOA

170329G3_14



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-14.qld

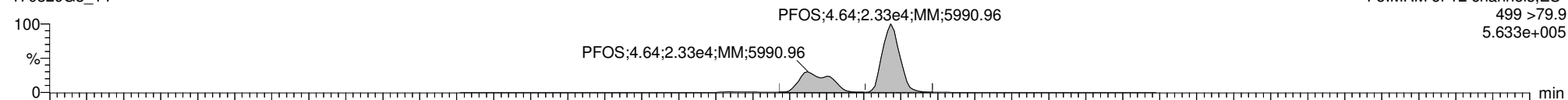
Last Altered: Thursday, March 30, 2017 15:53:31 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:30:38 Pacific Daylight Time

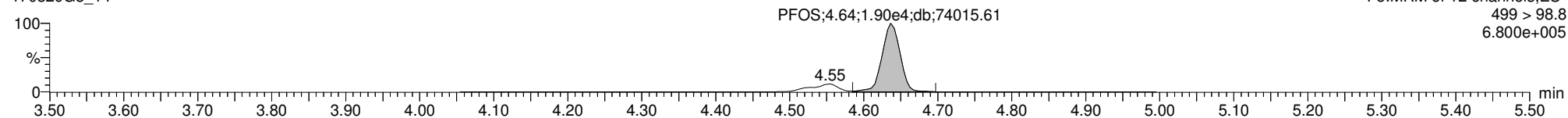
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Total PFOS

170329G3_14

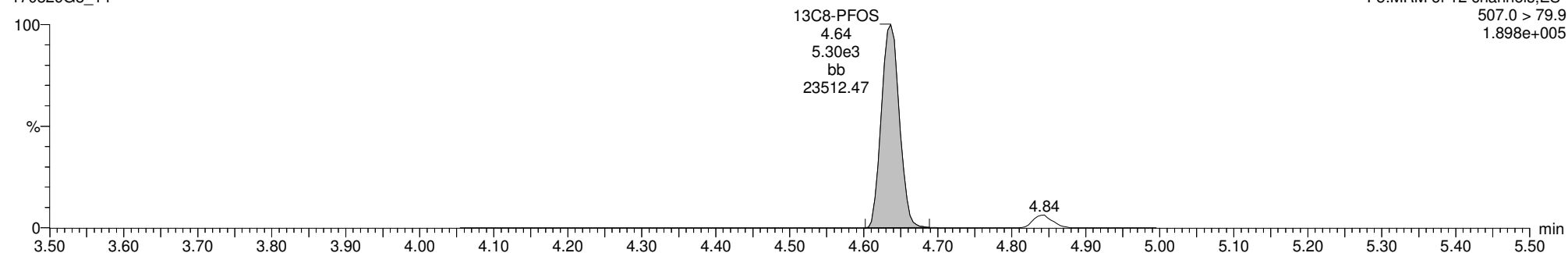


170329G3_14



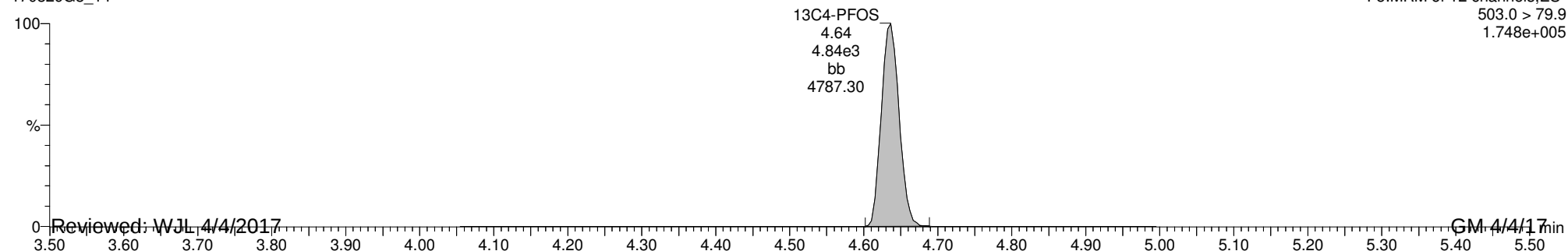
13C8-PFOS

170329G3_14



13C4-PFOS

170329G3_14



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-14.qld

Last Altered: Thursday, March 30, 2017 15:53:31 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:30:45 Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-13RE1 CBD-AOA-MW03-0317 0.12818, Description: CBD-AOA-MW03-0317, Name: 170329G3_14, Date: 30-Mar-2017, Time: 02:04:54

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	18 Total PFBS	299 > 79.7		5.519e3		0.00112		1220	
2	20 Total PFOA	413 > 368.7		2.469e4		0.00112		14900	
3	21 Total PFOS	499 > 79.9		5.302e3		0.00112		178000	

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-14.qld

Last Altered: Thursday, March 30, 2017 15:53:31 Pacific Daylight Time

Printed: Tuesday, April 04, 2017 12:30:45 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

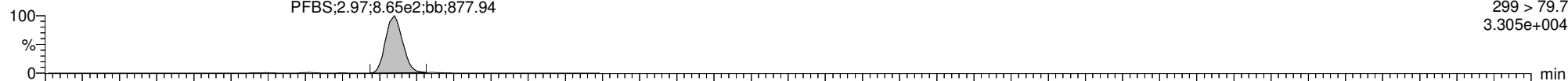
ID: 1700355-13RE1 CBD-AOA-MW03-0317 0.12818, Description: CBD-AOA-MW03-0317, Name: 170329G3_14, Date: 30-Mar-2017, Time: 02:04:54, Instrument: , Lab: , User:

Total PFBS

170329G3_14

PFBS;2.97;8.65e2;bb;877.94

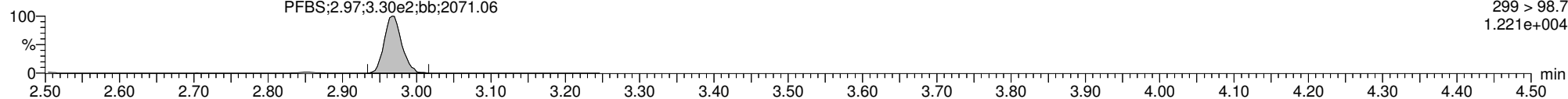
F2:MRM of 3 channels,ES-
299 > 79.7
3.305e+004



170329G3_14

PFBS;2.97;3.30e2;bb;2071.06

F2:MRM of 3 channels,ES-
299 > 98.7
1.221e+004

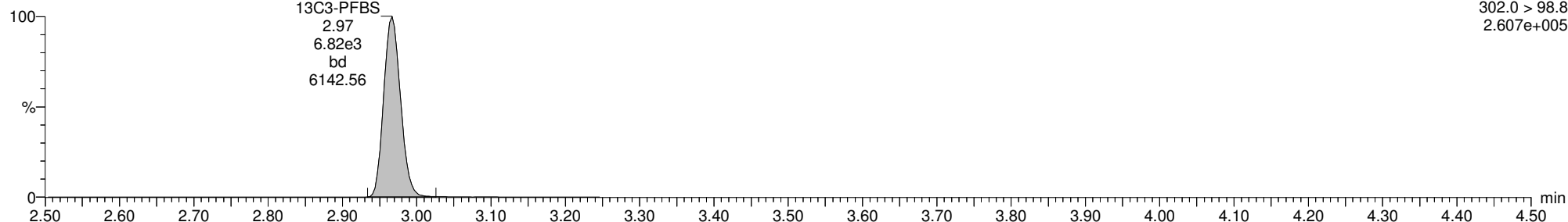


13C3-PFBS

170329G3_14

13C3-PFBS
2.97
6.82e3
bd
6142.56

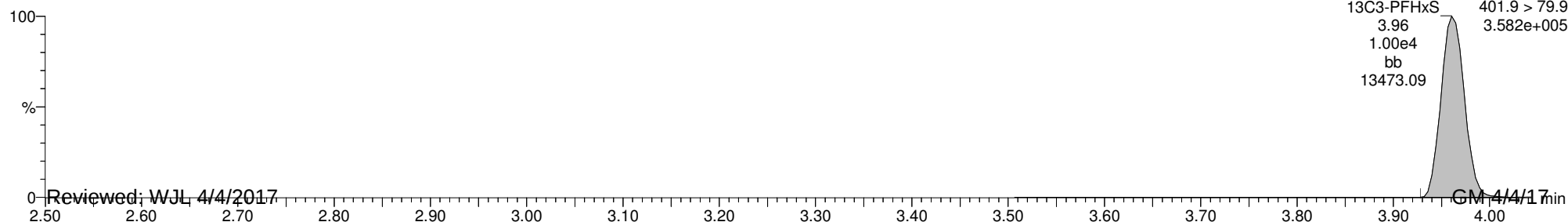
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.607e+005



13C3-PFHxS

170329G3_14

F4:MRM of 7 channels,ES-
13C3-PFHxS 401.9 > 79.9
3.96 3.582e+005
1.00e4
bb
13473.09



Reviewed: WJL 4/4/2017

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Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-14.qld

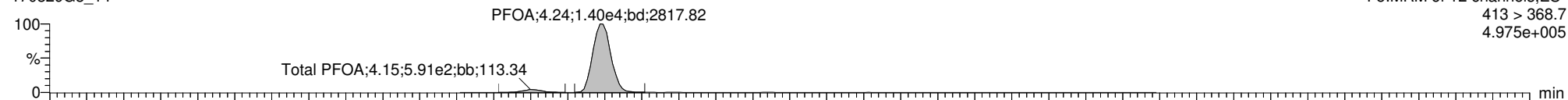
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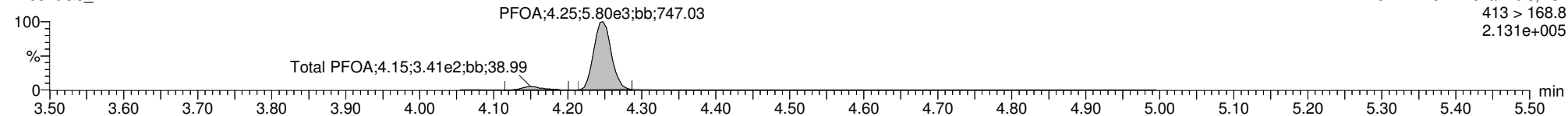
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Total PFOA

170329G3_14

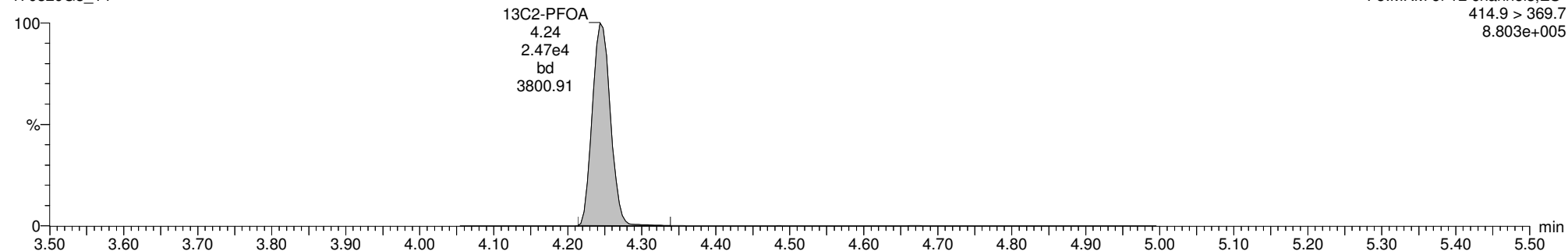


170329G3_14



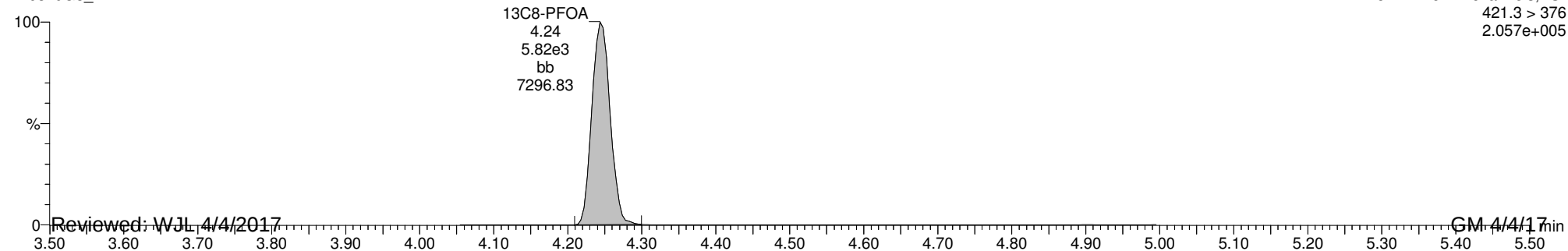
13C2-PFOA

170329G3_14



13C8-PFOA

170329G3_14



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-14.qld

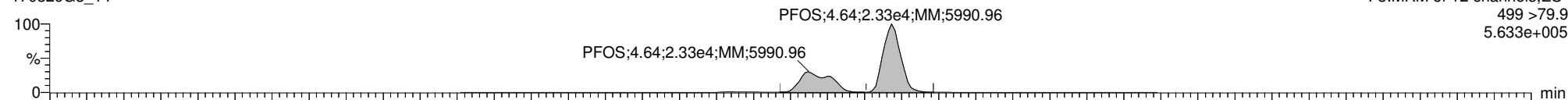
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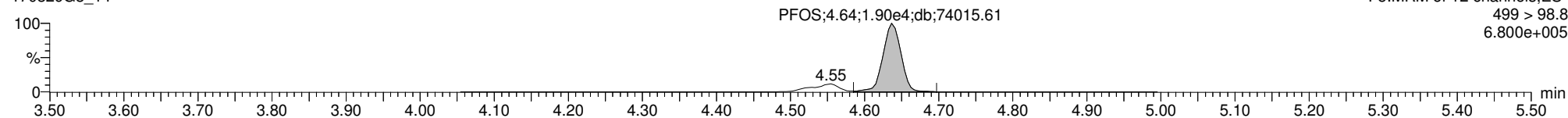
ID: 1700355-13RE1 CBD-AOA-MW03-0317 0.12818, Description: CBD-AOA-MW03-0317, Name: 170329G3_14, Date: 30-Mar-2017, Time: 02:04:54, Instrument: , Lab: , User:

Total PFOS

170329G3_14

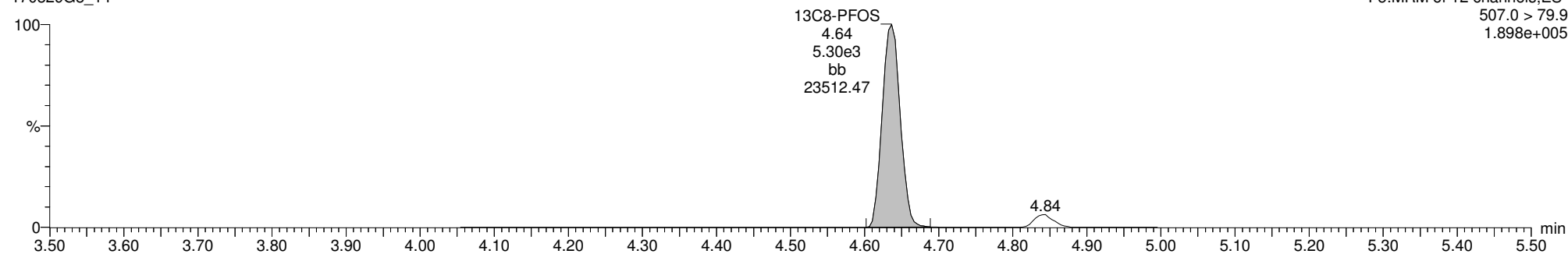


170329G3_14



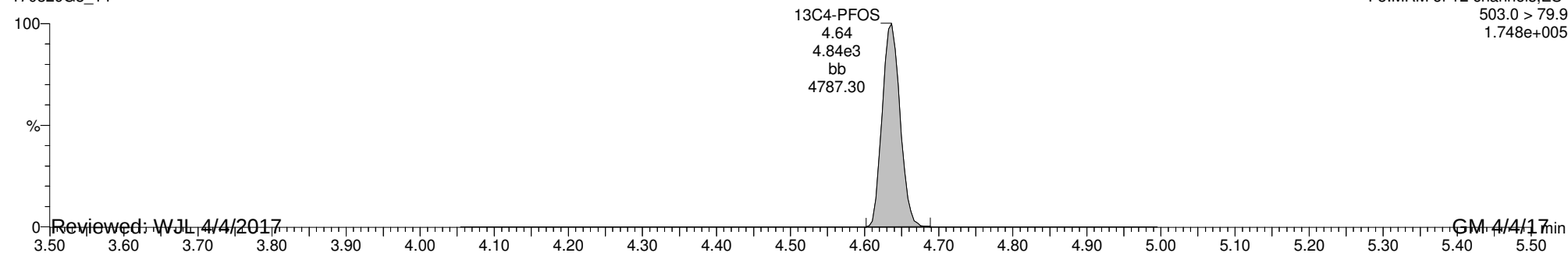
13C8-PFOS

170329G3_14



13C4-PFOS

170329G3_14



Reviewed: WJL 4/4/2017

GM 4/4/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-10.qld

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Printed: Thursday, March 30, 2017 4:53:57 PM Pacific Daylight Time

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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: 1700355-13RE1@20X CBD-AOA-MW03-0317 0.12818, Description: CBD-AOA-MW03-0317, Name: 170329G3_10, Date: 30-Mar-2017, Time: 01:14:42

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	6 PFOS	499 >79.9	1.047e3	3.068e2		0.00112	4.64	138000	
2	12 13C8-PFOS	507.0 > 79.9	3.068e2	1.775e2	1.080	0.00112	4.64	35700	160
3	17 13C4-PFOS	503.0 > 79.9	1.775e2	1.775e2	1.000	0.00112	4.64	22300	100
4	21 Total PFOS	499 > 79.9		3.068e2		0.00112		138000	

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-10.qld

Last Altered: Thursday, March 30, 2017 3:49:50 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 4:53:57 PM Pacific Daylight Time

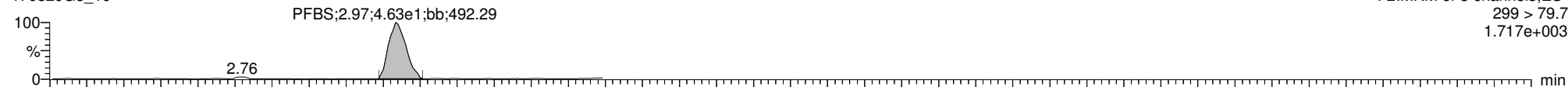
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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

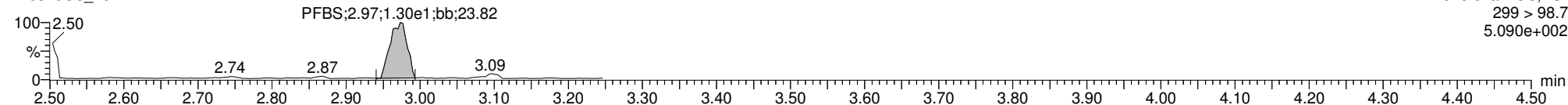
ID: 1700355-13RE1@20X CBD-AOA-MW03-0317 0.12818, Description: CBD-AOA-MW03-0317, Name: 170329G3_10, Date: 30-Mar-2017, Time: 01:14:42, Instrument: , Lab: , User:

PFBS

170329G3_10

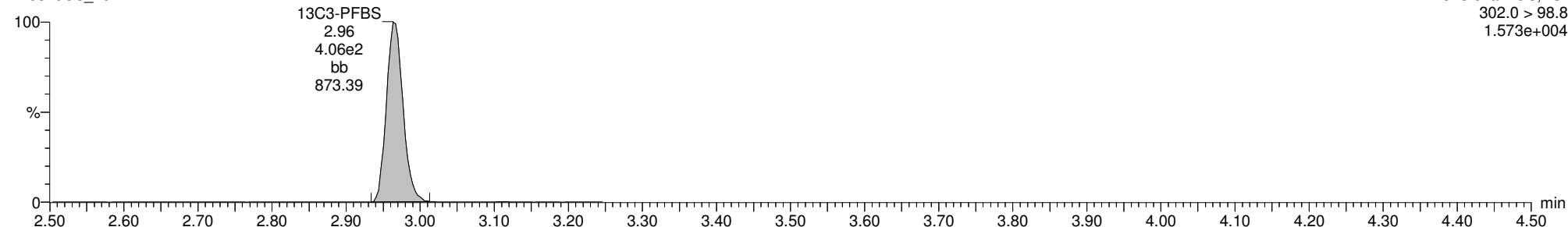


170329G3_10



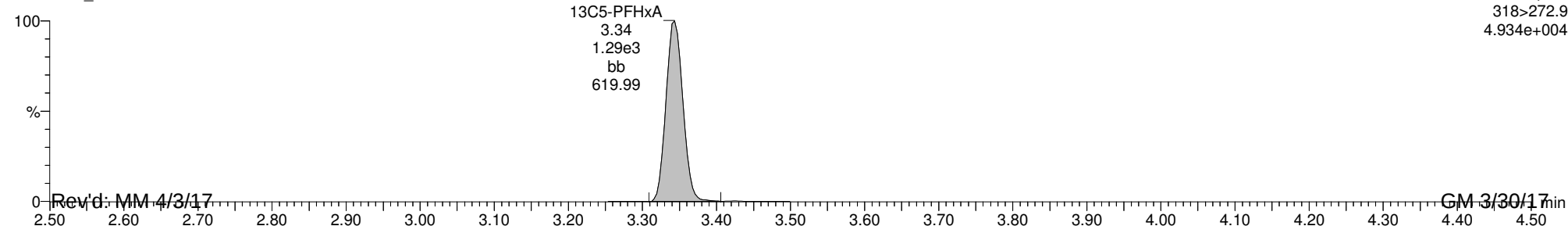
13C3-PFBS

170329G3_10



13C5-PFHxA

170329G3_10



Rev'd: MM 4/3/17

GM 3/30/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-10.qld

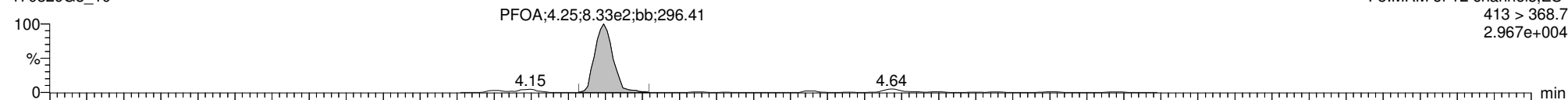
Last Altered: Thursday, March 30, 2017 3:49:50 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 4:53:57 PM Pacific Daylight Time

ID: 1700355-13RE1@20X CBD-AOA-MW03-0317 0.12818, Description: CBD-AOA-MW03-0317, Name: 170329G3_10, Date: 30-Mar-2017, Time: 01:14:42, Instrument: , Lab: , User:

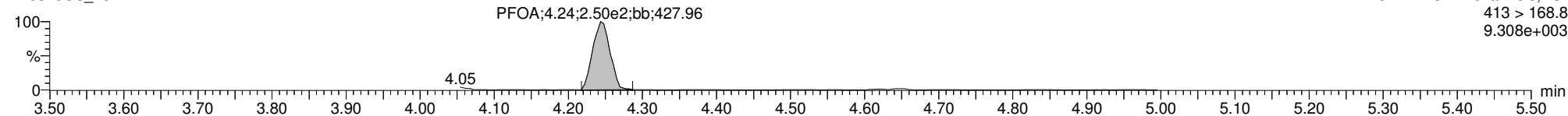
Total PFOA

170329G3_10



F5:MRM of 12 channels,ES-
413 > 368.7
2.967e+004

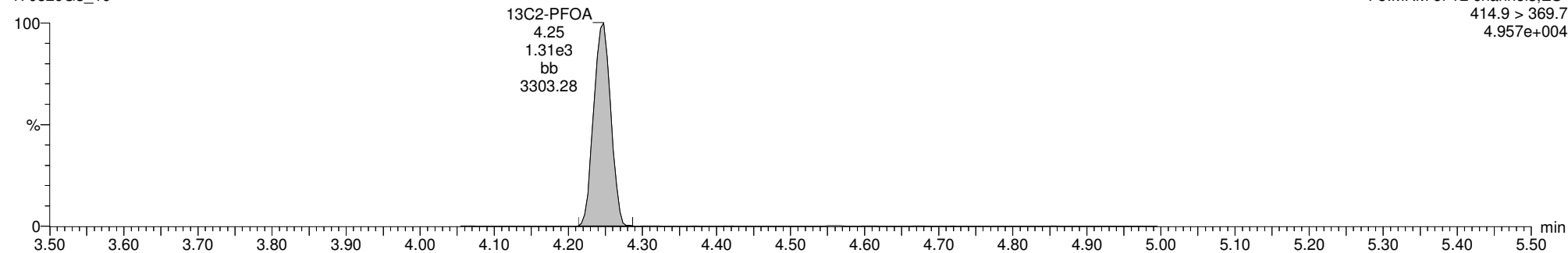
170329G3_10



F5:MRM of 12 channels,ES-
413 > 168.8
9.308e+003

13C2-PFOA

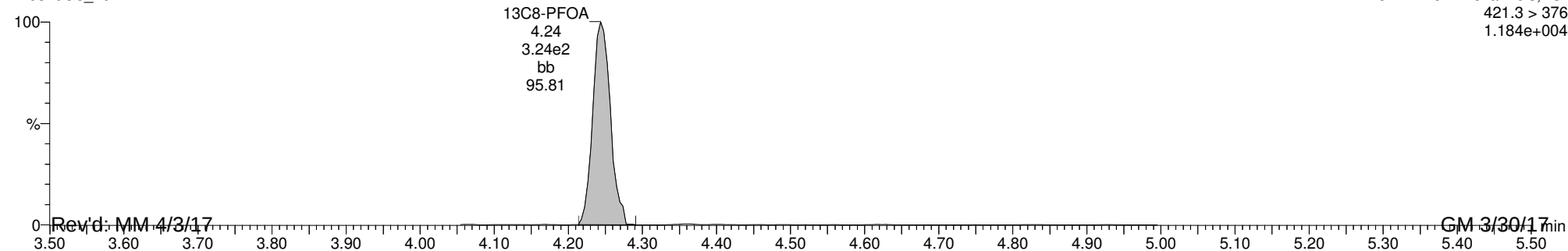
170329G3_10



F5:MRM of 12 channels,ES-
414.9 > 369.7
4.957e+004

13C8-PFOA

170329G3_10



F5:MRM of 12 channels,ES-
421.3 > 376
1.184e+004

Rev'd: MM 4/3/17

GM 3/30/17

Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-10.qld

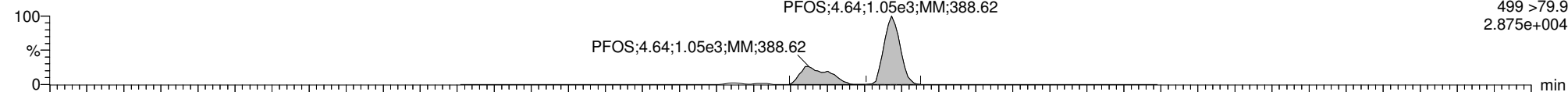
Last Altered: Thursday, March 30, 2017 3:49:50 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 4:53:57 PM Pacific Daylight Time

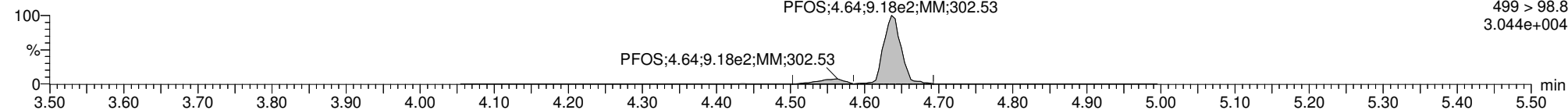
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Total PFOS

170329G3_10

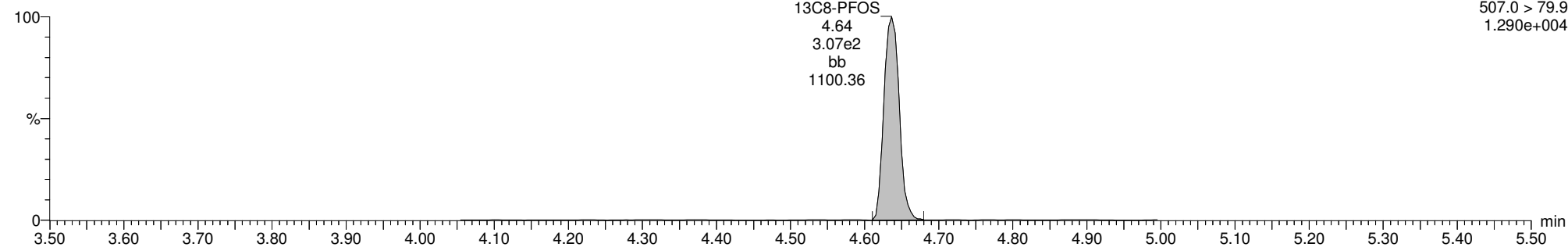


170329G3_10



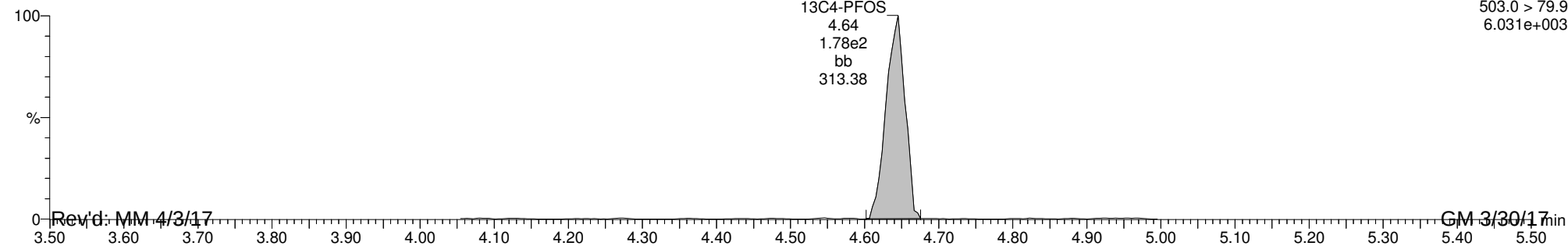
13C8-PFOS

170329G3_10



13C4-PFOS

170329G3_10



Rev'd: MM 4/3/17

GM 3/30/17

CONTINUING CALIBRATION

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-2.qld

Last Altered: Monday, March 27, 2017 09:15:28 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:19:37 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170324G2_2, Date: 24-Mar-2017, Time: 16:01:42, ID: ST170324G2-1 PFC CS3 17C2417, Description: PFC CS3 17C2417 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc	%Rec
1	1 PFBS	299 > 79.7	1.33e4	7.23e3		1.000	2.96	10.1	101.2
2	2 PFHpA	363 > 318.9	2.30e4	1.73e4		1.000	3.82	9.53	95.3
3	3 PFHxS	398.9 > 79.6	9.57e3	7.54e3		1.000	3.94	8.86	88.6
4	4 PFOA	413 > 368.7	2.11e4	3.10e4		1.000	4.22	9.58	95.8
5	5 PFNA	463 > 418.8	1.79e4	9.48e3		1.000	4.56	10.8	108.0
6	6 PFOS	499 > 79.9	3.41e3	8.78e3		1.000	4.63	8.92	89.2
7	7 13C3-PFBS	302.0 > 98.8	7.23e3	1.47e4	0.501	1.000	2.95	12.3	98.2
8	8 13C4-PFHpA	367.2 > 321.8	1.73e4	1.47e4	1.237	1.000	3.82	11.9	95.3
9	9 18O2-PFHxS	403 > 102.6	7.54e3	1.47e4	0.495	1.000	3.94	13.0	103.7
10	10 13C2-PFOA	414.9 > 369.7	3.10e4	8.90e3	3.221	1.000	4.22	13.5	108.1
11	11 13C5-PFNA	468.2 > 422.9	9.48e3	1.06e4	0.979	1.000	4.56	11.4	91.0
12	12 13C8-PFOS	507.0 > 79.9	8.78e3	8.38e3	1.080	1.000	4.62	12.1	97.1
13	13 13C5-PFHxA	318 > 272.9	2.39e4	2.39e4	1.000	1.000	3.32	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.47e4	1.47e4	1.000	1.000	3.94	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	8.90e3	8.90e3	1.000	1.000	4.22	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.06e4	1.06e4	1.000	1.000	4.56	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	8.38e3	8.38e3	1.000	1.000	4.62	12.5	100.0

75-125

60-150

50-150

60-150

EP
3/27/17

Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:45:38 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:46:37 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170324G2_1	IPA	24-Mar-17	15:49:15
2	170324G2_2	ST170324G2-1 PFC CS3 17C2417	24-Mar-17	16:01:42
3	170324G2_3	IPA	24-Mar-17	16:14:03
4	170324G2_4	B7C0125-BS1 OPR 0.125	24-Mar-17	16:26:40
5	170324G2_5	B7C0126-BS1 OPR 1	24-Mar-17	16:39:09
6	170324G2_6	IPA	24-Mar-17	16:51:43
7	170324G2_7	B7C0125-BLK1 Method Blank 0.125	24-Mar-17	17:04:18
8	170324G2_8	B7C0126-BLK1 Method Blank 1	24-Mar-17	17:16:49
9	170324G2_9	1700355-01 CBD-BKG-MW02-0317 0.125	24-Mar-17	17:29:22
10	170324G2_10	1700355-02 CBD-EB01-032017 0.125	24-Mar-17	17:41:55
11	170324G2_11	1700355-03 CBD-BKG-MW01-0317 0.125	24-Mar-17	17:54:28
12	170324G2_12	1700355-04 CBD-BKG-MW01P-0317 0.125	24-Mar-17	18:07:00
13	170324G2_13	1700355-05 CBD-BKG-MW03-0317 0.125	24-Mar-17	18:19:30
14	170324G2_14	1700355-06 CBD-AOA-MW10-0317 0.125	24-Mar-17	18:32:33
15	170324G2_15	1700355-07 CBD-AOA-MW10P-0317 0.125	24-Mar-17	18:45:08
16	170324G2_16	1700355-08 CBD-EB01-032117 0.125	24-Mar-17	18:57:41
17	170324G2_17	1700355-09 CBD-FB01-032117 0.125	24-Mar-17	19:10:37
18	170324G2_18	1700355-10 CBD-AOA-MW01-0317 0.125	24-Mar-17	19:22:53
19	170324G2_19	IPA	24-Mar-17	19:35:31
20	170324G2_20	ST170324G2-2 PFC CS3 17C2417	24-Mar-17	19:48:02
21	170324G2_21	IPA	24-Mar-17	20:00:33
22	170324G2_22	1700355-11 CBD-AOA-MW02-0317 0.125	24-Mar-17	20:13:16
23	170324G2_23	1700355-12 CBD-AOA-MW04-0317 0.125	24-Mar-17	20:25:51
24	170324G2_24	1700355-13 CBD-AOA-MW03-0317 0.125	24-Mar-17	20:38:22
25	170324G2_25	1700356-04 WI-CV-IDW-AQ02-0317 0.125	24-Mar-17	20:50:55
26	170324G2_26	1700356-07 WI-CV-IDW-AQ01-0317 0.125	24-Mar-17	21:03:24
27	170324G2_27	1700356-01 WI-CV-IDW-SO09-0317 1	24-Mar-17	21:15:56
28	170324G2_28	1700356-02 WI-CV-IDW-SO05-0317 1	24-Mar-17	21:28:29
29	170324G2_29	1700356-03 WI-CV-IDW-SO06-0317 1	24-Mar-17	21:41:03
30	170324G2_30	1700356-05 WI-CV-IDW-SO08-0317 1	24-Mar-17	21:53:36
31	170324G2_31	1700356-06 WI-CV-IDW-SO07-0317 1	24-Mar-17	22:06:11

Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:45:38 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:46:37 Pacific Daylight Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
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33	170324G2_33	ST170324G2-3 PFC CS3 17C2417	24-Mar-17	22:31:15
34	170324G2_34	IPA	24-Mar-17	22:43:44
35	170324G2_35	1700349-06@10X Final Effluent 0.27189	24-Mar-17	22:56:21
36	170324G2_36	IPA	24-Mar-17	23:08:52
37	170324G2_37	ST170324G2-4 PFC CS3 17C2417	24-Mar-17	23:21:48
38	170324G2_38	IPA	24-Mar-17	23:34:21

LC Calibration Standards Review Checklist

Q1

Calibration ID:		ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
ST17032462-1	L M H	☒	☒	☒	☒	☒	☒	☒
-2	L M H	☒	☒	☒	☒	☒	☒	☒
-3	L M H	☒	☒	☒	☒	☒	☒	☒
-4	L M H	☒	☒	☒	☒	☒	☒	☒
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date:

12/7/16

Run Log Present:

☒

of Samples per Sequence Checked:

☒

Reviewed By:

om 5/27/17

Initials/Date

Comments:

LG

Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:12:42 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:13:04 Pacific Daylight Time

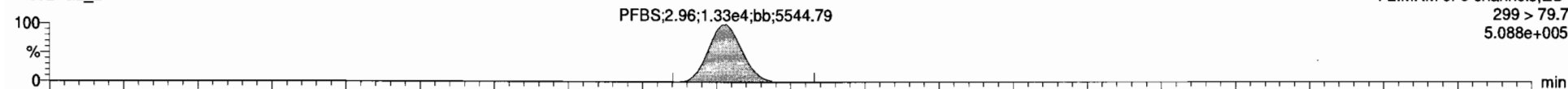
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Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

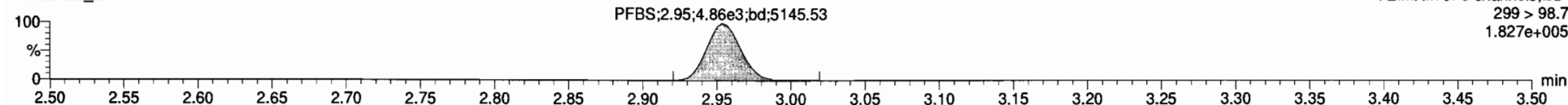
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Total PFBS

170324G2_2

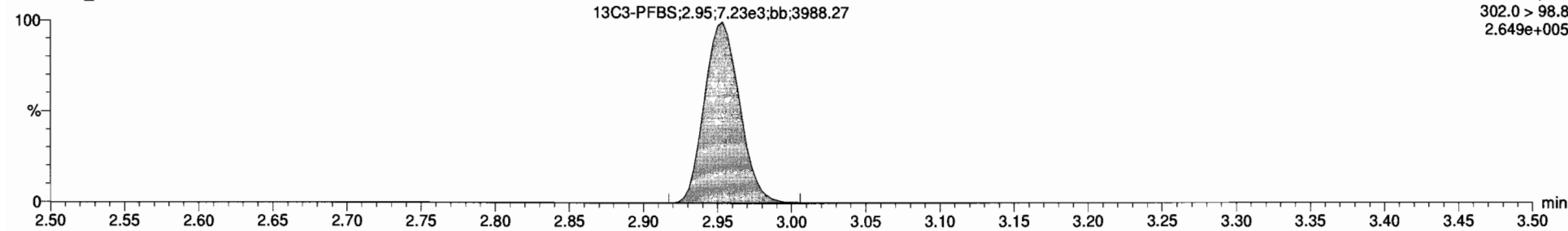


170324G2_2



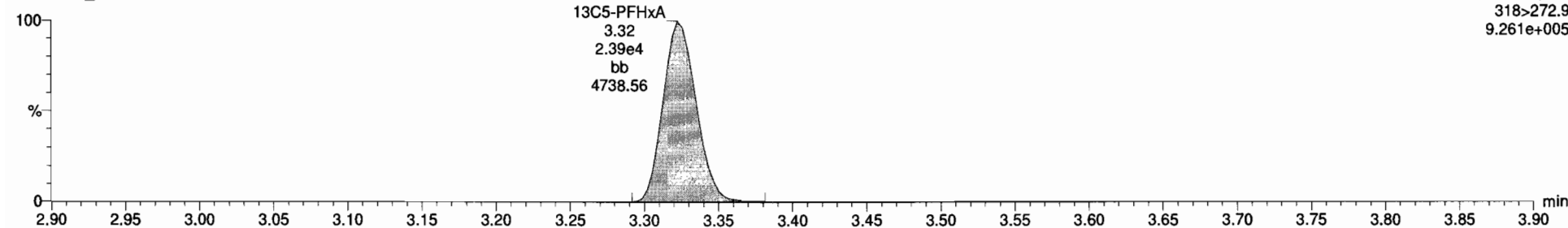
13C3-PFBS

170324G2_2



13C5-PFHxA

170324G2_2



Dataset: Untitled

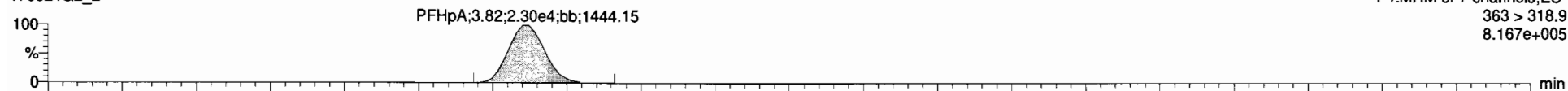
Last Altered: Monday, March 27, 2017 09:12:42 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:13:04 Pacific Daylight Time

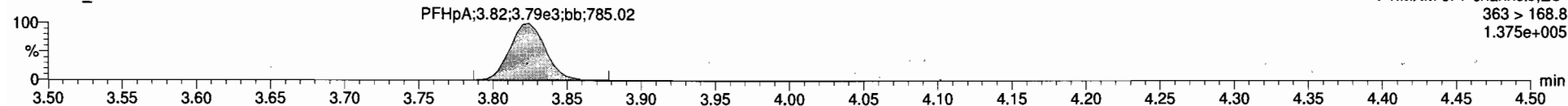
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PFHpA

170324G2_2

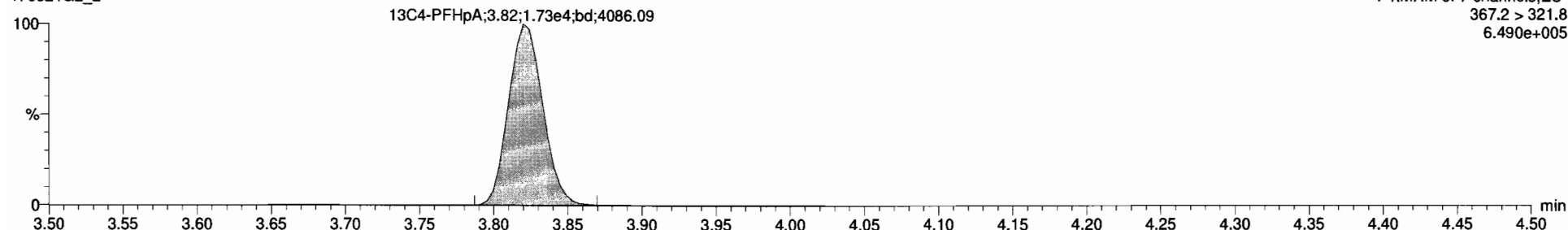


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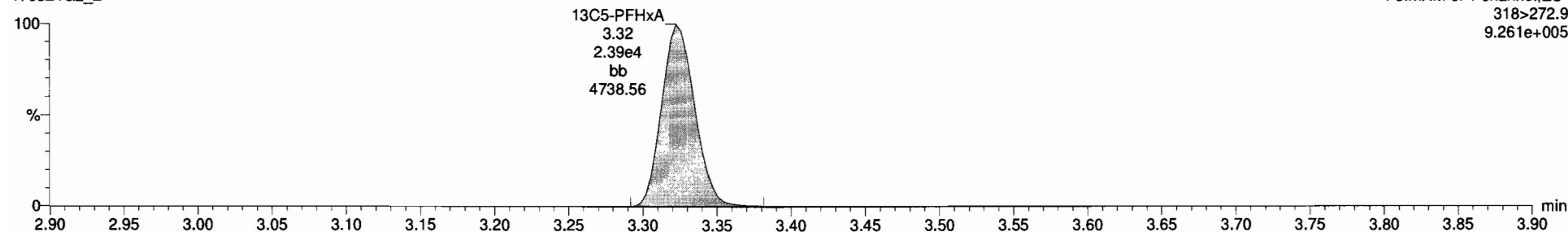
13C4-PFHpA

170324G2_2



13C5-PFHxA

170324G2_2



Dataset: Untitled

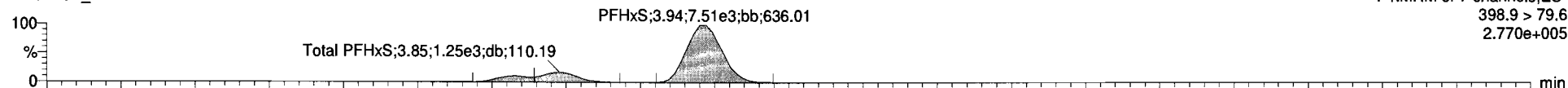
Last Altered: Monday, March 27, 2017 09:12:42 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:13:04 Pacific Daylight Time

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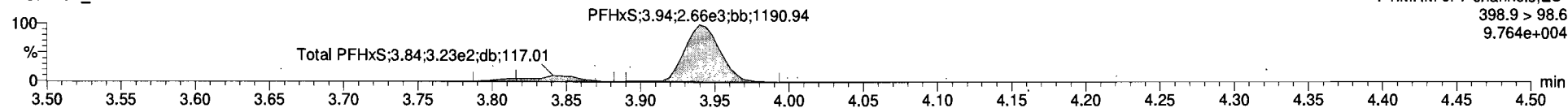
Total PFHxS

170324G2_2



F4:MRM of 7 channels,ES-
398.9 > 79.6
2.770e+005

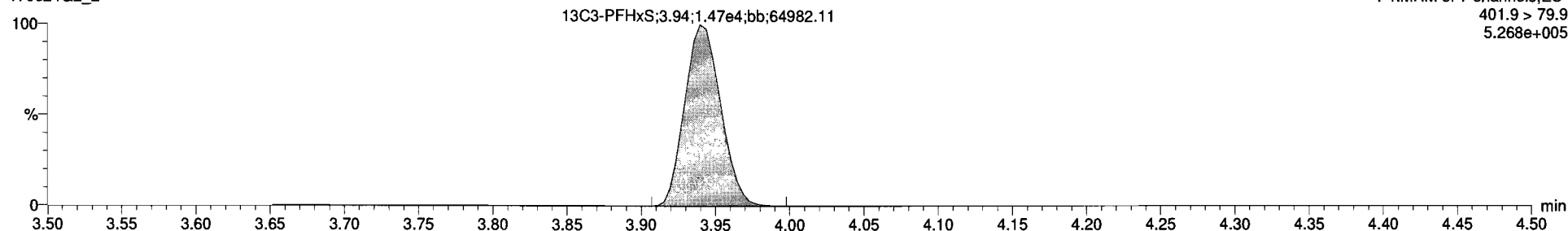
170324G2_2



F4:MRM of 7 channels,ES-
398.9 > 98.6
9.764e+004

13C3-PFHxS

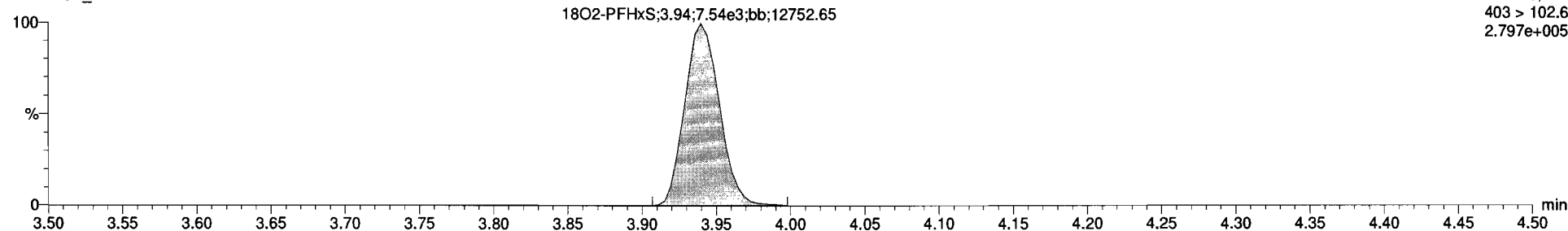
170324G2_2



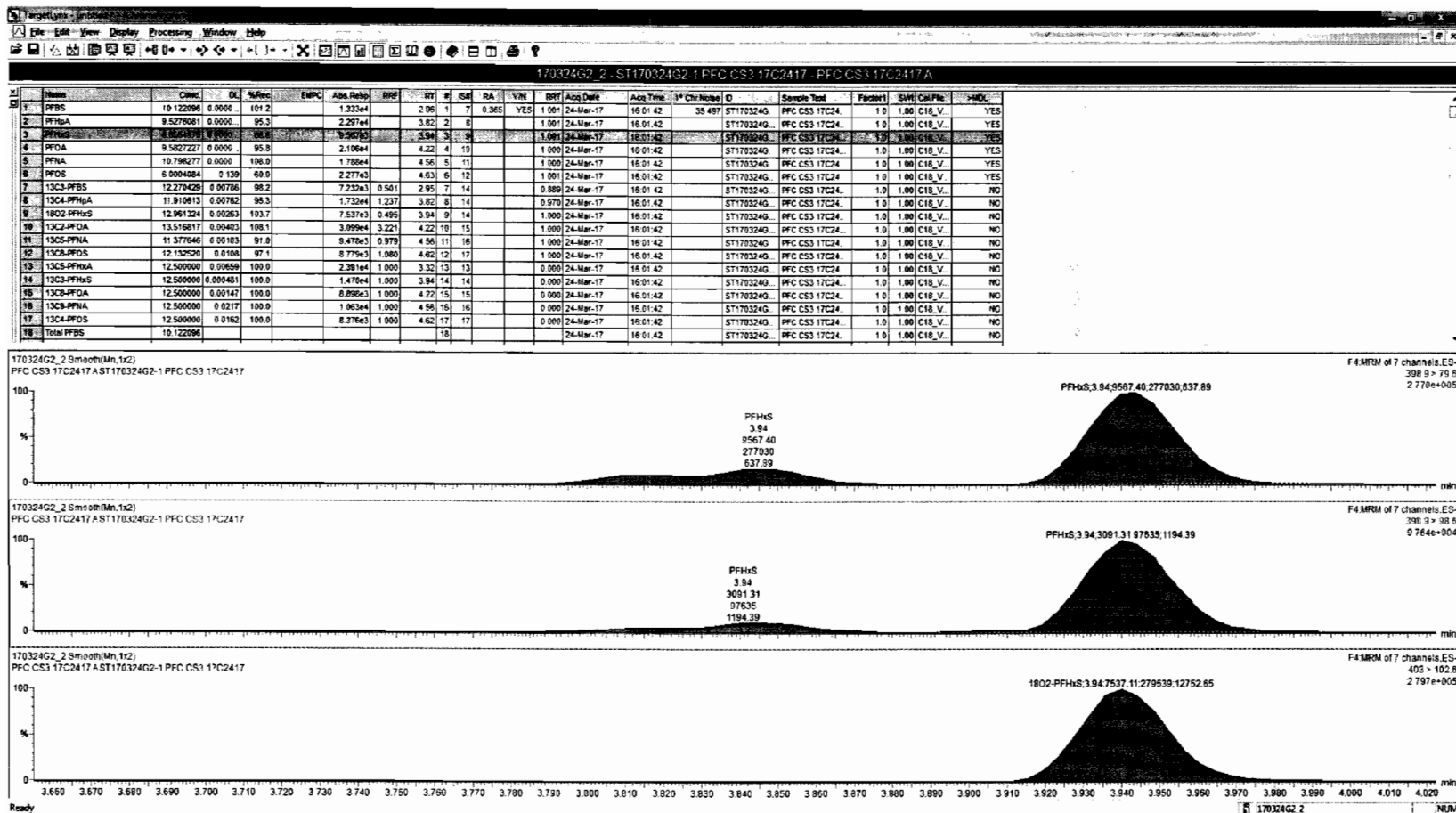
F4:MRM of 7 channels,ES-
401.9 > 79.9
5.268e+005

18O2-PFHxS

170324G2_2



F4:MRM of 7 channels,ES-
403 > 102.6
2.797e+005



Dataset: Untitled

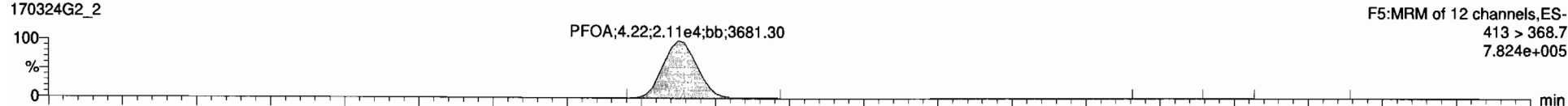
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Printed: Monday, March 27, 2017 09:13:04 Pacific Daylight Time

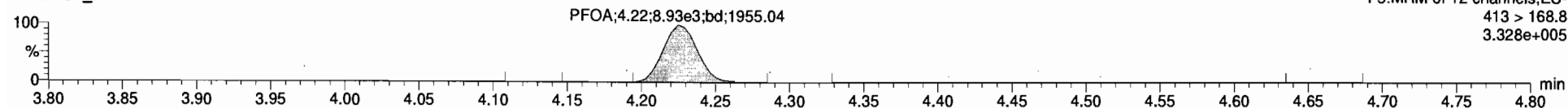
ID: ST170324G2-1 PFC CS3 17C2417, Description: PFC CS3 17C2417 A, Name: 170324G2_2, Date: 24-Mar-2017, Time: 16:01:42, Instrument: , Lab: , User:

Total PFOA

170324G2_2

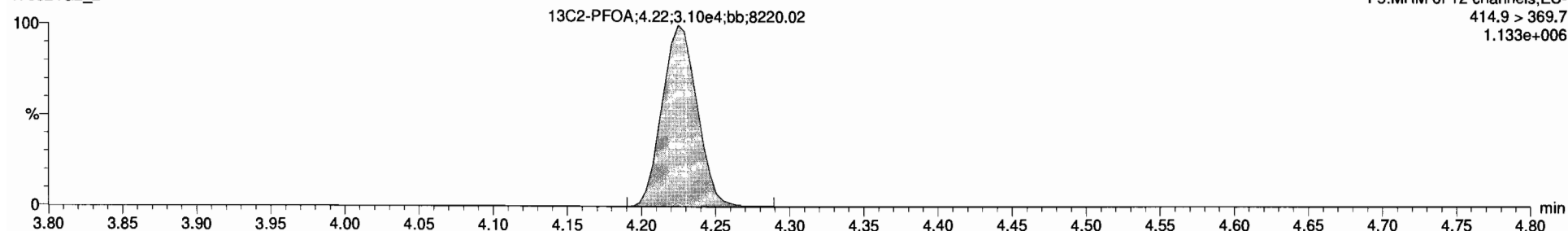


170324G2_2



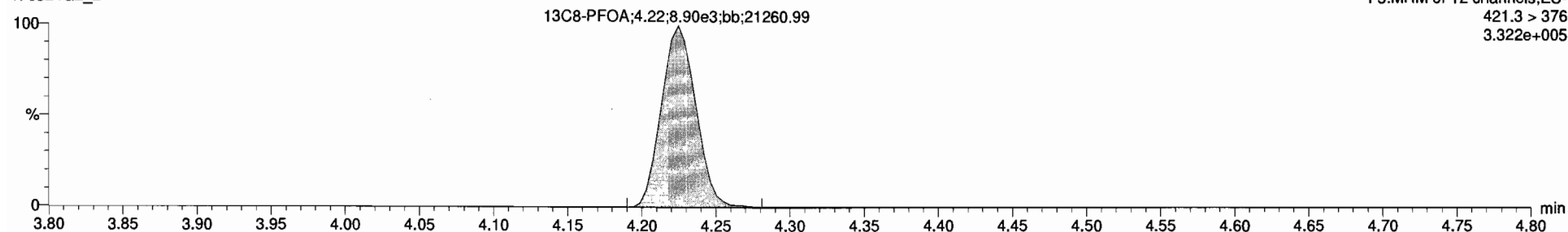
13C2-PFOA

170324G2_2



13C8-PFOA

170324G2_2



Dataset: Untitled

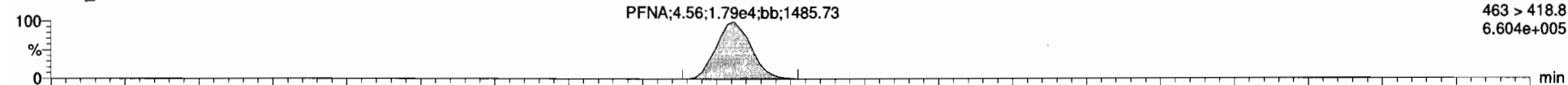
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Printed: Monday, March 27, 2017 09:13:04 Pacific Daylight Time

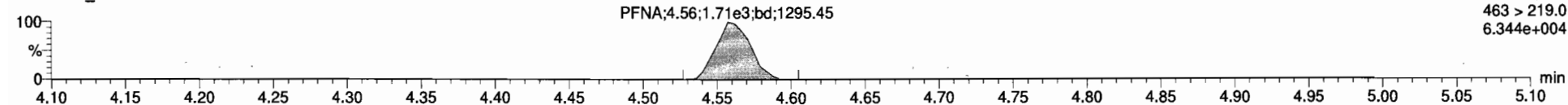
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PFNA

170324G2_2

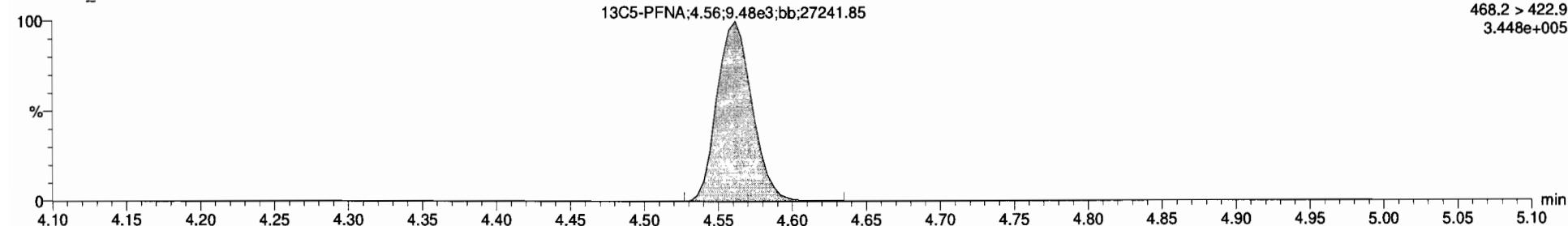


170324G2_2



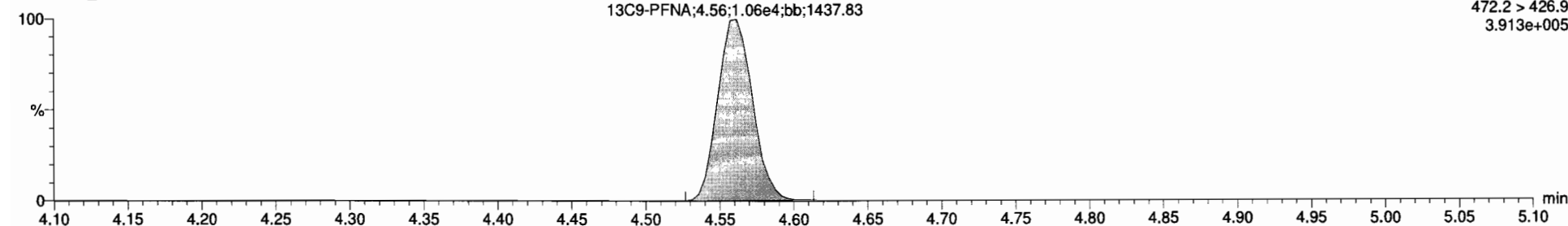
13C5-PFNA

170324G2_2



13C9-PFNA

170324G2_2



Dataset: Untitled

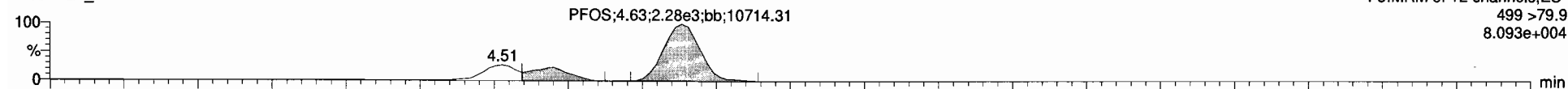
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Printed: Monday, March 27, 2017 09:13:04 Pacific Daylight Time

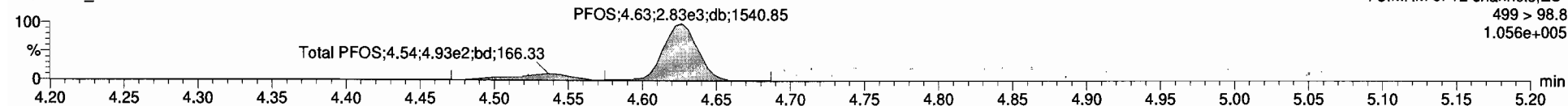
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Total PFOS

170324G2_2

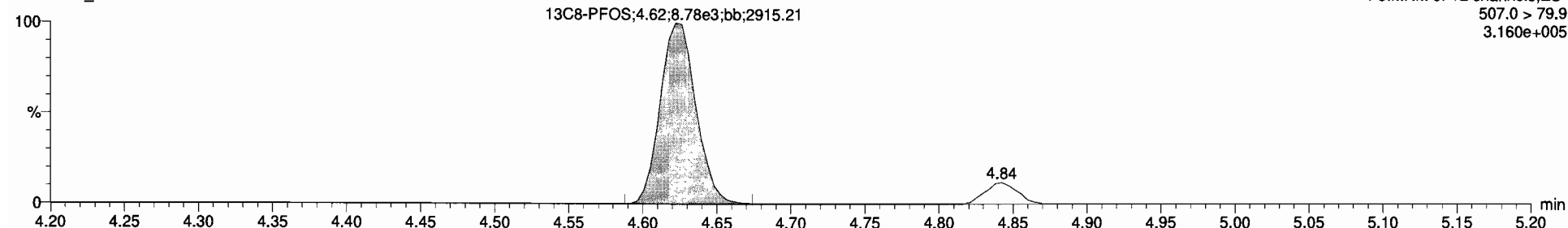


170324G2_2



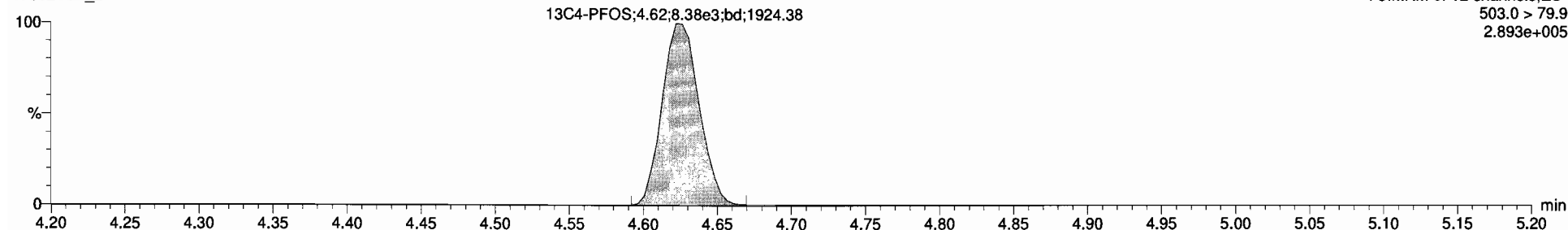
13C8-PFOS

170324G2_2



13C4-PFOS

170324G2_2



170324G2_2 Smooth(Mn.1x2)
PFC CS3 17C2417 AST170324G2-1 PFC CS3 17C2417

PFOS
4.63
3413.09
80934
10740.19

PFOS
4.63
3413.09
80934
10740.19

PFOS:4.63;3413.09;80934;10740.19

Compound: PFOS
Time: 4.63
Area: 3413.099
Height: 80934
Conc: 8.924

F5:MRM of 12 channels:ES
469 > 79
8.093e+00

170324G2_2 Smooth(Mn.1x2)
PFC CS3 17C2417 AST170324G2-1 PFC CS3 17C2417

PFOS
4.63
3335.90
105574
1542.08

PFOS:4.63;3335.90;105574;1542.08

F5:MRM of 12 channels:ES
499 > 98
1.056e+00

170324G2_2 Smooth(Mn.1x2)
PFC CS3 17C2417 AST170324G2-1 PFC CS3 17C2417

13C8-PFOS:4.62;8778.86;315187;2915.21

F5:MRM of 12 channels:ES
567.0 > 79
3.160e+00

Ready

170324G2_2

Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-20.qld

Last Altered: Monday, March 27, 2017 09:22:59 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:44:17 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170324G2_20, Date: 24-Mar-2017, Time: 19:48:02, ID: ST170324G2-2 PFC CS3 17C2417, Description: PFC CS3 17C2417 A

	# Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.38e4	7.57e3		1.000	2.96	10.0	100.3
2	2 PFHpA	363 > 318.9	2.47e4	1.94e4		1.000	3.83	9.12	91.2
3	3 PFHxS	398.9 > 79.6	1.15e4	8.81e3		1.000	3.94	9.13	91.3
4	4 PFOA	413 > 368.7	2.45e4	3.61e4		1.000	4.23	9.58	95.8
5	5 PFNA	463 > 418.8	2.14e4	1.09e4		1.000	4.56	11.2	112.0
6	6 PFOS	499 > 79.9	3.96e3	1.02e4		1.000	4.63	8.93	89.3
7	7 13C3-PFBS	302.0 > 98.8	7.57e3	1.66e4	0.501	1.000	2.96	11.3	90.7
8	8 13C4-PFHxA	367.2 > 321.8	1.94e4	1.66e4	1.237	1.000	3.82	11.8	94.4
9	9 18O2-PFHxS	403 > 102.6	8.81e3	1.66e4	0.495	1.000	3.94	13.4	107.0
10	10 13C2-PFOA	414.9 > 369.7	3.61e4	9.56e3	3.221	1.000	4.23	14.6	117.2
11	11 13C5-PFNA	468.2 > 422.9	1.09e4	1.10e4	0.979	1.000	4.57	12.7	101.3
12	12 13C8-PFOS	507.0 > 79.9	1.02e4	9.47e3	1.080	1.000	4.63	12.5	99.6
13	13 13C5-PFHxA	318 > 272.9	2.75e4	2.75e4	1.000	1.000	3.33	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.66e4	1.66e4	1.000	1.000	3.94	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	9.56e3	9.56e3	1.000	1.000	4.23	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.10e4	1.10e4	1.000	1.000	4.56	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	9.47e3	9.47e3	1.000	1.000	4.63	12.5	100.0

75-125
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60-150
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30-150
60-150

2/ 3/27/17

Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:45:38 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:46:37 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170324G2_1	IPA	24-Mar-17	15:49:15
2	170324G2_2	ST170324G2-1 PFC CS3 17C2417	24-Mar-17	16:01:42
3	170324G2_3	IPA	24-Mar-17	16:14:03
4	170324G2_4	B7C0125-BS1 OPR 0.125	24-Mar-17	16:26:40
5	170324G2_5	B7C0126-BS1 OPR 1	24-Mar-17	16:39:09
6	170324G2_6	IPA	24-Mar-17	16:51:43
7	170324G2_7	B7C0125-BLK1 Method Blank 0.125	24-Mar-17	17:04:18
8	170324G2_8	B7C0126-BLK1 Method Blank 1	24-Mar-17	17:16:49
9	170324G2_9	1700355-01 CBD-BKG-MW02-0317 0.125	24-Mar-17	17:29:22
10	170324G2_10	1700355-02 CBD-EB01-032017 0.125	24-Mar-17	17:41:55
11	170324G2_11	1700355-03 CBD-BKG-MW01-0317 0.125	24-Mar-17	17:54:28
12	170324G2_12	1700355-04 CBD-BKG-MW01P-0317 0.125	24-Mar-17	18:07:00
13	170324G2_13	1700355-05 CBD-BKG-MW03-0317 0.125	24-Mar-17	18:19:30
14	170324G2_14	1700355-06 CBD-AOA-MW10-0317 0.125	24-Mar-17	18:32:33
15	170324G2_15	1700355-07 CBD-AOA-MW10P-0317 0.125	24-Mar-17	18:45:08
16	170324G2_16	1700355-08 CBD-EB01-032117 0.125	24-Mar-17	18:57:41
17	170324G2_17	1700355-09 CBD-FB01-032117 0.125	24-Mar-17	19:10:37
18	170324G2_18	1700355-10 CBD-AOA-MW01-0317 0.125	24-Mar-17	19:22:53
19	170324G2_19	IPA	24-Mar-17	19:35:31
20	170324G2_20	ST170324G2-2 PFC CS3 17C2417	24-Mar-17	19:48:02
21	170324G2_21	IPA	24-Mar-17	20:00:33
22	170324G2_22	1700355-11 CBD-AOA-MW02-0317 0.125	24-Mar-17	20:13:16
23	170324G2_23	1700355-12 CBD-AOA-MW04-0317 0.125	24-Mar-17	20:25:51
24	170324G2_24	1700355-13 CBD-AOA-MW03-0317 0.125	24-Mar-17	20:38:22
25	170324G2_25	1700356-04 WI-CV-IDW-AQ02-0317 0.125	24-Mar-17	20:50:55
26	170324G2_26	1700356-07 WI-CV-IDW-AQ01-0317 0.125	24-Mar-17	21:03:24
27	170324G2_27	1700356-01 WI-CV-IDW-SO09-0317 1	24-Mar-17	21:15:56
28	170324G2_28	1700356-02 WI-CV-IDW-SO05-0317 1	24-Mar-17	21:28:29
29	170324G2_29	1700356-03 WI-CV-IDW-SO06-0317 1	24-Mar-17	21:41:03
30	170324G2_30	1700356-05 WI-CV-IDW-SO08-0317 1	24-Mar-17	21:53:36
31	170324G2_31	1700356-06 WI-CV-IDW-SO07-0317 1	24-Mar-17	22:06:11

Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:45:38 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:46:37 Pacific Daylight Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	170324G2_32	IPA	24-Mar-17	22:18:40
33	170324G2_33	ST170324G2-3 PFC CS3 17C2417	24-Mar-17	22:31:15
34	170324G2_34	IPA	24-Mar-17	22:43:44
35	170324G2_35	1700349-06@10X Final Effluent 0.27189	24-Mar-17	22:56:21
36	170324G2_36	IPA	24-Mar-17	23:08:52
37	170324G2_37	ST170324G2-4 PFC CS3 17C2417	24-Mar-17	23:21:48
38	170324G2_38	IPA	24-Mar-17	23:34:21

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Last Altered: Monday, March 27, 2017 09:20:16 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:21:01 Pacific Daylight Time

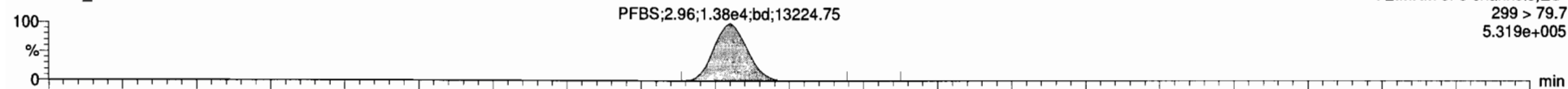
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

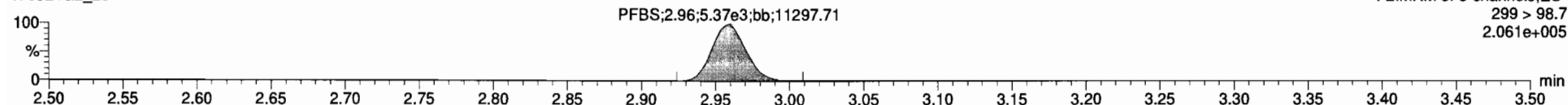
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Total PFBS

170324G2_20

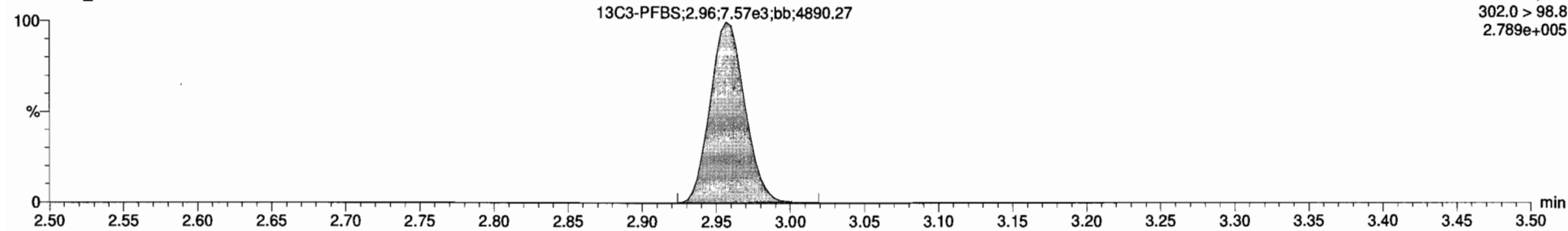


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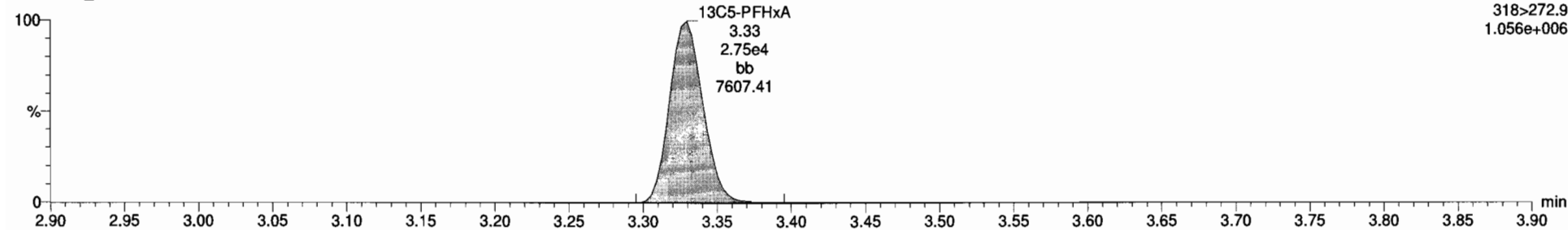
13C3-PFBS

170324G2_20



13C5-PFHxA

170324G2_20



Dataset: Untitled

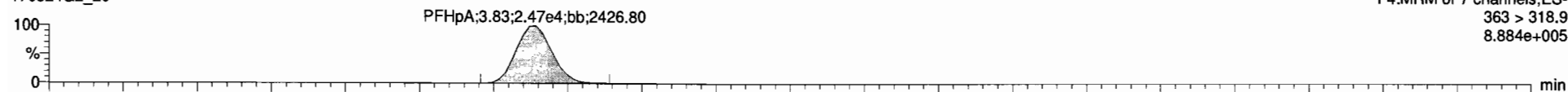
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Printed: Monday, March 27, 2017 09:21:01 Pacific Daylight Time

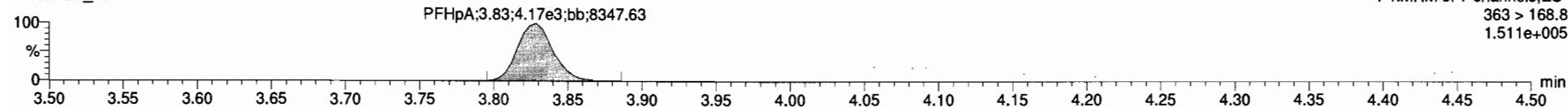
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PFHpA

170324G2_20

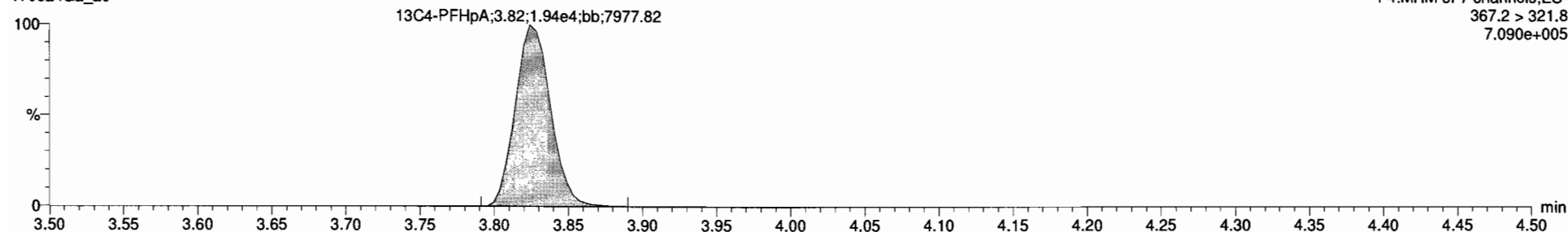


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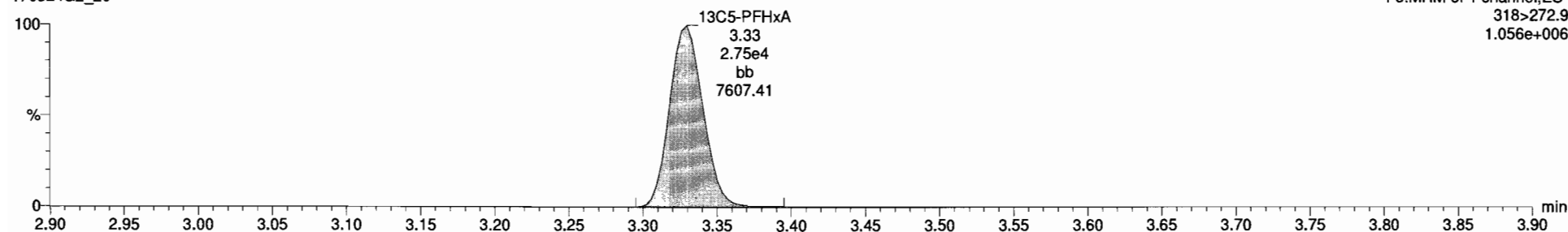
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170324G2_20



13C5-PFHxA

170324G2_20



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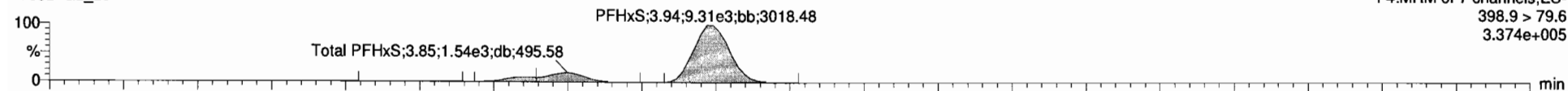
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Printed: Monday, March 27, 2017 09:21:01 Pacific Daylight Time

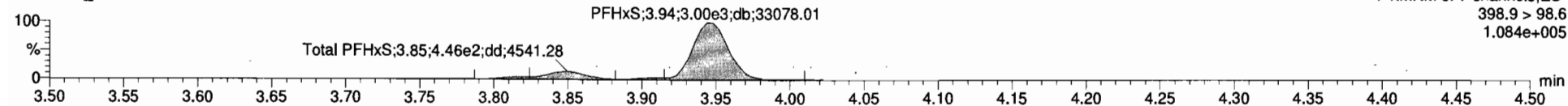
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Total PFHxS

170324G2_20

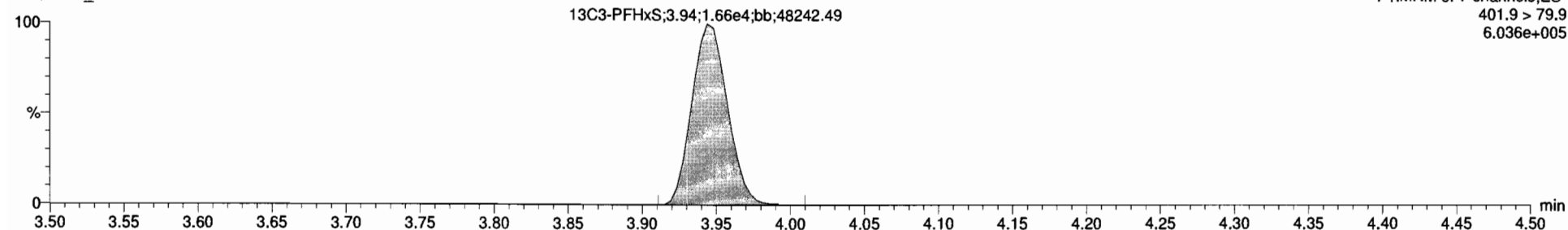


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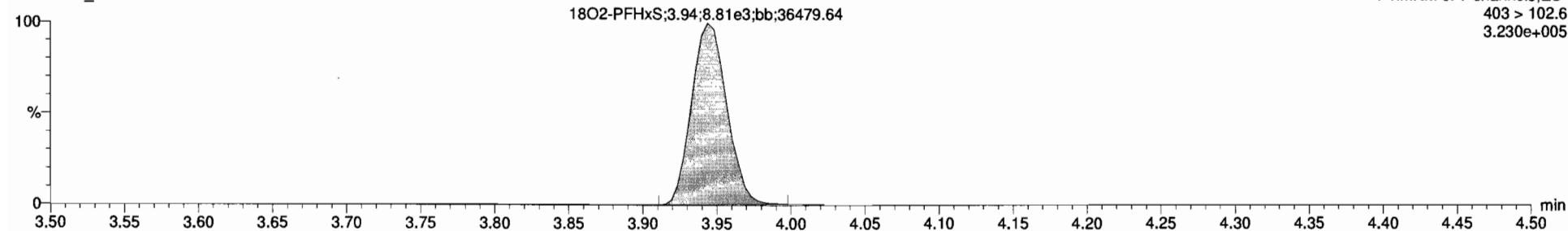
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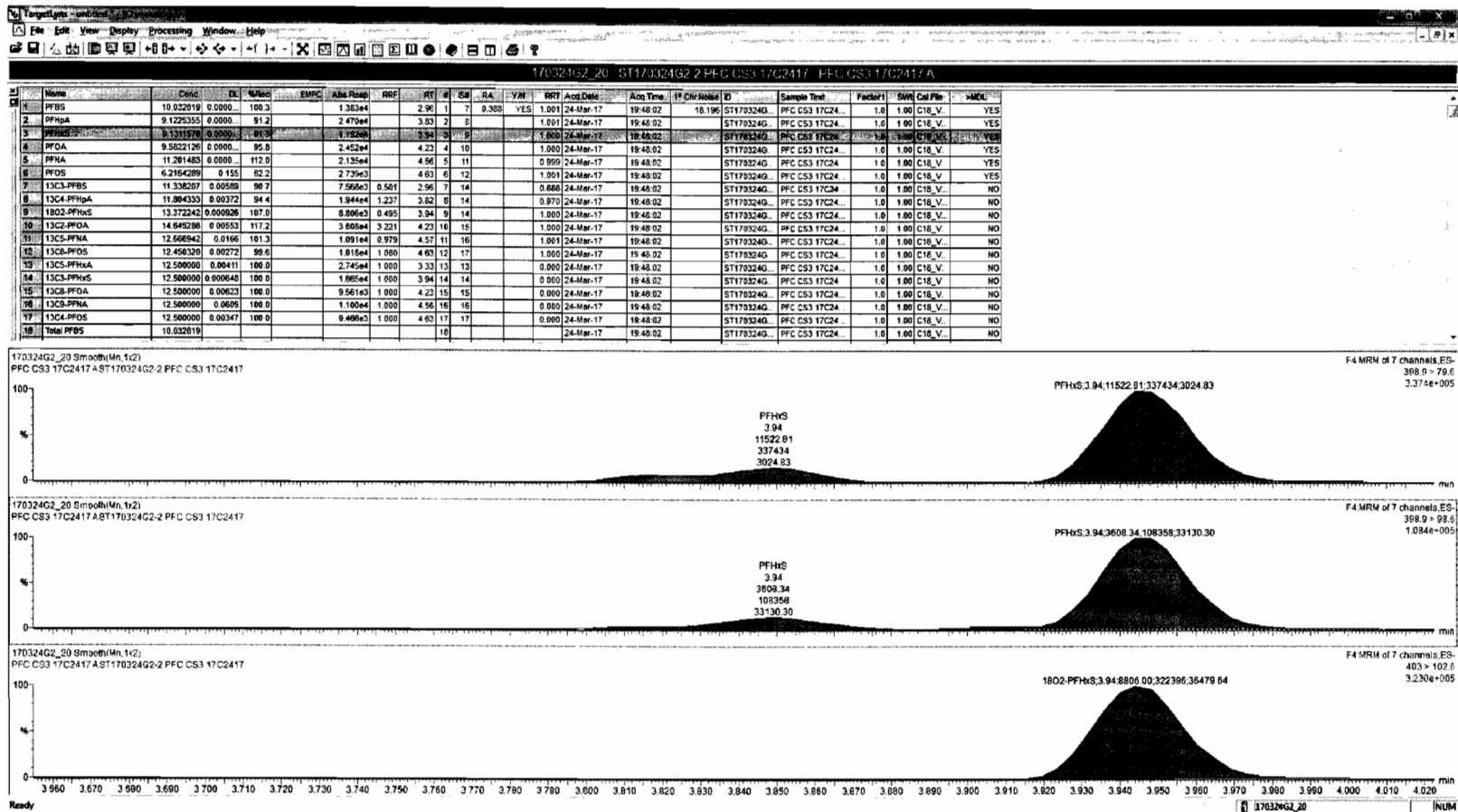
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18O2-PFHxS

170324G2_20





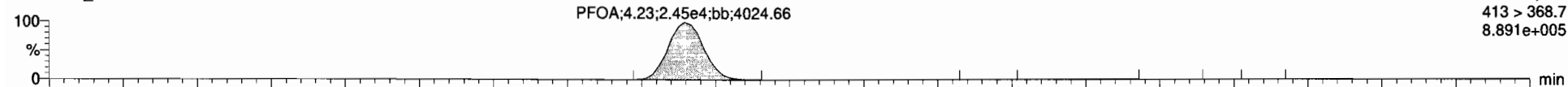
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Printed: Monday, March 27, 2017 09:21:01 Pacific Daylight Time

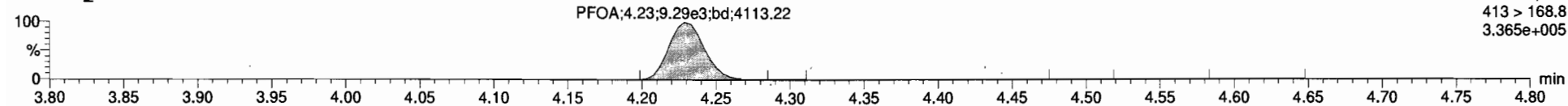
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Total PFOA

170324G2_20

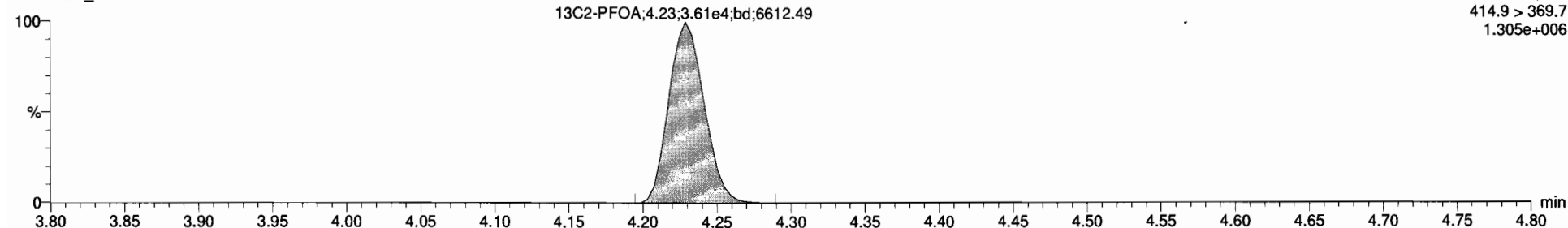


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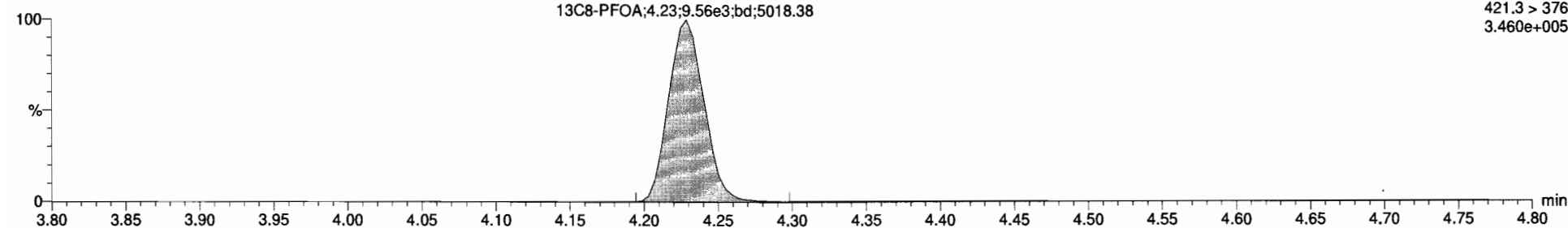
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170324G2_20



13C8-PFOA

170324G2_20



Dataset: Untitled

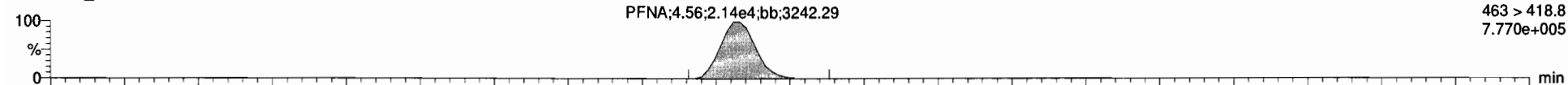
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Printed: Monday, March 27, 2017 09:21:01 Pacific Daylight Time

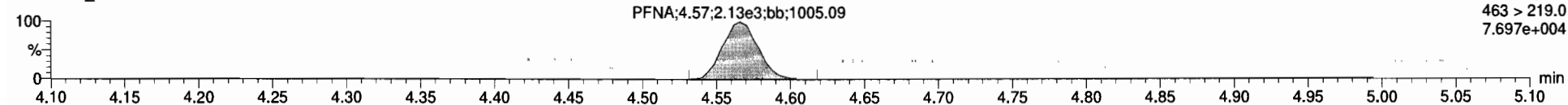
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PFNA

170324G2_20

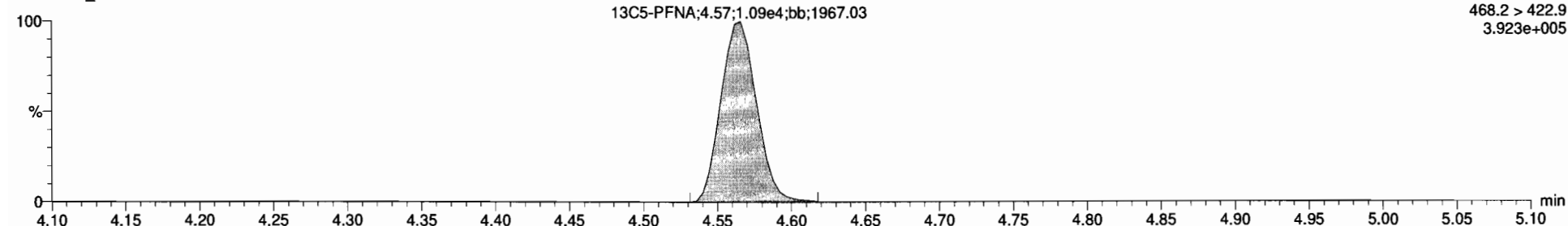


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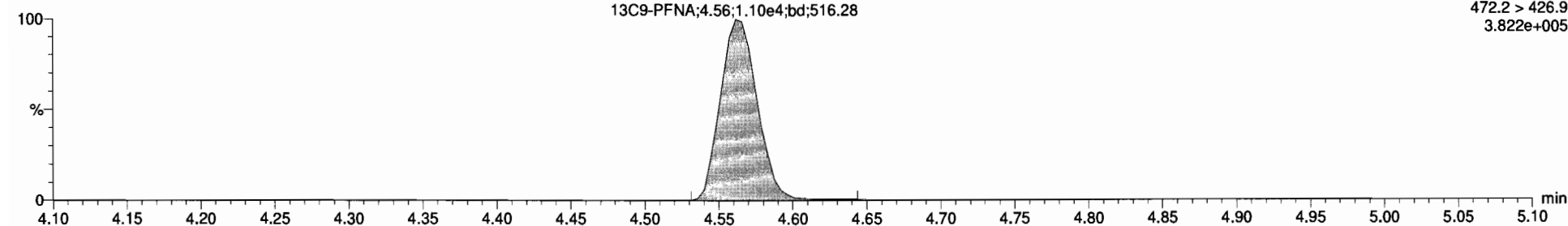
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170324G2_20



13C9-PFNA

170324G2_20



Dataset: Untitled

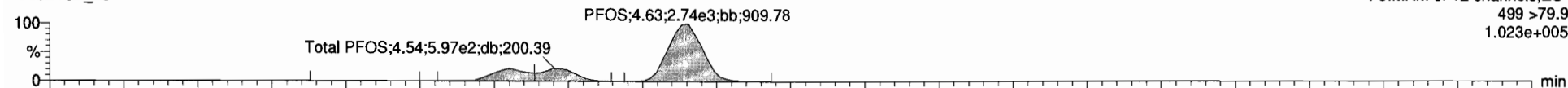
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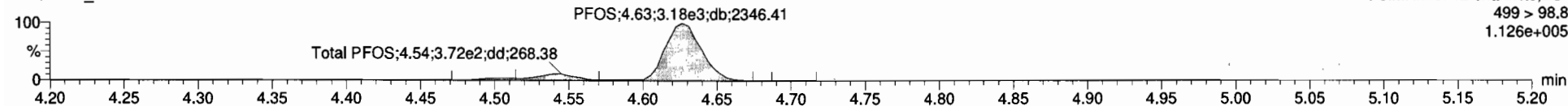
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Total PFOS

170324G2_20

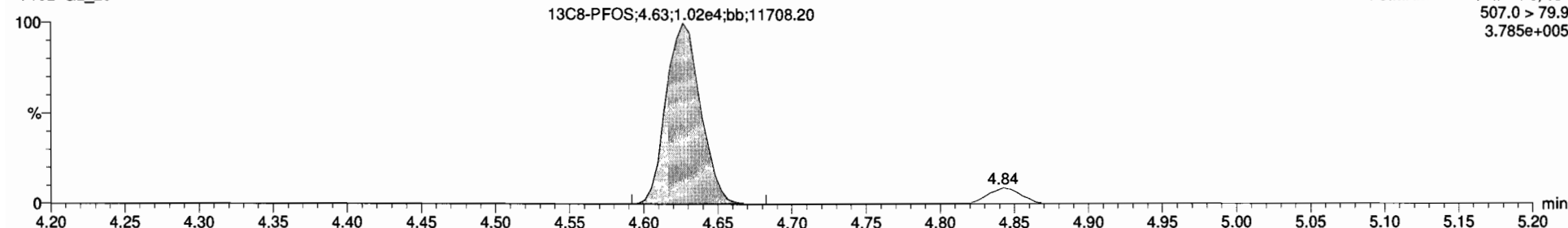


170324G2_20



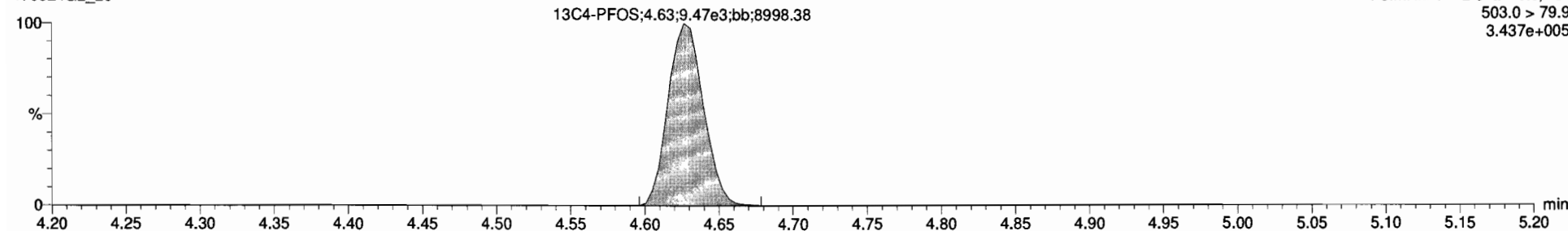
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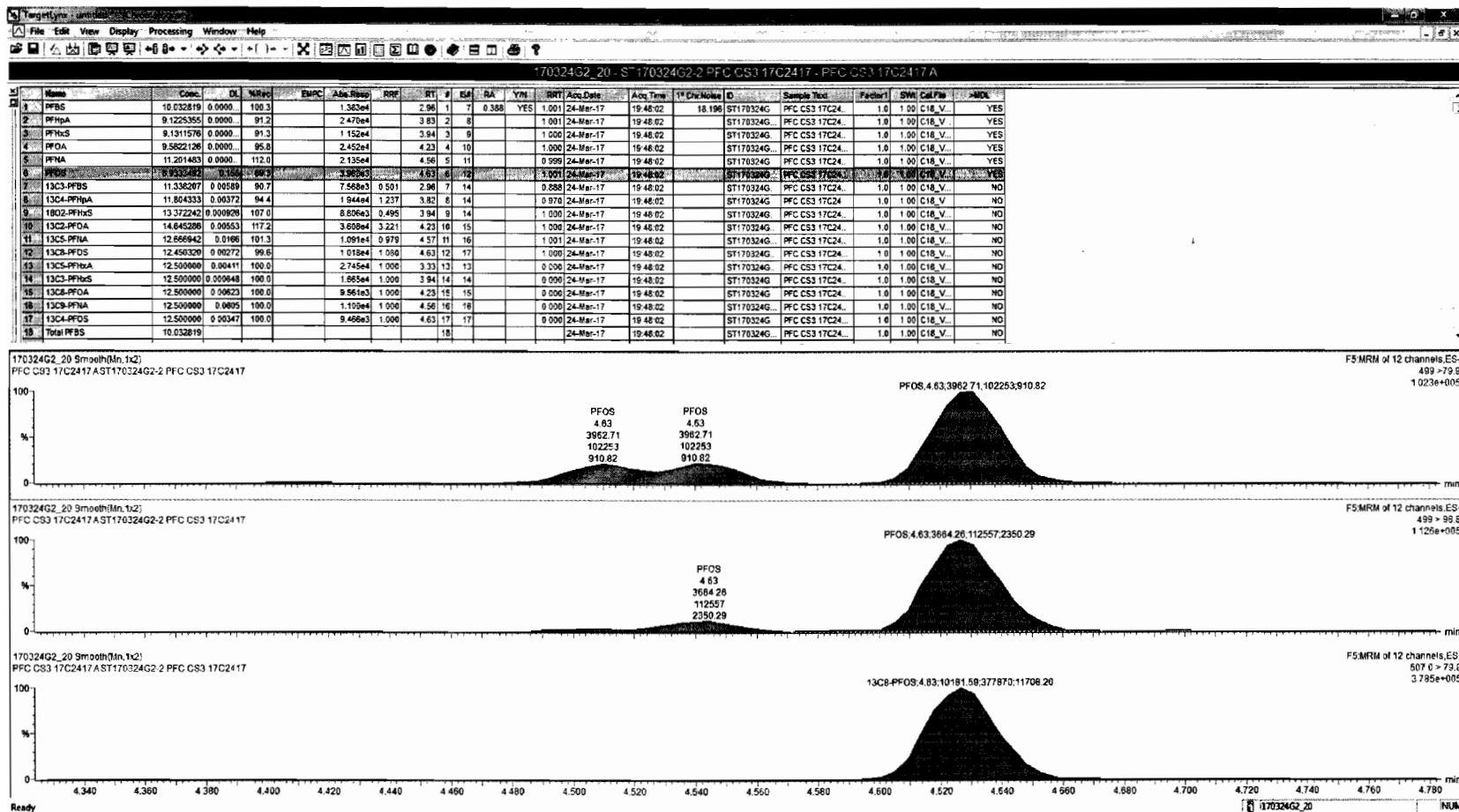
170324G2_20



13C4-PFOS

170324G2_20





Dataset: U:\G1.PRO\Results\2017\170324G2\170324G2-33.qld

Last Altered: Monday, March 27, 2017 09:29:55 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:31:08 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170324G2_33, Date: 24-Mar-2017, Time: 22:31:15, ID: ST170324G2-3 PFC CS3 17C2417, Description: PFC CS3 17C2417 A

	# Name	Trace	Response	IS Resp	RRE	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.39e4	7.81e3		1.000	2.97	9.77	97.7
2	2 PFHpA	363 > 318.9	2.77e4	1.91e4		1.000	3.83	10.4	104.4
3	3 PFHxS	398.9 > 79.6	1.12e4	8.30e3		1.000	3.95	9.41	94.1
4	4 PFOA	413 > 368.7	2.42e4	3.80e4		1.000	4.24	8.97	89.7
5	5 PFNA	463 > 418.8	1.86e4	1.02e4		1.000	4.57	10.4	104.3
6	6 PFOS	499 > 79.9	3.70e3	9.15e3		1.000	4.63	9.27	92.7
7	7 13C3-PFBS	302.0 > 98.8	7.81e3	1.64e4	0.501	1.000	2.96	11.9	95.1
8	8 13C4-PFHpA	367.2 > 321.8	1.91e4	1.64e4	1.237	1.000	3.83	11.8	94.1
9	9 18O2-PFHxS	403 > 102.6	8.30e3	1.64e4	0.495	1.000	3.95	12.8	102.4
10	10 13C2-PFOA	414.9 > 369.7	3.80e4	8.78e3	3.221	1.000	4.23	16.8	134.2
11	11 13C5-PFNA	468.2 > 422.9	1.02e4	1.11e4	0.979	1.000	4.57	11.7	93.7
12	12 13C8-PFOS	507.0 > 79.9	9.15e3	8.71e3	1.080	1.000	4.63	12.2	97.3
13	13 13C5-PFHxA	318 > 272.9	2.71e4	2.71e4	1.000	1.000	3.34	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.64e4	1.64e4	1.000	1.000	3.95	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	8.78e3	8.78e3	1.000	1.000	4.23	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.11e4	1.11e4	1.000	1.000	4.57	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	8.71e3	8.71e3	1.000	1.000	4.63	12.5	100.0

75-125
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60-150
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60-150

ES 3/27/17

Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:45:38 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:46:37 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170324G2_1	IPA	24-Mar-17	15:49:15
2	170324G2_2	ST170324G2-1 PFC CS3 17C2417	24-Mar-17	16:01:42
3	170324G2_3	IPA	24-Mar-17	16:14:03
4	170324G2_4	B7C0125-BS1 OPR 0.125	24-Mar-17	16:26:40
5	170324G2_5	B7C0126-BS1 OPR 1	24-Mar-17	16:39:09
6	170324G2_6	IPA	24-Mar-17	16:51:43
7	170324G2_7	B7C0125-BLK1 Method Blank 0.125	24-Mar-17	17:04:18
8	170324G2_8	B7C0126-BLK1 Method Blank 1	24-Mar-17	17:16:49
9	170324G2_9	1700355-01 CBD-BKG-MW02-0317 0.125	24-Mar-17	17:29:22
10	170324G2_10	1700355-02 CBD-EB01-032017 0.125	24-Mar-17	17:41:55
11	170324G2_11	1700355-03 CBD-BKG-MW01-0317 0.125	24-Mar-17	17:54:28
12	170324G2_12	1700355-04 CBD-BKG-MW01P-0317 0.125	24-Mar-17	18:07:00
13	170324G2_13	1700355-05 CBD-BKG-MW03-0317 0.125	24-Mar-17	18:19:30
14	170324G2_14	1700355-06 CBD-AOA-MW10-0317 0.125	24-Mar-17	18:32:33
15	170324G2_15	1700355-07 CBD-AOA-MW10P-0317 0.125	24-Mar-17	18:45:08
16	170324G2_16	1700355-08 CBD-EB01-032117 0.125	24-Mar-17	18:57:41
17	170324G2_17	1700355-09 CBD-FB01-032117 0.125	24-Mar-17	19:10:37
18	170324G2_18	1700355-10 CBD-AOA-MW01-0317 0.125	24-Mar-17	19:22:53
19	170324G2_19	IPA	24-Mar-17	19:35:31
20	170324G2_20	ST170324G2-2 PFC CS3 17C2417	24-Mar-17	19:48:02
21	170324G2_21	IPA	24-Mar-17	20:00:33
22	170324G2_22	1700355-11 CBD-AOA-MW02-0317 0.125	24-Mar-17	20:13:16
23	170324G2_23	1700355-12 CBD-AOA-MW04-0317 0.125	24-Mar-17	20:25:51
24	170324G2_24	1700355-13 CBD-AOA-MW03-0317 0.125	24-Mar-17	20:38:22
25	170324G2_25	1700356-04 WI-CV-IDW-AQ02-0317 0.125	24-Mar-17	20:50:55
26	170324G2_26	1700356-07 WI-CV-IDW-AQ01-0317 0.125	24-Mar-17	21:03:24
27	170324G2_27	1700356-01 WI-CV-IDW-SO09-0317 1	24-Mar-17	21:15:56
28	170324G2_28	1700356-02 WI-CV-IDW-SO05-0317 1	24-Mar-17	21:28:29
29	170324G2_29	1700356-03 WI-CV-IDW-SO06-0317 1	24-Mar-17	21:41:03
30	170324G2_30	1700356-05 WI-CV-IDW-SO08-0317 1	24-Mar-17	21:53:36
31	170324G2_31	1700356-06 WI-CV-IDW-SO07-0317 1	24-Mar-17	22:06:11

Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:45:38 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:46:37 Pacific Daylight Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	170324G2_32	IPA	24-Mar-17	22:18:40
33	170324G2_33	ST170324G2-3 PFC CS3 17C2417	24-Mar-17	22:31:15
34	170324G2_34	IPA	24-Mar-17	22:43:44
35	170324G2_35	1700349-06@10X Final Effluent 0.27189	24-Mar-17	22:56:21
36	170324G2_36	IPA	24-Mar-17	23:08:52
37	170324G2_37	ST170324G2-4 PFC CS3 17C2417	24-Mar-17	23:21:48
38	170324G2_38	IPA	24-Mar-17	23:34:21

Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:31:47 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:32:02 Pacific Daylight Time

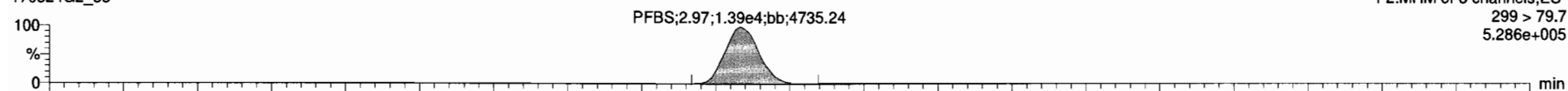
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: ST170324G2-3 PFC CS3 17C2417, Description: PFC CS3 17C2417 A, Name: 170324G2_33, Date: 24-Mar-2017, Time: 22:31:15, Instrument: , Lab: , User:

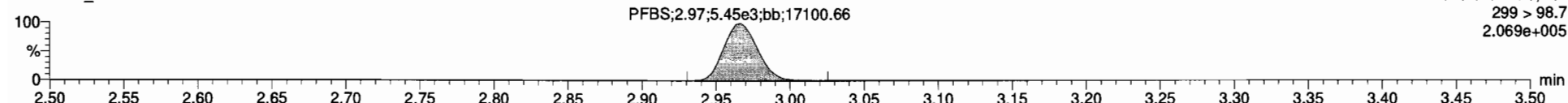
Total PFBS

170324G2_33



F2:MRM of 3 channels,ES-
299 > 79.7
5.286e+005

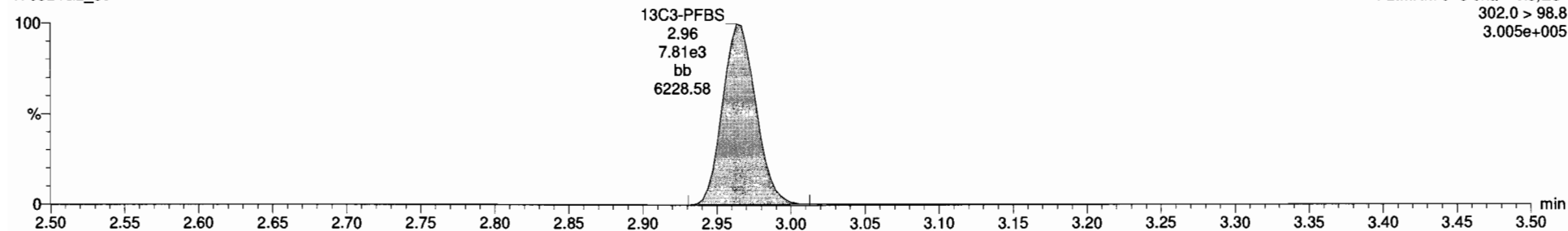
170324G2_33



F2:MRM of 3 channels,ES-
299 > 98.7
2.069e+005

13C3-PFBS

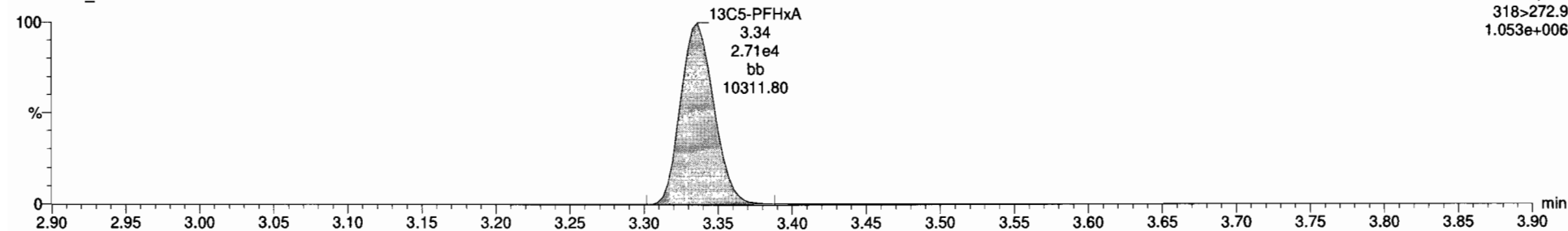
170324G2_33



F2:MRM of 3 channels,ES-
302.0 > 98.8
3.005e+005

13C5-PFHxA

170324G2_33



F3:MRM of 1 channel,ES-
318>272.9
1.053e+006

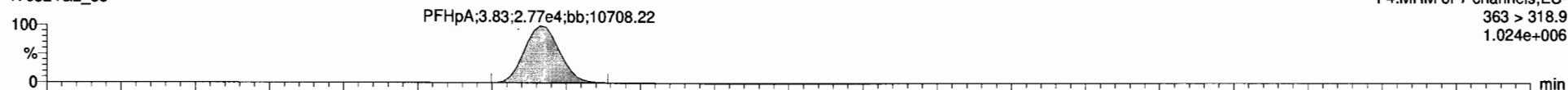
Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:31:47 Pacific Daylight Time
Printed: Monday, March 27, 2017 09:32:02 Pacific Daylight Time

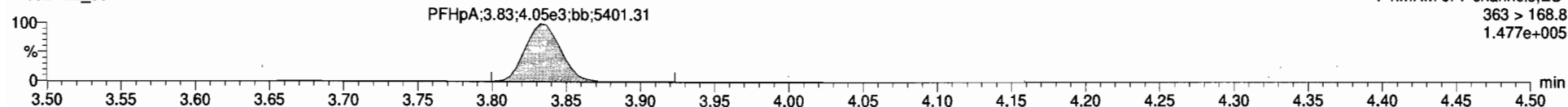
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PFHpA

170324G2_33

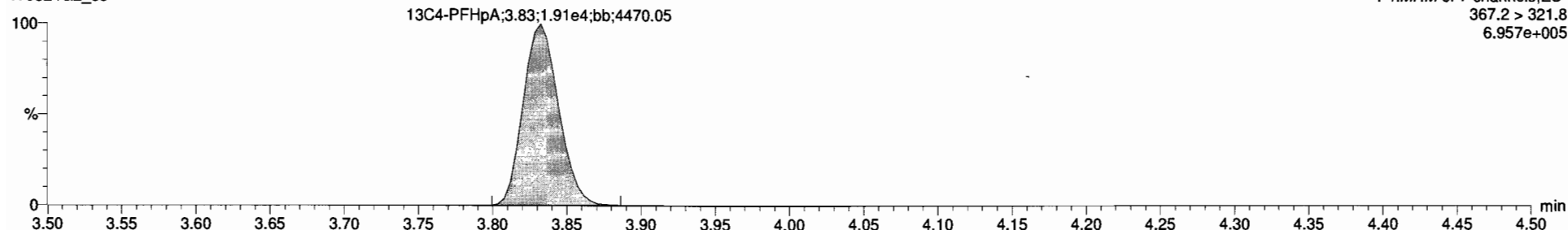


170324G2_33



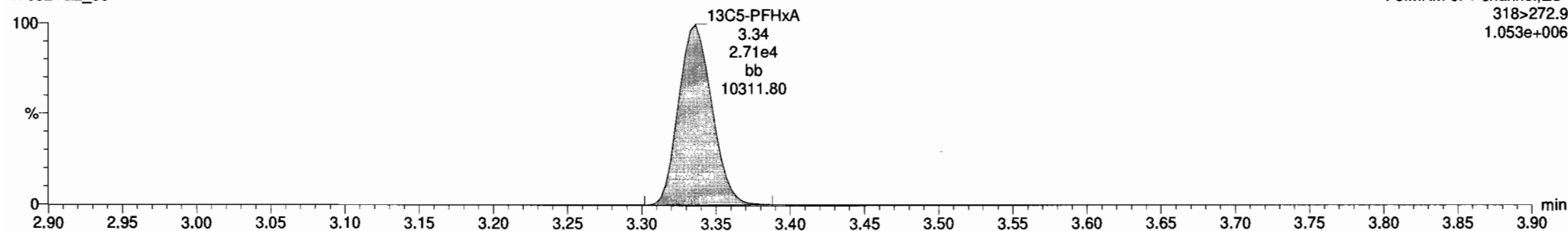
13C4-PFHpA

170324G2_33



13C5-PFHxA

170324G2_33



Dataset: Untitled

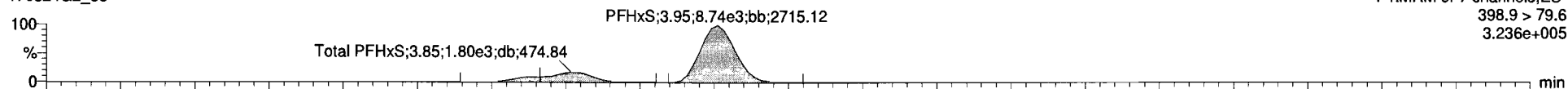
Last Altered: Monday, March 27, 2017 09:31:47 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:32:02 Pacific Daylight Time

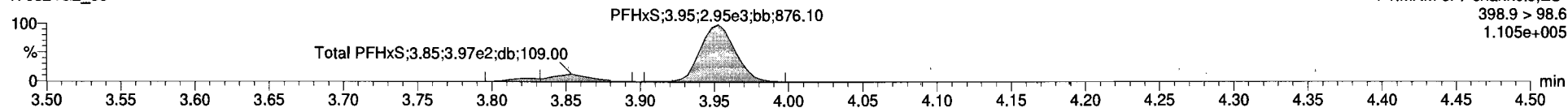
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Total PFHxS

170324G2_33

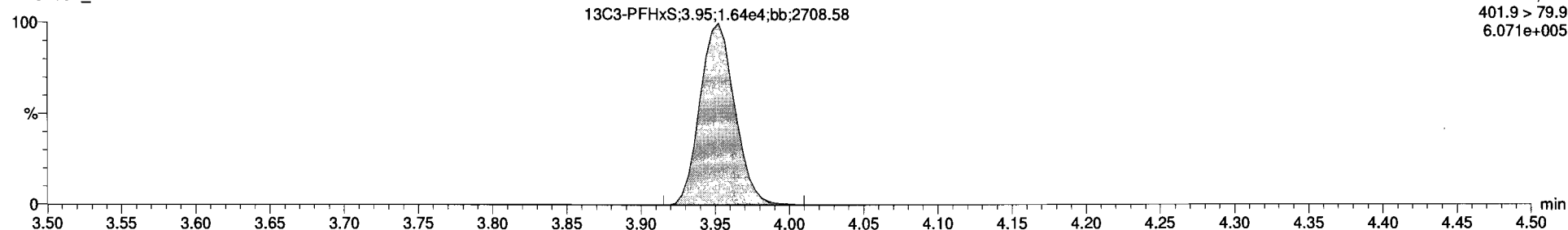


170324G2_33



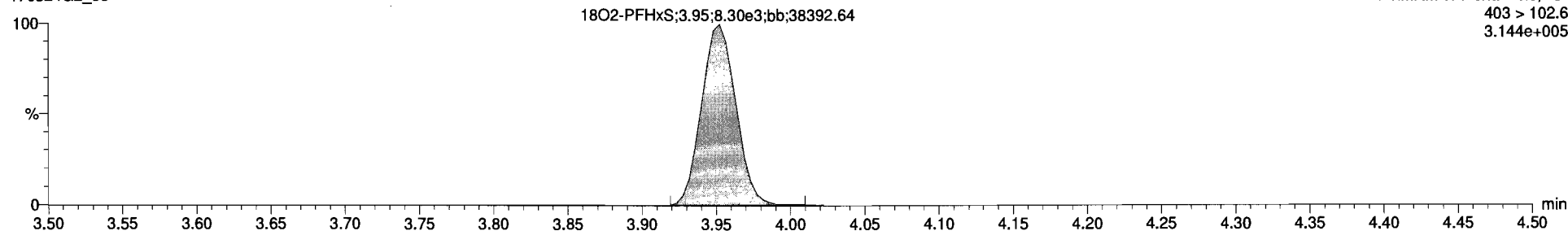
13C3-PFHxS

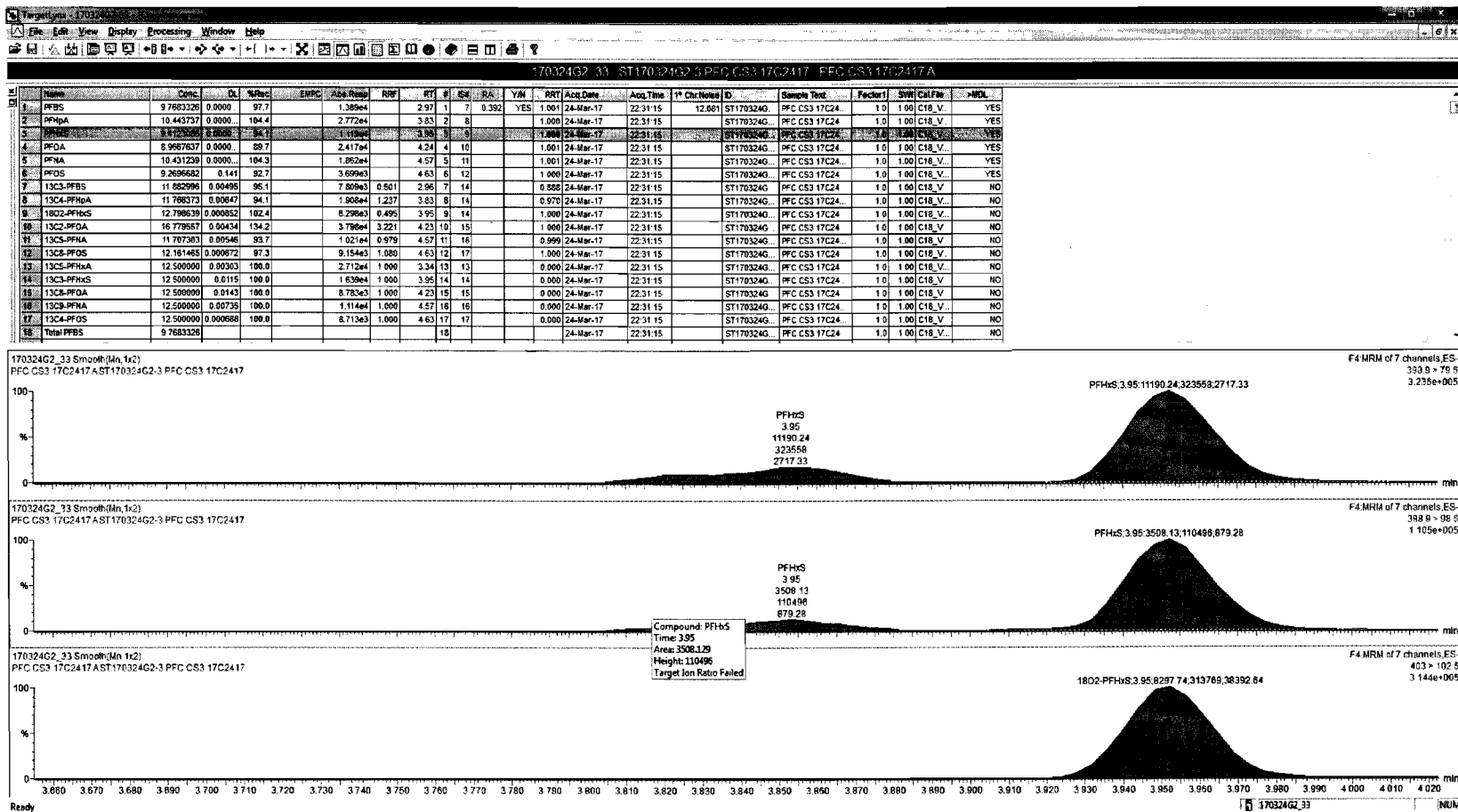
170324G2_33



18O2-PFHxS

170324G2_33





Dataset: Untitled

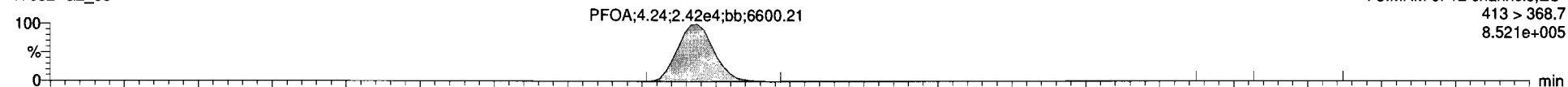
Last Altered: Monday, March 27, 2017 09:31:47 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:32:02 Pacific Daylight Time

ID: ST170324G2-3 PFC CS3 17C2417, Description: PFC CS3 17C2417 A, Name: 170324G2_33, Date: 24-Mar-2017, Time: 22:31:15, Instrument: , Lab: , User:

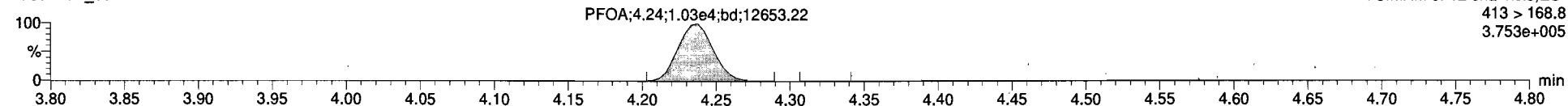
Total PFOA

170324G2_33



F5:MRM of 12 channels,ES-
413 > 368.7
8.521e+005

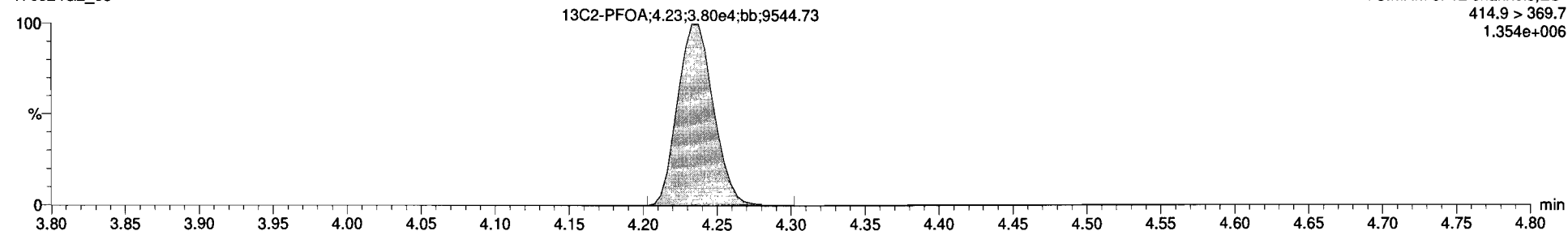
170324G2_33



F5:MRM of 12 channels,ES-
413 > 168.8
3.753e+005

13C2-PFOA

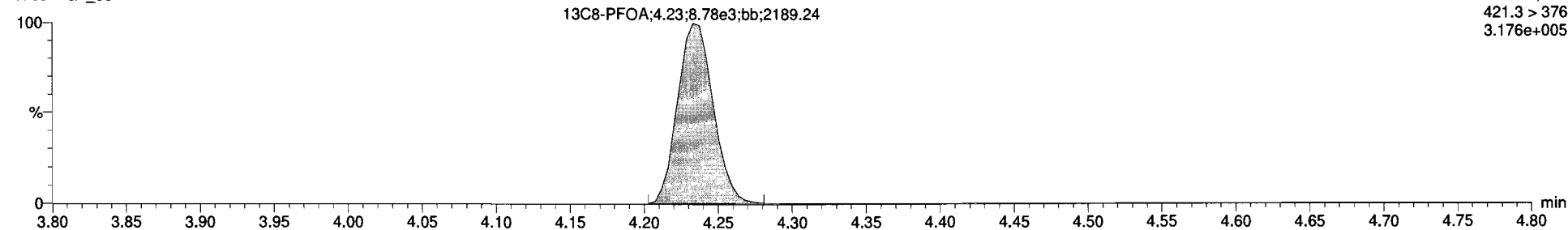
170324G2_33



F5:MRM of 12 channels,ES-
414.9 > 369.7
1.354e+006

13C8-PFOA

170324G2_33



F5:MRM of 12 channels,ES-
421.3 > 376
3.176e+005

Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:31:47 Pacific Daylight Time

Printed: Monday, March 27, 2017 09:32:02 Pacific Daylight Time

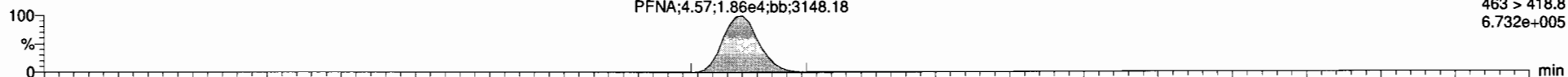
ID: ST170324G2-3 PFC CS3 17C2417, Description: PFC CS3 17C2417 A, Name: 170324G2_33, Date: 24-Mar-2017, Time: 22:31:15, Instrument: , Lab: , User:

PFNA

170324G2_33

PFNA;4.57;1.86e4;bb;3148.18

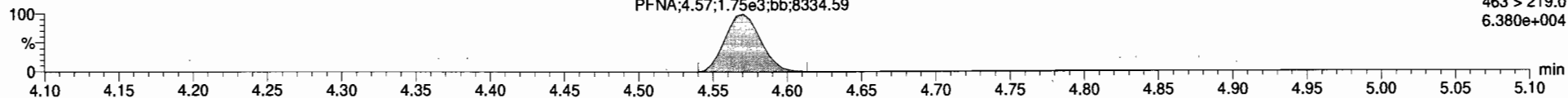
F5:MRM of 12 channels,ES-
463 > 418.8
6.732e+005



170324G2_33

PFNA;4.57;1.75e3;bb;8334.59

F5:MRM of 12 channels,ES-
463 > 219.0
6.380e+004

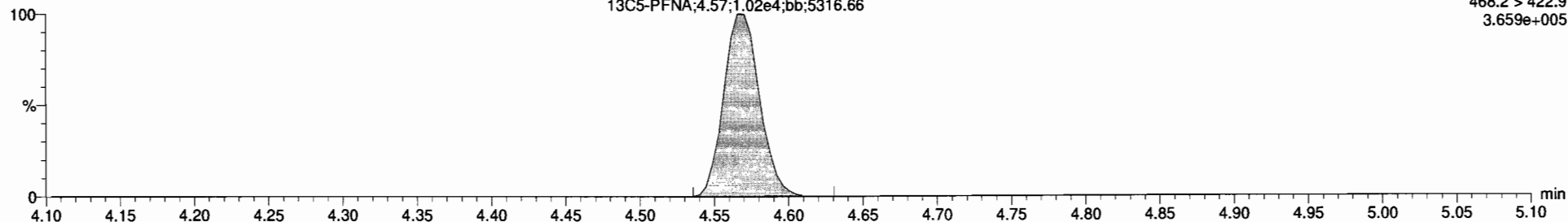


13C5-PFNA

170324G2_33

13C5-PFNA;4.57;1.02e4;bb;5316.66

F5:MRM of 12 channels,ES-
468.2 > 422.9
3.659e+005

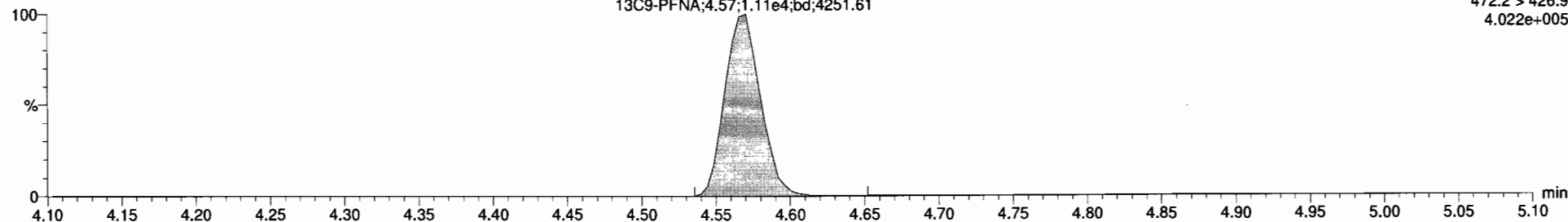


13C9-PFNA

170324G2_33

13C9-PFNA;4.57;1.11e4;bd;4251.61

F5:MRM of 12 channels,ES-
472.2 > 426.9
4.022e+005



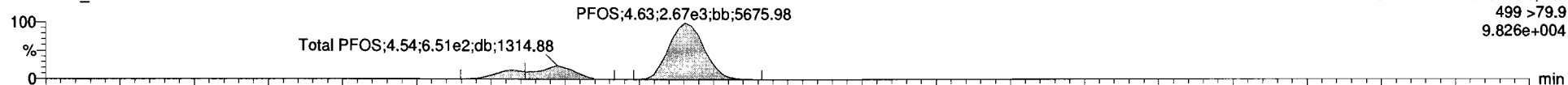
Dataset: Untitled

Last Altered: Monday, March 27, 2017 09:31:47 Pacific Daylight Time
Printed: Monday, March 27, 2017 09:32:02 Pacific Daylight Time

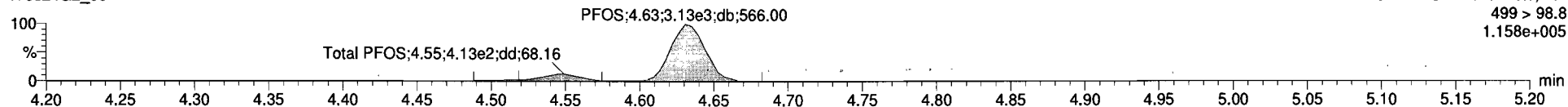
ID: ST170324G2-3 PFC CS3 17C2417, Description: PFC CS3 17C2417 A, Name: 170324G2_33, Date: 24-Mar-2017, Time: 22:31:15, Instrument: , Lab: , User:

Total PFOS

170324G2_33

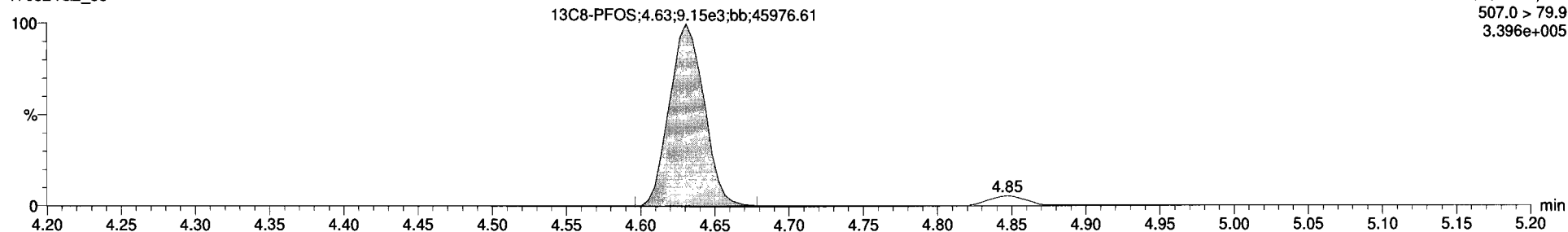


170324G2_33



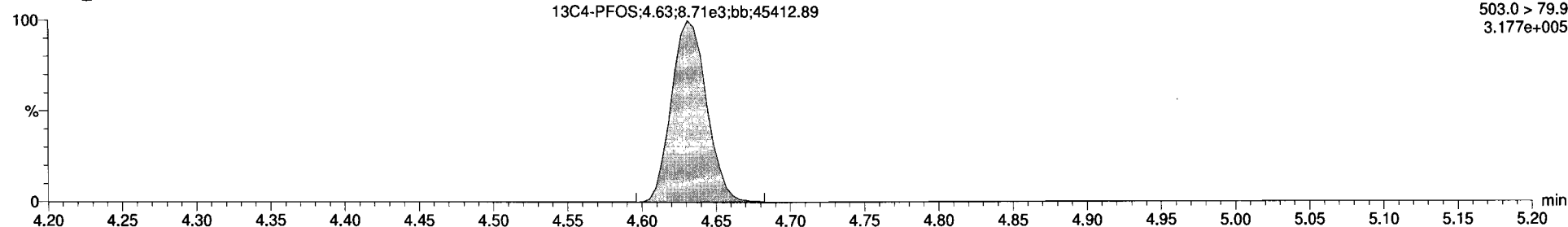
13C8-PFOS

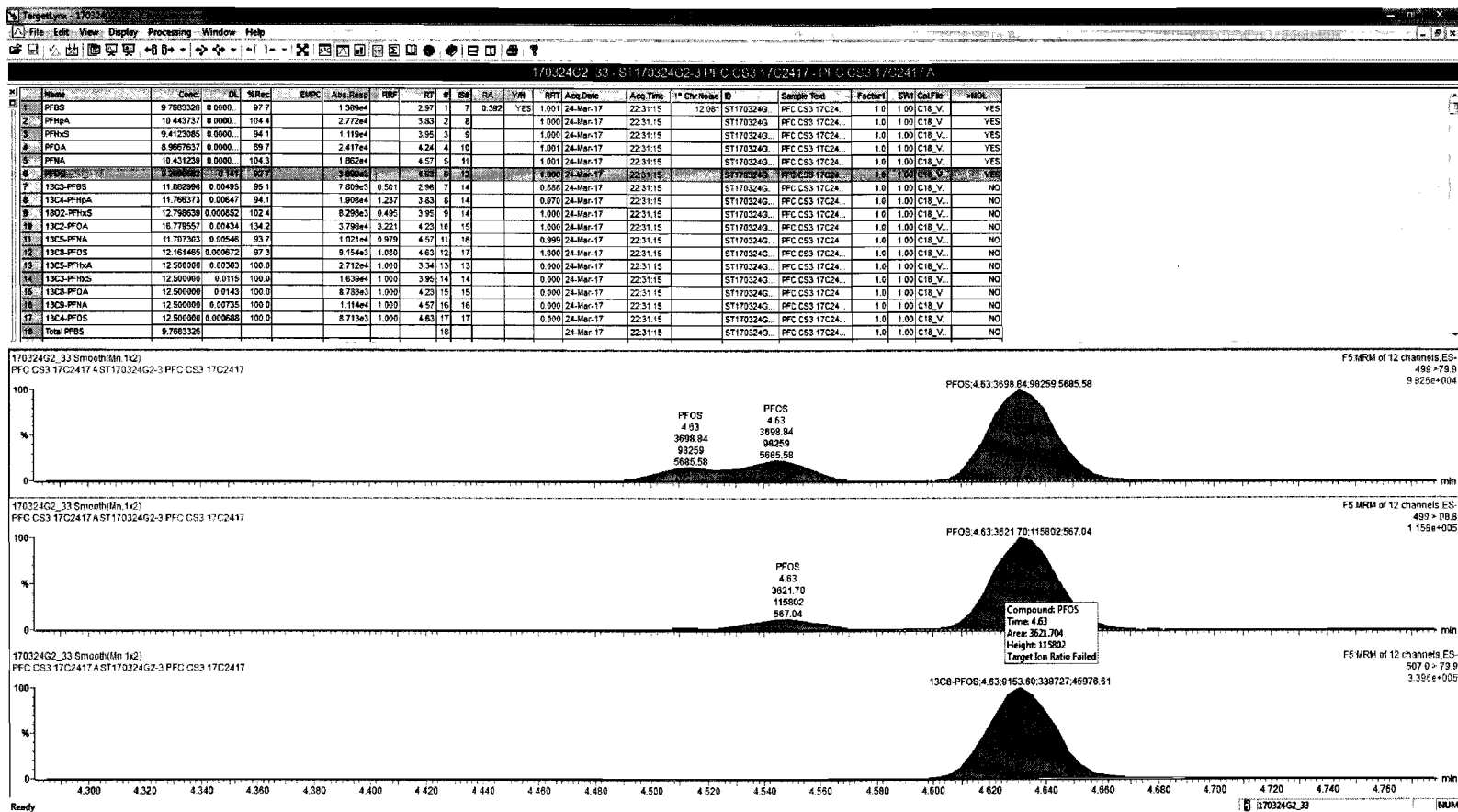
170324G2_33



13C4-PFOS

170324G2_33





Dataset: U:\G1.PRO\Results\2017\New folder\170328G1-2.qld

Last Altered: Wednesday, March 29, 2017 08:25:24 Pacific Daylight Time

Printed: Wednesday, March 29, 2017 08:29:24 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170328G1_2, Date: 28-Mar-2017, Time: 13:51:02, ID: ST170328G1-1 PFC CS3 17C2810, Description: PFC CS3 17C2810 A

	# Name	Trace	Response	IS Resp	RRF	WtVol	RT	Conc	%Rec
1	1 PFBS	299 > 79.7	1.11e4	7.73e3		1.000	3.08	7.89	78.9
2	4 PFOA	413 > 368.7	2.10e4	3.45e4		1.000	4.31	8.56	85.6
3	6 PFOS	499 > 79.9	3.31e3	9.33e3		1.000	4.69	8.15	81.5
4	7 13C3-PFBS	302.0 > 98.8	7.73e3	1.46e4	0.501	1.000	3.07	13.2	105.8
5	10 13C2-PFOA	414.9 > 369.7	3.45e4	1.13e4	3.221	1.000	4.31	11.8	94.5
6	12 13C8-PFOS	507.0 > 79.9	9.33e3	8.64e3	1.080	1.000	4.69	12.5	100.1
7	13 13C5-PFHxA	318 > 272.9	2.14e4	2.14e4	1.000	1.000	3.45	12.5	100.0
8	14 13C3-PFHxS	401.9 > 79.9	1.46e4	1.46e4	1.000	1.000	4.04	12.5	100.0
9	15 13C8-PFOA	421.3 > 376	1.13e4	1.13e4	1.000	1.000	4.31	12.5	100.0
10	17 13C4-PFOS	503.0 > 79.9	8.64e3	8.64e3	1.000	1.000	4.69	12.5	100.0

75-125
↓
60-150
↓

AC
3/29/17

/ES 3/29/17

Dataset: Untitled

Last Altered: Wednesday, March 29, 2017 09:03:38 Pacific Daylight Time

Printed: Wednesday, March 29, 2017 09:03:52 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170328G1_1	IPA	28-Mar-17	13:38:50
2	170328G1_2	ST170328G1-1 PFC CS3 17C2810	28-Mar-17	13:51:02
3	170328G1_3	IPA	28-Mar-17	14:03:31
4	170328G1_4	B7C0135-BS1 OPR 0.125	28-Mar-17	14:16:07
5	170328G1_5	B7C0138-BS1 OPR 0.125	28-Mar-17	14:28:38
6	170328G1_6	B7C0136-BS1 OPR 1	28-Mar-17	16:07:03
7	170328G1_7	IPA	28-Mar-17	16:19:21
8	170328G1_8	B7C0135-BLK1 Method Blank 0.125	28-Mar-17	16:31:50
9	170328G1_9	B7C0138-BLK1 Method Blank 0.125	28-Mar-17	16:44:22
10	170328G1_10	B7C0136-BLK1 Method Blank 1	28-Mar-17	16:56:54
11	170328G1_11	1700367-01 CBD-AOA-MW14-0317 0.125	28-Mar-17	17:09:27
12	170328G1_12	1700367-02 CBD-EB01-032217 0.125	28-Mar-17	17:22:01
13	170328G1_13	1700367-03 CBD-AOA-MW11-0317 0.125	28-Mar-17	17:34:30
14	170328G1_14	1700367-04 CBD-EB01-032317 0.125	28-Mar-17	17:47:02
15	170328G1_15	1700355-10RE1@20X CBD-AOA-MW01-0317...	28-Mar-17	17:59:36
16	170328G1_16	1700355-11RE1@20X CBD-AOA-MW02-0317...	28-Mar-17	18:12:10
17	170328G1_17	1700355-12RE1@20X CBD-AOA-MW04-0317...	28-Mar-17	18:24:44
18	170328G1_18	1700355-13RE1@20X CBD-AOA-MW03-0317...	28-Mar-17	18:37:17
19	170328G1_19	1700355-10RE1 CBD-AOA-MW01-0317 0.1192	28-Mar-17	18:49:51
20	170328G1_20	1700355-11RE1 CBD-AOA-MW02-0317 0.1256	28-Mar-17	19:02:24
21	170328G1_21	1700355-12RE1 CBD-AOA-MW04-0317 0.128...	28-Mar-17	19:14:52
22	170328G1_22	1700355-13RE1 CBD-AOA-MW03-0317 0.128...	28-Mar-17	19:27:25
23	170328G1_23	IPA	28-Mar-17	19:39:59
24	170328G1_24	ST170328G1-2 PFC CS3 17C2810	28-Mar-17	19:52:34
25	170328G1_25	IPA	28-Mar-17	20:05:04
26	170328G1_26	1700349-01RE1 Sludge 2.39	28-Mar-17	20:17:40
27	170328G1_27	1700349-02RE1 White Stock 5	28-Mar-17	20:30:10
28	170328G1_28	1700349-03RE1 Kraft Stock 5	28-Mar-17	20:42:43
29	170328G1_29	1700352-01RE1 GP Primary 2.39	28-Mar-17	20:55:17
30	170328G1_30	1700352-02RE1 NP Primary 2.29	28-Mar-17	21:07:50
31	170328G1_31	1700352-03RE1 NP Secondary 4.22	28-Mar-17	21:20:24

Dataset: Untitled

Last Altered: Wednesday, March 29, 2017 09:03:38 Pacific Daylight Time

Printed: Wednesday, March 29, 2017 09:03:52 Pacific Daylight Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	170328G1_32	IPA	28-Mar-17	21:32:52
33	170328G1_33	ST170328G1-3 PFC CS3 17C2810	28-Mar-17	21:45:28
34	170328G1_34	IPA	28-Mar-17	21:57:58

LC Calibration Standards Review Checklist

Q1

Calibration ID:	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
ST170328G1-1 LMH	☒	☒	☒	☒	☒	☒	☐
ST170328G1-2 LMH	☐	☒	☒	☒	☒	☒	☐
ST170328G1-3 LMH	☒	☒	☒	☒	☒	☒	☒
LMH	☐	☐	☐	☐	☐	☐	☐
LMH	☐	☐	☐	☐	☐	☐	☐
LMH	☐	☐	☐	☐	☐	☐	☐
LMH	☐	☐	☐	☐	☐	☐	☐
LMH	☐	☐	☐	☐	☐	☐	☐
LMH	☐	☐	☐	☐	☐	☐	☐
LMH	☐	☐	☐	☐	☐	☐	☐

N/A

Full Mass Cal. Date: 12/16/17

Run Log Present: ☒

of Samples per Sequence Checked: ☒

Reviewed By: af 3/29/18
Initials/Date

Comments:

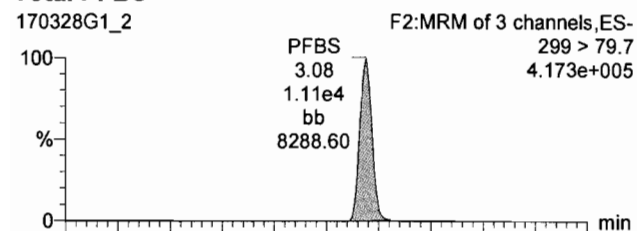
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Last Altered: Wednesday, March 29, 2017 08:02:03 Pacific Daylight Time
Printed: Wednesday, March 29, 2017 08:24:27 Pacific Daylight Time

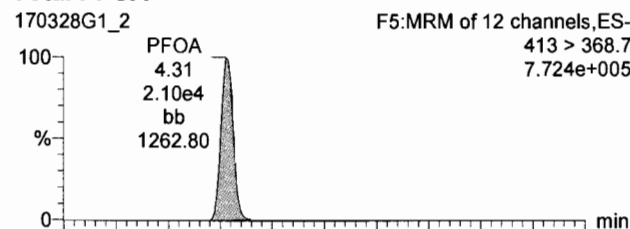
Method: U:\G1.PRO\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: ST170328G1-1 PFC CS3 17C2810, Description: PFC CS3 17C2810 A, Name: 170328G1_2, Date: 28-Mar-2017, Time: 13:51:02, Instrument: , Lab: , User:

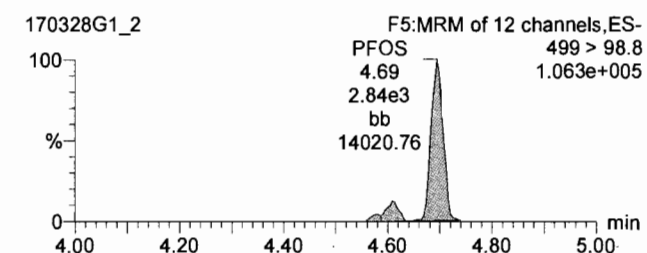
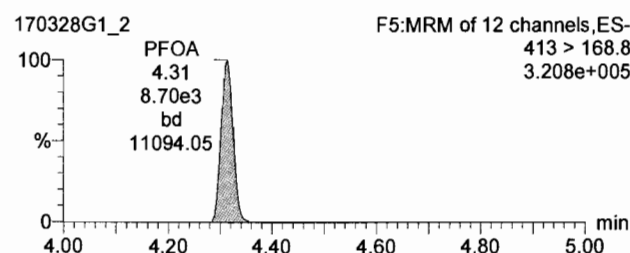
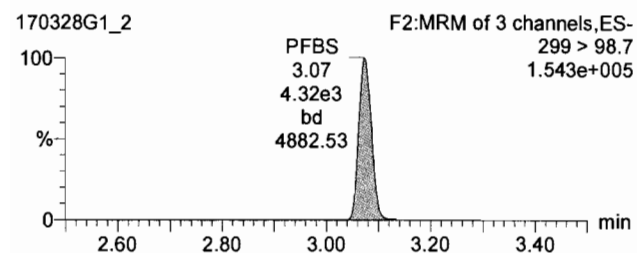
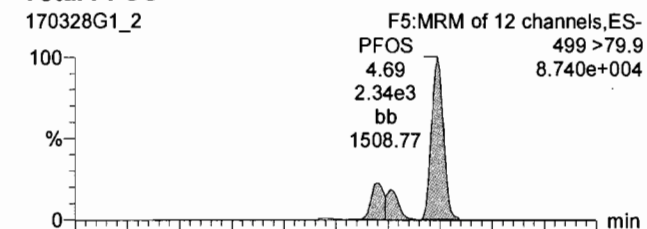
Total PFBS



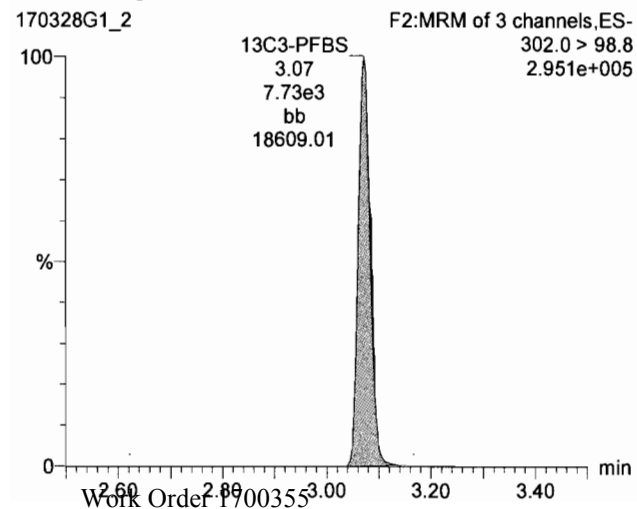
Total PFOA



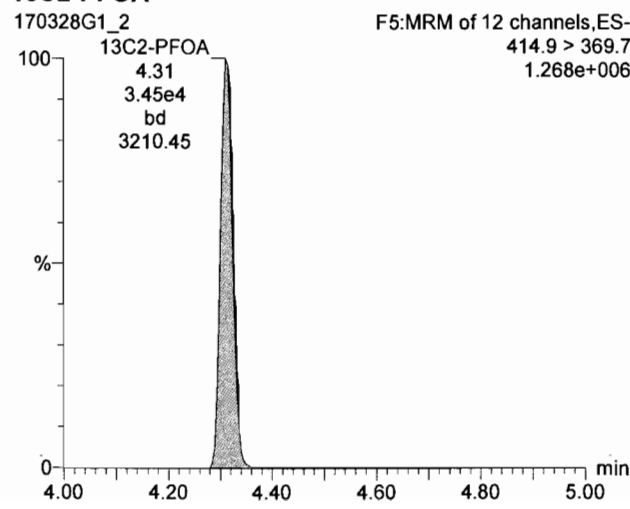
Total PFOS



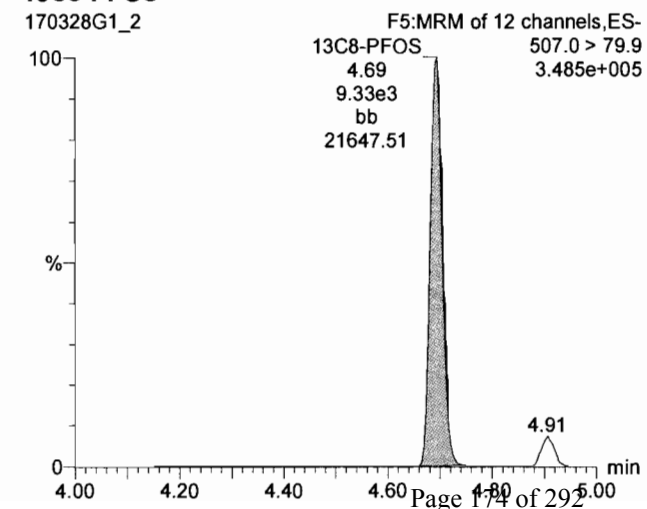
¹³C3-PFBS



¹³C2-PFOA

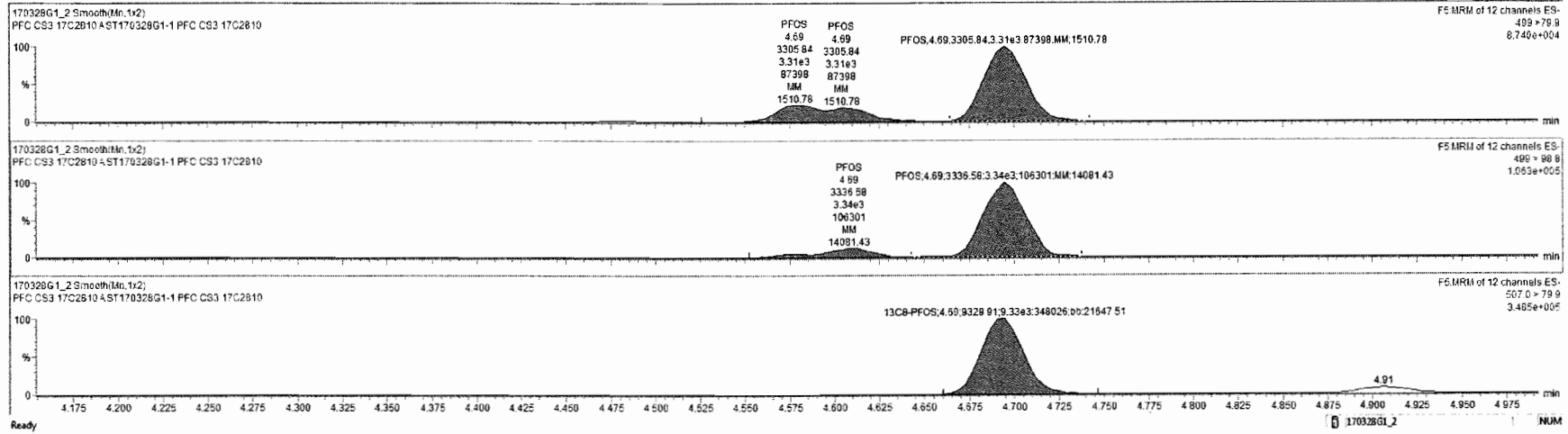


¹³C8-PFOS



170328G1_2 - ST170328G1-1 PFC CS3 17C2810 - PFC CS3 17C2810 A

Index	Name	Comp	DC	%Rec	EMPC	Abs Resp	RRF	RT	#	SA	RA	Y/N	RRF	Acq Date	Acq Time	1 st Clr Noise	ID	Sample Text	Factor1	SWI	Cal File	Model
1	PFBS	7.8889620	0.0000	78.9		1.111e4		3.08	1	7	0.309	YES	1.001	28-Mar-17	13:51:02	31.596	ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
2	PFHpA	8.2922204	0.0000	82.9		2.141e4		3.93	2	8			1.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	YES
3	PFHxS	7.4608243	0.0125	74.6		7.221e3		4.04	3	9			1.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	YES
4	PFOA	8.5598869	0.0000	85.6		2.096e4		4.31	4	10			1.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	YES
5	PFNA	9.2508786	0.0000	92.5		1.899e4		4.63	5	11			1.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	YES
6	PFOS	8.1451987	0.1471	81.5		3.305e3		4.69	6	12			1.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	YES
7	13C1-PFBS	13.2294411	0.00185	105.6		7.727e3	0.501	3.07	7	14			0.891	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
8	13C4-PFHpA	12.655399	0.0108	102.8		1.853e4	1.237	3.93	8	14			0.973	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
9	18O2-PFHxS	11.708332	0.0709	93.7		6.746e3	0.495	4.04	9	14			1.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
10	13C2-PFOA	11.809677	0.00922	94.5		3.446e4	3.221	4.31	10	15			1.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
11	13C5-PFNA	12.678431	0.0346	101.4		1.173e4	0.979	4.63	11	16			1.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
12	13C8-PFOS	12.506826	0.00147	100.1		9.330e3	1.080	4.69	12	17			1.001	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
13	13C5-PFHxS	12.500000	0.00228	100.0		2.137e4	1.000	3.45	13	13			0.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
14	13C3-PFHxS	12.500000	0.00998	100.0		1.457e4	1.000	4.04	14	14			0.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
15	13C6-PFOA	12.500000	0.00926	100.0		1.132e4	1.000	4.31	15	15			0.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
16	13C9-PFNA	12.500000	0.00924	100.0		1.181e4	1.000	4.63	16	16			0.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
17	13C4-PFOS	12.500000	0.00102	100.0		8.635e3	1.000	4.69	17	17			0.000	28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
18	Total PFBS	7.8889620							18					28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
19	Total PFHxS	9.1978428							19					28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
20	Total PFOA	8.5598869							20					28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO
21	Total PFOS	10.719883	0.147						21					28-Mar-17	13:51:02		ST170328G1_2	PFC CS3 17C2810	1.0	1.00	C18_V	NO



Dataset: Untitled

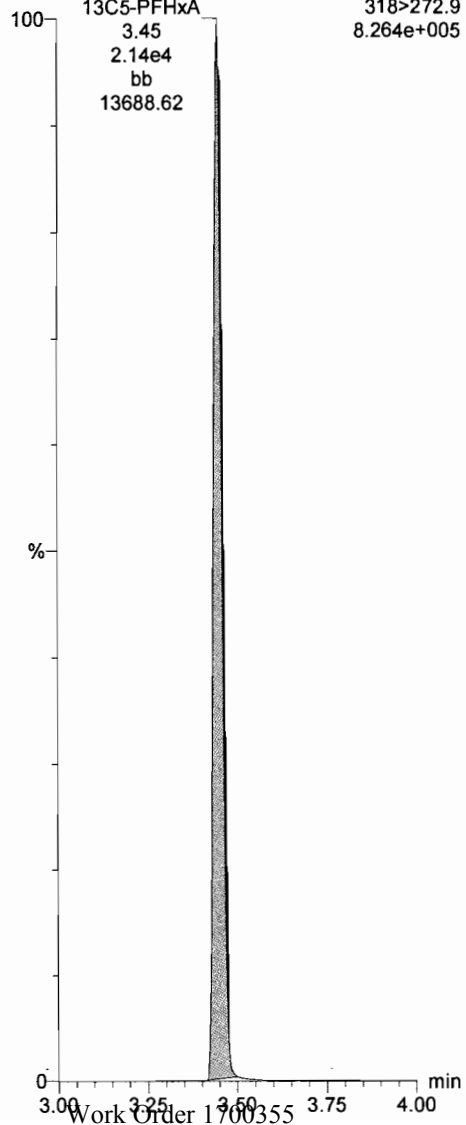
Last Altered: Wednesday, March 29, 2017 08:02:03 Pacific Daylight Time

Printed: Wednesday, March 29, 2017 08:24:27 Pacific Daylight Time

ID: ST170328G1-1 PFC CS3 17C2810, Description: PFC CS3 17C2810 A, Name: 170328G1_2, Date: 28-Mar-2017, Time: 13:51:02, Instrument: , Lab: , User:

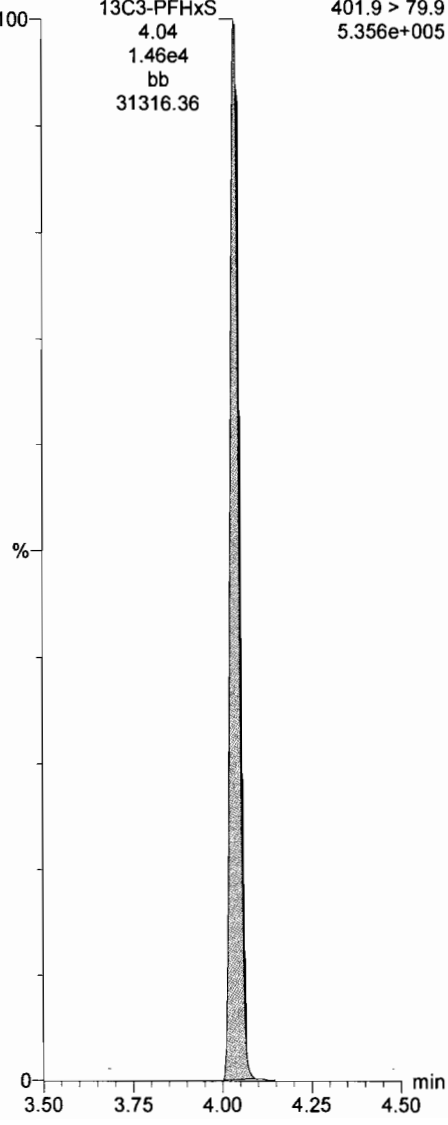
13C5-PFHxA

170328G1_2 F3:MRM of 1 channel,ES-
13C5-PFHxA 318>272.9
3.45 8.264e+005
2.14e4
bb
13688.62



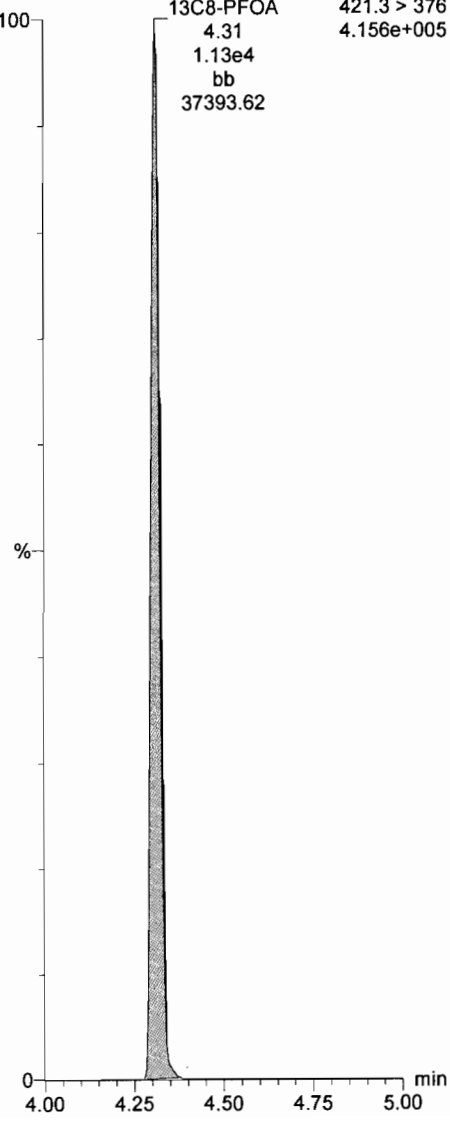
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170328G1_2 F4:MRM of 7 channels,ES-
13C3-PFHxS 401.9 > 79.9
4.04 5.356e+005
1.46e4
bb
31316.36



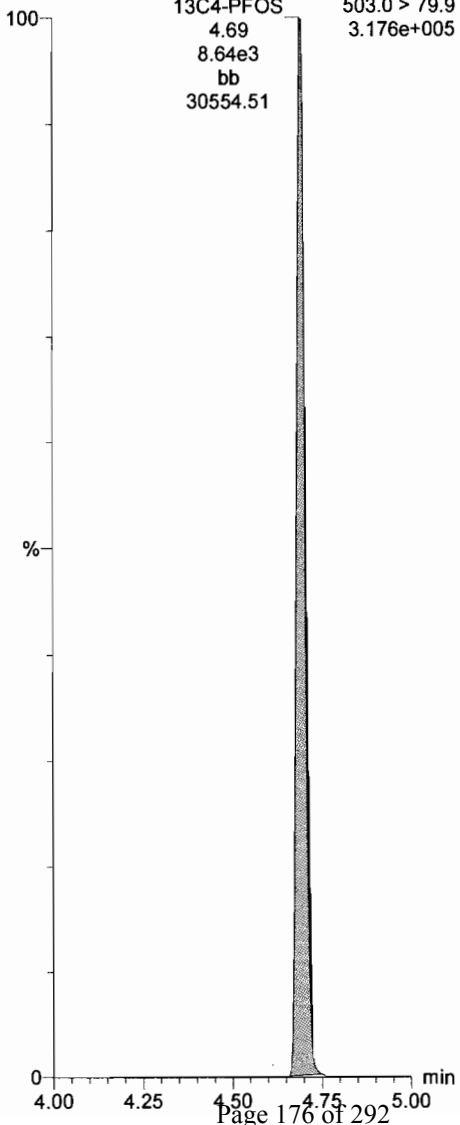
13C8-PFOA

170328G1_2 F5:MRM of 12 channels,ES-
13C8-PFOA 421.3 > 376
4.31 4.156e+005
1.13e4
bb
37393.62



13C4-PFOS

170328G1_2 F5:MRM of 12 channels,ES-
13C4-PFOS 503.0 > 79.9
4.69 3.176e+005
8.64e3
bb
30554.51



Dataset: U:\G1.PRO\Results\2017\New folder\170328G1-24.qld

Last Altered: Wednesday, March 29, 2017 08:40:22 Pacific Daylight Time

Printed: Wednesday, March 29, 2017 08:59:08 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170328G1_24, Date: 28-Mar-2017, Time: 19:52:34, ID: ST170328G1-2 PFC CS3 17C2810, Description: PFC CS3 17C2726 A

	# Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.31e4	8.51e3		1.000	2.95	8.42	84.2
2	4 PFOA	413 > 368.7	2.38e4	4.23e4		1.000	4.23	7.91	79.1
3	6 PFOS	499 > 79.9	4.04e3	1.19e4		1.000	4.63	7.80	78.0
4	7 13C3-PFBS	302.0 > 98.8	8.51e3	1.65e4	0.501	1.000	2.95	12.8	102.6
5	10 13C2-PFOA	414.9 > 369.7	4.23e4	9.68e3	3.221	1.000	4.23	16.9	135.5
6	12 13C8-PFOS	507.0 > 79.9	1.19e4	9.95e3	1.080	1.000	4.63	13.9	110.9
7	13 13C5-PFHxA	318 > 272.9	2.81e4	2.81e4	1.000	1.000	3.33	12.5	100.0
8	14 13C3-PFHxS	401.9 > 79.9	1.65e4	1.65e4	1.000	1.000	3.95	12.5	100.0
9	15 13C8-PFOA	421.3 > 376	9.68e3	9.68e3	1.000	1.000	4.23	12.5	100.0
10	17 13C4-PFOS	503.0 > 79.9	9.95e3	9.95e3	1.000	1.000	4.63	12.5	100.0

75-125
↓
60-150
↓

AC
3/29/17

✓ 3/29/17

Vista Analytical Laboratory VG-9

Dataset: Untitled

Last Altered: Wednesday, March 29, 2017 09:03:38 Pacific Daylight Time

Printed: Wednesday, March 29, 2017 09:03:52 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170328G1_1	IPA	28-Mar-17	13:38:50
2	170328G1_2	ST170328G1-1 PFC CS3 17C2810	28-Mar-17	13:51:02
3	170328G1_3	IPA	28-Mar-17	14:03:31
4	170328G1_4	B7C0135-BS1 OPR 0.125	28-Mar-17	14:16:07
5	170328G1_5	B7C0138-BS1 OPR 0.125	28-Mar-17	14:28:38
6	170328G1_6	B7C0136-BS1 OPR 1	28-Mar-17	16:07:03
7	170328G1_7	IPA	28-Mar-17	16:19:21
8	170328G1_8	B7C0135-BLK1 Method Blank 0.125	28-Mar-17	16:31:50
9	170328G1_9	B7C0138-BLK1 Method Blank 0.125	28-Mar-17	16:44:22
10	170328G1_10	B7C0136-BLK1 Method Blank 1	28-Mar-17	16:56:54
11	170328G1_11	1700367-01 CBD-AOA-MW14-0317 0.125	28-Mar-17	17:09:27
12	170328G1_12	1700367-02 CBD-EB01-032217 0.125	28-Mar-17	17:22:01
13	170328G1_13	1700367-03 CBD-AOA-MW11-0317 0.125	28-Mar-17	17:34:30
14	170328G1_14	1700367-04 CBD-EB01-032317 0.125	28-Mar-17	17:47:02
15	170328G1_15	1700355-10RE1@20X CBD-AOA-MW01-0317...	28-Mar-17	17:59:36
16	170328G1_16	1700355-11RE1@20X CBD-AOA-MW02-0317...	28-Mar-17	18:12:10
17	170328G1_17	1700355-12RE1@20X CBD-AOA-MW04-0317...	28-Mar-17	18:24:44
18	170328G1_18	1700355-13RE1@20X CBD-AOA-MW03-0317...	28-Mar-17	18:37:17
19	170328G1_19	1700355-10RE1 CBD-AOA-MW01-0317 0.1192	28-Mar-17	18:49:51
20	170328G1_20	1700355-11RE1 CBD-AOA-MW02-0317 0.1256	28-Mar-17	19:02:24
21	170328G1_21	1700355-12RE1 CBD-AOA-MW04-0317 0.128...	28-Mar-17	19:14:52
22	170328G1_22	1700355-13RE1 CBD-AOA-MW03-0317 0.128...	28-Mar-17	19:27:25
23	170328G1_23	IPA	28-Mar-17	19:39:59
24	170328G1_24	ST170328G1-2 PFC CS3 17C2810	28-Mar-17	19:52:34
25	170328G1_25	IPA	28-Mar-17	20:05:04
26	170328G1_26	1700349-01RE1 Sludge 2.39	28-Mar-17	20:17:40
27	170328G1_27	1700349-02RE1 White Stock 5	28-Mar-17	20:30:10
28	170328G1_28	1700349-03RE1 Kraft Stock 5	28-Mar-17	20:42:43
29	170328G1_29	1700352-01RE1 GP Primary 2.39	28-Mar-17	20:55:17
30	170328G1_30	1700352-02RE1 NP Primary 2.29	28-Mar-17	21:07:50
31	170328G1_31	1700352-03RE1 NP Secondary 4.22	28-Mar-17	21:20:24

Dataset: Untitled

Last Altered: Wednesday, March 29, 2017 09:03:38 Pacific Daylight Time

Printed: Wednesday, March 29, 2017 09:03:52 Pacific Daylight Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	170328G1_32	IPA	28-Mar-17	21:32:52
33	170328G1_33	ST170328G1-3 PFC CS3 17C2810	28-Mar-17	21:45:28
34	170328G1_34	IPA	28-Mar-17	21:57:58

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Last Altered: Wednesday, March 29, 2017 08:36:20 Pacific Daylight Time

Printed: Wednesday, March 29, 2017 08:37:13 Pacific Daylight Time

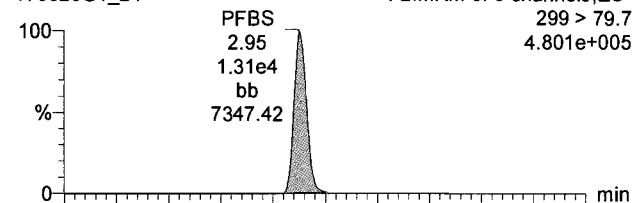
Method: U:\G1.PRO\MethDB\PFAS_6_2trans_LINEAR.mdb 20 Mar 2017 10:42:57

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

ID: ST170328G1-2 PFC CS3 17C2810, Description: PFC CS3 17C2726 A, Name: 170328G1_24, Date: 28-Mar-2017, Time: 19:52:34, Instrument: , Lab: , User:

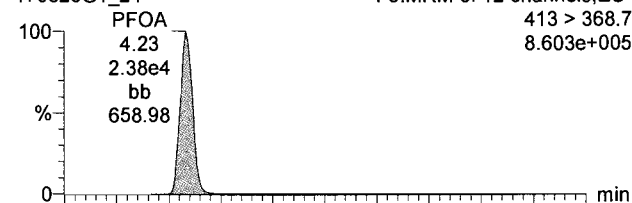
Total PFBS

170328G1_24



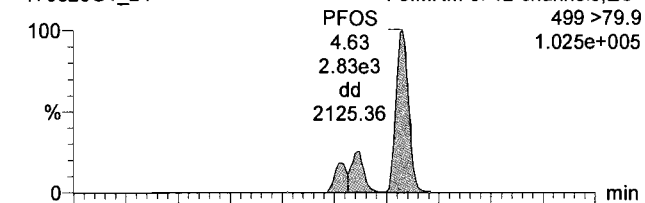
Total PFOA

170328G1_24

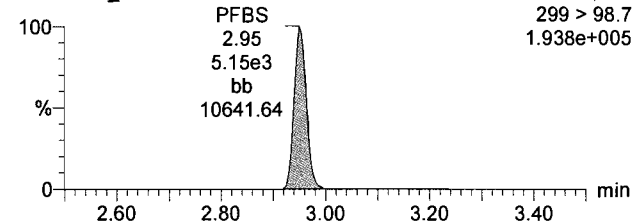


Total PFOS

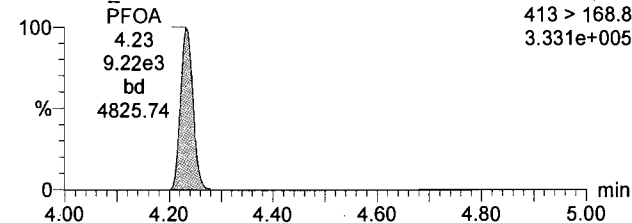
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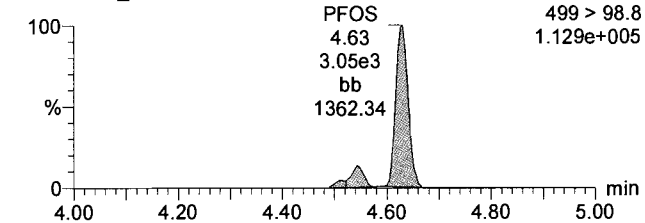
170328G1_24



170328G1_24

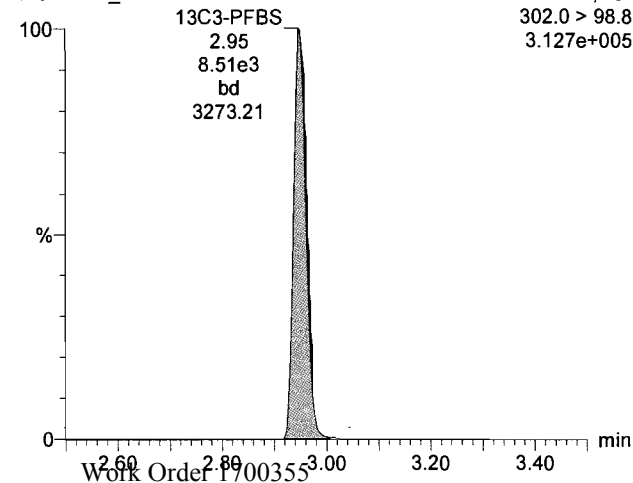


170328G1_24



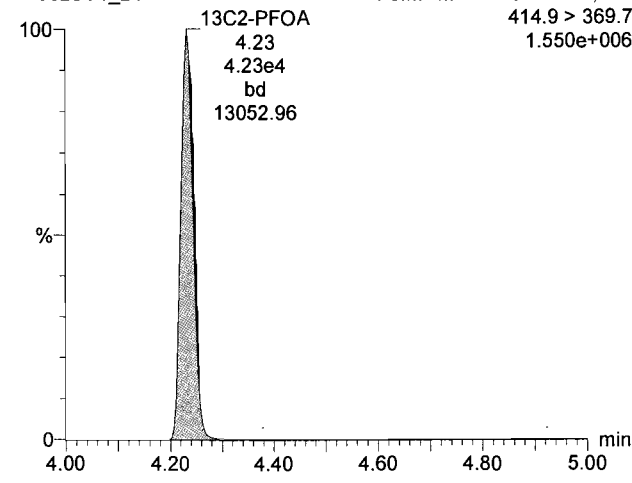
13C3-PFBS

170328G1_24



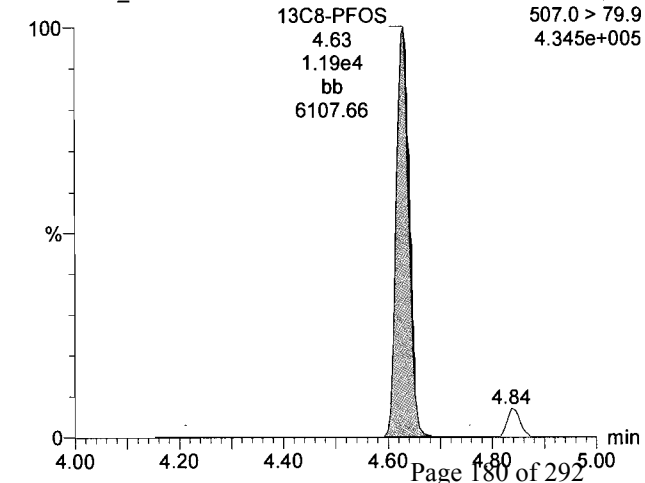
13C2-PFOA

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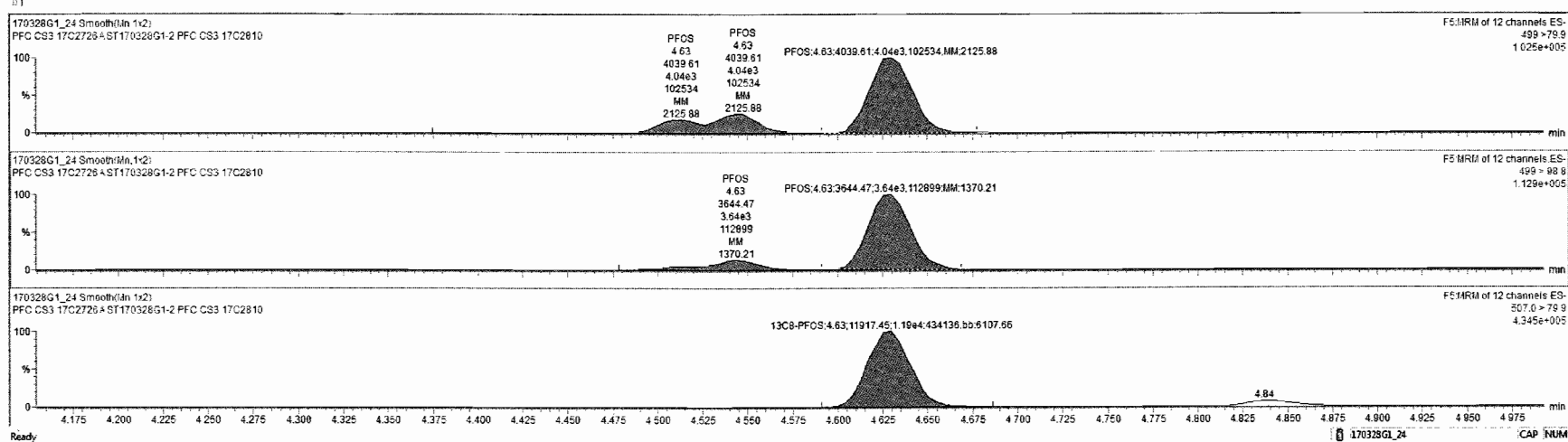


13C8-PFOS

170328G1_24



21	Name	Conc.	DL	%Rec	EMPC	Abs Resp	RFB	RT	W	CS	RA	Y/N	RRT	Acq Date	Acq Time	1 st Ch Noise	D	Sample Text	Factor 1	SN	Cal File	HMDL
1	PFBS	8.422854	0.000	84.2		1.306e4		2.95	1	7	0.394	YES	1.001	28-Mar-17	19:52:34	18.179	ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
2	PFHpA								2	8				28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
3	PFHxS	7.2538562	0.000	72.5		8.877e3		3.95	3	9			1.001	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	YES
4	PFOA	7.9144026	0.000	79.1		2.379e4		4.23	4	10			1.000	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	YES
5	PFNA	9.2782916	0.000	92.8		1.962e4		4.56	5	11			1.000	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	YES
6	PFOS	7.7992545	0.144	78.9		4.909e3		4.63	6	12			1.000	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	YES
7	13C-PFBS	12.623541	0.0100	102.6		6.507e3	0.501	2.95	7	14			0.896	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
8	13C-PFHpA		0.0251				1.237		8	14				28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
9	13C-PFHxS	13.829759	0.0203	104.2		8.528e3	0.495	3.95	9	14			1.000	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
10	13C-PFOA	16.942867	0.0323	135.5		4.225e4	3.221	4.23	10	15			1.000	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
11	13C-PFNA	13.884975	0.0024	104.7		1.227e4	0.879	4.56	11	16			1.000	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
12	13C-PFOS	13.861729	0.00580	110.9		1.192e4	1.680	4.63	12	17			1.000	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
13	13C-PFHpA	12.590000	0.00263	100.0		2.805e4	1.000	3.95	14	14			0.900	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
14	13C-PFHxS	12.590000	0.0139	100.0		1.654e4	1.000						0.900	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
15	13C-PFOA	12.590000	0.0112	100.0		9.678e3	1.000	4.23	15	15			0.900	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
16	13C-PFNA	12.590000	0.00590	100.0		1.197e4	1.000	4.56	16	16			0.900	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
17	13C-PFOS	12.590000	0.00745	100.0		9.952e3	1.000	4.63	17	17			0.900	28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
18	Total PFBS	8.422854							18					28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
19	Total PFHxS	7.2538562							19					28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
20	Total PFOA	7.9144026							20					28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO
21	Total PFOS	10.319242	0.144						21					28-Mar-17	19:52:34		ST170328G...	PFC CS3 17C27...	1.0	1.00	C18_V...	NO



Dataset: Untitled

Last Altered: Wednesday, March 29, 2017 08:36:20 Pacific Daylight Time

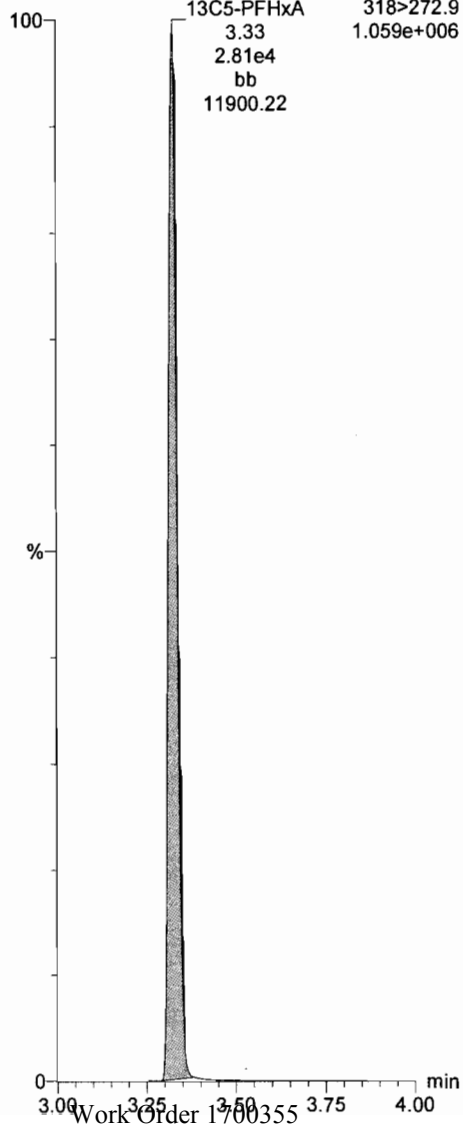
Printed: Wednesday, March 29, 2017 08:37:13 Pacific Daylight Time

ID: ST170328G1-2 PFC CS3 17C2810, Description: PFC CS3 17C2726 A, Name: 170328G1_24, Date: 28-Mar-2017, Time: 19:52:34, Instrument: , Lab: , User:

13C5-PFHxA

170328G1_24

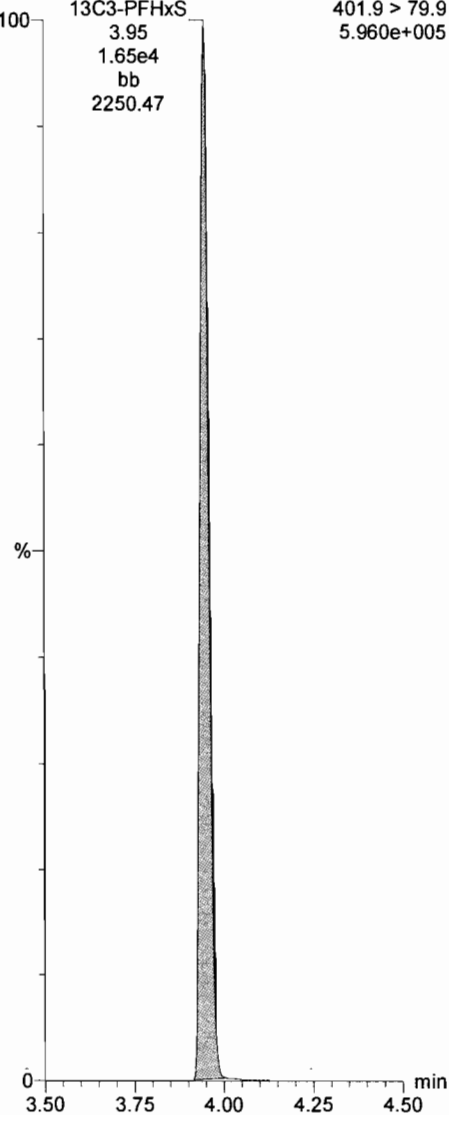
F3:MRM of 1 channel,ES-
13C5-PFHxA 318>272.9
3.33 1.059e+006
2.81e4
bb
11900.22



13C3-PFHxS

170328G1_24

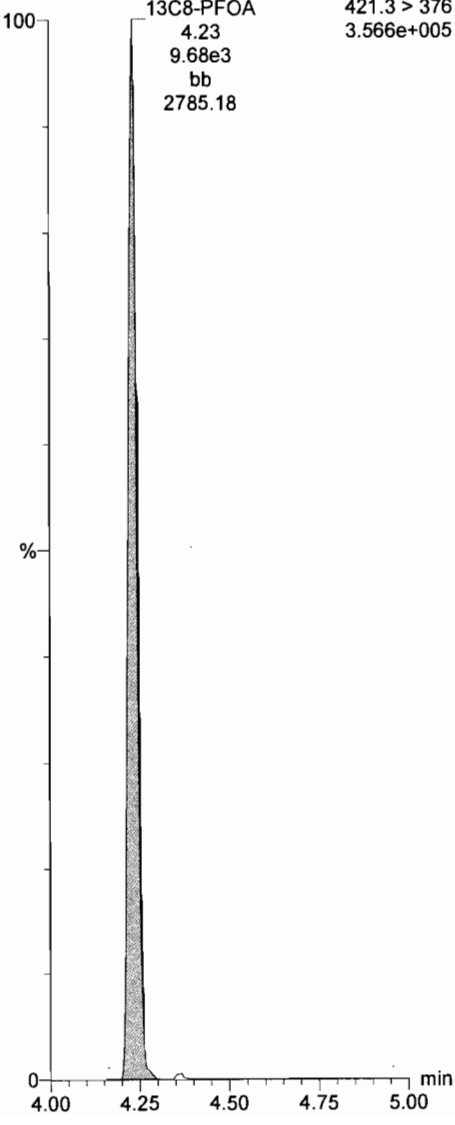
F4:MRM of 7 channels,ES-
13C3-PFHxS 401.9 > 79.9
3.95 5.960e+005
1.65e4
bb
2250.47



13C8-PFOA

170328G1_24

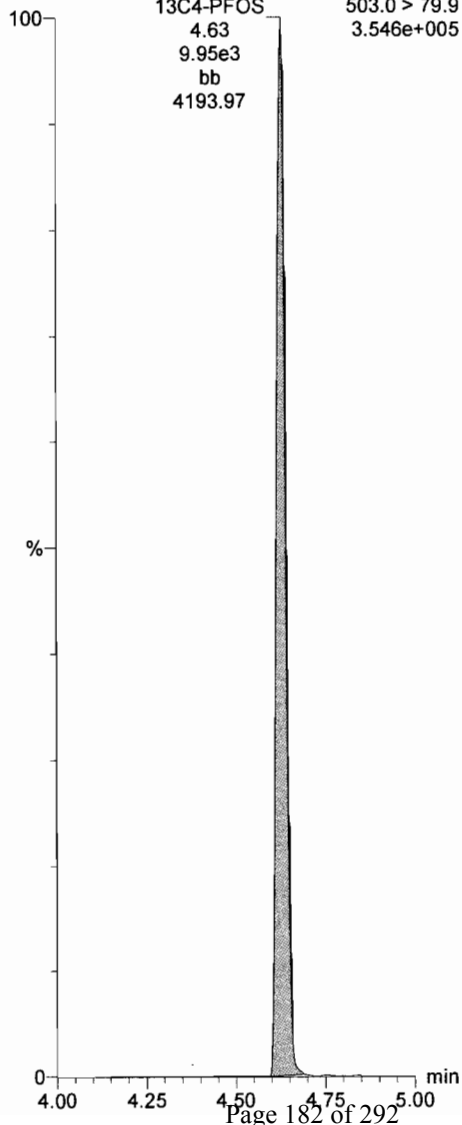
F5:MRM of 12 channels,ES-
13C8-PFOA 421.3 > 376
4.23 3.566e+005
9.68e3
bb
2785.18



13C4-PFOS

170328G1_24

F5:MRM of 12 channels,ES-
13C4-PFOS 503.0 > 79.9
4.63 3.546e+005
9.95e3
bb
4193.97



Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-2.qld

Last Altered: Thursday, March 30, 2017 14:09:08 Pacific Daylight Time

Printed: Thursday, March 30, 2017 14:11:40 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170329G3_2, Date: 30-Mar-2017, Time: 00:11:58, ID: ST170329G3-1 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

	# Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.37e4	7.39e3		1.000	2.97	10.2	102.1
2	2 PFHpA	363 > 318.9	2.63e4	1.91e4		1.000	3.85	9.91	99.1
3	3 PFHxS	398.9 > 79.6	1.13e4	7.59e3		1.000	3.96	10.4	104.1
4	4 PFOA	413 > 368.7	2.35e4	3.46e4		1.000	4.24	9.59	95.9
5	5 PFNA	463 > 418.8	2.00e4	9.73e3		1.000	4.58	11.8	117.6
6	6 PFOS	499 > 79.9	3.89e3	9.26e3		1.000	4.64	9.64	96.4
7	7 13C3-PFBS	302.0 > 98.8	7.39e3	1.78e4	0.501	1.000	2.96	10.3	82.7
8	8 13C4-PFHpA	367.2 > 321.8	1.91e4	1.78e4	1.237	1.000	3.84	10.8	86.6
9	9 18O2-PFHxS	403 > 102.6	7.59e3	1.78e4	0.495	1.000	3.96	10.8	86.2
10	10 13C2-PFOA	414.9 > 369.7	3.46e4	1.04e4	3.221	1.000	4.24	12.9	103.1
11	11 13C5-PFNA	468.2 > 422.9	9.73e3	1.19e4	0.979	1.000	4.58	10.5	83.8
12	12 13C8-PFOS	507.0 > 79.9	9.26e3	9.17e3	1.080	1.000	4.64	11.7	93.5
13	13 13C5-PFHxA	318 > 272.9	2.89e4	2.89e4	1.000	1.000	3.34	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.78e4	1.78e4	1.000	1.000	3.96	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	1.04e4	1.04e4	1.000	1.000	4.24	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.19e4	1.19e4	1.000	1.000	4.57	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	9.17e3	9.17e3	1.000	1.000	4.64	12.5	100.0

75-125 gm
30-130 3/30/17

40-150

50-150

40-150

gm
3/30/17

✓ 3/30/17

Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:21:02 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 2:21:21 PM Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170329G3_1	IPA	29-Mar-17	23:59:46
2	170329G3_2	ST170329G3-1 PFC CS3 17C2813	30-Mar-17	00:11:58
3	170329G3_3	IPA	30-Mar-17	00:24:30
4	170329G3_7	1700355-10RE1@20X CBD-AOA-MW01-0317...	30-Mar-17	00:37:06
5	170329G3_8	1700355-11RE1@20X CBD-AOA-MW02-0317...	30-Mar-17	00:49:36
6	170329G3_9	1700355-12RE1@20X CBD-AOA-MW04-0317...	30-Mar-17	01:02:11
7	170329G3_10	1700355-13RE1@20X CBD-AOA-MW03-0317...	30-Mar-17	01:14:42
8	170329G3_11	1700355-10RE1 CBD-AOA-MW01-0317 0.1192	30-Mar-17	01:27:14
9	170329G3_12	1700355-11RE1 CBD-AOA-MW02-0317 0.1256	30-Mar-17	01:39:47
10	170329G3_13	1700355-12RE1 CBD-AOA-MW04-0317 0.128...	30-Mar-17	01:52:21
11	170329G3_14	1700355-13RE1 CBD-AOA-MW03-0317 0.128...	30-Mar-17	02:04:54
12	170329G3_15	IPA	30-Mar-17	02:17:27
13	170329G3_16	ST170329G3-2 PFC CS3 17C2813	30-Mar-17	02:30:01
14	170329G3_17	IPA	30-Mar-17	02:42:30

LC Calibration Standards Review Checklist

Q1

Calibration ID:	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
<u>ST17032963-21</u> ^{am 3/30/17} LMH	☒	☒	☒	☒	☒	☒	☒ NA
<u>-2</u> LMH	☒	☒	☒	☒	☒	☒	☒
Calibration ID: LMH	☐	☐	☐	☐	☐	☐	☐
Calibration ID: LMH	☐	☐	☐	☐	☐	☐	☐
Calibration ID: LMH	☐	☐	☐	☐	☐	☐	☐
Calibration ID: LMH	☐	☐	☐	☐	☐	☐	☐
Calibration ID: LMH	☐	☐	☐	☐	☐	☐	☐
Calibration ID: LMH	☐	☐	☐	☐	☐	☐	☐
Calibration ID: LMH	☐	☐	☐	☐	☐	☐	☐
Calibration ID: LMH	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 12/7/16

Run Log Present: ☒

of Samples per Sequence Checked: ☒

Reviewed By: CS 3/30/17
Initials/Date

Comments:

LG 2trans

Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:11:48 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 2:12:28 PM Pacific Daylight Time

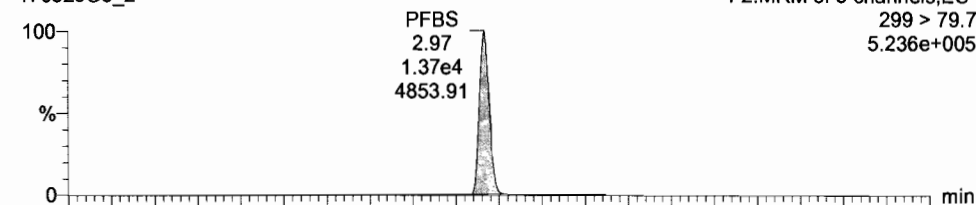
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170329G3_2, Date: 30-Mar-2017, Time: 00:11:58, ID: ST170329G3-1 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

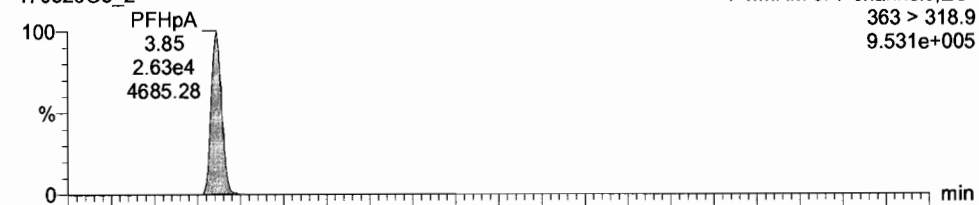
PFBS

170329G3_2

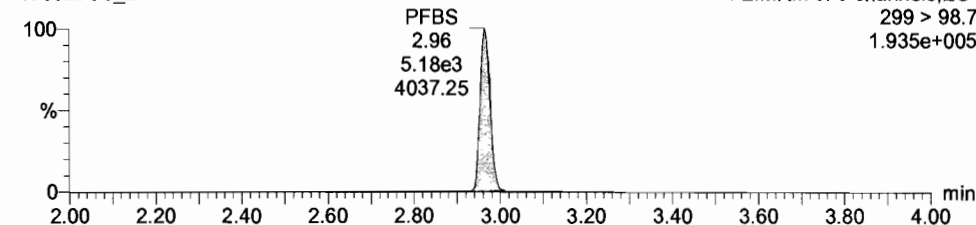


PFHpA

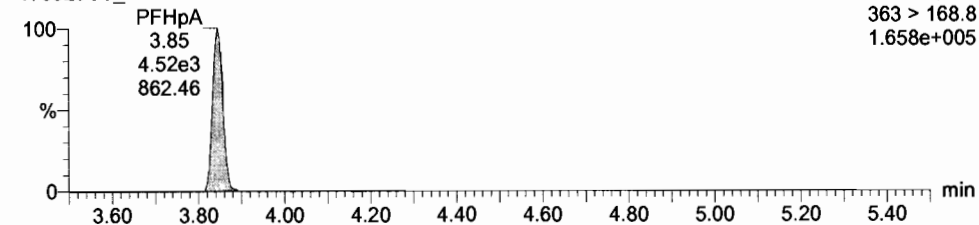
170329G3_2



170329G3_2

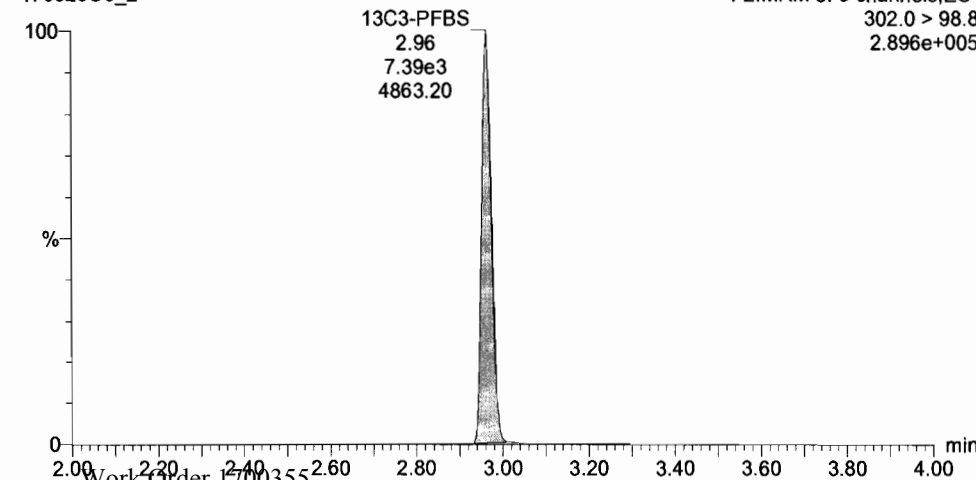


170329G3_2



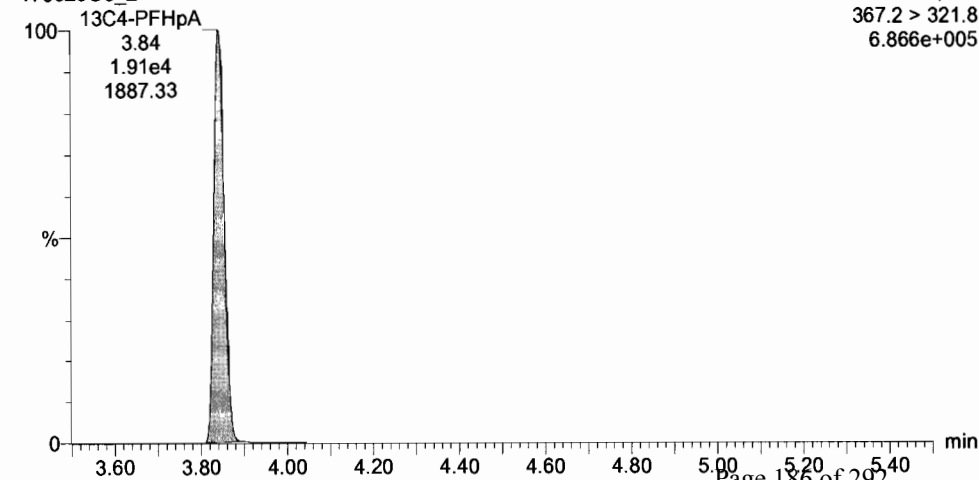
13C3-PFBS

170329G3_2



13C4-PFHpA

170329G3_2



Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:11:48 PM Pacific Daylight Time

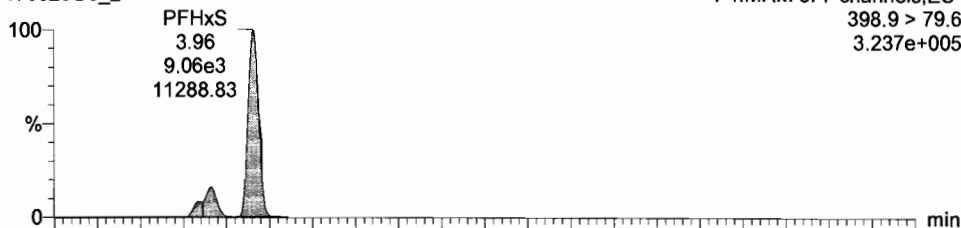
Printed: Thursday, March 30, 2017 2:12:28 PM Pacific Daylight Time

Name: 170329G3_2, Date: 30-Mar-2017, Time: 00:11:58, ID: ST170329G3-1 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

PFHxS

170329G3_2

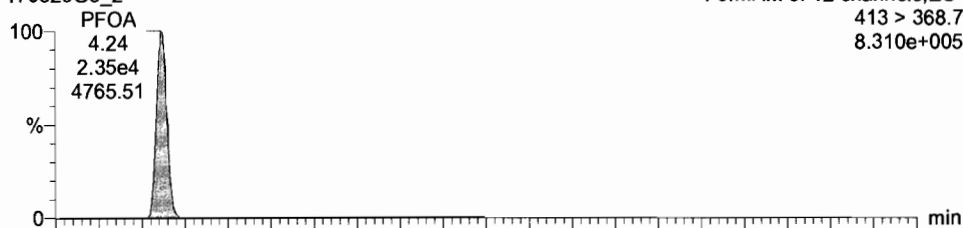
F4:MRM of 7 channels,ES-
398.9 > 79.6
3.237e+005



PFOA

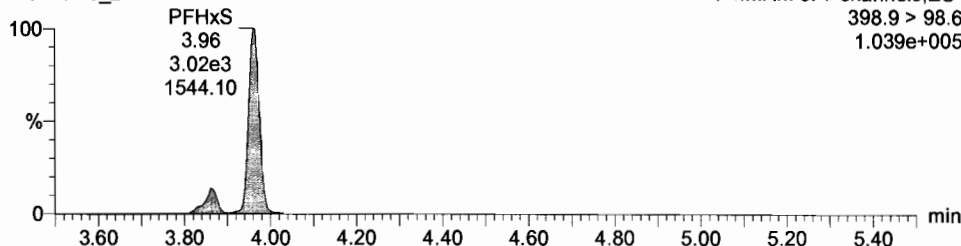
170329G3_2

F5:MRM of 12 channels,ES-
413 > 368.7
8.310e+005



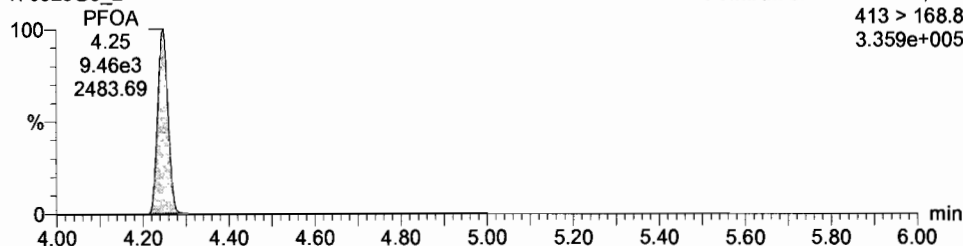
170329G3_2

F4:MRM of 7 channels,ES-
398.9 > 98.6
1.039e+005



170329G3_2

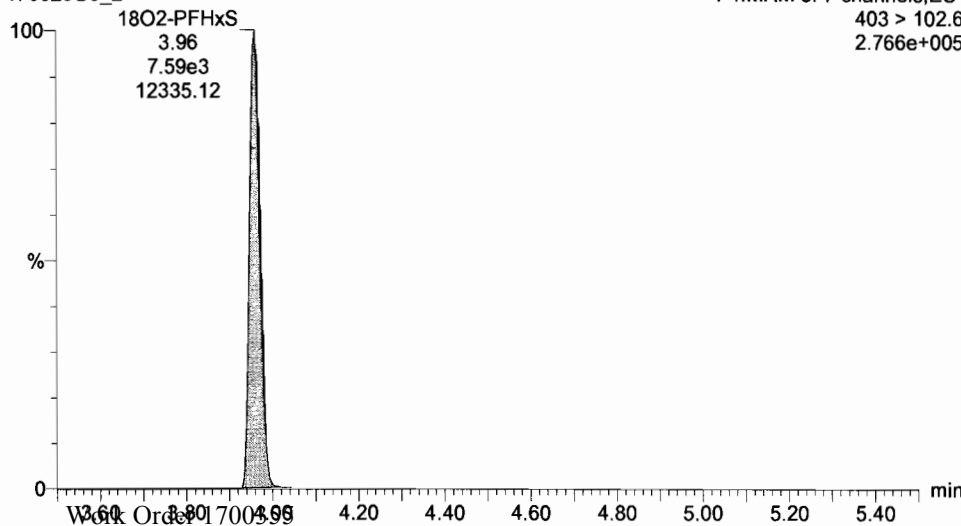
F5:MRM of 12 channels,ES-
413 > 168.8
3.359e+005



18O2-PFHxS

170329G3_2

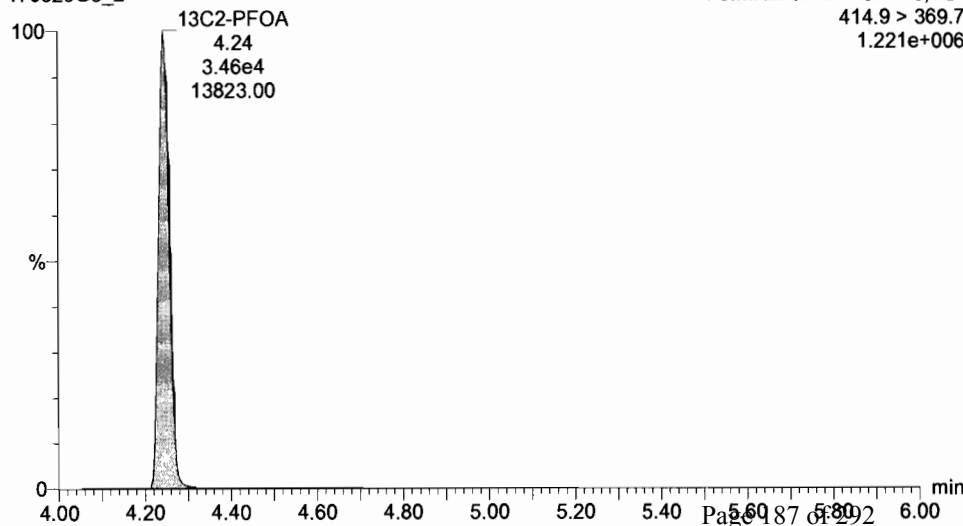
F4:MRM of 7 channels,ES-
403 > 102.6
2.766e+005

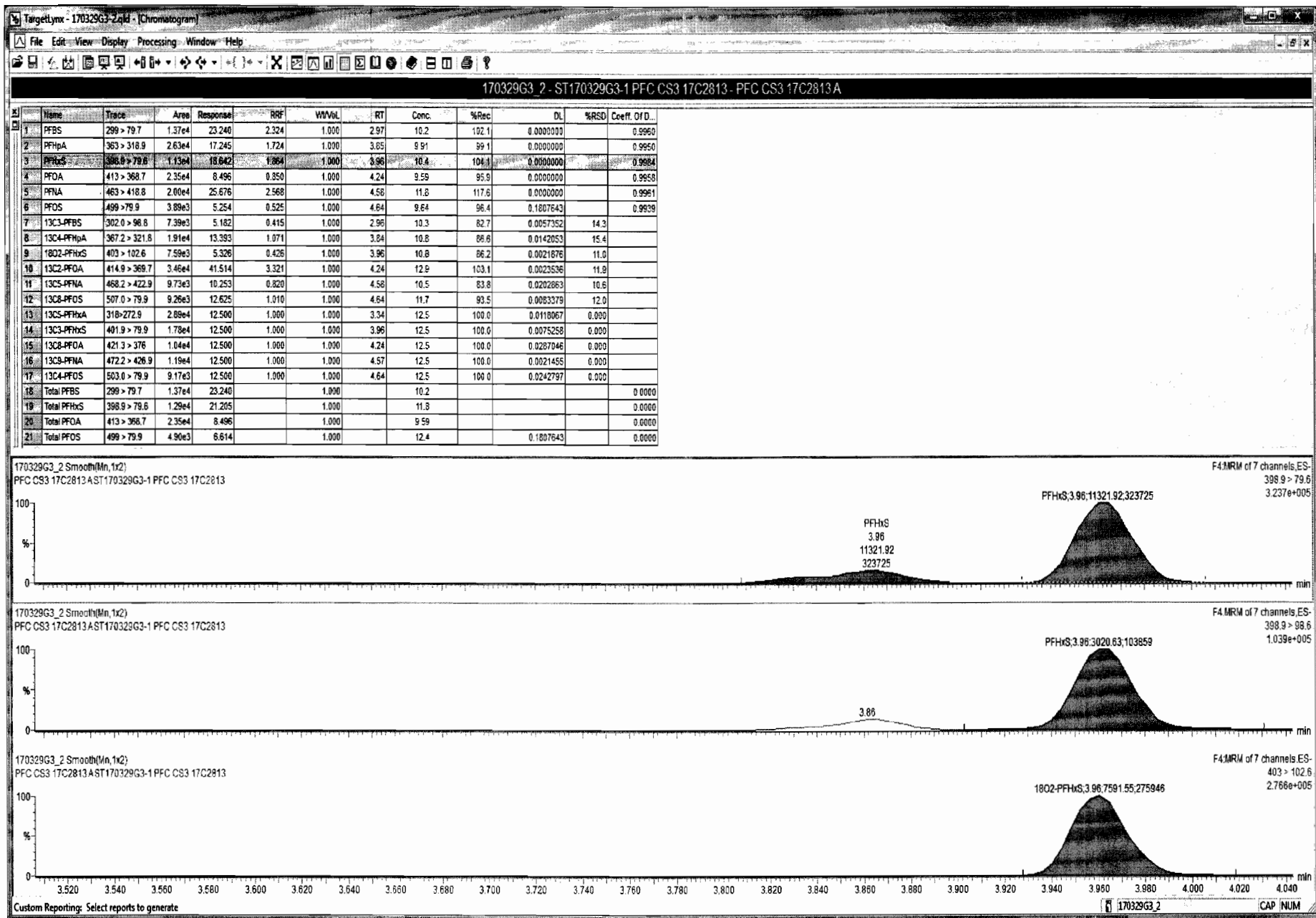


13C2-PFOA

170329G3_2

F5:MRM of 12 channels,ES-
414.9 > 369.7
1.221e+006





Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:11:48 PM Pacific Daylight Time

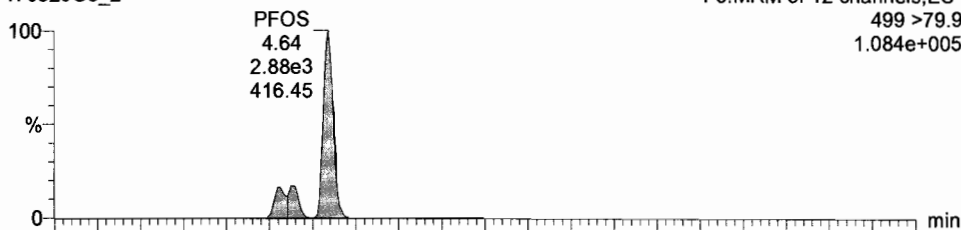
Printed: Thursday, March 30, 2017 2:12:28 PM Pacific Daylight Time

Name: 170329G3_2, Date: 30-Mar-2017, Time: 00:11:58, ID: ST170329G3-1 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

PFOS

170329G3_2

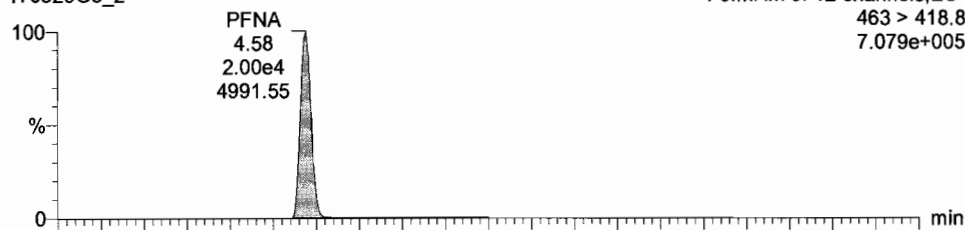
F5:MRM of 12 channels,ES-
499 >79.9
1.084e+005



PFNA

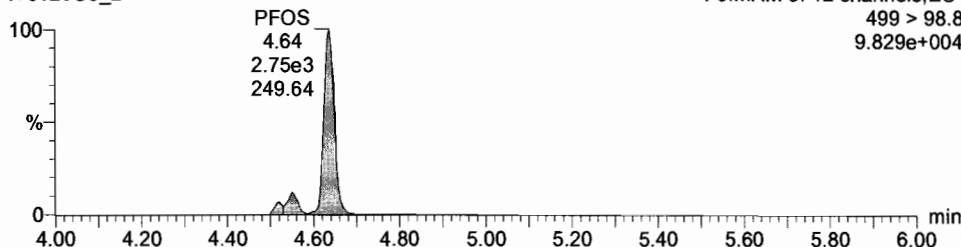
170329G3_2

F5:MRM of 12 channels,ES-
463 > 418.8
7.079e+005



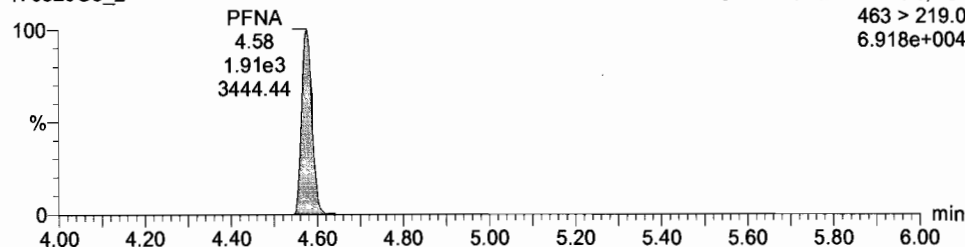
170329G3_2

F5:MRM of 12 channels,ES-
499 > 98.8
9.829e+004



170329G3_2

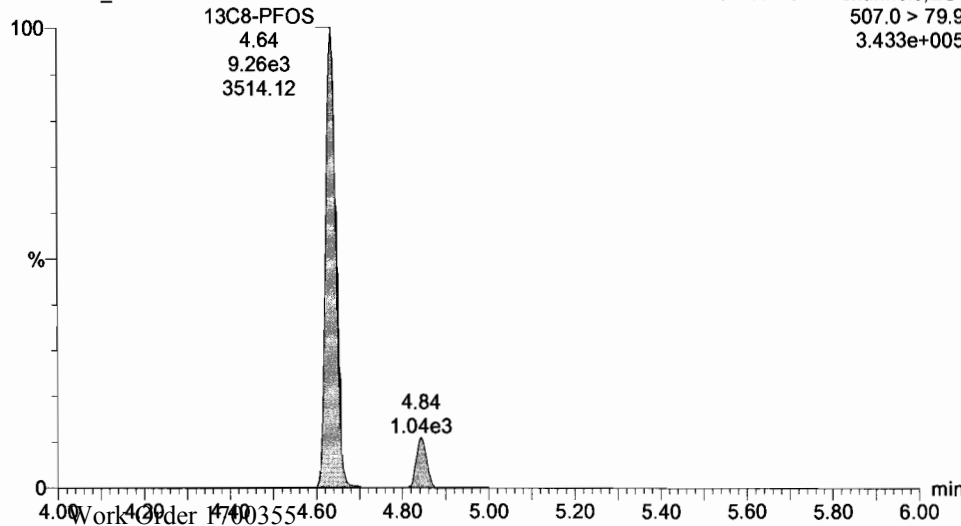
F5:MRM of 12 channels,ES-
463 > 219.0
6.918e+004



13C8-PFOS

170329G3_2

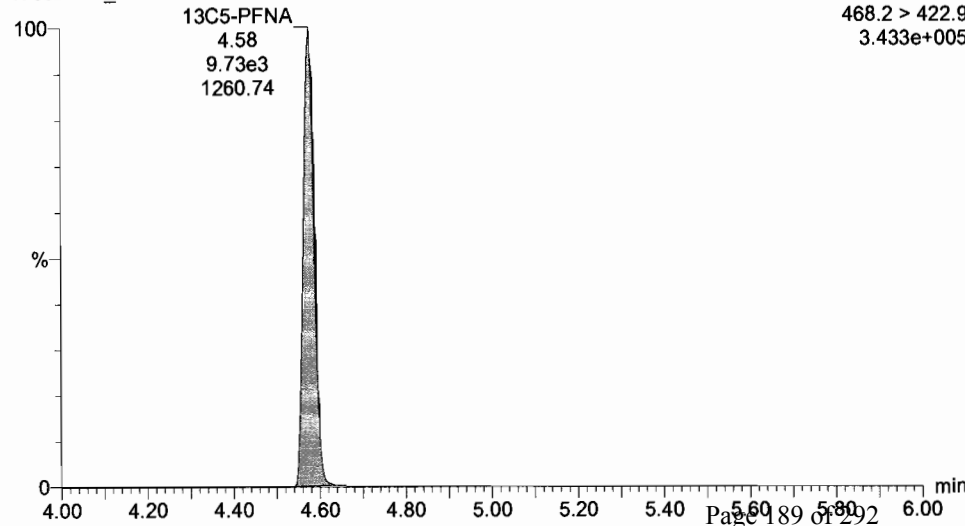
F5:MRM of 12 channels,ES-
507.0 > 79.9
3.433e+005

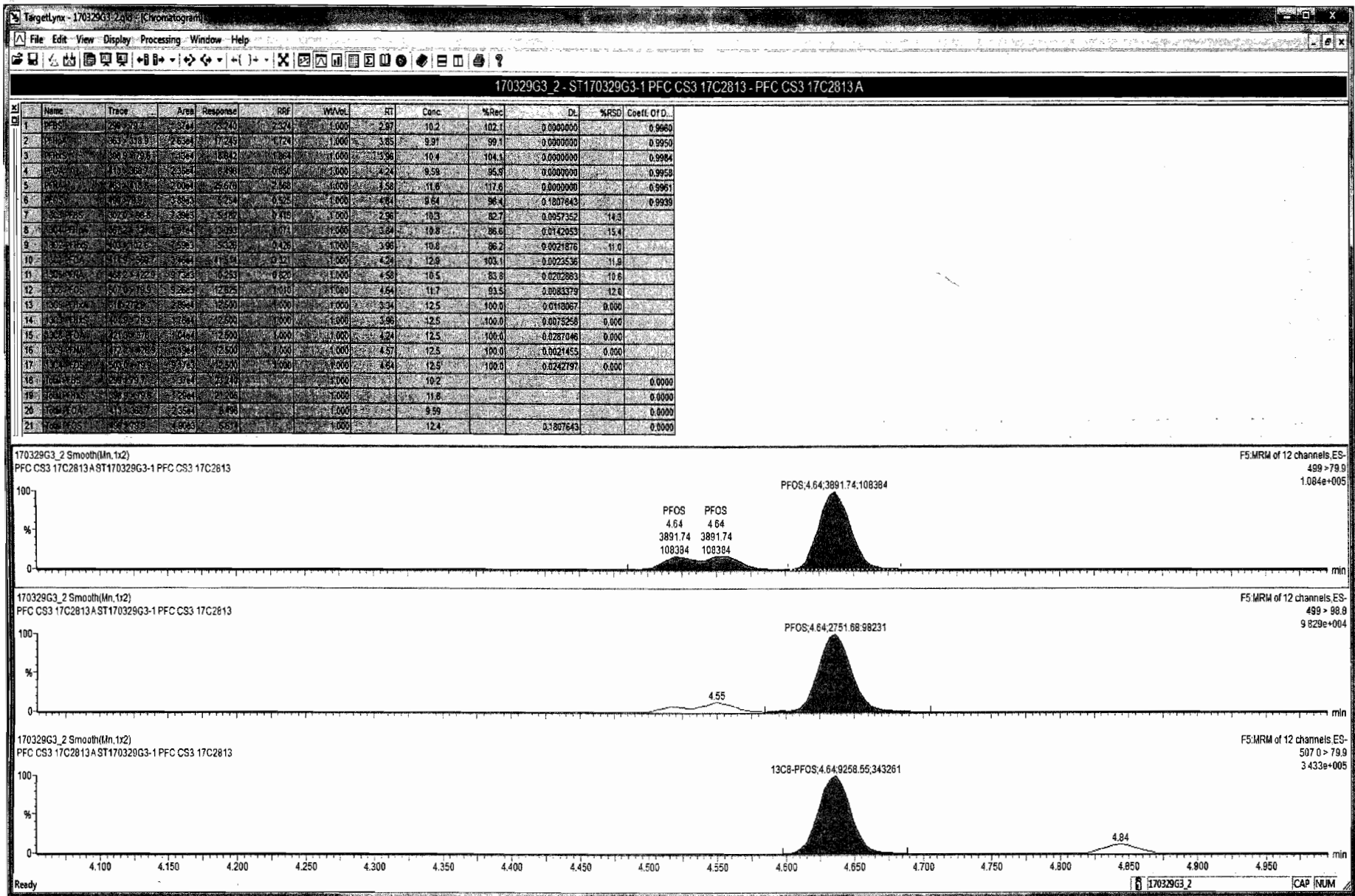


13C5-PFNA

170329G3_2

F5:MRM of 12 channels,ES-
468.2 > 422.9
3.433e+005





Dataset: Untitled

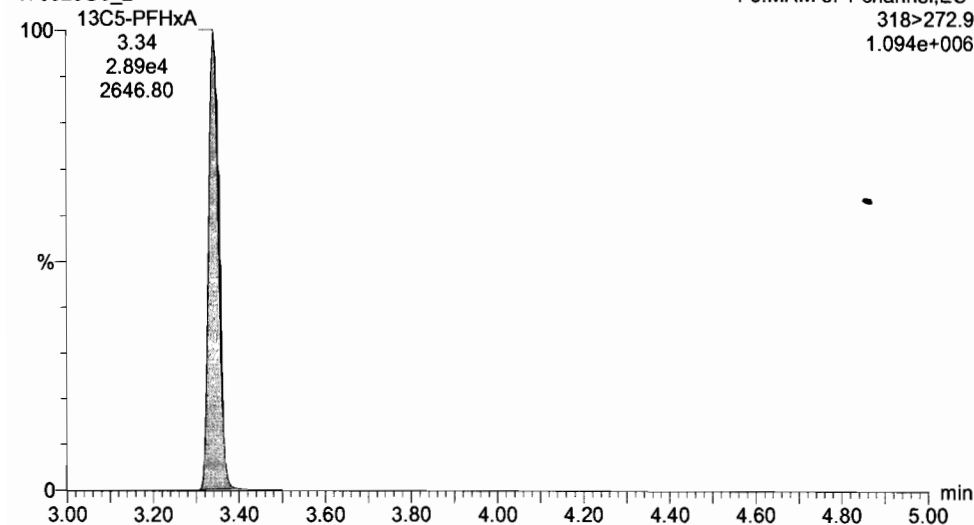
Last Altered: Thursday, March 30, 2017 2:11:48 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 2:12:28 PM Pacific Daylight Time

Name: 170329G3_2, Date: 30-Mar-2017, Time: 00:11:58, ID: ST170329G3-1 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

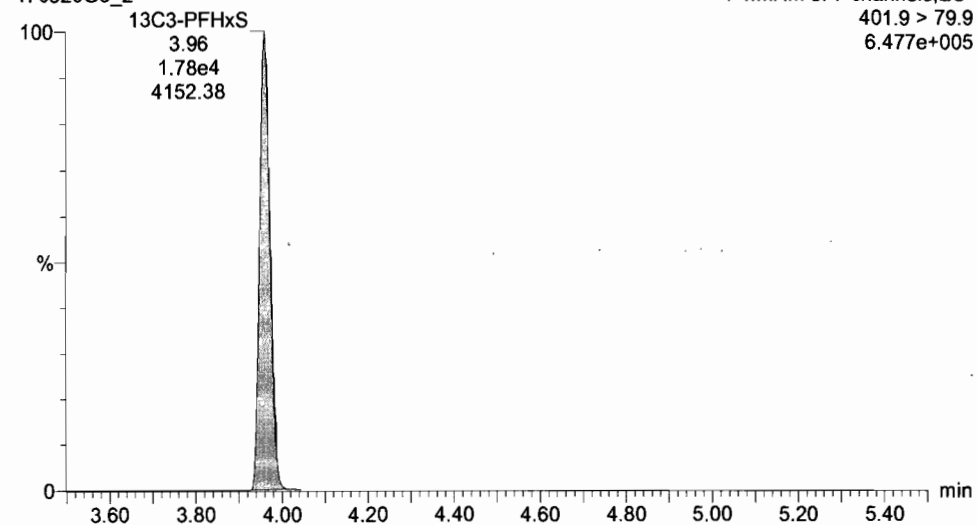
13C5-PFHxA

170329G3_2



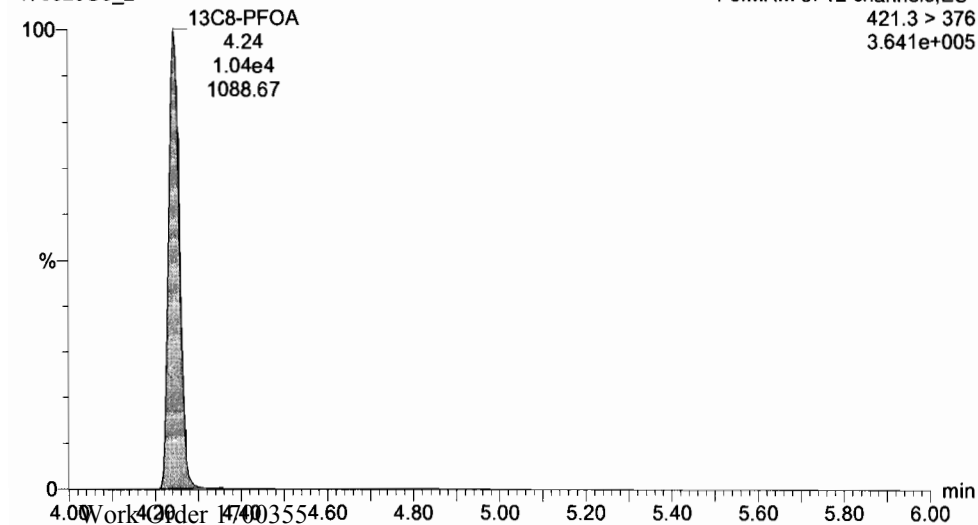
13C3-PFHxS

170329G3_2



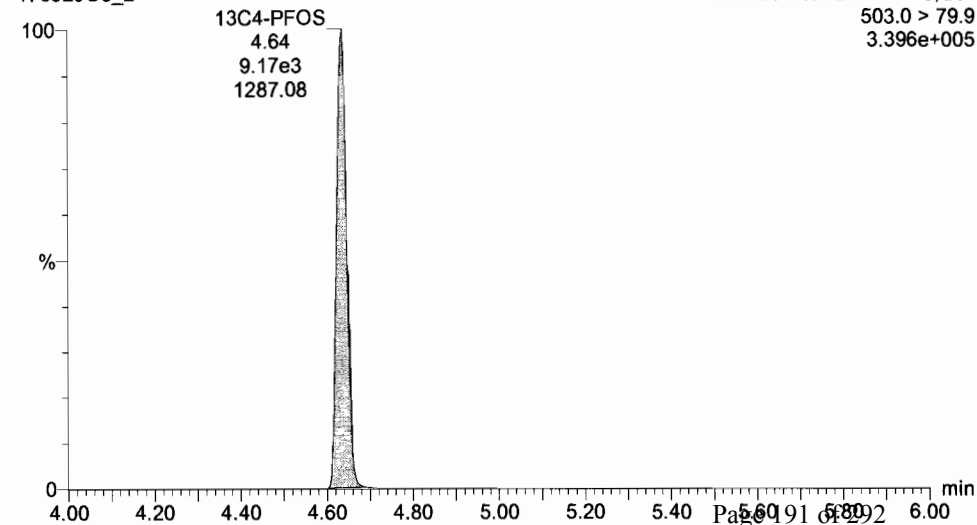
13C8-PFOA

170329G3_2



13C4-PFOS

170329G3_2



Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:11:48 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 2:12:28 PM Pacific Daylight Time

Name: 170329G3_2, Date: 30-Mar-2017, Time: 00:11:58, ID: ST170329G3-1 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

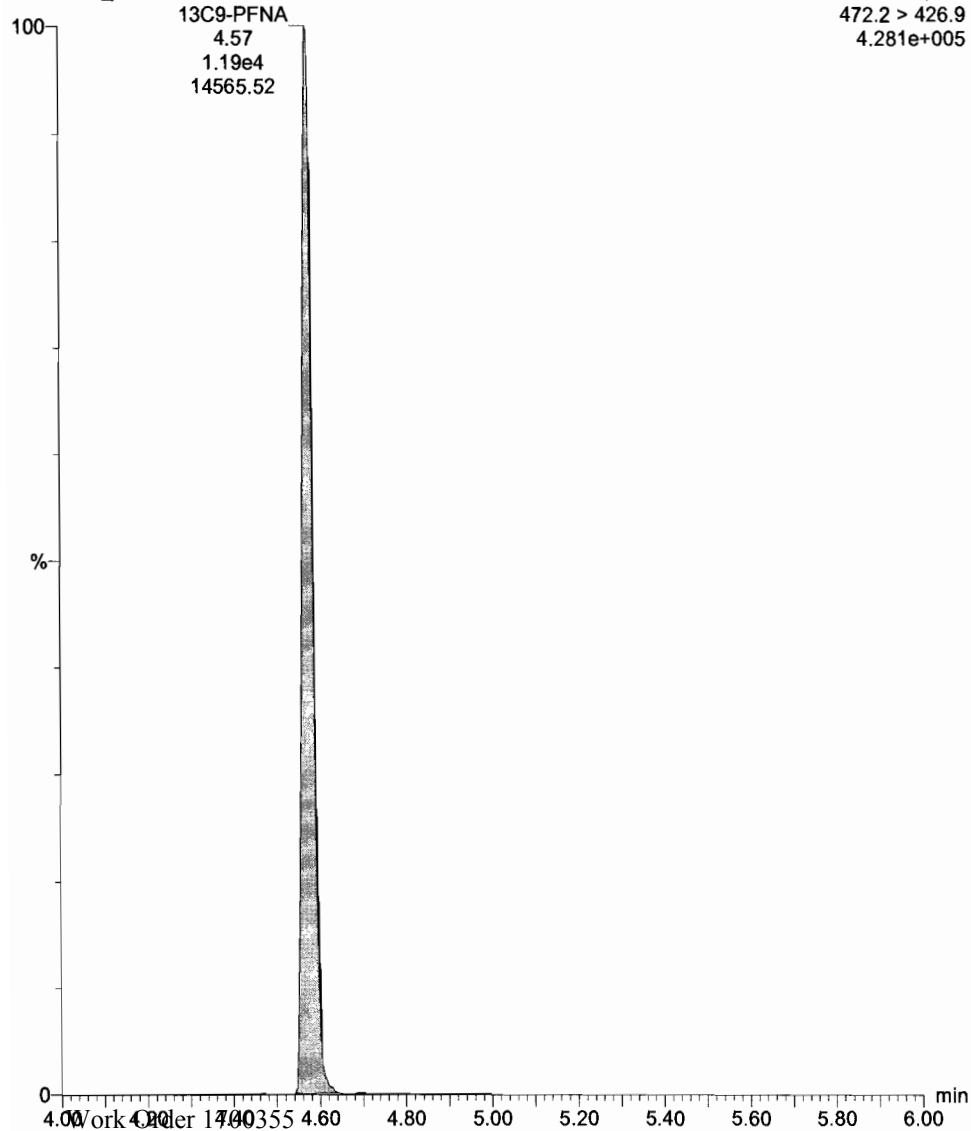
13C9-PFNA

170329G3_2

F5:MRM of 12 channels,ES-

472.2 > 426.9

4.281e+005



Dataset: U:\G1.PRO\Results\2017\170329G3\170329G3-16.qld

Last Altered: Thursday, March 30, 2017 2:13:10 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 2:14:25 PM Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170329G3_16, Date: 30-Mar-2017, Time: 02:30:01, ID: ST170329G3-2 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

	# Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.40e4	6.98e3		1.000	2.97	11.0	109.8
2	2 PFHpA	363 > 318.9	2.85e4	1.86e4		1.000	3.85	11.0	109.9
3	3 PFHxS	398.9 > 79.6	1.13e4	7.42e3		1.000	3.96	10.7	106.6
4	4 PFOA	413 > 368.7	2.44e4	3.51e4		1.000	4.25	9.83	98.3
5	5 PFNA	463 > 418.8	1.96e4	1.01e4		1.000	4.58	11.1	110.9
6	6 PFOS	499 > 79.9	3.27e3	7.78e3		1.000	4.64	9.64	96.4
7	7 13C3-PFBS	302.0 > 98.8	6.98e3	1.79e4	0.501	1.000	2.96	9.75	78.0
8	8 13C4-PFHpA	367.2 > 321.8	1.86e4	1.79e4	1.237	1.000	3.85	10.5	84.3
9	9 18O2-PFHxS	403 > 102.6	7.42e3	1.79e4	0.495	1.000	3.96	10.5	84.0
10	10 13C2-PFOA	414.9 > 369.7	3.51e4	9.56e3	3.221	1.000	4.24	14.2	113.9
11	11 13C5-PFNA	468.2 > 422.9	1.01e4	1.06e4	0.979	1.000	4.58	12.2	97.3
12	12 13C8-PFOS	507.0 > 79.9	7.78e3	7.69e3	1.080	1.000	4.64	11.7	93.7
13	13 13C5-PFHxA	318 > 272.9	2.91e4	2.91e4	1.000	1.000	3.34	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.79e4	1.79e4	1.000	1.000	3.96	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	9.56e3	9.56e3	1.000	1.000	4.24	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.06e4	1.06e4	1.000	1.000	4.58	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	7.69e3	7.69e3	1.000	1.000	4.64	12.5	100.0

75-125
↓
60-150
↓
50-150
↓
60-150

cm
3/30/17

✓ es 3/30/17

Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:21:02 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 2:21:21 PM Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170329G3_1	IPA	29-Mar-17	23:59:46
2	170329G3_2	ST170329G3-1 PFC CS3 17C2813	30-Mar-17	00:11:58
3	170329G3_3	IPA	30-Mar-17	00:24:30
4	170329G3_7	1700355-10RE1@20X CBD-AOA-MW01-0317...	30-Mar-17	00:37:06
5	170329G3_8	1700355-11RE1@20X CBD-AOA-MW02-0317...	30-Mar-17	00:49:36
6	170329G3_9	1700355-12RE1@20X CBD-AOA-MW04-0317...	30-Mar-17	01:02:11
7	170329G3_10	1700355-13RE1@20X CBD-AOA-MW03-0317...	30-Mar-17	01:14:42
8	170329G3_11	1700355-10RE1 CBD-AOA-MW01-0317 0.1192	30-Mar-17	01:27:14
9	170329G3_12	1700355-11RE1 CBD-AOA-MW02-0317 0.1256	30-Mar-17	01:39:47
10	170329G3_13	1700355-12RE1 CBD-AOA-MW04-0317 0.128...	30-Mar-17	01:52:21
11	170329G3_14	1700355-13RE1 CBD-AOA-MW03-0317 0.128...	30-Mar-17	02:04:54
12	170329G3_15	IPA	30-Mar-17	02:17:27
13	170329G3_16	ST170329G3-2 PFC CS3 17C2813	30-Mar-17	02:30:01
14	170329G3_17	IPA	30-Mar-17	02:42:30

Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:12:39 PM Pacific Daylight Time

Printed: Thursday, March 30, 2017 2:12:47 PM Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 29 Mar 2017 15:40:51

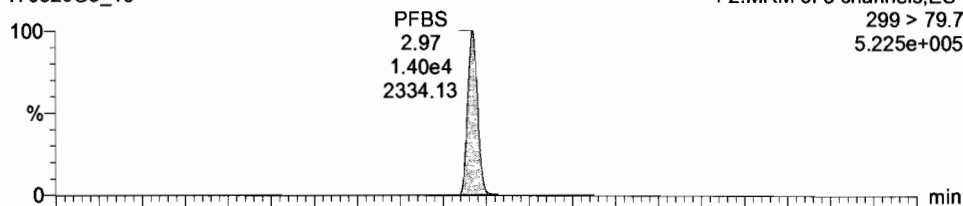
Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170329G3_16, Date: 30-Mar-2017, Time: 02:30:01, ID: ST170329G3-2 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

PFBS

170329G3_16

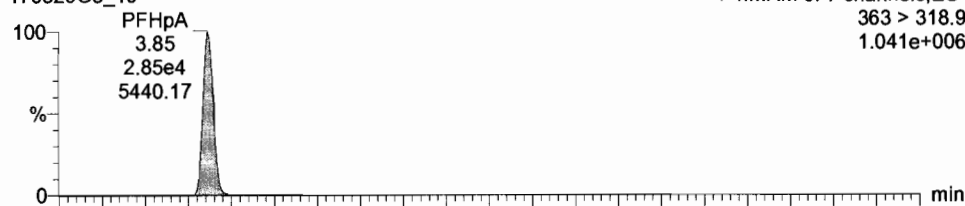
F2:MRM of 3 channels,ES-
299 > 79.7
5.225e+005



PFHpA

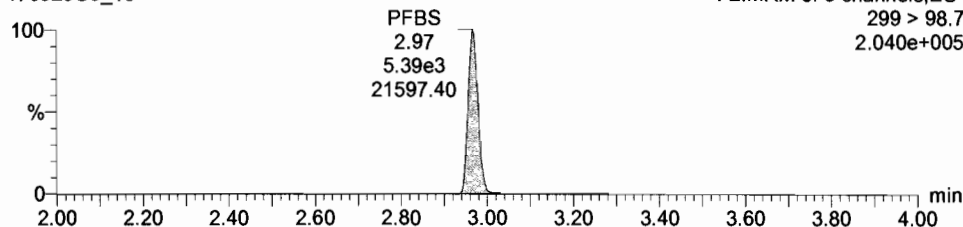
170329G3_16

F4:MRM of 7 channels,ES-
363 > 318.9
1.041e+006



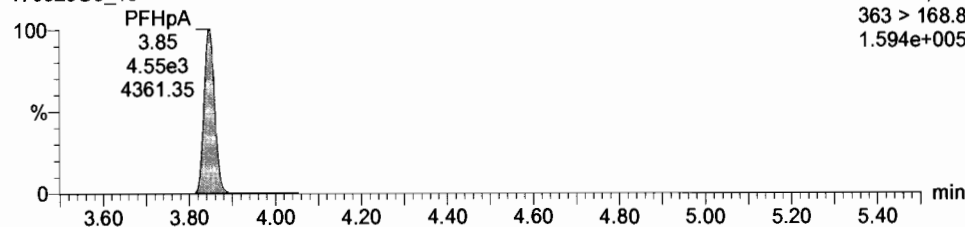
170329G3_16

F2:MRM of 3 channels,ES-
299 > 98.7
2.040e+005



170329G3_16

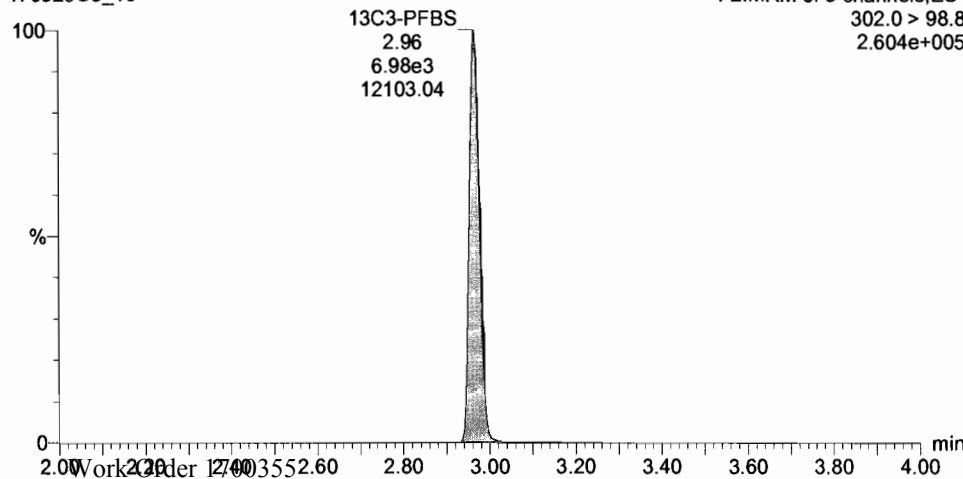
F4:MRM of 7 channels,ES-
363 > 168.8
1.594e+005



13C3-PFBS

170329G3_16

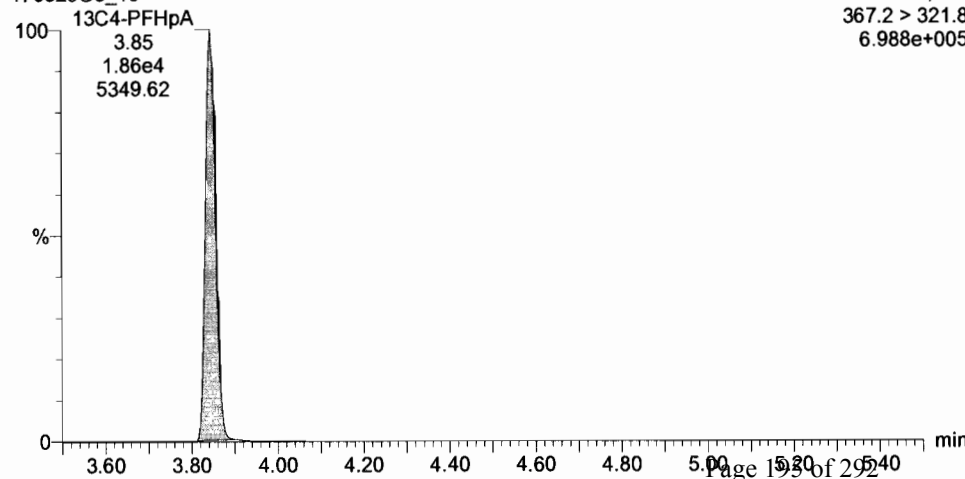
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.604e+005



13C4-PFHpA

170329G3_16

F4:MRM of 7 channels,ES-
367.2 > 321.8
6.988e+005



Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:12:39 PM Pacific Daylight Time

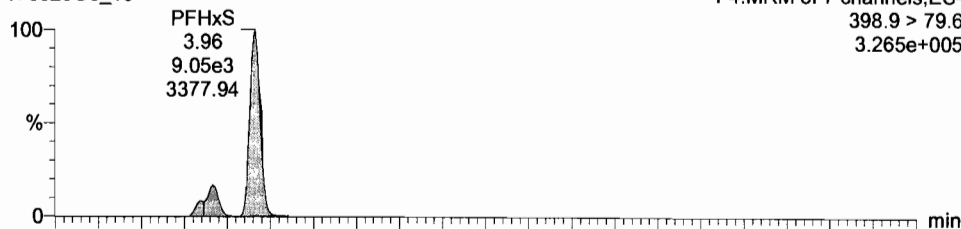
Printed: Thursday, March 30, 2017 2:12:47 PM Pacific Daylight Time

Name: 170329G3_16, Date: 30-Mar-2017, Time: 02:30:01, ID: ST170329G3-2 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

PFHxS

170329G3_16

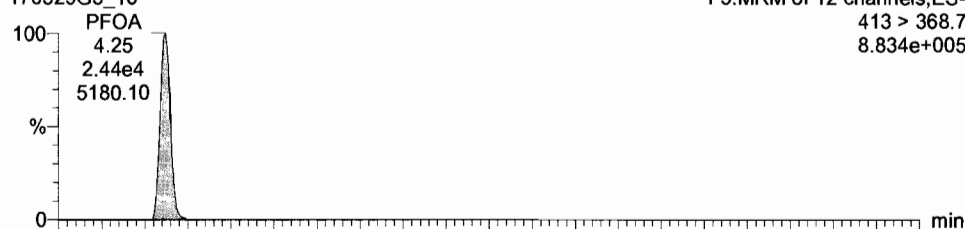
F4:MRM of 7 channels,ES-
398.9 > 79.6
3.265e+005



PFOA

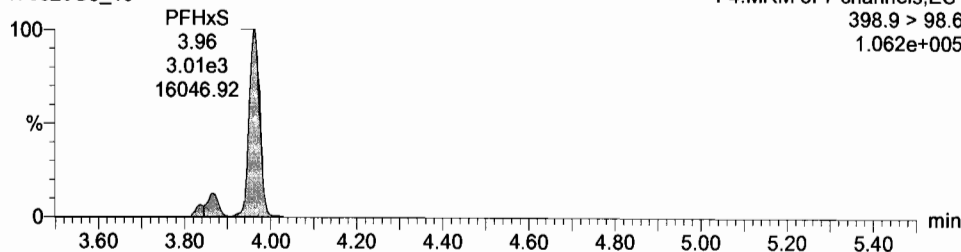
170329G3_16

F5:MRM of 12 channels,ES-
413 > 368.7
8.834e+005



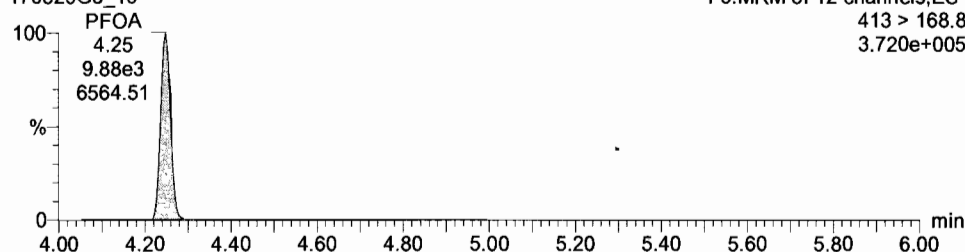
170329G3_16

F4:MRM of 7 channels,ES-
398.9 > 98.6
1.062e+005



170329G3_16

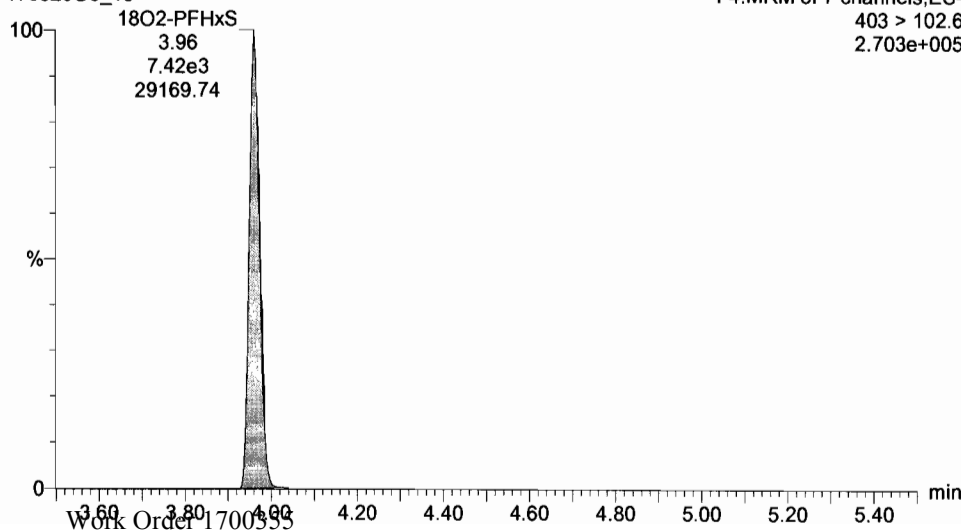
F5:MRM of 12 channels,ES-
413 > 168.8
3.720e+005



18O2-PFHxS

170329G3_16

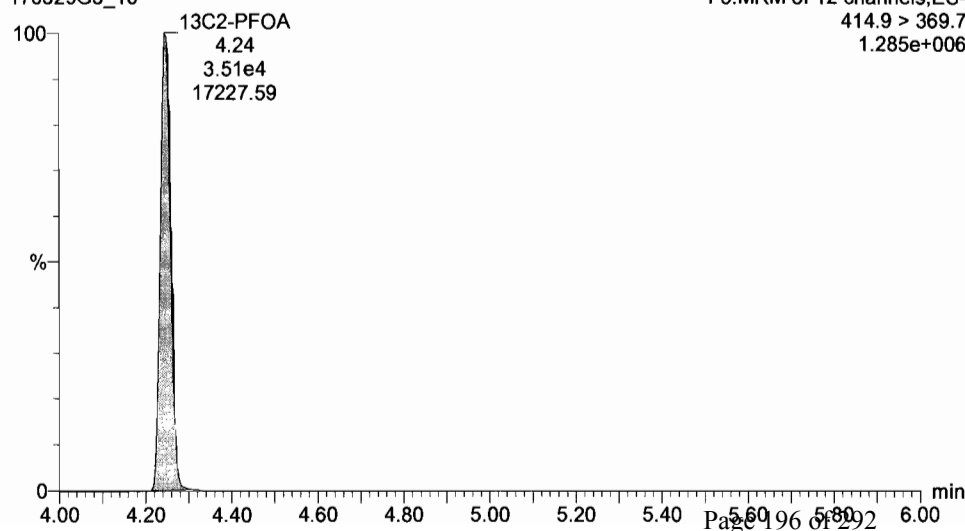
F4:MRM of 7 channels,ES-
403 > 102.6
2.703e+005

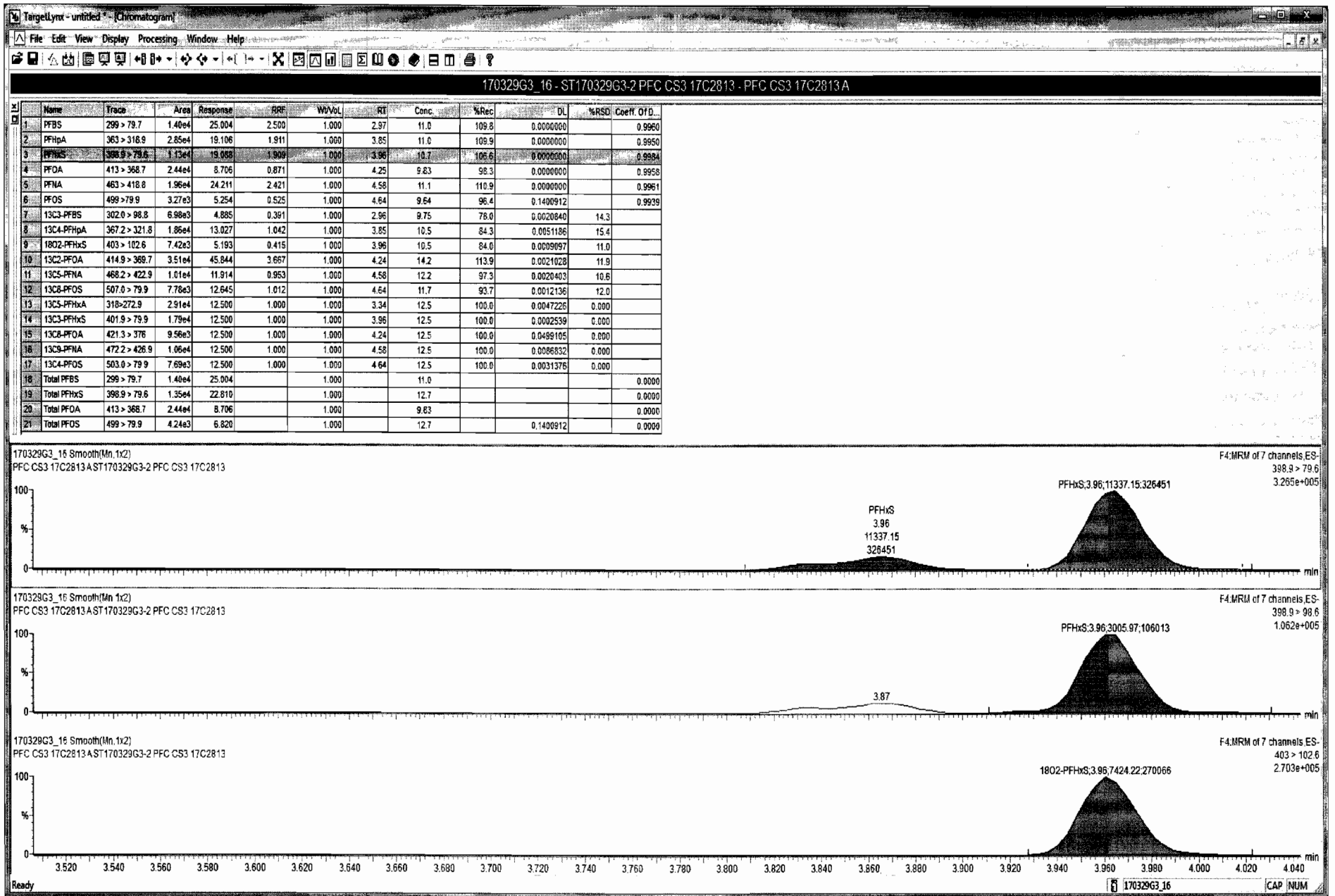


13C2-PFOA

170329G3_16

F5:MRM of 12 channels,ES-
414.9 > 369.7
1.285e+006





Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:12:39 PM Pacific Daylight Time

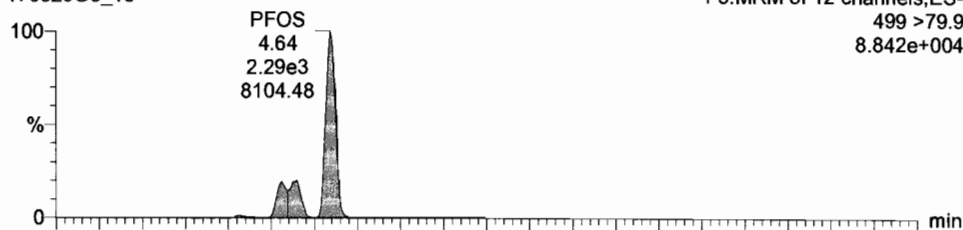
Printed: Thursday, March 30, 2017 2:12:47 PM Pacific Daylight Time

Name: 170329G3_16, Date: 30-Mar-2017, Time: 02:30:01, ID: ST170329G3-2 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

PFOS

170329G3_16

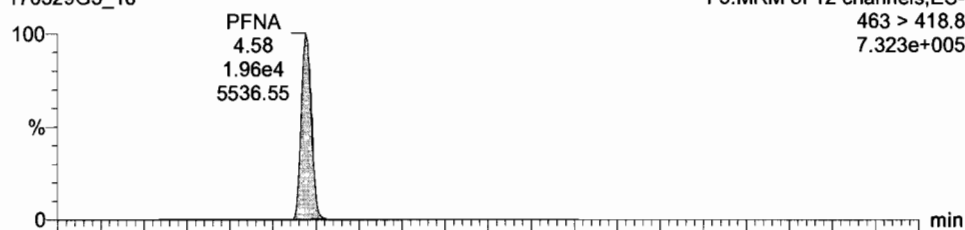
F5:MRM of 12 channels,ES-
499 > 79.9
8.842e+004



PFNA

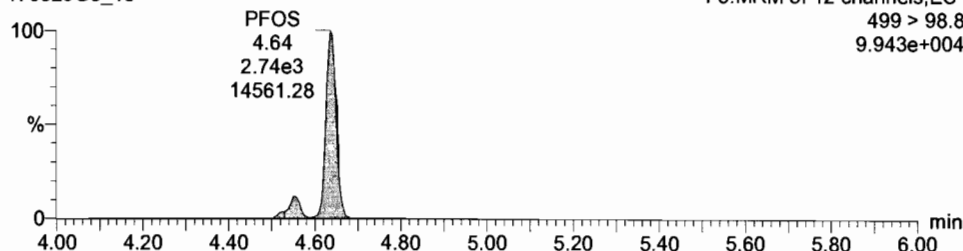
170329G3_16

F5:MRM of 12 channels,ES-
463 > 418.8
7.323e+005



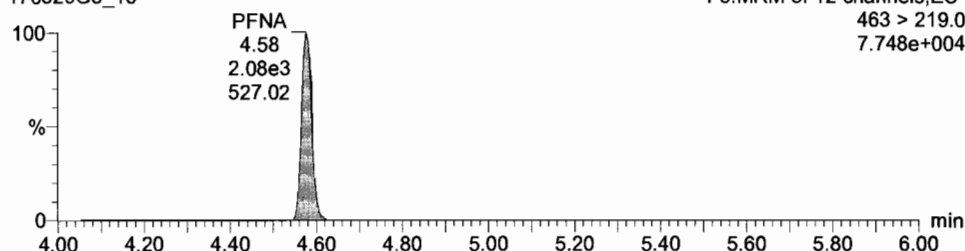
170329G3_16

F5:MRM of 12 channels,ES-
499 > 98.8
9.943e+004



170329G3_16

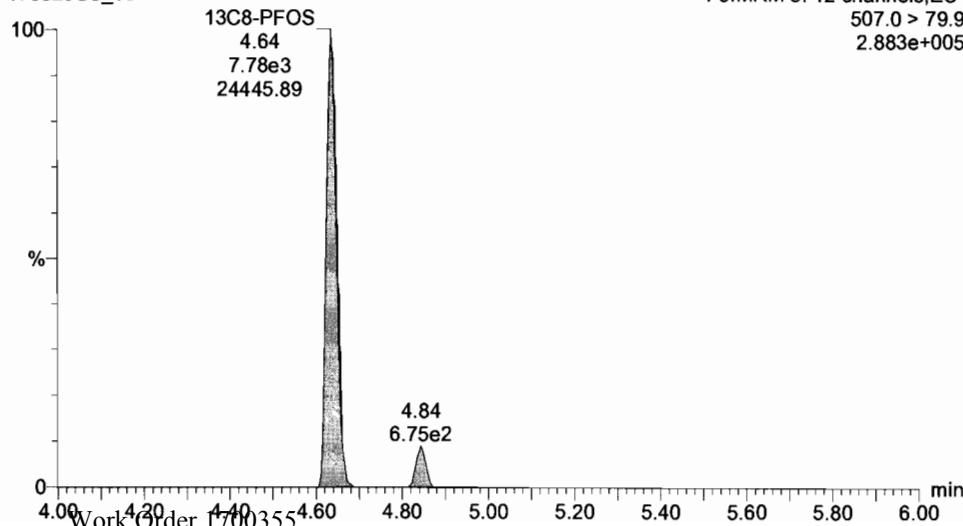
F5:MRM of 12 channels,ES-
463 > 219.0
7.748e+004



13C8-PFOS

170329G3_16

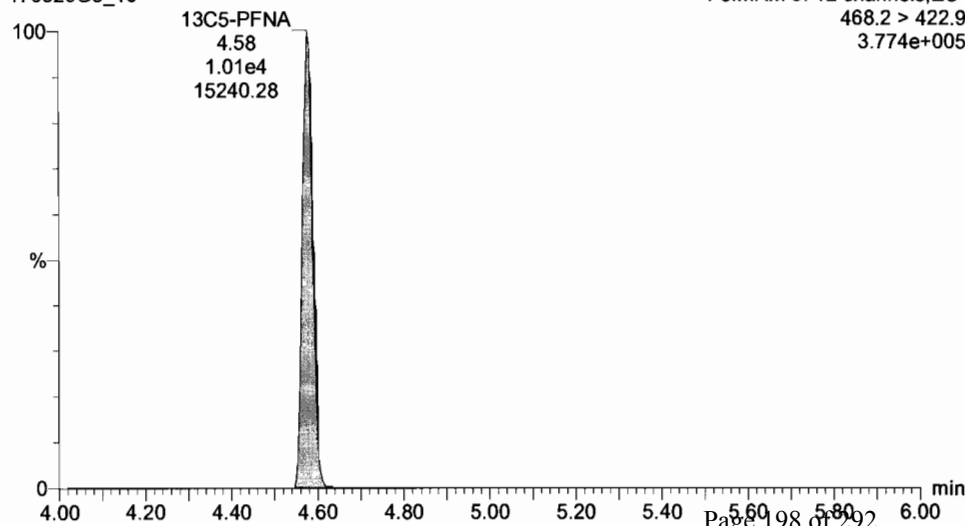
F5:MRM of 12 channels,ES-
507.0 > 79.9
2.883e+005

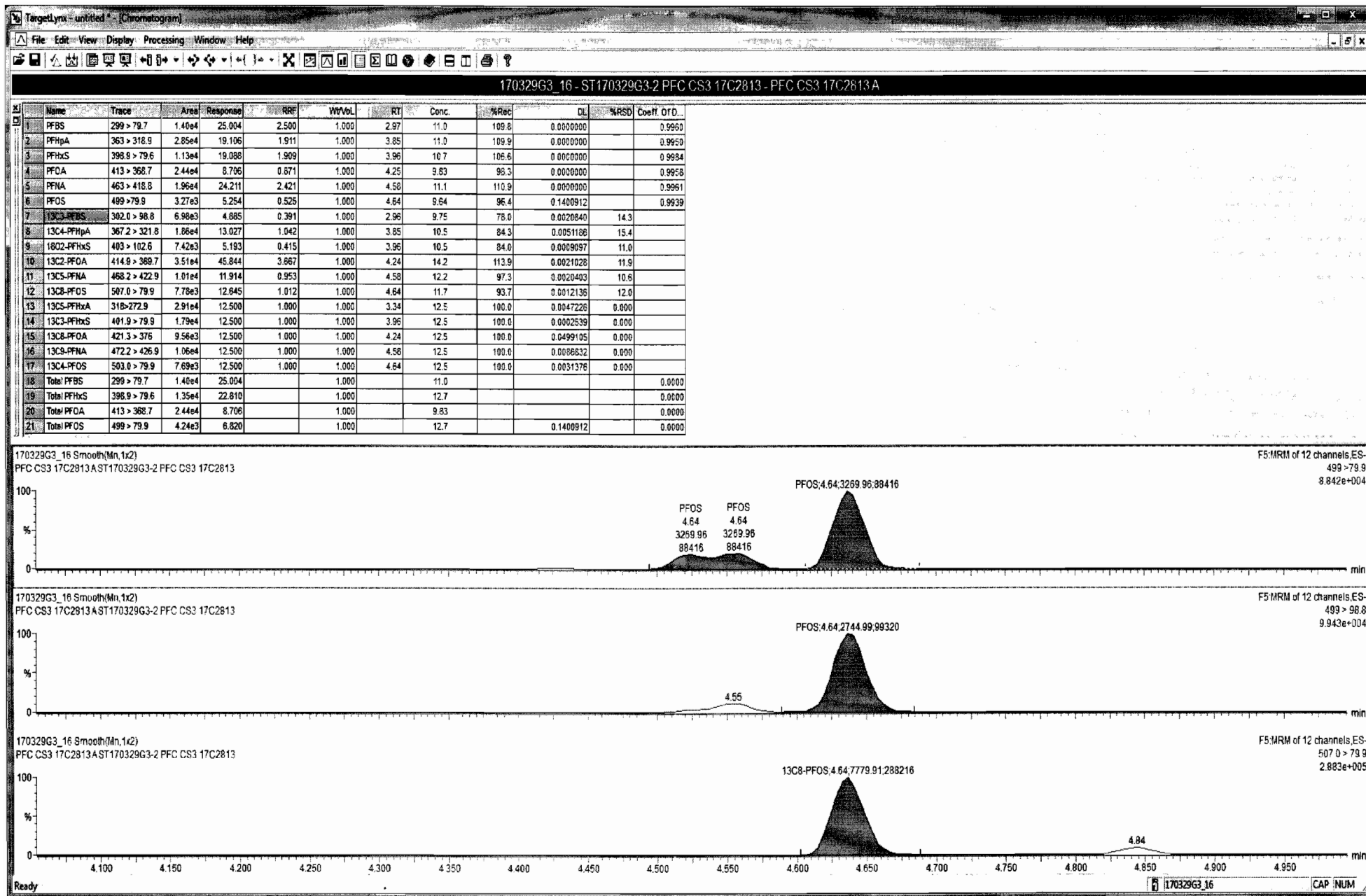


13C5-PFNA

170329G3_16

F5:MRM of 12 channels,ES-
468.2 > 422.9
3.774e+005





Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:12:39 PM Pacific Daylight Time

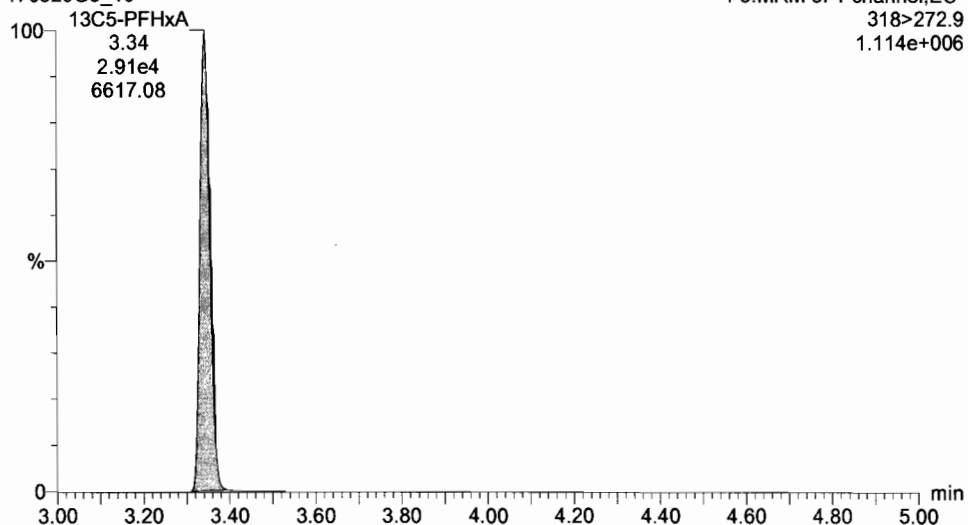
Printed: Thursday, March 30, 2017 2:12:47 PM Pacific Daylight Time

Name: 170329G3_16, Date: 30-Mar-2017, Time: 02:30:01, ID: ST170329G3-2 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

13C5-PFHxA

170329G3_16

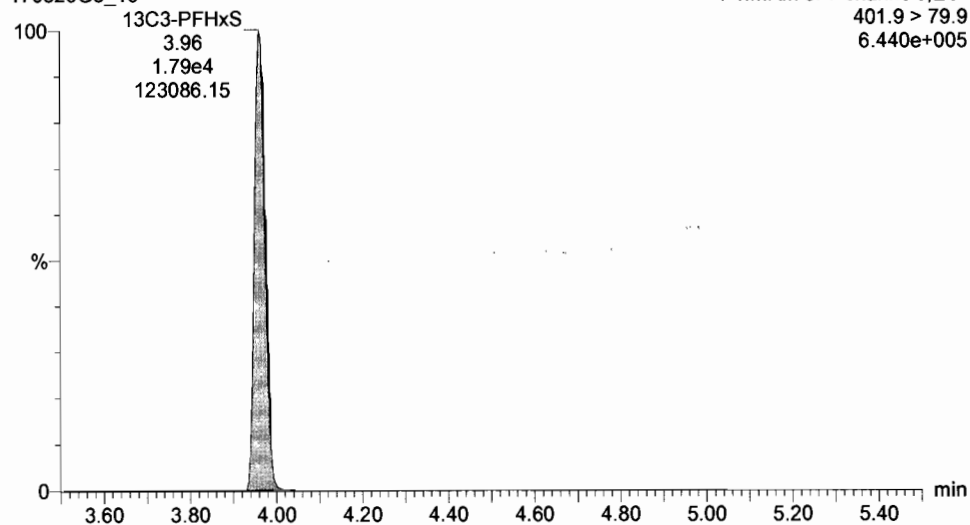
F3:MRM of 1 channel,ES-
318>272.9
1.114e+006



13C3-PFHxS

170329G3_16

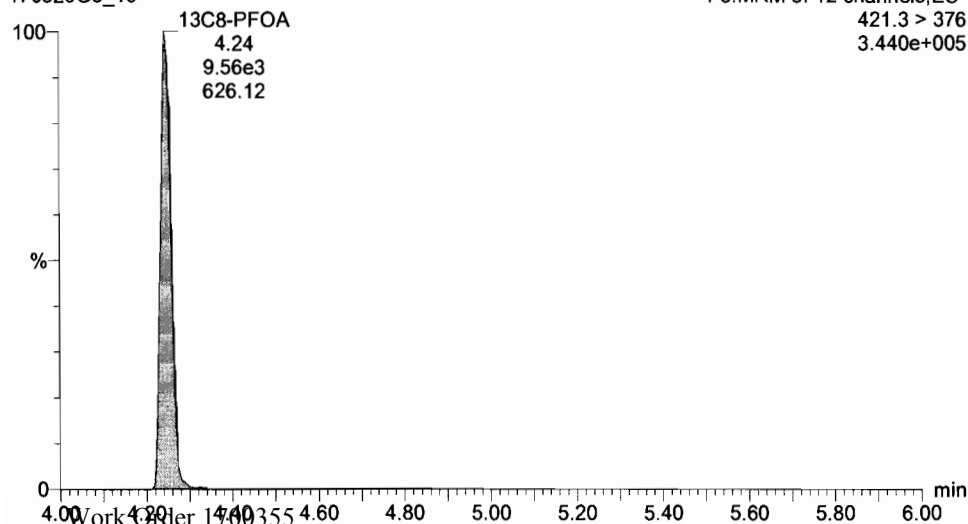
F4:MRM of 7 channels,ES-
401.9 > 79.9
6.440e+005



13C8-PFOA

170329G3_16

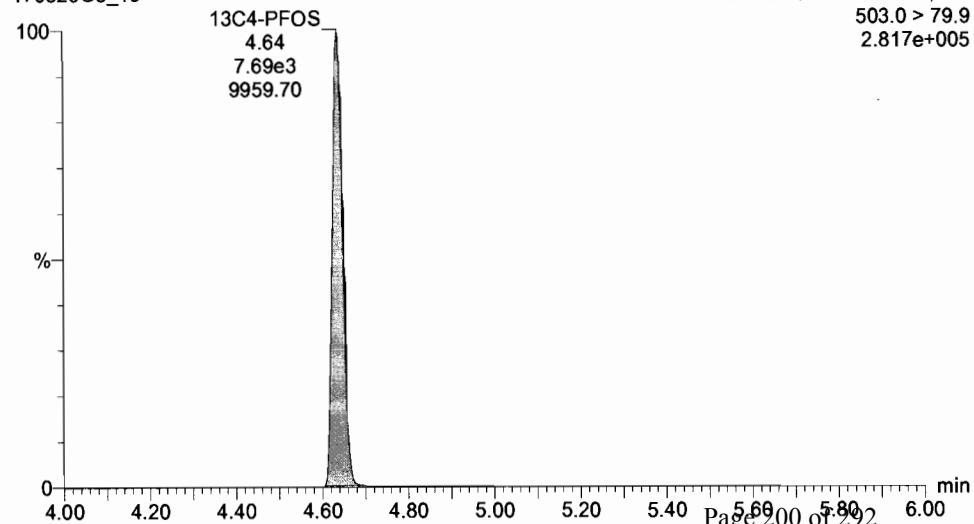
F5:MRM of 12 channels,ES-
421.3 > 376
3.440e+005



13C4-PFOS

170329G3_16

F5:MRM of 12 channels,ES-
503.0 > 79.9
2.817e+005



Dataset: Untitled

Last Altered: Thursday, March 30, 2017 2:12:39 PM Pacific Daylight Time

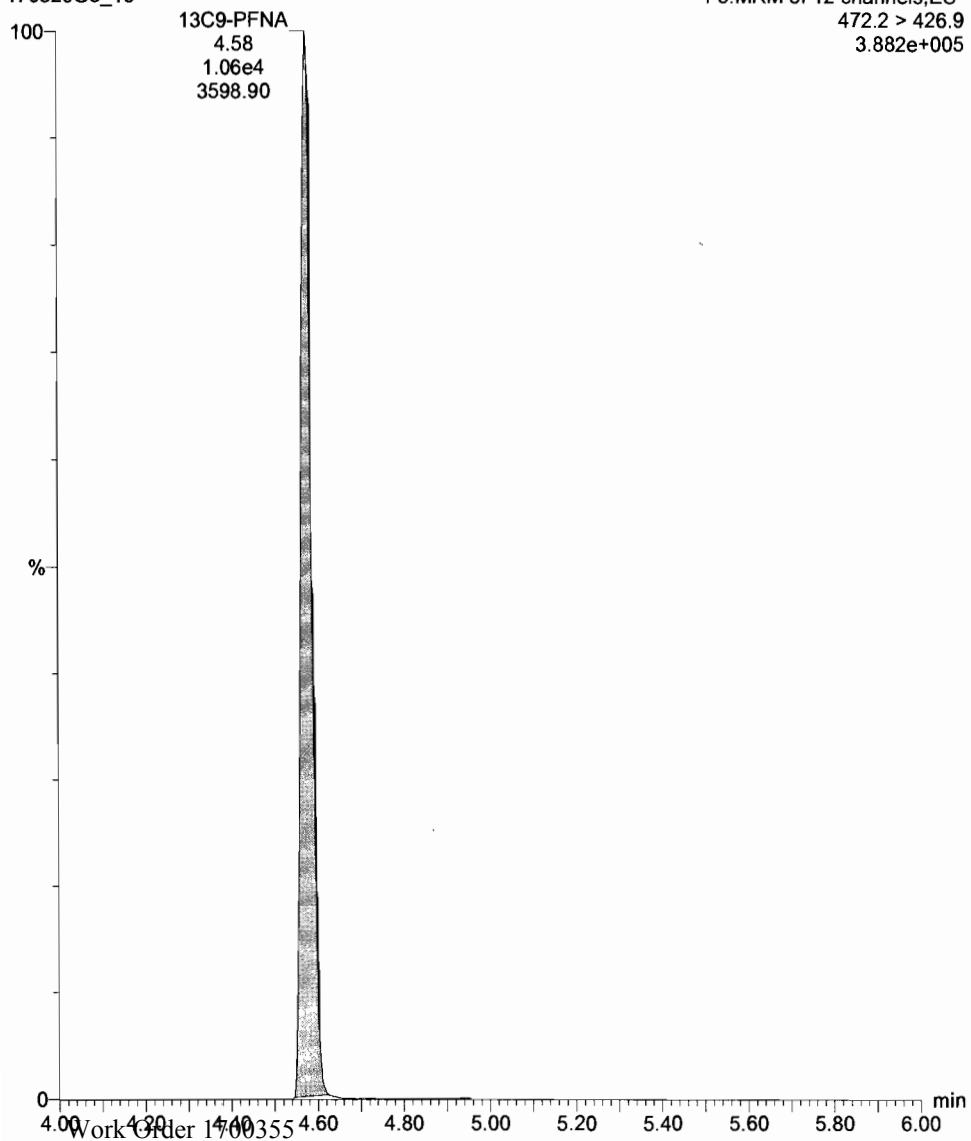
Printed: Thursday, March 30, 2017 2:12:47 PM Pacific Daylight Time

Name: 170329G3_16, Date: 30-Mar-2017, Time: 02:30:01, ID: ST170329G3-2 PFC CS3 17C2813, Description: PFC CS3 17C2813 A

13C9-PFNA

170329G3_16

F5:MRM of 12 channels,ES-
472.2 > 426.9
3.882e+005



INITIAL CALIBRATION

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:25:27 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 02 Mar 2017 12:26:53

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Compound name: PFBS

Correlation coefficient: $r = 0.997984$, $r^2 = 0.995973$

Calibration curve: $2.26993 * x + 0.0687359$

Response type: Internal Std (Ref 7), Area * (IS Conc. / IS Area)

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

88 3/16/17

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	0.250	3.02	6.04e2	1.14e4	0.262	4.9	2.66
2	2 170316G1_3	0.500	3.02	9.80e2	1.15e4	0.439	-12.2	2.13
3	3 170316G1_4	1.00	3.02	1.88e3	1.07e4	0.934	-6.6	2.19
4	4 170316G1_5	2.00	3.02	3.81e3	1.17e4	1.76	-11.9	2.03
5	5 170316G1_6	5.00	3.02	6.42e3	6.47e3	5.43	8.6	2.48
6	6 170316G1_7	10.0	3.02	1.49e4	6.71e3	12.2	21.7	2.77
7	7 170316G1_8	50.0	3.02	8.35e4	9.63e3	47.7	-4.5	2.17
8	8 170316G1_9	100	3.02	1.48e5	8.14e3	100	0.0	2.27

✓ AC 3/17/17

Compound name: PFHpA

Correlation coefficient: $r = 0.997479$, $r^2 = 0.994964$

Calibration curve: $1.72647 * x + 0.128291$

Response type: Internal Std (Ref 8), Area * (IS Conc. / IS Area)

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

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	0.250	3.89	1.15e3	2.52e4	0.256	2.4	2.28
2	2 170316G1_3	0.500	3.89	2.02e3	2.80e4	0.449	-10.2	1.81
3	3 170316G1_4	1.00	3.89	3.91e3	2.82e4	0.929	-7.1	1.73
4	4 170316G1_5	2.00	3.89	7.07e3	2.95e4	1.66	-16.9	1.50
5	5 170316G1_6	5.00	3.89	1.18e4	1.54e4	5.48	9.6	1.92
6	6 170316G1_7	10.0	3.89	2.74e4	1.60e4	12.3	23.4	2.14
7	7 170316G1_8	50.0	3.89	1.72e5	2.43e4	51.2	2.3	1.77
8	8 170316G1_9	100	3.89	2.88e5	2.16e4	96.5	-3.5	1.67

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:25:27 Pacific Daylight Time

Compound name: PFHxS

Correlation coefficient: $r = 0.999182$, $r^2 = 0.998364$

Calibration curve: $1.78157 * x + 0.0886791$

Response type: Internal Std (Ref 9), Area * (IS Conc. / IS Area)

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

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	0.250	4.01	5.14e2	1.00e4	0.309	23.7	2.56
2	2 170316G1_3	0.500	4.00	7.92e2	1.13e4	0.443	-11.4	1.76
3	3 170316G1_4	1.00	4.00	1.38e3	1.07e4	0.857	-14.3	1.62
4	4 170316G1_5	2.00	4.01	2.78e3	1.08e4	1.76	-12.1	1.61
5	5 170316G1_6	5.00	4.00	4.90e3	6.49e3	5.25	5.0	1.89
6	6 170316G1_7	10.0	4.00	1.12e4	6.99e3	11.2	11.6	2.00
7	7 170316G1_8	50.0	4.01	6.89e4	9.95e3	48.5	-3.0	1.73
8	8 170316G1_9	100	4.01	1.26e5	8.79e3	100	0.5	1.79

Compound name: PFOA

Correlation coefficient: $r = 0.997916$, $r^2 = 0.995836$

Calibration curve: $0.871455 * x + 0.142235$

Response type: Internal Std (Ref 10), Area * (IS Conc. / IS Area)

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

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	0.250	4.29	1.33e3	4.34e4	0.276	10.4	1.53
2	2 170316G1_3	0.500	4.28	1.87e3	4.50e4	0.431	-13.8	1.04
3	3 170316G1_4	1.00	4.28	3.27e3	4.37e4	0.912	-8.8	0.937
4	4 170316G1_5	2.00	4.29	5.68e3	4.40e4	1.69	-15.6	0.806
5	5 170316G1_6	5.00	4.28	1.01e4	2.57e4	5.47	9.5	0.983
6	6 170316G1_7	10.0	4.28	2.29e4	2.65e4	12.2	22.3	1.08
7	7 170316G1_8	50.0	4.29	1.38e5	4.09e4	48.3	-3.4	0.844
8	8 170316G1_9	100	4.29	2.58e5	3.71e4	99.5	-0.5	0.868

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:25:27 Pacific Daylight Time

Compound name: PFNA

Correlation coefficient: $r = 0.998066$, $r^2 = 0.996135$

Calibration curve: $2.1673 * x + 0.184413$

Response type: Internal Std (Ref 11), Area * (IS Conc. / IS Area)

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

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	0.250	4.62	6.11e2	1.21e4	0.207	-17.0	2.54
2	2 170316G1_3	0.500	4.62	1.30e3	1.34e4	0.475	-5.0	2.43
3	3 170316G1_4	1.00	4.62	2.08e3	1.14e4	0.964	-3.6	2.27
4	4 170316G1_5	2.00	4.62	4.12e3	1.26e4	1.80	-10.2	2.04
5	5 170316G1_6	5.00	4.62	8.37e3	7.73e3	6.16	23.1	2.71
6	6 170316G1_7	10.0	4.62	1.70e4	8.57e3	11.4	13.8	2.48
7	7 170316G1_8	50.0	4.62	1.20e5	1.35e4	51.1	2.2	2.22
8	8 170316G1_9	100	4.62	2.27e5	1.35e4	96.7	-3.3	2.10

Compound name: PFOS

Correlation coefficient: $r = 0.996947$, $r^2 = 0.993903$

Calibration curve: $0.553136 * x + -0.0763074$

Response type: Internal Std (Ref 12), Area * (IS Conc. / IS Area)

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

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	0.250	4.68	6.60e1	9.00e3	0.304	21.5	0.367
2	2 170316G1_3	0.500	4.68	1.15e2	9.58e3	0.409	-18.1	0.300
3	3 170316G1_4	1.00	4.68	2.68e2	6.85e3	1.02	2.3	0.489
4	4 170316G1_5	2.00	4.68	5.07e2	7.38e3	1.69	-15.6	0.429
5	5 170316G1_6	5.00	4.68	1.38e3	6.63e3	4.84	-3.1	0.520
6	6 170316G1_7	10.0	4.68	3.13e3	6.01e3	11.9	19.2	0.652
7	7 170316G1_8	50.0	4.68	2.11e4	1.06e4	45.4	-9.3	0.500
8	8 170316G1_9	100	4.68	4.74e4	1.04e4	103	3.2	0.570

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

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Compound name: 13C3-PFBS

Response Factor: 0.501217

RRF SD: 0.0718441, Relative SD: 14.3339

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	3.02	1.14e4	2.01e4	14.1	13.1	0.567
2	2 170316G1_3	12.5	3.01	1.15e4	2.08e4	13.8	10.1	0.552
3	3 170316G1_4	12.5	3.02	1.07e4	2.10e4	12.7	1.7	0.510
4	4 170316G1_5	12.5	3.02	1.17e4	1.95e4	14.9	19.6	0.599
5	5 170316G1_6	12.5	3.02	6.47e3	1.62e4	9.98	-20.1	0.400
6	6 170316G1_7	12.5	3.02	6.71e3	1.65e4	10.1	-18.9	0.406
7	7 170316G1_8	12.5	3.02	9.63e3	1.97e4	12.2	-2.8	0.487
8	8 170316G1_9	12.5	3.02	8.14e3	1.67e4	12.2	-2.7	0.488

Compound name: 13C4-PFHpA

Response Factor: 1.23676

RRF SD: 0.19033, Relative SD: 15.3894

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	3.89	2.52e4	2.01e4	12.7	1.7	1.26
2	2 170316G1_3	12.5	3.89	2.80e4	2.08e4	13.6	8.7	1.34
3	3 170316G1_4	12.5	3.88	2.82e4	2.10e4	13.6	8.5	1.34
4	4 170316G1_5	12.5	3.89	2.95e4	1.95e4	15.3	22.1	1.51
5	5 170316G1_6	12.5	3.89	1.54e4	1.62e4	9.65	-22.8	0.954
6	6 170316G1_7	12.5	3.89	1.60e4	1.65e4	9.77	-21.9	0.966
7	7 170316G1_8	12.5	3.89	2.43e4	1.97e4	12.4	-0.7	1.23
8	8 170316G1_9	12.5	3.89	2.16e4	1.67e4	13.1	4.4	1.29

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

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Compound name: 18O2-PFHxS

Response Factor: 0.494506

RRF SD: 0.0543219, Relative SD: 10.9851

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	4.00	1.00e4	2.01e4	12.7	1.3	0.501
2	2 170316G1_3	12.5	4.00	1.13e4	2.08e4	13.7	9.4	0.541
3	3 170316G1_4	12.5	4.00	1.07e4	2.10e4	12.8	2.4	0.506
4	4 170316G1_5	12.5	4.00	1.08e4	1.95e4	14.0	11.8	0.553
5	5 170316G1_6	12.5	4.00	6.49e3	1.62e4	10.1	-18.9	0.401
6	6 170316G1_7	12.5	4.00	6.99e3	1.65e4	10.7	-14.4	0.423
7	7 170316G1_8	12.5	4.00	9.95e3	1.97e4	12.7	1.9	0.504
8	8 170316G1_9	12.5	4.00	8.79e3	1.67e4	13.3	6.5	0.527

Compound name: 13C2-PFOA

Response Factor: 3.22114

RRF SD: 0.38407, Relative SD: 11.9234

Response type: Internal Std (Ref 15), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	4.28	4.34e4	1.22e4	13.8	10.6	3.56
2	2 170316G1_3	12.5	4.28	4.50e4	1.28e4	13.6	9.0	3.51
3	3 170316G1_4	12.5	4.28	4.37e4	1.34e4	12.6	1.0	3.25
4	4 170316G1_5	12.5	4.29	4.40e4	1.25e4	13.6	9.1	3.51
5	5 170316G1_6	12.5	4.28	2.57e4	9.83e3	10.2	-18.7	2.62
6	6 170316G1_7	12.5	4.28	2.65e4	1.01e4	10.2	-18.4	2.63
7	7 170316G1_8	12.5	4.29	4.09e4	1.21e4	13.1	4.5	3.36
8	8 170316G1_9	12.5	4.28	3.71e4	1.12e4	12.9	3.0	3.32

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

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Compound name: 13C5-PFNA

Response Factor: 0.979217

RRF SD: 0.10379, Relative SD: 10.5993

Response type: Internal Std (Ref 16), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	4.62	1.21e4	1.24e4	12.4	-1.0	0.970
2	2 170316G1_3	12.5	4.62	1.34e4	1.25e4	13.7	9.3	1.07
3	3 170316G1_4	12.5	4.62	1.14e4	1.25e4	11.6	-7.0	0.911
4	4 170316G1_5	12.5	4.62	1.26e4	1.15e4	14.0	12.4	1.10
5	5 170316G1_6	12.5	4.62	7.73e3	9.48e3	10.4	-16.7	0.815
6	6 170316G1_7	12.5	4.62	8.57e3	9.78e3	11.2	-10.5	0.876
7	7 170316G1_8	12.5	4.62	1.35e4	1.33e4	13.0	3.8	1.02
8	8 170316G1_9	12.5	4.62	1.35e4	1.26e4	13.7	9.6	1.07

Compound name: 13C8-PFOS

Response Factor: 1.07987

RRF SD: 0.129751, Relative SD: 12.0155

Response type: Internal Std (Ref 17), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	4.68	9.00e3	6.79e3	15.3	22.6	1.32
2	2 170316G1_3	12.5	4.68	9.58e3	8.34e3	13.3	6.5	1.15
3	3 170316G1_4	12.5	4.68	6.85e3	6.53e3	12.1	-2.9	1.05
4	4 170316G1_5	12.5	4.68	7.38e3	6.74e3	12.7	1.5	1.10
5	5 170316G1_6	12.5	4.68	6.63e3	7.58e3	10.1	-19.1	0.874
6	6 170316G1_7	12.5	4.68	6.01e3	6.06e3	11.5	-8.1	0.992
7	7 170316G1_8	12.5	4.68	1.06e4	9.54e3	12.8	2.5	1.11
8	8 170316G1_9	12.5	4.68	1.04e4	9.93e3	12.1	-3.0	1.05

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

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Compound name: 13C5-PFHxA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	3.37	3.44e4	3.44e4	12.5	0.0	1.00
2	2 170316G1_3	12.5	3.37	3.66e4	3.66e4	12.5	0.0	1.00
3	3 170316G1_4	12.5	3.37	3.56e4	3.56e4	12.5	0.0	1.00
4	4 170316G1_5	12.5	3.38	3.60e4	3.60e4	12.5	0.0	1.00
5	5 170316G1_6	12.5	3.37	2.57e4	2.57e4	12.5	0.0	1.00
6	6 170316G1_7	12.5	3.37	2.54e4	2.54e4	12.5	0.0	1.00
7	7 170316G1_8	12.5	3.38	3.19e4	3.19e4	12.5	0.0	1.00
8	8 170316G1_9	12.5	3.37	2.77e4	2.77e4	12.5	0.0	1.00

Compound name: 13C3-PFHxS

Response Factor: 1

RRF SD: 4.19625e-017, Relative SD: 4.19625e-015

Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	4.01	2.01e4	2.01e4	12.5	0.0	1.00
2	2 170316G1_3	12.5	4.00	2.08e4	2.08e4	12.5	0.0	1.00
3	3 170316G1_4	12.5	4.00	2.10e4	2.10e4	12.5	0.0	1.00
4	4 170316G1_5	12.5	4.01	1.95e4	1.95e4	12.5	0.0	1.00
5	5 170316G1_6	12.5	4.00	1.62e4	1.62e4	12.5	0.0	1.00
6	6 170316G1_7	12.5	4.00	1.65e4	1.65e4	12.5	0.0	1.00
7	7 170316G1_8	12.5	4.01	1.97e4	1.97e4	12.5	0.0	1.00
8	8 170316G1_9	12.5	4.00	1.67e4	1.67e4	12.5	-0.0	1.00

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

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Compound name: 13C8-PFOA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 15), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	4.28	1.22e4	1.22e4	12.5	0.0	1.00
2	2 170316G1_3	12.5	4.28	1.28e4	1.28e4	12.5	0.0	1.00
3	3 170316G1_4	12.5	4.28	1.34e4	1.34e4	12.5	0.0	1.00
4	4 170316G1_5	12.5	4.28	1.25e4	1.25e4	12.5	0.0	1.00
5	5 170316G1_6	12.5	4.28	9.83e3	9.83e3	12.5	0.0	1.00
6	6 170316G1_7	12.5	4.28	1.01e4	1.01e4	12.5	0.0	1.00
7	7 170316G1_8	12.5	4.29	1.21e4	1.21e4	12.5	0.0	1.00
8	8 170316G1_9	12.5	4.28	1.12e4	1.12e4	12.5	0.0	1.00

Compound name: 13C9-PFNA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 16), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	4.62	1.24e4	1.24e4	12.5	0.0	1.00
2	2 170316G1_3	12.5	4.62	1.25e4	1.25e4	12.5	0.0	1.00
3	3 170316G1_4	12.5	4.62	1.25e4	1.25e4	12.5	0.0	1.00
4	4 170316G1_5	12.5	4.62	1.15e4	1.15e4	12.5	0.0	1.00
5	5 170316G1_6	12.5	4.62	9.48e3	9.48e3	12.5	0.0	1.00
6	6 170316G1_7	12.5	4.62	9.78e3	9.78e3	12.5	0.0	1.00
7	7 170316G1_8	12.5	4.62	1.33e4	1.33e4	12.5	0.0	1.00
8	8 170316G1_9	12.5	4.62	1.26e4	1.26e4	12.5	0.0	1.00

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

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Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 17), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170316G1_2	12.5	4.68	6.79e3	6.79e3	12.5	0.0	1.00
2	2 170316G1_3	12.5	4.68	8.34e3	8.34e3	12.5	0.0	1.00
3	3 170316G1_4	12.5	4.68	6.53e3	6.53e3	12.5	0.0	1.00
4	4 170316G1_5	12.5	4.68	6.74e3	6.74e3	12.5	0.0	1.00
5	5 170316G1_6	12.5	4.68	7.58e3	7.58e3	12.5	0.0	1.00
6	6 170316G1_7	12.5	4.68	6.06e3	6.06e3	12.5	0.0	1.00
7	7 170316G1_8	12.5	4.68	9.54e3	9.54e3	12.5	0.0	1.00
8	8 170316G1_9	12.5	4.68	9.93e3	9.93e3	12.5	0.0	1.00

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:26:14 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 02 Mar 2017 12:26:53

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

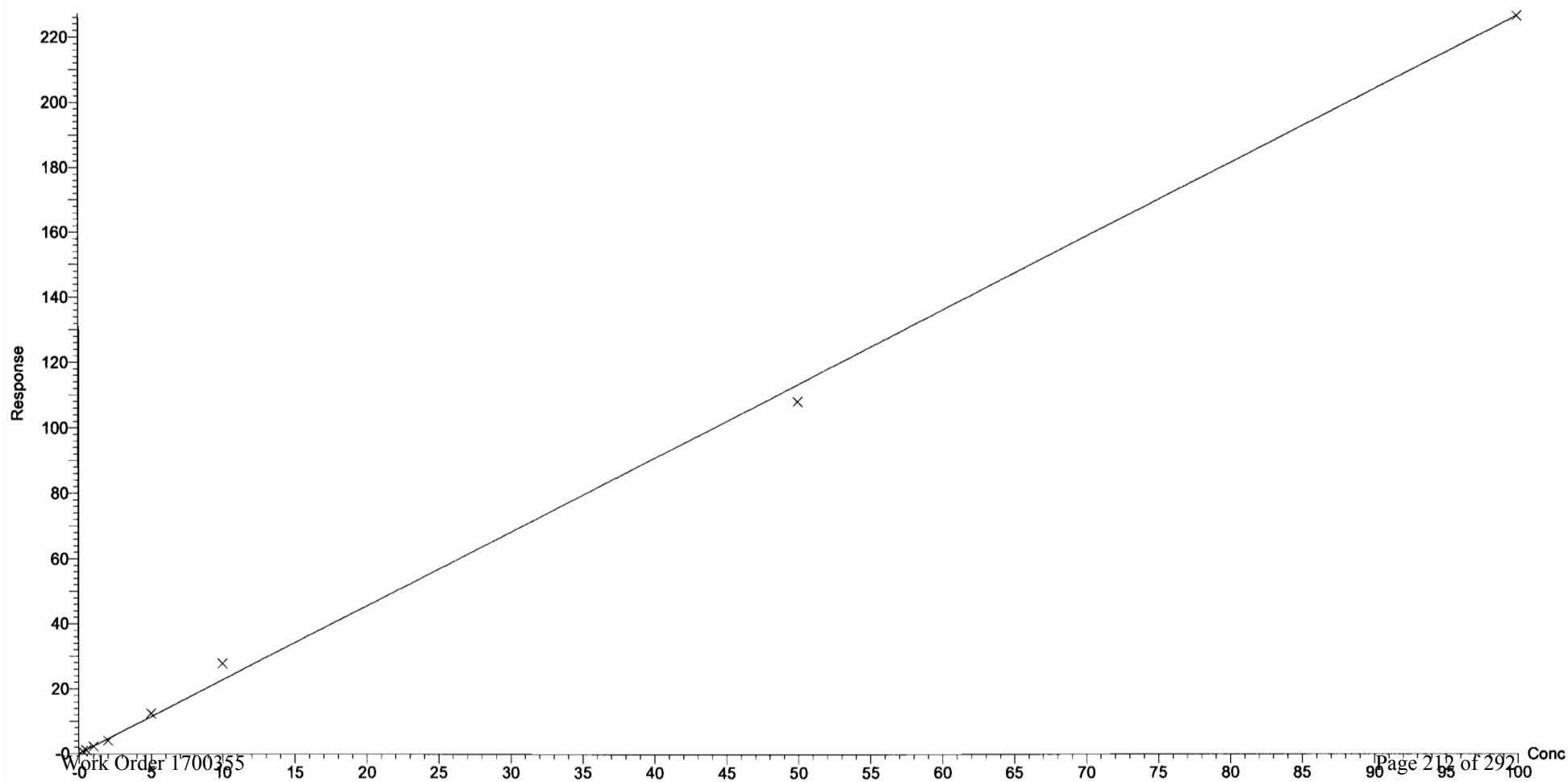
Compound name: PFBS

Correlation coefficient: $r = 0.997984$, $r^2 = 0.995973$

Calibration curve: $2.26993 * x + 0.0687359$

Response type: Internal Std (Ref 7), Area * (IS Conc. / IS Area)

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



Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:26:14 Pacific Daylight Time

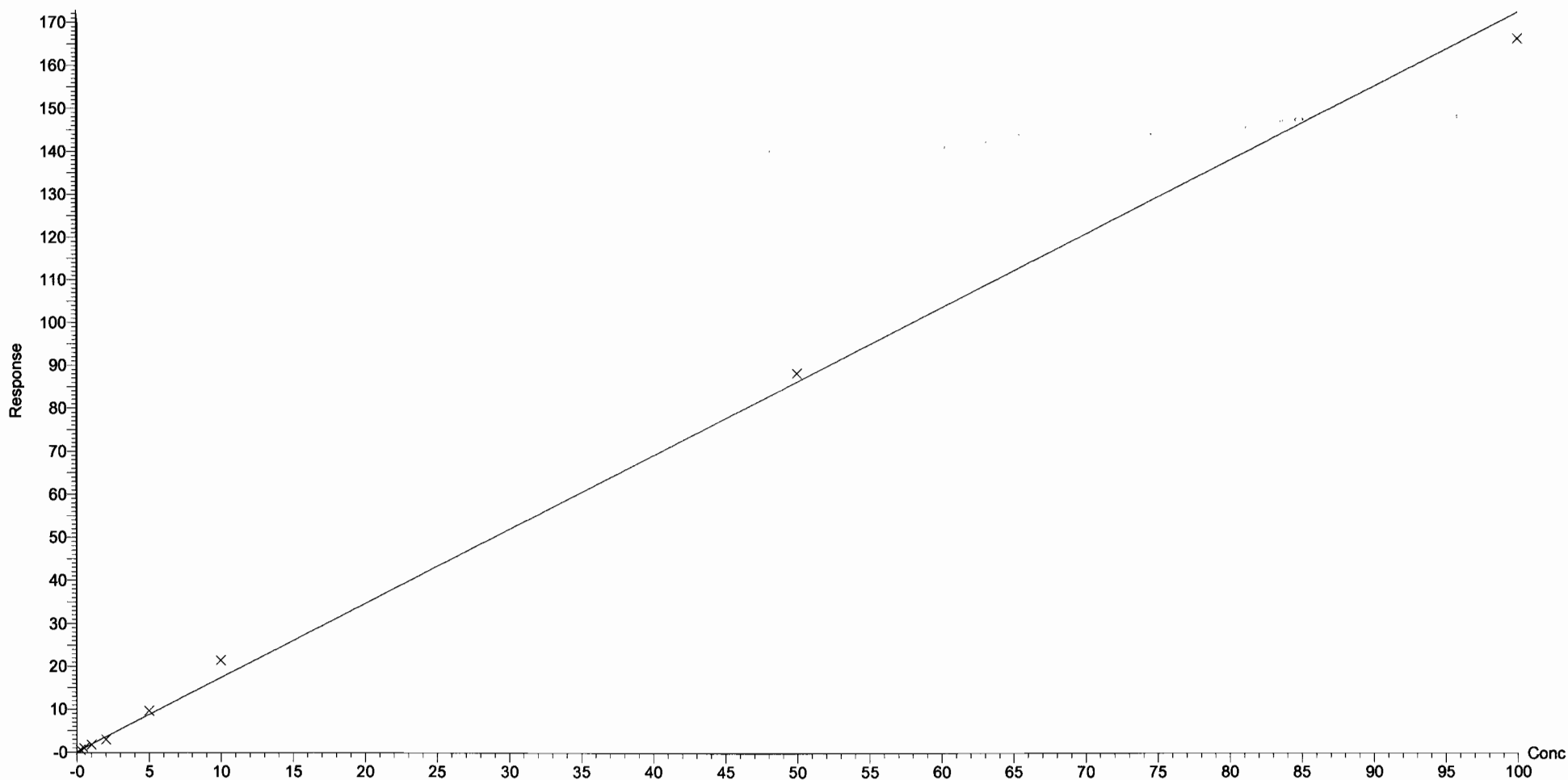
Compound name: PFHpA

Correlation coefficient: $r = 0.997479$, $r^2 = 0.994964$

Calibration curve: $1.72647 * x + 0.128291$

Response type: Internal Std (Ref 8), Area * (IS Conc. / IS Area)

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



Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:26:14 Pacific Daylight Time

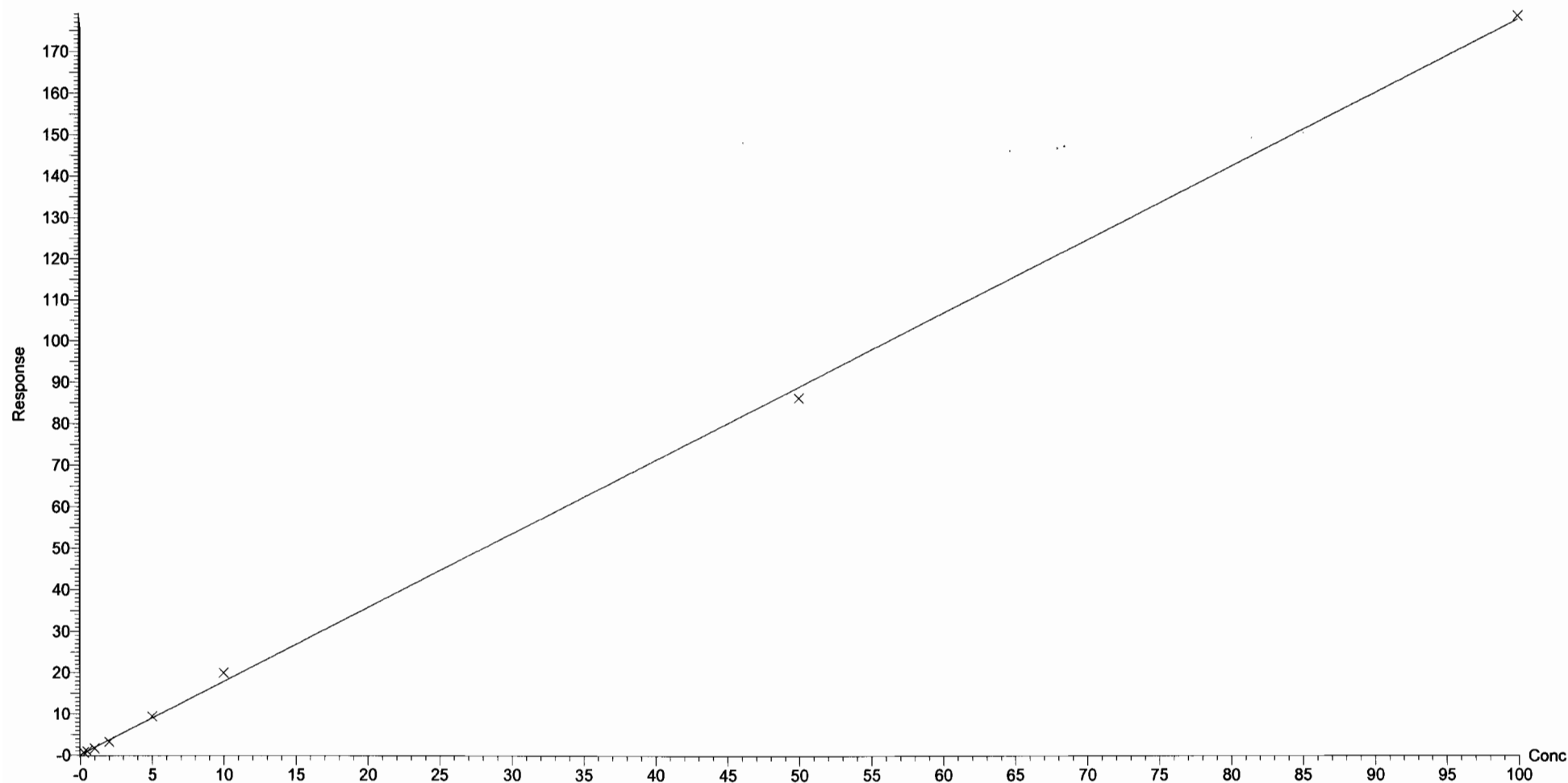
Compound name: PFHxS

Correlation coefficient: $r = 0.999182$, $r^2 = 0.998364$

Calibration curve: $1.78157 * x + 0.0886791$

Response type: Internal Std (Ref 9), Area * (IS Conc. / IS Area)

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



Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:26:14 Pacific Daylight Time

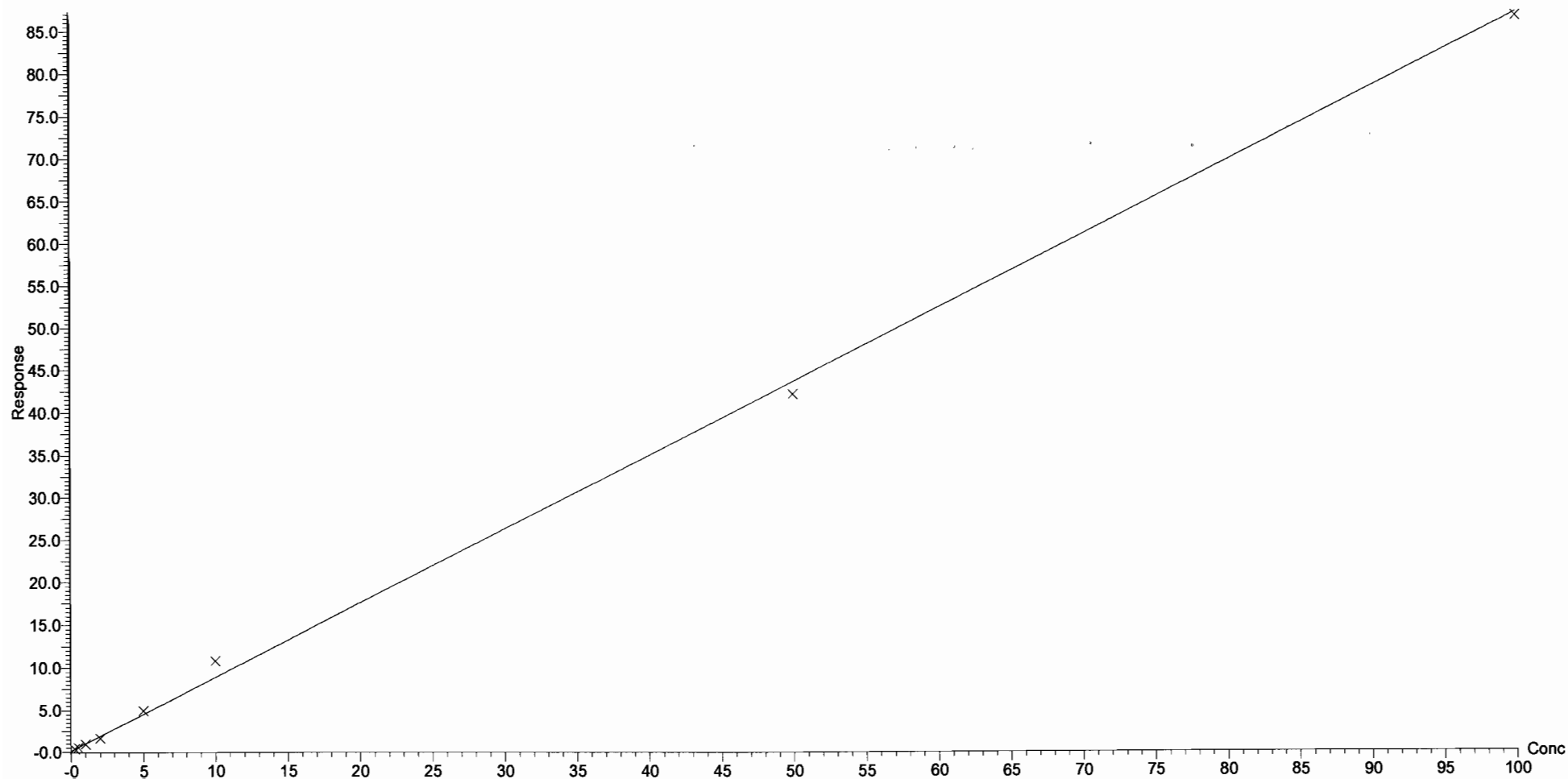
Compound name: PFOA

Correlation coefficient: $r = 0.997916$, $r^2 = 0.995836$

Calibration curve: $0.871455 * x + 0.142235$

Response type: Internal Std (Ref 10), Area * (IS Conc. / IS Area)

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



Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:26:14 Pacific Daylight Time

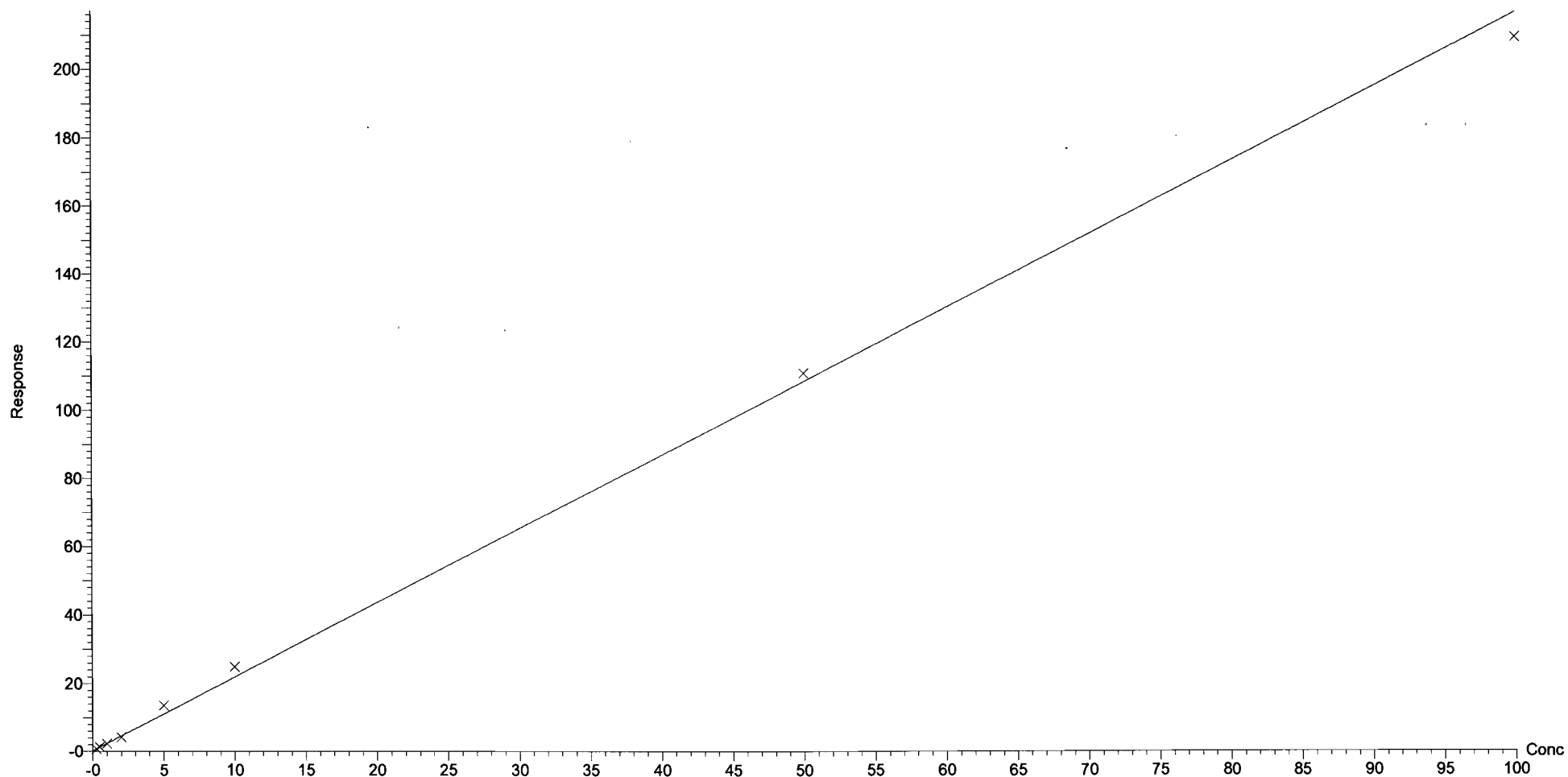
Compound name: PFNA

Correlation coefficient: $r = 0.998066$, $r^2 = 0.996135$

Calibration curve: $2.1673 * x + 0.184413$

Response type: Internal Std (Ref 11), Area * (IS Conc. / IS Area)

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



Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-CRV.qld

Last Altered: Thursday, March 16, 2017 13:24:03 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:26:14 Pacific Daylight Time

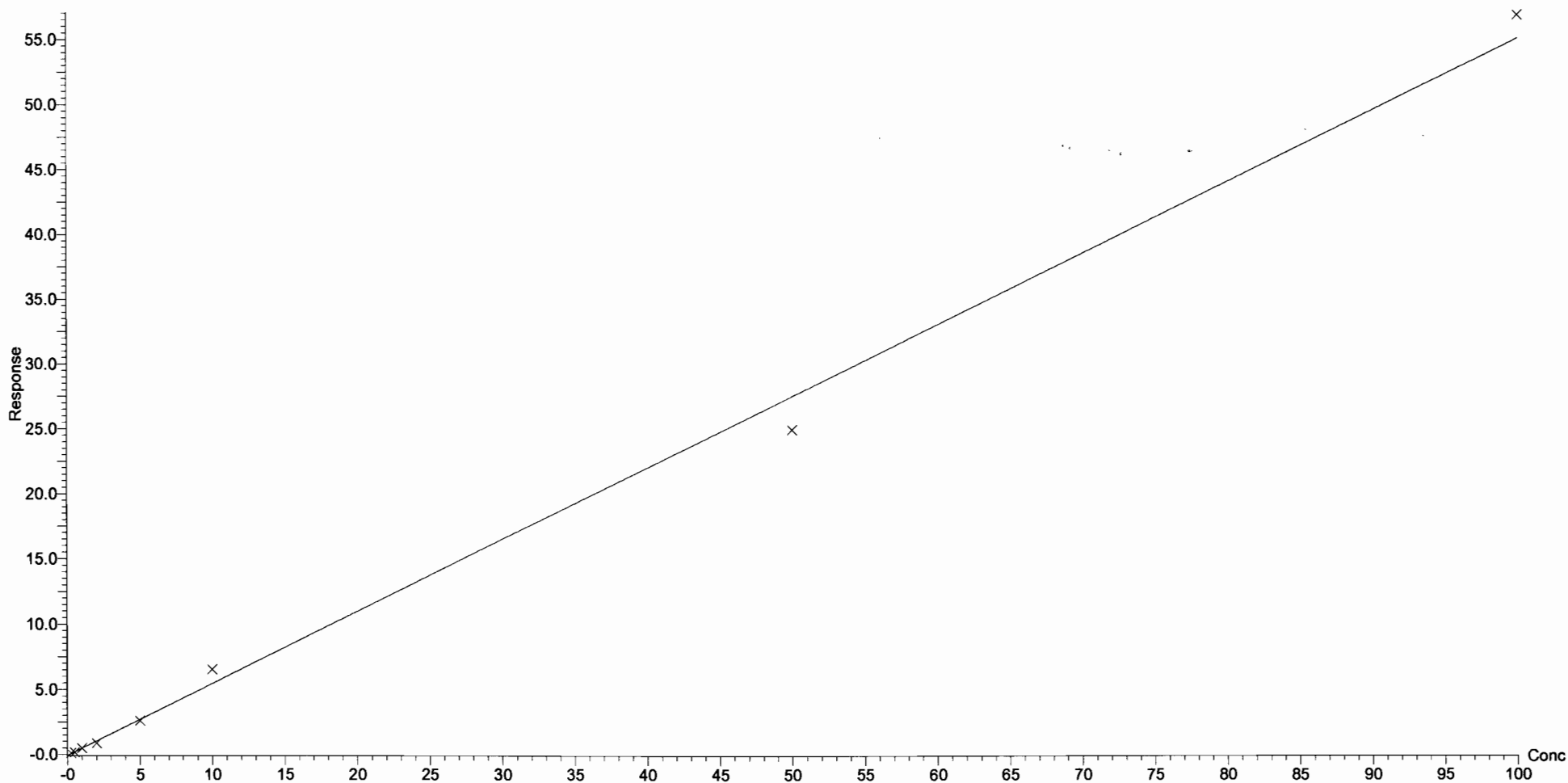
Compound name: PFOS

Correlation coefficient: $r = 0.996947$, $r^2 = 0.993903$

Calibration curve: $0.553136 * x + -0.0763074$

Response type: Internal Std (Ref 12), Area * (IS Conc. / IS Area)

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



Dataset: Untitled

Last Altered: Friday, March 17, 2017 08:50:58 Pacific Daylight Time
Printed: Friday, March 17, 2017 08:51:49 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 02 Mar 2017 12:26:53
Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170316G1_1	IPA	16-Mar-17	10:18:02
2	170316G1_2	ST170316G1-1 PFC CS-2 17C1502	16-Mar-17	10:30:20
3	170316G1_3	ST170316G1-2 PFC CS-1 17C1503	16-Mar-17	10:42:47
4	170316G1_4	ST170316G1-3 PFC CS0 17C1504	16-Mar-17	10:55:20
5	170316G1_5	ST170316G1-4 PFC CS1 17C1505	16-Mar-17	11:07:54
6	170316G1_6	ST170316G1-5 PFC CS2 17C1603	16-Mar-17	11:20:35
7	170316G1_7	ST170316G1-6 PFC CS3 17C1602	16-Mar-17	11:33:10
8	170316G1_8	ST170316G1-7 PFC CS4 17C1508	16-Mar-17	11:45:43
9	170316G1_9	ST170316G1-8 PFC CS5 17C1509	16-Mar-17	11:58:17
10	170316G1_10	IPA	16-Mar-17	12:11:12
11	170316G1_11	SS170316G1-1 PFC SSS 17C1510	16-Mar-17	12:23:32
12	170316G1_12	IPA	16-Mar-17	12:36:04
13	170316G1_13	B7C0045-BS1 OPR 0.125	16-Mar-17	12:48:40
14	170316G1_14	B7C0050-BS1 OPR 0.125	16-Mar-17	13:01:10
15	170316G1_15	B7C0063-BS1 OPR 0.125	16-Mar-17	13:58:32
16	170316G1_16	B7C0073-BS1 OPR 0.125	16-Mar-17	14:10:43
17	170316G1_17	IPA	16-Mar-17	14:23:14
18	170316G1_18	B7C0045-BLK1 Method Blank 0.125	16-Mar-17	14:35:47
19	170316G1_19	B7C0050-BLK1 Method Blank 0.125	16-Mar-17	14:48:20
20	170316G1_20	B7C0063-BLK1 Method Blank 0.125	16-Mar-17	15:00:53
21	170316G1_21	B7C0073-BLK1 Method Blank 0.125	16-Mar-17	15:13:28
22	170316G1_22	1700304-01 Field Blank (420-117740-1) 0.12255	16-Mar-17	15:25:56
23	170316G1_23	IPA	16-Mar-17	16:11:28
24	170316G1_24	B7C0073-BLK1 Method Blank 0.125	16-Mar-17	16:23:45
25	170316G1_25	1700304-01 Field Blank (420-117740-1) 0.12255	16-Mar-17	16:36:18
26	170316G1_26	1700299-01 MATPEW100 0.12287	16-Mar-17	16:48:51
27	170316G1_27	1700299-02 MATPEW101 0.11464	16-Mar-17	17:01:50
28	170316G1_28	1700299-03 MATPEW102 0.12518	16-Mar-17	17:14:11
29	170316G1_29	1700311-02@5X OF-SOW-091D-0317 0.12329	16-Mar-17	17:26:47
30	170316G1_30	1700311-03@5X OF-SOW-091DP-0317 0.124...	16-Mar-17	17:39:24
31	170316G1_31	1700311-06@5X OF-SOW-091M-0317 0.12783	16-Mar-17	17:51:55

Ⓐ RI. Bad injection. EJ 3/17/17

Dataset: Untitled

Last Altered: Friday, March 17, 2017 08:50:58 Pacific Daylight Time

Printed: Friday, March 17, 2017 08:51:49 Pacific Daylight Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	170316G1_32	1700311-01 OF-SOW-091A-0317 0.11879	16-Mar-17	18:04:26
33	170316G1_33	1700311-02 OF-SOW-091D-0317 0.12329	16-Mar-17	18:16:55
34	170316G1_34	1700311-03 OF-SOW-091DP-0317 0.12421	16-Mar-17	18:29:40
35	170316G1_35	1700311-04 OF-EB030817 0.12212	16-Mar-17	18:42:01
36	170316G1_36	IPA	16-Mar-17	18:54:35
37	170316G1_37	ST170316G1-9 PFC CS2 17C1603	16-Mar-17	19:07:10
38	170316G1_38	IPA	16-Mar-17	19:19:41
39	170316G1_39	1700311-05 OF-SOW-091K-0317 0.12112	16-Mar-17	19:32:15
40	170316G1_40	1700311-06 OF-SOW-091M-0317 0.12783	16-Mar-17	19:44:47
41	170316G1_41	1700311-07 OF-FB030817 0.12533	16-Mar-17	19:57:20
42	170316G1_42	1700311-08 OF-SOW-091L-0317 0.11948	16-Mar-17	20:09:53
43	170316G1_43	1700311-09 OF14-GW05-0317 0.12223	16-Mar-17	20:22:27
44	170316G1_44	1700314-01 OUTFALL #1 0.125	16-Mar-17	20:34:56
45	170316G1_45	1700314-02 OUTFALL #2 0.125	16-Mar-17	20:47:29
46	170316G1_46	1700314-03 OUTFALL #2A 0.125	16-Mar-17	21:00:02
47	170316G1_47	1700314-04 OUTFALL #3 0.125	16-Mar-17	21:12:35
48	170316G1_48	1700314-05 OUTFALL #4 0.125	16-Mar-17	21:25:09
49	170316G1_49	1700314-06 PFC FIELD BLANK@ OUTFALL#...	16-Mar-17	21:37:42
50	170316G1_50	IPA	16-Mar-17	21:50:15
51	170316G1_51	ST170316G1-10 PFC CS2 17C1603	16-Mar-17	22:02:48
52	170316G1_52	IPA	16-Mar-17	22:15:21
53	170316G1_53	B7C0050-MS1 Matrix Spike 0.125	16-Mar-17	22:27:55
54	170316G1_54	B7C0050-MSD1 Matrix Spike Dup 0.125	16-Mar-17	22:40:46
55	170316G1_55	1700304-02RE1@10XB-104-Trailer(420-1177...	16-Mar-17	22:53:00
56	170316G1_56	1700304-02RE1 B-104 -Trailer (420-117740-2)...	16-Mar-17	23:05:34
57	170316G1_57	IPA	16-Mar-17	23:18:06
58	170316G1_58	ST170316G1-11 PFC CS2 17C1603	16-Mar-17	23:30:41
59	170316G1_59	IPA	16-Mar-17	23:43:14

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Last Altered: Thursday, March 16, 2017 13:27:05 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

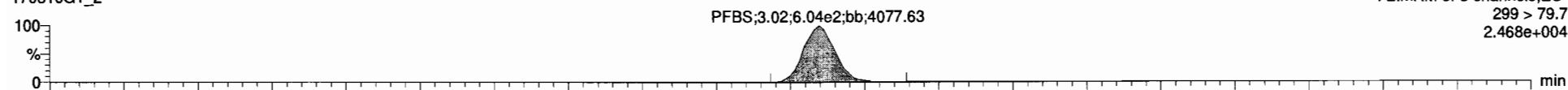
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Calibration: 16 Mar 2017 13:27:05

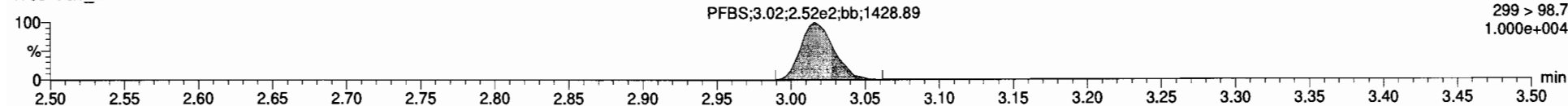
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PFBS

170316G1_2

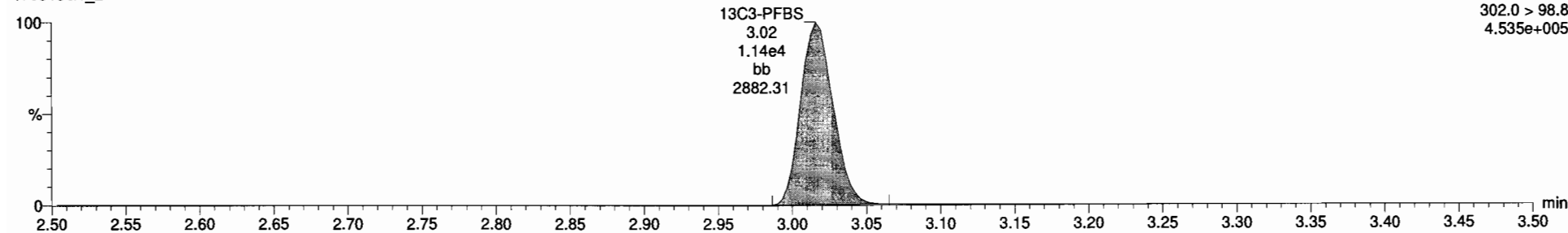


170316G1_2



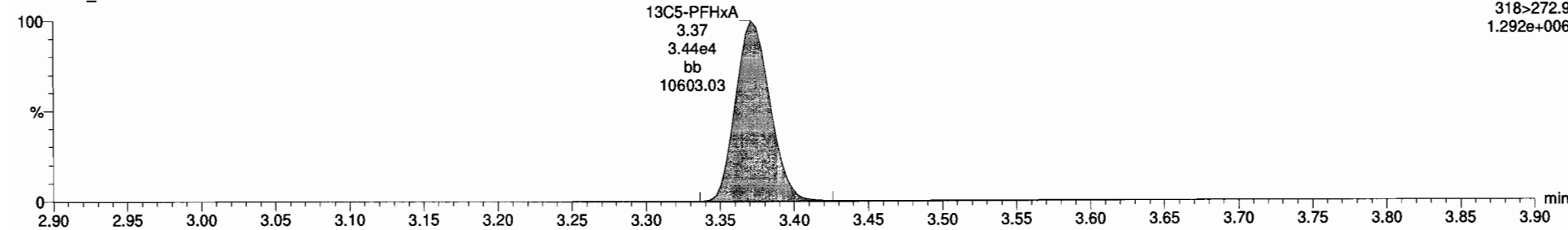
13C3-PFBS

170316G1_2



13C5-PFHxA

170316G1_2



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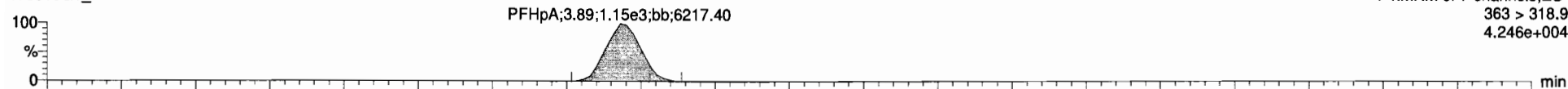
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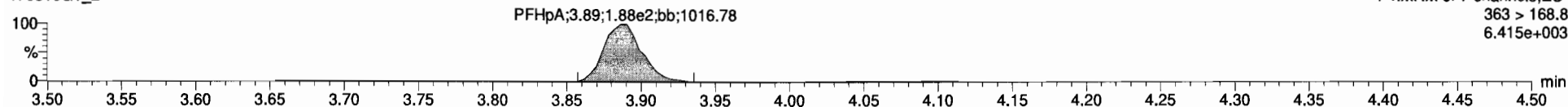
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PFHpA

170316G1_2

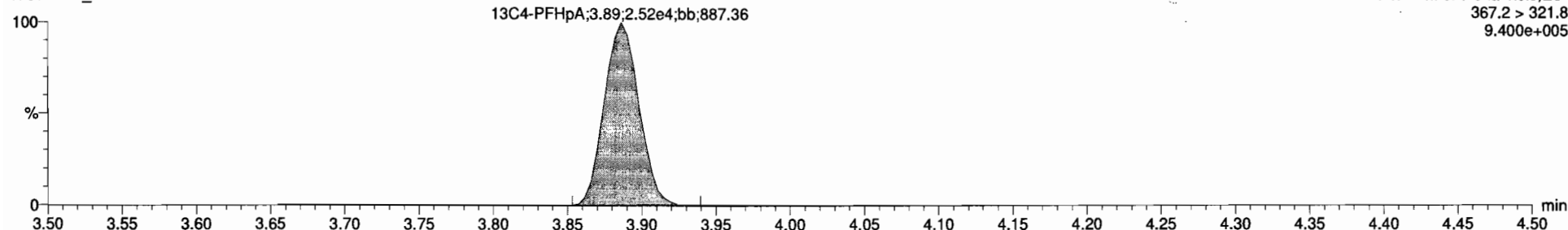


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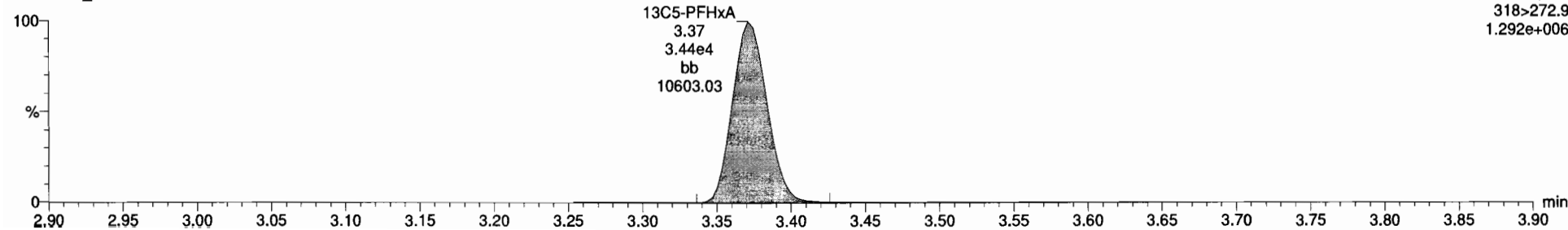
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170316G1_2



13C5-PFHxA

170316G1_2



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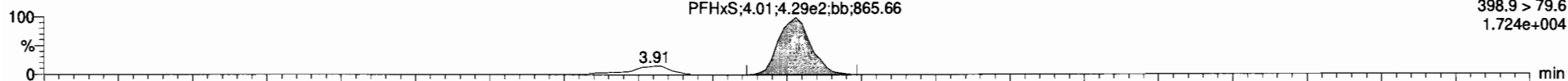
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PFHxS

170316G1_2

PFHxS;4.01;4.29e2;bb;865.66

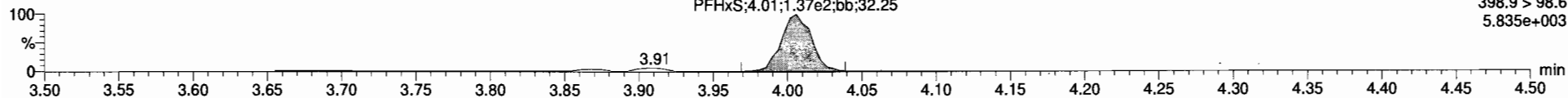
F4:MRM of 7 channels,ES-
398.9 > 79.6
1.724e+004



170316G1_2

PFHxS;4.01;1.37e2;bb;32.25

F4:MRM of 7 channels,ES-
398.9 > 98.6
5.835e+003

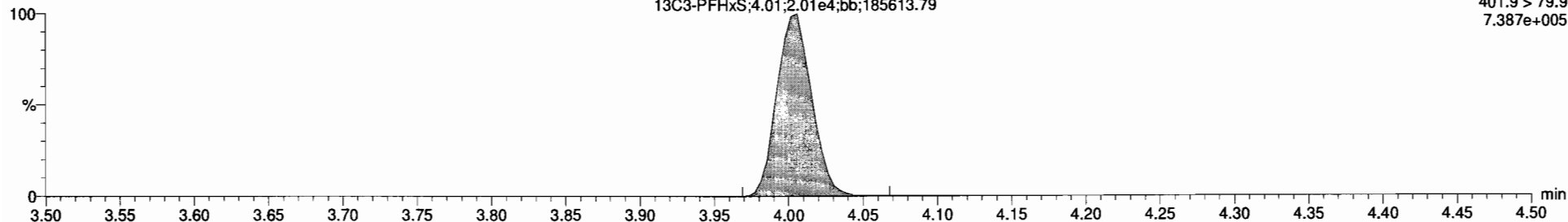


13C3-PFHxS

170316G1_2

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F4:MRM of 7 channels,ES-
401.9 > 79.9
7.387e+005

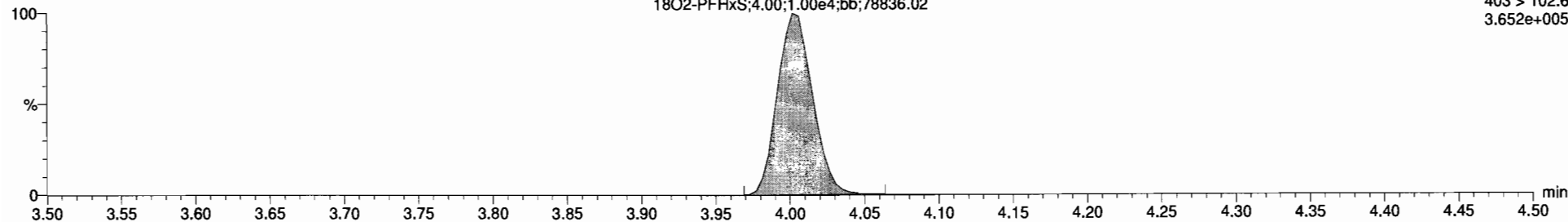


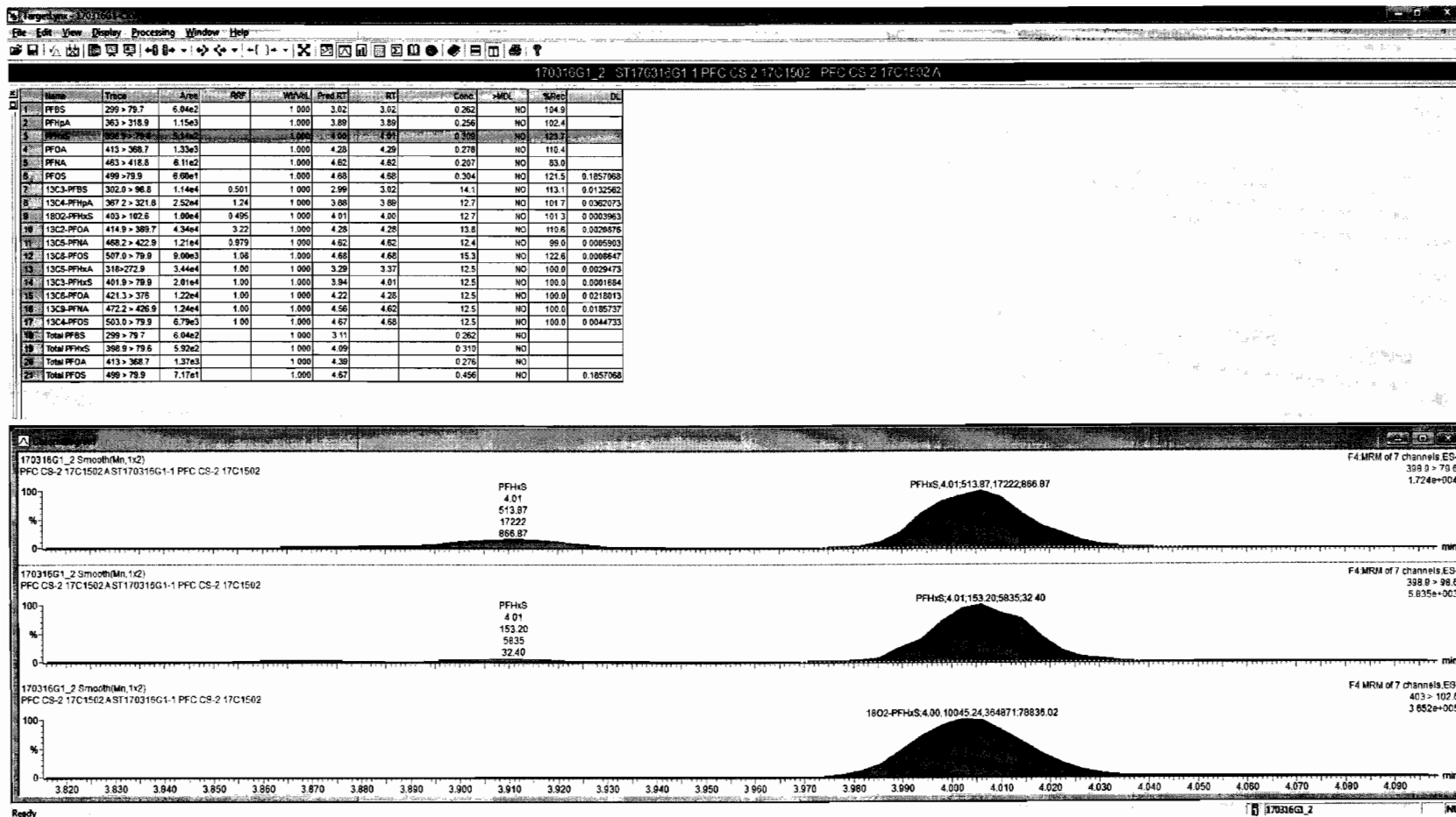
18O2-PFHxS

170316G1_2

18O2-PFHxS;4.00;1.00e4;bb;78836.02

F4:MRM of 7 channels,ES-
403 > 102.6
3.652e+005





Dataset: Untitled

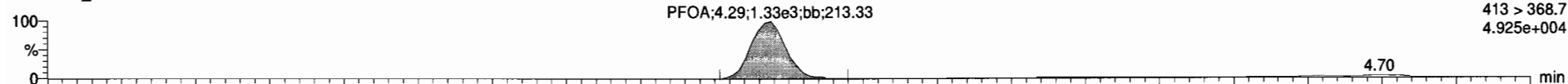
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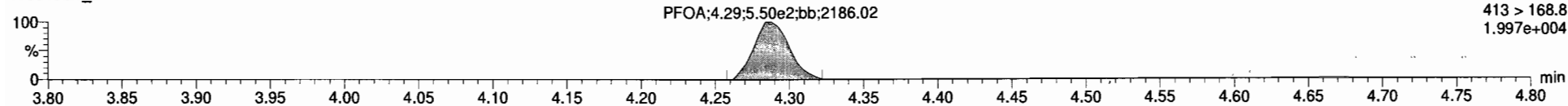
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PFOA

170316G1_2

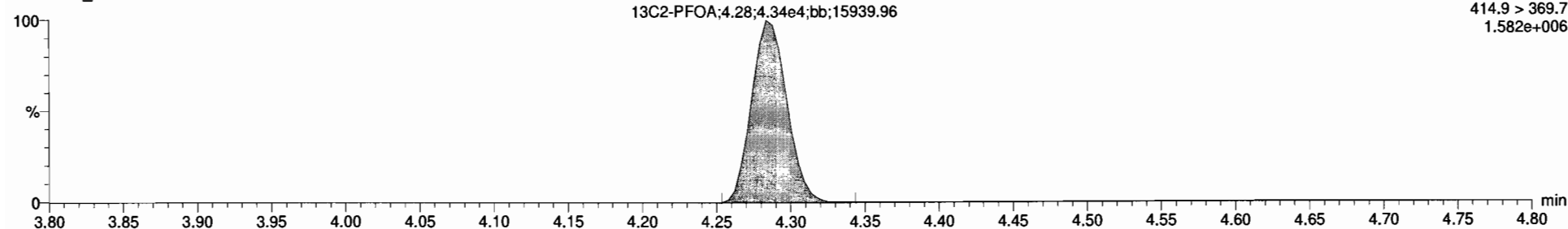


170316G1_2



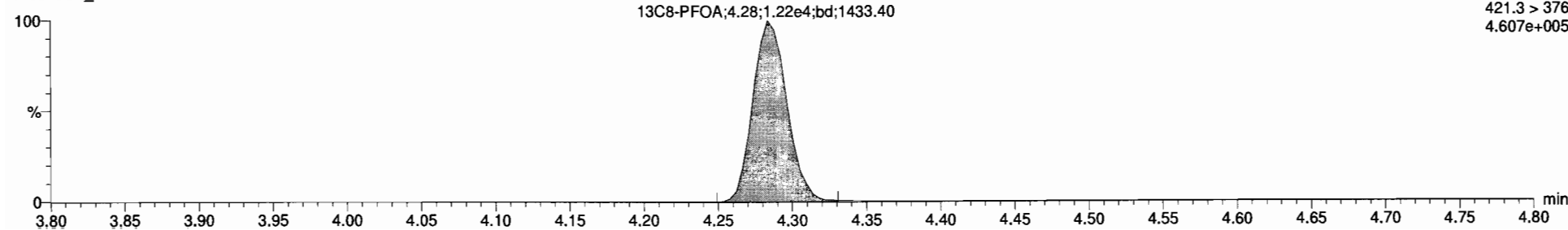
13C2-PFOA

170316G1_2



13C8-PFOA

170316G1_2



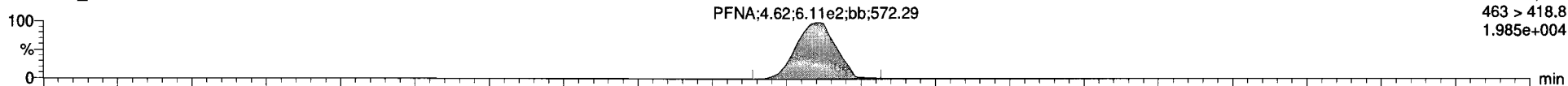
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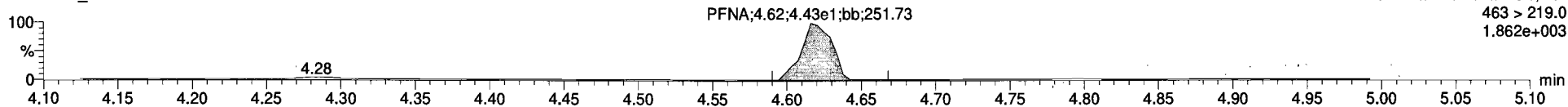
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PFNA

170316G1_2

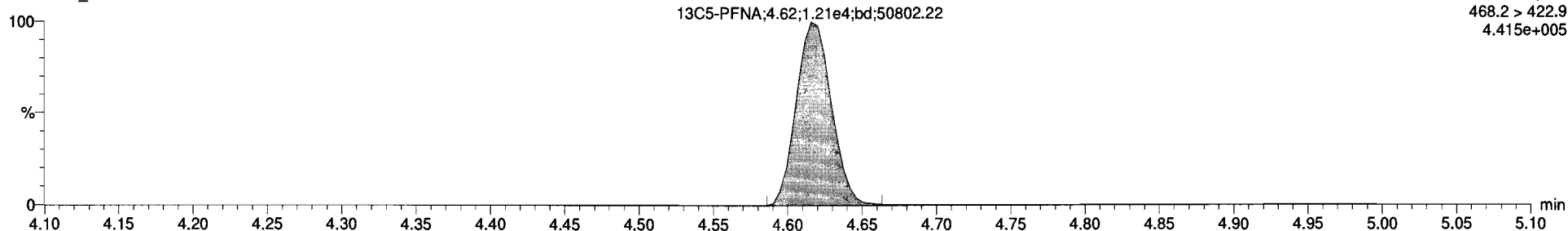


170316G1_2



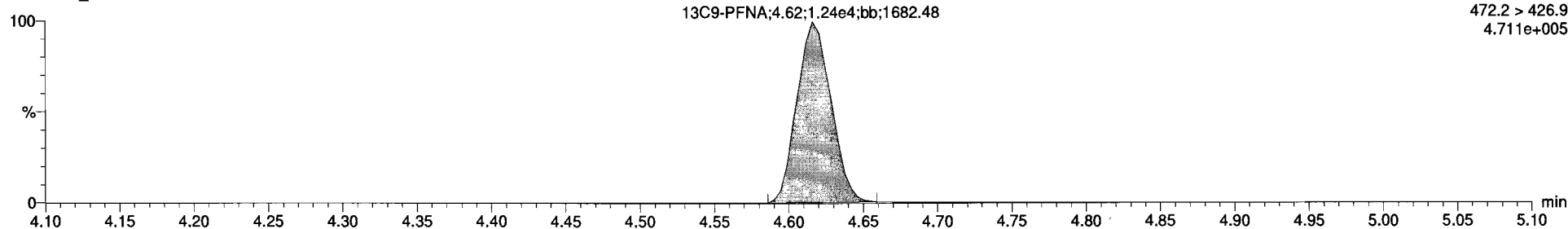
13C5-PFNA

170316G1_2



13C9-PFNA

170316G1_2



Dataset: Untitled

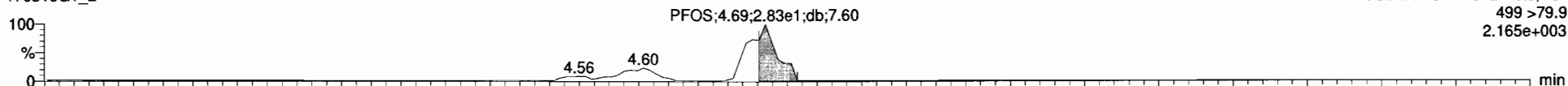
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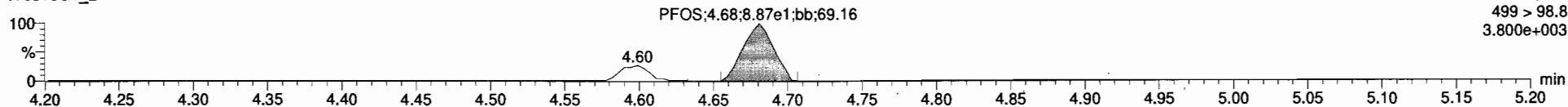
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PFOS

170316G1_2

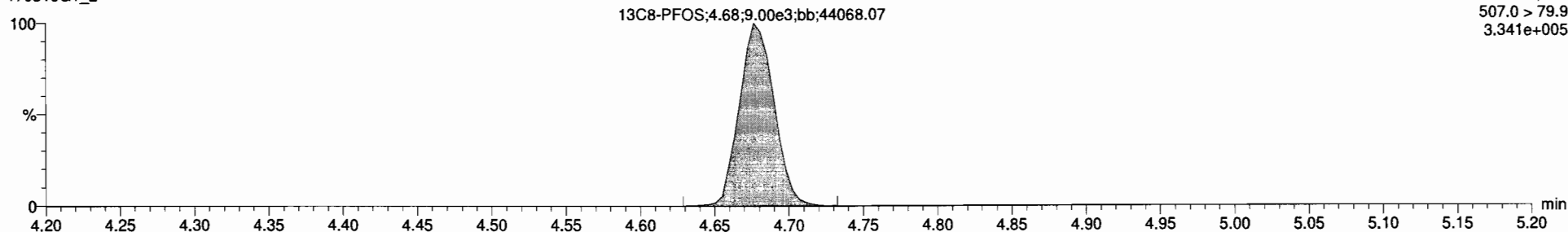


170316G1_2



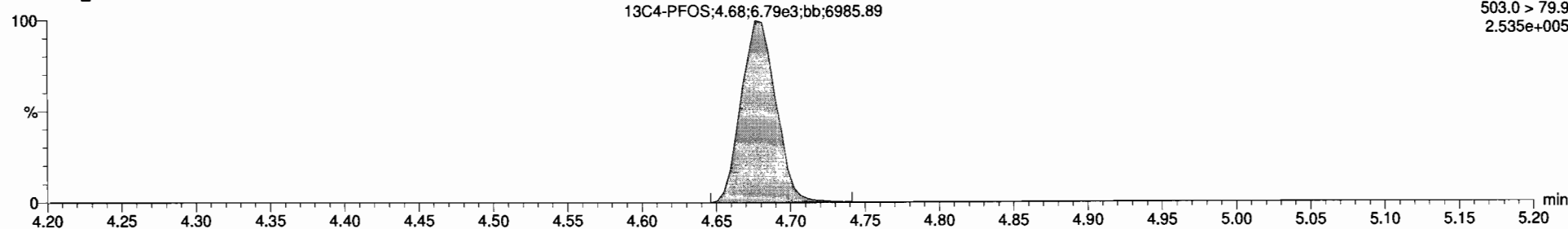
13C8-PFOS

170316G1_2

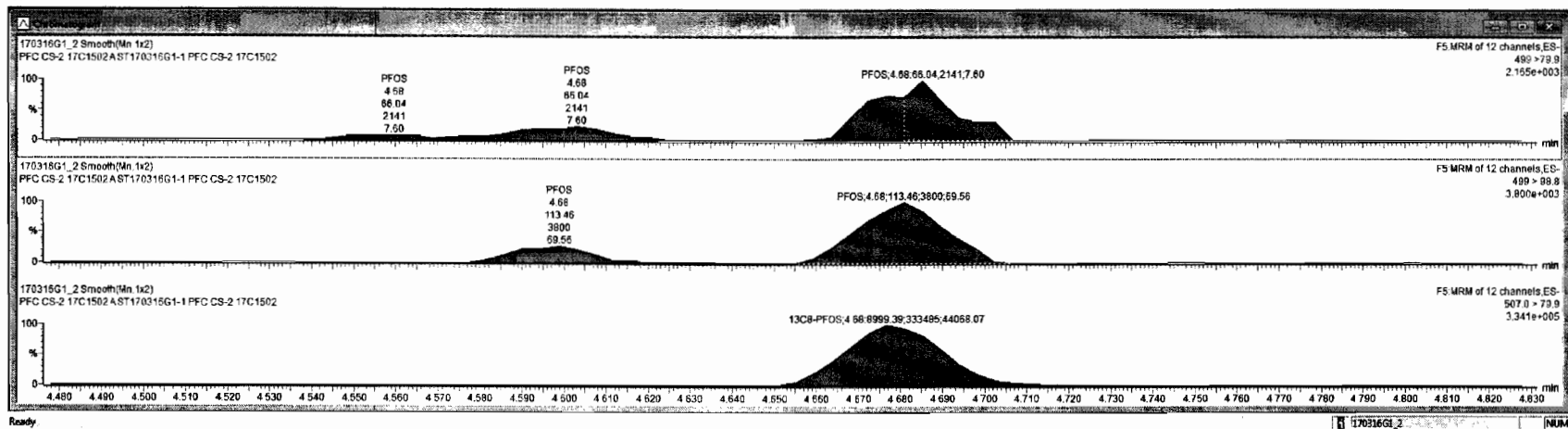


13C4-PFOS

170316G1_2



#	Name	Trace	Area	RF	WVAL	Pred RT	RT	Cong	MDL	%Rec	DL
1	PFBS	299 > 79.7	8.04e2		1.000	3.02	3.02	0.262	NO	104.9	
2	PFHpA	363 > 318.9	1.15e3		1.000	3.89	3.89	0.256	NO	102.4	
3	PFHxS	398.9 > 79.6	5.14e2		1.000	4.00	4.01	0.309	NO	123.7	
4	PFOA	413 > 368.7	1.33e3		1.000	4.28	4.29	0.276	NO	119.4	
5	PFNA	463 > 418.8	6.11e2		1.000	4.62	4.62	0.207	NO	83.0	
6	PFOS	499 > 79.9	6.60e1		1.000	4.68	4.68	0.304	NO	121.3	0.1857068
7	13C3-PFBS	302.0 > 98.8	1.14e4	0.501	1.000	2.99	3.02	14.1	NO	113.1	0.0132552
8	13C4-PFHpA	367.2 > 321.8	2.52e4	1.24	1.000	3.88	3.89	12.7	NO	101.7	0.0362873
9	18O2-PFHxS	403 > 102.6	1.00e4	0.495	1.000	4.01	4.00	12.7	NO	101.3	0.0001963
10	13C2-PFOA	414.9 > 369.7	4.34e4	3.22	1.000	4.28	4.28	13.8	NO	110.8	0.0020878
11	13C5-PFNA	468.2 > 422.9	1.21e4	0.979	1.000	4.62	4.62	12.4	NO	99.0	0.0005903
12	13C8-PFOS	507.0 > 79.9	9.00e3	1.00	1.000	4.68	4.68	15.3	NO	122.6	0.0006647
13	13C5-PFHxA	318 > 272.9	3.44e4	1.00	1.000	3.29	3.37	12.5	NO	100.0	0.0029473
14	13C3-PFHxS	401.9 > 79.9	2.01e4	1.00	1.000	3.94	4.01	12.5	NO	100.0	0.0001684
15	13C8-PFOA	421.3 > 376	1.22e4	1.00	1.000	4.22	4.28	12.5	NO	100.0	0.0218913
16	13C3-PFNA	472.2 > 426.9	1.24e4	1.00	1.000	4.56	4.62	12.5	NO	100.0	0.0185737
17	13C4-PFOS	503.0 > 79.9	5.79e3	1.00	1.000	4.67	4.68	12.5	NO	100.0	0.0044733
18	Total PFBS	299 > 79.7	8.04e2		1.000	3.11		0.262	NO		
19	Total PFHxS	398.9 > 79.6	5.92e2		1.000	4.00		0.310	NO		
20	Total PFOA	413 > 368.7	1.37e3		1.000	4.39		0.276	NO		
21	Total PFOS	499 > 79.9	7.17e1		1.000	4.67		0.456	NO		0.1857068



Dataset: Untitled

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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

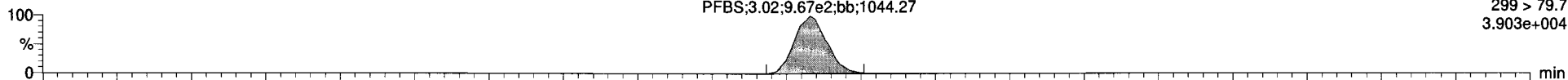
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PFBS

170316G1_3

PFBS;3.02;9.67e2;bb;1044.27

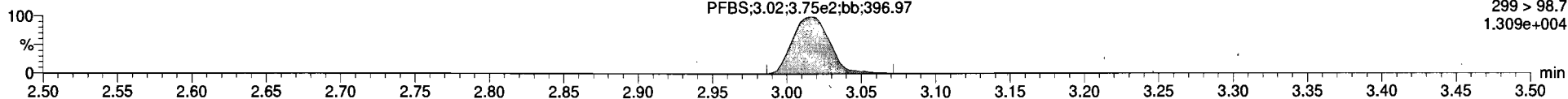
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299 > 79.7
3.903e+004



170316G1_3

PFBS;3.02;3.75e2;bb;396.97

F2:MRM of 3 channels,ES-
299 > 98.7
1.309e+004

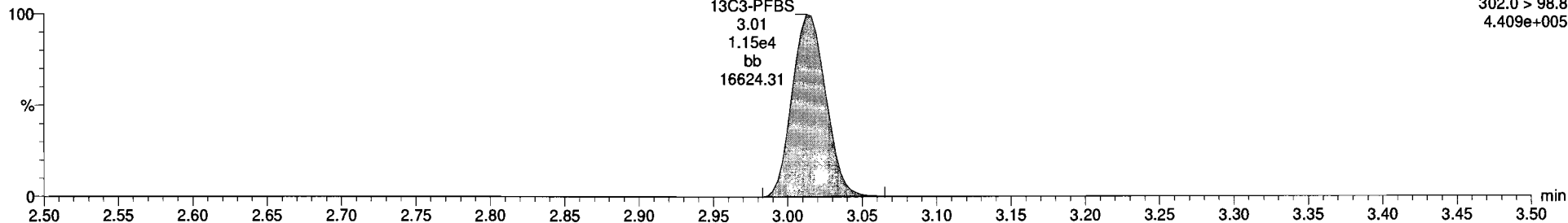


13C3-PFBS

170316G1_3

13C3-PFBS
3.01
1.15e4
bb
16624.31

F2:MRM of 3 channels,ES-
302.0 > 98.8
4.409e+005

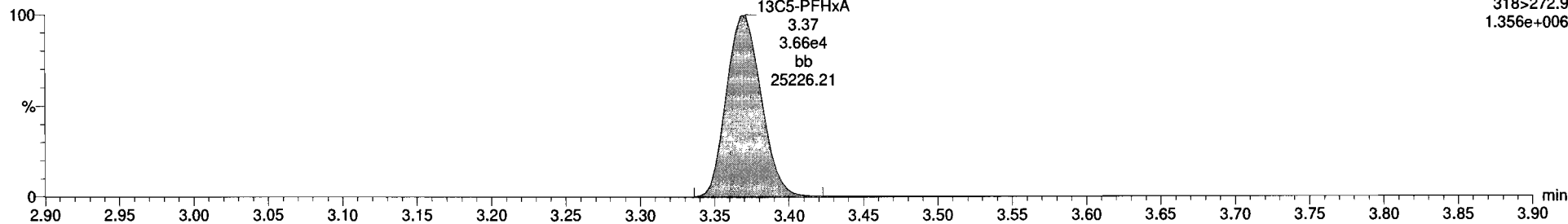


13C5-PFHxA

170316G1_3

13C5-PFHxA
3.37
3.66e4
bb
25226.21

F3:MRM of 1 channel,ES-
318>272.9
1.356e+006



Dataset: Untitled

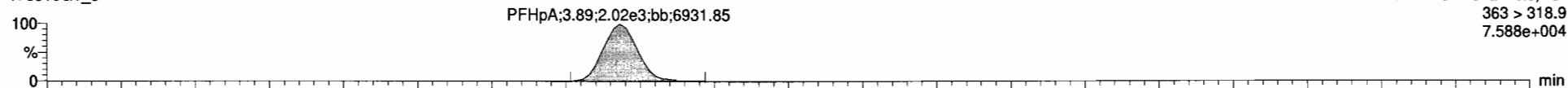
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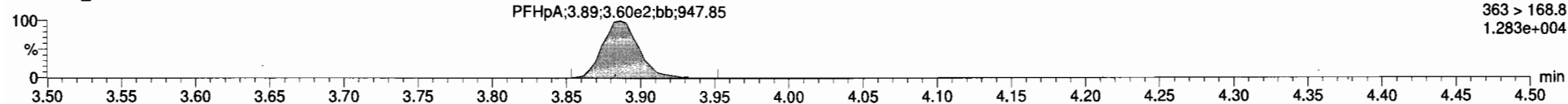
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PFHpA

170316G1_3

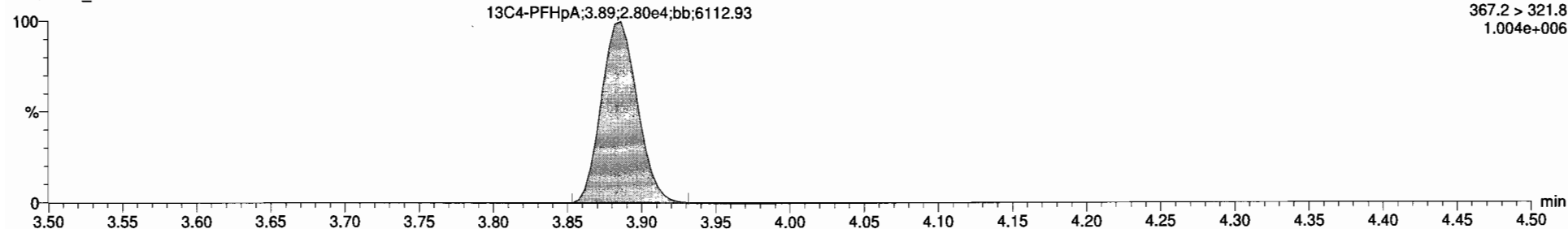


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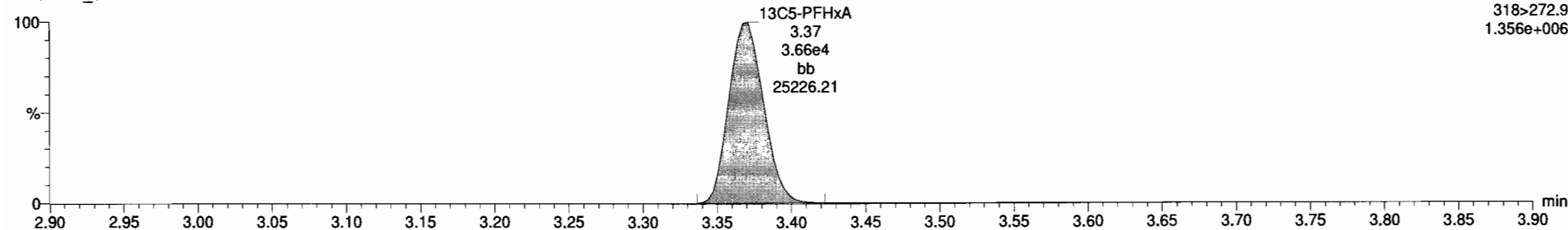
13C4-PFHpA

170316G1_3



13C5-PFHxA

170316G1_3



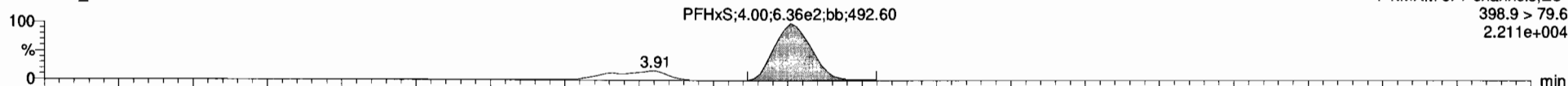
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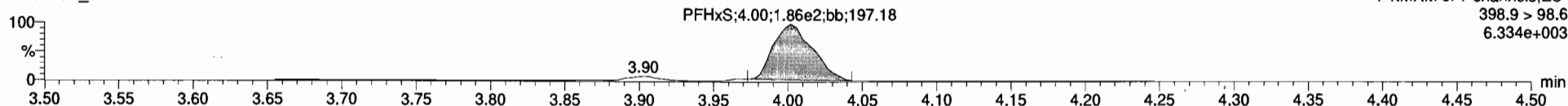
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PFHxS

170316G1_3

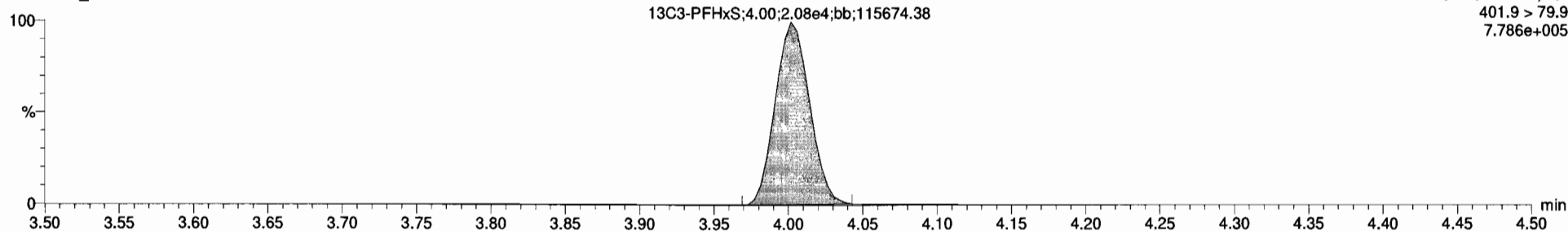


170316G1_3



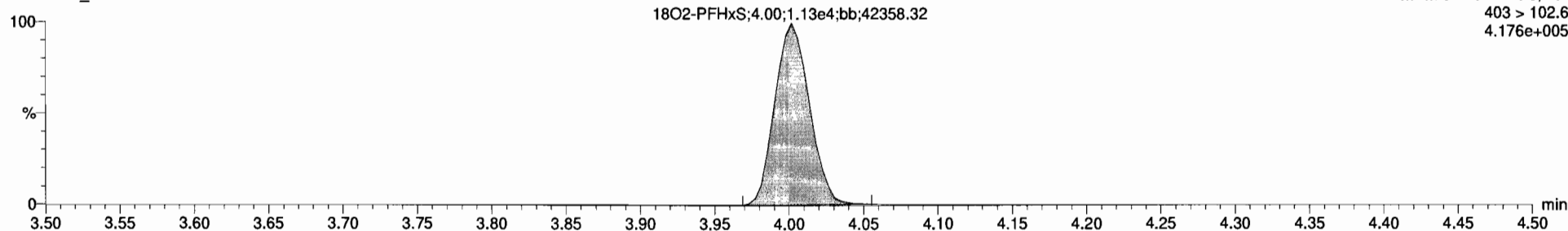
13C3-PFHxS

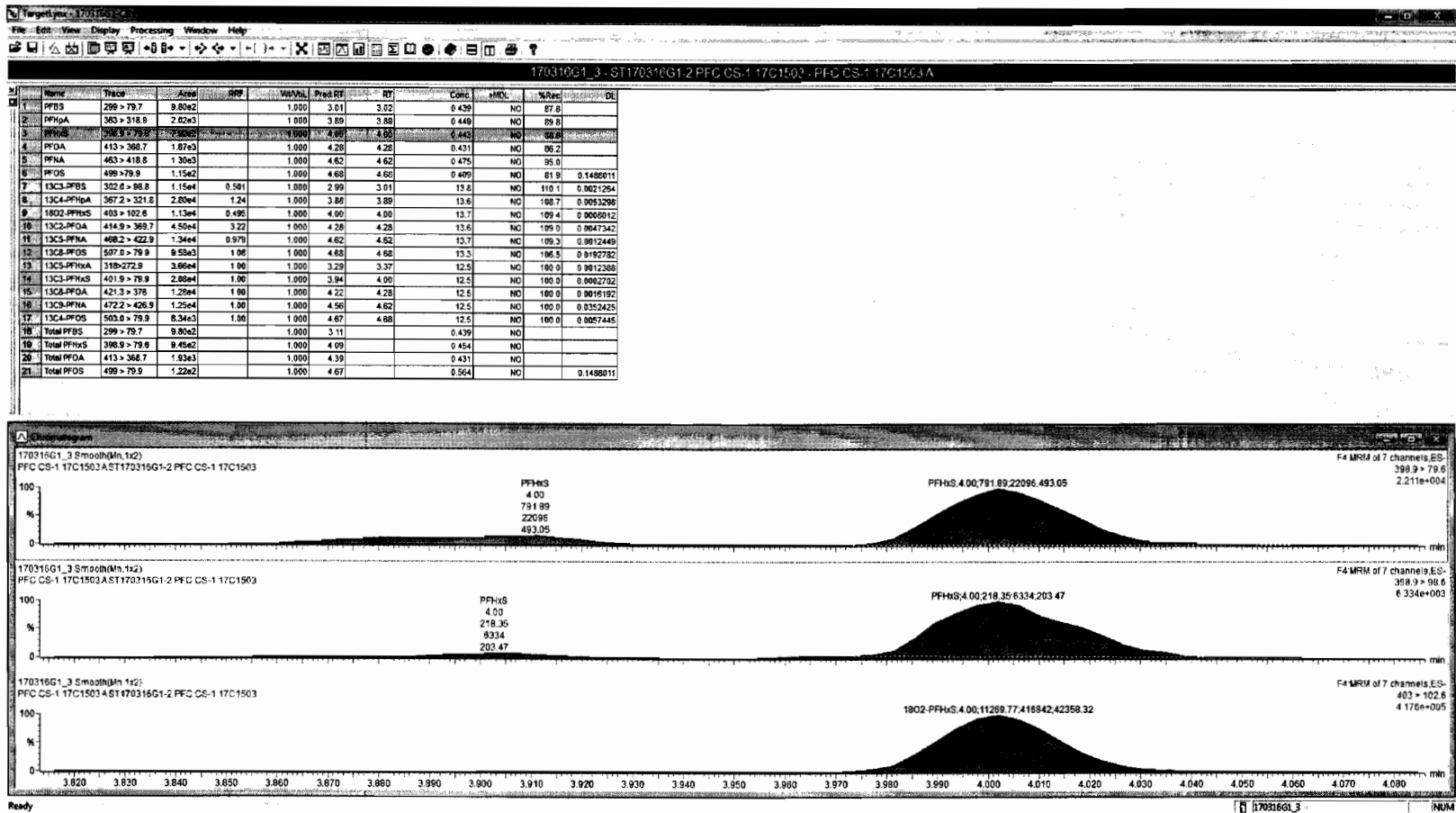
170316G1_3



18O2-PFHxS

170316G1_3





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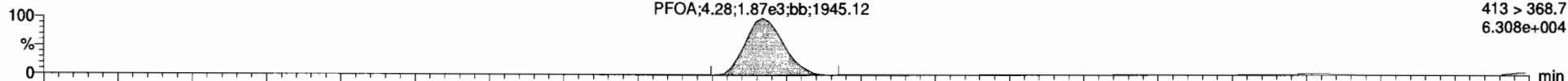
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PFOA

170316G1_3

PFOA;4.28;1.87e3;bb;1945.12

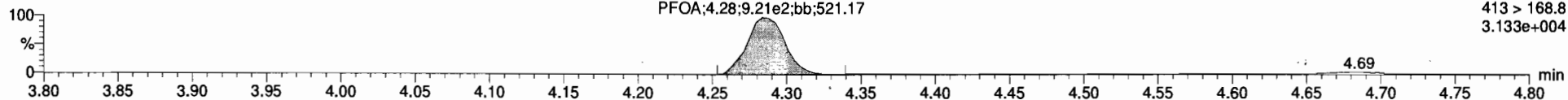
F5:MRM of 12 channels,ES-
413 > 368.7
6.308e+004



170316G1_3

PFOA;4.28;9.21e2;bb;521.17

F5:MRM of 12 channels,ES-
413 > 168.8
3.133e+004

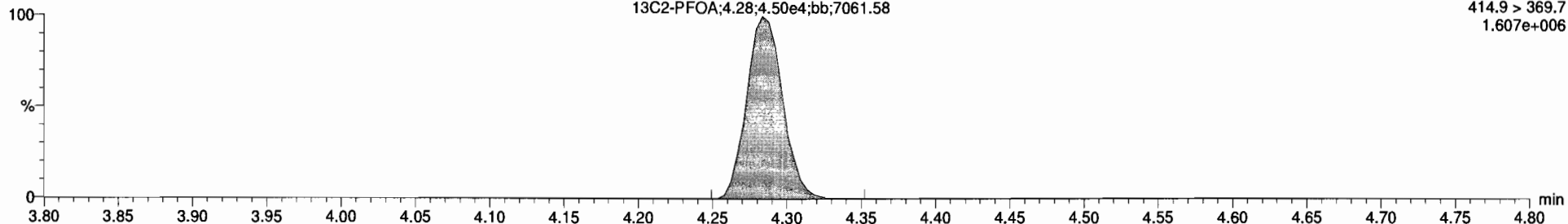


13C2-PFOA

170316G1_3

13C2-PFOA;4.28;4.50e4;bb;7061.58

F5:MRM of 12 channels,ES-
414.9 > 369.7
1.607e+006

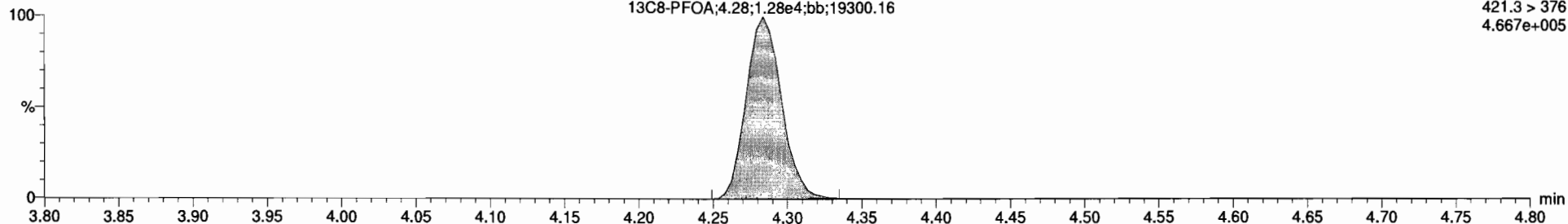


13C8-PFOA

170316G1_3

13C8-PFOA;4.28;1.28e4;bb;19300.16

F5:MRM of 12 channels,ES-
421.3 > 376
4.667e+005



Dataset: Untitled

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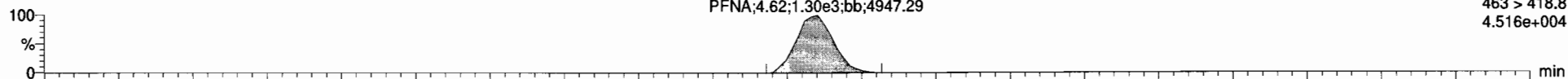
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PFNA

170316G1_3

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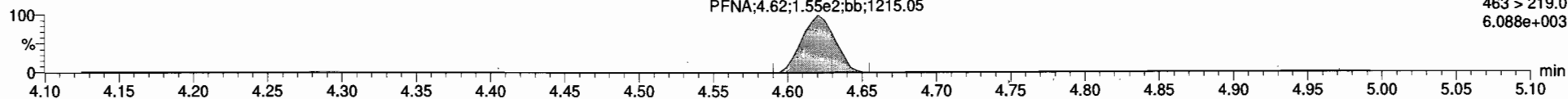
F5:MRM of 12 channels,ES-
463 > 418.8
4.516e+004



170316G1_3

PFNA;4.62;1.55e2;bb;1215.05

F5:MRM of 12 channels,ES-
463 > 219.0
6.088e+003

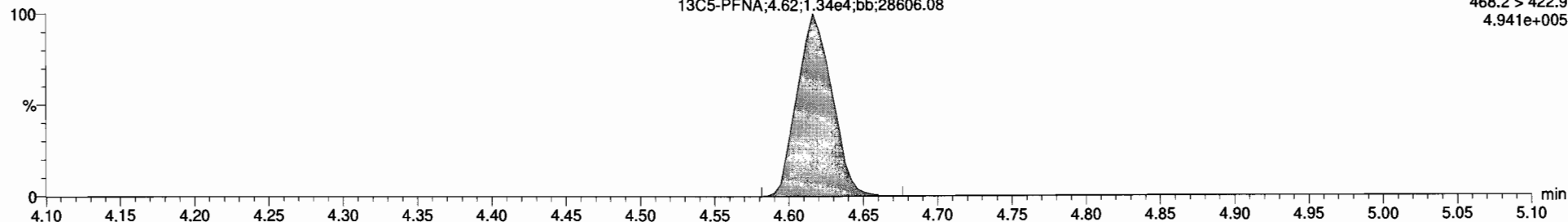


13C5-PFNA

170316G1_3

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F5:MRM of 12 channels,ES-
468.2 > 422.9
4.941e+005

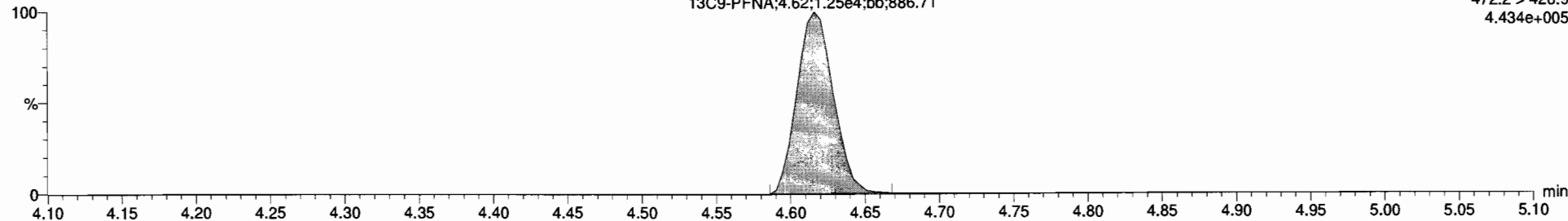


13C9-PFNA

170316G1_3

13C9-PFNA;4.62;1.25e4;bb;886.71

F5:MRM of 12 channels,ES-
472.2 > 426.9
4.434e+005



Dataset: Untitled

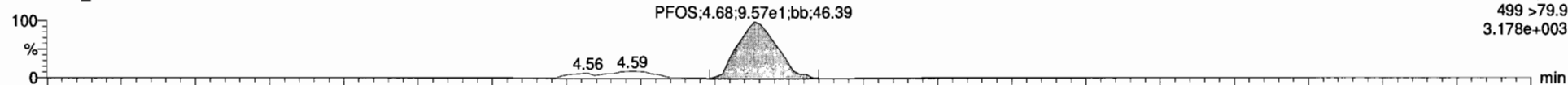
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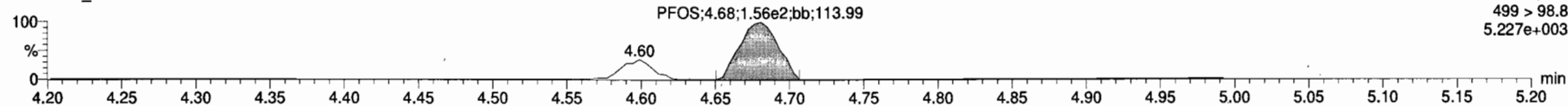
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PFOS

170316G1_3

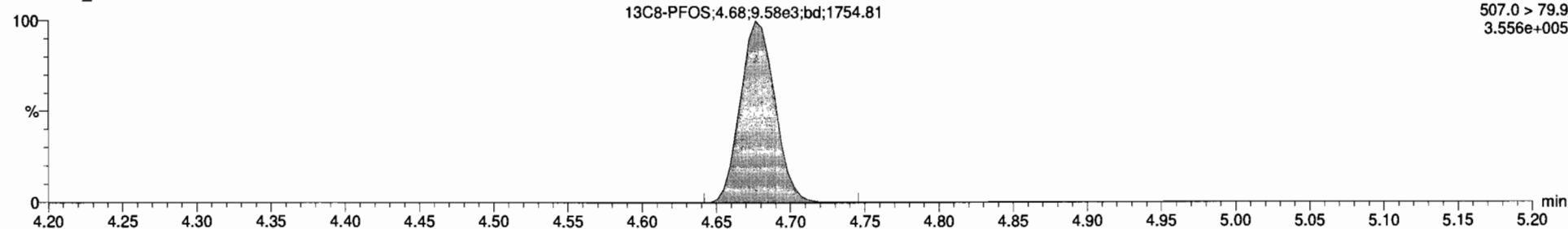


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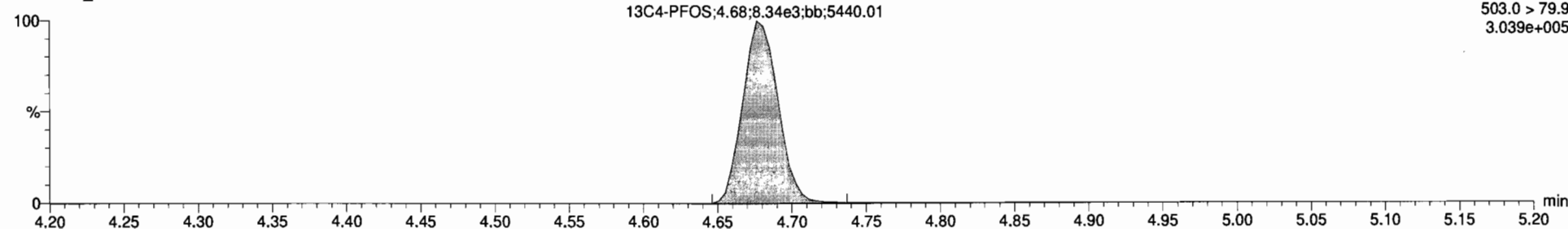
13C8-PFOS

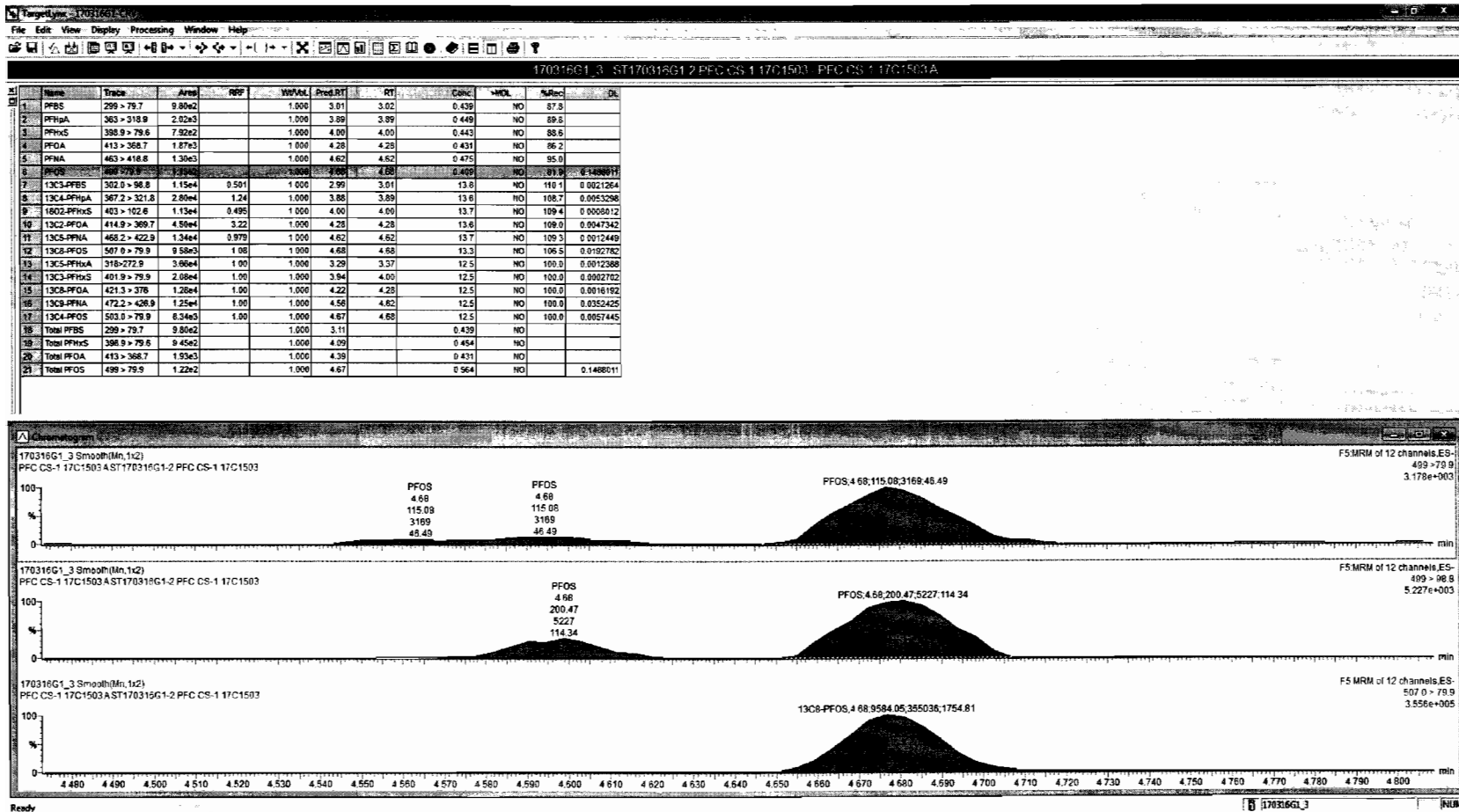
170316G1_3



13C4-PFOS

170316G1_3



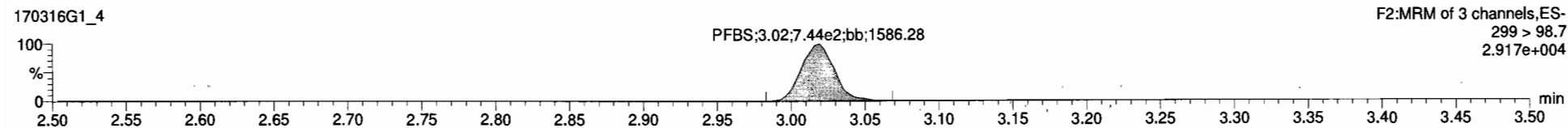
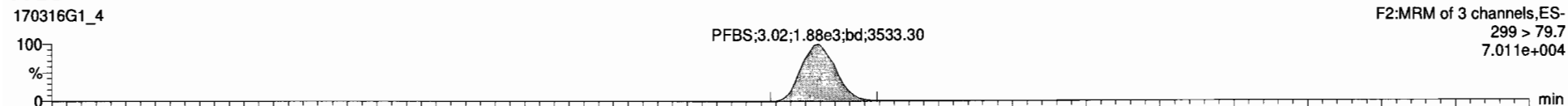


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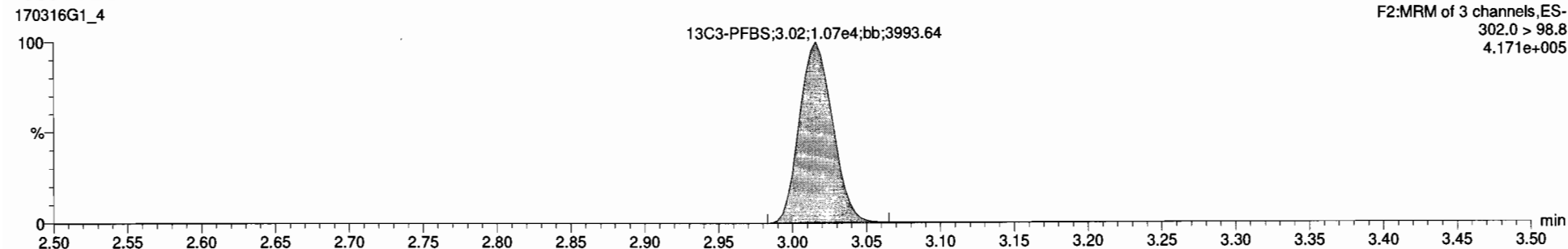
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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

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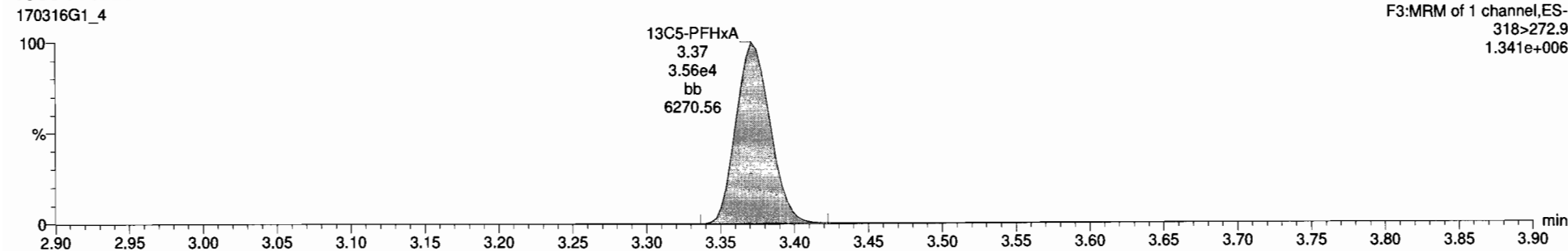
PFBS



13C3-PFBS



13C5-PFHxA



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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

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PFHpA

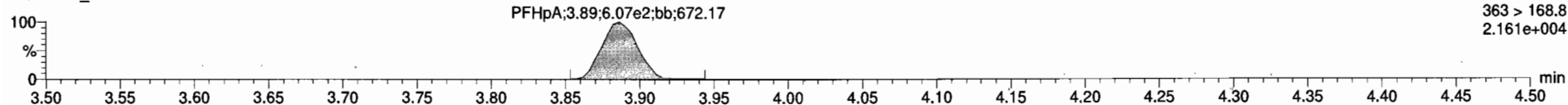
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F4:MRM of 7 channels,ES-
363 > 318.9
1.450e+005



170316G1_4

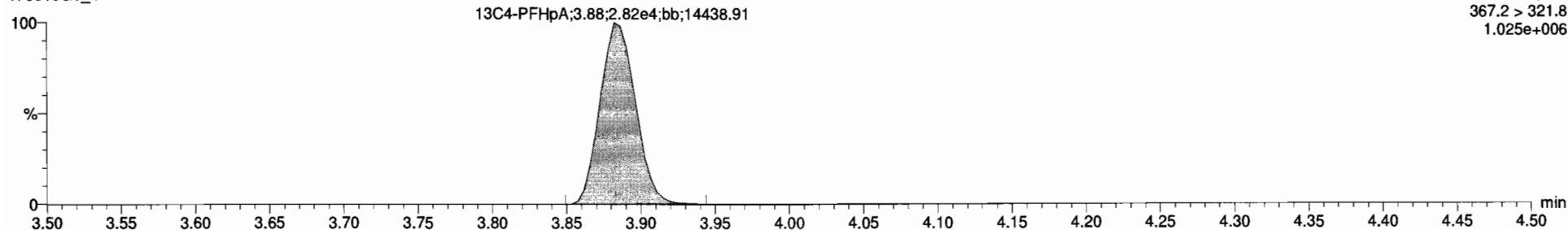
F4:MRM of 7 channels,ES-
363 > 168.8
2.161e+004



13C4-PFHpA

170316G1_4

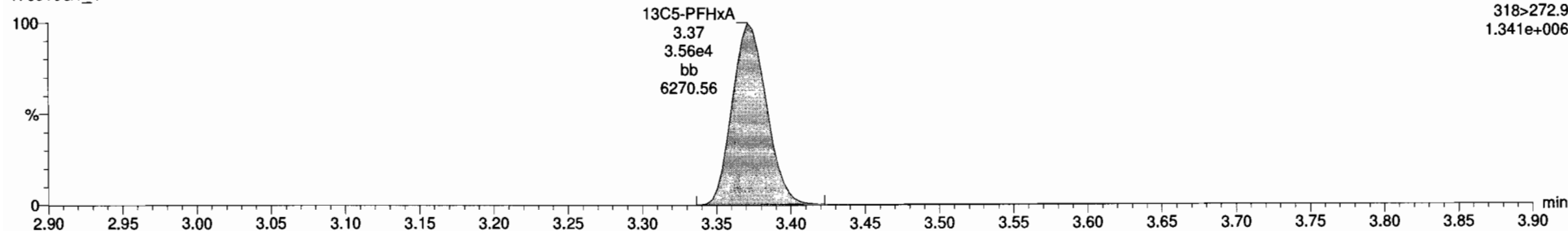
F4:MRM of 7 channels,ES-
367.2 > 321.8
1.025e+006



13C5-PFHxA

170316G1_4

F3:MRM of 1 channel,ES-
318>272.9
1.341e+006



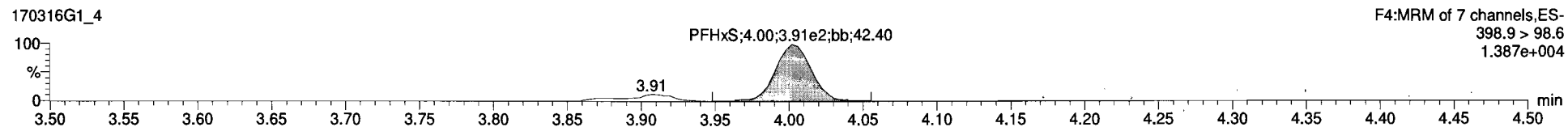
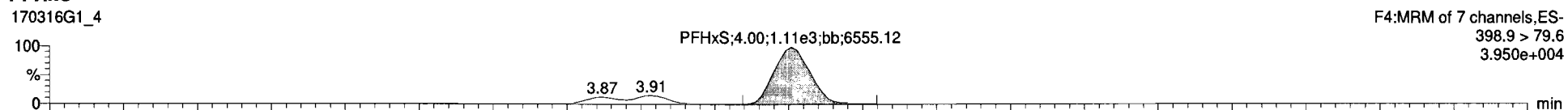
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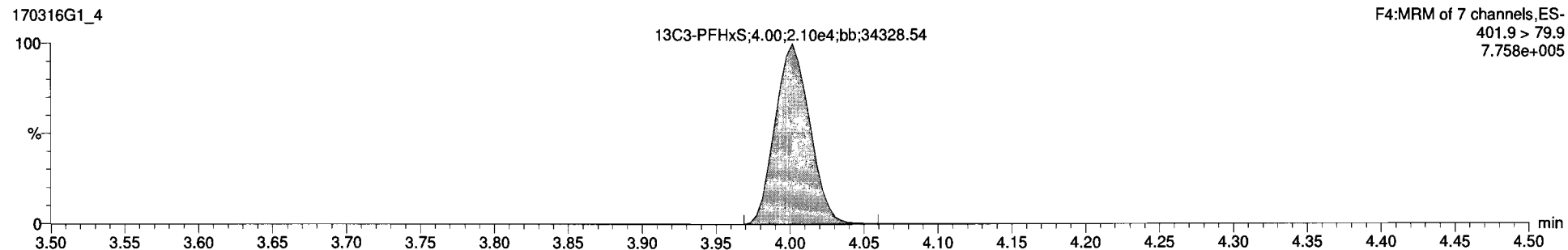
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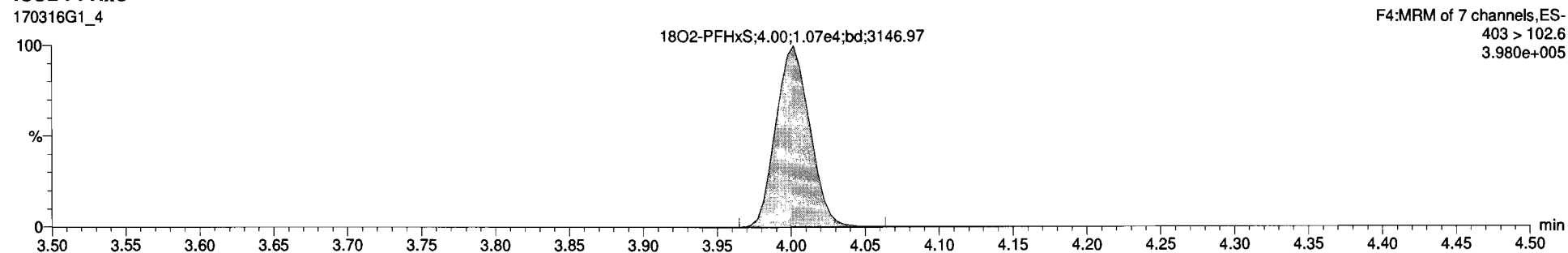
PFHxS



13C3-PFHxS

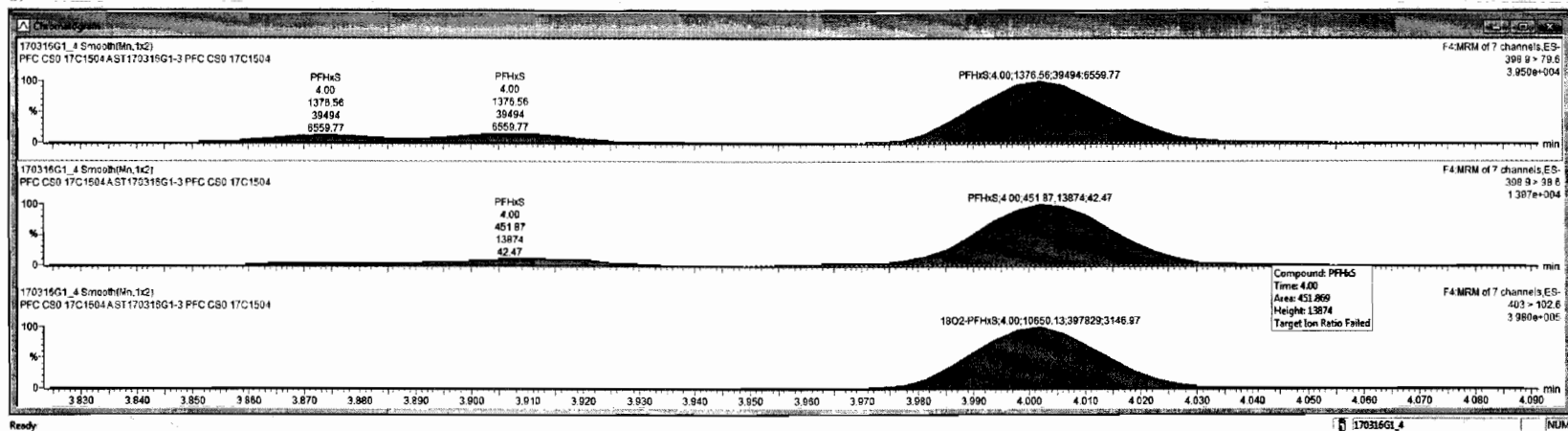


18O2-PFHxS



170316G1_4_ST170316G1_3.PEG.CS0.17C.1504_PEG.CS0.17C.1504A											
Name	Trace	Area	RM	WV	WV	WV	WV	WV	WV	WV	WV

Name	Trace	Area	RM	WV	WV	WV	WV	WV	WV	WV	WV
1	PFBS	299 > 79.7	1.85e3	1.000	3.02	3.02	0.934	NO	93.4		
2	PFHxS	383 > 318.8	3.91e3	1.000	3.68	3.69	0.929	NO	92.9		
3	PFHxS	386.9 > 79.6	1.64e3	1.000	4.00	4.00	0.937	NO	93.7		
4	PFOA	413 > 368.7	3.27e3	1.000	4.28	4.28	0.912	NO	91.2		
5	PFOA	463 > 418.8	2.08e3	1.000	4.62	4.62	0.964	NO	96.4		
6	PFOA	499 > 79.9	2.89e3	1.000	4.66	4.66	1.02	NO	102.3	0.1493747	
7	13C3-PFBS	382.2 > 58.8	1.07e4	0.501	1.000	2.99	3.02	12.7	NO	101.7	0.0083920
8	13C4-PFBS	387.2 > 321.8	2.52e4	1.24	1.000	3.88	3.88	13.6	NO	108.5	0.0023139
9	1002-PFHxS	403 > 102.6	1.07e4	0.495	1.000	4.00	4.00	12.8	NO	102.4	0.0103178
10	13C2-PFOA	414.9 > 368.7	4.37e4	3.22	1.000	4.28	4.28	12.6	NO	101.0	0.0036667
11	13C5-PFOA	468.2 > 422.9	1.14e4	0.979	1.000	4.62	4.62	11.6	NO	93.0	0.0120597
12	13C8-PFOS	507.0 > 79.9	6.65e3	1.08	1.000	4.60	4.60	12.1	NO	97.1	0.0022184
13	13C5-PFHxS	318.272.9	3.56e4	1.00	1.000	3.29	3.37	12.5	NO	100.0	0.0049636
14	13C3-PFHxS	401.9 > 79.9	2.10e4	1.00	1.000	3.94	4.00	12.5	NO	100.0	0.0009103
15	13C8-PFOA	421.3 > 376	1.34e4	1.00	1.000	4.22	4.28	12.5	NO	100.0	0.0083857
16	13C9-PFOA	472.2 > 426.9	1.25e4	1.00	1.000	4.56	4.62	12.5	NO	100.0	0.0012402
17	13C4-PFOS	503.0 > 79.9	6.53e3	1.00	1.000	4.67	4.68	12.5	NO	100.0	0.0459233
18	Total PFBS	299 > 79.7	1.89e3	1.000	3.11			0.934	NO		
19	Total PFHxS	386.9 > 79.6	1.64e3	1.000	4.09			0.933	NO		
20	Total PFOA	413 > 368.7	3.37e3	1.000	4.39			0.912	NO		
21	Total PFOS	499 > 79.9	2.89e3	1.000	4.67			1.23	NO		0.1493747



Dataset: Untitled

Last Altered: Thursday, March 16, 2017 13:27:05 Pacific Daylight Time

Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

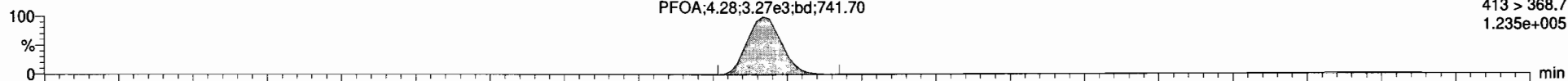
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PFOA

170316G1_4

PFOA;4.28;3.27e3;bd;741.70

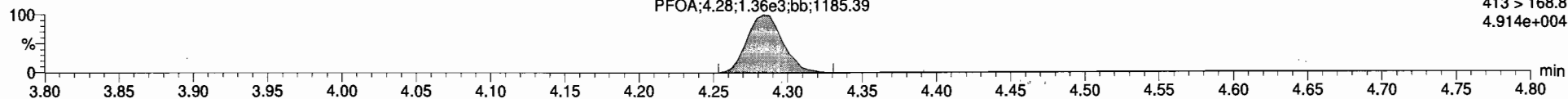
F5:MRM of 12 channels,ES-
413 > 368.7
1.235e+005



170316G1_4

PFOA;4.28;1.36e3;bb;1185.39

F5:MRM of 12 channels,ES-
413 > 168.8
4.914e+004

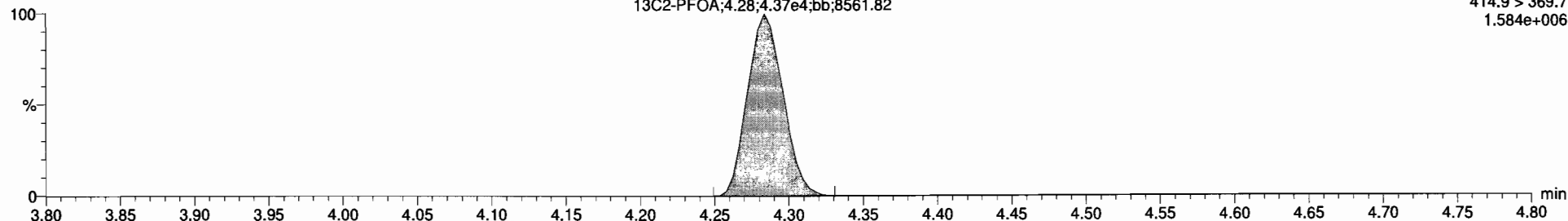


13C2-PFOA

170316G1_4

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F5:MRM of 12 channels,ES-
414.9 > 369.7
1.584e+006

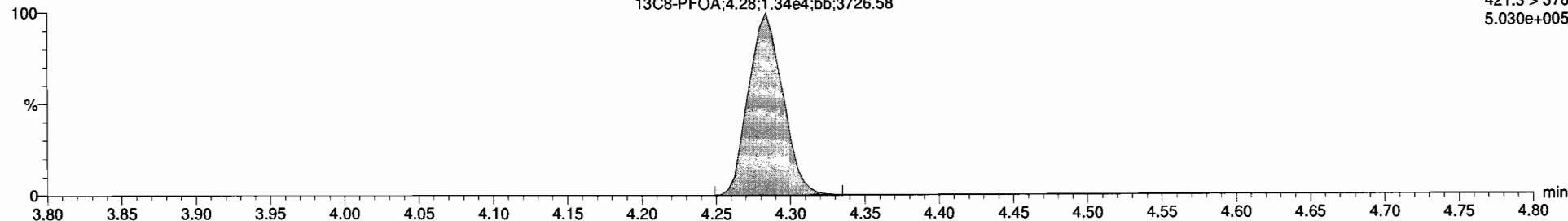


13C8-PFOA

170316G1_4

13C8-PFOA;4.28;1.34e4;bb;3726.58

F5:MRM of 12 channels,ES-
421.3 > 376
5.030e+005



Dataset: Untitled

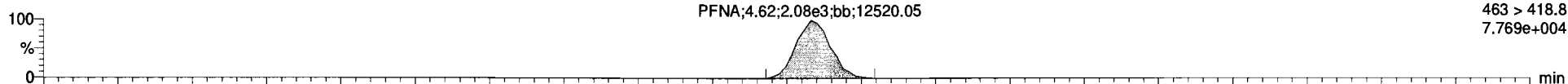
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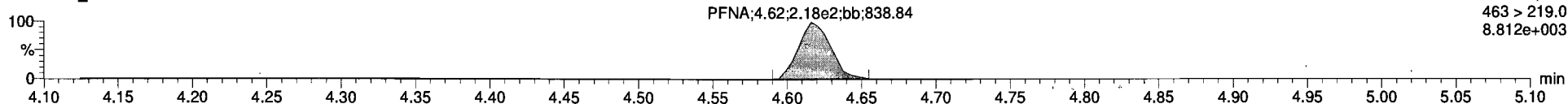
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PFNA

170316G1_4

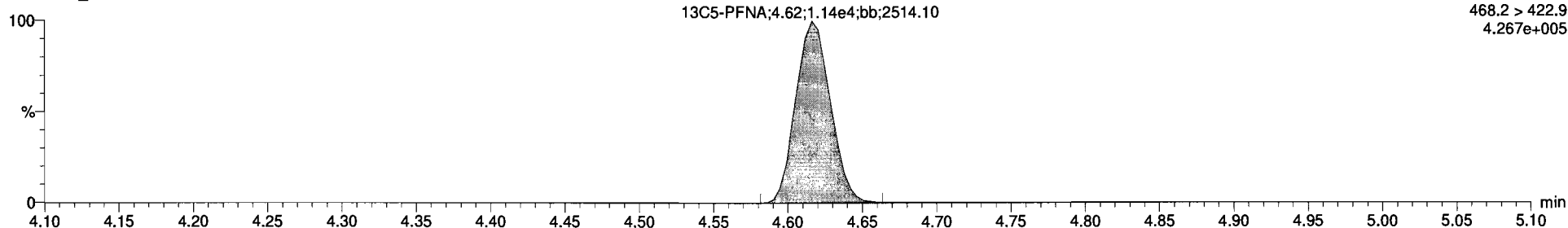


170316G1_4



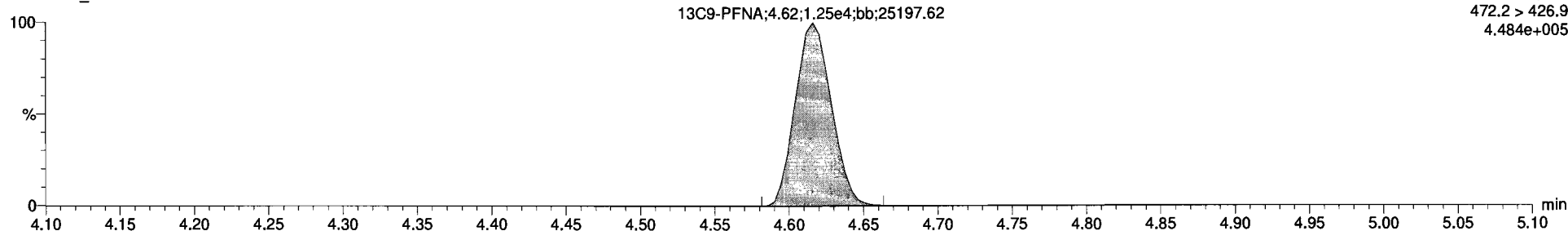
13C5-PFNA

170316G1_4



13C9-PFNA

170316G1_4

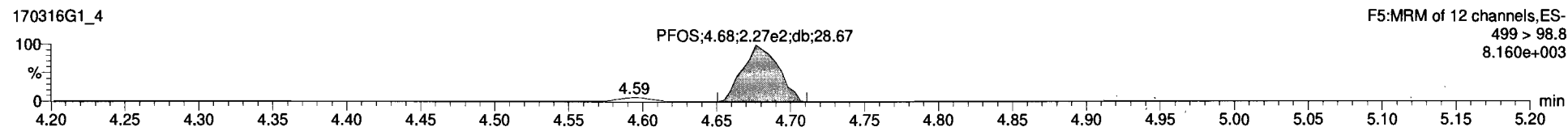
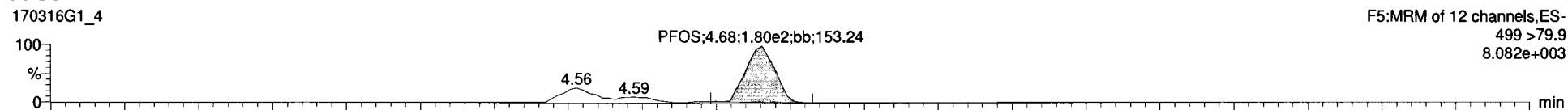


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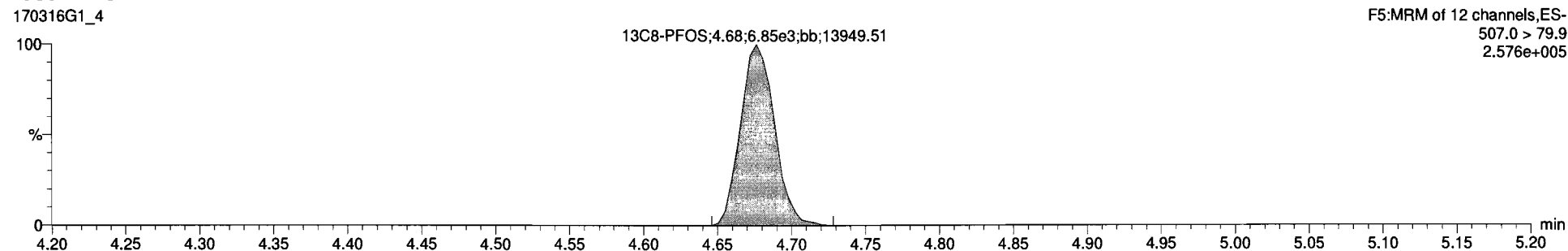
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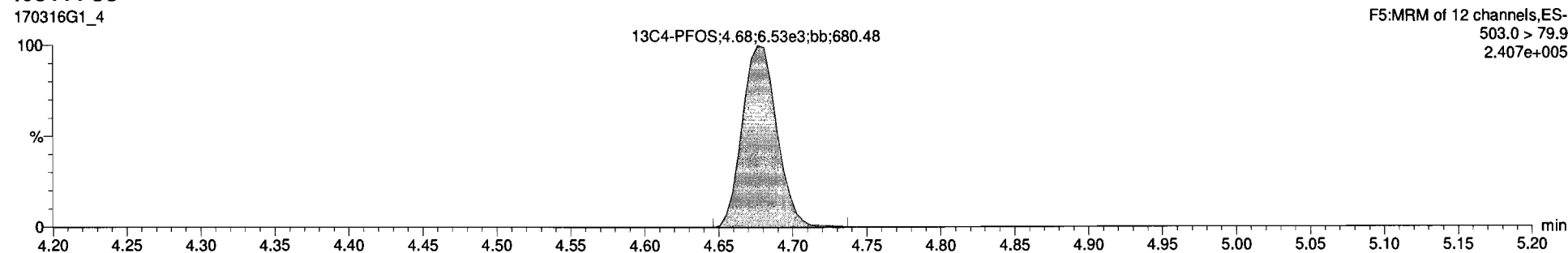
PFOS



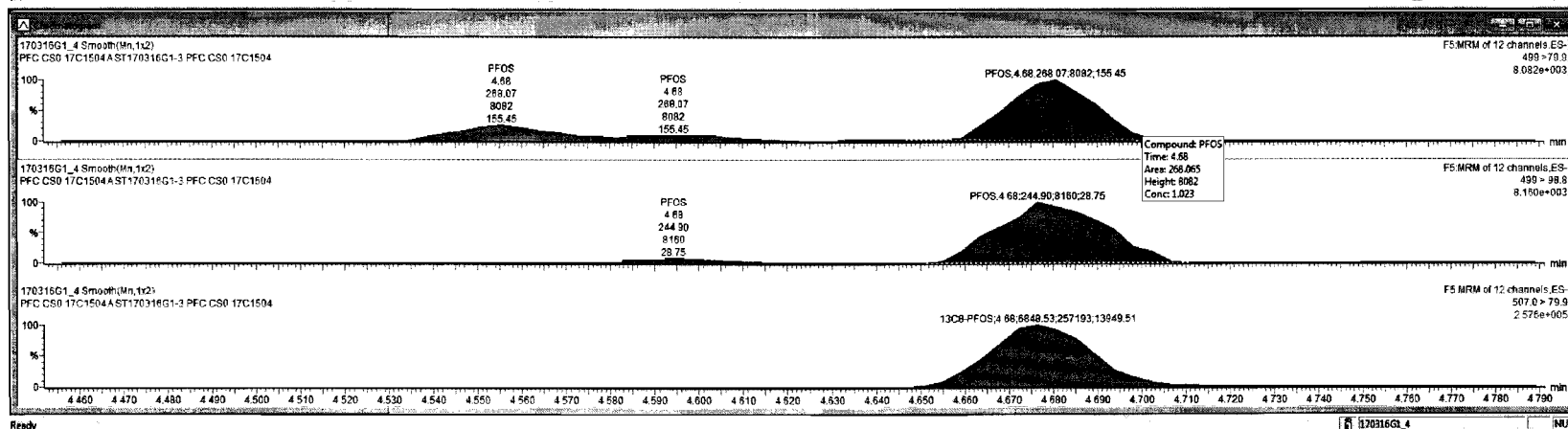
13C8-PFOS



13C4-PFOS



Name	Trace	Area	RRF	WtVol	ProdRT	RT	Conc	MDL	%Rec	DL
1 PFBS	299 > 79.7	1.88e3		1.000	3.02	3.02	0.934	NO	93.4	
2 PFHpA	363 > 318.9	3.91e3		1.000	3.88	3.88	0.929	NO	92.9	
3 PFHxS	396.9 > 79.6	1.38e3		1.000	4.00	4.00	0.857	NO	85.7	
4 PFDA	413 > 368.7	3.27e3		1.000	4.28	4.28	0.912	NO	91.2	
5 PFNA	463 > 418.8	2.88e3		1.000	4.62	4.62	0.964	NO	96.4	
6 PFOS	468 > 288.07	8.08e3		1.000	4.68	4.68	1.023	NO	102.3	
7 13C3-PFBS	302.0 > 98.8	1.07e4	0.501	1.000	2.99	3.02	12.7	NO	101.7	0.0083920
8 13C4-PFHpA	367.2 > 321.8	2.82e4	1.24	1.000	3.88	3.88	13.6	NO	108.5	0.0023198
9 18O2-PFHxS	403 > 102.8	1.07e4	0.485	1.000	4.00	4.00	12.8	NO	102.4	0.0103178
10 13C2-PFOA	414.9 > 369.7	4.37e4	3.22	1.000	4.28	4.28	12.6	NO	101.0	0.0035667
11 13C5-PFNA	468.2 > 422.9	1.14e4	0.879	1.000	4.62	4.62	11.6	NO	93.0	0.0120587
12 13C8-PFOS	507.0 > 79.9	6.85e3	1.08	1.000	4.68	4.68	12.1	NO	97.1	0.0022184
13 13C3-PFHpA	318 > 272.9	3.56e4	1.00	1.000	3.29	3.37	12.5	NO	100.0	0.0049636
14 13C3-PFHxS	401.9 > 79.9	2.10e4	1.00	1.000	3.94	4.00	12.5	NO	100.0	0.0009103
15 13C8-PFOA	421.3 > 376	1.34e4	1.00	1.000	4.22	4.28	12.5	NO	100.0	0.0083057
16 13C5-PFNA	472.2 > 426.9	1.25e4	1.00	1.000	4.56	4.62	12.5	NO	100.0	0.0012402
17 13C4-PFOS	503.0 > 79.9	6.53e3	1.00	1.000	4.67	4.68	12.5	NO	100.0	0.0458233
18 Total PFBS	299 > 79.7	1.88e3		1.005	3.11		0.934	NO		
19 Total PFHxS	396.9 > 79.6	1.64e3		1.000	4.09		0.833	NO		
20 Total PFDA	413 > 368.7	3.37e3		1.000	4.39		0.912	NO		
21 Total PFOS	469 > 79.9	2.88e3		1.000	4.67		1.23	NO		0.1483747



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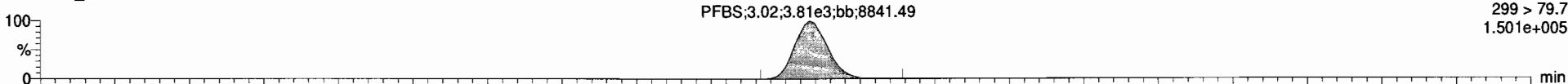
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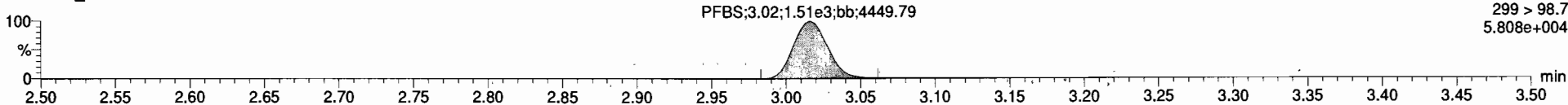
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PFBS

170316G1_5

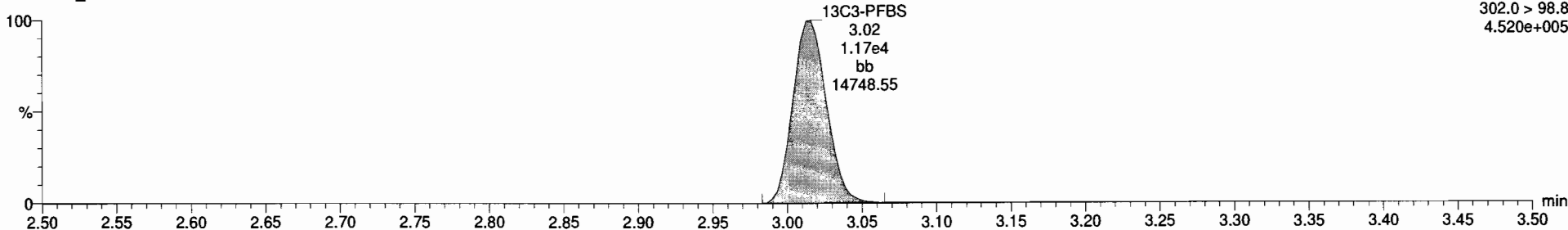


170316G1_5



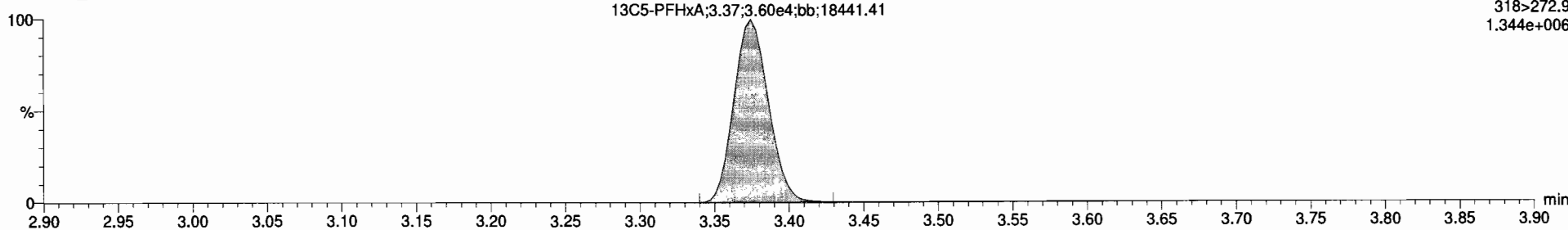
13C3-PFBS

170316G1_5



13C5-PFHxA

170316G1_5



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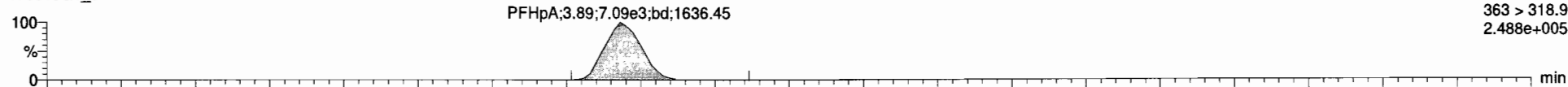
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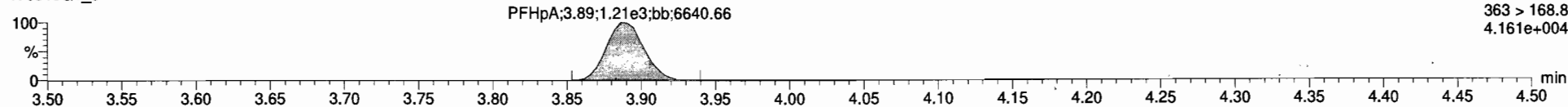
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PFHpA

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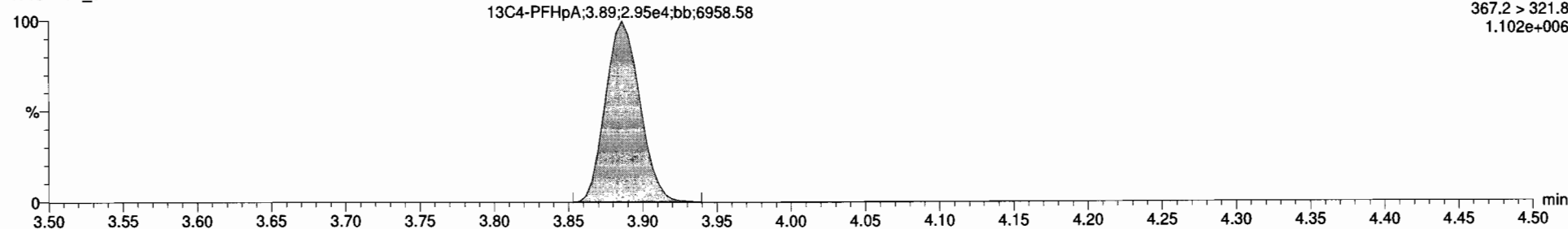


170316G1_5



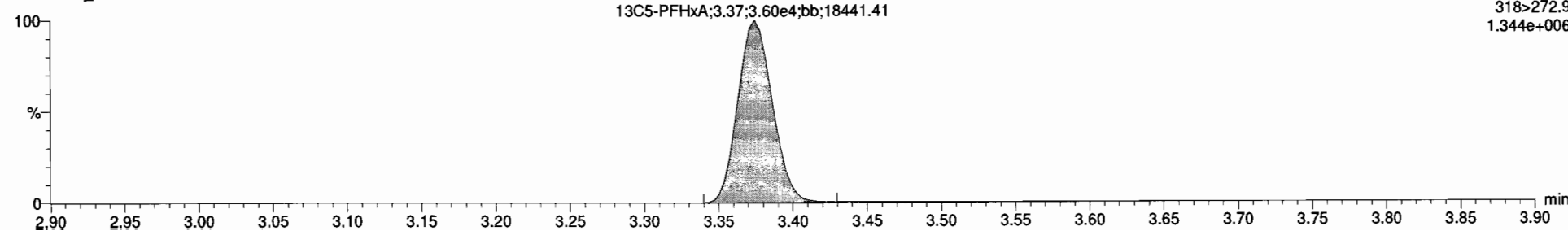
13C4-PFHpA

170316G1_5



13C5-PFHxA

170316G1_5



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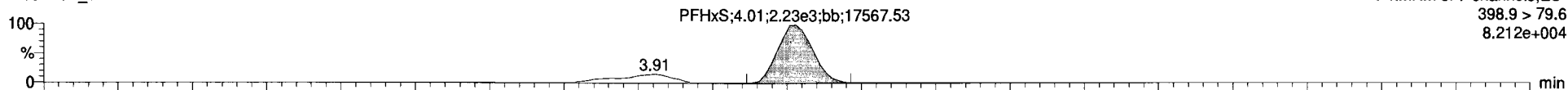
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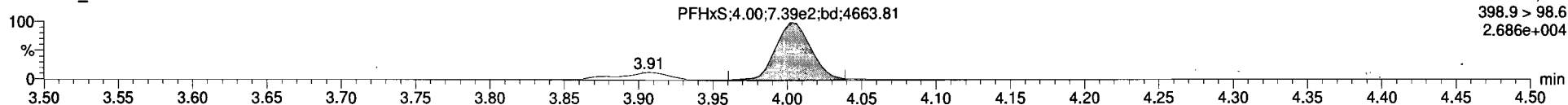
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PFHxS

170316G1_5

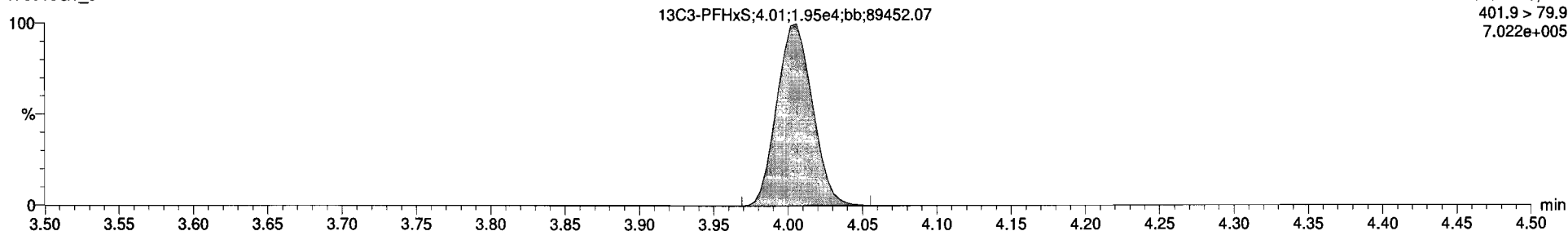


170316G1_5



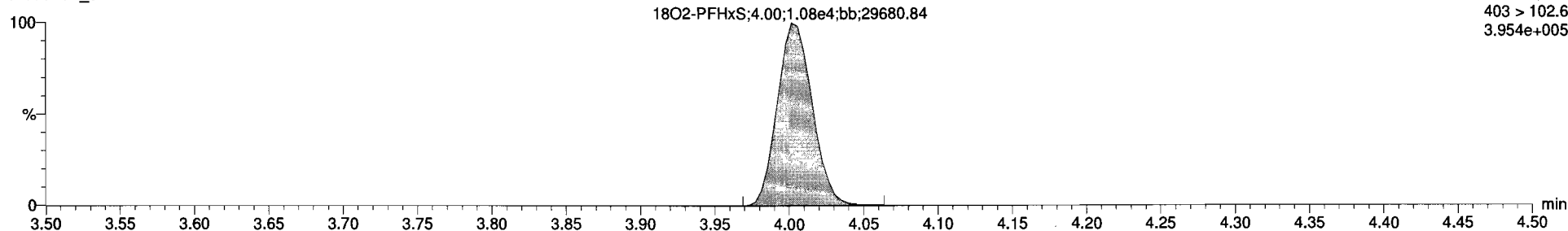
13C3-PFHxS

170316G1_5

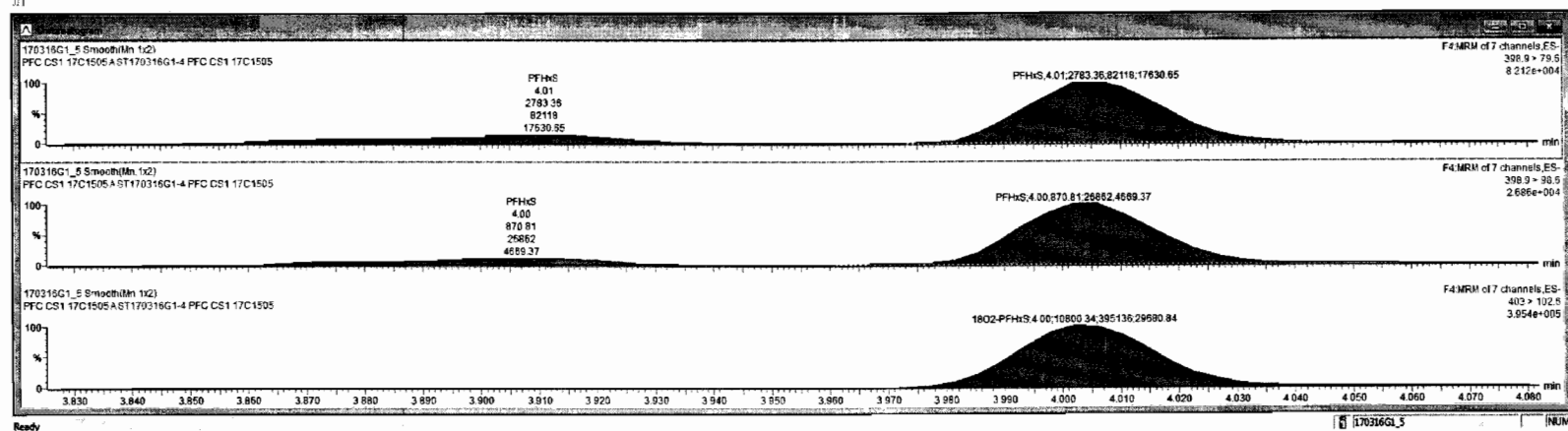


18O2-PFHxS

170316G1_5



#	Name	Track	Area	RRF	WVWL	Prod RT	RT	Comp	%ML	%Rec	OL
1	PFBS	299 > 79.7	3.81e3		1.000	3.02	3.02	1.76	NO	68.1	
2	PFHxA	363 > 318.9	7.07e3		1.000	3.89	3.89	1.66	NO	83.1	
3	PFHxS	385.9 > 78.91	1.87e3		1.000	4.00	4.00	1.78	NO	81.8	
4	PFOA	413 > 368.7	5.68e3		1.000	4.29	4.29	1.69	NO	94.4	
5	PFNA	483 > 418.8	4.12e3		1.000	4.62	4.62	1.60	NO	89.8	
6	PFOS	499 > 78.9	5.07e3		1.000	4.69	4.69	1.69	NO	84.4	0.1574018
7	13C1-PFBS	302.0 > 98.8	1.17e4	0.501	1.000	2.99	3.02	14.9	NO	119.6	0.0027187
8	13C4-PFHxA	367.2 > 321.8	2.95e4	1.24	1.000	3.88	3.89	15.3	NO	122.1	0.0059950
9	18O2-PFHxS	403 > 192.6	1.06e4	0.495	1.000	4.01	4.00	14.0	NO	111.8	0.0011996
10	13C2-PFOA	414.9 > 369.7	4.40e4	3.22	1.000	4.28	4.29	13.6	NO	109.1	0.0046710
11	13C5-PFNA	468.2 > 422.9	1.26e4	0.976	1.000	4.62	4.62	14.0	NO	112.4	0.0326380
12	13C8-PFOS	507.6 > 78.9	7.36e3	1.86	1.000	4.68	4.69	12.7	NO	101.5	0.0151399
13	13C5-PFHxA	318.0 > 272.9	3.60e4	1.80	1.000	3.20	3.35	12.5	NO	100.0	0.0018646
14	13C3-PFHxS	401.9 > 78.9	1.95e4	1.90	1.000	3.94	4.01	12.5	NO	100.0	0.0003483
15	13C6-PFOA	421.3 > 370	1.25e4	1.90	1.000	4.22	4.28	12.5	NO	100.0	0.0111688
16	13C9-PFNA	472.2 > 426.9	1.15e4	1.80	1.000	4.56	4.62	12.5	NO	100.0	0.0005083
17	13C1-PFOS	503.0 > 79.9	6.74e3	1.80	1.000	4.67	4.68	12.5	NO	100.0	0.0007028
18	Total PFBS	299 > 79.7	3.81e3		1.000	3.11		1.76	NO		
19	Total PFHxS	385.9 > 78.6	3.31e3		1.000	4.09		2.00	NO		
20	Total PFOA	413 > 368.7	5.71e3		1.000	4.39		1.69	NO		
21	Total PFOS	499 > 78.9	6.63e3		1.000	4.67		2.44	NO		0.1574018



Dataset: Untitled

Last Altered: Thursday, March 16, 2017 13:27:05 Pacific Daylight Time

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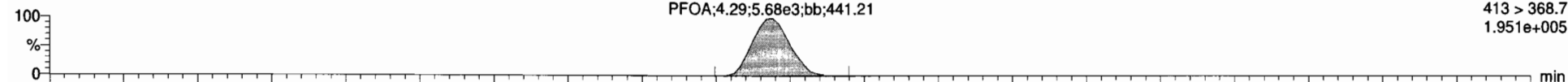
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PFOA

170316G1_5

PFOA;4.29;5.68e3;bb;441.21

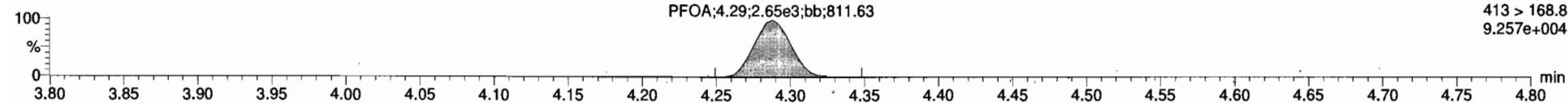
F5:MRM of 12 channels,ES-
413 > 368.7
1.951e+005



170316G1_5

PFOA;4.29;2.65e3;bb;811.63

F5:MRM of 12 channels,ES-
413 > 168.8
9.257e+004

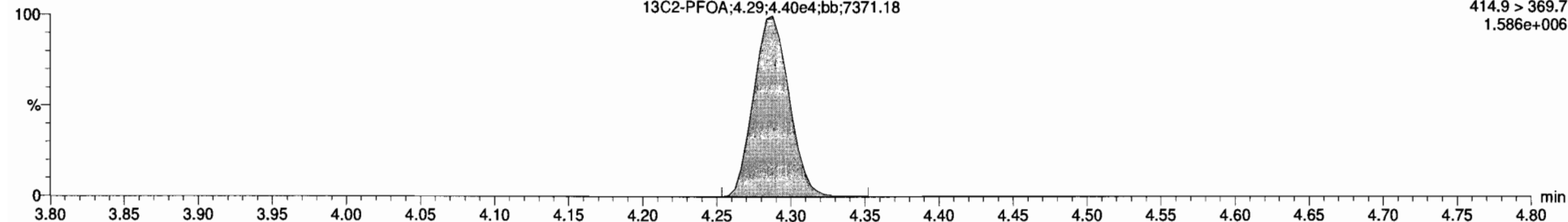


13C2-PFOA

170316G1_5

13C2-PFOA;4.29;4.40e4;bb;7371.18

F5:MRM of 12 channels,ES-
414.9 > 369.7
1.586e+006

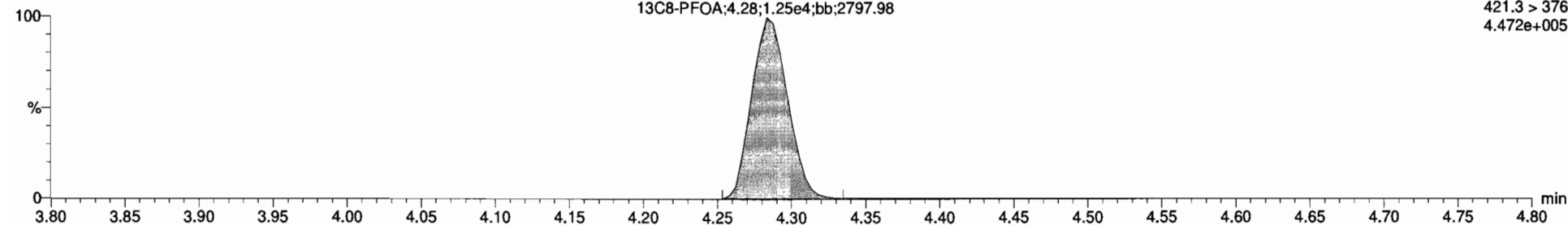


13C8-PFOA

170316G1_5

13C8-PFOA;4.28;1.25e4;bb;2797.98

F5:MRM of 12 channels,ES-
421.3 > 376
4.472e+005



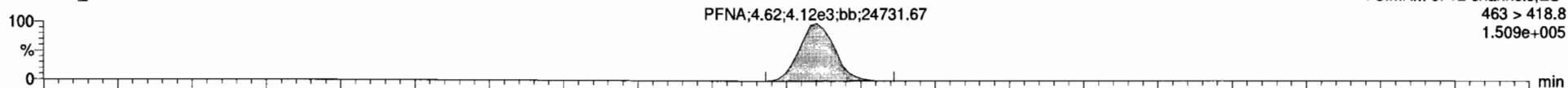
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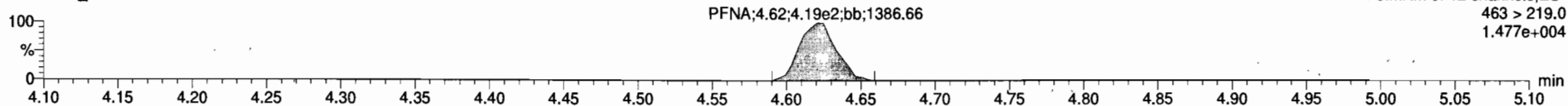
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PFNA

170316G1_5

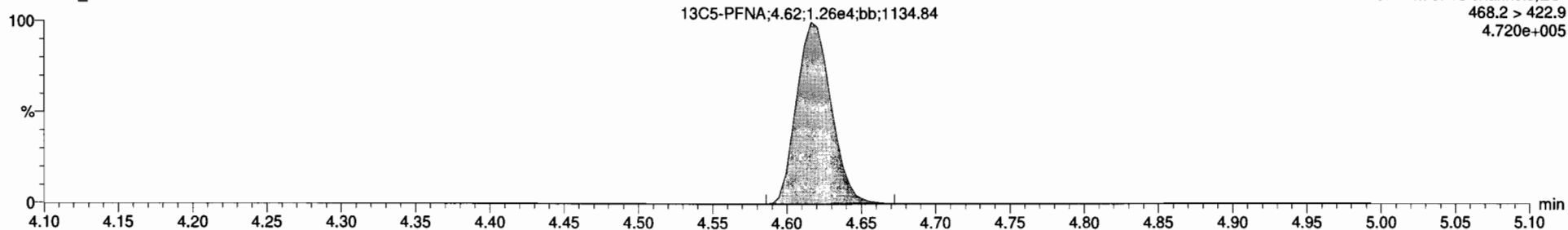


170316G1_5



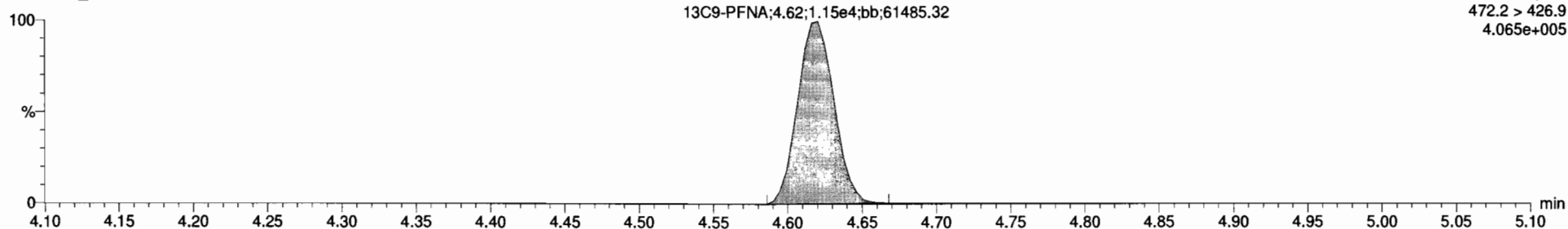
13C5-PFNA

170316G1_5



13C9-PFNA

170316G1_5



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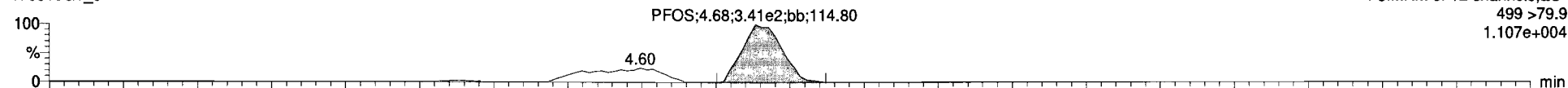
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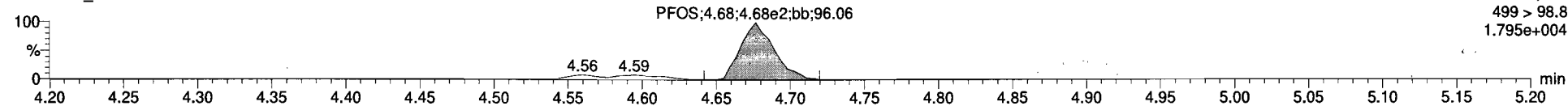
PFOS

170316G1_5



F5:MRM of 12 channels,ES-
499 >79.9
1.107e+004

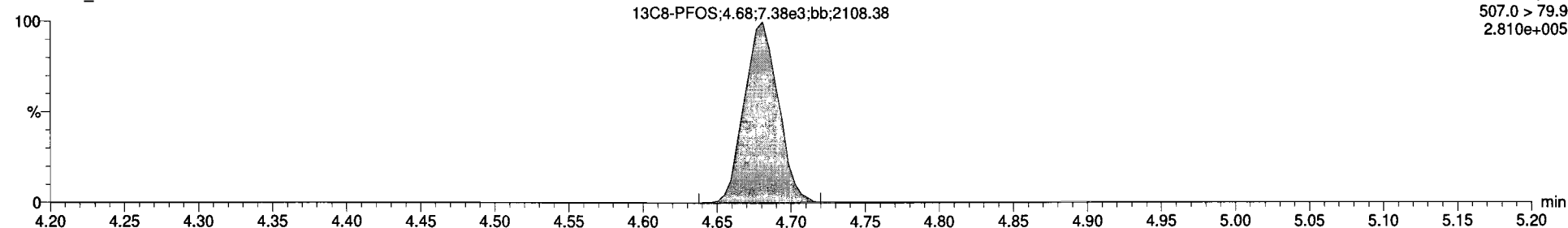
170316G1_5



F5:MRM of 12 channels,ES-
499 > 98.8
1.795e+004

13C8-PFOS

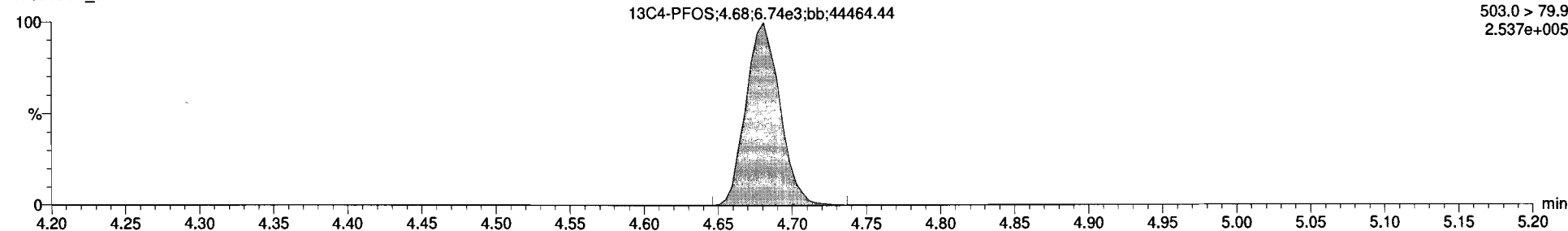
170316G1_5



F5:MRM of 12 channels,ES-
507.0 > 79.9
2.810e+005

13C4-PFOS

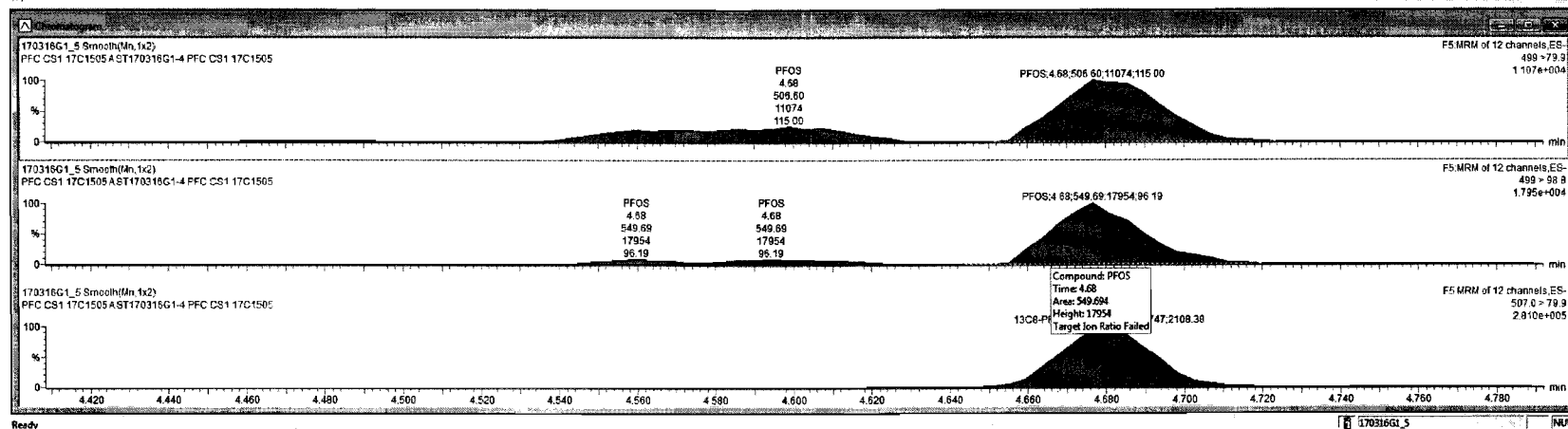
170316G1_5



F5:MRM of 12 channels,ES-
503.0 > 79.9
2.537e+005

170316G1_5 - ST170316G1-4 PFC CS1 17C1505 - PFC CS1 17C1505 A											
Name	Trace	Area	RFV	WVVol	Pred RT	RT	Conc.	WOL	%Rec	DL	

1	PFBS	299 > 79.7	3.81e3		1.000	3.02	1.76	NO	88.1	
2	PFHpA	363 > 318.9	7.07e3		1.000	3.89	3.89	NO	83.1	
3	PFHxS	398.9 > 79.6	2.78e3		1.000	4.00	4.01	NO	87.9	
4	PFOA	413 > 368.7	5.86e3		1.000	4.29	4.29	NO	84.4	
5	PFNA	483 > 418.6	4.12e3		1.000	4.62	4.62	NO	89.8	
6	PFOS	507.6 > 79.9	6.74e3		1.000	4.68	4.68	NO	84.4	0.1574018
7	13C1-PFBS	302.9 > 88.8	1.17e4	0.501	1.000	2.99	3.02	NO	119.6	0.0027197
8	13C1-PFHpA	367.2 > 321.8	2.95e4	1.24	1.000	3.88	3.89	NO	122.1	0.0058950
9	13C1-PFHxS	403 > 102.8	1.35e4	0.496	1.000	4.01	4.00	NO	111.8	0.0011966
10	13C1-PFOA	414.9 > 369.7	4.40e4	3.22	1.000	4.28	4.29	NO	109.1	0.0048710
11	13C1-PFNA	468.2 > 422.9	1.26e4	0.979	1.000	4.62	4.62	NO	112.4	0.0033300
12	13C1-PFOS	507.0 > 79.9	7.38e3	1.06	1.000	4.68	4.68	NO	101.5	0.0151389
13	13C1-PFHpA	318 > 272.9	3.60e4	1.00	1.000	3.29	3.38	NO	100.0	0.0010946
14	13C1-PFHxS	401.9 > 79.9	1.95e4	1.00	1.000	3.94	4.01	NO	100.0	0.0003493
15	13C1-PFOA	421.3 > 376	1.25e4	1.00	1.000	4.22	4.28	NO	100.0	0.0111688
16	13C1-PFNA	472.2 > 426.9	1.15e4	1.00	1.000	4.56	4.62	NO	100.0	0.0005083
17	13C1-PFOS	503.0 > 79.9	6.74e3	1.00	1.000	4.67	4.68	NO	100.0	0.0007028
18	Total PFBS	299 > 79.7	3.81e3		1.000	3.11		1.76	NO	
19	Total PFHpA	398.9 > 79.6	3.31e3		1.000	4.09		2.00	NO	
20	Total PFOA	413 > 368.7	5.71e3		1.000	4.39		1.89	NO	
21	Total PFOS	499 > 79.9	6.63e2		1.000	4.67		2.44	NO	0.1574018



Dataset: Untitled

Last Altered: Thursday, March 16, 2017 13:27:05 Pacific Daylight Time

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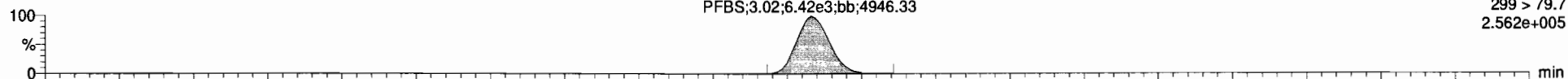
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PFBS

170316G1_6

PFBS;3.02;6.42e3;bb;4946.33

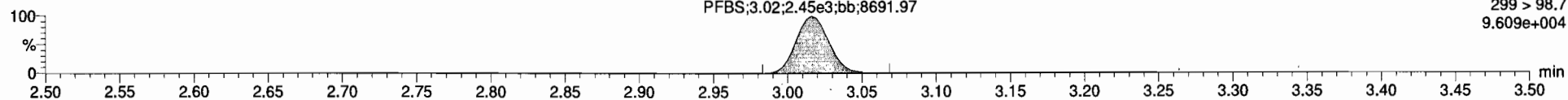
F2:MRM of 3 channels,ES-
299 > 79.7
2.562e+005



170316G1_6

PFBS;3.02;2.45e3;bb;8691.97

F2:MRM of 3 channels,ES-
299 > 98.7
9.609e+004

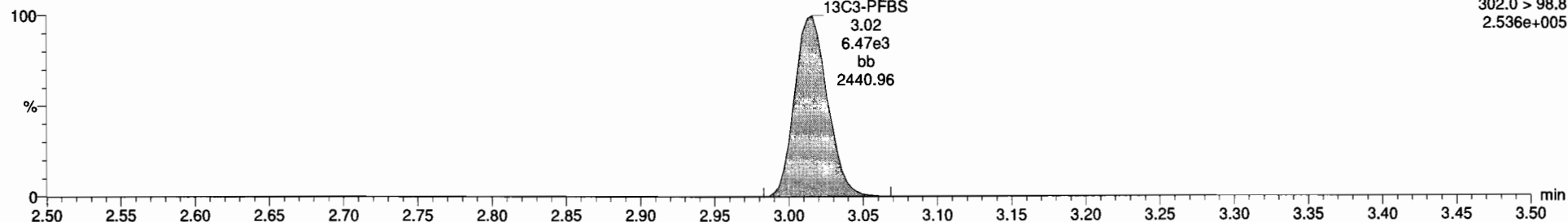


13C3-PFBS

170316G1_6

13C3-PFBS
3.02
6.47e3
bb
2440.96

F2:MRM of 3 channels,ES-
302.0 > 98.8
2.536e+005

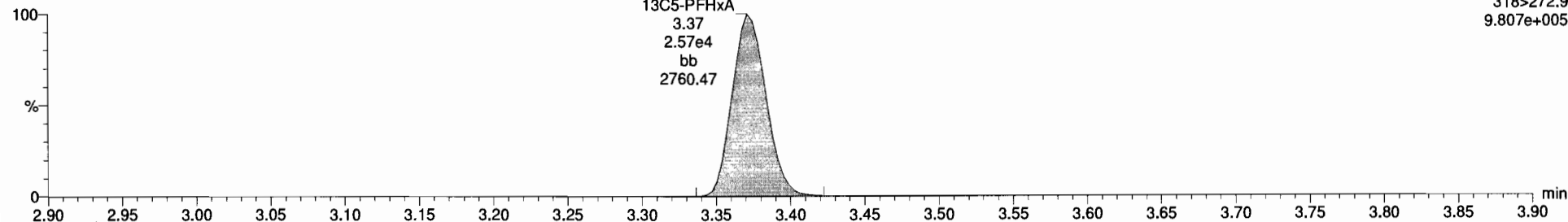


13C5-PFHxA

170316G1_6

13C5-PFHxA
3.37
2.57e4
bb
2760.47

F3:MRM of 1 channel,ES-
318>272.9
9.807e+005



Dataset: Untitled

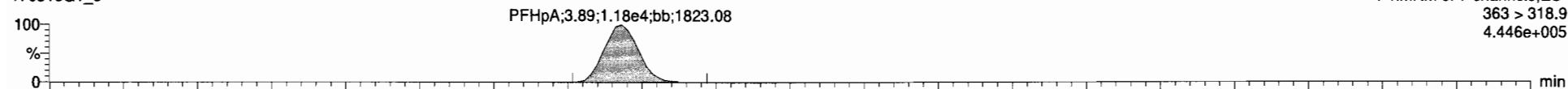
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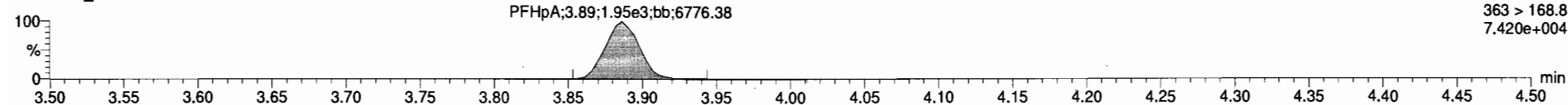
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PFHpA

170316G1_6

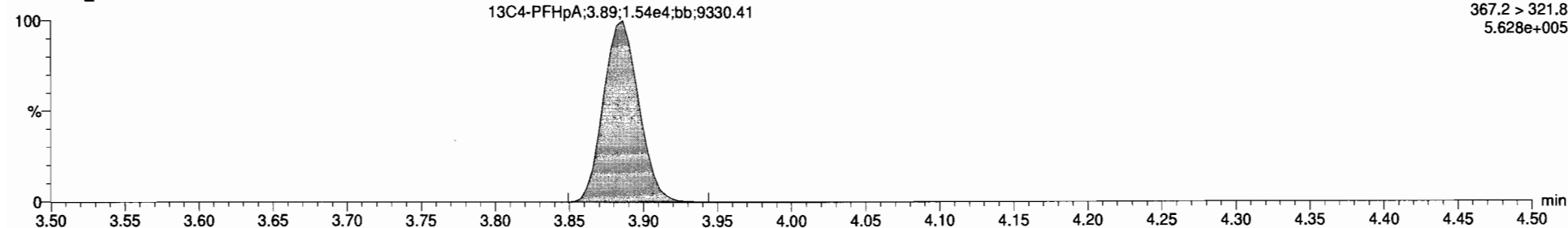


170316G1_6



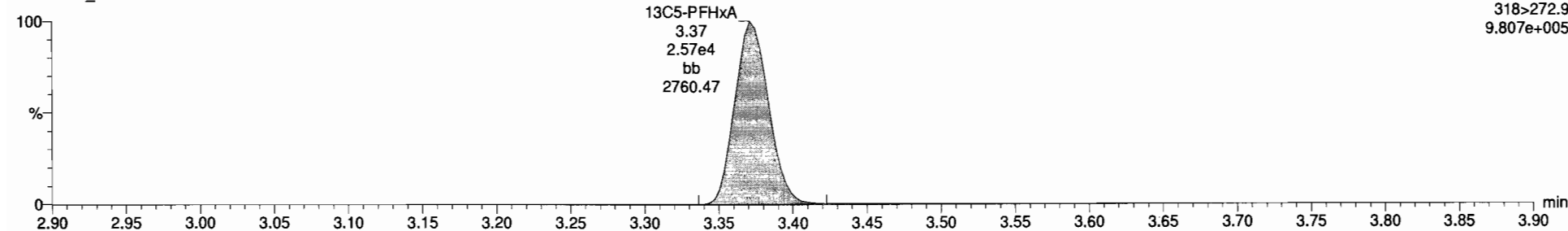
13C4-PFHpA

170316G1_6



13C5-PFHxA

170316G1_6



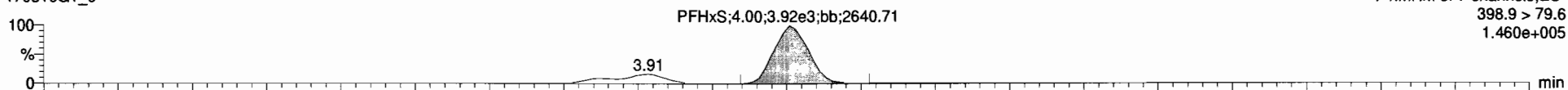
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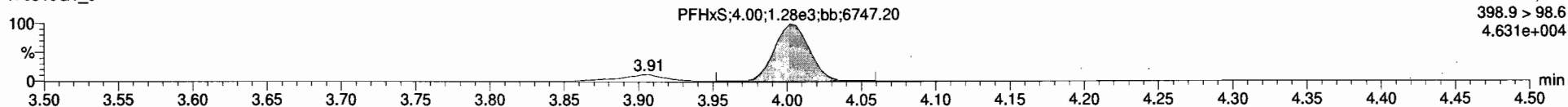
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PFHxS

170316G1_6

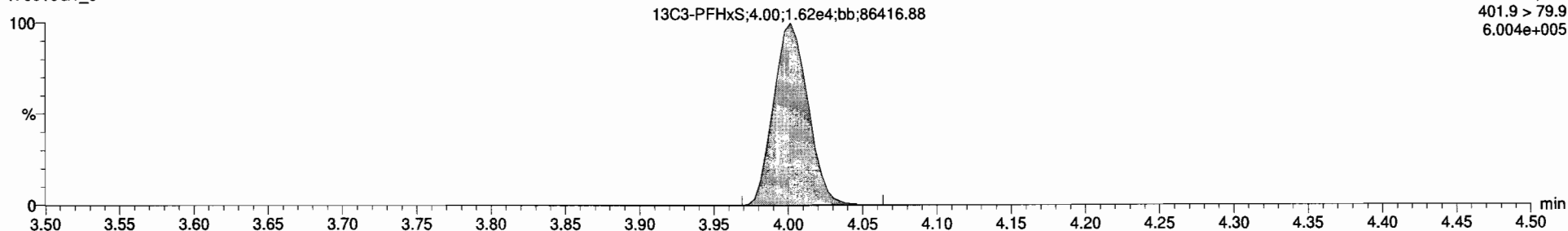


170316G1_6



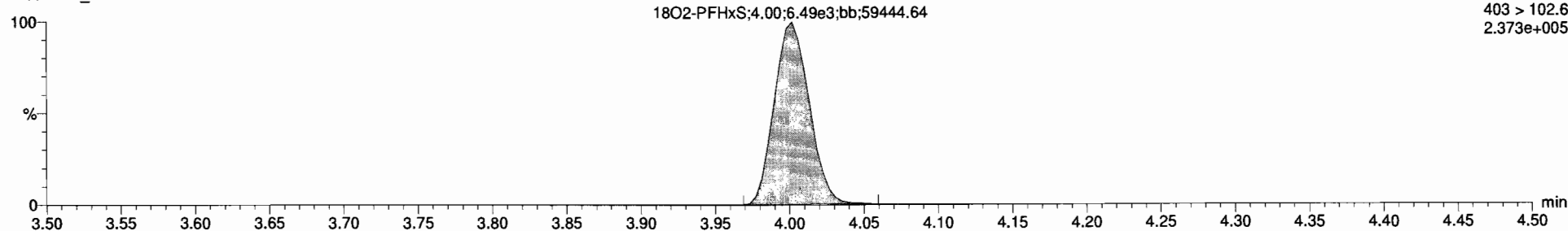
13C3-PFHxS

170316G1_6

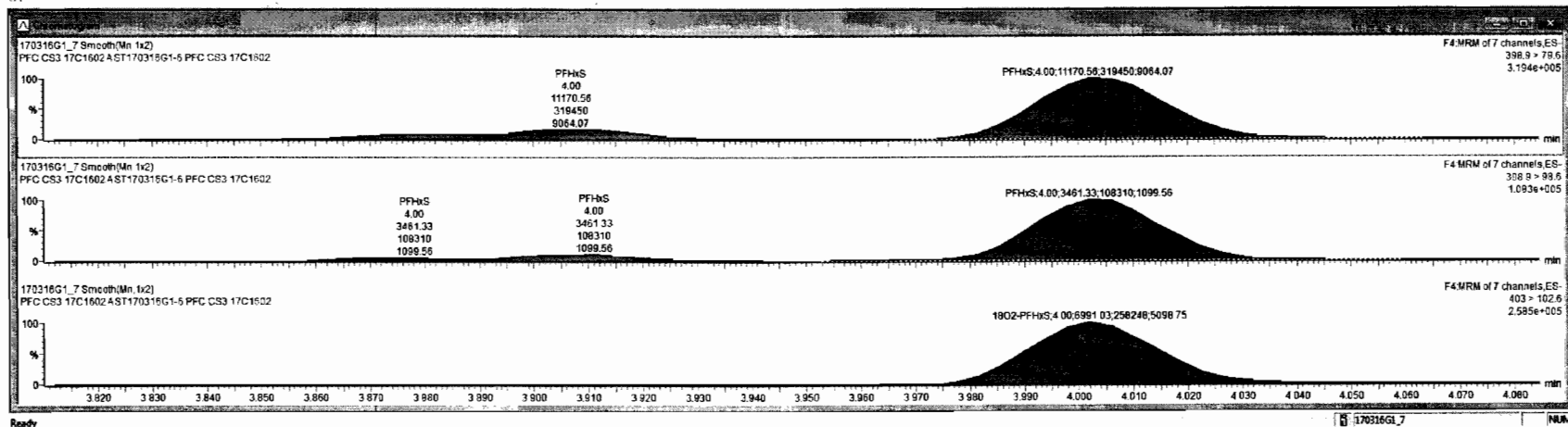


18O2-PFHxS

170316G1_6



170316G1 7- ST170316G1-6 PFC CS3 17C1602 - PFC CS2 17C1602 A												
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1	PFB	299 > 79.7	1.49e4		1.000	3.02	3.02	12.2	YES	121.7		
2	PFA	363 > 318.9	2.74e4		1.000	3.39	3.39	12.3	YES	123.4		
3	PFA	363 > 318.9	2.74e4		1.000	4.59	4.59	11.2	YES	111.8		
4	PFA	413 > 368.7	2.29e4		1.000	4.28	4.28	12.2	YES	122.3		
5	PFA	463 > 418.6	1.70e4		1.000	4.62	4.62	11.4	YES	113.8		
6	PFS	499 > 79.9	3.13e3		1.000	4.68	4.68	11.9	YES	118.2	0.1512181	
7	13C3-PFB	362.0 > 98.8	6.71e3	0.501	1.000	2.99	3.02	10.1	NO	81.1	0.0051806	
8	13C4-PFA	367.2 > 321.8	1.60e4	1.24	1.000	3.88	3.89	9.77	NO	78.1	0.0090334	
9	18O2-PFA	403 > 102.6	6.99e3	0.495	1.000	4.00	4.00	10.7	NO	85.6	0.0051851	
10	13C3-PFA	414.9 > 368.7	2.65e4	3.22	1.000	4.28	4.28	10.2	NO	81.8	0.0062592	
11	13C3-PFA	468.2 > 422.9	8.57e3	0.979	1.000	4.62	4.62	11.2	NO	89.5	0.0071183	
12	13C8-PFS	507.0 > 79.9	6.01e3	1.08	1.000	4.68	4.68	11.5	NO	91.9	0.0099084	
13	13C3-PFA	318 > 272.9	2.54e4	1.00	1.000	3.29	3.37	12.5	NO	100.0	0.0036198	
14	13C3-PFA	401.9 > 79.9	1.85e4	1.00	1.000	3.94	4.00	12.5	NO	100.0	0.0029823	
15	13C8-PFA	421.3 > 376	1.01e4	1.00	1.000	4.22	4.28	12.5	NO	100.0	0.0010564	
16	13C3-PFA	472.2 > 428.9	9.78e3	1.00	1.000	4.56	4.62	12.5	NO	100.0	0.0008613	
17	13C4-PFS	503.0 > 79.9	6.05e3	1.00	1.000	4.67	4.68	12.5	NO	100.0	0.0067292	
18	Total PFB	299 > 79.7	1.49e4		1.000	3.11		12.2	NO			
19	Total PFA	368.9 > 79.6	1.33e4		1.000	4.09		13.2	NO			
20	Total PFA	413 > 368.7	2.31e4		1.000	4.39		12.2	NO			
21	Total PFS	499 > 79.9	4.15e3		1.000	4.67		16.8	NO		0.1512181	



Dataset: Untitled

Last Altered: Thursday, March 16, 2017 13:27:05 Pacific Daylight Time

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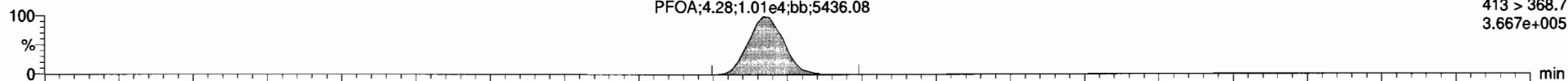
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PFOA

170316G1_6

PFOA;4.28;1.01e4;bb;5436.08

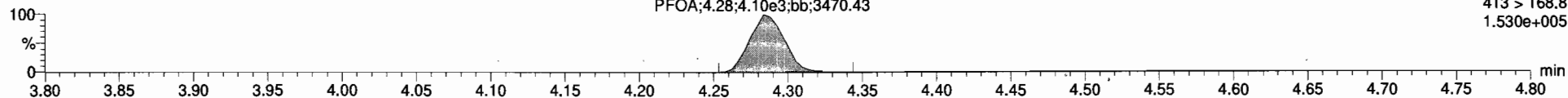
F5:MRM of 12 channels,ES-
413 > 368.7
3.667e+005



170316G1_6

PFOA;4.28;4.10e3;bb;3470.43

F5:MRM of 12 channels,ES-
413 > 168.8
1.530e+005

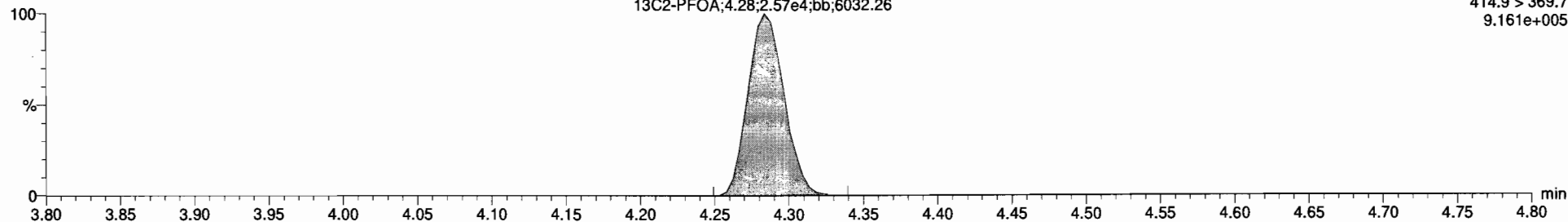


13C2-PFOA

170316G1_6

13C2-PFOA;4.28;2.57e4;bb;6032.26

F5:MRM of 12 channels,ES-
414.9 > 369.7
9.161e+005

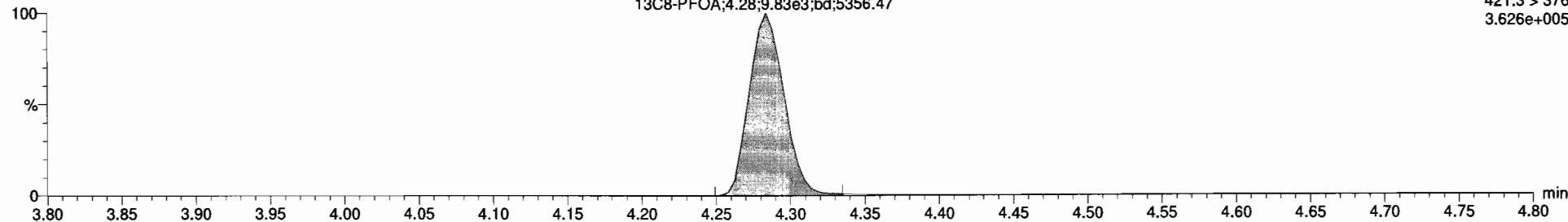


13C8-PFOA

170316G1_6

13C8-PFOA;4.28;9.83e3;bd;5356.47

F5:MRM of 12 channels,ES-
421.3 > 376
3.626e+005



Dataset: Untitled

Last Altered: Thursday, March 16, 2017 13:27:05 Pacific Daylight Time

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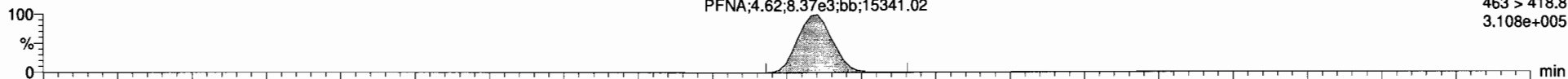
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PFNA

170316G1_6

PFNA;4.62;8.37e3;bb;15341.02

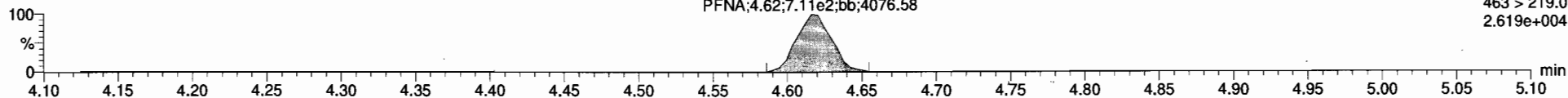
F5:MRM of 12 channels,ES-
463 > 418.8
3.108e+005



170316G1_6

PFNA;4.62;7.11e2;bb;4076.58

F5:MRM of 12 channels,ES-
463 > 219.0
2.619e+004

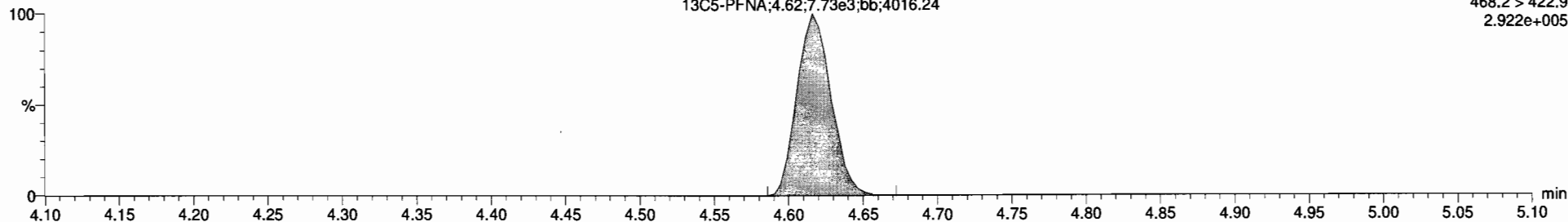


13C5-PFNA

170316G1_6

13C5-PFNA;4.62;7.73e3;bb;4016.24

F5:MRM of 12 channels,ES-
468.2 > 422.9
2.922e+005

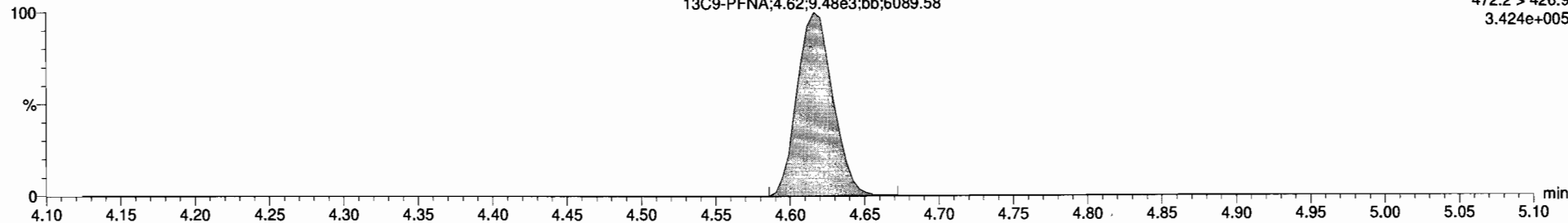


13C9-PFNA

170316G1_6

13C9-PFNA;4.62;9.48e3;bb;6089.58

F5:MRM of 12 channels,ES-
472.2 > 426.9
3.424e+005



Dataset: Untitled

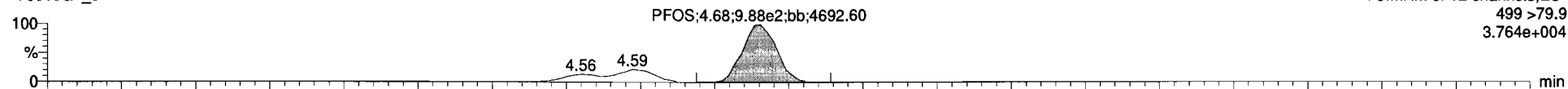
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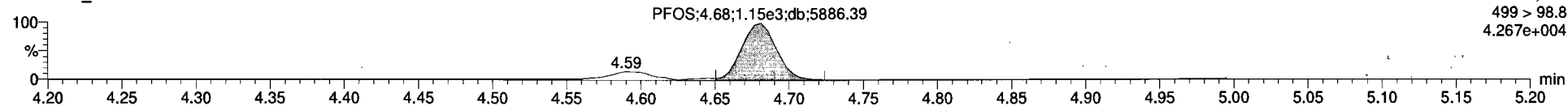
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PFOS

170316G1_6

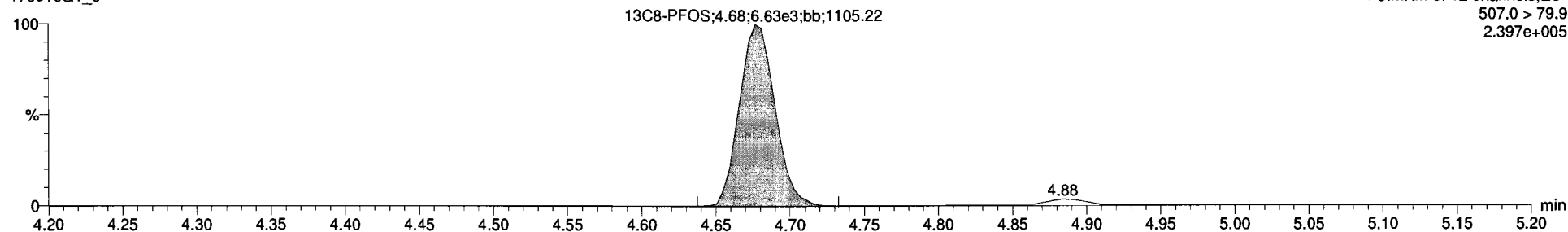


170316G1_6



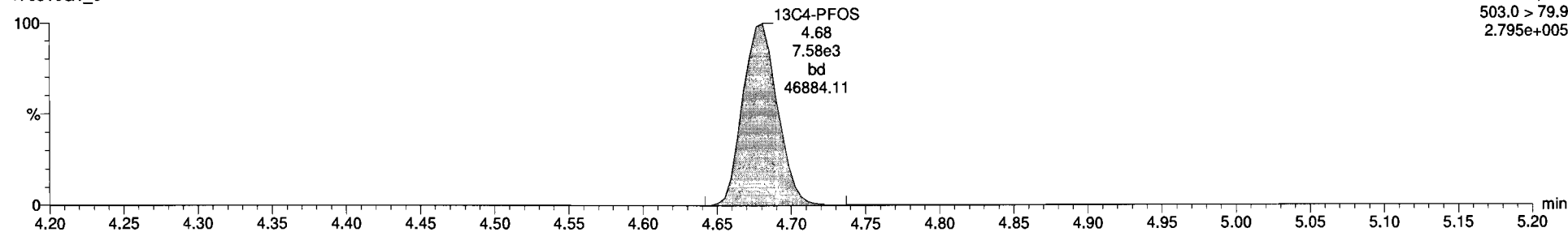
13C8-PFOS

170316G1_6

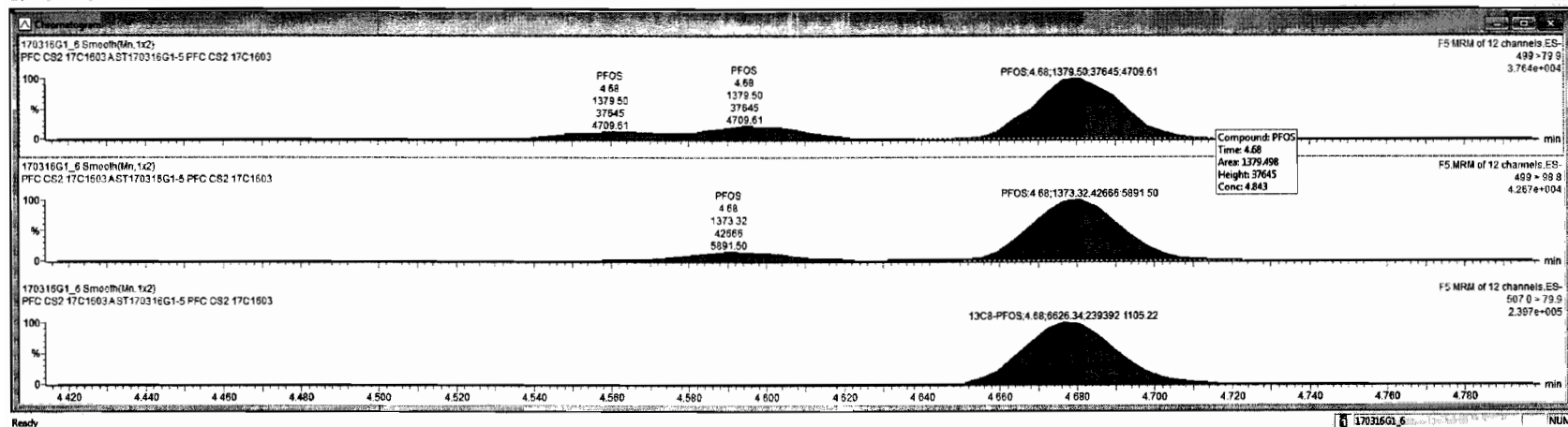


13C4-PFOS

170316G1_6



170316G1_6_ST170316G1-5 PFC CS2 17C1603 - PFC CS2 17C1603A											
Peak	Time	Area	Ref	WVVL	Prod. RT	RT	Conc.	MDL	%Req	Height	Height
1	PFBS	299 > 79.7	6.42e3	1.000	3.02	3.02	5.43	NO	108.6		
2	PFHpA	363 > 318.9	1.18e4	1.000	3.89	3.89	5.48	YES	109.6		
3	PFHxS	396.9 > 79.6	4.90e3	1.000	4.00	4.00	5.25	YES	105.6		
4	PFOA	413 > 368.7	1.01e4	1.000	4.28	4.28	5.47	YES	109.5		
5	PFNA	463 > 418.8	8.37e3	1.000	4.62	4.62	6.16	YES	123.1		
6	PFOS	499 > 79.9	1.36e3	1.000	4.66	4.66	4.84	YES	96.9	0.1306407	
7	13C3-PFBS	502.8 > 96.8	6.47e3	0.501	1.000	2.99	3.02	9.90	NO	79.9	0.0101920
8	13C4-PFHpA	367.2 > 321.8	1.54e4	1.24	1.000	3.88	3.89	9.50	NO	77.2	0.0025386
9	18O2-PFHxS	403 > 102.6	6.49e3	6.495	1.000	4.00	4.00	10.1	NO	81.1	0.0040202
10	13C2-PFOA	414.8 > 368.7	2.57e4	3.33	1.000	4.28	4.28	10.2	NO	81.3	0.0040588
11	13C3-PFNA	468.2 > 422.9	7.73e3	0.979	1.000	4.62	4.62	10.4	NO	83.3	0.0067757
12	13C6-PFOS	507.8 > 79.9	6.63e3	1.04	1.000	4.66	4.66	10.1	NO	80.9	0.0224282
13	13C3-PFHpA	318 > 272.9	2.57e4	1.00	1.000	3.29	3.37	12.5	NO	100.0	0.0113206
14	13C3-PFHxS	401.9 > 79.9	1.62e4	1.00	1.000	3.94	4.00	12.5	NO	100.0	0.0003616
15	13C6-PFOA	421.3 > 376	9.83e3	1.00	1.000	4.22	4.28	12.5	NO	100.0	0.0056341
16	13C8-PFNA	472.2 > 426.9	9.46e3	1.00	1.000	4.56	4.62	12.5	NO	100.0	0.0051317
17	13C4-PFOS	503.0 > 79.9	7.50e3	1.00	1.000	4.67	4.66	12.5	NO	100.0	0.0006665
18	Total PFBS	299 > 79.7	6.42e3	1.000	3.11		5.43	NO			
19	Total PFHxS	396.9 > 79.6	5.85e3	1.000	4.09		6.18	NO			
20	Total PFOA	413 > 368.7	1.02e4	1.000	4.39		5.47	NO			
21	Total PFOS	499 > 79.9	1.74e3	1.000	4.67		6.36	NO		0.1306407	



Dataset: Untitled

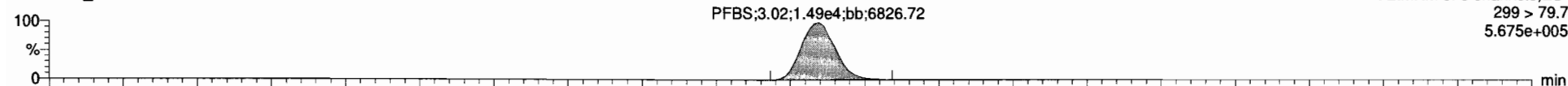
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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

ID: ST170316G1-6 PFC CS3 17C1602, Description: PFC CS3 17C1602 A, Name: 170316G1_7, Date: 16-Mar-2017, Time: 11:33:10, Instrument: , Lab: , User:

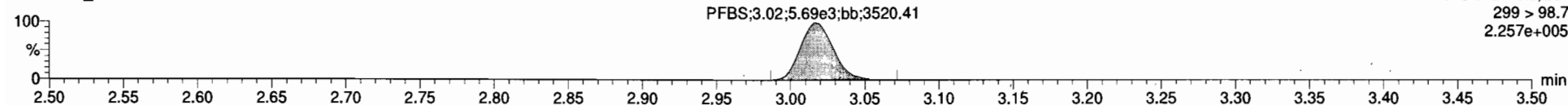
PFBS

170316G1_7



F2:MRM of 3 channels,ES-
299 > 79.7
5.675e+005

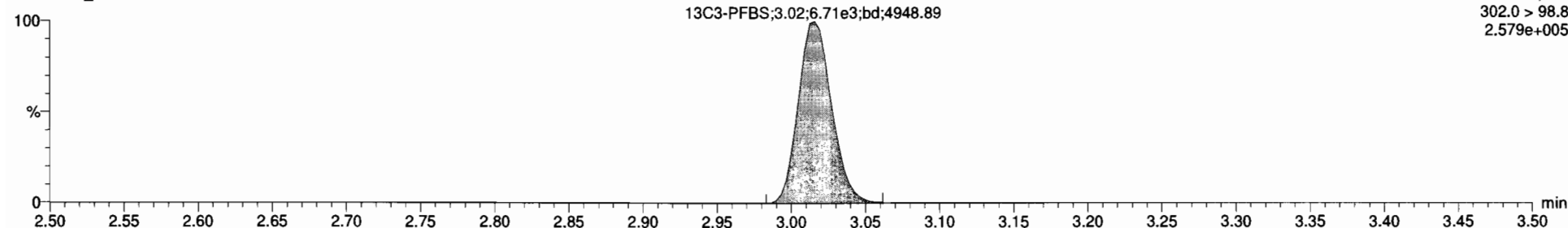
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F2:MRM of 3 channels,ES-
299 > 98.7
2.257e+005

13C3-PFBS

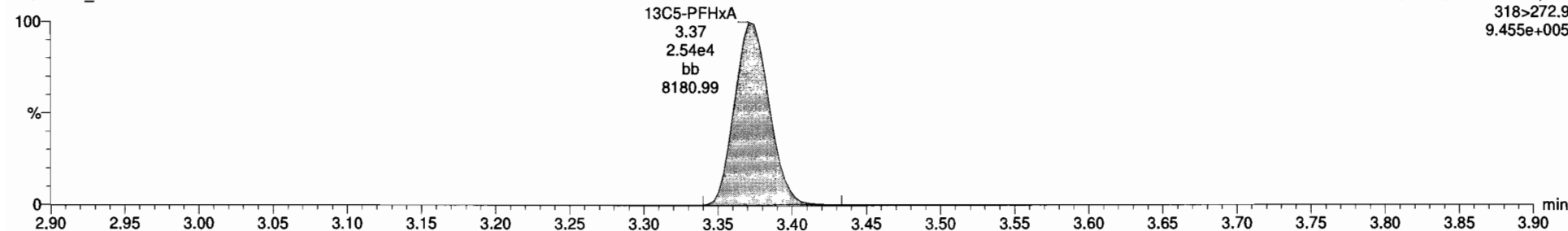
170316G1_7



F2:MRM of 3 channels,ES-
302.0 > 98.8
2.579e+005

13C5-PFHxA

170316G1_7



F3:MRM of 1 channel,ES-
318>272.9
9.455e+005

Dataset: Untitled

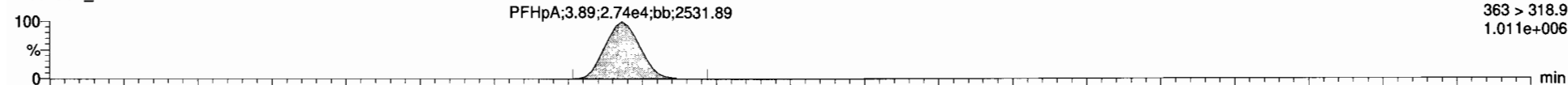
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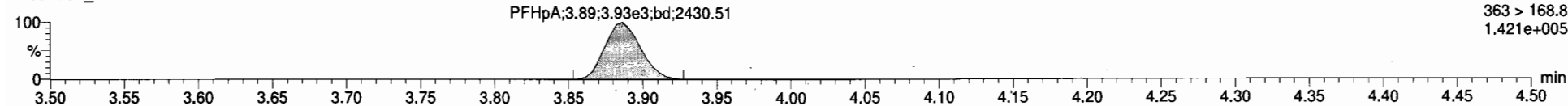
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PFHpA

170316G1_7

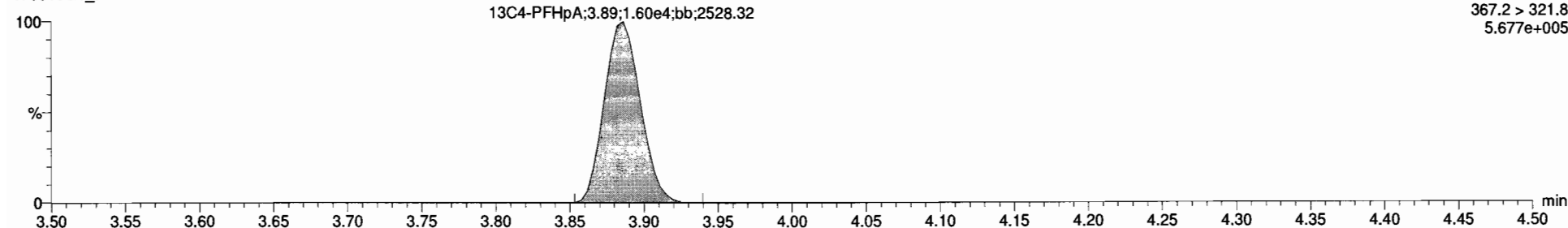


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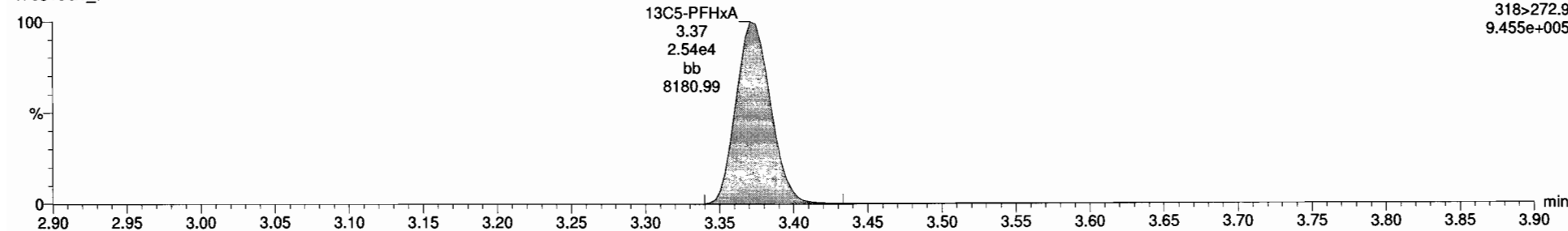
13C4-PFHpA

170316G1_7



13C5-PFHxA

170316G1_7



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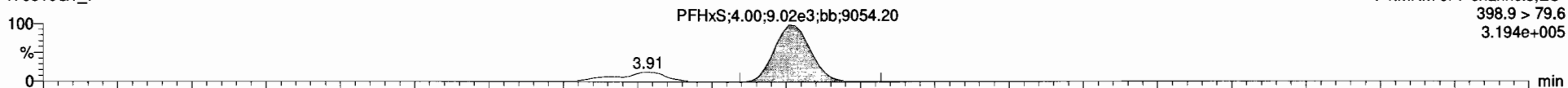
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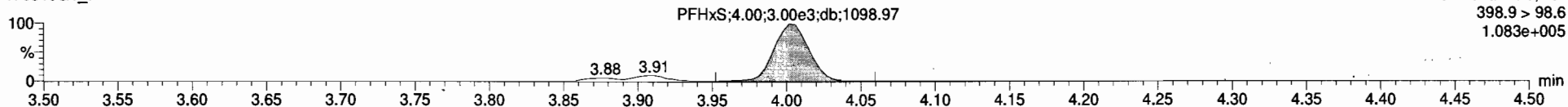
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PFHxS

170316G1_7

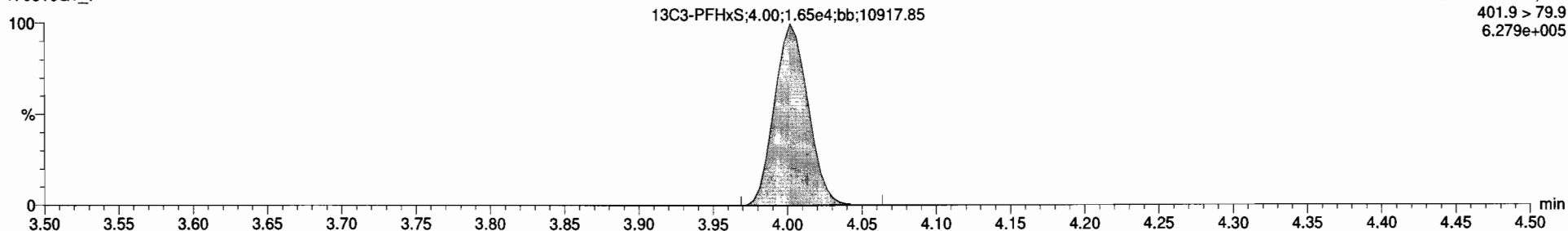


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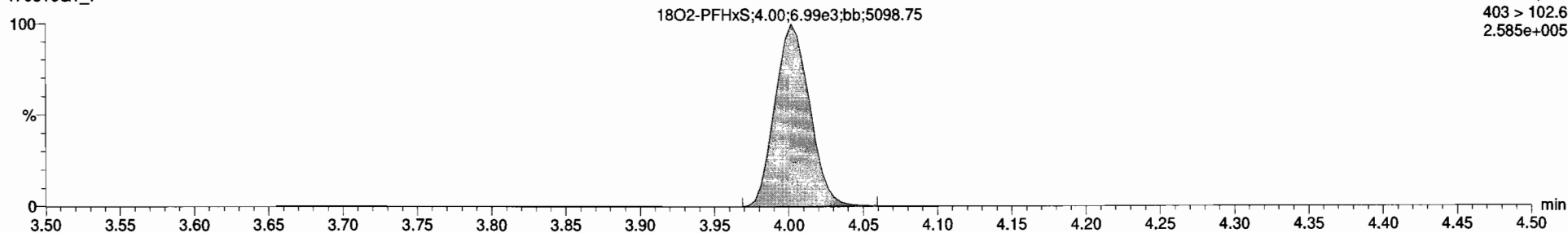
13C3-PFHxS

170316G1_7

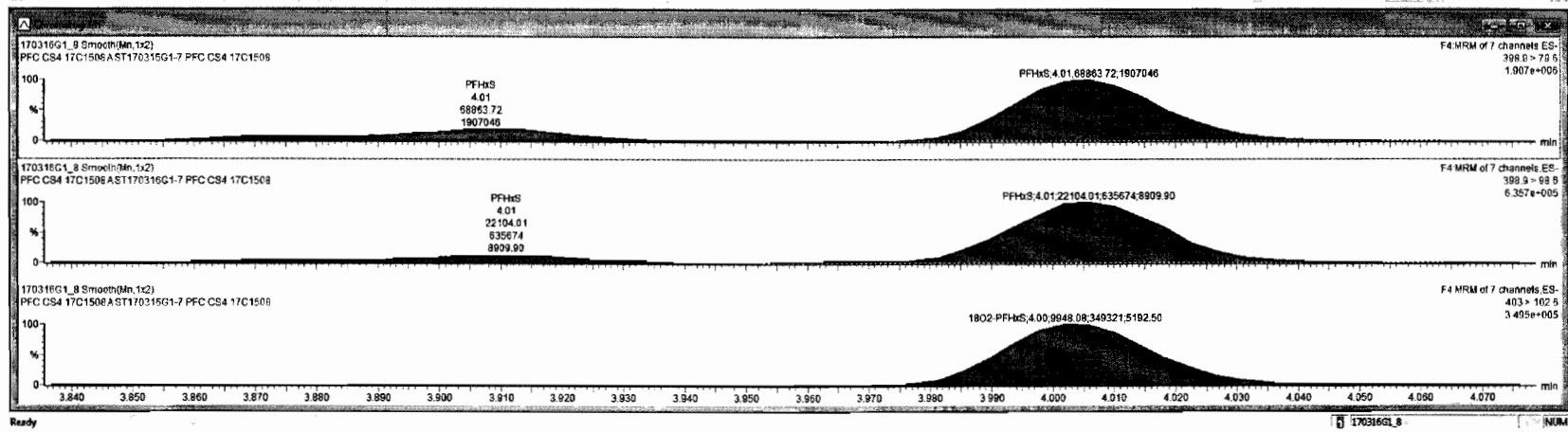


18O2-PFHxS

170316G1_7



#	Name	Trace	Area	RRF	WtWtM	Prod.RT	RT	Conc	MRI	%Rec	DL
1	PFBS	299 > 79.7	8.25e4		1.000	3.02	3.02	47.7	YES	95.5	0.0000000
2	PFHpA	383 > 518.9	1.72e5		1.000	3.89	3.89	51.2	YES	102.3	0.0000000
3	PFHxS	388.9 > 79.6	6.89e4		1.000	4.00	4.01	48.5	YES	97.0	0.0000000
4	PFOA	413 > 368.7	1.36e5		1.000	4.29	4.29	48.3	YES	96.6	0.0000000
5	PFNA	463 > 418.8	1.26e5		1.000	4.62	4.62	51.1	YES	102.2	0.0000000
6	PFOS	499 > 79.9	2.11e4		1.000	4.69	4.69	45.4	YES	90.7	0.1437419
7	13CS-PFBS	302.0 > 86.8	9.55e3	0.501	1.000	3.00	3.02	12.2	NO	97.2	0.0086832
8	13C4-PFHpA	367.2 > 321.8	2.43e4	1.24	1.000	3.86	3.89	12.4	NO	99.3	0.0038455
9	18O2-PFHxS	403 > 102.6	9.95e3	0.495	1.000	4.01	4.00	12.7	NO	101.9	0.0061974
10	13C3-PFOA	414.9 > 369.7	4.09e4	3.22	1.000	4.29	4.29	13.1	NO	104.5	0.0065126
11	13C5-PFNA	468.2 > 422.9	1.35e4	0.979	1.000	4.62	4.62	13.0	NO	103.8	0.0031032
12	13C8-PFOS	507.0 > 79.9	1.06e4	1.00	1.000	4.68	4.69	12.8	NO	102.5	0.0072061
13	13C5-PFHpA	318 > 272.9	3.19e4	1.00	1.000	3.29	3.38	12.5	NO	100.0	0.0013942
14	13C3-PFHxS	401.9 > 79.9	1.97e4	1.00	1.000	3.94	4.01	12.5	NO	100.0	0.0011898
15	13C8-PFOA	421.3 > 376	1.21e4	1.00	1.000	4.22	4.29	12.5	NO	100.0	0.0009180
16	13C8-PFNA	472.2 > 426.9	1.33e4	1.00	1.000	4.56	4.62	12.5	NO	100.0	0.0015848
17	13C4-PFOS	503.0 > 79.9	9.54e3	1.00	1.000	4.67	4.69	12.5	NO	100.0	0.0190891
18	Total PFBS	299 > 79.7	8.25e4		1.000	3.11		47.7	NO		
19	Total PFHxS	388.9 > 79.6	6.32e4		1.000	4.09		58.5	NO		
20	Total PFOA	413 > 368.7	1.36e5		1.000	4.39		48.3	NO		
21	Total PFOS	499 > 79.9	2.76e4		1.000	4.87		59.7	NO		0.1437419



Dataset: Untitled

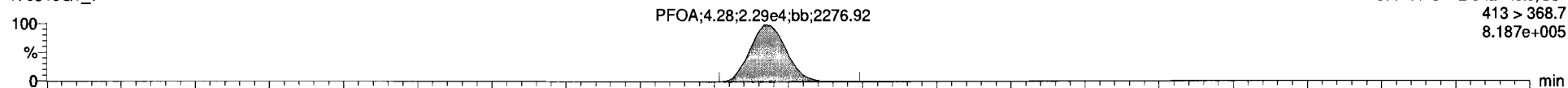
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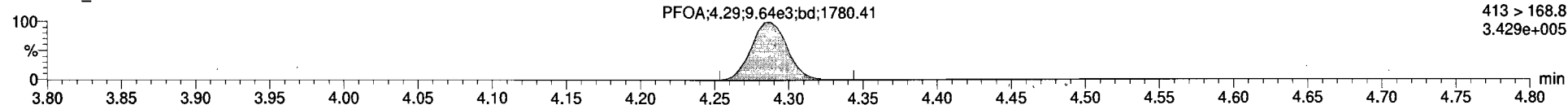
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PFOA

170316G1_7

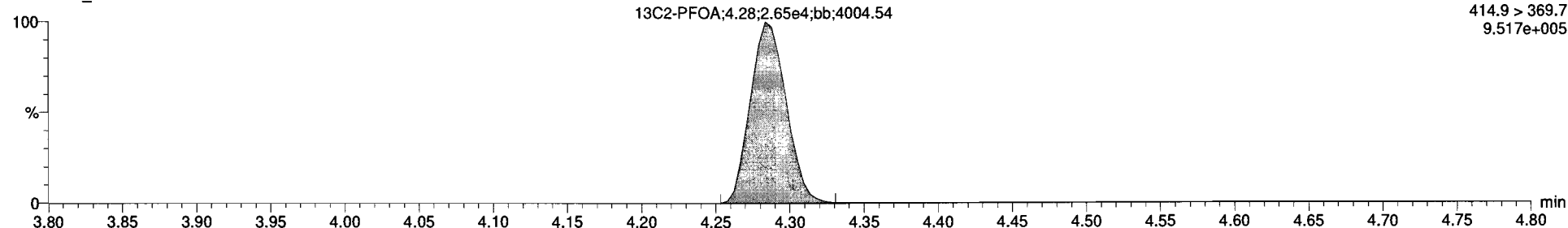


170316G1_7



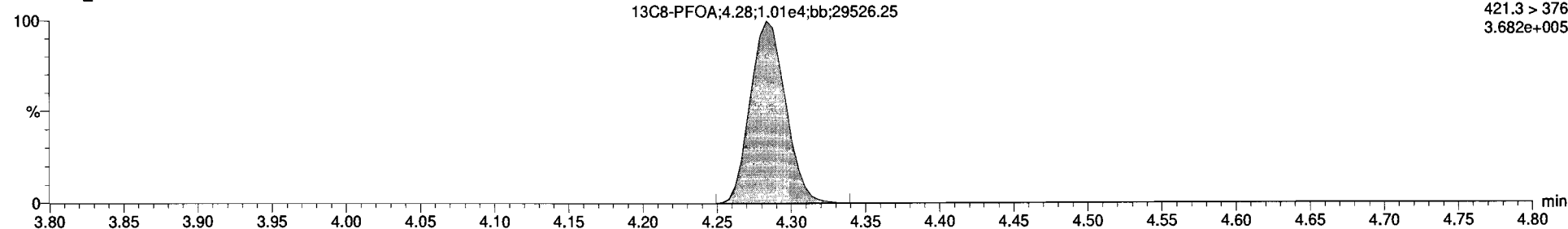
13C2-PFOA

170316G1_7



13C8-PFOA

170316G1_7



Dataset: Untitled

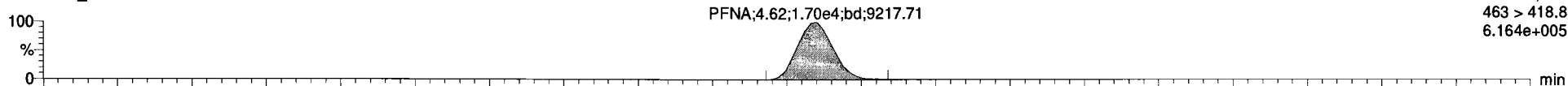
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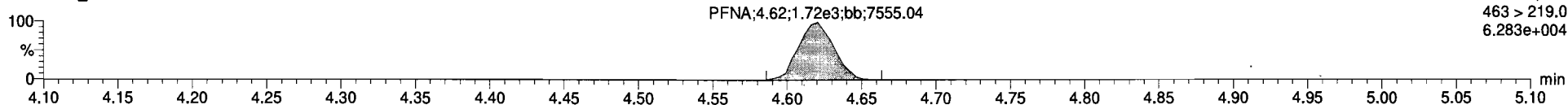
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PFNA

170316G1_7

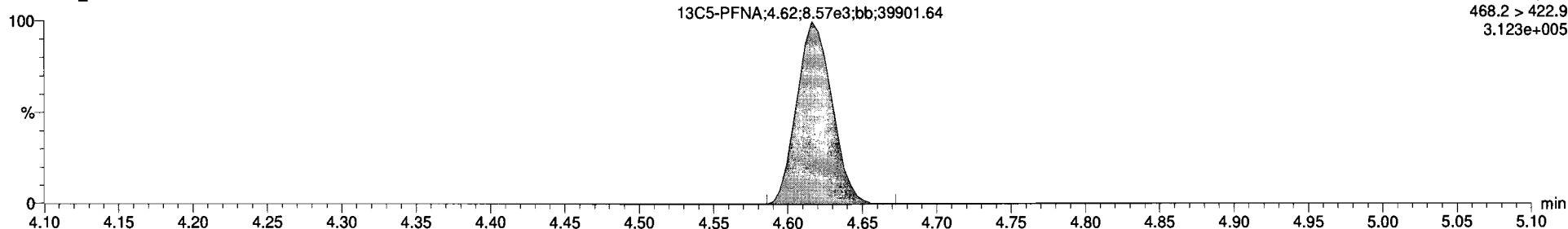


170316G1_7



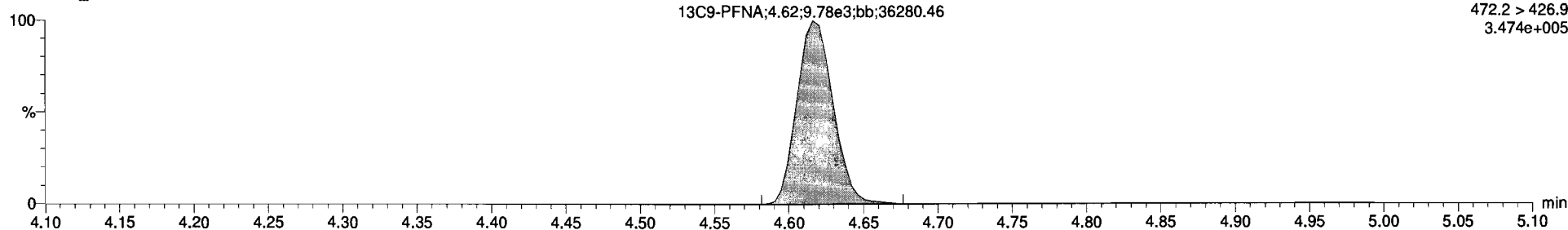
13C5-PFNA

170316G1_7



13C9-PFNA

170316G1_7



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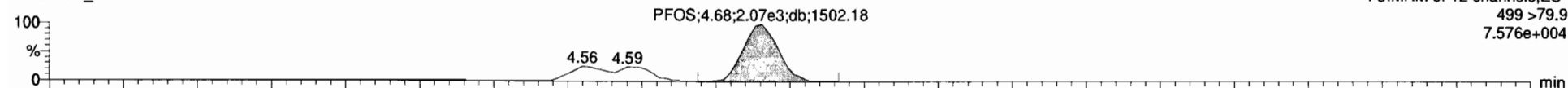
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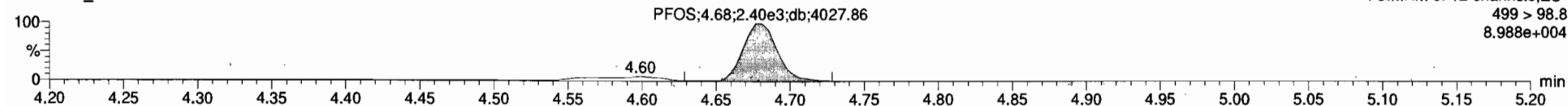
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PFOS

170316G1_7

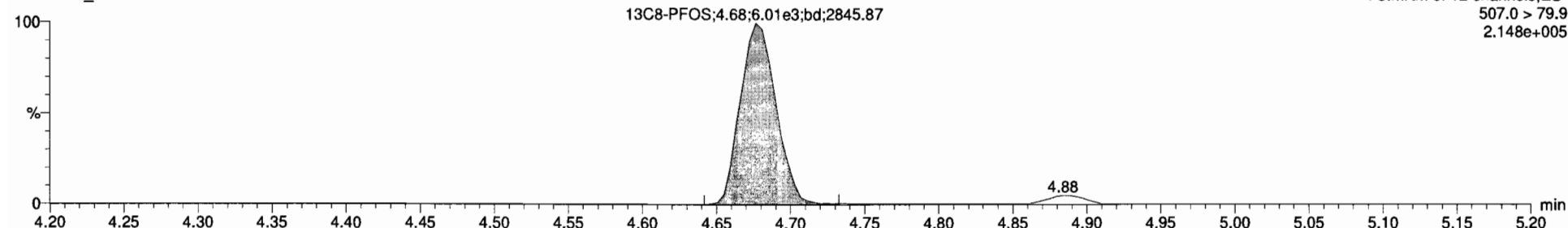


170316G1_7



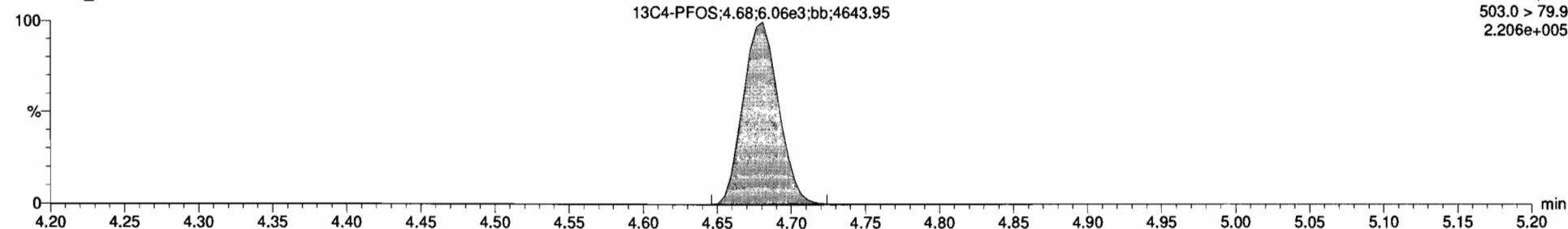
13C8-PFOS

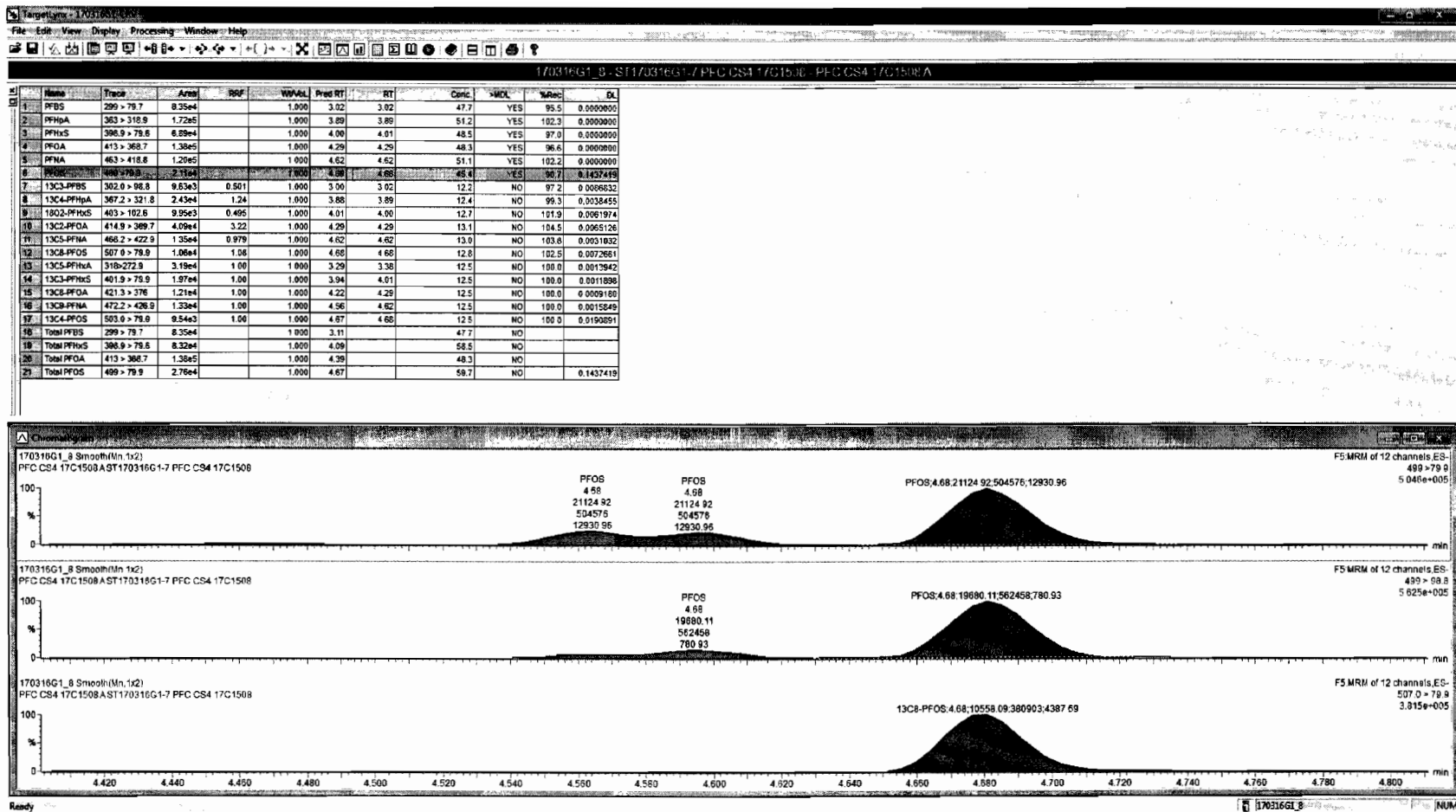
170316G1_7



13C4-PFOS

170316G1_7





Dataset: Untitled

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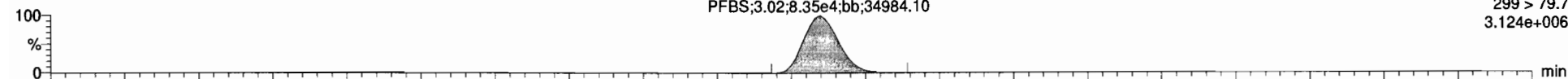
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PFBS

170316G1_8

PFBS;3.02;8.35e4;bb;34984.10

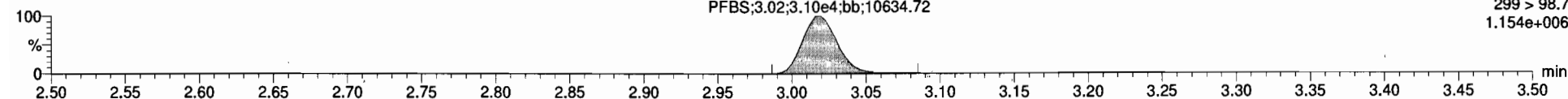
F2:MRM of 3 channels,ES-
299 > 79.7
3.124e+006



170316G1_8

PFBS;3.02;3.10e4;bb;10634.72

F2:MRM of 3 channels,ES-
299 > 98.7
1.154e+006

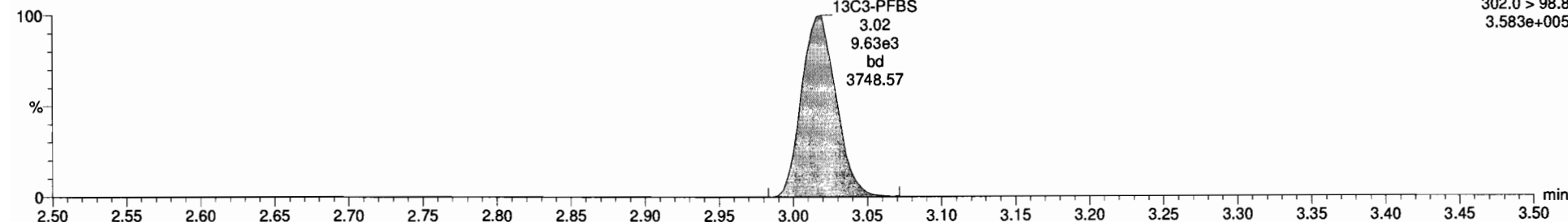


13C3-PFBS

170316G1_8

13C3-PFBS
3.02
9.63e3
bd
3748.57

F2:MRM of 3 channels,ES-
302.0 > 98.8
3.583e+005

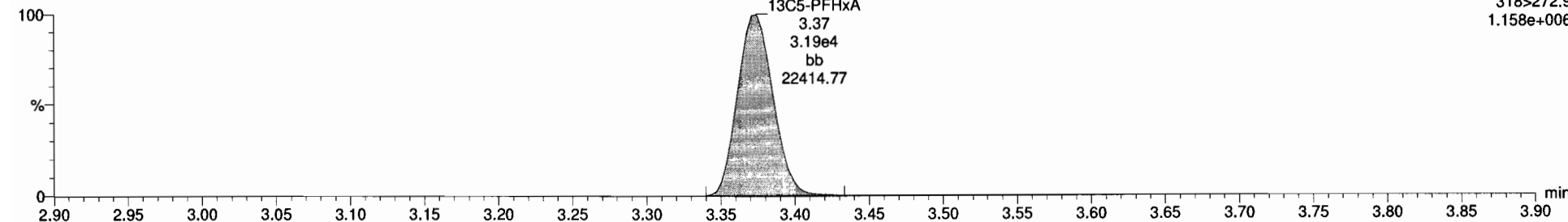


13C5-PFHxA

170316G1_8

13C5-PFHxA
3.37
3.19e4
bb
22414.77

F3:MRM of 1 channel,ES-
318>272.9
1.158e+006



Dataset: Untitled

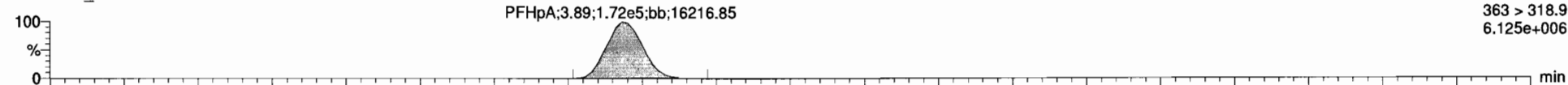
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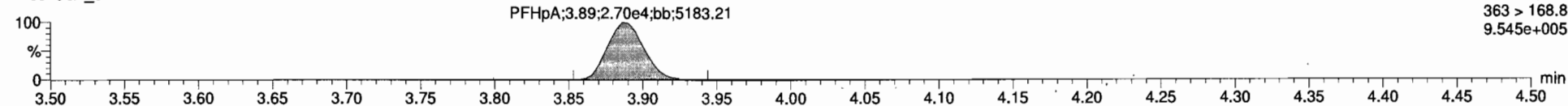
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PFHpA

170316G1_8

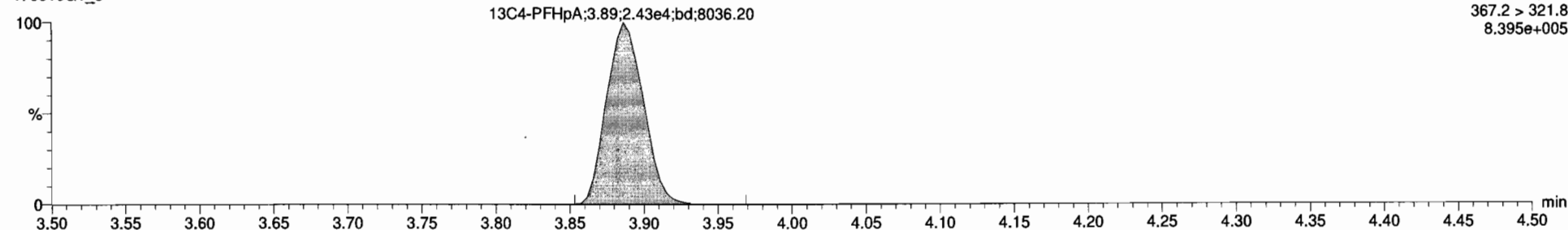


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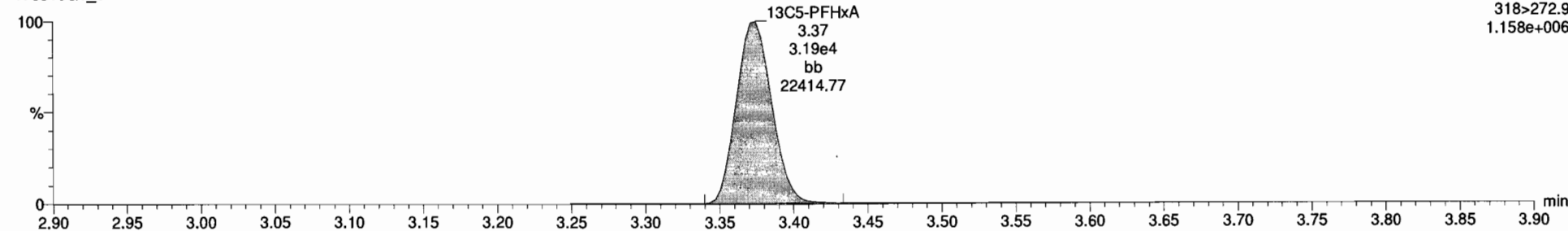
13C4-PFHxA

170316G1_8



13C5-PFHxA

170316G1_8



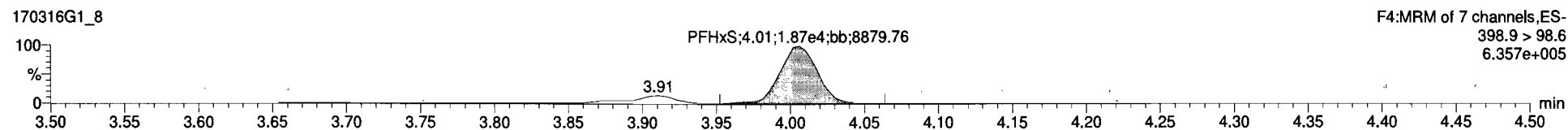
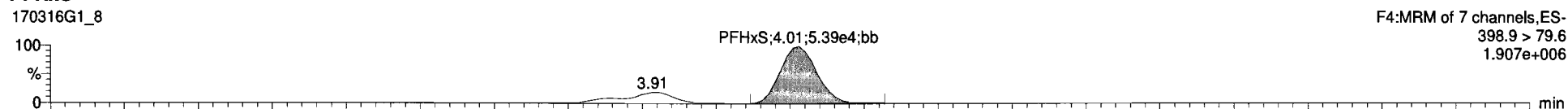
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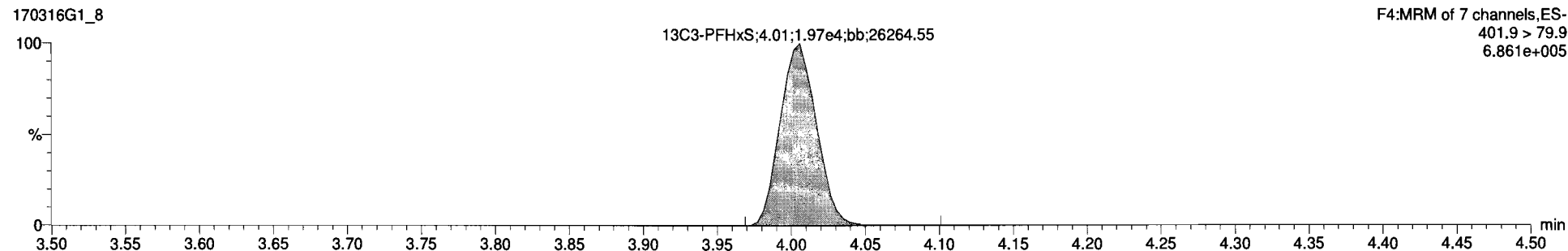
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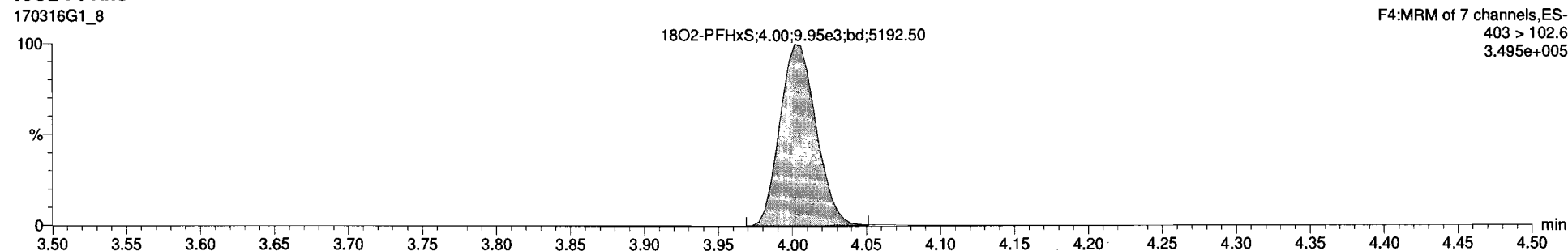
PFHxS

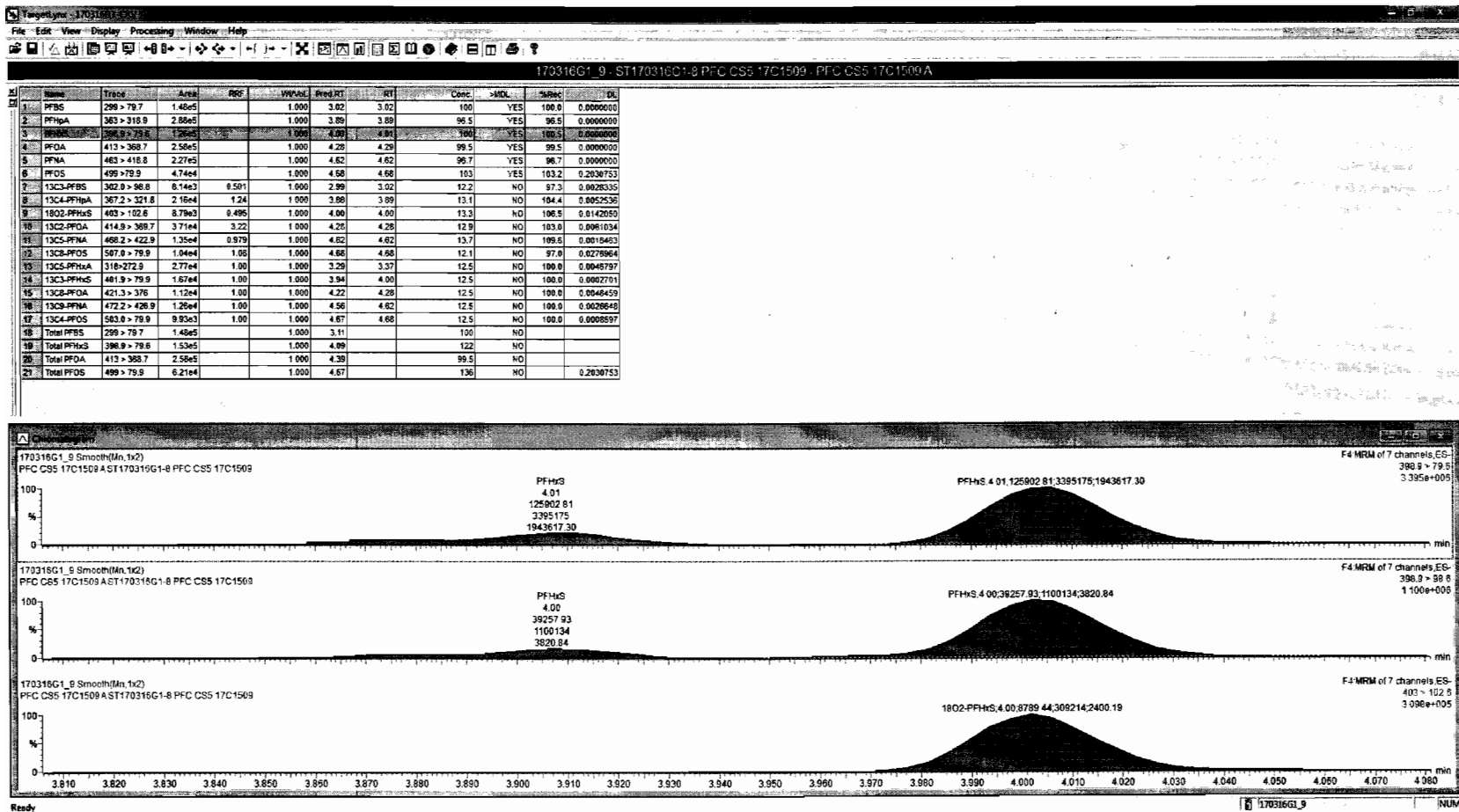


13C3-PFHxS



18O2-PFHxS





Dataset: Untitled

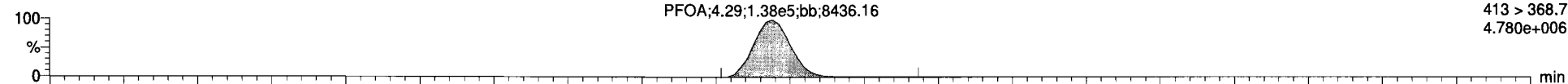
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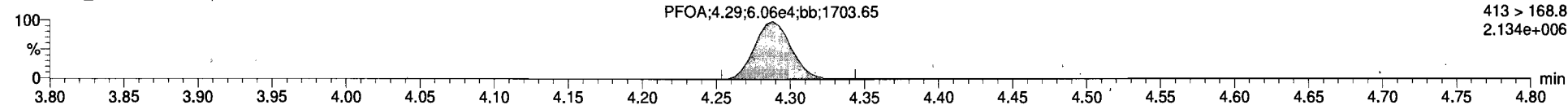
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PFOA

170316G1_8

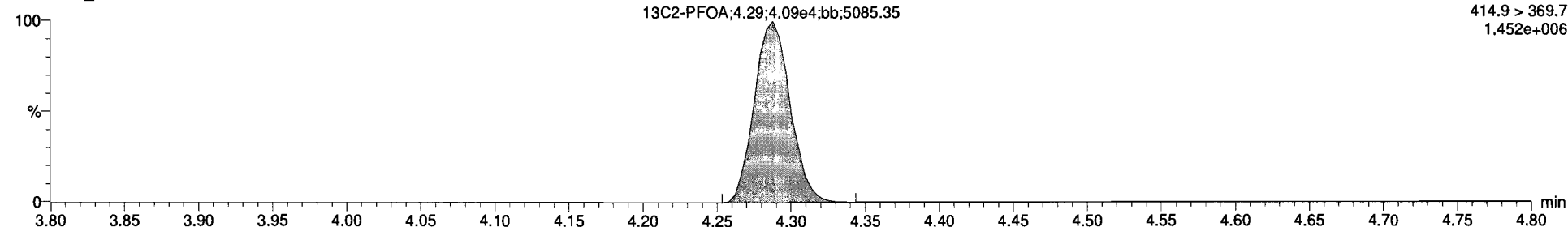


170316G1_8



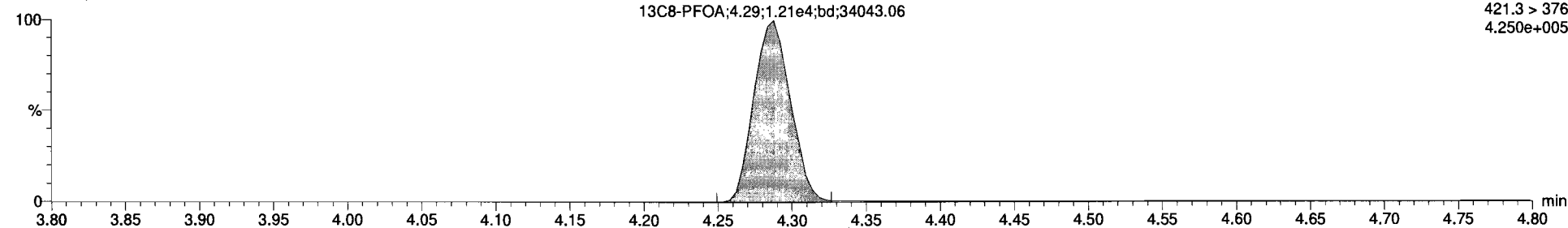
13C2-PFOA

170316G1_8



13C8-PFOA

170316G1_8



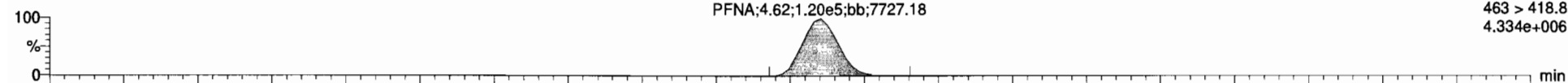
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Last Altered: Thursday, March 16, 2017 13:27:05 Pacific Daylight Time
Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

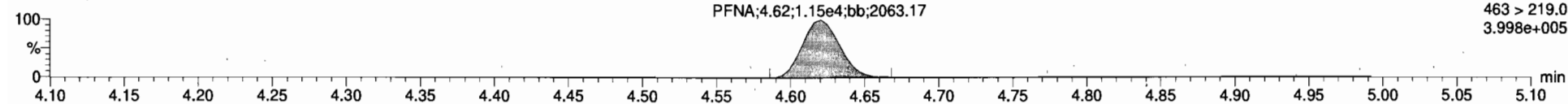
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PFNA

170316G1_8

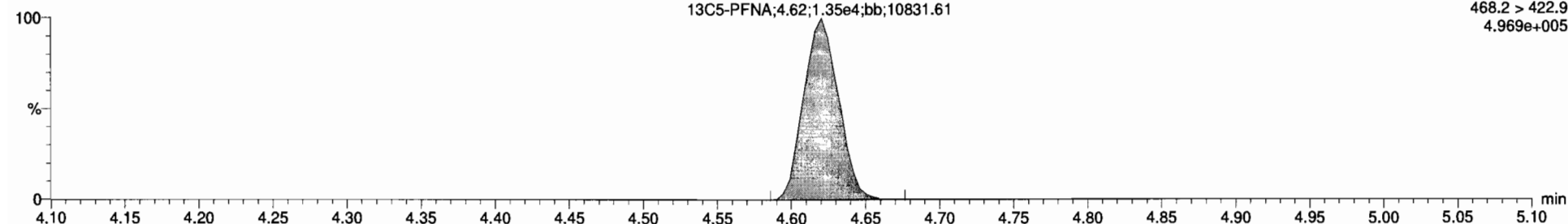


170316G1_8



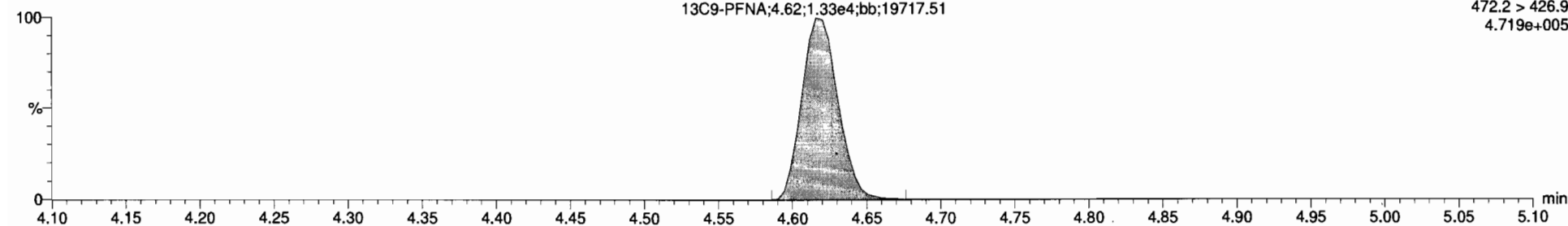
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170316G1_8



13C9-PFNA

170316G1_8



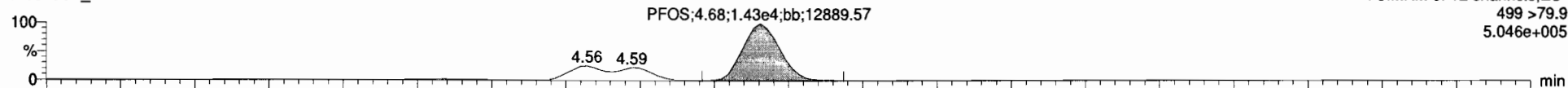
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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

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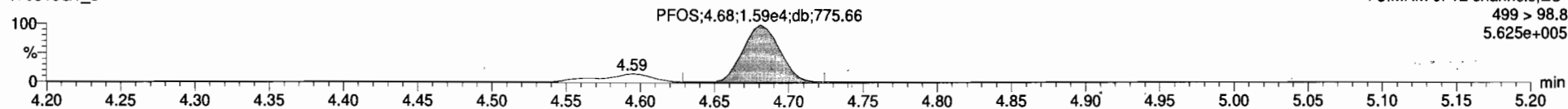
PFOS

170316G1_8



F5:MRM of 12 channels,ES-
499 >79.9
5.046e+005

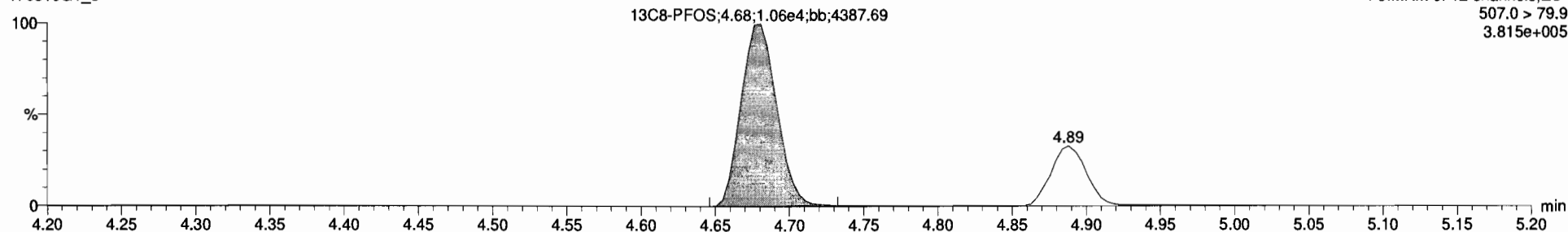
170316G1_8



F5:MRM of 12 channels,ES-
499 > 98.8
5.625e+005

13C8-PFOS

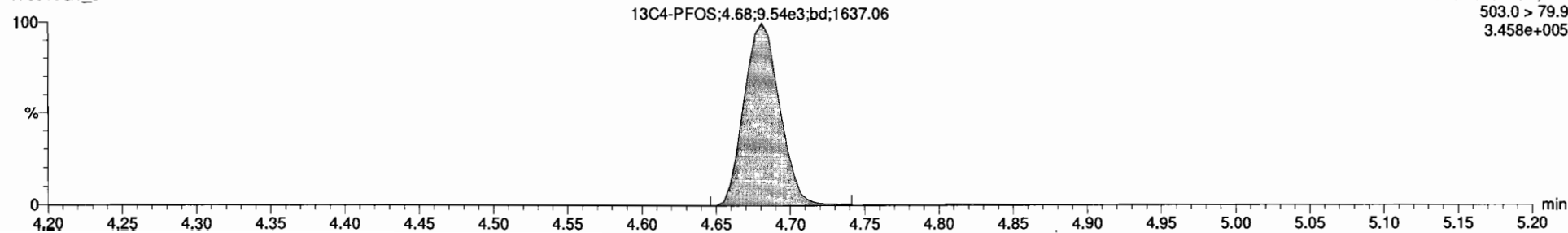
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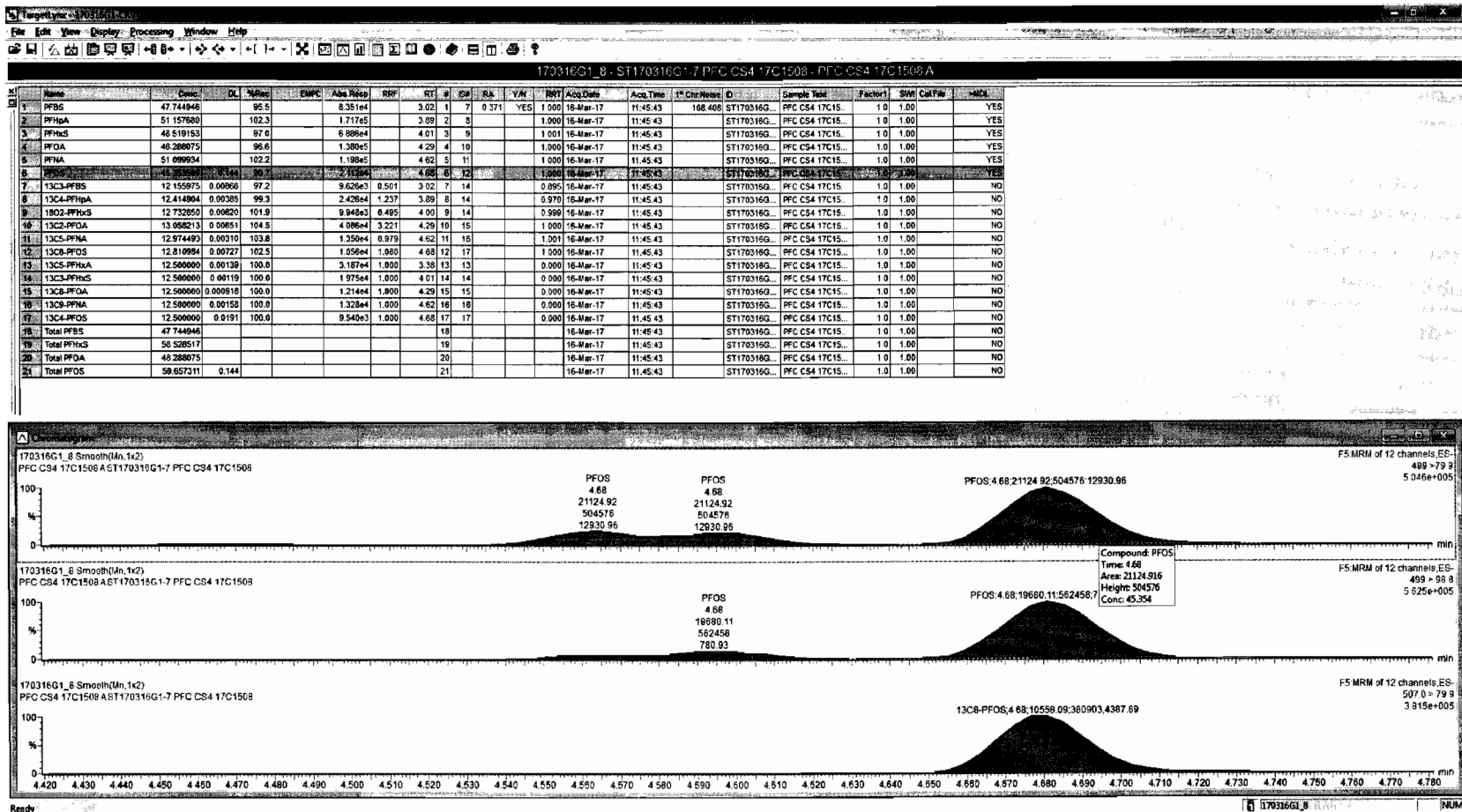
F5:MRM of 12 channels,ES-
507.0 > 79.9
3.815e+005

13C4-PFOS

170316G1_8



F5:MRM of 12 channels,ES-
503.0 > 79.9
3.458e+005



Dataset: Untitled

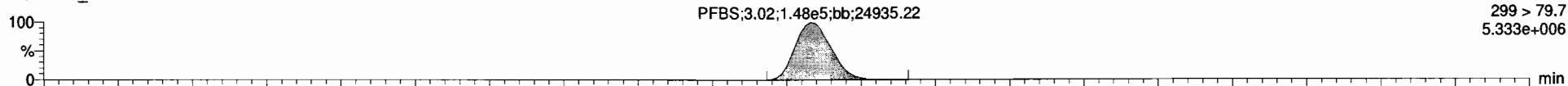
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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

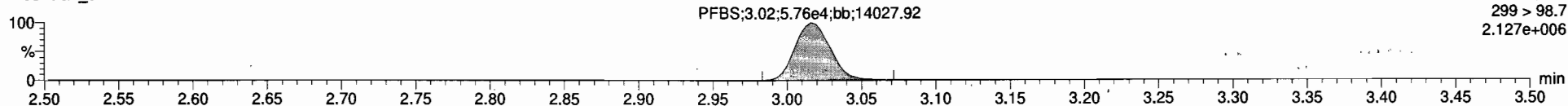
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PFBS

170316G1_9

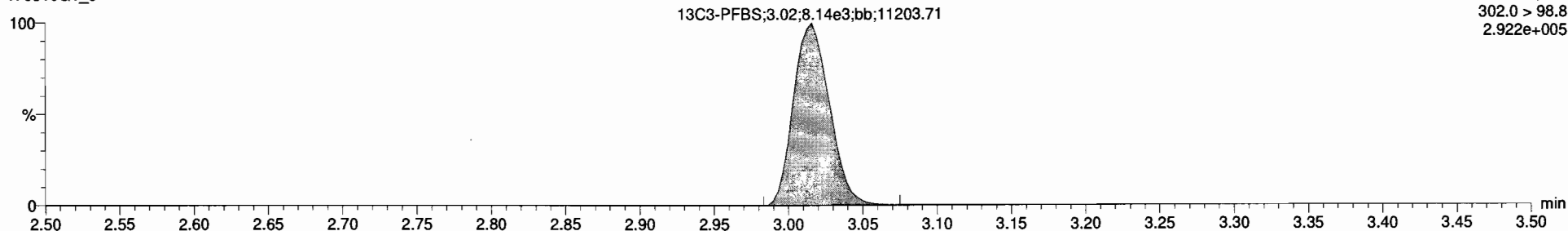


170316G1_9



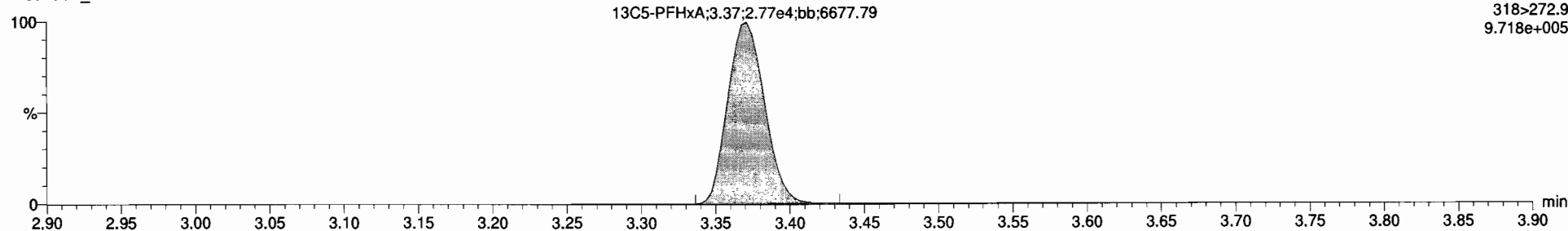
13C3-PFBS

170316G1_9



13C5-PFHxA

170316G1_9



Dataset: Untitled

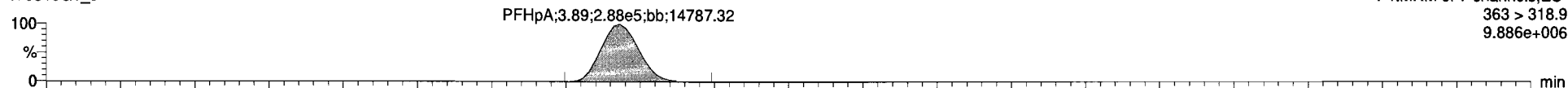
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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

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PFHpA

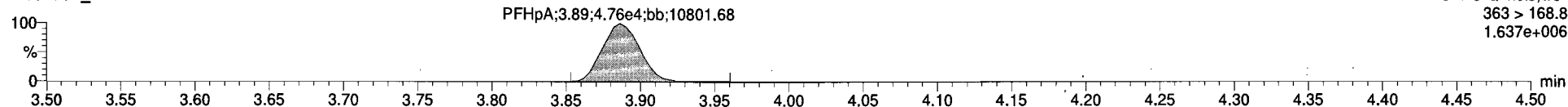
170316G1_9

F4:MRM of 7 channels,ES-
363 > 318.9
9.886e+006



170316G1_9

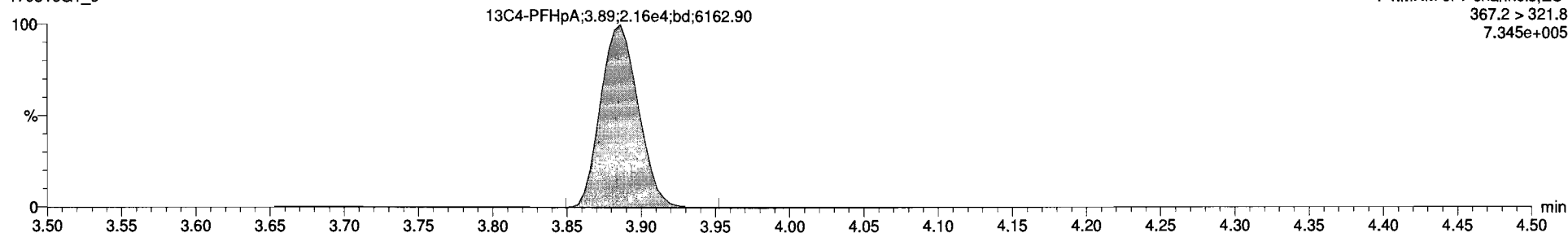
F4:MRM of 7 channels,ES-
363 > 168.8
1.637e+006



13C4-PFHpA

170316G1_9

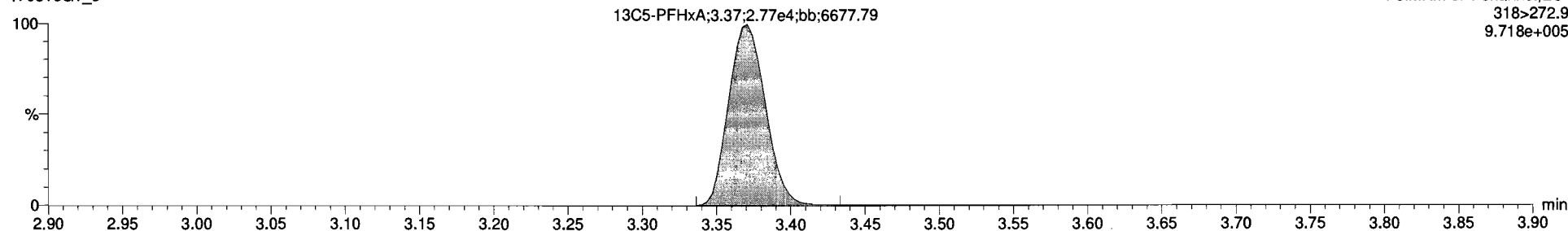
F4:MRM of 7 channels,ES-
367.2 > 321.8
7.345e+005



13C5-PFHxA

170316G1_9

F3:MRM of 1 channel,ES-
318>272.9
9.718e+005



Dataset: Untitled

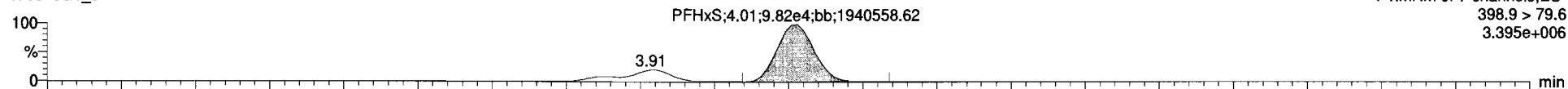
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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

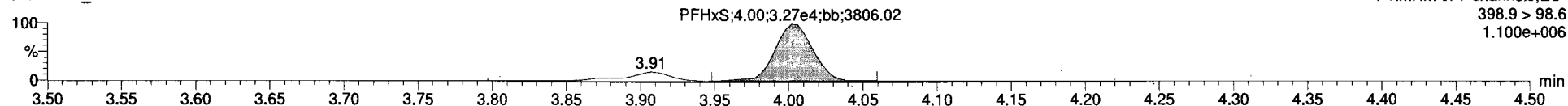
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PFHxS

170316G1_9

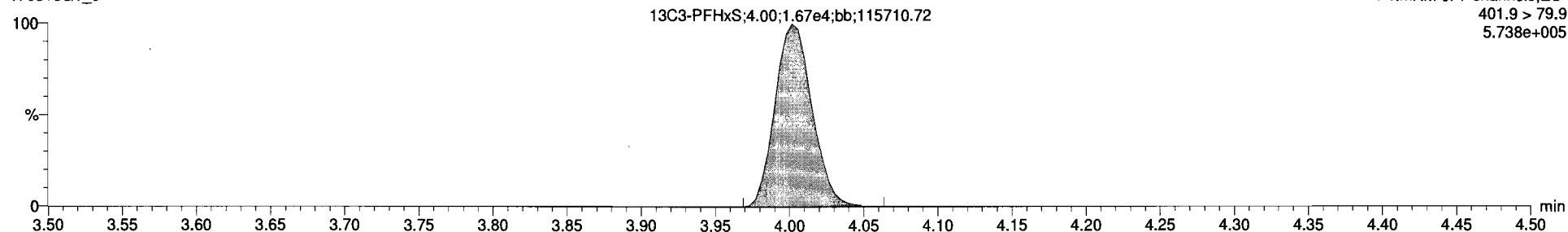


170316G1_9



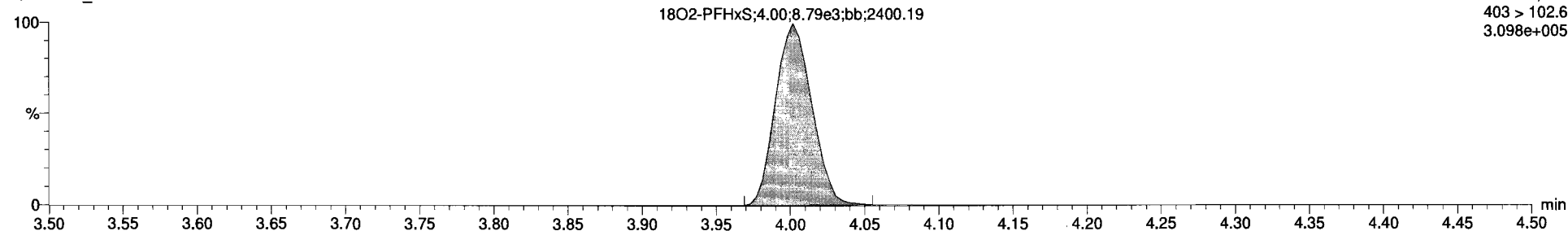
13C3-PFHxS

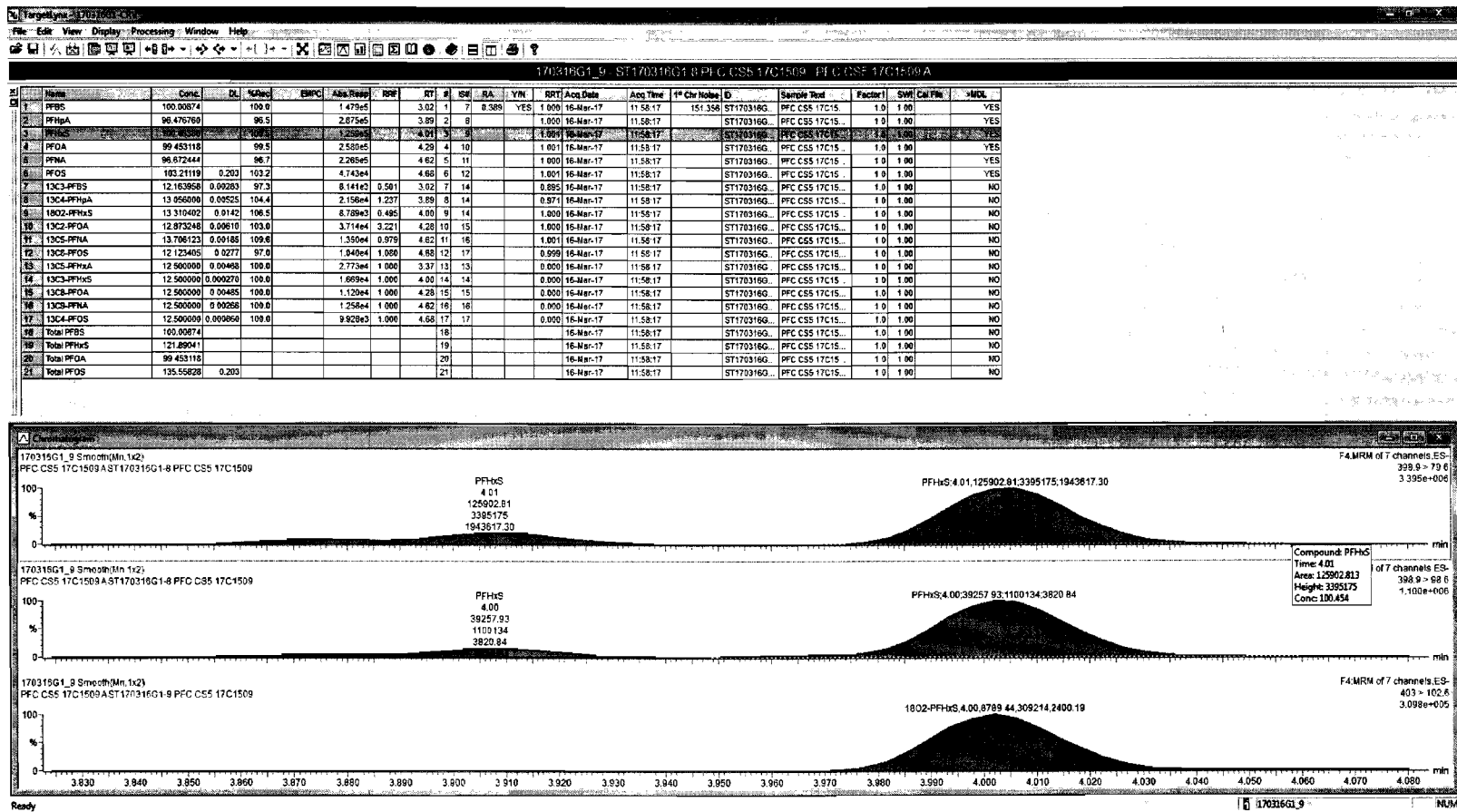
170316G1_9



18O2-PFHxS

170316G1_9





Dataset: Untitled

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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

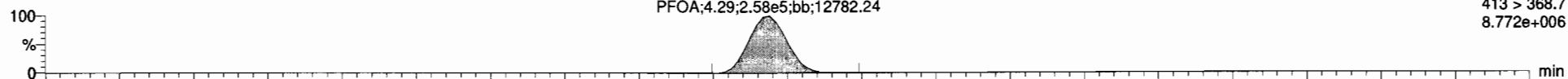
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PFOA

170316G1_9

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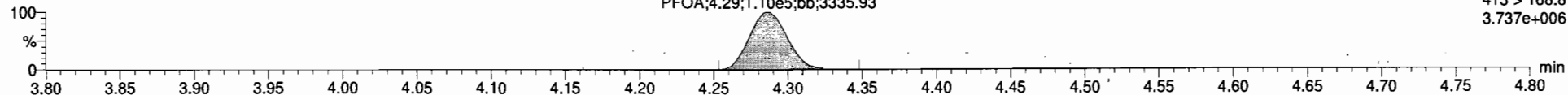
F5:MRM of 12 channels,ES-
413 > 368.7
8.772e+006



170316G1_9

PFOA;4.29;1.10e5;bb;3335.93

F5:MRM of 12 channels,ES-
413 > 168.8
3.737e+006

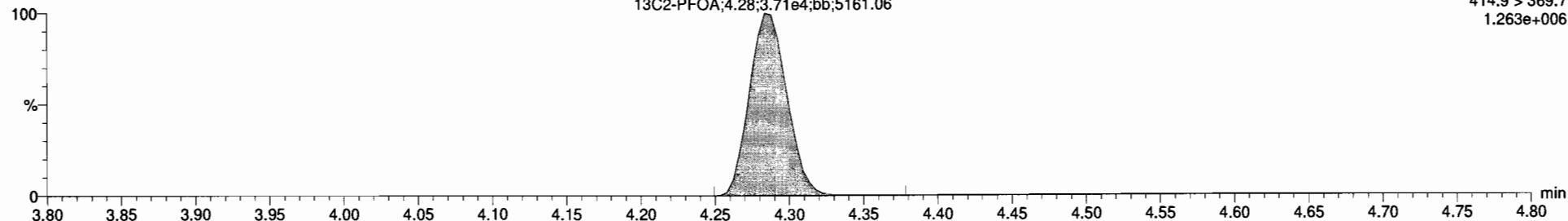


13C2-PFOA

170316G1_9

13C2-PFOA;4.28;3.71e4;bb;5161.06

F5:MRM of 12 channels,ES-
414.9 > 369.7
1.263e+006

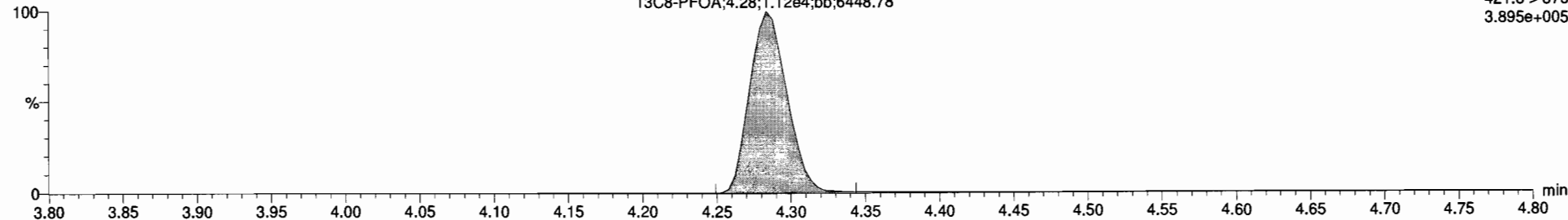


13C8-PFOA

170316G1_9

13C8-PFOA;4.28;1.12e4;bb;6448.78

F5:MRM of 12 channels,ES-
421.3 > 376
3.895e+005



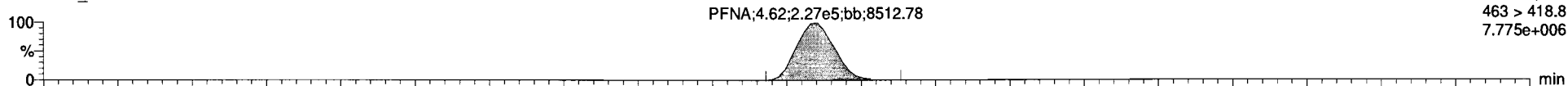
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Last Altered: Thursday, March 16, 2017 13:27:05 Pacific Daylight Time
Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

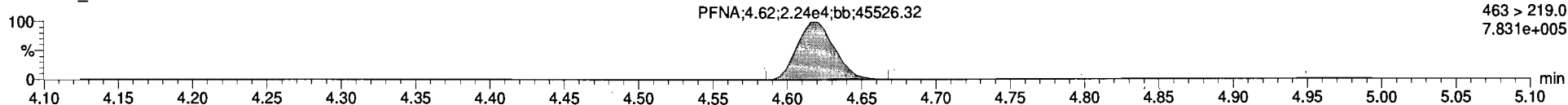
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PFNA

170316G1_9

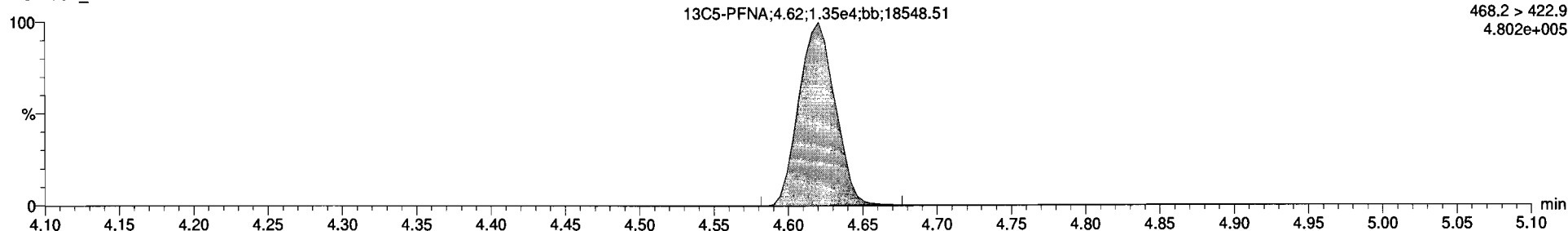


170316G1_9



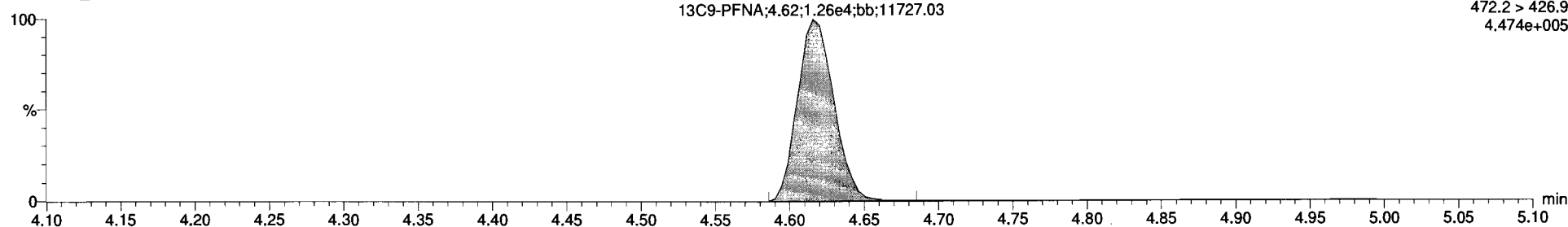
13C5-PFNA

170316G1_9



13C9-PFNA

170316G1_9

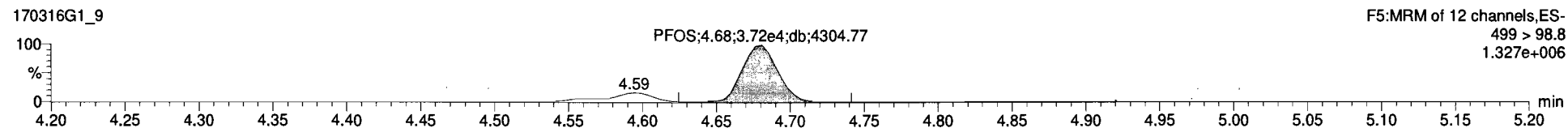
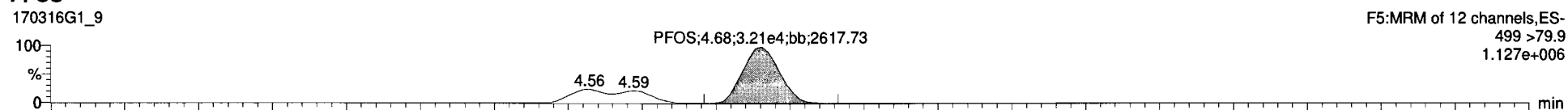


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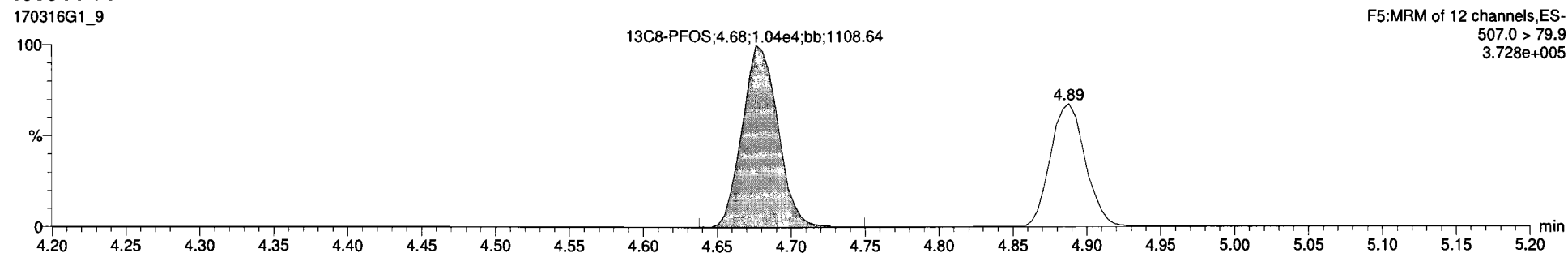
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Printed: Thursday, March 16, 2017 13:28:00 Pacific Daylight Time

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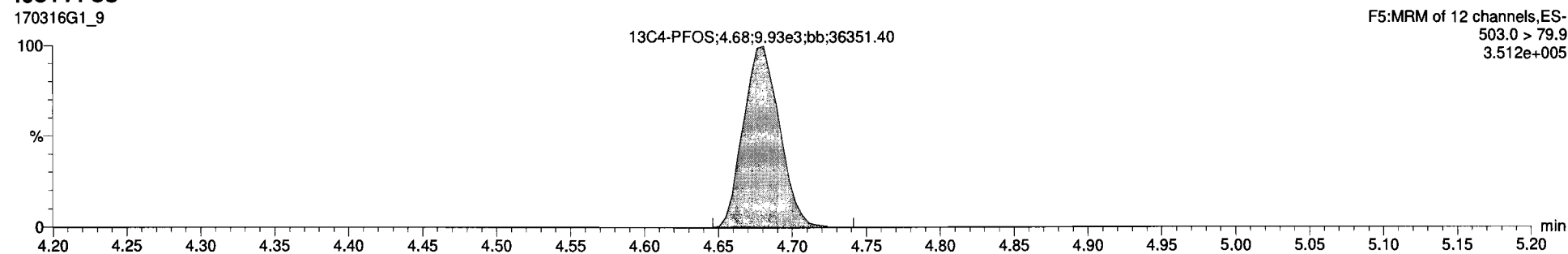
PFOS



13C8-PFOS



13C4-PFOS



Chromatogram (Mn, 1x2)

170316G1_9_Smooth(Mn, 1x2)

PFC C85 17C1509AST170316G1-8 PFC C85 17C1509

F5:MRM of 12 channels, ES-
499 > 70.9
1.127e+006

PFOS
4.68
47426.64
1127373
2626.12

PFOS
4.68
47426.64
1127373
2626.12

PFOS, 4.68, 47426.64, 1127373, 2626.12

170316G1_9_Smooth(Mn, 1x2)

PFC C85 17C1509AST170316G1-8 PFC C85 17C1509

F5:MRM of 12 channels, ES-
499 > 56.8
1.127e+009

PFOS
4.68
45461.71
1327462
4310.38

PFOS, 4.68, 45461.71, 1327462, 4310.38

170316G1_9_Smooth(Mn, 1x2)

PFC C85 17C1509AST170316G1-8 PFC C85 17C1509

F5:MRM of 12 channels, ES-
507.0 > 79.9
3.728e+005

13C8-PFOS, 4.68, 10398.12, 372435, 1108.64

Ready

170316G1_9

Dataset: U:\G1.PRO\Results\2017\170316G1\170316G1-11.qld

Last Altered: Thursday, March 16, 2017 14:27:32 Pacific Daylight Time

Printed: Thursday, March 16, 2017 14:28:49 Pacific Daylight Time

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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

Name: 170316G1_11, Date: 16-Mar-2017, Time: 12:23:32, ID: SS170316G1-1 PFC SSS 17C1510, Description: PFC SSS 17C01510 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS (A)	299 > 79.7	1.55e4	1.09e4		1.000	3.02	7.76 87.7 77.6	
2	2 PFHpA	363 > 318.9	3.41e4	2.51e4		1.000	3.89	9.75	97.5
3	3 PFHxS (A)	398.9 > 79.6	1.22e4	1.03e4		1.000	4.01	8.28 90.8 82.8	
4	4 PFOA	413 > 368.7	2.79e4	4.17e4		1.000	4.29	9.45	94.5
5	5 PFNA	463 > 418.8	2.15e4	1.23e4		1.000	4.62	10.0	100.1
6	6 PFOS (A)	499 > 79.9	2.91e3	8.65e3		1.000	4.68	7.73 83.3 77.3	
7	7 13C3-PFBS	302.0 > 98.8	1.09e4	1.89e4	0.501	1.000	3.02	14.4	115.3
8	8 13C4-PFHpA	367.2 > 321.8	2.51e4	1.89e4	1.237	1.000	3.89	13.4	107.2
9	9 18O2-PFHxS	403 > 102.6	1.03e4	1.89e4	0.495	1.000	4.01	13.8	110.1
10	10 13C2-PFOA	414.9 > 369.7	4.17e4	1.22e4	3.221	1.000	4.29	13.3	106.1
11	11 13C5-PFNA	468.2 > 422.9	1.23e4	1.18e4	0.979	1.000	4.62	13.3	106.4
12	12 13C8-PFOS	507.0 > 79.9	8.65e3	6.92e3	1.080	1.000	4.68	14.5	115.7
13	13 13C5-PFHxA	318 > 272.9	3.23e4	3.23e4	1.000	1.000	3.37	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.89e4	1.89e4	1.000	1.000	4.01	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	1.22e4	1.22e4	1.000	1.000	4.29	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.18e4	1.18e4	1.000	1.000	4.62	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	6.92e3	6.92e3	1.000	1.000	4.68	12.5	100.0

75-125
↓

ES 3/16/17

✓ AC 3/17/17

(A) Concentration < 10ng/L in second source native mix. ES 3/16/17-

Dataset: Untitled

Last Altered: Thursday, March 16, 2017 14:26:18 Pacific Daylight Time

Printed: Thursday, March 16, 2017 14:26:34 Pacific Daylight Time

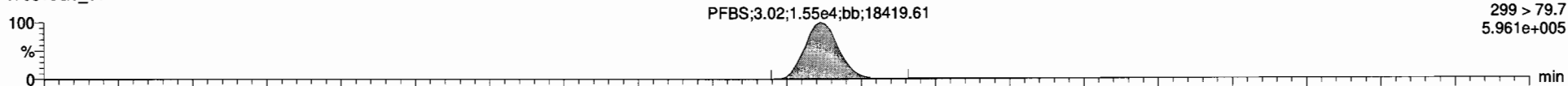
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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_3-16-17_L6_2Trans.cdb 16 Mar 2017 13:24:03

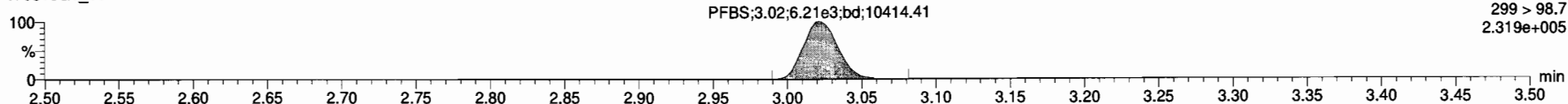
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PFBS

170316G1_11

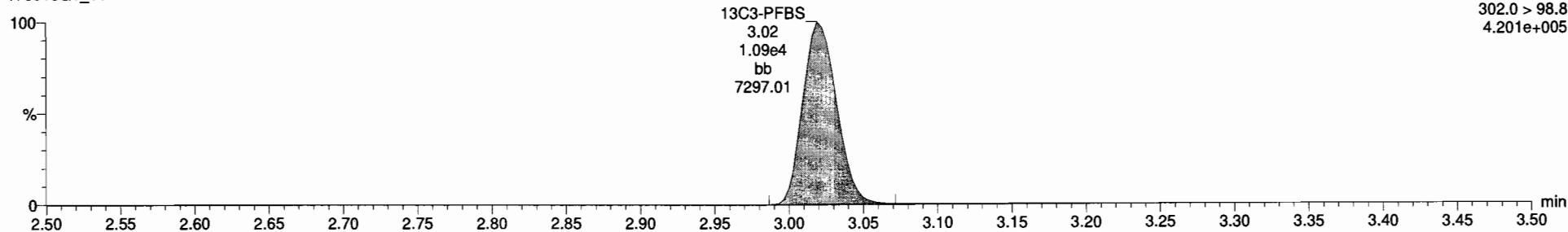


170316G1_11



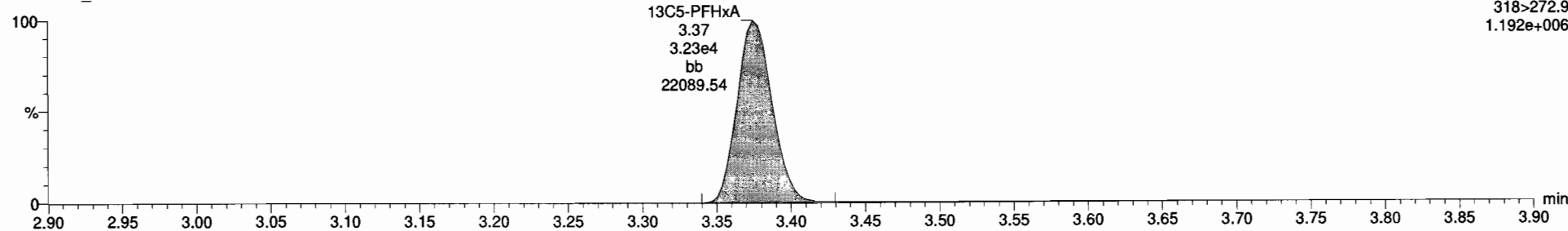
13C3-PFBS

170316G1_11



13C5-PFHxA

170316G1_11



Dataset: Untitled

Last Altered: Thursday, March 16, 2017 14:26:18 Pacific Daylight Time
Printed: Thursday, March 16, 2017 14:26:34 Pacific Daylight Time

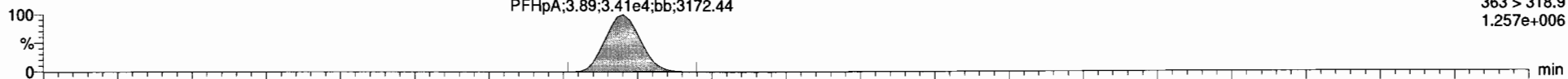
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PFHpA

170316G1_11

PFHpA;3.89;3.41e4;bb;3172.44

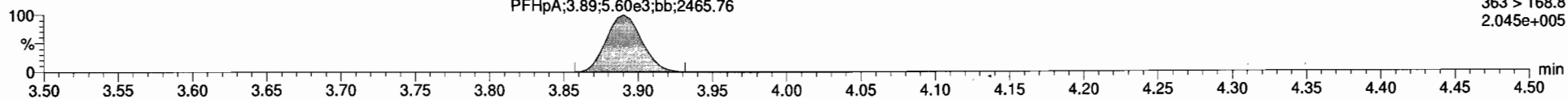
F4:MRM of 7 channels,ES-
363 > 318.9
1.257e+006



170316G1_11

PFHpA;3.89;5.60e3;bb;2465.76

F4:MRM of 7 channels,ES-
363 > 168.8
2.045e+005

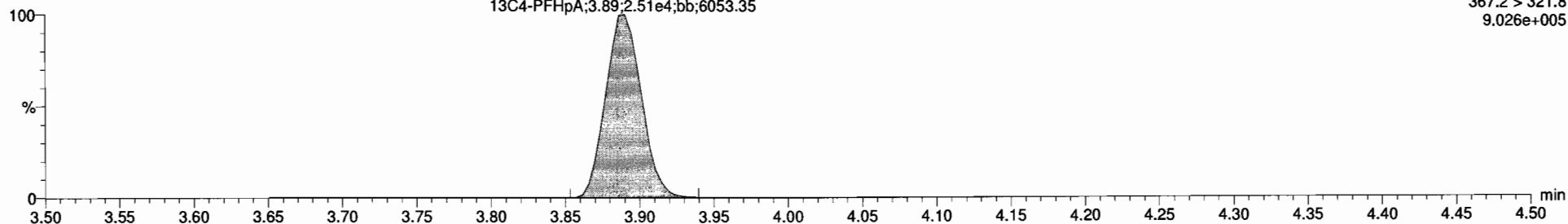


13C4-PFHpA

170316G1_11

13C4-PFHpA;3.89;2.51e4;bb;6053.35

F4:MRM of 7 channels,ES-
367.2 > 321.8
9.026e+005

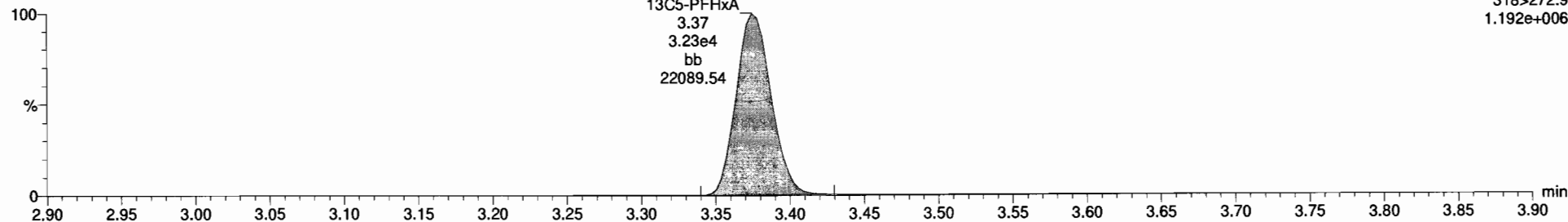


13C5-PFHxA

170316G1_11

13C5-PFHxA
3.37
3.23e4
bb
22089.54

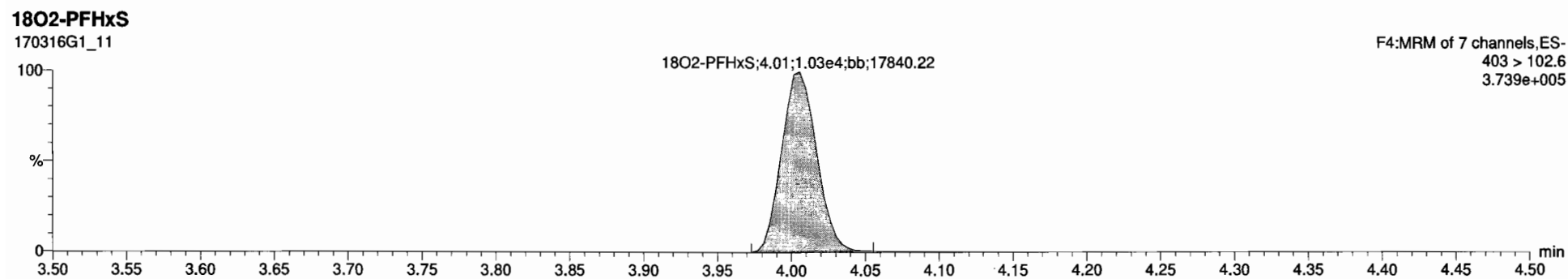
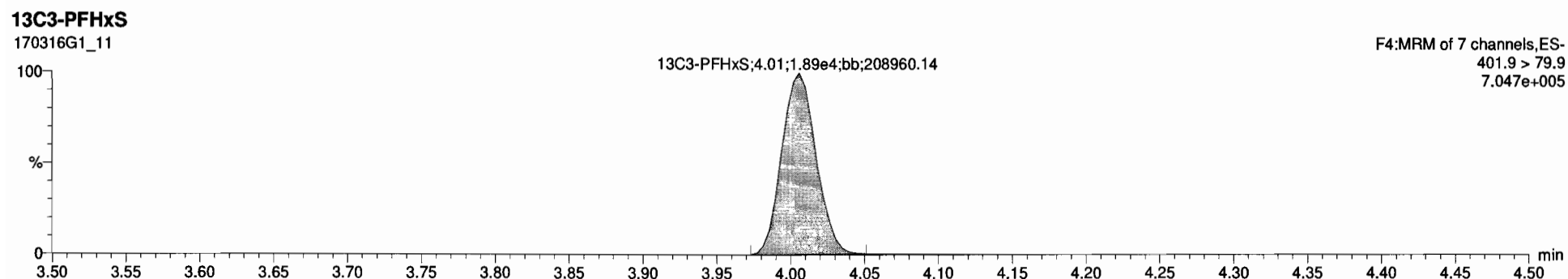
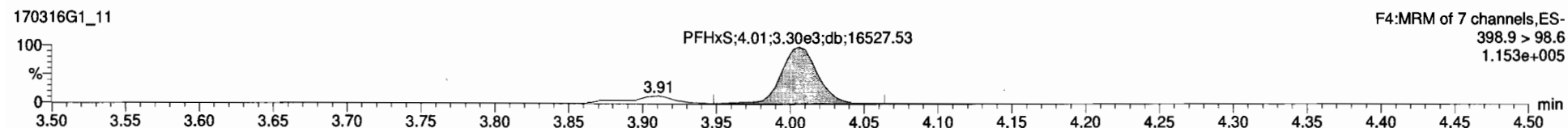
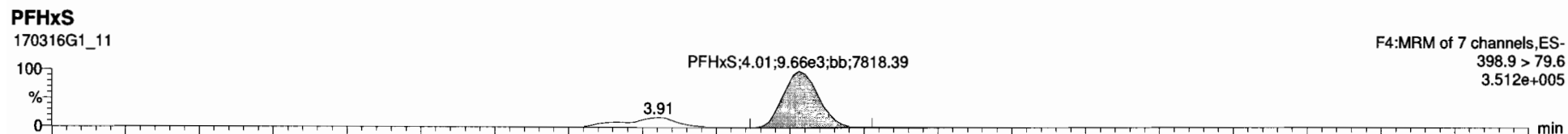
F3:MRM of 1 channel,ES-
318>272.9
1.192e+006



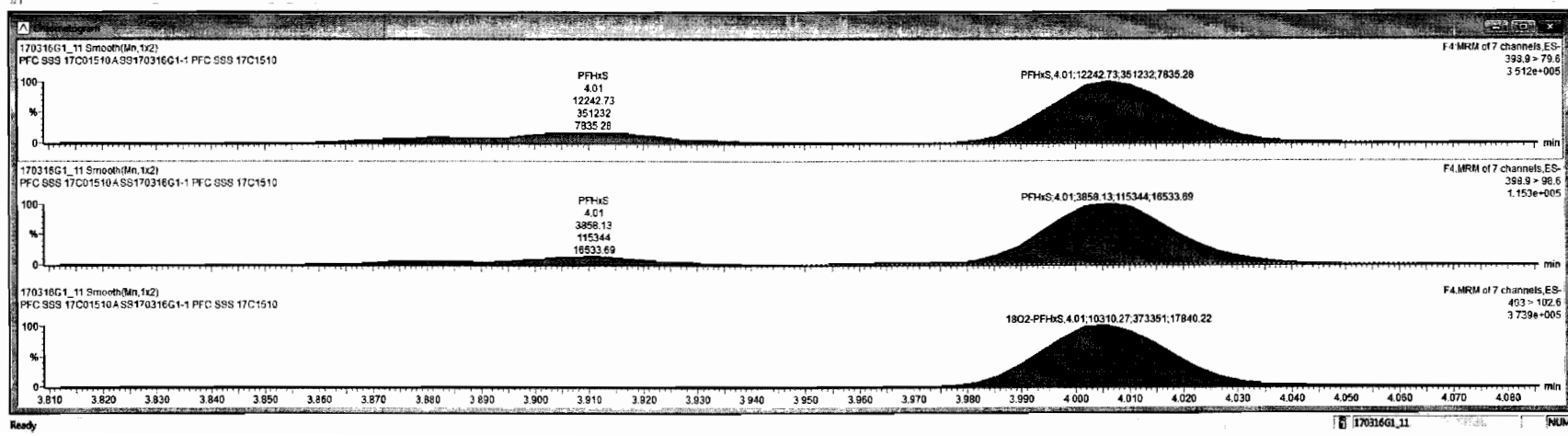
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Last Altered: Thursday, March 16, 2017 14:26:18 Pacific Daylight Time
Printed: Thursday, March 16, 2017 14:26:34 Pacific Daylight Time

ID: SS170316G1-1 PFC SSS 17C1510, Description: PFC SSS 17C01510 A, Name: 170316G1_11, Date: 16-Mar-2017, Time: 12:23:32, Instrument: , Lab: , User:



#	Name	Conc	DE	Wt%	EMPC	Abn Resp	RF	RT	#	SA	RA	V/N	DET	Acq Date	Acq Time	1° Ctr Noise	D	Sample Year	Factor1	SNR	Cal File	>MOL
1	PFBS	7.7633634	0.0000	77.6		1.559e4		3.02	1	7	0.401	YES	1.001	16-Mar-17	12:23:32	22.256	SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
2	PFHpA	9.7477267	0.0000	97.5		3.487e4		3.89	2	8			1.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
3	PFHxS	8.2019477	0.0000	82.2		1.229e4		4.01	3	9			1.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
4	PFOA	9.4536474	0.0000	94.5		2.794e4		4.29	4	10			1.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
5	PFNA	10.010045	0.0000	100.1		2.150e4		4.62	5	11			1.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
6	PFOS	7.7306443	0.150	77.3		2.907e3		4.68	6	12			1.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
7	13C3-PFBS	14.414511	0.00510	115.3		1.595e4	0.501	3.02	7	14			0.895	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
8	13C4-PFHpA	13.400660	0.00535	107.2		2.512e4	1.237	3.89	8	14			0.971	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
9	1802-PFHpS	13.758590	0.00106	110.1		1.031e4	0.495	4.01	9	14			1.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
10	13C2-PFOA	13.261704	0.00237	106.1		4.167e4	3.221	4.29	10	15			1.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
11	13C5-PFNA	13.294421	0.00682	106.4		1.228e4	0.979	4.62	11	16			1.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
12	13C8-PFOS	14.462514	0.0250	115.7		6.852e3	1.000	4.68	12	17			1.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
13	13C5-PFHpA	12.500000	0.00141	100.0		3.227e4	1.000	3.37	13	13			0.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
14	13C3-PFHpS	12.500000	0.000150	100.0		1.894e4	1.000	4.01	14	14			0.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
15	13C6-PFOA	12.500000	0.00103	100.0		1.219e4	1.000	4.29	15	15			0.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
16	13C9-PFNA	12.500000	0.00200	100.0		1.179e4	1.000	4.62	16	16			0.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
17	13C4-PFOS	12.500000	0.0425	100.0		6.525e3	1.000	4.68	17	17			0.000	16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
18	Total PFBS	7.7633634						18						16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
19	Total PFHpS	9.8760693						19						16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
20	Total PFOA	9.4536474						20						16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
21	Total PFOS	10.324072	0.150					21						16-Mar-17	12:23:32		SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO



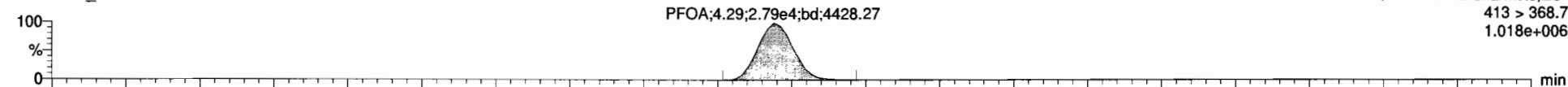
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Last Altered: Thursday, March 16, 2017 14:26:18 Pacific Daylight Time
Printed: Thursday, March 16, 2017 14:26:34 Pacific Daylight Time

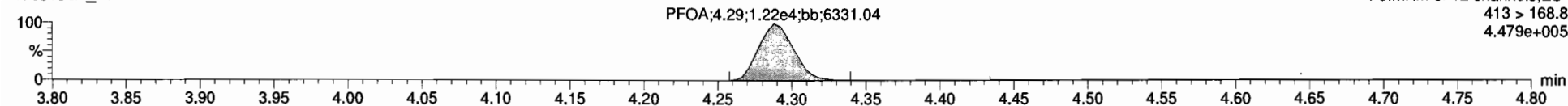
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PFOA

170316G1_11

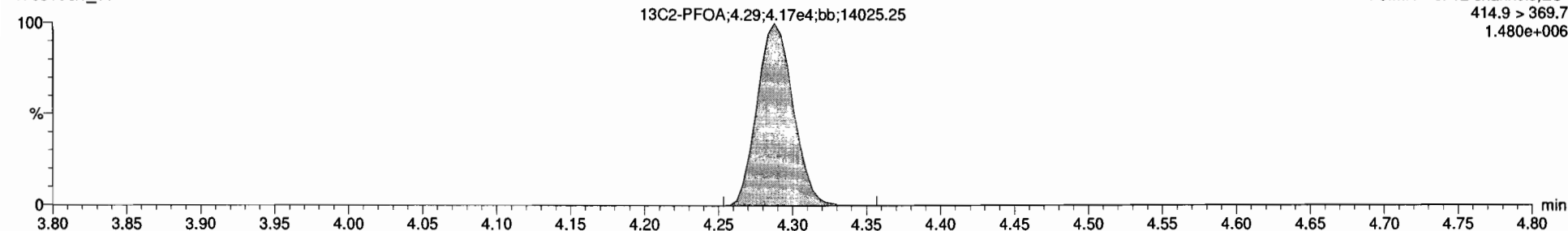


170316G1_11



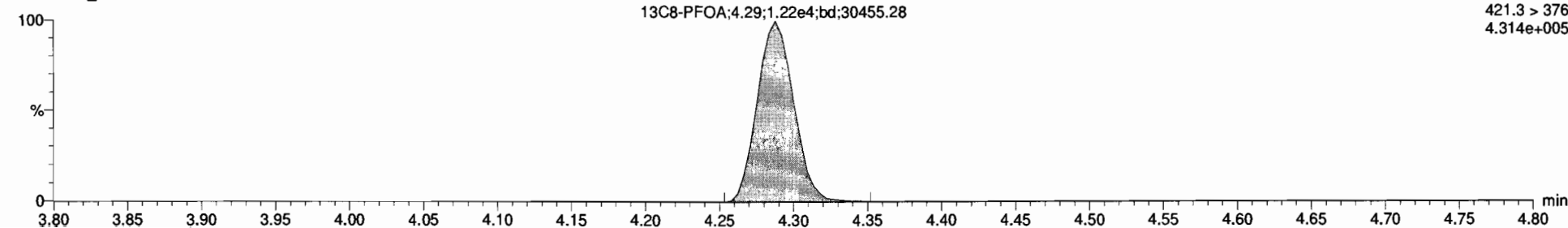
13C2-PFOA

170316G1_11



13C8-PFOA

170316G1_11



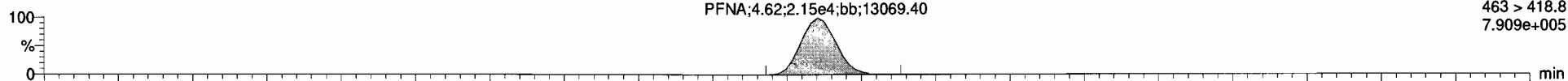
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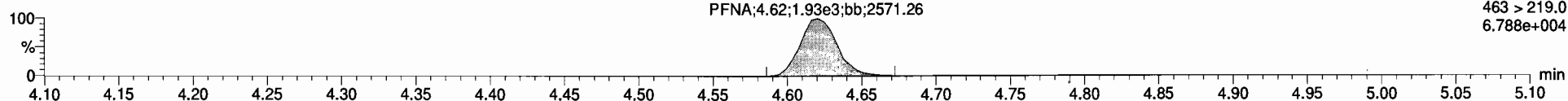
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PFNA

170316G1_11

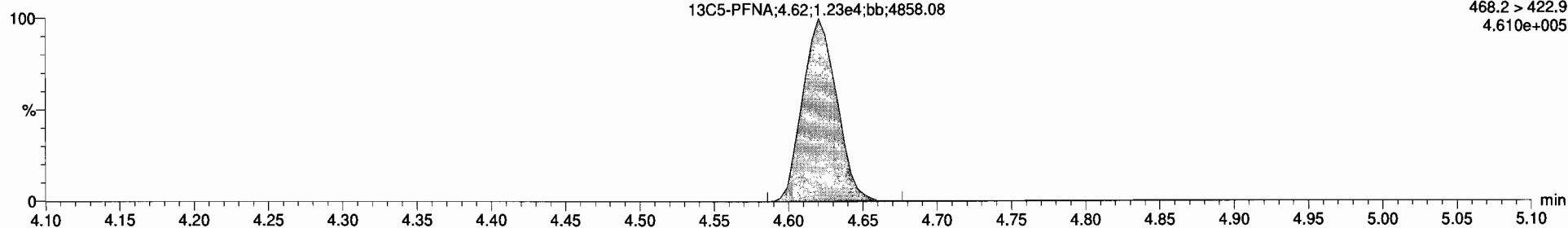


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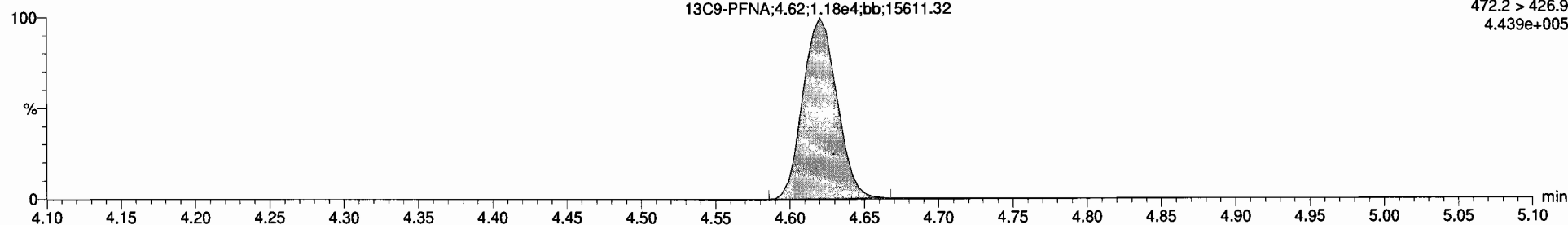
13C5-PFNA

170316G1_11



13C9-PFNA

170316G1_11



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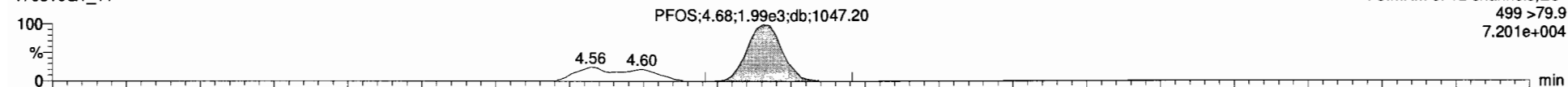
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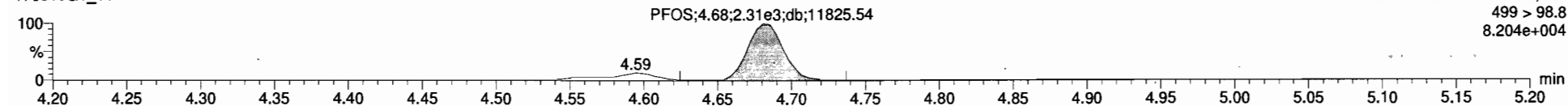
PFOS

170316G1_11



F5:MRM of 12 channels,ES-
499 >79.9
7.201e+004

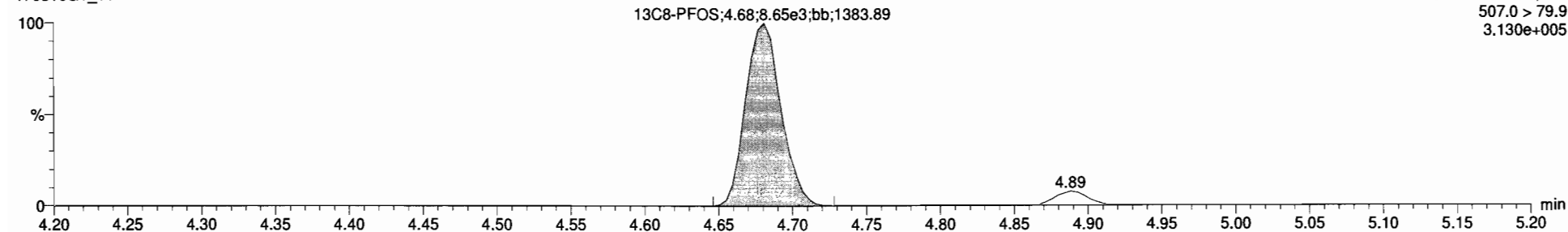
170316G1_11



F5:MRM of 12 channels,ES-
499 > 98.8
8.204e+004

13C8-PFOS

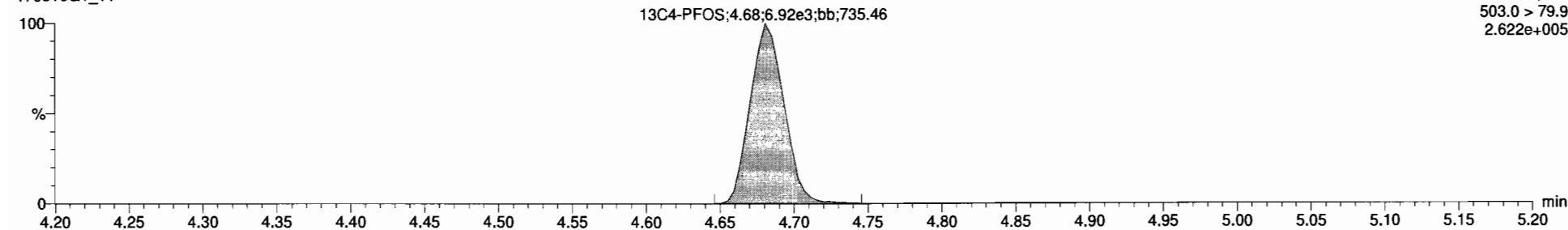
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F5:MRM of 12 channels,ES-
507.0 > 79.9
3.130e+005

13C4-PFOS

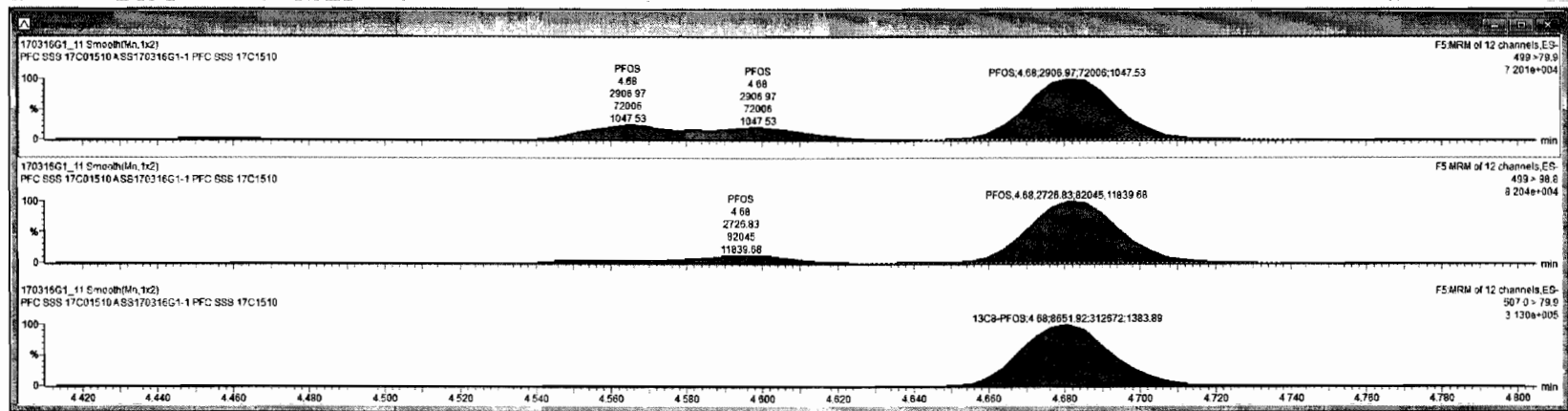
170316G1_11



F5:MRM of 12 channels,ES-
503.0 > 79.9
2.622e+005

170316G1_11 SS170316G1-1 PFC SSS 17C1510 PFC SSS 17C01510A

#	Name	Conc.	DL	%Rec	EMPC	Abs Resp	RSP	RT	#	ES	RA	Y/N	RR1	Acq Date	Acq Time	Y#	Chr Name	ID	Sample Time	Factor1	SW	Cell File	MOD
1	PFBS	7.7633834	0.0000	77.6		1.550e4	3.02	1	7	0.401	YES		1.001	16-Mar-17	12:23:32	22	258	SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
2	PFHpA	9.7477867	0.0000	87.5		3.407e4	3.89	2	8			1.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
3	PFHxS	8.2615747	0.0000	82.8		1.224e4	4.01	3	9			1.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
4	PFOA	9.4536474	0.0000	94.5		2.784e4	4.29	4	10			1.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
5	PFNA	10.010045	0.0000	100.1		2.150e4	4.62	5	11			1.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
6	PFOA	12.7708042	0.150	77.3		2.907e3	4.60	6	12			1.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	YES
7	13C3-PFBS	14.414511	0.00010	115.3		1.095e4	0.591	3.02	7	14		0.895		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
8	13C4-PFHpA	19.400960	0.00035	107.2		2.512e4	1.237	3.89	8	14		0.971		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
9	13C3-PFHpS	13.758600	0.00100	110.1		1.031e4	0.495	4.01	9	14		1.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
10	13C2-PFOA	13.261704	0.00037	106.1		4.167e4	3.221	4.29	10	15		1.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
11	13C5-PFNA	13.294421	0.00082	106.4		1.229e4	0.979	4.62	11	16		1.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
12	13C8-PFOS	14.462514	0.0200	115.7		8.652e3	1.080	4.68	12	17		1.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
13	13C5-PFHpA	12.500000	0.00141	100.0		3.227e4	1.000	3.37	13	13		0.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
14	13C3-PFHpS	12.500000	0.000100	100.0		1.894e4	1.000	4.01	14	14		0.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
15	13C8-PFOA	12.500000	0.00103	100.0		1.219e4	1.000	4.29	15	15		0.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
16	13C8-PFNA	12.500000	0.00200	100.0		1.179e4	1.000	4.62	16	16		0.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
17	13C4-PFOS	12.500000	0.0425	100.0		6.925e3	1.000	4.68	17	17		0.000		16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
18	Total PFBS	7.7633834						18						16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
19	Total PFHpS	9.8760953						19						16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
20	Total PFOA	9.4536474						20						16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO
21	Total PFOS	10.324072	0.150					21						16-Mar-17	12:23:32			SS170316G1	PFC SSS 17C01	1.0	1.00	C18_V...	NO



Custom Reporting: Select reports to generate

170316G1_11 NUM

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	Date/Time_Collected	Date_Received	Leachate_Date	Leachate_Time
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/20/2017 11:00	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	NONS	SV0A	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG						

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 BEACH_NRL	CBD-A0A-MW04-0317	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/21/2017 14:45	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-A0A-MW04-0317	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/21/2017 14:45	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-A0A-MW04-0317	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/21/2017 14:45	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-A0A-MW03-0317	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/21/2017 15:05	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-A0A-MW03-0317	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/21/2017 15:05	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-A0A-MW03-0317	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	03/21/2017 15:05	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-A0A-MW03-0317	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/21/2017 15:05	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-A0A-MW03-0317	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	03/21/2017 15:05	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-A0A-MW03-0317	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	03/21/2017 15:05	03/22/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	03/23/2017 09:58	03/23/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	03/27/2017 11:03	03/27/2017		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	NONS	SV0A	537 MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	03/27/2017 11:03	03/27/2017		

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	Validator_Qualifier
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW02-0317	20170323	09:58:00	20170324	17:29:00	1700355-01	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	3.97	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW02-0317	20170323	09:58:00	20170324	17:29:00	1700355-01	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1.98	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW02-0317	20170323	09:58:00	20170324	17:29:00	1700355-01	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.893	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW02-0317	20170323	09:58:00	20170324	17:29:00	1700355-01	1	-999			13C3-PFBS	13C3-PFBS	109	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW02-0317	20170323	09:58:00	20170324	17:29:00	1700355-01	1	-999			13C2-PFOA	13C2-PFOA	116	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW02-0317	20170323	09:58:00	20170324	17:29:00	1700355-01	1	-999			13C8-PFOS	13C8-PFOS	104	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032017	20170323	09:58:00	20170324	17:41:00	1700355-02	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	4.17	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032017	20170323	09:58:00	20170324	17:41:00	1700355-02	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	2.08	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032017	20170323	09:58:00	20170324	17:41:00	1700355-02	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.938	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032017	20170323	09:58:00	20170324	17:41:00	1700355-02	1	-999			13C3-PFBS	13C3-PFBS	88.5	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032017	20170323	09:58:00	20170324	17:41:00	1700355-02	1	-999			13C2-PFOA	13C2-PFOA	117	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032017	20170323	09:58:00	20170324	17:41:00	1700355-02	1	-999			13C8-PFOS	13C8-PFOS	96.2	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01-0317	20170323	09:58:00	20170324	17:54:00	1700355-03	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	4.10	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01-0317	20170323	09:58:00	20170324	17:54:00	1700355-03	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	2.05	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01-0317	20170323	09:58:00	20170324	17:54:00	1700355-03	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	5.63	NG_L	J		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01-0317	20170323	09:58:00	20170324	17:54:00	1700355-03	1	-999			13C3-PFBS	13C3-PFBS	103	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01-0317	20170323	09:58:00	20170324	17:54:00	1700355-03	1	-999			13C2-PFOA	13C2-PFOA	114	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01-0317	20170323	09:58:00	20170324	17:54:00	1700355-03	1	-999			13C8-PFOS	13C8-PFOS	99.8	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01P-0317	20170323	09:58:00	20170324	18:07:00	1700355-04	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	3.94	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01P-0317	20170323	09:58:00	20170324	18:07:00	1700355-04	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1.97	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01P-0317	20170323	09:58:00	20170324	18:07:00	1700355-04	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	7.19	NG_L	J		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01P-0317	20170323	09:58:00	20170324	18:07:00	1700355-04	1	-999			13C3-PFBS	13C3-PFBS	110	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01P-0317	20170323	09:58:00	20170324	18:07:00	1700355-04	1	-999			13C2-PFOA	13C2-PFOA	120	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW01P-0317	20170323	09:58:00	20170324	18:07:00	1700355-04	1	-999			13C8-PFOS	13C8-PFOS	91.2	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW03-0317	20170323	09:58:00	20170324	18:19:00	1700355-05	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	3.88	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW03-0317	20170323	09:58:00	20170324	18:19:00	1700355-05	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1.94	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW03-0317	20170323	09:58:00	20170324	18:19:00	1700355-05	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	2.31	NG_L	J		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW03-0317	20170323	09:58:00	20170324	18:19:00	1700355-05	1	-999			13C3-PFBS	13C3-PFBS	84.0	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW03-0317	20170323	09:58:00	20170324	18:19:00	1700355-05	1	-999			13C2-PFOA	13C2-PFOA	118	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-BKG-MW03-0317	20170323	09:58:00	20170324	18:19:00	1700355-05	1	-999			13C8-PFOS	13C8-PFOS	99.2	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10-0317	20170323	09:58:00	20170324	18:32:00	1700355-06	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	28.7	NG_L			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10-0317	20170323	09:58:00	20170324	18:32:00	1700355-06	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	365	NG_L			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10-0317	20170323	09:58:00	20170324	18:32:00	1700355-06	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	341	NG_L			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10-0317	20170323	09:58:00	20170324	18:32:00	1700355-06	1	-999			13C3-PFBS	13C3-PFBS	112	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10-0317	20170323	09:58:00	20170324	18:32:00	1700355-06	1	-999			13C2-PFOA	13C2-PFOA	109	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10-0317	20170323	09:58:00	20170324	18:32:00	1700355-06	1	-999			13C8-PFOS	13C8-PFOS	97.6	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10P-0317	20170323	09:58:00	20170324	18:45:00	1700355-07	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	27.7	NG_L			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10P-0317	20170323	09:58:00	20170324	18:45:00	1700355-07	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	351	NG_L			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10P-0317	20170323	09:58:00	20170324	18:45:00	1700355-07	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	266	NG_L			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10P-0317	20170323	09:58:00	20170324	18:45:00	1700355-07	1	-999			13C3-PFBS	13C3-PFBS	119	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10P-0317	20170323	09:58:00	20170324	18:45:00	1700355-07	1	-999			13C2-PFOA	13C2-PFOA	113	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW10P-0317	20170323	09:58:00	20170324	18:45:00	1700355-07	1	-999			13C8-PFOS	13C8-PFOS	101	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032117	20170323	09:58:00	20170324	18:57:00	1700355-08	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	4.24	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032117	20170323	09:58:00	20170324	18:57:00	1700355-08	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	2.12	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032117	20170323	09:58:00	20170324	18:57:00	1700355-08	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	1.44	NG_L	J		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032117	20170323	09:58:00	20170324	18:57:00	1700355-08	1	-999			13C3-PFBS	13C3-PFBS	89.0	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032117	20170323	09:58:00	20170324	18:57:00	1700355-08	1	-999			13C2-PFOA	13C2-PFOA	119	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-EB01-032117	20170323	09:58:00	20170324	18:57:00	1700355-08	1	-999			13C8-PFOS	13C8-PFOS	98.8	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-FB01-032117	20170323	09:58:00	20170324	19:10:00	1700355-09	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	3.88	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-FB01-032117	20170323	09:58:00	20170324	19:10:00	1700355-09	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1.94	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-FB01-032117	20170323	09:58:00	20170324	19:10:00	1700355-09	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.872	NG_L	U		
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-FB01-032117	20170323	09:58:00	20170324	19:10:00	1700355-09	1	-999			13C3-PFBS	13C3-PFBS	116	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-FB01-032117	20170323	09:58:00	20170324	19:10:00	1700355-09	1	-999			13C2-PFOA	13C2-PFOA	113	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-FB01-032117	20170323	09:58:00	20170324	19:10:00	1700355-09	1	-999			13C8-PFOS	13C8-PFOS	90.1	PCT_REC			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW01-0317	20170323	09:58:00	20170324	19:22:00	1700355-10	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	280	NG_L			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW01-0317	20170327	11:03:00	20170330	01:27:00	1700355-10	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	8260	NG_L			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW01-0317	20170327	11:03:00	20170330	01:27:00	1700355-10	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	65500	NG_L			
N6247016D99000	0008		CHESAPEAKE_BEACH_NRL	CBD-ADA-MW01-0317	20170323	09:58:00	20170324	19:22:00	1700355-10	1	-999			13C3-PFBS	13C3-PFBS	255	PCT_REC			
N6247016D99000	0008																			

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	Validator_Qualifier
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW04-0317	20170323	09:58:00	20170324	20:25:00	1700355-12	1	-999			13C3-PFBS	13C3-PFBS	266	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW04-0317	20170327	11:03:00	20170330	01:52:00	1700355-12	1	-999			13C2-PFOA	13C2-PFOA	130	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW04-0317	20170327	11:03:00	20170330	01:52:00	1700355-12	1	-999			13C8-PFOS	13C8-PFOS	103	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	20170327	11:03:00	20170330	02:04:00	1700355-13	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	1220	NG L			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	20170327	11:03:00	20170330	02:04:00	1700355-13	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	14900	NG L			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	20170327	11:03:00	20170330	01:14:00	1700355-13	20	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	138000	NG L			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	20170327	11:03:00	20170330	02:04:00	1700355-13	1	-999			13C3-PFBS	13C3-PFBS	136	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	20170327	11:03:00	20170330	02:04:00	1700355-13	1	-999			13C2-PFOA	13C2-PFOA	132	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	20170327	11:03:00	20170330	01:14:00	1700355-13	20	-999			13C8-PFOS	13C8-PFOS	160	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170323	09:58:00	20170324	17:04:00	B7C0125-BLK3	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	4.00	NG L	U		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170323	09:58:00	20170324	17:04:00	B7C0125-BLK3	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	2.00	NG L	U		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170323	09:58:00	20170324	17:04:00	B7C0125-BLK3	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.900	NG L	U		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170323	09:58:00	20170324	17:04:00	B7C0125-BLK3	1	-999			13C3-PFBS	13C3-PFBS	108	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170323	09:58:00	20170324	17:04:00	B7C0125-BLK3	1	-999			13C2-PFOA	13C2-PFOA	118	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170323	09:58:00	20170324	17:04:00	B7C0125-BLK3	1	-999			13C8-PFOS	13C8-PFOS	85.1	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170323	09:58:00	20170324	16:26:00	B7C0125-BS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	71.9	NG L			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170323	09:58:00	20170324	16:26:00	B7C0125-BS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	68.0	NG L			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170323	09:58:00	20170324	16:26:00	B7C0125-BS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	65.8	NG L			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170323	09:58:00	20170324	16:26:00	B7C0125-BS1	1	-999			13C3-PFBS	13C3-PFBS	121	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170323	09:58:00	20170324	16:26:00	B7C0125-BS1	1	-999			13C2-PFOA	13C2-PFOA	121	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170323	09:58:00	20170324	16:26:00	B7C0125-BS1	1	-999			13C8-PFOS	13C8-PFOS	90.7	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170327	11:03:00	20170328	16:44:00	B7C0138-BLK3	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	4.00	NG L	U		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170327	11:03:00	20170328	16:44:00	B7C0138-BLK3	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	2.00	NG L	U		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170327	11:03:00	20170328	16:44:00	B7C0138-BLK3	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.900	NG L	U		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170327	11:03:00	20170328	16:44:00	B7C0138-BLK3	1	-999			13C3-PFBS	13C3-PFBS	109	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170327	11:03:00	20170328	16:44:00	B7C0138-BLK3	1	-999			13C2-PFOA	13C2-PFOA	99.2	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	20170327	11:03:00	20170328	16:44:00	B7C0138-BLK3	1	-999			13C8-PFOS	13C8-PFOS	104	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170327	11:03:00	20170328	14:28:00	B7C0138-BS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	64.3	NG L			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170327	11:03:00	20170328	14:28:00	B7C0138-BS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	67.7	NG L			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170327	11:03:00	20170328	14:28:00	B7C0138-BS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	66.7	NG L			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170327	11:03:00	20170328	14:28:00	B7C0138-BS1	1	-999			13C3-PFBS	13C3-PFBS	121	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170327	11:03:00	20170328	14:28:00	B7C0138-BS1	1	-999			13C2-PFOA	13C2-PFOA	102	PCT_REC			
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	20170327	11:03:00	20170328	14:28:00	B7C0138-BS1	1	-999			13C8-PFOS	13C8-PFOS	112	PCT_REC			

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	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 BEACH_NRL	CBD-BKG-MW02-0317	PR	TRG									5.0	1.77	3.97	7.91	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	PR	TRG									5.0	0.644	1.98	7.91	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	PR	TRG									5.0	0.798	0.893	7.91	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW02-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032017	PR	TRG									5.0	1.86	4.17	8.33	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032017	PR	TRG									5.0	0.678	2.08	8.33	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032017	PR	TRG									5.0	0.840	0.938	8.33	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032017	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032017	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032017	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01-0317	PR	TRG									5.0	1.84	4.10	8.21	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01-0317	PR	TRG									5.0	0.668	2.05	8.21	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01-0317	PR	TRG									5.0	0.828	0.922	8.21	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01P-0317	PR	TRG									5.0	1.76	3.94	7.88	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01P-0317	PR	TRG									5.0	0.641	1.97	7.88	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01P-0317	PR	TRG									5.0	0.795	0.886	7.88	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01P-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01P-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW01P-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW03-0317	PR	TRG									5.0	1.73	3.88	7.73	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW03-0317	PR	TRG									5.0	0.629	1.94	7.73	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW03-0317	PR	TRG									5.0	0.780	0.872	7.73	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW03-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW03-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-BKG-MW03-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10-0317	PR	TRG									5.0	1.80	4.00	8.03	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10-0317	PR	TRG									5.0	0.653	2.00	8.03	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10-0317	PR	TRG									5.0	0.810	0.900	8.03	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10P-0317	PR	TRG									5.0	1.82	4.07	8.15	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10P-0317	PR	TRG									5.0	0.663	2.03	8.15	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10P-0317	PR	TRG									5.0	0.822	0.915	8.15	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10P-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10P-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW10P-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032117	PR	TRG									5.0	1.90	4.24	8.51	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032117	PR	TRG									5.0	0.692	2.12	8.51	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032117	PR	TRG									5.0	0.858	0.953	8.51	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032117	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032117	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-EB01-032117	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-FB01-032117	PR	TRG									5.0	1.73	3.88	7.74	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-FB01-032117	PR	TRG									5.0	0.630	1.94	7.74	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-FB01-032117	PR	TRG									5.0	0.780	0.872	7.74	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-FB01-032117	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-FB01-032117	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-FB01-032117	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW01-0317	PR	TRG									5.0	1.88	4.20	8.39	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW01-0317	PR	TRG									5.0	74.0	227	909	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW01-0317	PR	TRG									5.0	91.7	102	909	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW01-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW01-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW01-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW02-0317	PR	TRG									5.0	1.78	3.97	7.96	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW02-0317	PR	TRG									5.0	66.7	205	820	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW02-0317	PR	TRG									5.0	1650	1840	16400	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW02-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW02-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW02-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW04-0317	PR	TRG									5.0	1.74	3.91	7.79	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW04-0317	PR	TRG									5.0	79.0	243	971	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW04-0317	PR	TRG									5.0	97.9	109	971	1700355	S7C0063		

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	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 BEACH_NRL	CBD-AQA-MW04-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW04-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW04-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	PR	TRG									5.0	200	446	893	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	PR	TRG									5.0	72.7	223	893	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	PR	TRG									5.0	1800	2010	17900	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	CBD-AQA-MW03-0317	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	TRG									5.0	1.79	4.00	8.00	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	TRG									5.0	0.651	2.00	8.00	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	TRG									5.0	0.807	0.900	8.00	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	IS		SLSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	TRG		LSA	130	60					5.0	1.79	4.00	8.00	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	TRG		LSA	130	70					5.0	0.651	2.00	8.00	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	TRG		LSA	130	70					5.0	0.807	0.900	8.00	1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	IS		LSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	IS		LSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	IS		LSA	150	60					5.0				1700355	S7C0058		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	TRG									5.0	1.79	4.00	8.00	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	TRG									5.0	0.651	2.00	8.00	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	TRG									5.0	0.807	0.900	8.00	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	Blank	PR	IS		SLSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	TRG		LSA	130	60					5.0	1.79	4.00	8.00	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	TRG		LSA	130	70					5.0	0.651	2.00	8.00	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	TRG		LSA	130	70					5.0	0.807	0.900	8.00	1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	IS		LSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	IS		LSA	150	60					5.0				1700355	S7C0063		
N6247016D9000	0008		CHESAPEAKE BEACH_NRL	LCS	PR	IS		LSA	150	60					5.0				1700355	S7C0063		

**DATA VALIDATION SUMMARY REPORT
NRL-CBD, MARYLAND**

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 1700355
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: NRL-CBD, CTO-0008, Maryland
Date: April 18, 2017

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	CBD-BKG-MW02-0317	1700355-01	Water
2	CBD-EB01-032017	1700355-02	Water
3	CBD-BKG-MW01-0317	1700355-03	Water
4	CBD-BKG-MW01P-0317	1700355-04	Water
5	CBD-BKG-MW03-0317	1700355-05	Water
6	CBD-AOA-MW10-0317	1700355-06	Water
7	CBD-AOA-MW10P-0317	1700355-07	Water
8	CBD-EB01-032117	1700355-08	Water
9	CBD-FB01-032117	1700355-09	Water
10	CBD-AOA-MW01-0317	1700355-10	Water
11	CBD-AOA-MW02-0317	1700355-11	Water
12	CBD-AOA-MW04-0317	1700355-12	Water
13	CBD-AOA-MW03-0317	1700355-13	Water

A full data validation was performed on the analytical data for ten water samples, two aqueous equipment blank samples and one aqueous field blank sample collected on March 20-21, 2017 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
PFCs

Method References
USEPA Method 537 Modified

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 5.0 (July 2013) and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review," August 2014;
- 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
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate recovery (%R)
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Ongoing Precision and Recovery (OPR)
- 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 as qualified for the data quality indicator criteria as detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.
- Several samples contained particulate and required re-extraction. No action was taken on this basis.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

Initial Calibration

- All percent difference (%D) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent difference (%D) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- The field blank samples exhibited the following contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
CBD-EB01-032017	None - ND	-	-	-
CBD-EB01-032117	PFOS	1.44	None	Associated Samples >5X
CBD-FB01-032117	None - ND	-	-	-

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values except for the following.

Sample ID	Surrogate	%R	Qualifier
10	13C3-PFBS	255%	J
11	13C3-PFBS	261%	J
12	13C3-PFBS	266%	J
13	13C8-PFOS	160%	J

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- MS/MSD samples were not analyzed.

Ongoing Precision and Recovery (OPR)

- The OPR samples exhibited acceptable percent recoveries (%R) values.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- EDS Sample ID #s 11 & 13 were analyzed at a dilution due to high concentrations of PFOS. The reporting limits were adjusted accordingly. No action was required.

Field Duplicate Sample Precision

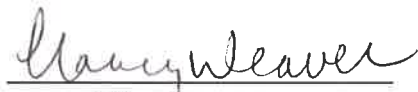
- Field duplicate results are summarized below. The precision was acceptable.

Compound	CBD-BKG-MW01-0317 ng/L	CBD-BKG-MW01P-0317 ng/L	RPD	Qualifier
PFOS	5.63	7.19	24%	None

Compound	CBD-AOA-MW10-0317 ng/L	CBD-AOA-MW10P-0317 ng/L	RPD	Qualifier
PFBS	28.7	27.7	4%	None
PFOA	365	351	4%	
PFOS	341	266	25%	

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:



Nancy Weaver
Senior Chemist

Dated:

4/19/17

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

Sample ID: CBD-BKG-MW02-0317				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700355-01	Date Received:	22-Mar-2017	9:03	
Project:	NRL-CBD PFAS	Sample Size:	0.126 L	QC Batch:	B7C0125	Date Extracted:	23-Mar-2017	9:58	
Date Collected:	20-Mar-2017 11:00	Date Analyzed: 24-Mar-17 17:29 Column: BEH C18							
Location:	BKG-MW02								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.77	3.97	7.91		IS 13C3-PFBS	109	60 - 150	
PFOA	ND	0.644	1.98	7.91		IS 13C2-PFOA	116	60 - 150	
PFOS	ND	0.798	0.893	7.91		IS 13C8-PFOS	104	60 - 150	

DL - Detection limit

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

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

Only the linear isomer is reported for all other analytes

NW 4/18/17

2

Sample ID: CBD-EB01-032017				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name: CH2M Hill		Matrix: Groundwater		Lab Sample: 1700355-02		Date Received: 22-Mar-2017		9:03	
Project: NRL-CBD PFAS		Sample Size: 0.120 L		QC Batch: B7C0125		Date Extracted: 23-Mar-2017		9:58	
Date Collected: 20-Mar-2017 11:40				Date Analyzed: 24-Mar-17 17:41		Column: BEH C18			
Location: Equipment Blank									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.86	4.17	8.33		IS 13C3-PFBS	89.5	60 - 150	
PFOA	ND	0.678	2.08	8.33		IS 13C2-PFOA	117	60 - 150	
PFOS	ND	0.840	0.938	8.33		IS 13C8-PFOS	96.2	60 - 150	

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

new 4/18/17

Sample ID: CBD-BKG-MW01-0317				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700355-03	Date Received:	22-Mar-2017	9:03	
Project:	NRL-CBD PFAS	Sample Size:	0.122 L	QC Batch:	B7C0125	Date Extracted:	23-Mar-2017	9:58	
Date Collected:	20-Mar-2017 13:30	Date Analyzed: 24-Mar-17 17:54 Column: BEH C18							
Location:	BKG-MW01								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.84	4.10	8.21		IS 13C3-PFBS	103	60 - 150	
PFOA	ND	0.668	2.05	8.21		IS 13C2-PFOA	114	60 - 150	
PFOS	5.63	0.828	0.922	8.21	J	IS 13C8-PFOS	99.8	60 - 150	

DL - Detection limit

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

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

Only the linear isomer is reported for all other analytes

2041817

4

Sample ID: CBD-BKG-MW01P-0317					Modified EPA Method 537				
Client Data			Sample Data		Laboratory Data				
Name:	CH2M Hill		Matrix:	Groundwater	Lab Sample:	1700355-04	Date Received:	22-Mar-2017	9:03
Project:	NRL-CBD PFAS		Sample Size:	0.127 L	QC Batch:	B7C0125	Date Extracted:	23-Mar-2017	9:58
Date Collected:	20-Mar-2017 13:35		Date Analyzed: 24-Mar-17 18:07 Column: BEH C18						
Location:	BKG-MW01								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.76	3.94	7.88		IS 13C3-PFBS	110	60 - 150	
PFOA	ND	0.641	1.97	7.88		IS 13C2-PFOA	120	60 - 150	
PFOS	7.19	0.795	0.886	7.88	J	IS 13C8-PFOS	91.2	60 - 150	

DL - Detection limit

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

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

Only the linear isomer is reported for all other analytes

NW 4/18/17

Sample ID: CBD-BKG-MW03-0317					Modified EPA Method 537				
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700355-05	Date Received:	22-Mar-2017	9:03	
Project:	NRL-CBD PFAS	Sample Size:	0.129 L	QC Batch:	B7C0125	Date Extracted:	23-Mar-2017	9:58	
Date Collected:	20-Mar-2017 16:05			Date Analyzed:	24-Mar-17 18:19	Column:	BEH C18		
Location:	BKG-MW02								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.73	3.88	7.73		IS 13C3-PFBS	84.0	60 - 150	
PFOA	ND	0.629	1.94	7.73		IS 13C2-PFOA	118	60 - 150	
PFOS	1.30	0.780	0.872	7.73	J	IS 13C8-PFOS	99.2	60 - 150	

DL - Detection limit

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

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

Only the linear isomer is reported for all other analytes

new 4/18/17

6

Sample ID: CBD-AOA-MW10-0317				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700355-06	Date Received:	22-Mar-2017 9:03		
Project:	NRL-CBD PFAS	Sample Size:	0.125 L	QC Batch:	B7C0125	Date Extracted:	23-Mar-2017 9:58		
Date Collected:	21-Mar-2017 9:10			Date Analyzed:	24-Mar-17 18:32	Column:	BEH C18		
Location:	BKG-MW10								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	28.7	1.80	4.00	8.03		IS 13C3-PFBS	112	60 - 150	
PFOA	365	0.653	2.00	8.03		IS 13C2-PFOA	109	60 - 150	
PFOS	341	0.810	0.900	8.03		IS 13C8-PFOS	97.6	60 - 150	

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

new 41.81.7

Sample ID: CBD-EB01-032117				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700355-08	Date Received:	22-Mar-2017	9:03	
Project:	NRL-CBD PFAS	Sample Size:	0.118 L	QC Batch:	B7C0125	Date Extracted:	23-Mar-2017	9:58	
Date Collected:	21-Mar-2017 10:05			Date Analyzed:	24-Mar-17 18:57	Column:	BEH C18		
Location:	AOA-MW10								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.90	4.24	8.51		IS 13C3-PFBS	89.0	60 - 150	
PFOA	ND	0.692	2.12	8.51		IS 13C2-PFOA	119	60 - 150	
PFOS	1.44	0.858	0.953	8.51	J	IS 13C8-PFOS	98.8	60 - 150	

DL - Detection limit
RL - Reporting limit

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

new 4/18/17

Sample ID: CBD-FB01-032117				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700355-09	Date Received:	22-Mar-2017 9:03		
Project:	NRL-CBD PFAS	Sample Size:	0.129 L	QC Batch:	B7C0125	Date Extracted:	23-Mar-2017 9:58		
Date Collected:	21-Mar-2017 10:30			Date Analyzed:	24-Mar-17 19:10	Column:	BEH C18		
Location:	Equipment Blank								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.73	3.88	7.74		IS 13C3-PFBS	116	60 - 150	
PFOA	ND	0.630	1.94	7.74		IS 13C2-PFOA	113	60 - 150	
PFOS	ND	0.780	0.872	7.74		IS 13C8-PFOS	90.1	60 - 150	

DL - Detection limit

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

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

Only the linear isomer is reported for all other analytes

new 41.8117

Sample ID: CBD-AOA-MW01-0317				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700355-10	Date Received:	22-Mar-2017	9:03	
Project:	NRL-CBD PFAS	Sample Size:	0.119 L	QC Batch:	B7C0125	Date Extracted:	23-Mar-2017	9:58	
Date Collected:	21-Mar-2017 11:00			Date Analyzed:	24-Mar-17 19:22	Column:	BEH C18		
Location:	AOA-MW01				30-Mar-17 01:27	Column:	BEH C18		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	280	1.88	4.20	8.39	SSH	IS 13C3-PFBS	255	60 - 150	K
PFOA	8260	74.0	227	909		IS 13C2-PFOA	122	60 - 150	
PFOS	65500	91.7	102	909		IS 13C8-PFOS	94.1	60 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

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

Only the linear isomer is reported for all other analytes

DL - Detection limit

RL - Reporting limit

2w41.81.7

Sample ID: CBD-AOA-MW02-0317

Modified EPA Method 537

Client Data			Sample Data		Laboratory Data				
Name: CH2M Hill Project: NRL-CBD PFAS Date Collected: 21-Mar-2017 13:20 Location: AOA-MW02			Matrix: Groundwater Sample Size: 0.126 L	Lab Sample: 1700355-11 QC Batch: B7C0125 Date Analyzed: 24-Mar-17 20:13 Column: BEH C18 30-Mar-17 01:39 Column: BEH C18	Date Received: 22-Mar-2017 9:03	Date Extracted: 23-Mar-2017 9:58			
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	215	1.78	3.97	7.96	SSH	IS 13C3-PFBS	261	60 - 150	✓
PFOA	7110	66.7	205	820		IS 13C2-PFOA	130	60 - 150	
PFOS	234000	1650	1840	16400	D	IS 13C8-PFOS	111	60 - 150	D

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

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

Only the linear isomer is reported for all other analytes

DL - Detection limit

RL - Reporting limit

mw418117

12

Sample ID: CBD-AOA-MW04-0317				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700355-12	Date Received:	22-Mar-2017	9:03	
Project:	NRL-CBD PFAS	Sample Size:	0.128 L	QC Batch:	B7C0125	Date Extracted:	23-Mar-2017	9:58	
Date Collected:	21-Mar-2017 14:45			Date Analyzed:	24-Mar-17 20:25	Column:	BEH C18		
Location:	AOA-MW04				30-Mar-17 01:52	Column:	BEH C18		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	222	1.74	3.91	7.79	SSH	IS 13C3-PFBS	266	60 - 150	H
PFOA	11300	79.0	243	971		IS 13C2-PFOA	130	60 - 150	
PFOS	73600	97.9	109	971		IS 13C8-PFOS	103	60 - 150	

DL - Detection limit

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

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

Only the linear isomer is reported for all other analytes

NW 41.61.17

13

Sample ID: CBD-AOA-MW03-0317					Modified EPA Method 537				
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700355-13	Date Received:	22-Mar-2017	9:03	
Project:	NRL-CBD PFAS	Sample Size:	0.00112 L	QC Batch:	B7C0138	Date Extracted:	27-Mar-2017	11:03	
Date Collected:	21-Mar-2017 15:05			Date Analyzed:	30-Mar-17 01:14	Column:	BEH C18		
Location:	AOA-MW03				30-Mar-17 02:04	Column:	BEH C18		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	1220	200	446	893		IS 13C3-PFBS	136	60 - 150	
PFOA	14900	72.7	223	893		IS 13C2-PFOA	132	60 - 150	
PFOS	138000	1800	2010	17900	SSH P	IS 13C8-PFOS	160	60 - 150	D-H

DL - Detection limit

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

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

Only the linear isomer is reported for all other analytes

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