



**Groundwater Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
and the Sample Location Report, SDG 1700417**

*Naval Air Station Oceana
Virginia Beach, Virginia*

July 2019



April 18, 2017

Vista Work Order No. 1700417

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 April 05, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name '678440.51.51.01'.

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,

A handwritten signature in black ink that reads "Karen Lopez" followed by a small "for" in a script font.

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. 1700417

Case Narrative

Sample Condition on Receipt:

Eleven aqueous 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.

As requested, sample "OC-MW-F4/F8/F9-0417" was changed to "OC-F8F9-MW-F4-0417".

As requested, sample "IDW-AQ-01-0417" was assigned a separate Work Order (1700425). Therefore, this Work Order contains results for ten aqueous samples.

Analytical Notes:

Modified EPA Method 537

All samples contained particulate and was centrifuged prior to extraction.

The samples were extracted and analyzed for a selected list of 6 PFAS 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 for all QC and field samples were within the acceptance criteria.

As requested, an MS/MSD was performed on sample "OC-MW07-0417". The recoveries and RPDs were all within the acceptance criteria.

TABLE OF CONTENTS

Case Narrative.....	1
Table of Contents.....	3
Sample Inventory.....	4
Analytical Results.....	5
Qualifiers.....	19
Certifications.....	20
Sample Receipt.....	23

Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1700417-01	OC-MW05D-0417		03-Apr-17 09:45	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-02	OC-MW05DP-0417		03-Apr-17 09:50	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-03	OC-MW02D-0417		03-Apr-17 11:40	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-04	OW26-MW2-0417		03-Apr-17 13:05	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-05	OW11-MW10D-0417		04-Apr-17 08:45	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-06	OC-F8F9-MW-F4-0417		04-Apr-17 09:55	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-07	OC-MW07D-0417		04-Apr-17 11:05	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-08	OC-MW07-0417	MS/MSD	04-Apr-17 11:45	05-Apr-17 09:50	HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
1700417-09	OC-EB040417		04-Apr-17 11:50	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-10	OC-FB040417		04-Apr-17 11:55	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-11	IDW-AQ-01-0417		04-Apr-17 12:20	05-Apr-17 09:50	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: B7D0026 Date Extracted: 06-Apr-2017 10:58				Lab Sample: B7D0026-BLK1 Date Analyzed: 15-Apr-17 12:26 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	111	60 - 150	
PFHpA	ND	0.591	2.00	8.00		IS 13C4-PFHpA	103	60 - 150	
PFHxS	ND	0.947	2.00	8.00		IS 18O2-PFHxS	94.3	60 - 150	
PFOA	ND	0.651	2.00	8.00		IS 13C2-PFOA	103	60 - 150	
PFOS	ND	0.807	0.900	8.00		IS 13C8-PFOS	101	60 - 150	
PFNA	ND	0.810	2.00	8.00		IS 13C5-PFNA	91.8	50 - 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.

Sample ID: OPR					Modified EPA Method 537		
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B7D0026 Date Extracted: 06-Apr-2017 10:58			Lab Sample: B7D0026-BS1 Date Analyzed: 15-Apr-17 12:00 Column: BEH C18		
Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits	Labeled Standard		%R LCL-UCL
PFBS	97.7	80.0	122	60 - 130	IS	13C3-PFBS	108 60 - 150
PFHpA	103	80.0	129	70 - 130	IS	13C4-PFHpA	100 60 - 150
PFHxS	97.9	80.0	122	70 - 130	IS	18O2-PFHxS	98.2 60 - 150
PFOA	83.7	80.0	105	70 - 130	IS	13C2-PFOA	104 60 - 150
PFOS	77.8	80.0	97.3	70 - 130	IS	13C8-PFOS	104 60 - 150
PFNA	98.6	80.0	123	50 - 130	IS	13C5-PFNA	95.0 50 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: OC-MW05D-0417						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-01	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.118 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	03-Apr-2017 9:45					Date Analyzed:	15-Apr-17 13:03	Column:	BEH C18	
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.89	4.24	8.45		IS	13C3-PFBS	98.5	60 - 150	
PFHpA	ND	0.624	2.12	8.45		IS	13C4-PFHpA	97.0	60 - 150	
PFHxS	ND	1.00	2.12	8.45		IS	18O2-PFHxS	90.0	60 - 150	
PFOA	ND	0.687	2.12	8.45		IS	13C2-PFOA	87.0	60 - 150	
PFOS	1.01	0.852	0.953	8.45	J	IS	13C8-PFOS	97.5	60 - 150	
PFNA	ND	0.855	2.12	8.45		IS	13C5-PFNA	91.9	50 - 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.

Sample ID: OC-MW05DP-0417						Modified EPA Method 537				
Client Data		Sample Data			Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous		Lab Sample:	1700417-02	Date Received:	05-Apr-2017 9:50		
Project:	678440.51.51.01	Sample Size:	0.122 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58		
Date Collected:	03-Apr-2017 9:50				Date Analyzed:	15-Apr-17 13:16 Column: BEH C18				
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.83	4.10	8.18		IS	13C3-PFBS	94.4	60 - 150	
PFHpA	ND	0.604	2.05	8.18		IS	13C4-PFHpA	94.3	60 - 150	
PFHxS	ND	0.968	2.05	8.18		IS	18O2-PFHxS	97.9	60 - 150	
PFOA	ND	0.666	2.05	8.18		IS	13C2-PFOA	86.5	60 - 150	
PFOS	2.42	0.825	0.922	8.18	J	IS	13C8-PFOS	99.6	60 - 150	
PFNA	ND	0.828	2.05	8.18		IS	13C5-PFNA	95.8	50 - 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.

Sample ID: OC-MW02D-0417						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-03	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.122 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	03-Apr-2017 11:40					Date Analyzed:	15-Apr-17 13:29	Column:	BEH C18	
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.84	4.10	8.22	J	IS	13C3-PFBS	103	60 - 150	
PFHpA	3.41	0.608	2.05	8.22		IS	13C4-PFHpA	99.7	60 - 150	
PFHxS	10.0	0.973	2.05	8.22		IS	18O2-PFHxS	94.3	60 - 150	
PFOA	8.98	0.669	2.05	8.22		IS	13C2-PFOA	85.1	60 - 150	
PFOS	ND	0.830	0.922	8.22		IS	13C8-PFOS	89.3	60 - 150	
PFNA	ND	0.833	2.05	8.22		IS	13C5-PFNA	96.0	50 - 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.

Sample ID: OW26-MW2-0417						Modified EPA Method 537				
Client Data		Sample Data			Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous		Lab Sample:	1700417-04	Date Received:	05-Apr-2017 9:50		
Project:	678440.51.51.01	Sample Size:	0.119 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58		
Date Collected:	03-Apr-2017 13:05				Date Analyzed:	15-Apr-17 13:41	Column:	BEH C18		
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.87	4.20	8.38	J	IS	13C3-PFBS	92.3	60 - 150	
PFHpA	ND	0.619	2.10	8.38		IS	13C4-PFHpA	89.5	60 - 150	
PFHxS	2.37	0.991	2.10	8.38		IS	18O2-PFHxS	91.9	60 - 150	
PFOA	ND	0.682	2.10	8.38		IS	13C2-PFOA	80.9	60 - 150	
PFOS	10.1	0.845	0.945	8.38		IS	13C8-PFOS	86.5	60 - 150	
PFNA	ND	0.848	2.10	8.38		IS	13C5-PFNA	87.6	50 - 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.

Sample ID: OW11-MW10D-0417						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-05	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.122 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 8:45					Date Analyzed:	15-Apr-17 13:54	Column: BEH C18		
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	8.13	1.84	4.10	8.20	J	IS	13C3-PFBS	101	60 - 150	
PFHpA	22.4	0.606	2.05	8.20		IS	13C4-PFHpA	101	60 - 150	
PFHxS	124	0.971	2.05	8.20		IS	18O2-PFHxS	96.4	60 - 150	
PFOA	61.3	0.668	2.05	8.20		IS	13C2-PFOA	83.7	60 - 150	
PFOS	578	0.828	0.922	8.20		IS	13C8-PFOS	99.5	60 - 150	
PFNA	5.19	0.831	2.05	8.20	J	IS	13C5-PFNA	96.1	50 - 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.

Sample ID: OC-F8F9-MW-F4-0417						Modified EPA Method 537					
Client Data			Sample Data			Laboratory Data					
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-06		Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.00110 L		QC Batch:	B7D0026		Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 9:55					Date Analyzed:	15-Apr-17 14:06		Column:	BEH C18	
Location:											
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers	
PFBS	ND	203	455	909		IS	13C3-PFBS	108	60 - 150		
PFHpA	ND	67.2	227	909		IS	13C4-PFHpA	104	60 - 150		
PFHxS	ND	108	227	909		IS	18O2-PFHxS	89.0	60 - 150		
PFOA	ND	74.0	227	909		IS	13C2-PFOA	81.3	60 - 150		
PFOS	ND	91.7	102	909		IS	13C8-PFOS	93.2	60 - 150		
PFNA	ND	92.0	227	909		IS	13C5-PFNA	98.1	50 - 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.

Sample ID: OC-MW07D-0417						Modified EPA Method 537					
Client Data			Sample Data			Laboratory Data					
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-07		Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.118 L		QC Batch:	B7D0026		Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:05					Date Analyzed:	15-Apr-17 14:19		Column:	BEH C18	
Location:											
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers	
PFBS	ND	1.90	4.24	8.50		IS	13C3-PFBS	99.5	60 - 150		
PFHpA	ND	0.628	2.12	8.50		IS	13C4-PFHpA	91.0	60 - 150		
PFHxS	ND	1.01	2.12	8.50		IS	18O2-PFHxS	90.2	60 - 150		
PFOA	ND	0.691	2.12	8.50		IS	13C2-PFOA	85.7	60 - 150		
PFOS	ND	0.857	0.953	8.50		IS	13C8-PFOS	83.2	60 - 150		
PFNA	ND	0.860	2.12	8.50		IS	13C5-PFNA	86.6	50 - 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.

Sample ID: OC-MW07-0417						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-08	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.124 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:45					Date Analyzed:	15-Apr-17 14:31	Column:	BEH C18	
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.81	4.03	8.08		IS	13C3-PFBS	91.4	60 - 150	
PFHpA	ND	0.597	2.02	8.08		IS	13C4-PFHpA	87.5	60 - 150	
PFHxS	ND	0.957	2.02	8.08		IS	18O2-PFHxS	95.5	60 - 150	
PFOA	0.685	0.658	2.02	8.08	J	IS	13C2-PFOA	86.8	60 - 150	
PFOS	3.63	0.815	0.907	8.08	J	IS	13C8-PFOS	91.7	60 - 150	
PFNA	ND	0.818	2.02	8.08		IS	13C5-PFNA	93.2	50 - 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.

Matrix Spike Results										Modified EPA Method 537					
Source Client ID: OC-MW07-0417 Source LabNumber: 1700417-08 Matrix: Aqueous Sample Size: 0.124/0.120 L				QC Batch: B7D0026 Date Extracted: 06-Apr-2017 10:58						Lab Sample: B7D0026-MS1/B7D0026-MSD1 Date Analyzed: 15-Apr-17 12:38 Column: BEH C18 15-Apr-17 12:51 Column: BEH C18					
Analyte	Spike-MS (ng/L)	MS %R	MS Qual.	Spike-MSD (ng/L)	MSD %R	MSD RPD	MSD Qual.	%R Limit	%RPD Limit	Labeled Standard		MS %R	MS Qualifiers	MSD %R	MS Qual.
PFBS	80.9	120		83.3	123	2.47		60 - 130	25	IS	13C3-PFBS	90.7		93.8	
PFHpA	80.9	125		83.3	120	4.08		70 - 130	25	IS	13C4-PFHpA	86.9		94.5	
PFHxS	80.9	128		83.3	128	0		70 - 130	25	IS	18O2-PFHxS	92.6		98.3	
PFOA	80.9	103		83.3	109	5.66		70 - 130	25	IS	13C2-PFOA	99.2		95.7	
PFOS	80.9	107		83.3	104	2.84		70 - 130	25	IS	13C8-PFOS	97.9		90.3	
PFNA	80.9	119		83.3	130	8.84		50 - 130	25	IS	13C5-PFNA	99.8		91.6	

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: OC-EB040417						Modified EPA Method 537				
Client Data Name: CH2M Hill Project: 678440.51.51.01 Date Collected: 04-Apr-2017 11:50 Location:			Sample Data Matrix: Aqueous Sample Size: 0.117 L			Laboratory Data Lab Sample: 1700417-09 Date Received: 05-Apr-2017 9:50 QC Batch: B7D0026 Date Extracted: 06-Apr-2017 10:58 Date Analyzed: 15-Apr-17 14:44 Column: BEH C18				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.92	4.27	8.56		IS	13C3-PFBS	96.5	60 - 150	
PFHpA	ND	0.632	2.14	8.56		IS	13C4-PFHpA	93.9	60 - 150	
PFHxS	ND	1.01	2.14	8.56		IS	18O2-PFHxS	93.6	60 - 150	
PFOA	ND	0.696	2.14	8.56		IS	13C2-PFOA	83.7	60 - 150	
PFOS	ND	0.863	0.962	8.56		IS	13C8-PFOS	95.5	60 - 150	
PFNA	ND	0.867	2.14	8.56		IS	13C5-PFNA	91.5	50 - 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.

Sample ID: OC-FB040417						Modified EPA Method 537					
Client Data			Sample Data			Laboratory Data					
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-10		Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.122 L		QC Batch:	B7D0026		Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:55					Date Analyzed:	15-Apr-17 14:57		Column:	BEH C18	
Location:											
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers	
PFBS	ND	1.84	4.10	8.22		IS	13C3-PFBS	105	60 - 150		
PFHpA	ND	0.607	2.05	8.22		IS	13C4-PFHpA	93.5	60 - 150		
PFHxS	ND	0.973	2.05	8.22		IS	18O2-PFHxS	84.1	60 - 150		
PFOA	ND	0.669	2.05	8.22		IS	13C2-PFOA	84.7	60 - 150		
PFOS	ND	0.829	0.922	8.22		IS	13C8-PFOS	89.2	60 - 150		
PFNA	ND	0.833	2.05	8.22		IS	13C5-PFNA	93.3	50 - 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.

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	2016026
Minnesota Department of Health	1175673
Nevada Division of Environmental Protection	CA004132017-1
New Hampshire Environmental Accreditation Program	207716
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	013
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	8621
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

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: 1700417 Temp: 0.4 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: 678440.SI.SI.01 P.O.#: 10006-7-105690 Sampler: CHRISTIAN CONOVER
(name)

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

Invoice to: Name TIFFANY HILL Company CH2M Address 5701 CLEVELAND ST City VIRGINIA BEACH State VA Ph# 541-768-3109 Fax# _____
Relinquished by (printed name and signature) Christian Conover Date 4/4/17 Time 1600 Received by (printed name and signature) B. Benedict Date 04/05/17 Time 0954
Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

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

ATTN: MARTHA MAIER

Method of Shipment: _____

Tracking No.: _____

Add Analysis(es) Requested

Container(s)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	2378-TC	2378-TC	PCDD/p	2378-TC	2378-TC	PCDD/p	2378-TC	2378-TC	PCDD/p	TOTALS	COPLAN	209 CON	PBDE	PAH	WHO-29	Mod. EPA	Comments	
OC-MW05D-0417	4-3-17	0945	NASO	2	O	AQ																2		
OC-MW05DP-0417	4-3-17	0950		2	O	AQ																2		
OC-MW02D-0417	4-3-17	1140		2	O	AQ																2		
OW26-MW2-0417	4-3-17	1305		2	O	AQ																2		
OW11-MW10D-0417	4-4-17	0845		2	O	AQ																2		
OC-MW-F4/F8/F9-0417	4-4-17	0955		2	O	AQ																2		
OC-MW07D-0417	4-4-17	1105		2	O	AQ																2		
OC-MW07-0417	4-4-17	1145		2	O	AQ																2		
OC-MW07-0417-MS	4-4-17	1145		2	O	AQ																2		
OC-MW07-0417-SD	4-4-17	1145		2	O	AQ																2		

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

Name: TIFFANY HILL
Company: CH2M
Address: 5701 CLEVELAND ST
City: VIRGINIA BEACH State: VA Zip: 23462
Phone: 541-768-3109 Fax: _____
Email: tiffany.hill@ch2m.com

Container Types: A = 1 Liter Amber, G = Glass Jar

P = PUF, T = MM5, O = Other: 125 ml

Bottle Preservation Type: T = Thiosulfate,

O = Other: _____

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 #: 1700417 TAT 14

Samples Arrival:	Date/Time <u>04/05/17 0950</u>		Initials: <u>UBB</u>		Location: <u>WR-2</u>	
					Shelf/Rack: <u>NA</u>	
Logged In:	Date/Time <u>04/05/17 1222</u>		Initials: <u>UBB</u>		Location: <u>WR-2</u>	
					Shelf/Rack: <u>E6</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>0.1</u> (uncorrected)	Time: <u>0956</u>		Thermometer ID: <u>IR-1</u>			
Temp °C: <u>0.4</u> (corrected)	Probe used: Yes ☐ No ☒					

		YES	NO	NA
Adequate Sample Volume Received? <u>A/B</u>		☒		
Holding Time Acceptable?		☒		
Shipping Container(s) Intact?		☒		
Shipping Custody Seals Intact?		☒		
Shipping Documentation Present?		☒		
Airbill	Trk # <u>7861 3258 3698</u>	☒		
Sample Container Intact?		☒		
Sample Custody Seals Intact?				☒
Chain of Custody / Sample Documentation Present?		☒		
COC Anomaly/Sample Acceptance Form completed?			☒	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				☒
Preservation Documented:	<u>Na₂S₂O₃</u> <u>Trizma</u>	Yes	No	<u>NA</u>
Shipping Container	Vista <u>Client</u> Retain <u>Return</u> Dispose			

Comments:



April 18, 2017

Vista Work Order No. 1700417

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 April 05, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name '678440.51.51.01'.

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,

Karen Lopez for

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. 1700417**Case Narrative****Sample Condition on Receipt:**

Eleven aqueous 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.

As requested, sample "OC-MW-F4/F8/F9-0417" was changed to "OC-F8F9-MW-F4-0417".

As requested, sample "IDW-AQ-01-0417" was assigned a separate Work Order (1700425). Therefore, this Work Order contains results for ten aqueous samples.

Analytical Notes:**Modified EPA Method 537**

All samples contained particulate and was centrifuged prior to extraction.

The samples were extracted and analyzed for a selected list of 6 PFAS 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 for all QC and field samples were within the acceptance criteria.

As requested, an MS/MSD was performed on sample "OC-MW07-0417". The recoveries and RPDs were all within the acceptance criteria.

TABLE OF CONTENTS

Case Narrative.....	1
Table of Contents.....	3
Sample Inventory.....	4
Analytical Results.....	5
Qualifiers.....	19
Certifications.....	20
Sample Receipt.....	23
Extraction Information.....	26
Sample Data - Modified EPA Method 537.....	31
Continuing Calibration.....	152
Initial Calibration.....	172

Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1700417-01	OC-MW05D-0417		03-Apr-17 09:45	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-02	OC-MW05DP-0417		03-Apr-17 09:50	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-03	OC-MW02D-0417		03-Apr-17 11:40	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-04	OW26-MW2-0417		03-Apr-17 13:05	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-05	OW11-MW10D-0417		04-Apr-17 08:45	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-06	OC-F8F9-MW-F4-0417		04-Apr-17 09:55	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-07	OC-MW07D-0417		04-Apr-17 11:05	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-08	OC-MW07-0417	MS/MSD	04-Apr-17 11:45	05-Apr-17 09:50	HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
		MS/MSD			HDPE Bottle, 125 mL
1700417-09	OC-EB040417		04-Apr-17 11:50	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-10	OC-FB040417		04-Apr-17 11:55	05-Apr-17 09:50	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700417-11	IDW-AQ-01-0417		04-Apr-17 12:20	05-Apr-17 09:50	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: B7D0026 Date Extracted: 06-Apr-2017 10:58				Lab Sample: B7D0026-BLK1 Date Analyzed: 15-Apr-17 12:26 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	111	60 - 150	
PFHpA	ND	0.591	2.00	8.00		IS 13C4-PFHpA	103	60 - 150	
PFHxS	ND	0.947	2.00	8.00		IS 18O2-PFHxS	94.3	60 - 150	
PFOA	ND	0.651	2.00	8.00		IS 13C2-PFOA	103	60 - 150	
PFOS	ND	0.807	0.900	8.00		IS 13C8-PFOS	101	60 - 150	
PFNA	ND	0.810	2.00	8.00		IS 13C5-PFNA	91.8	50 - 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.

Sample ID: OPR					Modified EPA Method 537		
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B7D0026 Date Extracted: 06-Apr-2017 10:58			Lab Sample: B7D0026-BS1 Date Analyzed: 15-Apr-17 12:00 Column: BEH C18		
Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits	Labeled Standard		%R LCL-UCL
PFBS	97.7	80.0	122	60 - 130	IS	13C3-PFBS	108 60 - 150
PFHpA	103	80.0	129	70 - 130	IS	13C4-PFHpA	100 60 - 150
PFHxS	97.9	80.0	122	70 - 130	IS	18O2-PFHxS	98.2 60 - 150
PFOA	83.7	80.0	105	70 - 130	IS	13C2-PFOA	104 60 - 150
PFOS	77.8	80.0	97.3	70 - 130	IS	13C8-PFOS	104 60 - 150
PFNA	98.6	80.0	123	50 - 130	IS	13C5-PFNA	95.0 50 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: OC-MW05D-0417						Modified EPA Method 537				
Client Data		Sample Data			Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous		Lab Sample:	1700417-01	Date Received:	05-Apr-2017	9:50	
Project:	678440.51.51.01	Sample Size:	0.118 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017	10:58	
Date Collected:	03-Apr-2017	9:45	Date Analyzed: 15-Apr-17 13:03 Column: BEH C18							
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.89	4.24	8.45		IS	13C3-PFBS	98.5	60 - 150	
PFHpA	ND	0.624	2.12	8.45		IS	13C4-PFHpA	97.0	60 - 150	
PFHxS	ND	1.00	2.12	8.45		IS	18O2-PFHxS	90.0	60 - 150	
PFOA	ND	0.687	2.12	8.45		IS	13C2-PFOA	87.0	60 - 150	
PFOS	1.01	0.852	0.953	8.45	J	IS	13C8-PFOS	97.5	60 - 150	
PFNA	ND	0.855	2.12	8.45		IS	13C5-PFNA	91.9	50 - 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.

Sample ID: OC-MW05DP-0417						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-02	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.122 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	03-Apr-2017 9:50					Date Analyzed:	15-Apr-17 13:16	Column: BEH C18		
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.83	4.10	8.18		IS	13C3-PFBS	94.4	60 - 150	
PFHpA	ND	0.604	2.05	8.18		IS	13C4-PFHpA	94.3	60 - 150	
PFHxS	ND	0.968	2.05	8.18		IS	18O2-PFHxS	97.9	60 - 150	
PFOA	ND	0.666	2.05	8.18		IS	13C2-PFOA	86.5	60 - 150	
PFOS	2.42	0.825	0.922	8.18	J	IS	13C8-PFOS	99.6	60 - 150	
PFNA	ND	0.828	2.05	8.18		IS	13C5-PFNA	95.8	50 - 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.

Sample ID: OC-MW02D-0417						Modified EPA Method 537					
Client Data			Sample Data			Laboratory Data					
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-03		Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.122 L		QC Batch:	B7D0026		Date Extracted:	06-Apr-2017 10:58	
Date Collected:	03-Apr-2017 11:40					Date Analyzed:	15-Apr-17 13:29		Column:	BEH C18	
Location:											
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers	
PFBS	ND	1.84	4.10	8.22	J	IS	13C3-PFBS	103	60 - 150		
PFHpA	3.41	0.608	2.05	8.22		IS	13C4-PFHpA	99.7	60 - 150		
PFHxS	10.0	0.973	2.05	8.22		IS	18O2-PFHxS	94.3	60 - 150		
PFOA	8.98	0.669	2.05	8.22		IS	13C2-PFOA	85.1	60 - 150		
PFOS	ND	0.830	0.922	8.22		IS	13C8-PFOS	89.3	60 - 150		
PFNA	ND	0.833	2.05	8.22		IS	13C5-PFNA	96.0	50 - 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.

Sample ID: OW26-MW2-0417

Modified EPA Method 537

Client Data Name: CH2M Hill Project: 678440.51.51.01 Date Collected: 03-Apr-2017 13:05 Location:			Sample Data Matrix: Aqueous Sample Size: 0.119 L			Laboratory Data Lab Sample: 1700417-04 Date Received: 05-Apr-2017 9:50 QC Batch: B7D0026 Date Extracted: 06-Apr-2017 10:58 Date Analyzed: 15-Apr-17 13:41 Column: BEH C18			
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.87	4.20	8.38	J	IS 13C3-PFBS	92.3	60 - 150	
PFHpA	ND	0.619	2.10	8.38		IS 13C4-PFHpA	89.5	60 - 150	
PFHxS	2.37	0.991	2.10	8.38		IS 18O2-PFHxS	91.9	60 - 150	
PFOA	ND	0.682	2.10	8.38		IS 13C2-PFOA	80.9	60 - 150	
PFOS	10.1	0.845	0.945	8.38		IS 13C8-PFOS	86.5	60 - 150	
PFNA	ND	0.848	2.10	8.38		IS 13C5-PFNA	87.6	50 - 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.

Sample ID: OW11-MW10D-0417						Modified EPA Method 537					
Client Data			Sample Data			Laboratory Data					
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-05		Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.122 L		QC Batch:	B7D0026		Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 8:45					Date Analyzed:	15-Apr-17 13:54 Column: BEH C18				
Location:											
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers	
PFBS	8.13	1.84	4.10	8.20	J	IS	13C3-PFBS	101	60 - 150		
PFHpA	22.4	0.606	2.05	8.20		IS	13C4-PFHpA	101	60 - 150		
PFHxS	124	0.971	2.05	8.20		IS	18O2-PFHxS	96.4	60 - 150		
PFOA	61.3	0.668	2.05	8.20		IS	13C2-PFOA	83.7	60 - 150		
PFOS	578	0.828	0.922	8.20		IS	13C8-PFOS	99.5	60 - 150		
PFNA	5.19	0.831	2.05	8.20	J	IS	13C5-PFNA	96.1	50 - 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.

Sample ID: OC-F8F9-MW-F4-0417						Modified EPA Method 537					
Client Data			Sample Data			Laboratory Data					
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-06		Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.00110 L		QC Batch:	B7D0026		Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 9:55					Date Analyzed:	15-Apr-17 14:06		Column:	BEH C18	
Location:											
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers	
PFBS	ND	203	455	909		IS	13C3-PFBS	108	60 - 150		
PFHpA	ND	67.2	227	909		IS	13C4-PFHpA	104	60 - 150		
PFHxS	ND	108	227	909		IS	18O2-PFHxS	89.0	60 - 150		
PFOA	ND	74.0	227	909		IS	13C2-PFOA	81.3	60 - 150		
PFOS	ND	91.7	102	909		IS	13C8-PFOS	93.2	60 - 150		
PFNA	ND	92.0	227	909		IS	13C5-PFNA	98.1	50 - 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.

Sample ID: OC-MW07D-0417						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-07	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.118 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:05					Date Analyzed:	15-Apr-17 14:19 Column: BEH C18			
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.90	4.24	8.50		IS	13C3-PFBS	99.5	60 - 150	
PFHpA	ND	0.628	2.12	8.50		IS	13C4-PFHpA	91.0	60 - 150	
PFHxS	ND	1.01	2.12	8.50		IS	18O2-PFHxS	90.2	60 - 150	
PFOA	ND	0.691	2.12	8.50		IS	13C2-PFOA	85.7	60 - 150	
PFOS	ND	0.857	0.953	8.50		IS	13C8-PFOS	83.2	60 - 150	
PFNA	ND	0.860	2.12	8.50		IS	13C5-PFNA	86.6	50 - 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.

Sample ID: OC-MW07-0417						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-08	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.124 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:45					Date Analyzed:	15-Apr-17 14:31	Column:	BEH C18	
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.81	4.03	8.08		IS	13C3-PFBS	91.4	60 - 150	
PFHpA	ND	0.597	2.02	8.08		IS	13C4-PFHpA	87.5	60 - 150	
PFHxS	ND	0.957	2.02	8.08		IS	18O2-PFHxS	95.5	60 - 150	
PFOA	0.685	0.658	2.02	8.08	J	IS	13C2-PFOA	86.8	60 - 150	
PFOS	3.63	0.815	0.907	8.08	J	IS	13C8-PFOS	91.7	60 - 150	
PFNA	ND	0.818	2.02	8.08		IS	13C5-PFNA	93.2	50 - 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.

Matrix Spike Results										Modified EPA Method 537					
Source Client ID: OC-MW07-0417 Source LabNumber: 1700417-08 Matrix: Aqueous Sample Size: 0.124/0.120 L				QC Batch: B7D0026 Date Extracted: 06-Apr-2017 10:58						Lab Sample: B7D0026-MS1/B7D0026-MSD1 Date Analyzed: 15-Apr-17 12:38 Column: BEH C18 15-Apr-17 12:51 Column: BEH C18					
Analyte	Spike-MS (ng/L)	MS %R	MS Qual.	Spike-MSD (ng/L)	MSD %R	MSD RPD	MSD Qual.	%R Limit	%RPD Limit	Labeled Standard		MS %R	MS Qualifiers	MSD %R	MS Qual.
PFBS	80.9	120		83.3	123	2.47		60 - 130	25	IS	13C3-PFBS	90.7		93.8	
PFHpA	80.9	125		83.3	120	4.08		70 - 130	25	IS	13C4-PFHpA	86.9		94.5	
PFHxS	80.9	128		83.3	128	0		70 - 130	25	IS	18O2-PFHxS	92.6		98.3	
PFOA	80.9	103		83.3	109	5.66		70 - 130	25	IS	13C2-PFOA	99.2		95.7	
PFOS	80.9	107		83.3	104	2.84		70 - 130	25	IS	13C8-PFOS	97.9		90.3	
PFNA	80.9	119		83.3	130	8.84		50 - 130	25	IS	13C5-PFNA	99.8		91.6	

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: OC-EB040417						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-09	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.117 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:50					Date Analyzed:	15-Apr-17 14:44	Column:	BEH C18	
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.92	4.27	8.56		IS	13C3-PFBS	96.5	60 - 150	
PFHpA	ND	0.632	2.14	8.56		IS	13C4-PFHpA	93.9	60 - 150	
PFHxS	ND	1.01	2.14	8.56		IS	18O2-PFHxS	93.6	60 - 150	
PFOA	ND	0.696	2.14	8.56		IS	13C2-PFOA	83.7	60 - 150	
PFOS	ND	0.863	0.962	8.56		IS	13C8-PFOS	95.5	60 - 150	
PFNA	ND	0.867	2.14	8.56		IS	13C5-PFNA	91.5	50 - 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.

Sample ID: OC-FB040417						Modified EPA Method 537				
Client Data			Sample Data			Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous		Lab Sample:	1700417-10	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.122 L		QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:55					Date Analyzed:	15-Apr-17 14:57	Column:	BEH C18	
Location:										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard		%R	LCL-UCL	Qualifiers
PFBS	ND	1.84	4.10	8.22		IS	13C3-PFBS	105	60 - 150	
PFHpA	ND	0.607	2.05	8.22		IS	13C4-PFHpA	93.5	60 - 150	
PFHxS	ND	0.973	2.05	8.22		IS	18O2-PFHxS	84.1	60 - 150	
PFOA	ND	0.669	2.05	8.22		IS	13C2-PFOA	84.7	60 - 150	
PFOS	ND	0.829	0.922	8.22		IS	13C8-PFOS	89.2	60 - 150	
PFNA	ND	0.833	2.05	8.22		IS	13C5-PFNA	93.3	50 - 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.

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	2016026
Minnesota Department of Health	1175673
Nevada Division of Environmental Protection	CA004132017-1
New Hampshire Environmental Accreditation Program	207716
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	013
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	8621
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

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: 1700417 Temp: 0.4 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: 678440.SI.SI.01 P.O.#: 10006-7-105690 Sampler: CHRISTIAN CONOVER
(name)

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

Invoice to: Name TIFFANY HILL Company CH2M Address 5701 CLEVELAND ST City VIRGINIA BEACH State VA Ph# 541-768-3109 Fax# _____
Relinquished by (printed name and signature) Christian Conover Date 4/4/17 Time 1600 Received by (printed name and signature) B. Benedict Date 04/05/17 Time 0954
Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

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

ATTN: MARTHA MAIER

Method of Shipment: _____

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	TOTALS	COPLAN	209 CON	PBOE	PAH	WHO-29	Mod. EPA	Comments	
OC-MW05D-0417	4-3-17	0945	NASO	2	O	AQ																2		
OC-MW05DP-0417	4-3-17	0950		2	O	AQ																2		
OC-MW02D-0417	4-3-17	1140		2	O	AQ																2		
OW26-MW2-0417	4-3-17	1305		2	O	AQ																2		
OW11-MW10D-0417	4-4-17	0845		2	O	AQ																2		
OC-MW-F4/F8/F9-0417	4-4-17	0955		2	O	AQ																2		
OC-MW07D-0417	4-4-17	1105		2	O	AQ																2		
OC-MW07-0417	4-4-17	1145		2	O	AQ																2		
OC-MW07-0417-MS	4-4-17	1145		2	O	AQ																2		
OC-MW07-0417-SD	4-4-17	1145		2	O	AQ																2		

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

Name: TIFFANY HILL
Company: CH2M
Address: 5701 CLEVELAND ST
City: VIRGINIA BEACH State: VA Zip: 23462
Phone: 541-768-3109 Fax: _____
Email: tiffany.hill@ch2m.com

Container Types: A = 1 Liter Amber, G = Glass Jar

P = PUF, T = MM5, O = Other: 125 ml

Bottle Preservation Type: T = Thiosulfate,

O = Other: _____

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 #: 1700417 TAT 14

Samples Arrival:	Date/Time <u>04/05/17 0950</u>		Initials: <u>UBB</u>		Location: <u>WR-2</u>	
					Shelf/Rack: <u>NA</u>	
Logged In:	Date/Time <u>04/05/17 1222</u>		Initials: <u>UBB</u>		Location: <u>WR-2</u>	
					Shelf/Rack: <u>E6</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>0.1</u> (uncorrected)	Time: <u>0956</u>		Thermometer ID: IR-1			
Temp °C: <u>0.4</u> (corrected)	Probe used: Yes ☐ No ☒					

		YES	NO	NA
Adequate Sample Volume Received? <u>A/B</u>		☒		
Holding Time Acceptable?		☒		
Shipping Container(s) Intact?		☒		
Shipping Custody Seals Intact?		☒		
Shipping Documentation Present?		☒		
Airbill	Trk # <u>7861 3258 3698</u>	☒		
Sample Container Intact?		☒		
Sample Custody Seals Intact?				☒
Chain of Custody / Sample Documentation Present?		☒		
COC Anomaly/Sample Acceptance Form completed?			☒	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				☒
Preservation Documented:	<u>Na₂S₂O₃</u> <u>Trizma</u>	Yes	No	<u>NA</u>
Shipping Container	Vista <u>Client</u> Retain <u>Return</u> Dispose			

Comments:

EXTRACTION INFORMATION

Process Sheet
Workorder: **1700417**

Prep Expiration: 2017-Apr-17
Client: CH2M Hill

Workorder Due: 19-Apr-17 00:00

TAT: 14

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

Prep Batch: B7D0026

Prep Data Entered: 4/7/17 HC
Date and Initials

Version: UCMR 3 (6 Analyte)

Initial Sequence: S7D0028

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1700417-01	☒	OC-MW05D-0417	05-Apr-17 09:50	WR-2 E-6	
1700417-02	☒	OC-MW05DP-0417	05-Apr-17 09:50	WR-2 E-6	
1700417-03	☒	OC-MW02D-0417	05-Apr-17 09:50	WR-2 E-6	
1700417-04	☒	OW26-MW2-0417	05-Apr-17 09:50	WR-2 E-6	
1700417-05	☒	OW11-MW10D-0417	05-Apr-17 09:50	WR-2 E-6	
1700417-06	☐	OC-F8F9-MW-F4-0417 OC-MW-F4F8F9-0417	05-Apr-17 09:50	WR-2 E-6	
1700417-07	☒	OC-MW07D-0417	05-Apr-17 09:50	WR-2 E-6	
1700417-08	☒	OC-MW07-0417	05-Apr-17 09:50	WR-2 E-6	MS/MSD
1700417-09	☒	OC-EB040417	05-Apr-17 09:50	WR-2 E-6	
1700417-10	☒	OC-FB040417	05-Apr-17 09:50	WR-2 E-6	
1700417-11	☒	IDW AQ 01 0417	05-Apr-17 09:50	WR-2 E-6	DM 4/6/17

-06, 1mL

WO Comments: List of 6, include Total PFOA.

Vista PM: Martha Maier

Vial Box ID: Jackal Lantern

Sample Reconciled By: B. Parker

4/6/17

Balance ID: N/A

%Solids rmh 5/20/11

Batch: B7D0026

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1700417-01	0.11841 ✓	N/A	N/A	1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700417-02	0.12225 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700417-03	0.1216 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700417-04	0.1194 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700417-05	0.12188 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700417-06	0.0011 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700417-07	0.11771 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700417-08	0.12374 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700417-09	0.11684 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700417-10	0.12162 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
1700425-01	0.12545 ✓			1000	06-Apr-17 10:58	BAP			Aqueous	537M PFAS DOD (LOQ as
B7D0026-BLK1	0.125			1000	06-Apr-17 10:58	BAP				QC
B7D0026-BS1	0.125			1000	06-Apr-17 10:58	BAP	17C1521	10		QC
B7D0026-MS1	0.12364 ✓			1000	06-Apr-17 10:58	BAP	17C1521	10		QC
B7D0026-MSD1	0.12005 ✓			1000	06-Apr-17 10:58	BAP	17C1521	10		QC

HC 4/7/17

Matrix: Aqueous

Method: 537M PFAS DOD (LOO as mR)

B7D0026

Chemist: C. Mendiola

Prep Date/Time: 06-Apr-17 10:58

Prepared using: LCMS - SPE Extraction-LCMS

C	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	C7D0025 SPE	RS CHEM/WIT DATE
☐	B7D0026-BLK1	N/A	N/A	(0.125)	Am BP 4-6-17	Mc BP 4-6-17	Am BP 4/7/17
☐	B7D0026-BS1	↓	↓	↓			
☐	B7D0026-MS1 1700417-08	150.47	26.83	0.12364			
☐	B7D0026-MSD1 1700417-08	146.89	26.84	0.12005			
☐	1700417-01	145.13	26.72	0.11841			
☐	1700417-02	148.95	26.70	0.12225			
☐	1700417-03	148.41	26.81	0.1216			
☐	1700417-04	146.14	26.74	0.1194			
☐	1700417-05	148.70	26.82	0.12188			
☐	1700417-06	27.68 145.85 145.85	26.57	0.0011			
☐	1700417-07	144.56	26.85	0.11771			
☐	1700417-08	150.60	26.86	0.12374			
☐	1700417-09	143.59	26.75	0.11684			
☐	1700417-10	148.36	26.74	0.12162			
☐	1700417-11 1700425-01	152.24	26.79	0.12545			

③ Sample 1700417-11 was assigned a new sample ID: 1700425-01 after extraction per client request. Am 4/10/17

④ Sample diluted, 1mL from original into 125mL 195 water 4/7/17 Mc

IS Name	NS Name	RS Name	SPE Chem:	Check Out:
1700403, 10-6 (16)	1701521, 10-6 (13)	1700604, 10-6 (15)	Strata X-AW 33mm 200μm/60	Chemist/Date: BP 4-6-17
			Ele SOLV: 0.5 MNaOH in MeOH / MeOH	Check In:
			Final Volume(s) 1mL	Chemist/Date: N/A
				Balance ID: HRMS-8

Comments: Assume 1 g = 1 mL

④ Centrifuged samples to remove gelatinous substance BP 4-6-17

③ Samples all contained gel BP 4-6-17

Work Order 1700417

SAMPLE DATA – MODIFIED EPA METHOD 537

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-6.qld

Last Altered: Monday, April 17, 2017 11:44:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:45:20 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170415G1_6, Date: 15-Apr-2017, Time: 12:26:02

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7		5.675e3		0.125			
2	2 PFHpA	363 > 318.9	2.712e1	9.977e3		0.125	3.80		
3	3 PFHxS	398.8 > 79.8	6.887e1	4.681e3		0.125	3.92	0.288	
4	4 PFOA	412.8 > 369.0	1.708e2	1.929e4		0.125	4.21	0.239	
5	5 PFNA	462.8 > 418.8		6.862e3		0.125			
6	6 PFOS	498.7 > 79.8		7.460e3		0.125			
7	7 13C3-PFBS	302.0 > 98.8	5.675e3	1.130e4	0.453	0.125	2.91	111	111
8	8 13C4-PFHpA	367.2 > 321.8	9.977e3	1.130e4	0.857	0.125	3.80	103	103
9	9 18O2-PFHxS	403 > 102.6	4.681e3	1.130e4	0.440	0.125	3.92	94.3	94.3
10	10 13C2-PFOA	414.9 > 369.7	1.929e4	5.583e3	3.366	0.125	4.21	103	103
11	11 13C5-PFNA	468.2 > 422.9	6.862e3	8.224e3	0.909	0.125	4.56	91.8	91.8
12	12 13C8-PFOS	506.7 > 79.6	7.460e3	5.651e3	1.304	0.125	4.62	101	101
13	13 13C5-PFHxA	318>272.9	1.980e4	1.980e4	1.000	0.125	3.28	100	100
14	14 13C3-PFHxS	401.9 > 79.9	1.130e4	1.130e4	1.000	0.125	3.92	100	100
15	15 13C8-PFOA	421.3 > 376	5.583e3	5.583e3	1.000	0.125	4.21	100	100
16	16 13C9-PFNA	472.2 > 426.9	8.224e3	8.224e3	1.000	0.125	4.56	100	100
17	17 13C4-PFOS	503.0 > 79.9	5.651e3	5.651e3	1.000	0.125	4.62	100	100
18	18 Total PFBS	298.8 > 79.7		4.681e3		0.125			
19	19 Total PFHxS	398.8 > 79.8		4.681e3		0.125		0.288	
20	20 Total PFOA	412.8 > 369.0		1.929e4		0.125		0.239	
21	21 Total PFOS	498.7 > 79.8		7.460e3		0.125			

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-6.qld

Last Altered: Monday, April 17, 2017 11:44:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:45:20 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170415G1_6, Date: 15-Apr-2017, Time: 12:26:02

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7			5675.084	

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	68.868	4680.938	0.3

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.21	170.839	19294.223	0.2

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-6.qld

Last Altered: Monday, April 17, 2017 11:44:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:45:20 Pacific Daylight Time

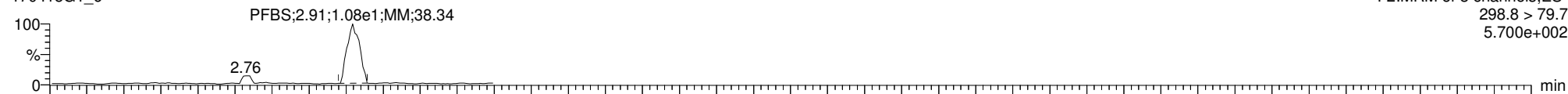
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

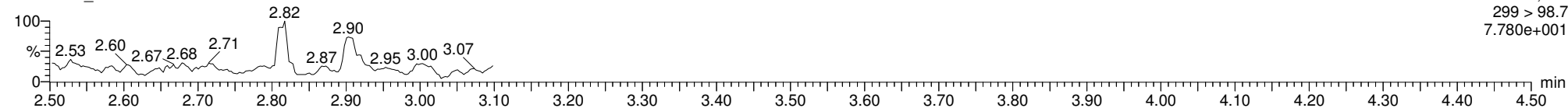
ID: B7D0026-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170415G1_6, Date: 15-Apr-2017, Time: 12:26:02, Instrument: , Lab: , User:

PFBS

170415G1_6

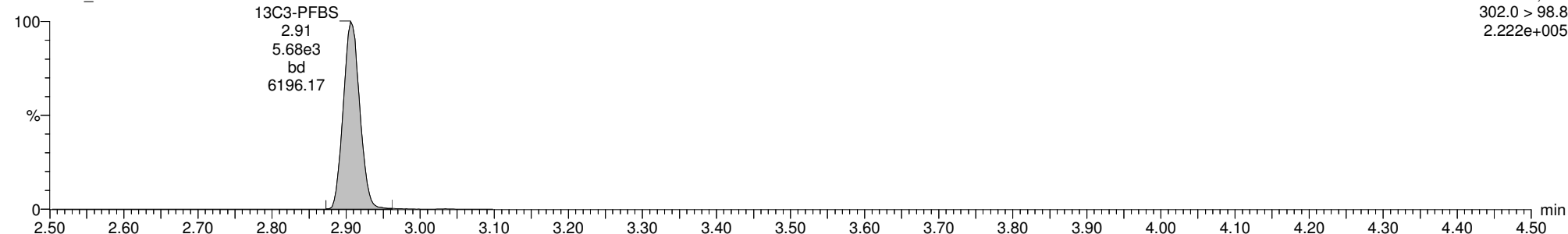


170415G1_6



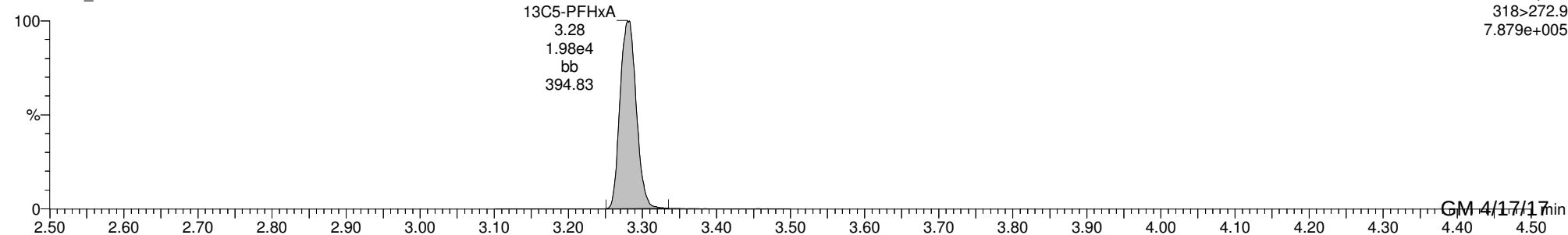
13C3-PFBS

170415G1_6



13C5-PFHxA

170415G1_6



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-6.qld

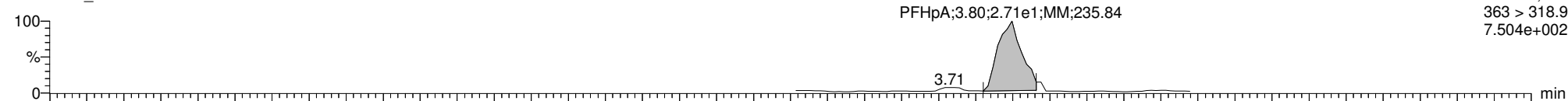
Last Altered: Monday, April 17, 2017 11:44:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:45:20 Pacific Daylight Time

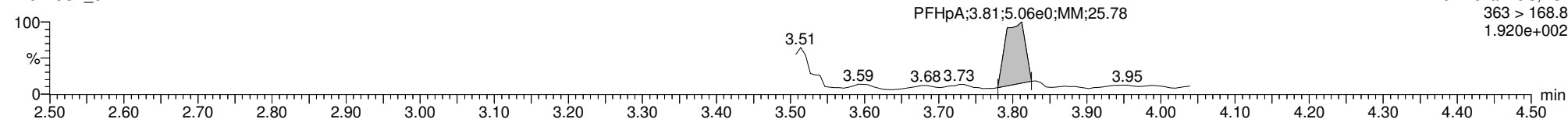
ID: B7D0026-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170415G1_6, Date: 15-Apr-2017, Time: 12:26:02, Instrument: , Lab: , User:

PFHpA

170415G1_6

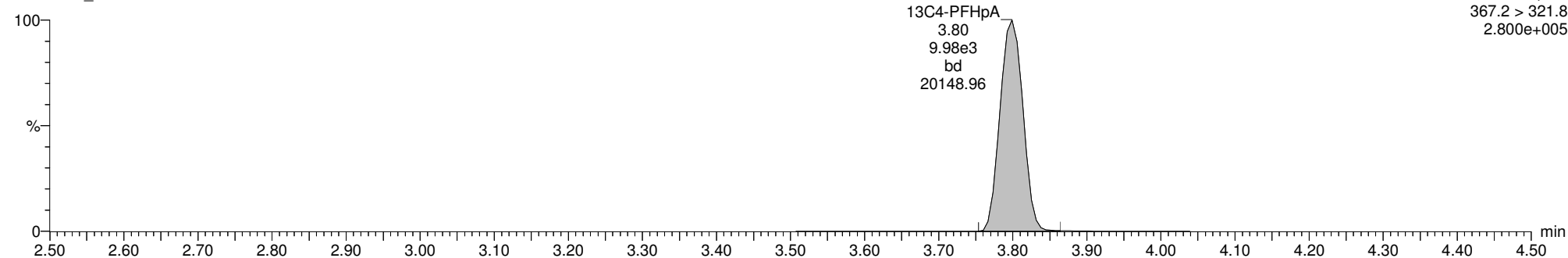


170415G1_6



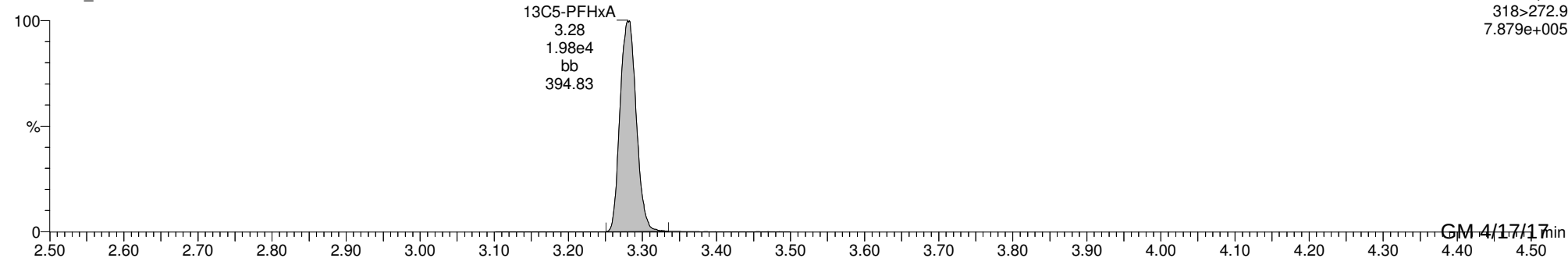
13C4-PFHpA

170415G1_6



13C5-PFHxA

170415G1_6



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-6.qld

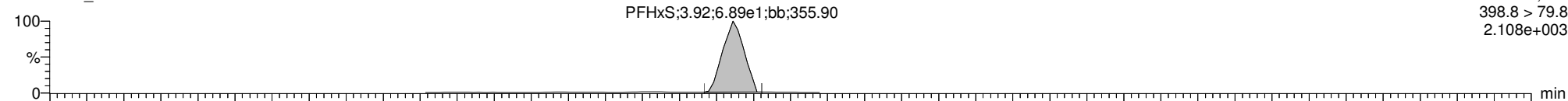
Last Altered: Monday, April 17, 2017 11:44:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:45:20 Pacific Daylight Time

ID: B7D0026-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170415G1_6, Date: 15-Apr-2017, Time: 12:26:02, Instrument: , Lab: , User:

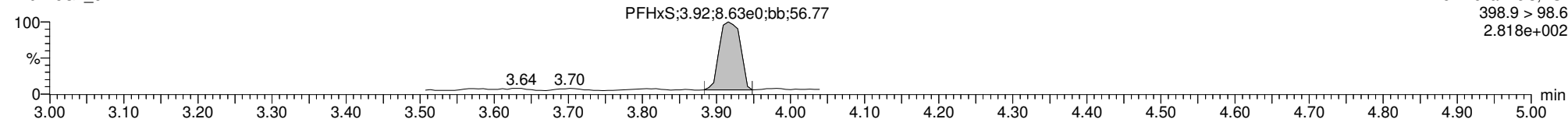
Total PFHxS

170415G1_6



F4:MRM of 7 channels,ES-
398.8 > 79.8
2.108e+003

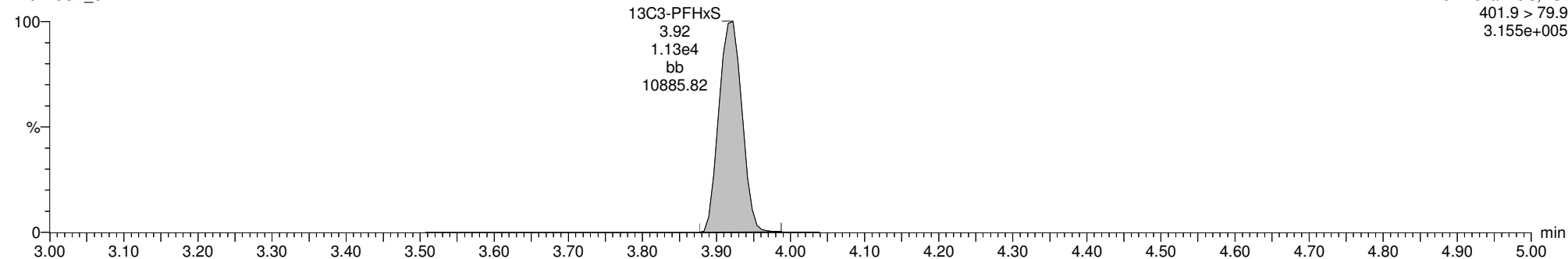
170415G1_6



F4:MRM of 7 channels,ES-
398.9 > 98.6
2.818e+002

13C3-PFHxS

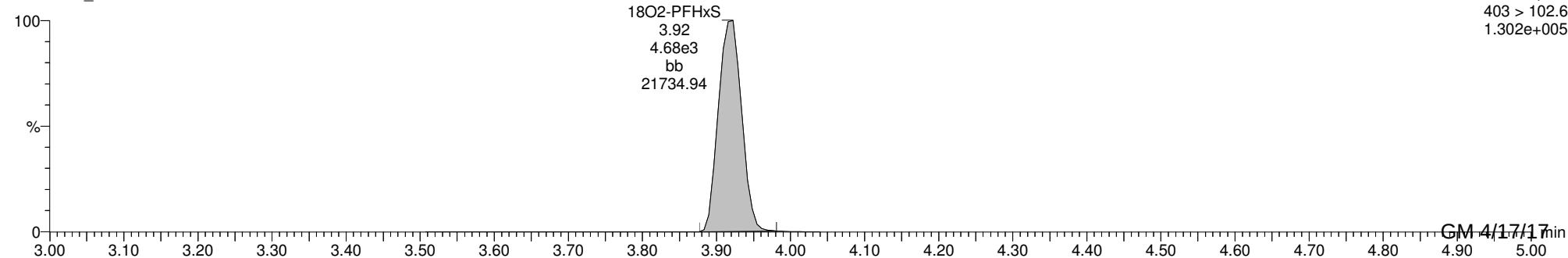
170415G1_6



F4:MRM of 7 channels,ES-
401.9 > 79.9
3.155e+005

18O2-PFHxS

170415G1_6



F4:MRM of 7 channels,ES-
403 > 102.6
1.302e+005

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-6.qld

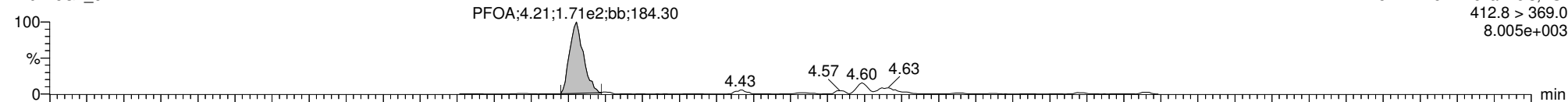
Last Altered: Monday, April 17, 2017 11:44:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:45:20 Pacific Daylight Time

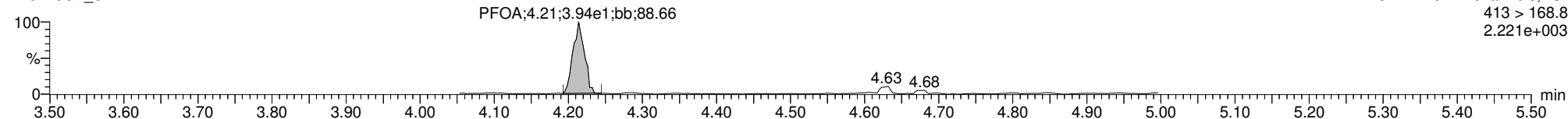
ID: B7D0026-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170415G1_6, Date: 15-Apr-2017, Time: 12:26:02, Instrument: , Lab: , User:

Total PFOA

170415G1_6

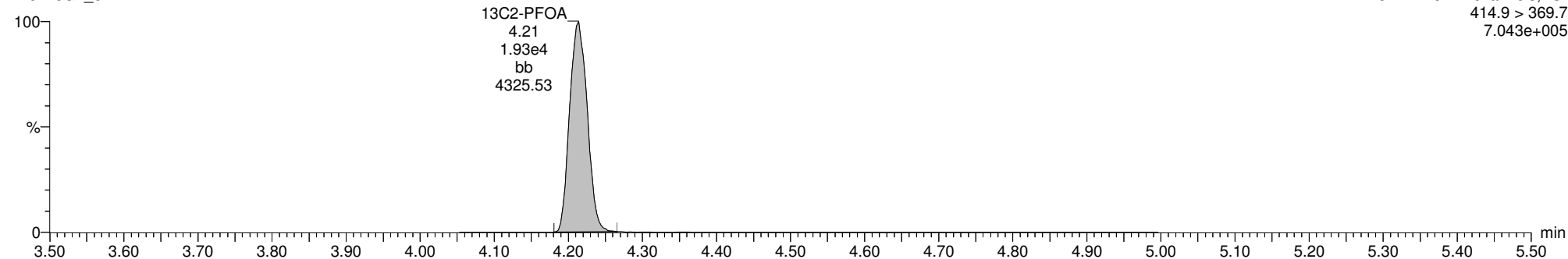


170415G1_6



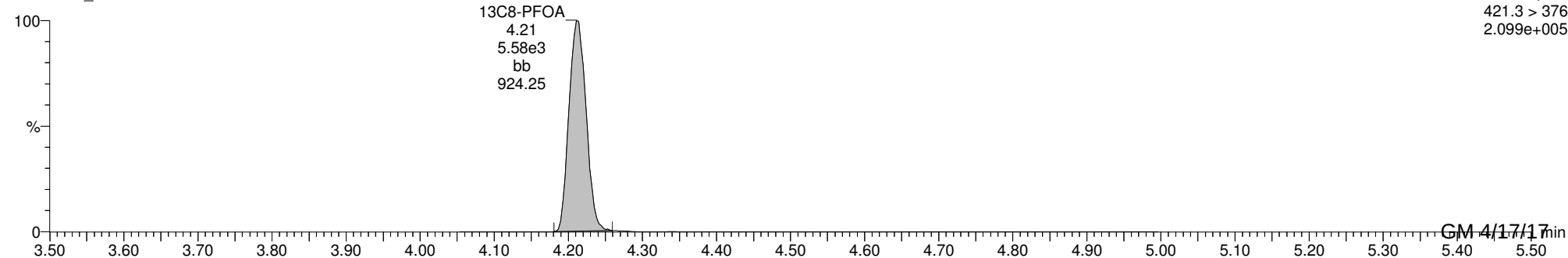
13C2-PFOA

170415G1_6



13C8-PFOA

170415G1_6



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-6.qld

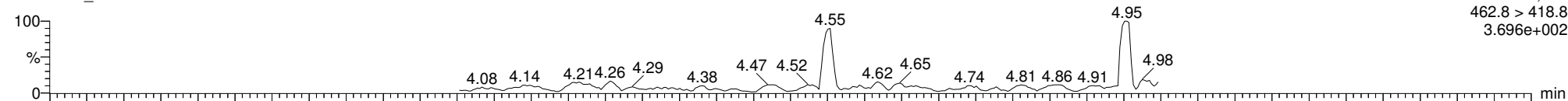
Last Altered: Monday, April 17, 2017 11:44:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:45:20 Pacific Daylight Time

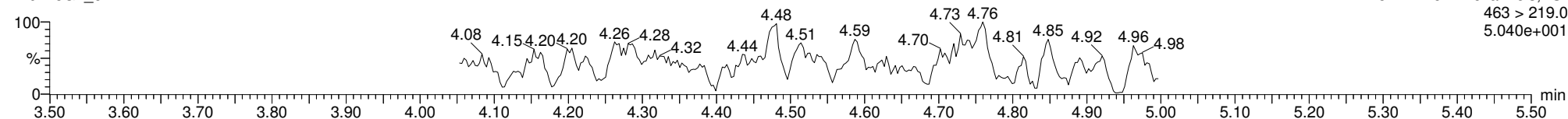
ID: B7D0026-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170415G1_6, Date: 15-Apr-2017, Time: 12:26:02, Instrument: , Lab: , User:

PFNA

170415G1_6

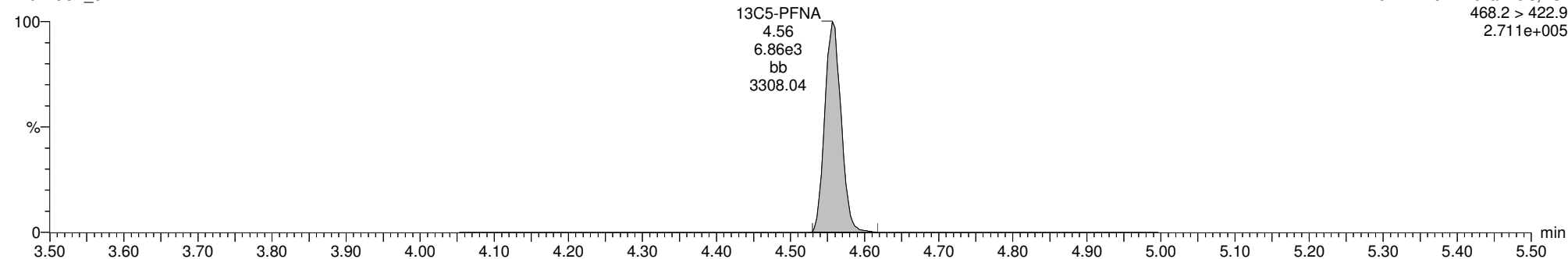


170415G1_6



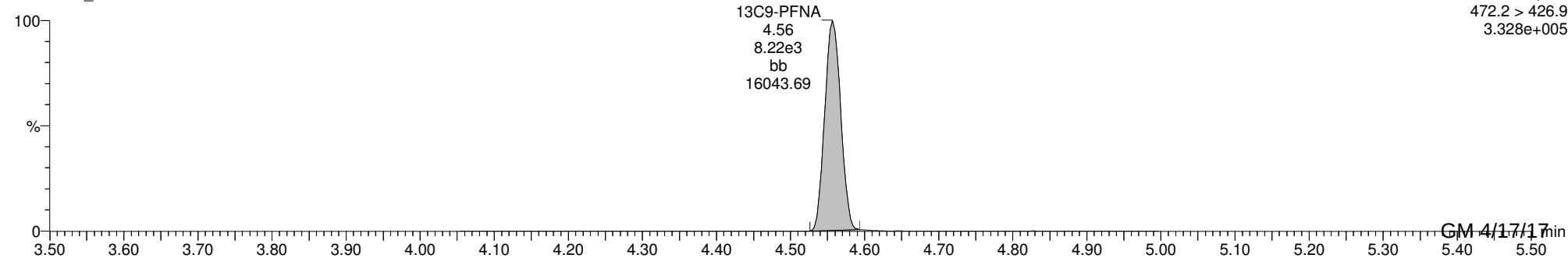
13C5-PFNA

170415G1_6



13C9-PFNA

170415G1_6



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-6.qld

Last Altered: Monday, April 17, 2017 11:44:25 Pacific Daylight Time

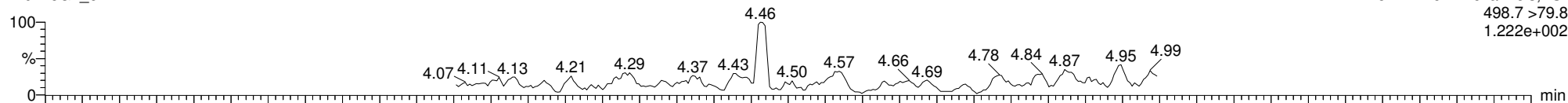
Printed: Monday, April 17, 2017 11:45:20 Pacific Daylight Time

ID: B7D0026-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170415G1_6, Date: 15-Apr-2017, Time: 12:26:02, Instrument: , Lab: , User:

Total PFOS

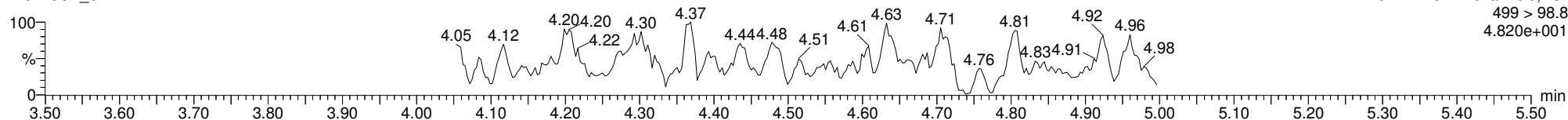
170415G1_6

F5:MRM of 12 channels,ES-
498.7 >79.8
1.222e+002



170415G1_6

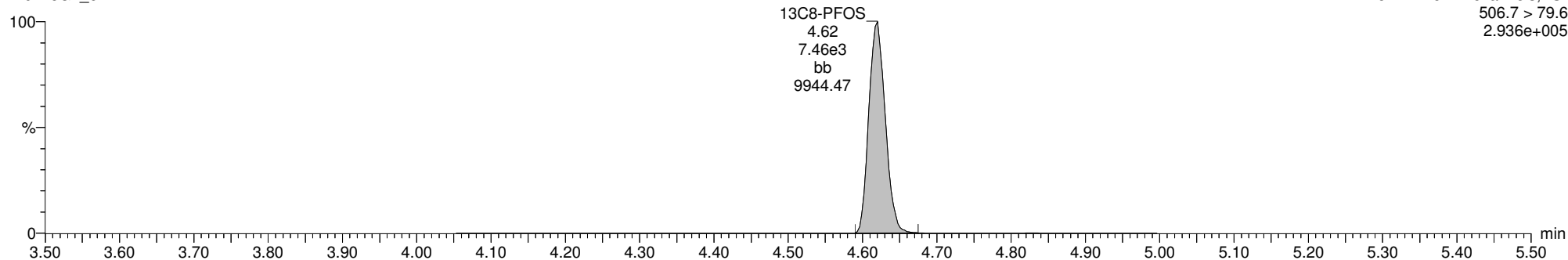
F5:MRM of 12 channels,ES-
499 > 98.8
4.820e+001



13C8-PFOS

170415G1_6

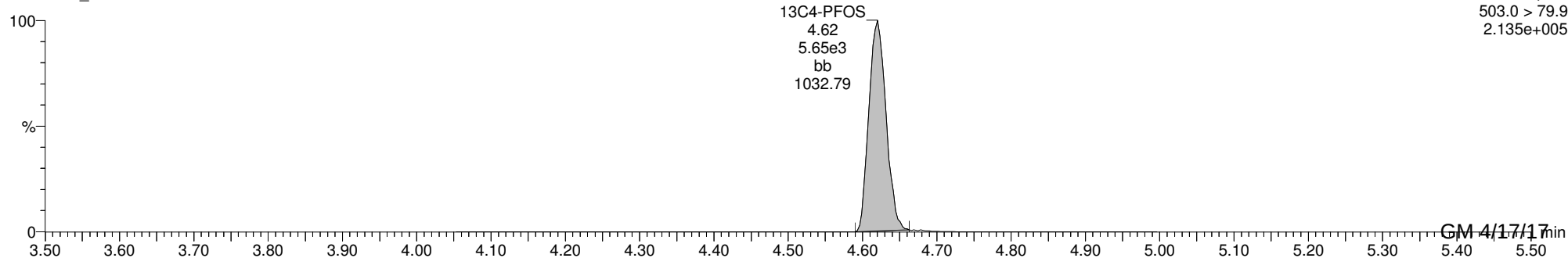
F5:MRM of 12 channels,ES-
506.7 > 79.6
2.936e+005



13C4-PFOS

170415G1_6

F5:MRM of 12 channels,ES-
503.0 > 79.9
2.135e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-4.qld

Last Altered: Monday, April 17, 2017 11:42:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:47:07 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-BS1 OPR 0.125, Description: OPR, Name: 170415G1_4, Date: 15-Apr-2017, Time: 12:00:36

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	1.451e4	5.262e3		0.125	2.91	97.7	122
2	2 PFHpA	363 > 318.9	1.838e4	9.205e3		0.125	3.80	103	129
3	3 PFHxS	398.8 > 79.8	1.093e4	4.631e3		0.125	3.92	97.9	122
4	4 PFOA	412.8 > 369.0	1.656e4	2.024e4		0.125	4.21	83.7	105
5	5 PFNA	462.8 > 418.8	2.065e4	6.803e3		0.125	4.56	98.6	123
6	6 PFOS	498.7 > 79.8	2.425e3	8.374e3		0.125	4.62	77.8	97.3
7	7 13C3-PFBS	302.0 > 98.8	5.262e3	1.073e4	0.453	0.125	2.91	108	108
8	8 13C4-PFHpA	367.2 > 321.8	9.205e3	1.073e4	0.857	0.125	3.80	100	100
9	9 18O2-PFHxS	403 > 102.6	4.631e3	1.073e4	0.440	0.125	3.92	98.2	98.2
10	10 13C2-PFOA	414.9 > 369.7	2.024e4	5.800e3	3.366	0.125	4.21	104	104
11	11 13C5-PFNA	468.2 > 422.9	6.803e3	7.878e3	0.909	0.125	4.56	95.0	95.0
12	12 13C8-PFOS	506.7 > 79.6	8.374e3	6.152e3	1.304	0.125	4.62	104	104
13	13 13C5-PFHxA	318>272.9	1.831e4	1.831e4	1.000	0.125	3.28	100	100
14	14 13C3-PFHxS	401.9 > 79.9	1.073e4	1.073e4	1.000	0.125	3.92	100	100
15	15 13C8-PFOA	421.3 > 376	5.800e3	5.800e3	1.000	0.125	4.21	100	100
16	16 13C9-PFNA	472.2 > 426.9	7.878e3	7.878e3	1.000	0.125	4.55	100	100
17	17 13C4-PFOS	503.0 > 79.9	6.152e3	6.152e3	1.000	0.125	4.62	100	100
18	18 Total PFBS	298.8 > 79.7		4.631e3		0.125		97.7	
19	19 Total PFHxS	398.8 > 79.8		4.631e3		0.125		97.9	
20	20 Total PFOA	412.8 > 369.0		2.024e4		0.125		83.7	
21	21 Total PFOS	498.7 > 79.8		8.374e3		0.125		77.8	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-4.qld

Last Altered: Monday, April 17, 2017 11:42:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:47:07 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-BS1 OPR 0.125, Description: OPR, Name: 170415G1_4, Date: 15-Apr-2017, Time: 12:00:36

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7	2.91	14507.034	5261.708	97.7

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	10933.647	4631.369	97.9

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.21	16555.625	20238.047	83.7

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	498.7 > 79.8	4.62	2424.552	8374.436	77.8

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-4.qld

Last Altered: Monday, April 17, 2017 11:42:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:47:07 Pacific Daylight Time

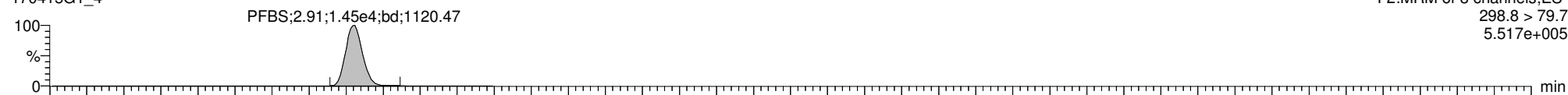
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

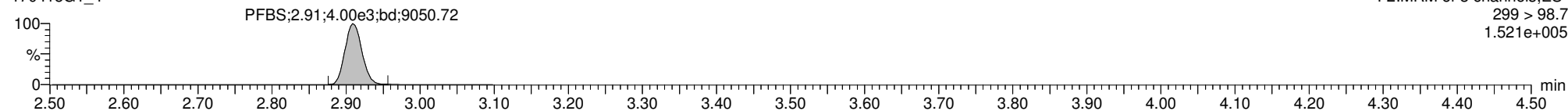
ID: B7D0026-BS1 OPR 0.125, Description: OPR, Name: 170415G1_4, Date: 15-Apr-2017, Time: 12:00:36, Instrument: , Lab: , User:

PFBS

170415G1_4

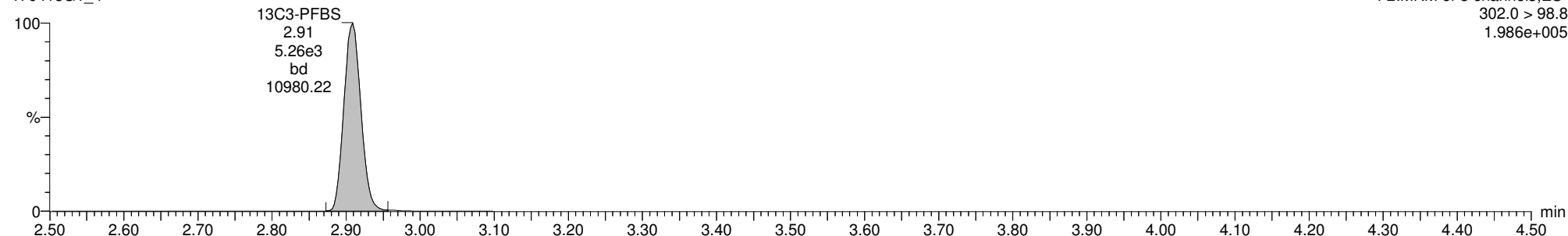


170415G1_4



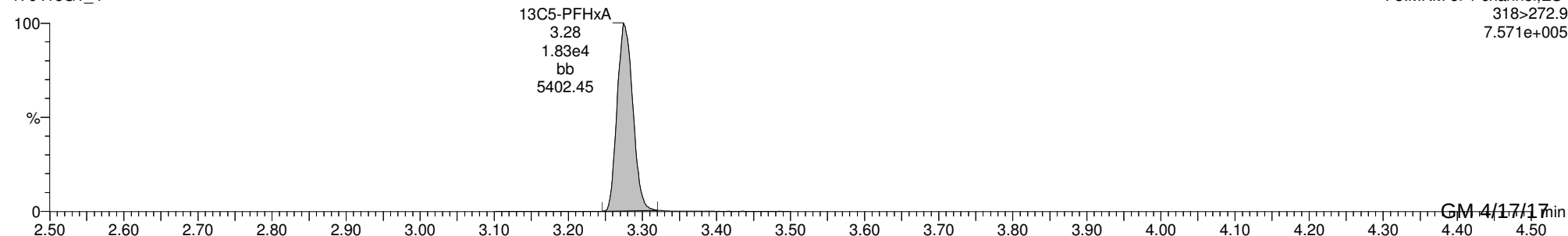
13C3-PFBS

170415G1_4



13C5-PFHxA

170415G1_4



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-4.qld

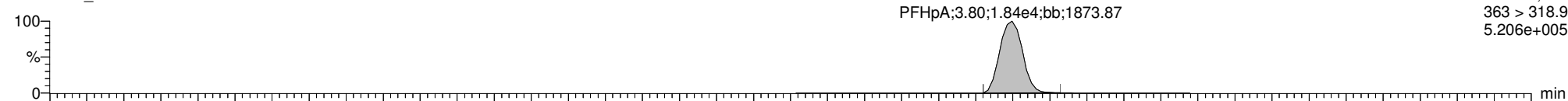
Last Altered: Monday, April 17, 2017 11:42:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:47:07 Pacific Daylight Time

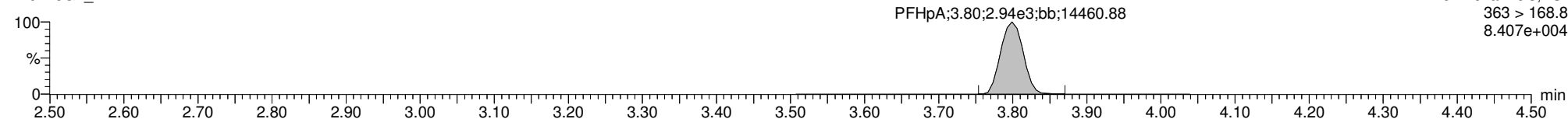
ID: B7D0026-BS1 OPR 0.125, Description: OPR, Name: 170415G1_4, Date: 15-Apr-2017, Time: 12:00:36, Instrument: , Lab: , User:

PFHpA

170415G1_4

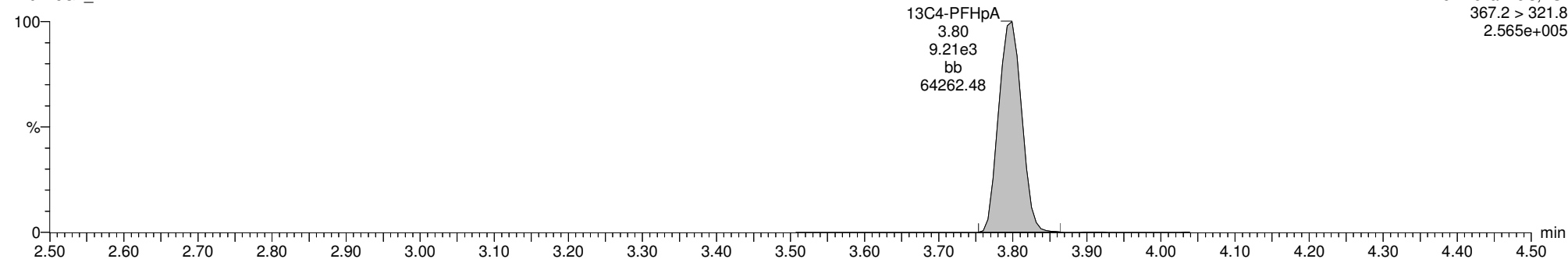


170415G1_4



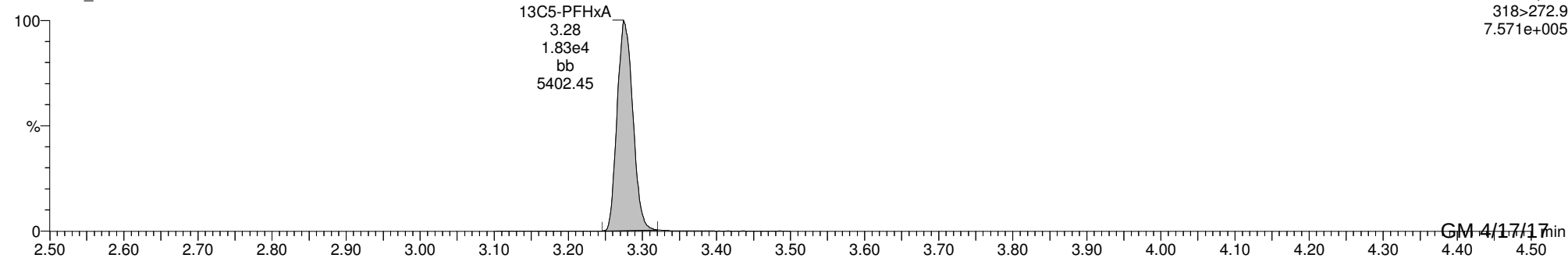
13C4-PFHpA

170415G1_4



13C5-PFHxA

170415G1_4



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-4.qld

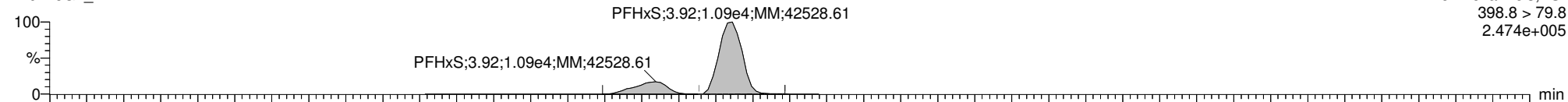
Last Altered: Monday, April 17, 2017 11:42:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:47:07 Pacific Daylight Time

ID: B7D0026-BS1 OPR 0.125, Description: OPR, Name: 170415G1_4, Date: 15-Apr-2017, Time: 12:00:36, Instrument: , Lab: , User:

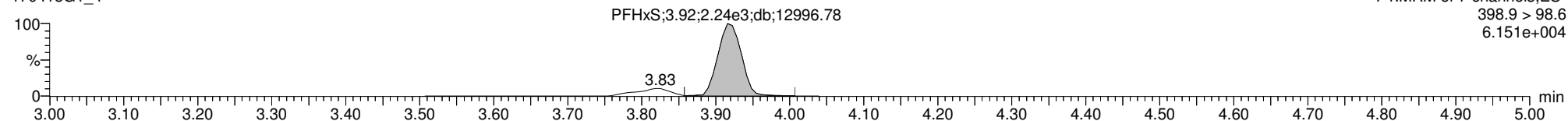
Total PFHxS

170415G1_4



F4:MRM of 7 channels,ES-
398.8 > 79.8
2.474e+005

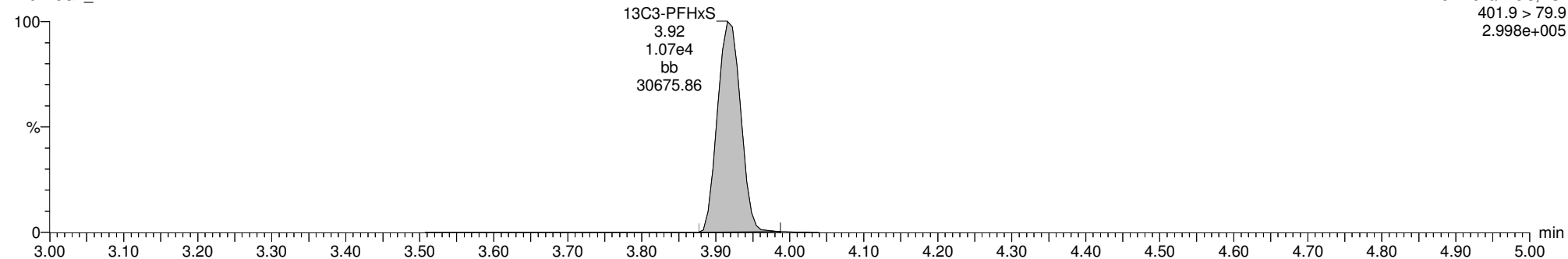
170415G1_4



F4:MRM of 7 channels,ES-
398.9 > 98.6
6.151e+004

13C3-PFHxS

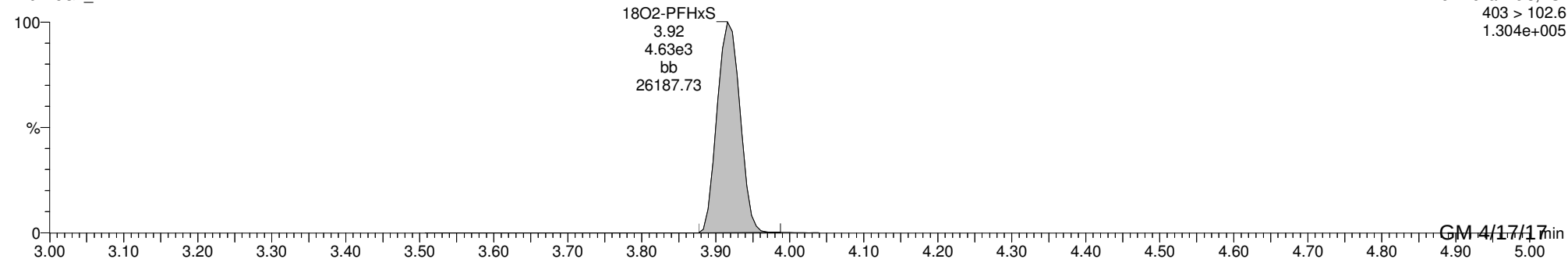
170415G1_4



F4:MRM of 7 channels,ES-
401.9 > 79.9
2.998e+005

18O2-PFHxS

170415G1_4



F4:MRM of 7 channels,ES-
403 > 102.6
1.304e+005

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-4.qld

Last Altered: Monday, April 17, 2017 11:42:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:47:07 Pacific Daylight Time

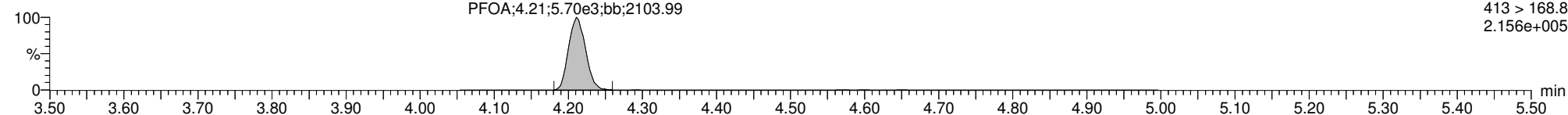
ID: B7D0026-BS1 OPR 0.125, Description: OPR, Name: 170415G1_4, Date: 15-Apr-2017, Time: 12:00:36, Instrument: , Lab: , User:

Total PFOA

170415G1_4

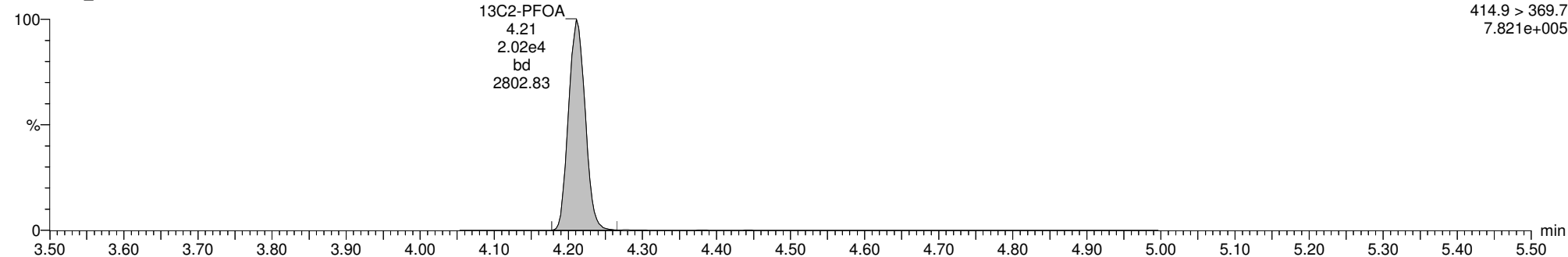


170415G1_4



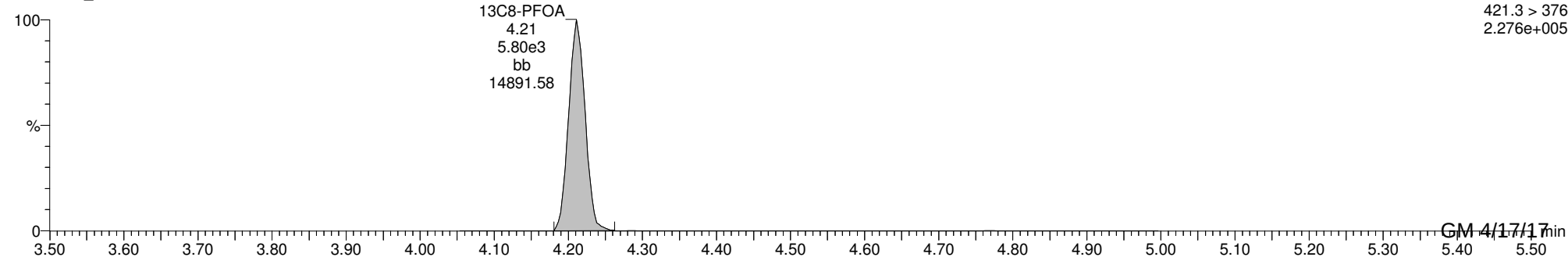
13C2-PFOA

170415G1_4



13C8-PFOA

170415G1_4



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-4.qld

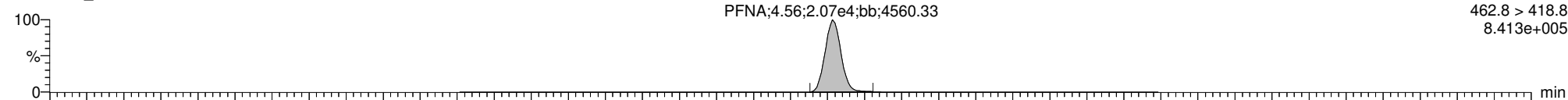
Last Altered: Monday, April 17, 2017 11:42:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:47:07 Pacific Daylight Time

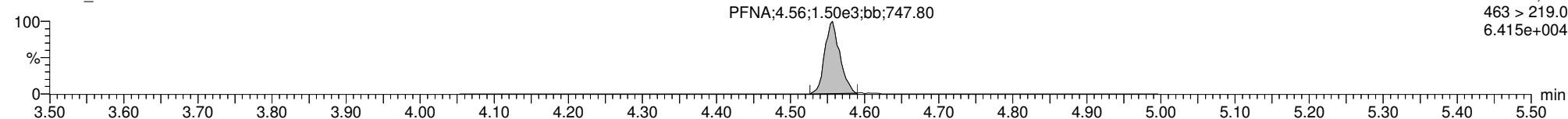
ID: B7D0026-BS1 OPR 0.125, Description: OPR, Name: 170415G1_4, Date: 15-Apr-2017, Time: 12:00:36, Instrument: , Lab: , User:

PFNA

170415G1_4

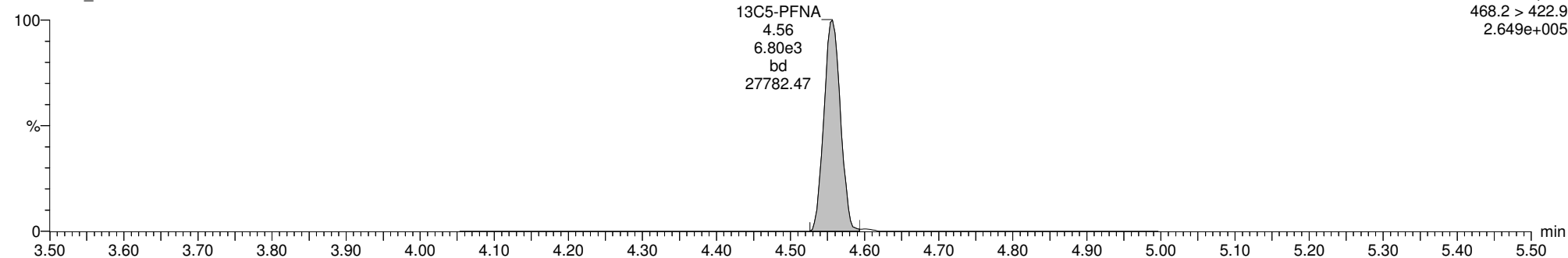


170415G1_4



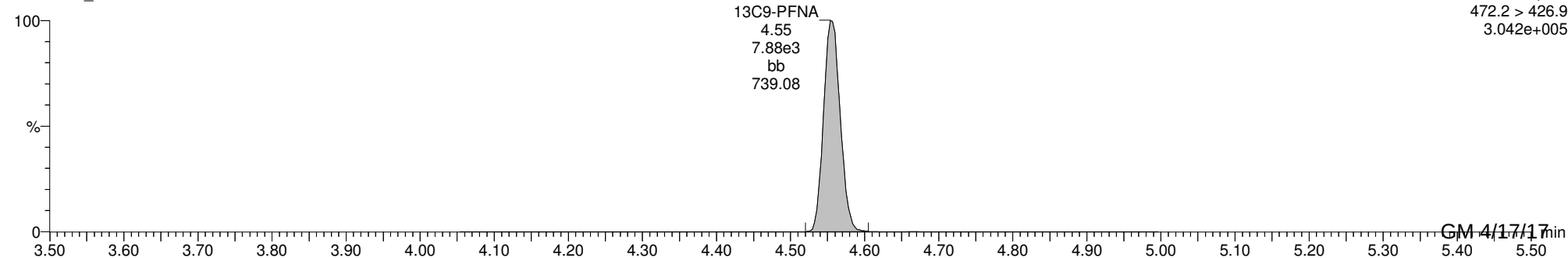
13C5-PFNA

170415G1_4



13C9-PFNA

170415G1_4



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-4.qld

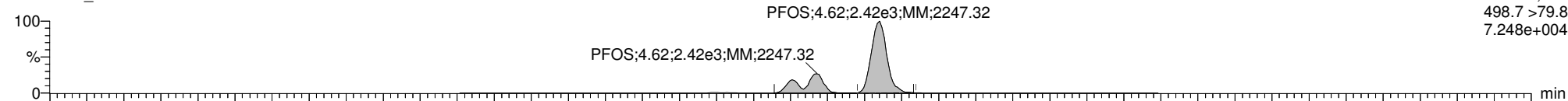
Last Altered: Monday, April 17, 2017 11:42:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:47:07 Pacific Daylight Time

ID: B7D0026-BS1 OPR 0.125, Description: OPR, Name: 170415G1_4, Date: 15-Apr-2017, Time: 12:00:36, Instrument: , Lab: , User:

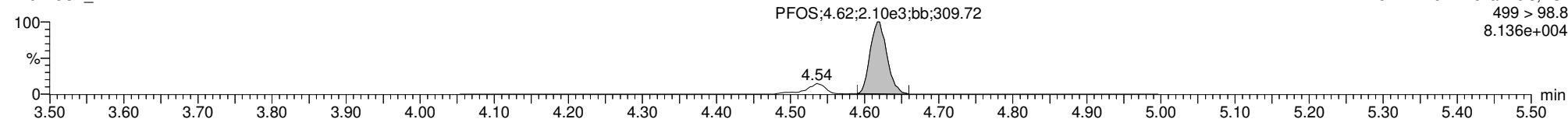
Total PFOS

170415G1_4



F5:MRM of 12 channels,ES-
498.7 >79.8
7.248e+004

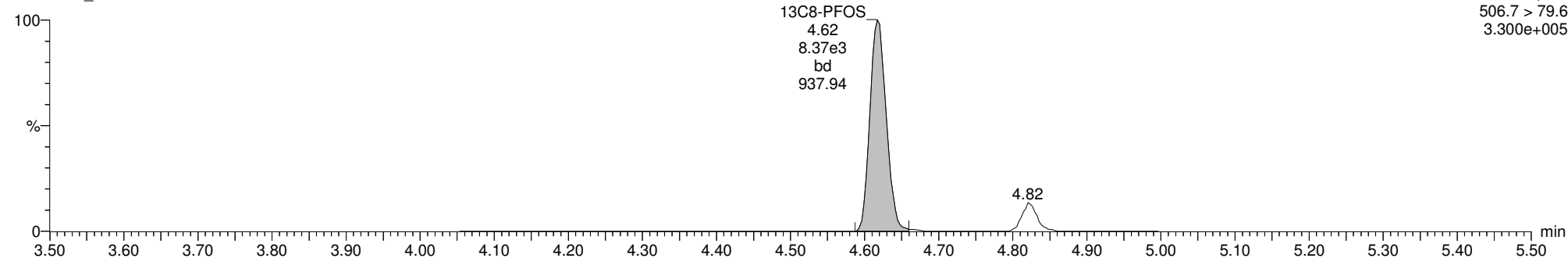
170415G1_4



F5:MRM of 12 channels,ES-
499 > 98.8
8.136e+004

13C8-PFOS

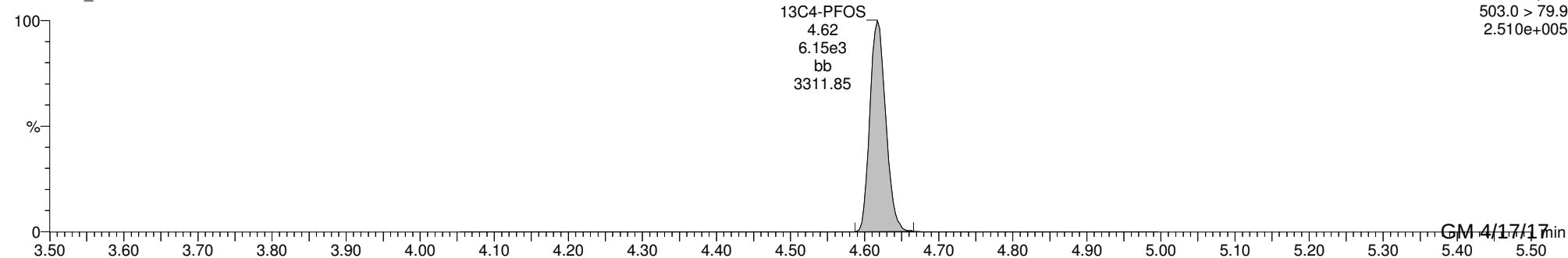
170415G1_4



F5:MRM of 12 channels,ES-
506.7 > 79.6
3.300e+005

13C4-PFOS

170415G1_4



F5:MRM of 12 channels,ES-
503.0 > 79.9
2.510e+005

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-9.qld

Last Altered: Monday, April 17, 2017 12:02:37 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:03:07 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-01 OC-MW05D-0417 0.11841, Description: OC-MW05D-0417, Name: 170415G1_9, Date: 15-Apr-2017, Time: 13:03:49

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7		5.602e3		0.118			
2	2 PFHpA	363 > 318.9		1.045e4		0.118			
3	3 PFHxS	398.8 > 79.8	1.043e2	4.970e3		0.118	3.92	0.580	
4	4 PFOA	412.8 > 369.0	1.162e2	2.229e4		0.118	4.22		
5	5 PFNA	462.8 > 418.8		7.886e3		0.118			
6	6 PFOS	498.7 > 79.8	1.166e1	9.680e3		0.118	4.62	1.01	
7	7 13C3-PFBS	302.0 > 98.8	5.602e3	1.257e4	0.453	0.118	2.91	104	98.5
8	8 13C4-PFHxA	367.2 > 321.8	1.045e4	1.257e4	0.857	0.118	3.80	102	97.0
9	9 18O2-PFHxS	403 > 102.6	4.970e3	1.257e4	0.440	0.118	3.92	95.0	90.0
10	10 13C2-PFOA	414.9 > 369.7	2.229e4	7.609e3	3.366	0.118	4.22	91.9	87.0
11	11 13C5-PFNA	468.2 > 422.9	7.886e3	9.450e3	0.909	0.118	4.55	97.0	91.9
12	12 13C8-PFOS	506.7 > 79.6	9.680e3	7.615e3	1.304	0.118	4.62	103	97.5
13	13 13C5-PFHxA	318>272.9	1.946e4	1.946e4	1.000	0.118	3.28	106	100
14	14 13C3-PFHxS	401.9 > 79.9	1.257e4	1.257e4	1.000	0.118	3.92	106	100
15	15 13C8-PFOA	421.3 > 376	7.609e3	7.609e3	1.000	0.118	4.22	106	100
16	16 13C9-PFNA	472.2 > 426.9	9.450e3	9.450e3	1.000	0.118	4.55	106	100
17	17 13C4-PFOS	503.0 > 79.9	7.615e3	7.615e3	1.000	0.118	4.62	106	100
18	18 Total PFBS	298.8 > 79.7		4.970e3		0.118			
19	19 Total PFHxS	398.8 > 79.8		4.970e3		0.118		0.580	
20	20 Total PFOA	412.8 > 369.0		2.229e4		0.118			
21	21 Total PFOS	498.7 > 79.8		9.680e3		0.118		1.01	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-9.qld

Last Altered: Monday, April 17, 2017 12:02:37 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:03:07 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-01 OC-MW05D-0417 0.11841, Description: OC-MW05D-0417, Name: 170415G1_9, Date: 15-Apr-2017, Time: 13:03:49

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	104.344	4969.923	0.6

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	116.241	22291.309	
2	20 Total PFOA	412.8 > 369.0	4.50	8.377	22291.309	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	498.7 > 79.8	4.62	11.664	9679.848	1.0

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-9.qld

Last Altered: Monday, April 17, 2017 12:02:37 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:03:07 Pacific Daylight Time

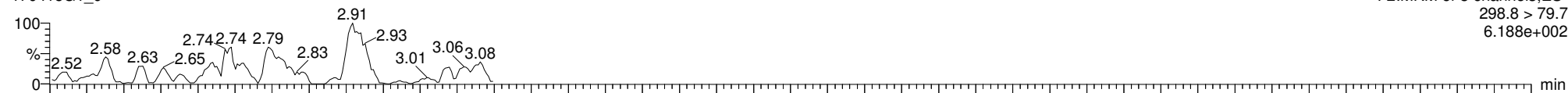
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

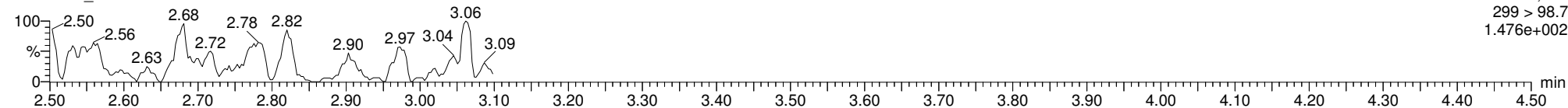
ID: 1700417-01 OC-MW05D-0417 0.11841, Description: OC-MW05D-0417, Name: 170415G1_9, Date: 15-Apr-2017, Time: 13:03:49, Instrument: , Lab: , User:

PFBS

170415G1_9

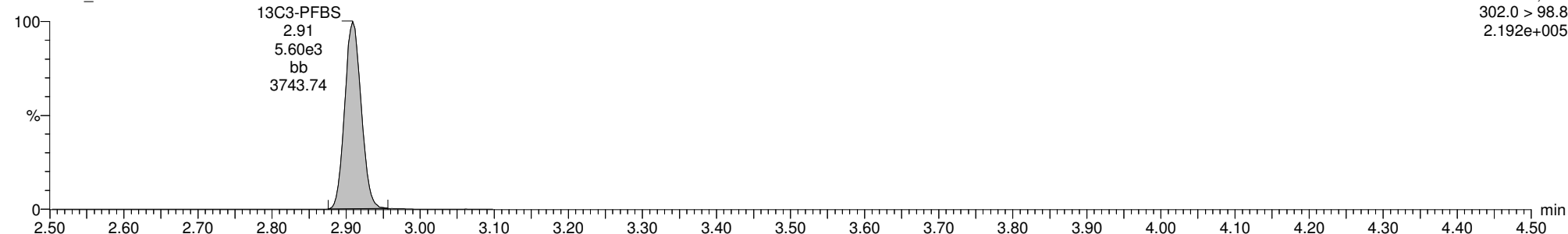


170415G1_9



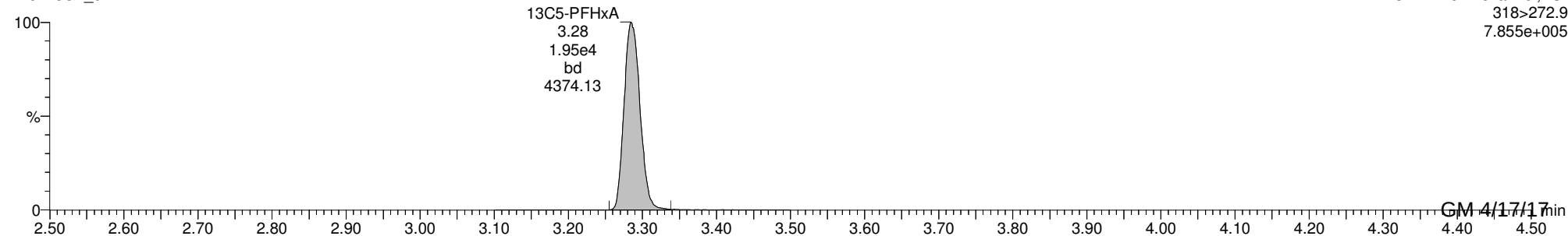
13C3-PFBS

170415G1_9



13C5-PFHxA

170415G1_9



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-9.qld

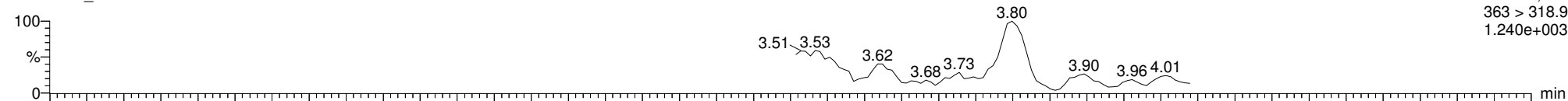
Last Altered: Monday, April 17, 2017 12:02:37 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:03:07 Pacific Daylight Time

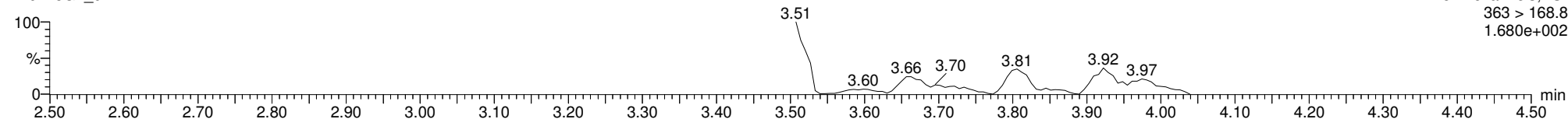
ID: 1700417-01 OC-MW05D-0417 0.11841, Description: OC-MW05D-0417, Name: 170415G1_9, Date: 15-Apr-2017, Time: 13:03:49, Instrument: , Lab: , User:

PFHpA

170415G1_9

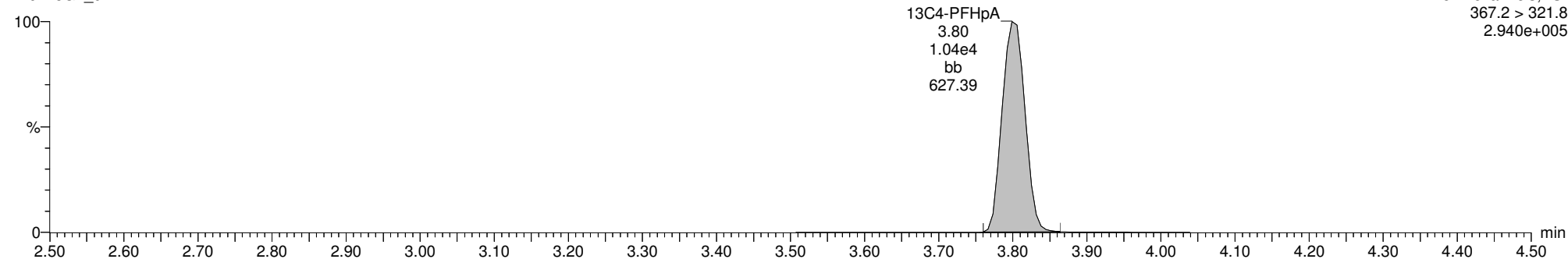


170415G1_9



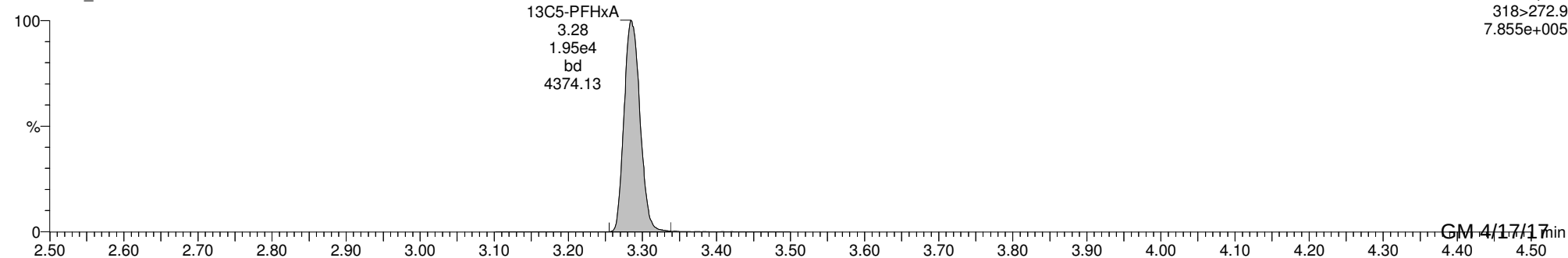
13C4-PFHpA

170415G1_9



13C5-PFHxA

170415G1_9



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-9.qld

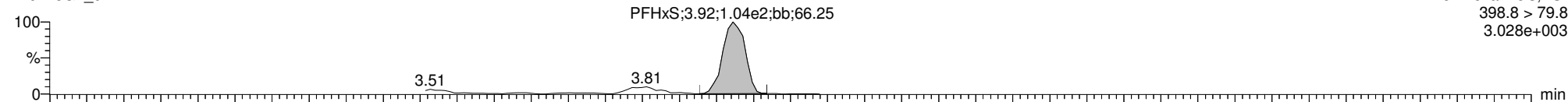
Last Altered: Monday, April 17, 2017 12:02:37 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:03:07 Pacific Daylight Time

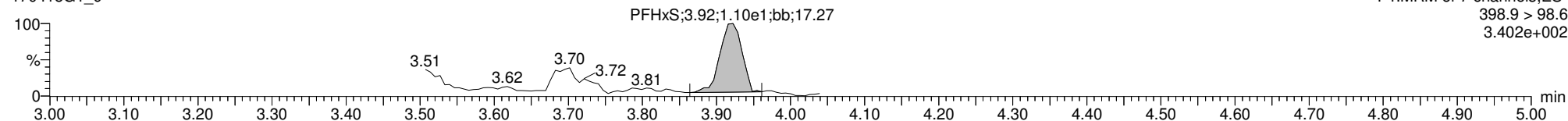
ID: 1700417-01 OC-MW05D-0417 0.11841, Description: OC-MW05D-0417, Name: 170415G1_9, Date: 15-Apr-2017, Time: 13:03:49, Instrument: , Lab: , User:

Total PFHxS

170415G1_9

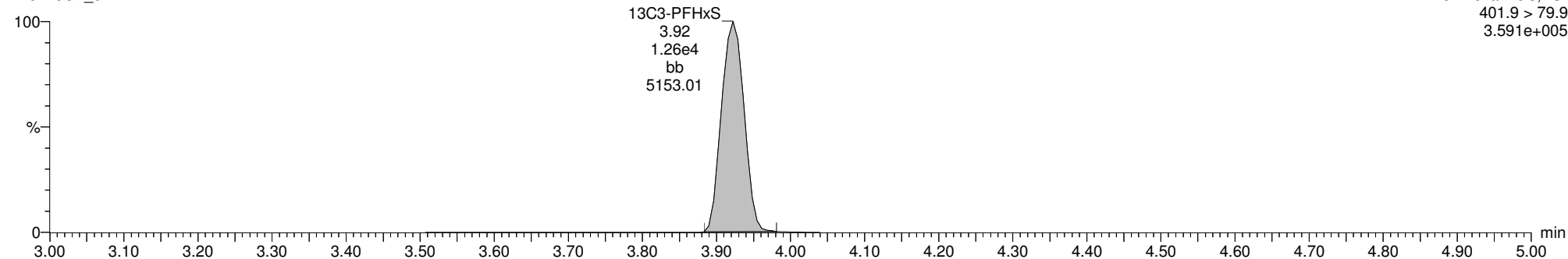


170415G1_9



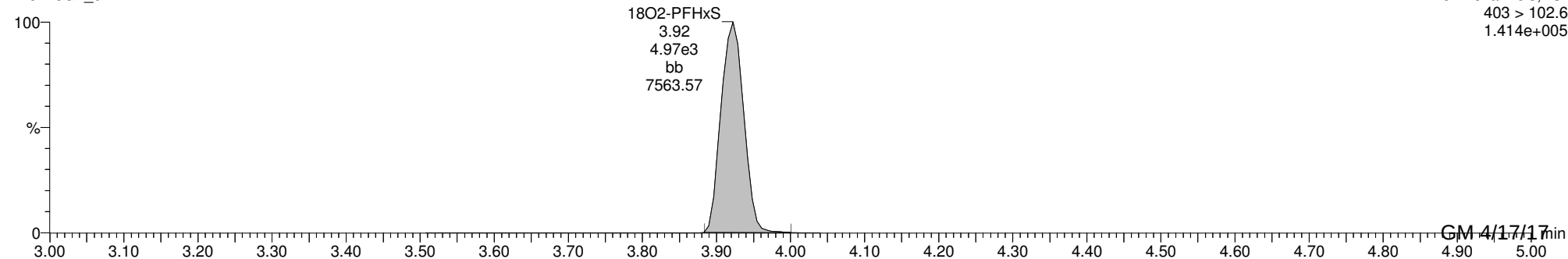
13C3-PFHxS

170415G1_9



18O2-PFHxS

170415G1_9



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-9.qld

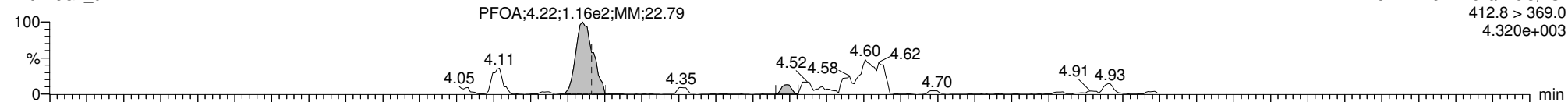
Last Altered: Monday, April 17, 2017 12:02:37 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:03:07 Pacific Daylight Time

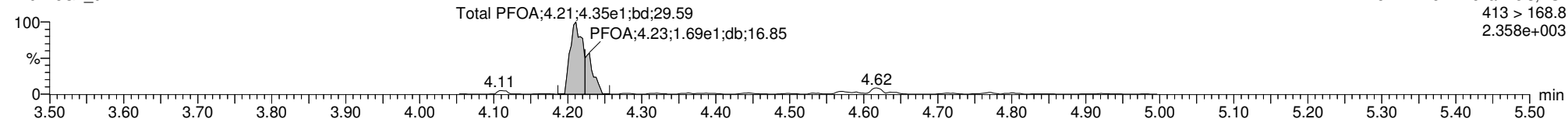
ID: 1700417-01 OC-MW05D-0417 0.11841, Description: OC-MW05D-0417, Name: 170415G1_9, Date: 15-Apr-2017, Time: 13:03:49, Instrument: , Lab: , User:

Total PFOA

170415G1_9

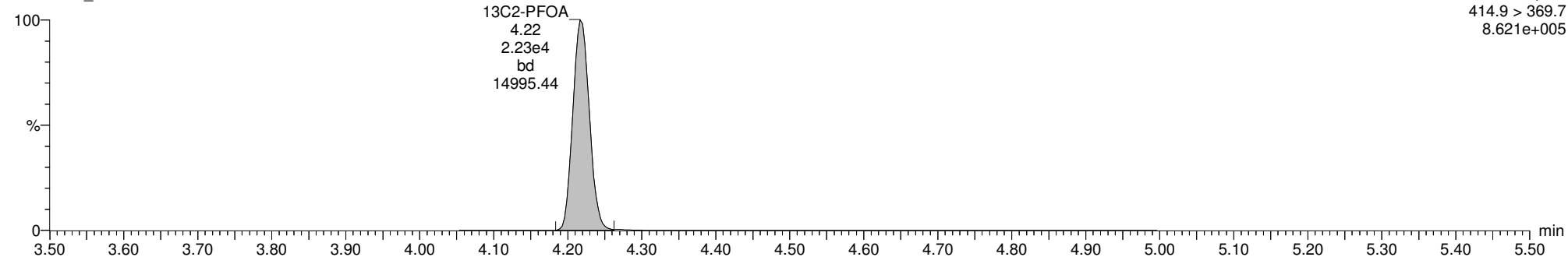


170415G1_9



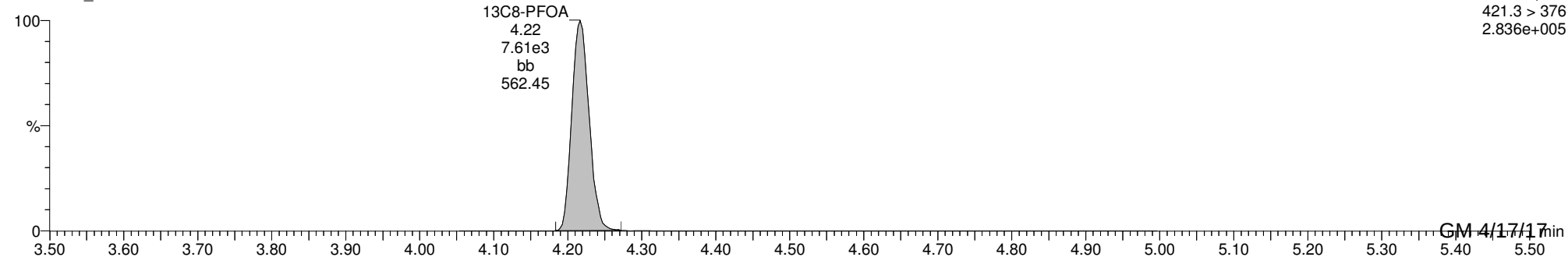
13C2-PFOA

170415G1_9



13C8-PFOA

170415G1_9



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-9.qld

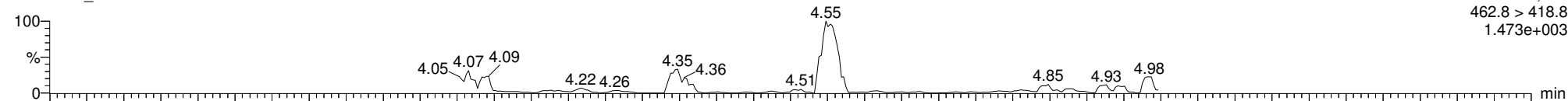
Last Altered: Monday, April 17, 2017 12:02:37 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:03:07 Pacific Daylight Time

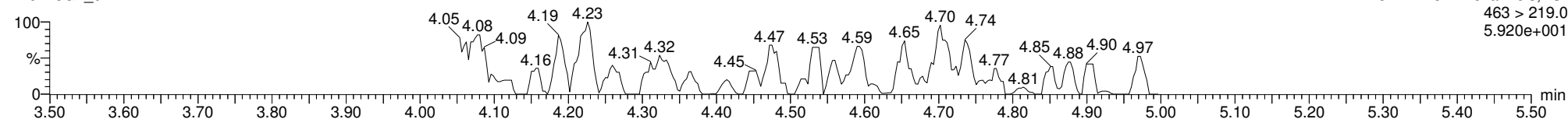
ID: 1700417-01 OC-MW05D-0417 0.11841, Description: OC-MW05D-0417, Name: 170415G1_9, Date: 15-Apr-2017, Time: 13:03:49, Instrument: , Lab: , User:

PFNA

170415G1_9

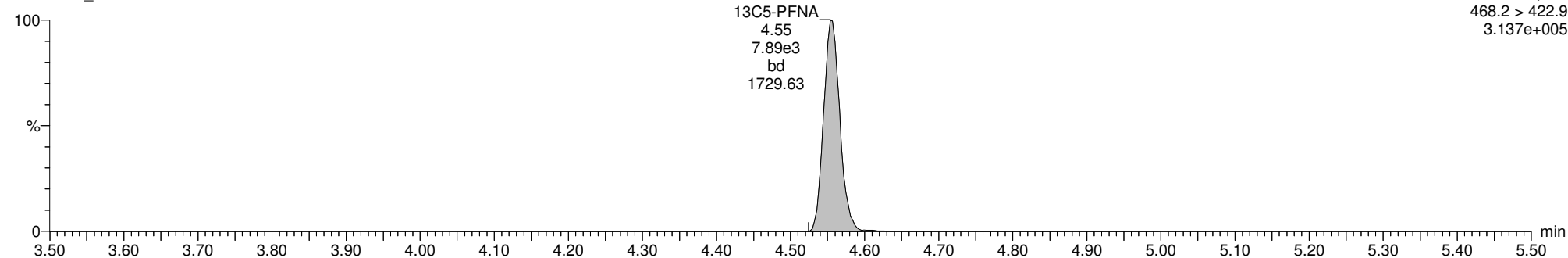


170415G1_9



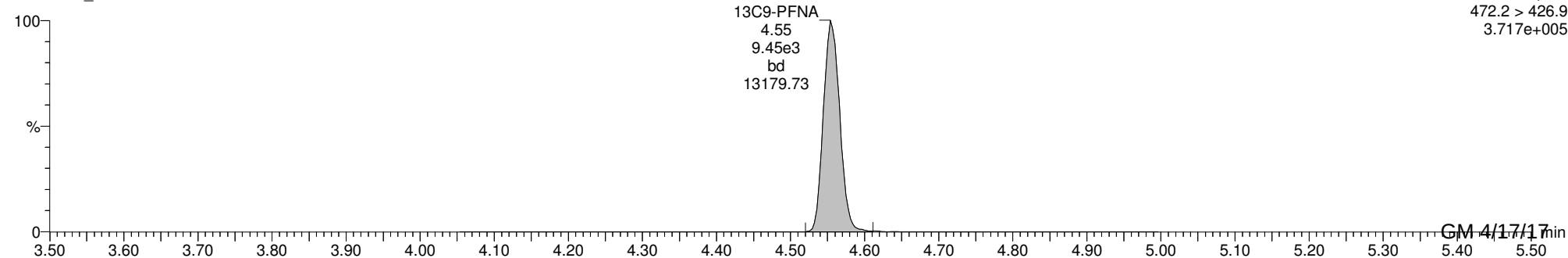
13C5-PFNA

170415G1_9



13C9-PFNA

170415G1_9



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-9.qld

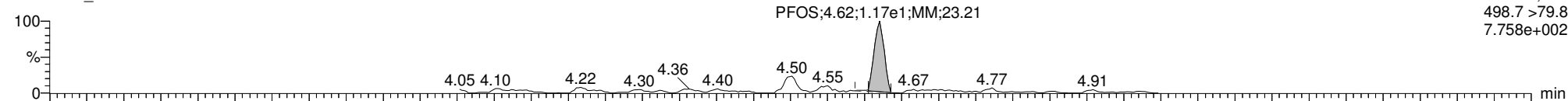
Last Altered: Monday, April 17, 2017 12:02:37 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:03:07 Pacific Daylight Time

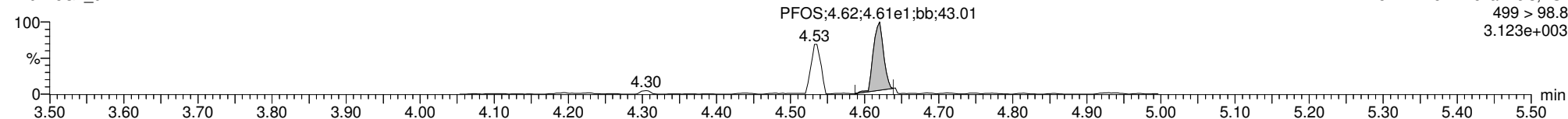
ID: 1700417-01 OC-MW05D-0417 0.11841, Description: OC-MW05D-0417, Name: 170415G1_9, Date: 15-Apr-2017, Time: 13:03:49, Instrument: , Lab: , User:

Total PFOS

170415G1_9

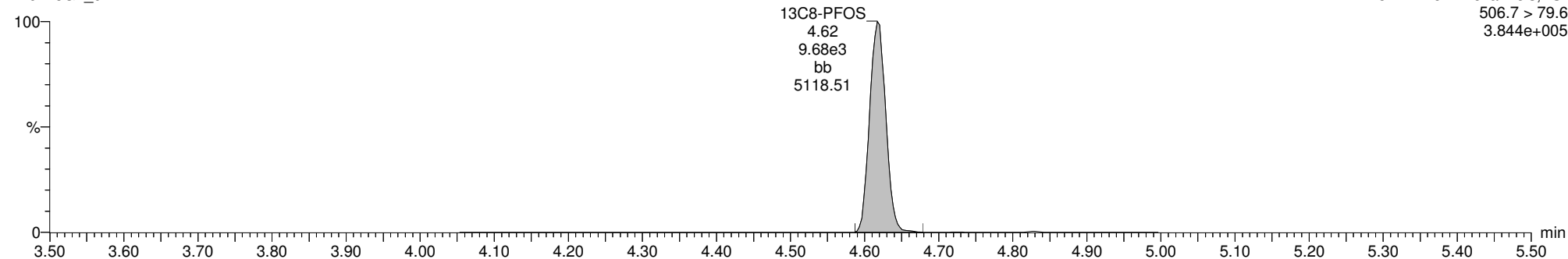


170415G1_9



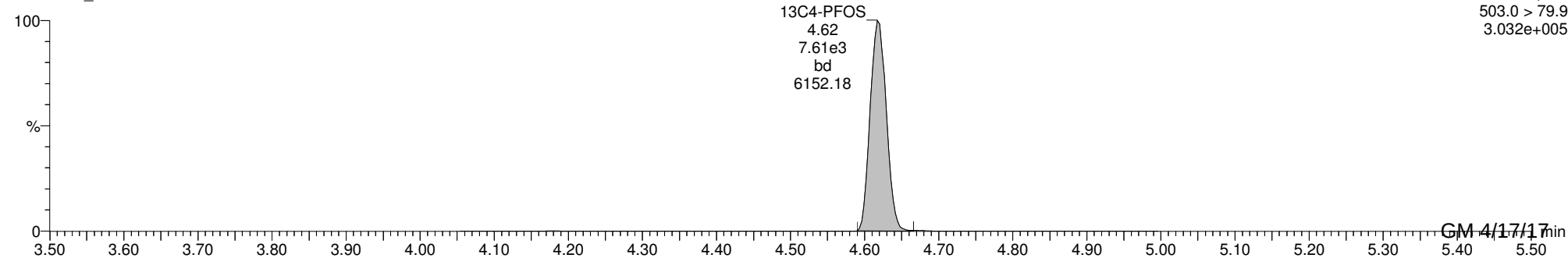
13C8-PFOS

170415G1_9



13C4-PFOS

170415G1_9



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-10.qld

Last Altered: Monday, April 17, 2017 12:06:33 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:07:01 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-02 OC-MW05DP-0417 0.12225, Description: OC-MW05DP-0417, Name: 170415G1_10, Date: 15-Apr-2017, Time: 13:16:26

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7		5.959e3		0.122			
2	2 PFHpA	363 > 318.9		1.128e4		0.122			
3	3 PFHxS	398.8 > 79.8	1.228e2	6.002e3		0.122	3.92	0.539	
4	4 PFOA	412.8 > 369.0	2.067e2	2.507e4		0.122	4.22	0.180	
5	5 PFNA	462.8 > 418.8		9.510e3		0.122			
6	6 PFOS	498.7 > 79.8	7.530e1	1.160e4		0.122	4.61	2.42	
7	7 13C3-PFBS	302.0 > 98.8	5.959e3	1.395e4	0.453	0.122	2.91	96.5	94.4
8	8 13C4-PFHpA	367.2 > 321.8	1.128e4	1.395e4	0.857	0.122	3.81	96.5	94.3
9	9 18O2-PFHxS	403 > 102.6	6.002e3	1.395e4	0.440	0.122	3.92	100	97.9
10	10 13C2-PFOA	414.9 > 369.7	2.507e4	8.612e3	3.366	0.122	4.22	88.4	86.5
11	11 13C5-PFNA	468.2 > 422.9	9.510e3	1.093e4	0.909	0.122	4.56	97.9	95.8
12	12 13C8-PFOS	506.7 > 79.6	1.160e4	8.927e3	1.304	0.122	4.62	102	99.6
13	13 13C5-PFHxA	318>272.9	1.993e4	1.993e4	1.000	0.122	3.29	102	100
14	14 13C3-PFHxS	401.9 > 79.9	1.395e4	1.395e4	1.000	0.122	3.92	102	100
15	15 13C8-PFOA	421.3 > 376	8.612e3	8.612e3	1.000	0.122	4.22	102	100
16	16 13C9-PFNA	472.2 > 426.9	1.093e4	1.093e4	1.000	0.122	4.56	102	100
17	17 13C4-PFOS	503.0 > 79.9	8.927e3	8.927e3	1.000	0.122	4.62	102	100
18	18 Total PFBS	298.8 > 79.7		6.002e3		0.122			
19	19 Total PFHxS	398.8 > 79.8		6.002e3		0.122		0.539	
20	20 Total PFOA	412.8 > 369.0		2.507e4		0.122		0.180	
21	21 Total PFOS	498.7 > 79.8		1.160e4		0.122		2.42	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-10.qld

Last Altered: Monday, April 17, 2017 12:06:33 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:07:01 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-02 OC-MW05DP-0417 0.12225, Description: OC-MW05DP-0417, Name: 170415G1_10, Date: 15-Apr-2017, Time: 13:16:26

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7			5959.353	

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	122.830	6001.881	0.5

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	206.688	25065.438	0.2

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	498.7 > 79.8	4.61	75.304	11598.978	2.4

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-10.qld

Last Altered: Monday, April 17, 2017 12:06:33 Pacific Daylight Time

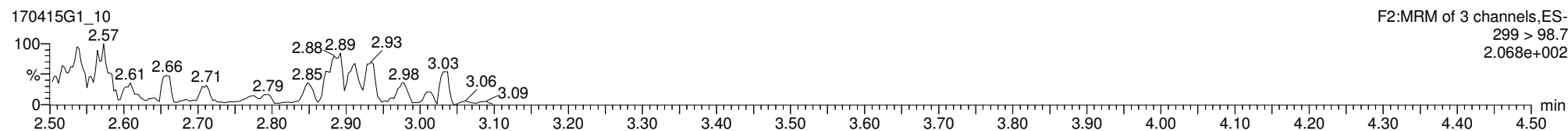
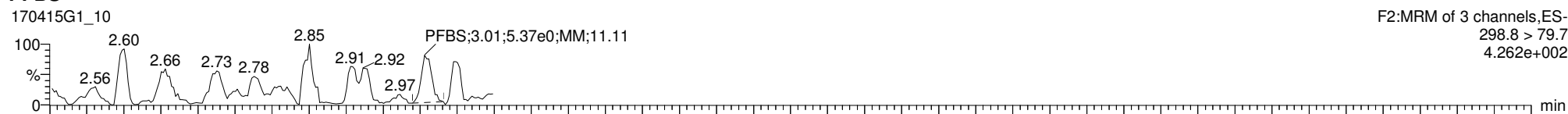
Printed: Monday, April 17, 2017 12:07:01 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

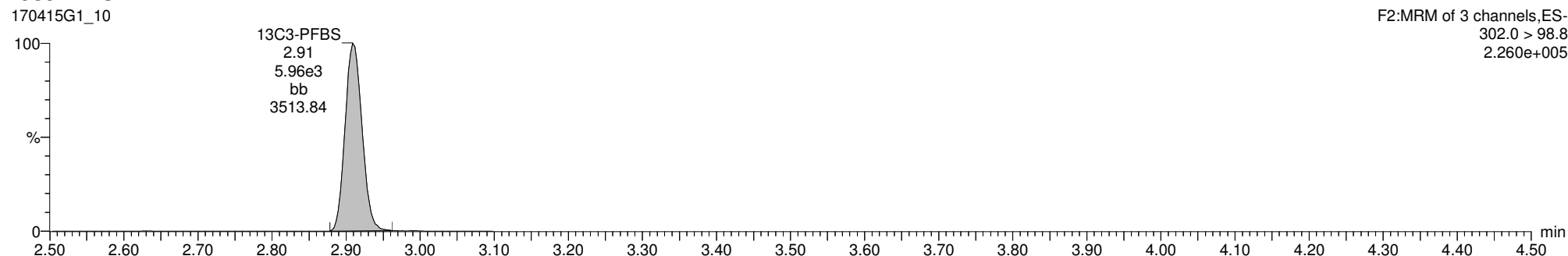
Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-02 OC-MW05DP-0417 0.12225, Description: OC-MW05DP-0417, Name: 170415G1_10, Date: 15-Apr-2017, Time: 13:16:26, Instrument: , Lab: , User:

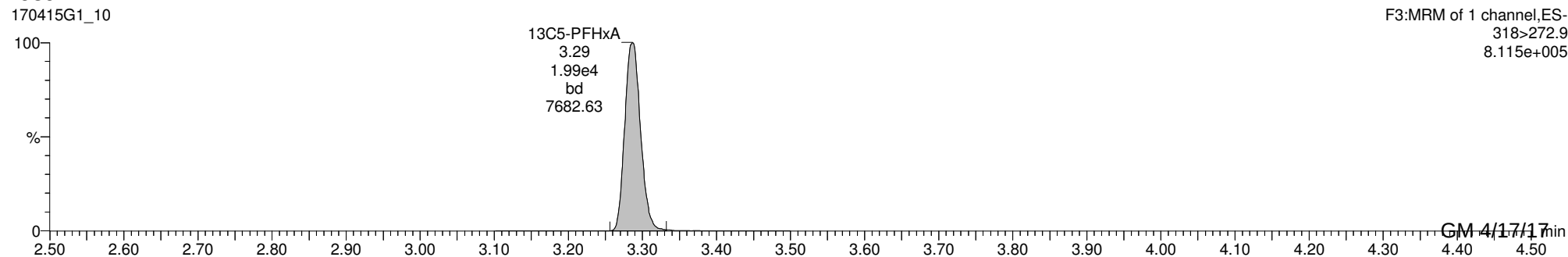
PFBS



13C3-PFBS



13C5-PFHxA



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-10.qld

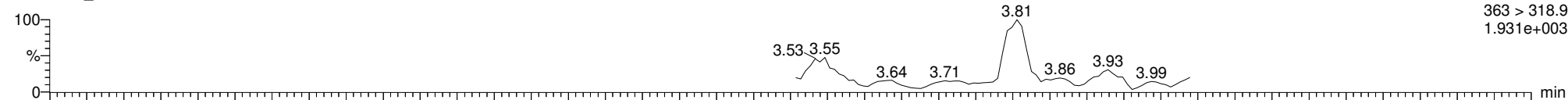
Last Altered: Monday, April 17, 2017 12:06:33 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:07:01 Pacific Daylight Time

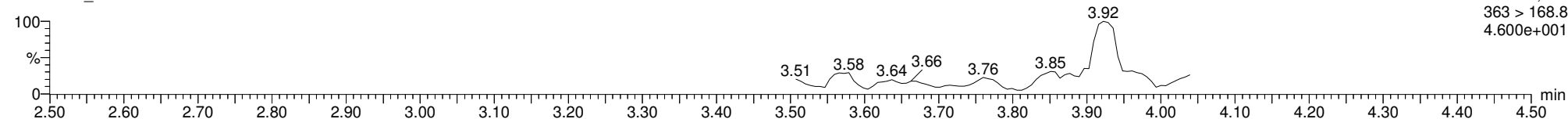
ID: 1700417-02 OC-MW05DP-0417 0.12225, Description: OC-MW05DP-0417, Name: 170415G1_10, Date: 15-Apr-2017, Time: 13:16:26, Instrument: , Lab: , User:

PFHpA

170415G1_10

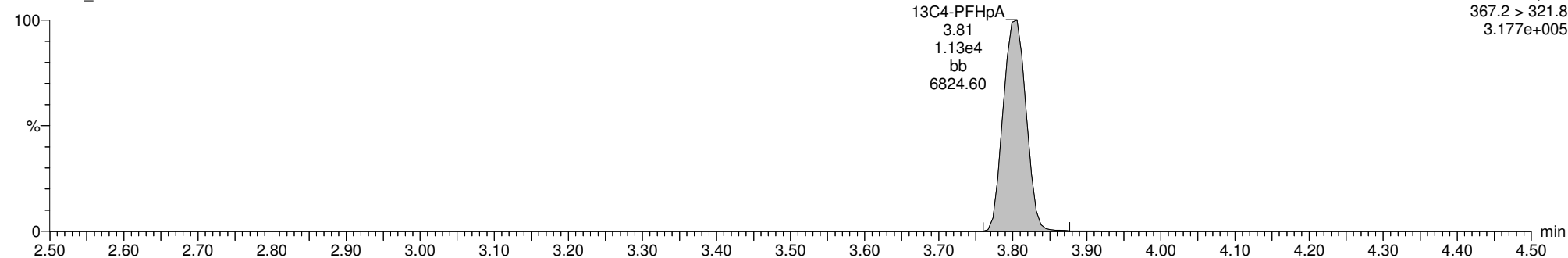


170415G1_10



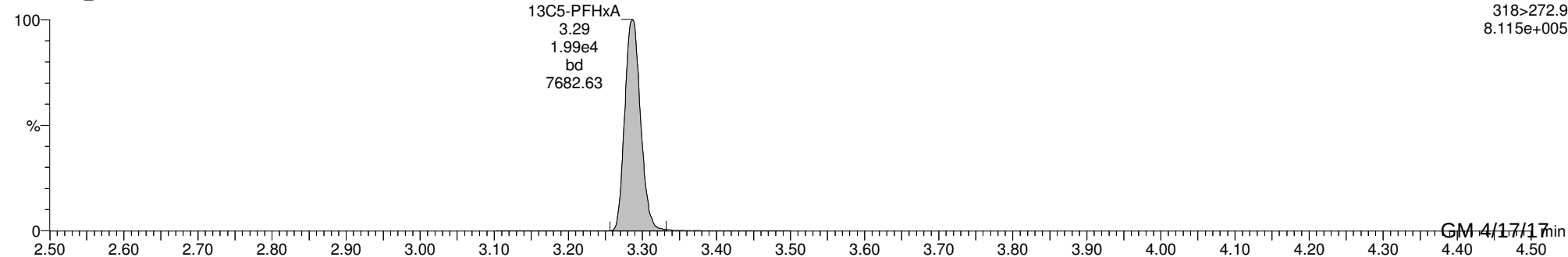
13C4-PFHpA

170415G1_10



13C5-PFHxA

170415G1_10



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-10.qld

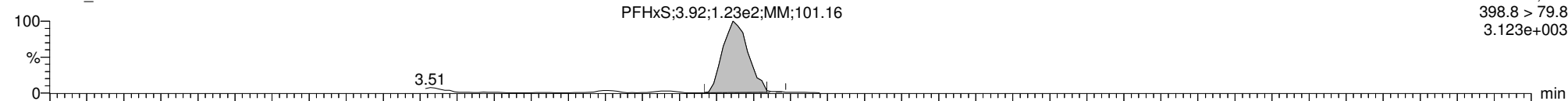
Last Altered: Monday, April 17, 2017 12:06:33 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:07:01 Pacific Daylight Time

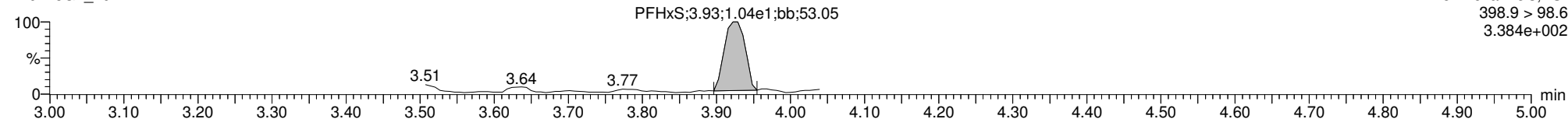
ID: 1700417-02 OC-MW05DP-0417 0.12225, Description: OC-MW05DP-0417, Name: 170415G1_10, Date: 15-Apr-2017, Time: 13:16:26, Instrument: , Lab: , User:

Total PFHxS

170415G1_10

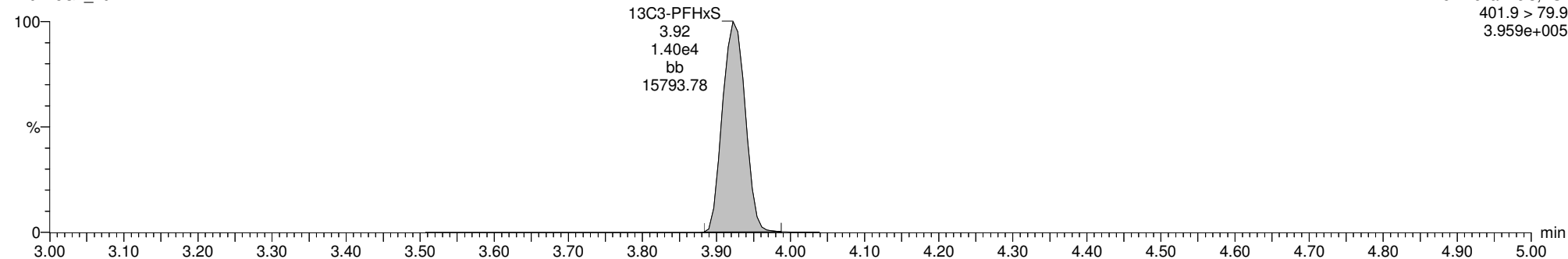


170415G1_10



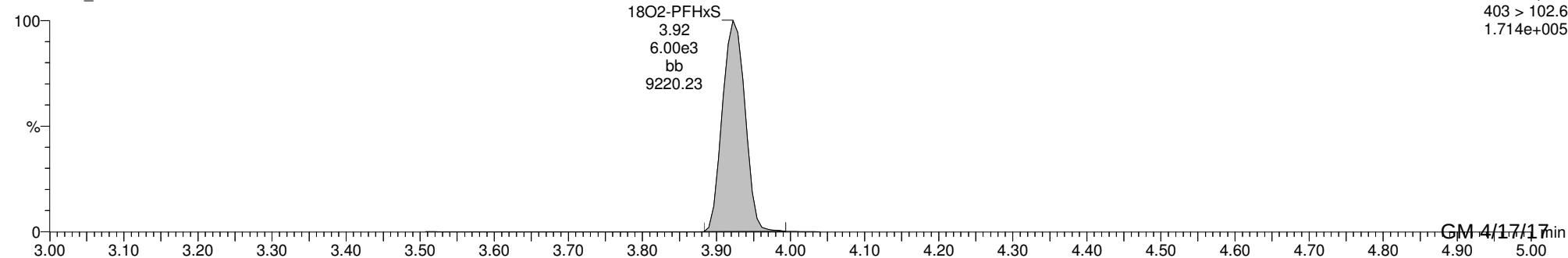
13C3-PFHxS

170415G1_10



18O2-PFHxS

170415G1_10



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-10.qld

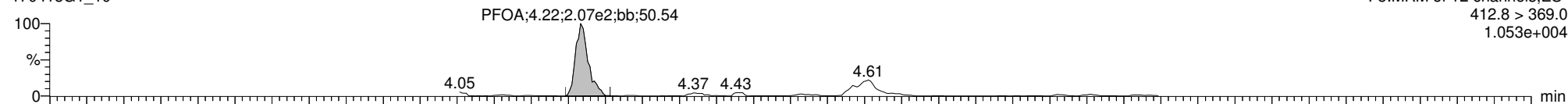
Last Altered: Monday, April 17, 2017 12:06:33 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:07:01 Pacific Daylight Time

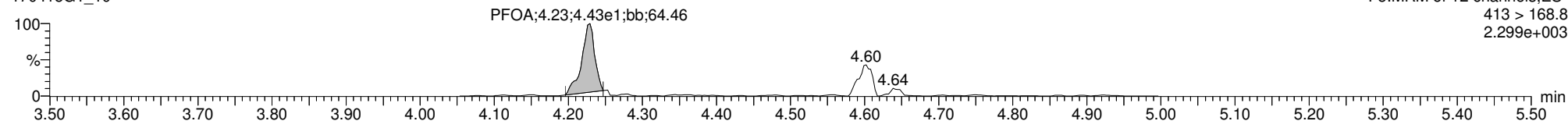
ID: 1700417-02 OC-MW05DP-0417 0.12225, Description: OC-MW05DP-0417, Name: 170415G1_10, Date: 15-Apr-2017, Time: 13:16:26, Instrument: , Lab: , User:

Total PFOA

170415G1_10

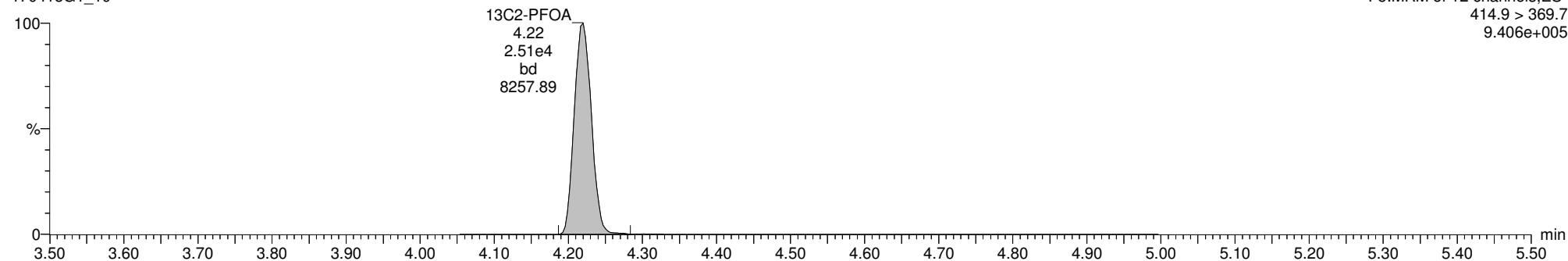


170415G1_10



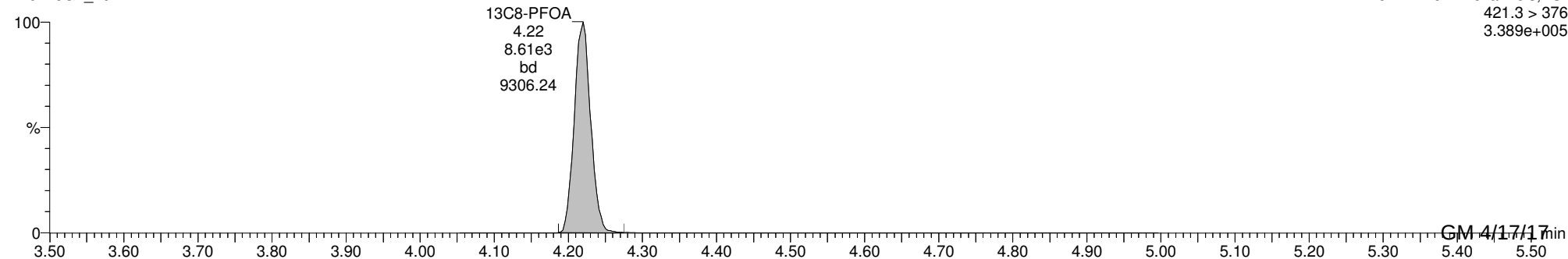
13C2-PFOA

170415G1_10



13C8-PFOA

170415G1_10



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-10.qld

Last Altered: Monday, April 17, 2017 12:06:33 Pacific Daylight Time

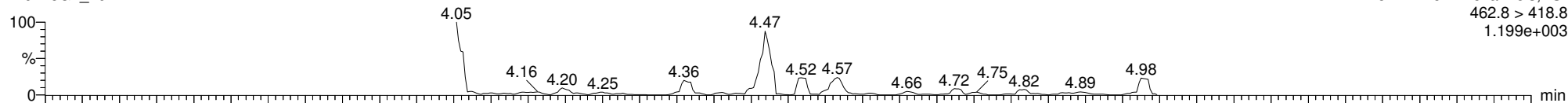
Printed: Monday, April 17, 2017 12:07:01 Pacific Daylight Time

ID: 1700417-02 OC-MW05DP-0417 0.12225, Description: OC-MW05DP-0417, Name: 170415G1_10, Date: 15-Apr-2017, Time: 13:16:26, Instrument: , Lab: , User:

PFNA

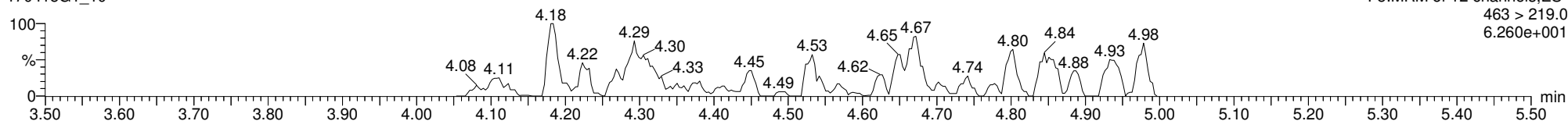
170415G1_10

F5:MRM of 12 channels,ES-
462.8 > 418.8
1.199e+003



170415G1_10

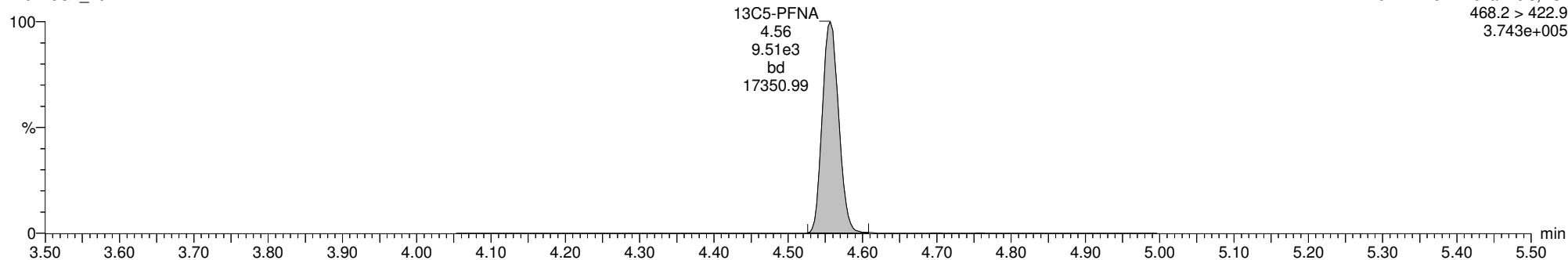
F5:MRM of 12 channels,ES-
463 > 219.0
6.260e+001



13C5-PFNA

170415G1_10

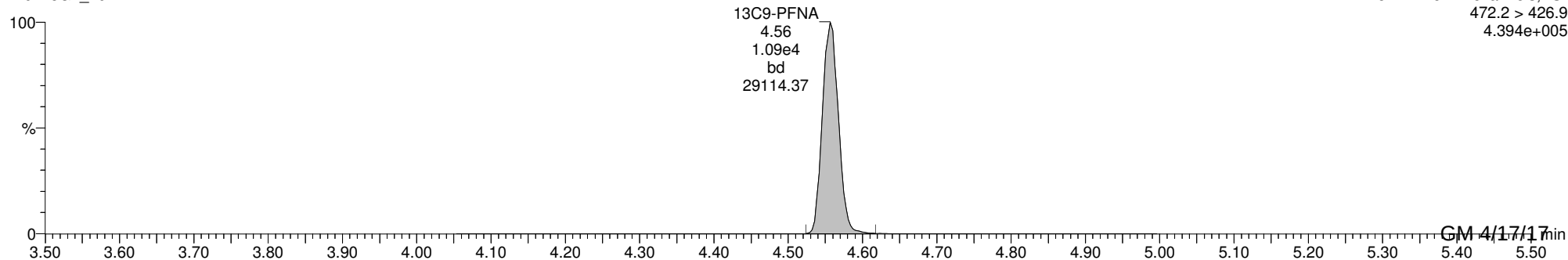
F5:MRM of 12 channels,ES-
468.2 > 422.9
3.743e+005



13C9-PFNA

170415G1_10

F5:MRM of 12 channels,ES-
472.2 > 426.9
4.394e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-10.qld

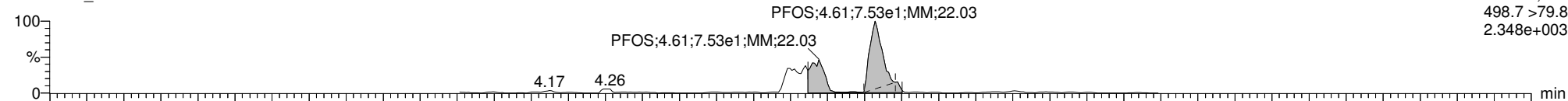
Last Altered: Monday, April 17, 2017 12:06:33 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:07:01 Pacific Daylight Time

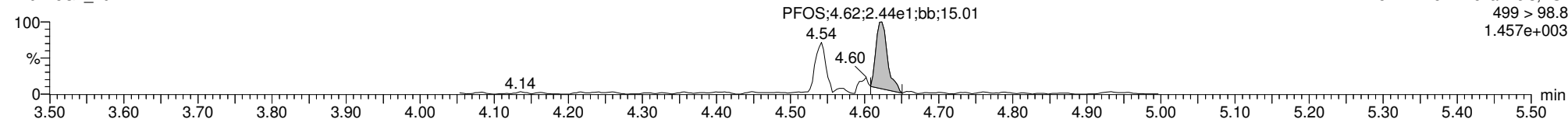
ID: 1700417-02 OC-MW05DP-0417 0.12225, Description: OC-MW05DP-0417, Name: 170415G1_10, Date: 15-Apr-2017, Time: 13:16:26, Instrument: , Lab: , User:

Total PFOS

170415G1_10

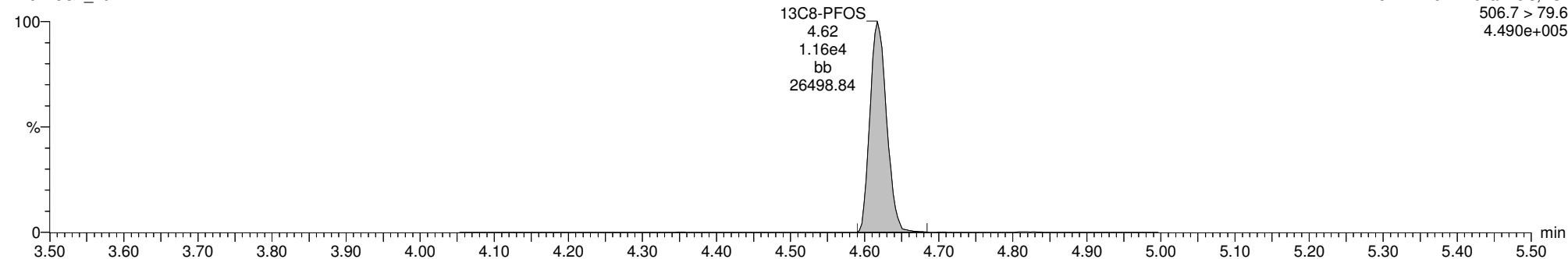


170415G1_10



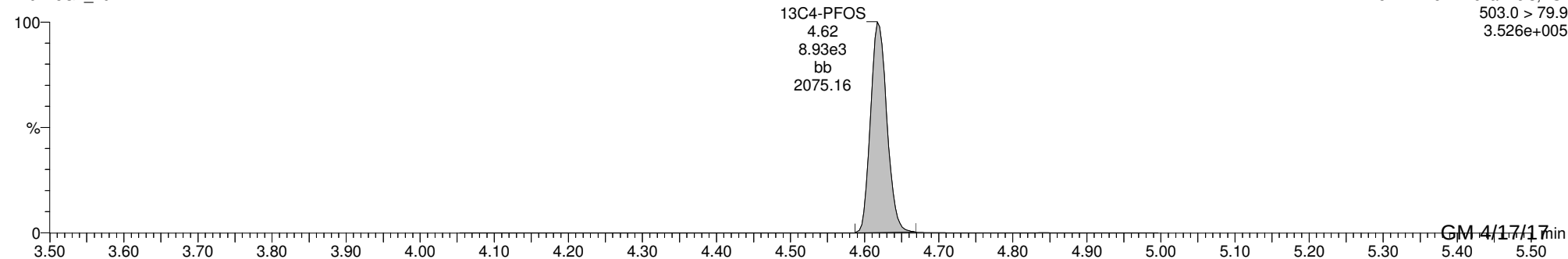
13C8-PFOS

170415G1_10



13C4-PFOS

170415G1_10



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-11.qld

Last Altered: Monday, April 17, 2017 12:13:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:15:08 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-03 OC-MW02D-0417 0.1216, Description: OC-MW02D-0417, Name: 170415G1_11, Date: 15-Apr-2017, Time: 13:29:03

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	1.001e2	5.866e3		0.122	2.91	0.622	
2	2 PFHpA	363 > 318.9	7.731e2	1.079e4		0.122	3.80	3.41	
3	3 PFHxS	398.8 > 79.8	1.269e3	5.233e3		0.122	3.92	10.0	
4	4 PFOA	412.8 > 369.0	1.544e3	2.088e4		0.122	4.22	7.14	
5	5 PFNA	462.8 > 418.8		8.120e3		0.122			
6	6 PFOS	498.7 > 79.8		8.589e3		0.122			
7	7 13C3-PFBS	302.0 > 98.8	5.866e3	1.263e4	0.453	0.122	2.91	105	103
8	8 13C4-PFHpA	367.2 > 321.8	1.079e4	1.263e4	0.857	0.122	3.80	103	99.7
9	9 18O2-PFHxS	403 > 102.6	5.233e3	1.263e4	0.440	0.122	3.92	96.9	94.3
10	10 13C2-PFOA	414.9 > 369.7	2.088e4	7.291e3	3.366	0.122	4.22	87.5	85.1
11	11 13C5-PFNA	468.2 > 422.9	8.120e3	9.313e3	0.909	0.122	4.56	98.7	96.0
12	12 13C8-PFOS	506.7 > 79.6	8.589e3	7.375e3	1.304	0.122	4.62	91.8	89.3
13	13 13C5-PFHxA	318>272.9	1.958e4	1.958e4	1.000	0.122	3.28	103	100
14	14 13C3-PFHxS	401.9 > 79.9	1.263e4	1.263e4	1.000	0.122	3.92	103	100
15	15 13C8-PFOA	421.3 > 376	7.291e3	7.291e3	1.000	0.122	4.21	103	100
16	16 13C9-PFNA	472.2 > 426.9	9.313e3	9.313e3	1.000	0.122	4.56	103	100
17	17 13C4-PFOS	503.0 > 79.9	7.375e3	7.375e3	1.000	0.122	4.62	103	100
18	18 Total PFBS	298.8 > 79.7		5.233e3		0.122		0.622	
19	19 Total PFHxS	398.8 > 79.8		5.233e3		0.122		10.0	
20	20 Total PFOA	412.8 > 369.0		2.088e4		0.122		8.98	
21	21 Total PFOS	498.7 > 79.8		8.589e3		0.122			

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-11.qld

Last Altered: Monday, April 17, 2017 12:13:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:15:08 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-03 OC-MW02D-0417 0.1216, Description: OC-MW02D-0417, Name: 170415G1_11, Date: 15-Apr-2017, Time: 13:29:03

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7	2.91	100.073	5865.615	0.6

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	1269.333	5232.927	10.0

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	1544.067	20883.072	7.1
2	20 Total PFOA	412.8 > 369.0	4.11	497.557	20883.072	1.8

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-11.qld

Last Altered: Monday, April 17, 2017 12:13:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:15:08 Pacific Daylight Time

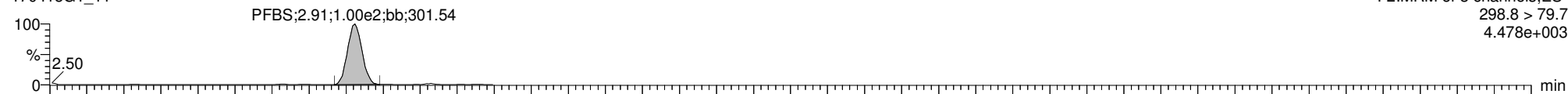
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-03 OC-MW02D-0417 0.1216, Description: OC-MW02D-0417, Name: 170415G1_11, Date: 15-Apr-2017, Time: 13:29:03, Instrument: , Lab: , User:

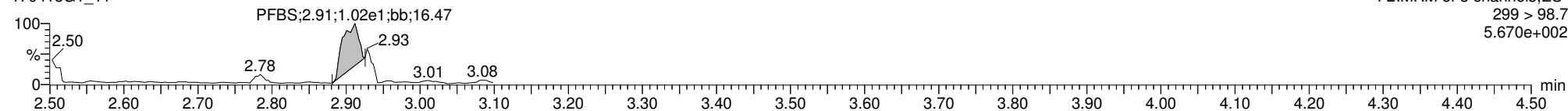
PFBS

170415G1_11



F2:MRM of 3 channels,ES-
298.8 > 79.7
4.478e+003

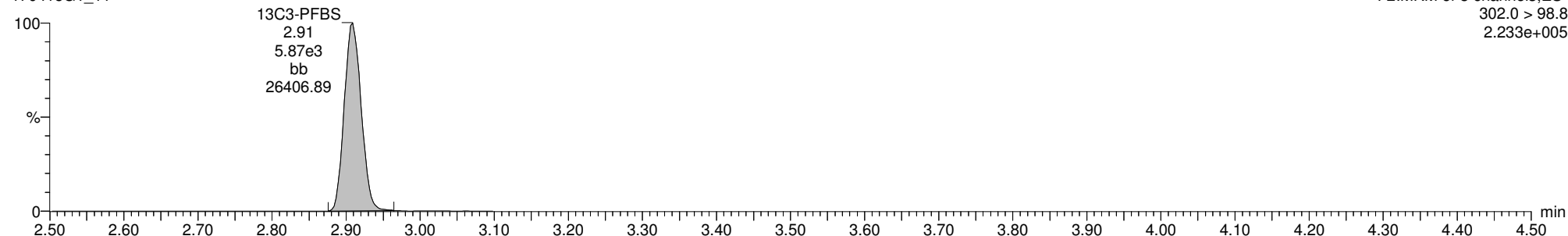
170415G1_11



F2:MRM of 3 channels,ES-
299 > 98.7
5.670e+002

13C3-PFBS

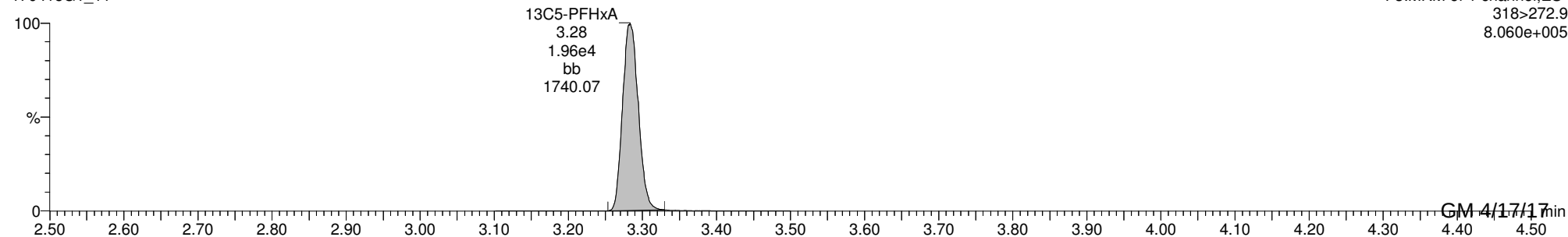
170415G1_11



F2:MRM of 3 channels,ES-
302.0 > 98.8
2.233e+005

13C5-PFHxA

170415G1_11



F3:MRM of 1 channel,ES-
318>272.9
8.060e+005

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-11.qld

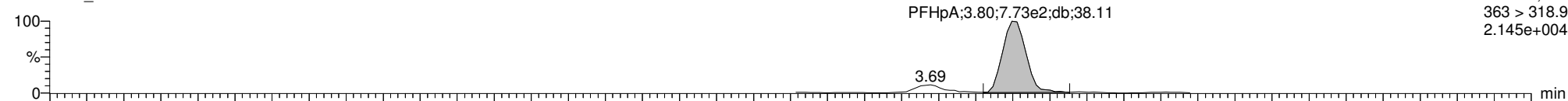
Last Altered: Monday, April 17, 2017 12:13:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:15:08 Pacific Daylight Time

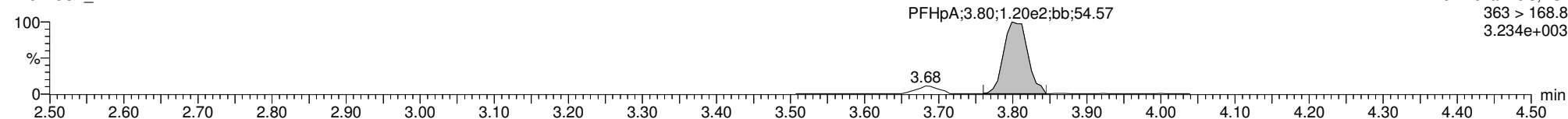
ID: 1700417-03 OC-MW02D-0417 0.1216, Description: OC-MW02D-0417, Name: 170415G1_11, Date: 15-Apr-2017, Time: 13:29:03, Instrument: , Lab: , User:

PFHpA

170415G1_11

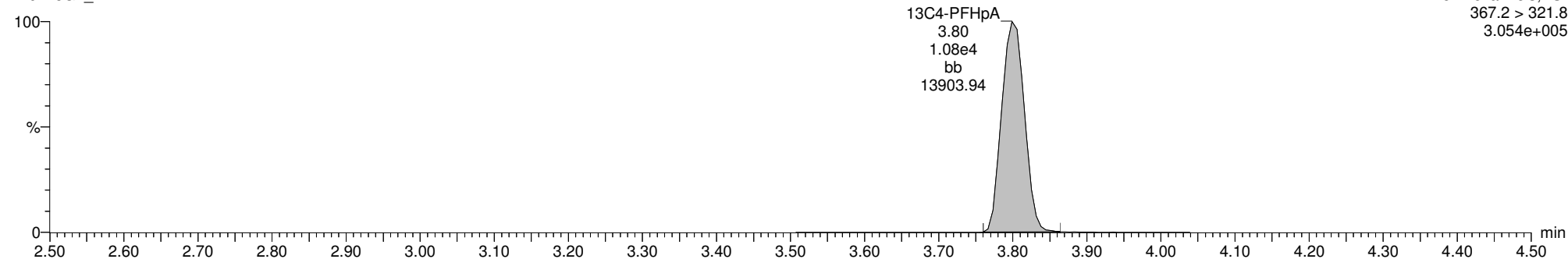


170415G1_11



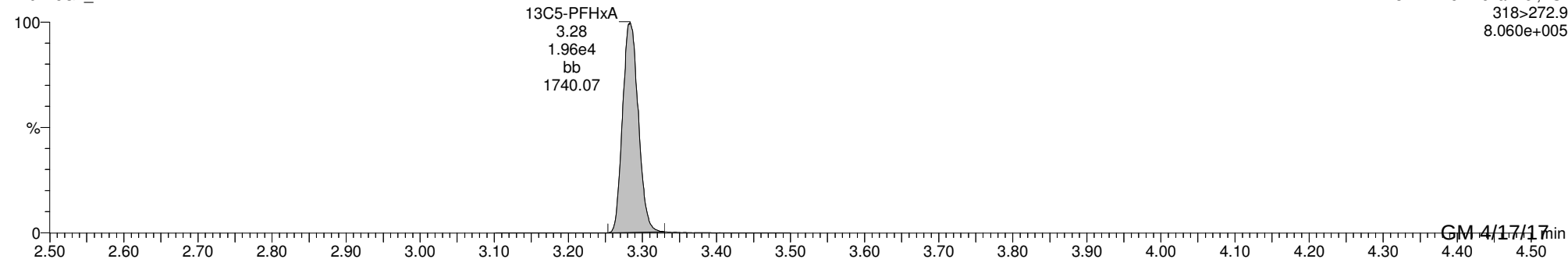
13C4-PFHpA

170415G1_11



13C5-PFHxA

170415G1_11



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-11.qld

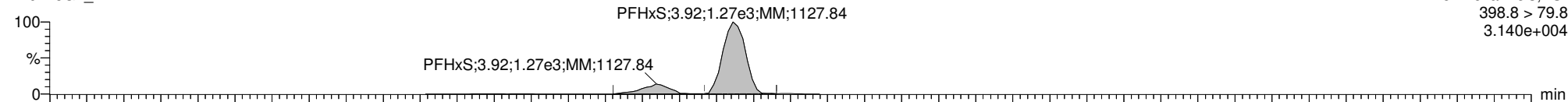
Last Altered: Monday, April 17, 2017 12:13:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:15:08 Pacific Daylight Time

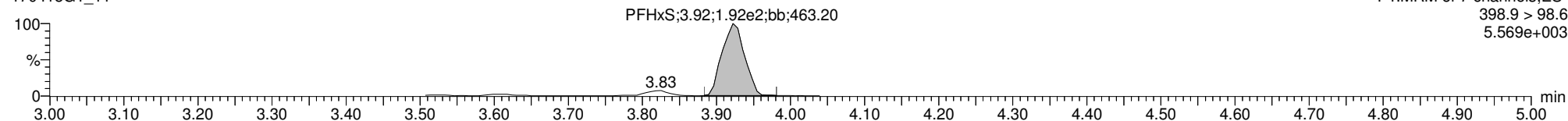
ID: 1700417-03 OC-MW02D-0417 0.1216, Description: OC-MW02D-0417, Name: 170415G1_11, Date: 15-Apr-2017, Time: 13:29:03, Instrument: , Lab: , User:

Total PFHxS

170415G1_11

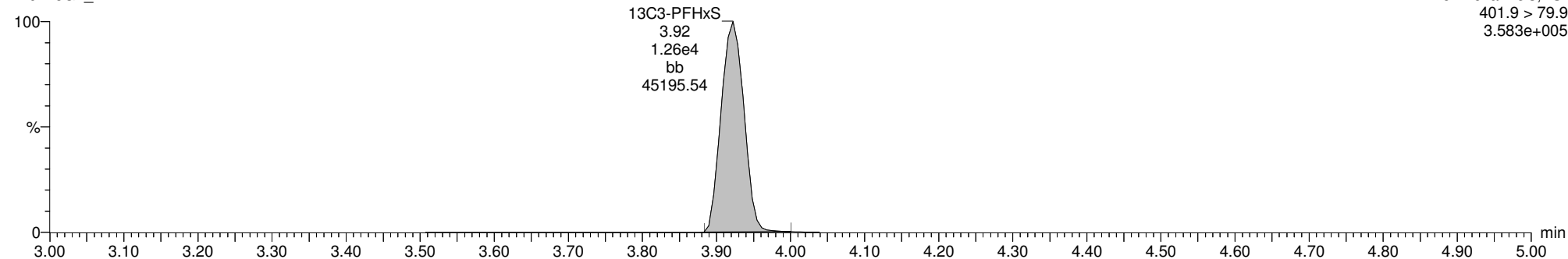


170415G1_11



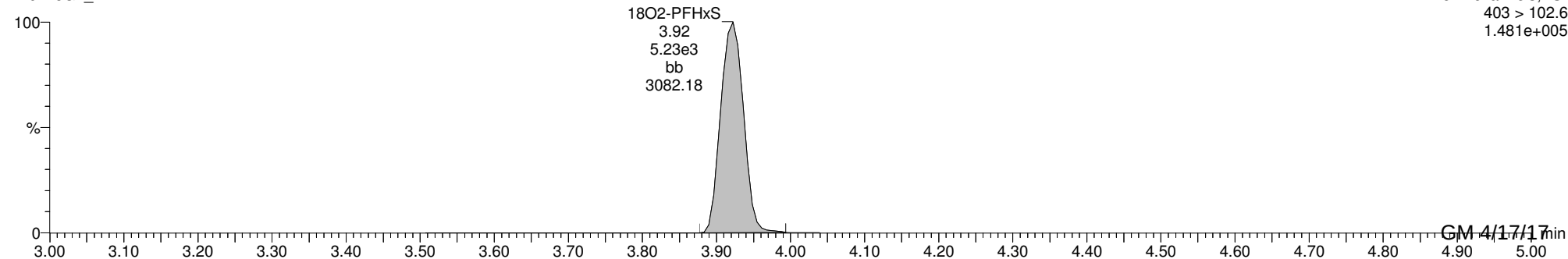
13C3-PFHxS

170415G1_11



18O2-PFHxS

170415G1_11



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-11.qld

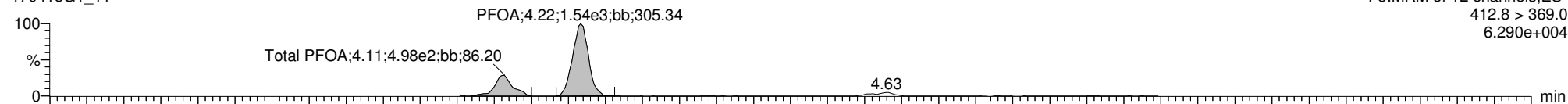
Last Altered: Monday, April 17, 2017 12:13:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:15:08 Pacific Daylight Time

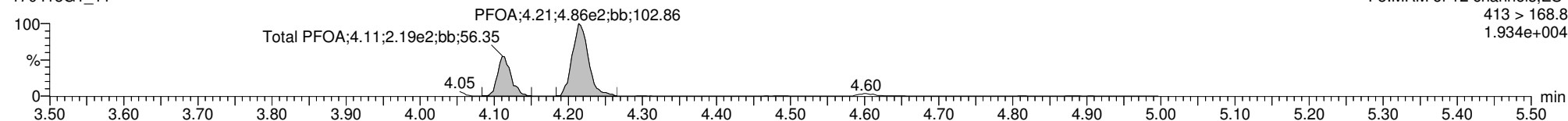
ID: 1700417-03 OC-MW02D-0417 0.1216, Description: OC-MW02D-0417, Name: 170415G1_11, Date: 15-Apr-2017, Time: 13:29:03, Instrument: , Lab: , User:

Total PFOA

170415G1_11

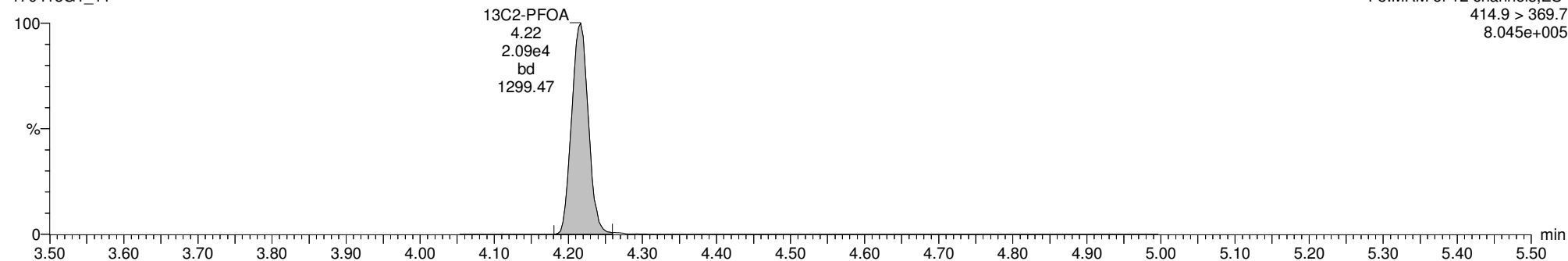


170415G1_11



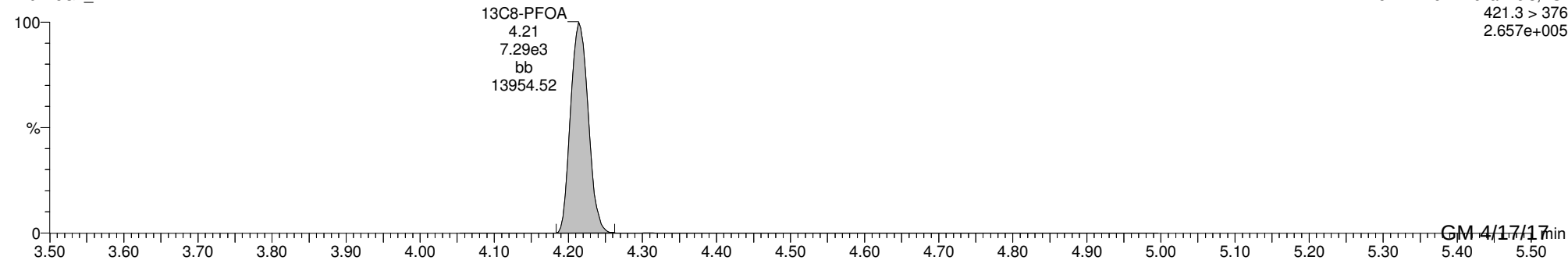
13C2-PFOA

170415G1_11



13C8-PFOA

170415G1_11



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-11.qld

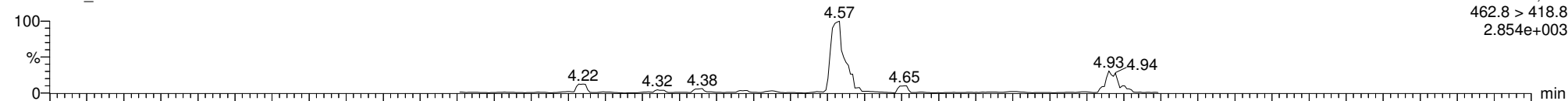
Last Altered: Monday, April 17, 2017 12:13:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:15:08 Pacific Daylight Time

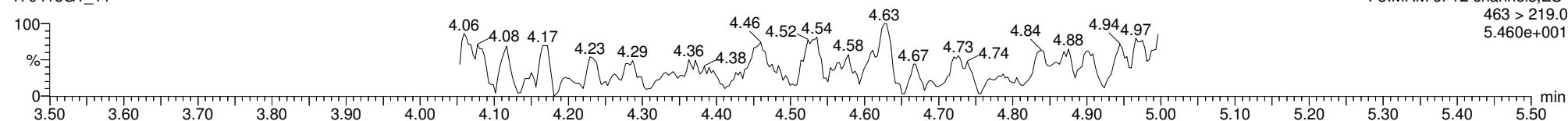
ID: 1700417-03 OC-MW02D-0417 0.1216, Description: OC-MW02D-0417, Name: 170415G1_11, Date: 15-Apr-2017, Time: 13:29:03, Instrument: , Lab: , User:

PFNA

170415G1_11

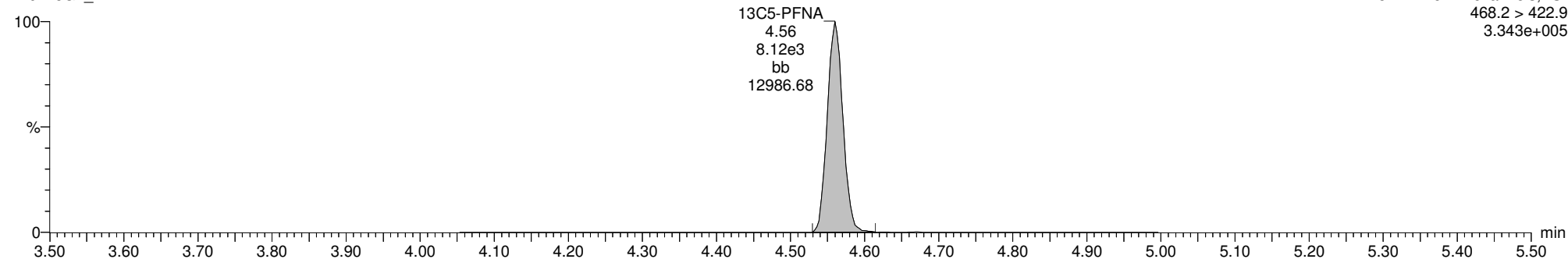


170415G1_11



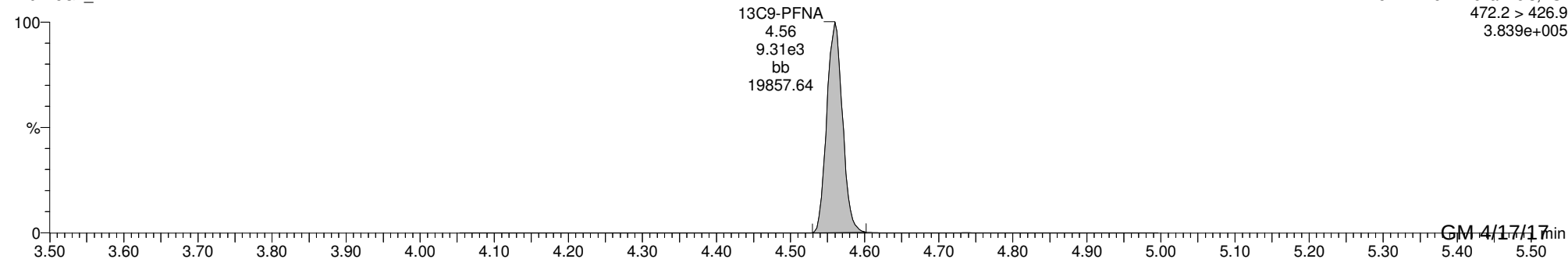
13C5-PFNA

170415G1_11



13C9-PFNA

170415G1_11



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-11.qld

Last Altered: Monday, April 17, 2017 12:13:43 Pacific Daylight Time

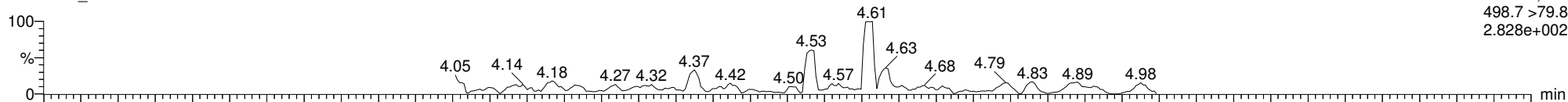
Printed: Monday, April 17, 2017 12:15:08 Pacific Daylight Time

ID: 1700417-03 OC-MW02D-0417 0.1216, Description: OC-MW02D-0417, Name: 170415G1_11, Date: 15-Apr-2017, Time: 13:29:03, Instrument: , Lab: , User:

Total PFOS

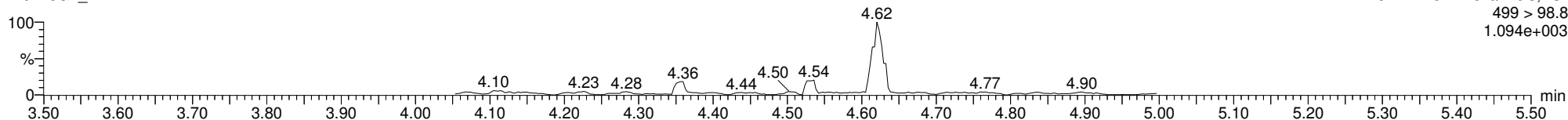
170415G1_11

F5:MRM of 12 channels,ES-
498.7 >79.8
2.828e+002



170415G1_11

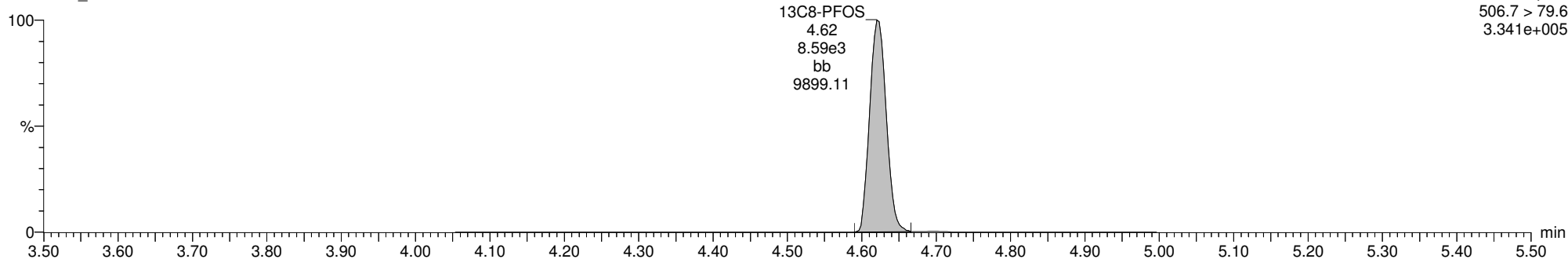
F5:MRM of 12 channels,ES-
499 > 98.8
1.094e+003



13C8-PFOS

170415G1_11

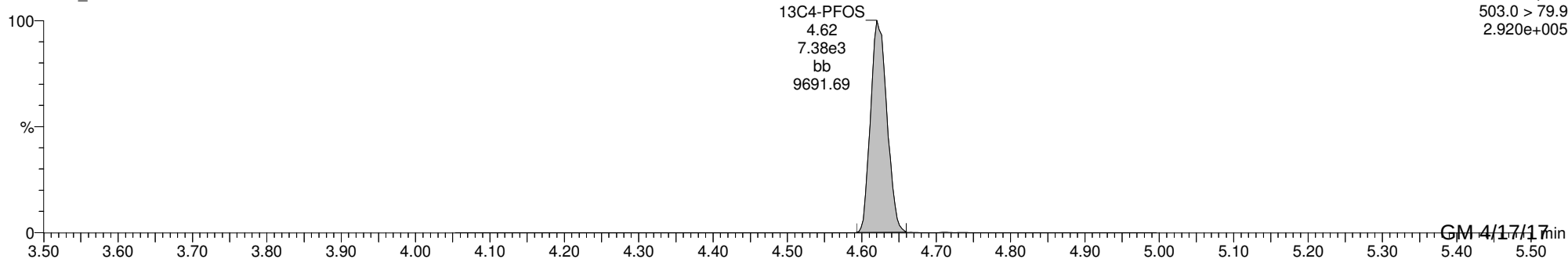
F5:MRM of 12 channels,ES-
506.7 > 79.6
3.341e+005



13C4-PFOS

170415G1_11

F5:MRM of 12 channels,ES-
503.0 > 79.9
2.920e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-12.qld

Last Altered: Monday, April 17, 2017 12:21:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:21:50 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-04 OW26-MW2-0417 0.1194, Description: OW26-MW2-0417, Name: 170415G1_12, Date: 15-Apr-2017, Time: 13:41:41

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7		5.133e3		0.119			
2	2 PFHpA	363 > 318.9	3.200e1	9.428e3		0.119	3.81		
3	3 PFHxS	398.8 > 79.8	3.090e2	4.964e3		0.119	3.92	2.37	
4	4 PFOA	412.8 > 369.0	2.434e2	1.996e4		0.119	4.22	0.611	
5	5 PFNA	462.8 > 418.8		6.743e3		0.119			
6	6 PFOS	498.7 > 79.8	2.304e2	6.844e3		0.119	4.62	10.1	
7	7 13C3-PFBS	302.0 > 98.8	5.133e3	1.229e4	0.453	0.119	2.91	96.6	92.3
8	8 13C4-PFHxA	367.2 > 321.8	9.428e3	1.229e4	0.857	0.119	3.80	93.7	89.5
9	9 18O2-PFHxS	403 > 102.6	4.964e3	1.229e4	0.440	0.119	3.92	96.2	91.9
10	10 13C2-PFOA	414.9 > 369.7	1.996e4	7.327e3	3.366	0.119	4.21	84.7	80.9
11	11 13C5-PFNA	468.2 > 422.9	6.743e3	8.472e3	0.909	0.119	4.56	91.7	87.6
12	12 13C8-PFOS	506.7 > 79.6	6.844e3	6.067e3	1.304	0.119	4.62	90.5	86.5
13	13 13C5-PFHxA	318>272.9	1.688e4	1.688e4	1.000	0.119	3.28	105	100
14	14 13C3-PFHxS	401.9 > 79.9	1.229e4	1.229e4	1.000	0.119	3.92	105	100
15	15 13C8-PFOA	421.3 > 376	7.327e3	7.327e3	1.000	0.119	4.21	105	100
16	16 13C9-PFNA	472.2 > 426.9	8.472e3	8.472e3	1.000	0.119	4.56	105	100
17	17 13C4-PFOS	503.0 > 79.9	6.067e3	6.067e3	1.000	0.119	4.62	105	100
18	18 Total PFBS	298.8 > 79.7		4.964e3		0.119			
19	19 Total PFHxS	398.8 > 79.8		4.964e3		0.119		2.37	
20	20 Total PFOA	412.8 > 369.0		1.996e4		0.119		0.611	
21	21 Total PFOS	498.7 > 79.8		6.844e3		0.119		10.1	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-12.qld

Last Altered: Monday, April 17, 2017 12:21:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:21:50 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-04 OW26-MW2-0417 0.1194, Description: OW26-MW2-0417, Name: 170415G1_12, Date: 15-Apr-2017, Time: 13:41:41

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7			5133.273	

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	308.963	4963.679	2.4

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	243.447	19955.555	0.6

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	498.7 > 79.8	4.62	230.381	6844.117	10.1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-12.qld

Last Altered: Monday, April 17, 2017 12:21:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:21:50 Pacific Daylight Time

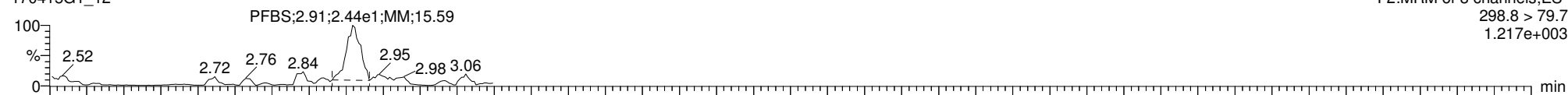
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

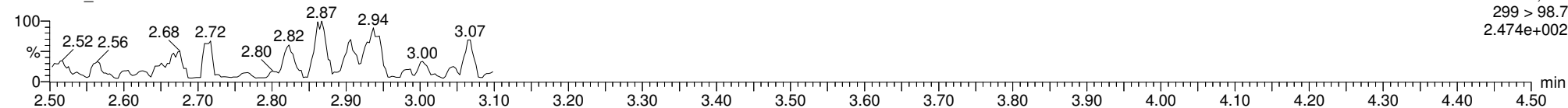
ID: 1700417-04 OW26-MW2-0417 0.1194, Description: OW26-MW2-0417, Name: 170415G1_12, Date: 15-Apr-2017, Time: 13:41:41, Instrument: , Lab: , User:

PFBS

170415G1_12

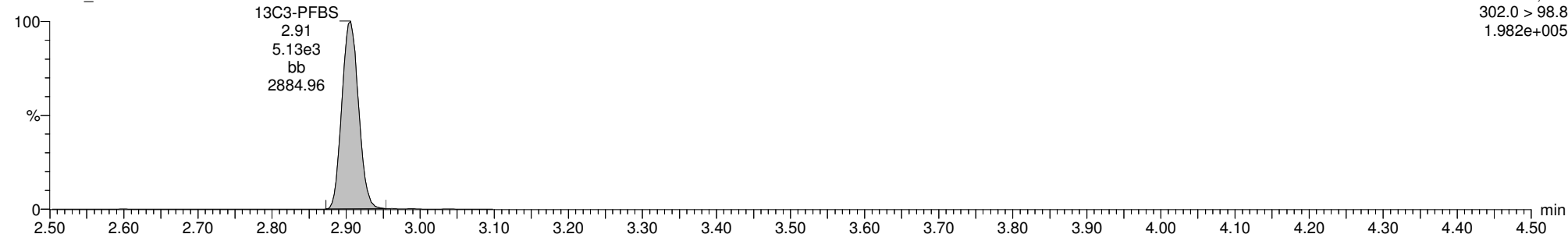


170415G1_12



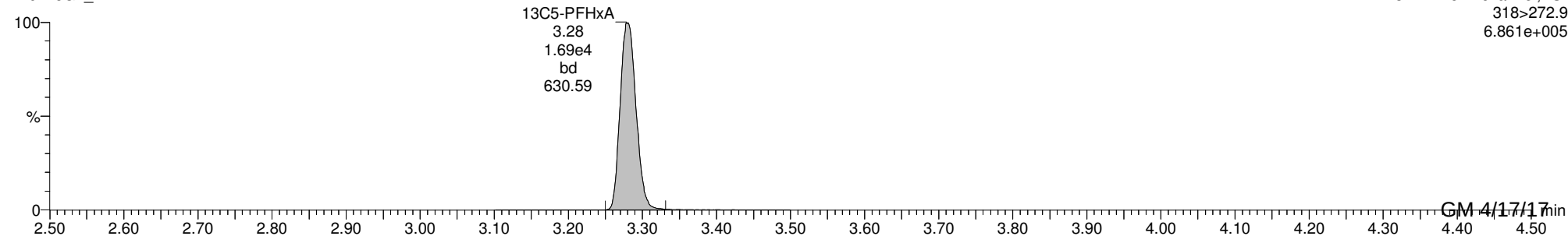
13C3-PFBS

170415G1_12



13C5-PFHxA

170415G1_12



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-12.qld

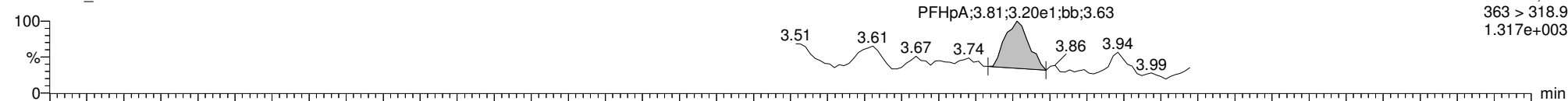
Last Altered: Monday, April 17, 2017 12:21:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:21:50 Pacific Daylight Time

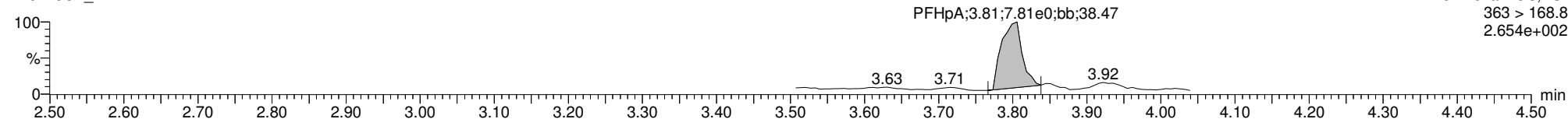
ID: 1700417-04 OW26-MW2-0417 0.1194, Description: OW26-MW2-0417, Name: 170415G1_12, Date: 15-Apr-2017, Time: 13:41:41, Instrument: , Lab: , User:

PFHpA

170415G1_12

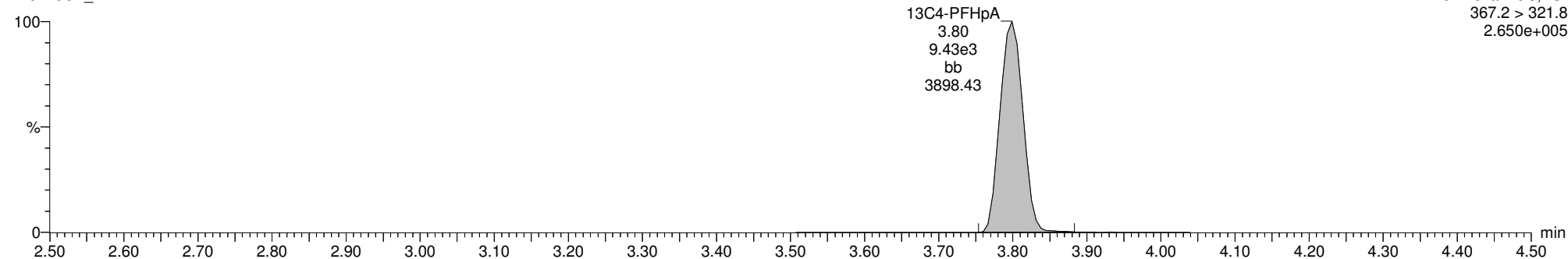


170415G1_12



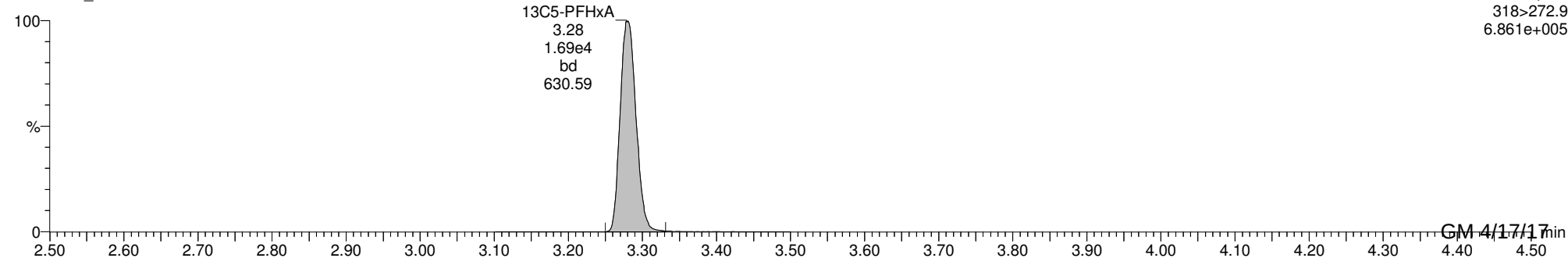
13C4-PFHpA

170415G1_12



13C5-PFHxA

170415G1_12



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-12.qld

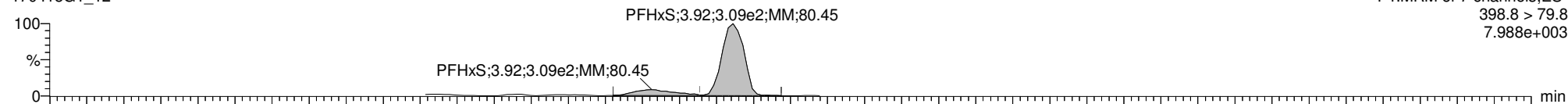
Last Altered: Monday, April 17, 2017 12:21:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:21:50 Pacific Daylight Time

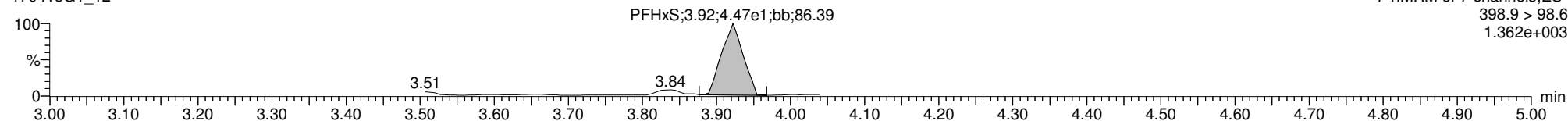
ID: 1700417-04 OW26-MW2-0417 0.1194, Description: OW26-MW2-0417, Name: 170415G1_12, Date: 15-Apr-2017, Time: 13:41:41, Instrument: , Lab: , User:

Total PFHxS

170415G1_12

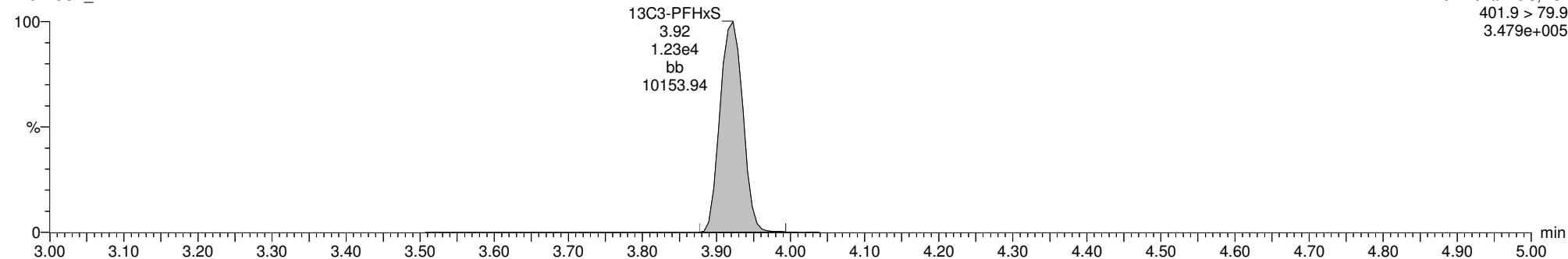


170415G1_12



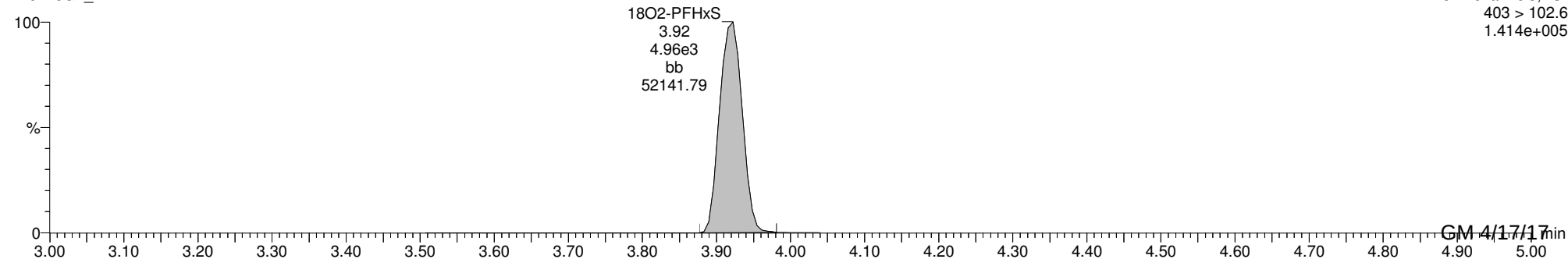
13C3-PFHxS

170415G1_12



18O2-PFHxS

170415G1_12



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-12.qld

Last Altered: Monday, April 17, 2017 12:21:29 Pacific Daylight Time

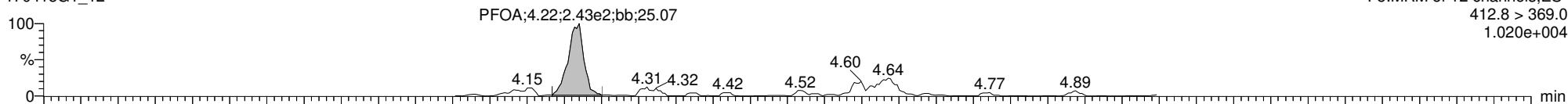
Printed: Monday, April 17, 2017 12:21:50 Pacific Daylight Time

ID: 1700417-04 OW26-MW2-0417 0.1194, Description: OW26-MW2-0417, Name: 170415G1_12, Date: 15-Apr-2017, Time: 13:41:41, Instrument: , Lab: , User:

Total PFOA

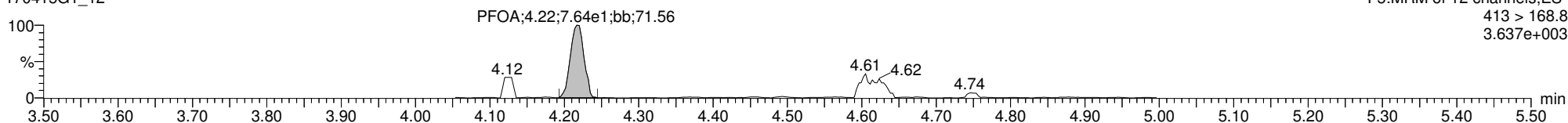
170415G1_12

F5:MRM of 12 channels,ES-
412.8 > 369.0
1.020e+004



170415G1_12

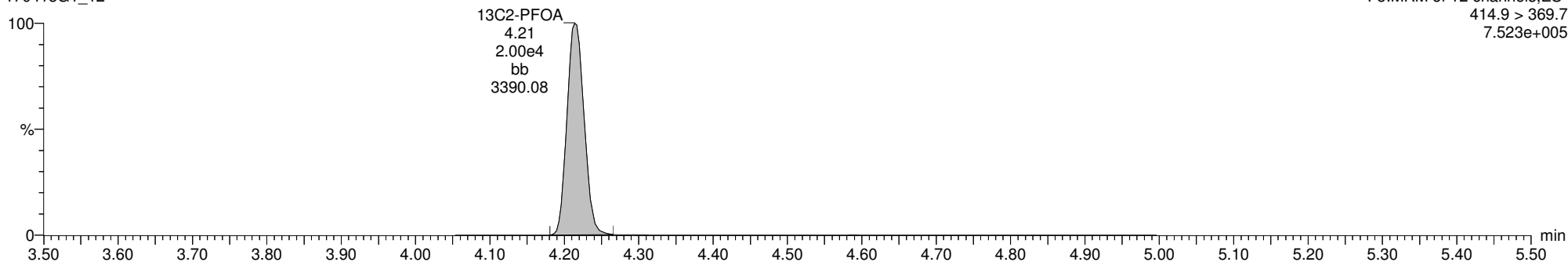
F5:MRM of 12 channels,ES-
413 > 168.8
3.637e+003



13C2-PFOA

170415G1_12

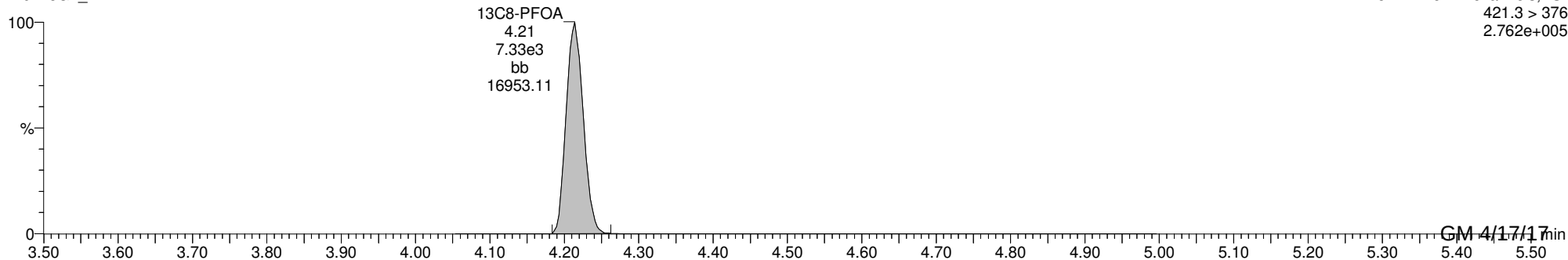
F5:MRM of 12 channels,ES-
414.9 > 369.7
7.523e+005



13C8-PFOA

170415G1_12

F5:MRM of 12 channels,ES-
421.3 > 376
2.762e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-12.qld

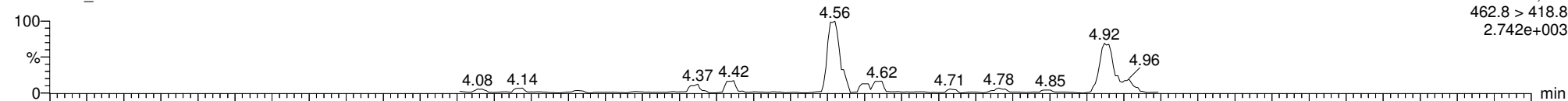
Last Altered: Monday, April 17, 2017 12:21:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:21:50 Pacific Daylight Time

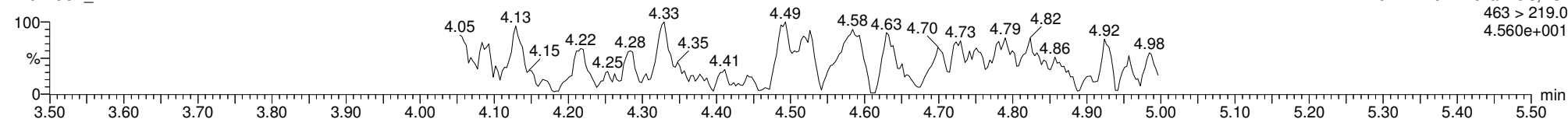
ID: 1700417-04 OW26-MW2-0417 0.1194, Description: OW26-MW2-0417, Name: 170415G1_12, Date: 15-Apr-2017, Time: 13:41:41, Instrument: , Lab: , User:

PFNA

170415G1_12

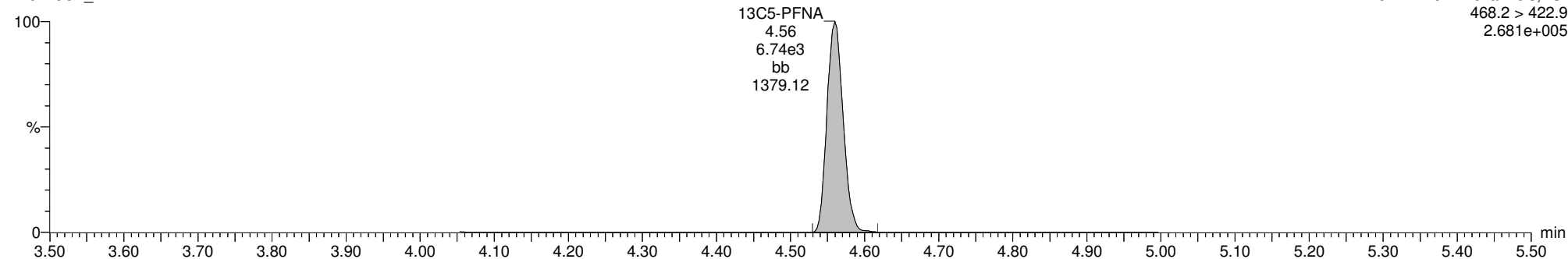


170415G1_12



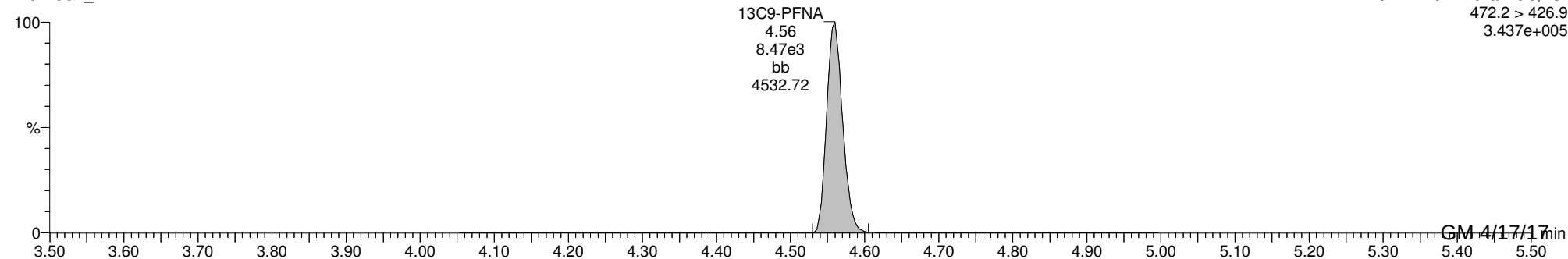
13C5-PFNA

170415G1_12



13C9-PFNA

170415G1_12



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-12.qld

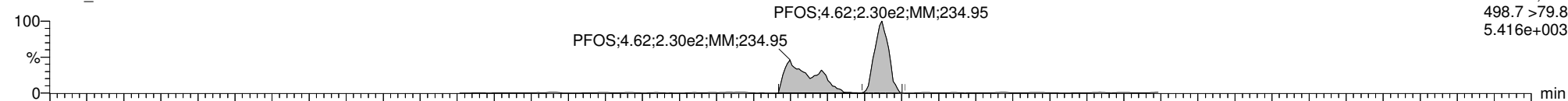
Last Altered: Monday, April 17, 2017 12:21:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:21:50 Pacific Daylight Time

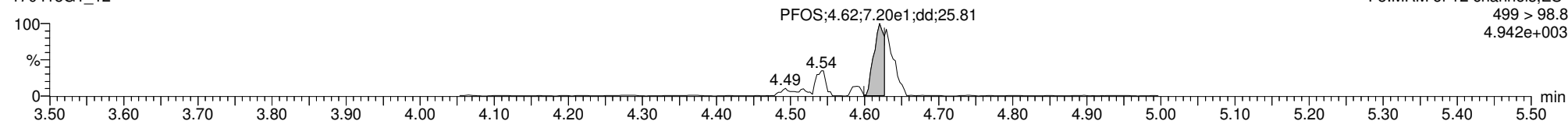
ID: 1700417-04 OW26-MW2-0417 0.1194, Description: OW26-MW2-0417, Name: 170415G1_12, Date: 15-Apr-2017, Time: 13:41:41, Instrument: , Lab: , User:

Total PFOS

170415G1_12

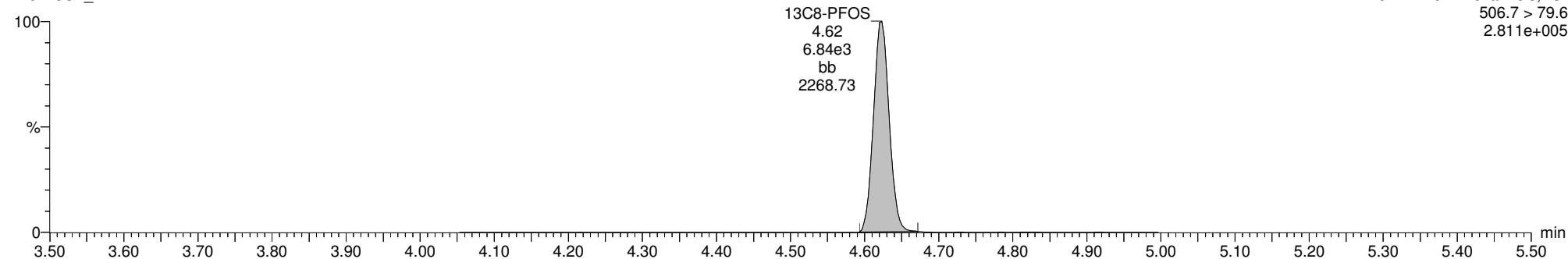


170415G1_12



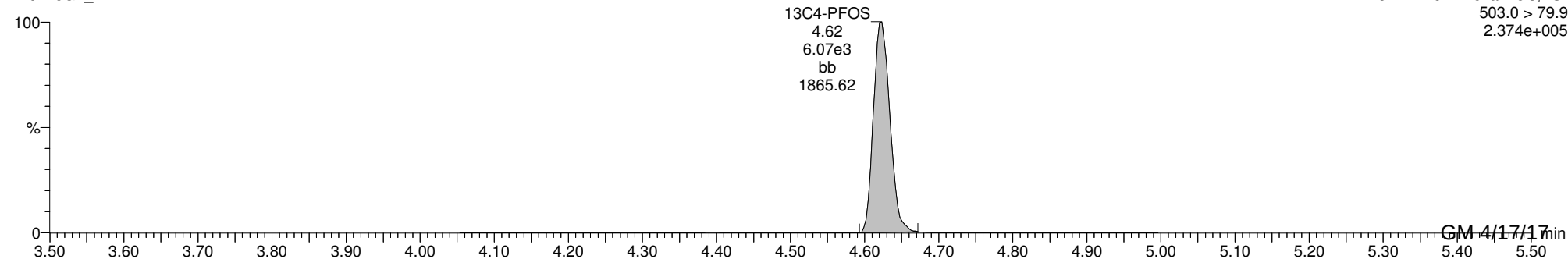
13C8-PFOS

170415G1_12



13C4-PFOS

170415G1_12



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-13.qld

Last Altered: Monday, April 17, 2017 12:24:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:24:56 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-05 OW11-MW10D-0417 0.12188, Description: OW11-MW10D-0417, Name: 170415G1_13, Date: 15-Apr-2017, Time: 13:54:15

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	1.199e3	5.366e3		0.122	2.91	8.13	
2	2 PFHpA	363 > 318.9	4.325e3	1.009e4		0.122	3.80	22.4	
3	3 PFHxS	398.8 > 79.8	1.438e4	4.954e3		0.122	3.92	124	
4	4 PFOA	412.8 > 369.0	1.204e4	2.230e4		0.122	4.22	56.4	
5	5 PFNA	462.8 > 418.8	1.314e3	7.841e3		0.122	4.56	5.19	
6	6 PFOS	498.7 > 79.8	1.809e4	8.571e3		0.122	4.62	578	
7	7 13C3-PFBS	302.0 > 98.8	5.366e3	1.169e4	0.453	0.122	2.91	104	101
8	8 13C4-PFHpA	367.2 > 321.8	1.009e4	1.169e4	0.857	0.122	3.80	103	101
9	9 18O2-PFHxS	403 > 102.6	4.954e3	1.169e4	0.440	0.122	3.92	98.9	96.4
10	10 13C2-PFOA	414.9 > 369.7	2.230e4	7.921e3	3.366	0.122	4.21	85.8	83.7
11	11 13C5-PFNA	468.2 > 422.9	7.841e3	8.982e3	0.909	0.122	4.56	98.5	96.1
12	12 13C8-PFOS	506.7 > 79.6	8.571e3	6.603e3	1.304	0.122	4.62	102	99.5
13	13 13C5-PFHxA	318>272.9	1.749e4	1.749e4	1.000	0.122	3.28	103	100
14	14 13C3-PFHxS	401.9 > 79.9	1.169e4	1.169e4	1.000	0.122	3.92	103	100
15	15 13C8-PFOA	421.3 > 376	7.921e3	7.921e3	1.000	0.122	4.21	103	100
16	16 13C9-PFNA	472.2 > 426.9	8.982e3	8.982e3	1.000	0.122	4.56	103	100
17	17 13C4-PFOS	503.0 > 79.9	6.603e3	6.603e3	1.000	0.122	4.62	103	100
18	18 Total PFBS	298.8 > 79.7		4.954e3		0.122		8.13	
19	19 Total PFHxS	398.8 > 79.8		4.954e3		0.122		124	
20	20 Total PFOA	412.8 > 369.0		2.230e4		0.122		61.3	
21	21 Total PFOS	498.7 > 79.8		8.571e3		0.122		578	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-13.qld

Last Altered: Monday, April 17, 2017 12:24:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:24:56 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-05 OW11-MW10D-0417 0.12188, Description: OW11-MW10D-0417, Name: 170415G1_13, Date: 15-Apr-2017, Time: 13:54:15

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7	2.91	1199.186	5365.702	8.1

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	14378.110	4953.852	123.6

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	12041.439	22304.182	56.4
2	20 Total PFOA	412.8 > 369.0	4.11	1171.801	22304.182	4.9

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	498.7 > 79.8	4.62	18086.666	8571.387	577.8

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-13.qld

Last Altered: Monday, April 17, 2017 12:24:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:24:56 Pacific Daylight Time

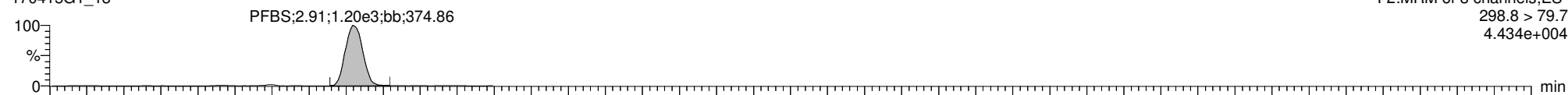
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

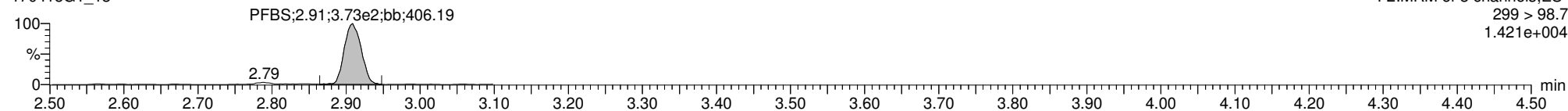
ID: 1700417-05 OW11-MW10D-0417 0.12188, Description: OW11-MW10D-0417, Name: 170415G1_13, Date: 15-Apr-2017, Time: 13:54:15, Instrument: , Lab: , User:

PFBS

170415G1_13

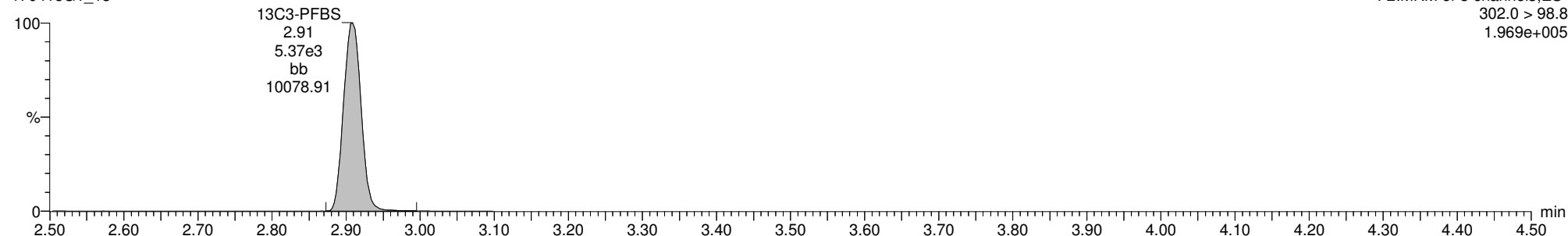


170415G1_13



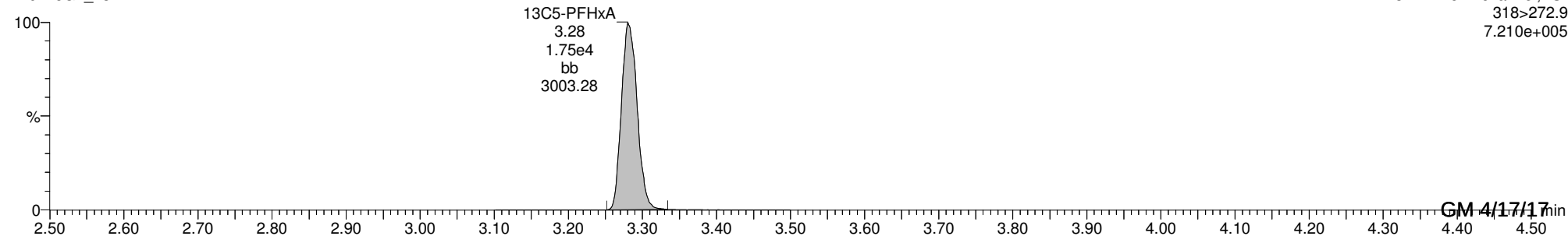
13C3-PFBS

170415G1_13



13C5-PFHxA

170415G1_13



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-13.qld

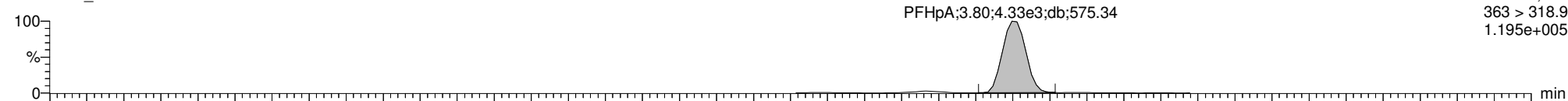
Last Altered: Monday, April 17, 2017 12:24:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:24:56 Pacific Daylight Time

ID: 1700417-05 OW11-MW10D-0417 0.12188, Description: OW11-MW10D-0417, Name: 170415G1_13, Date: 15-Apr-2017, Time: 13:54:15, Instrument: , Lab: , User:

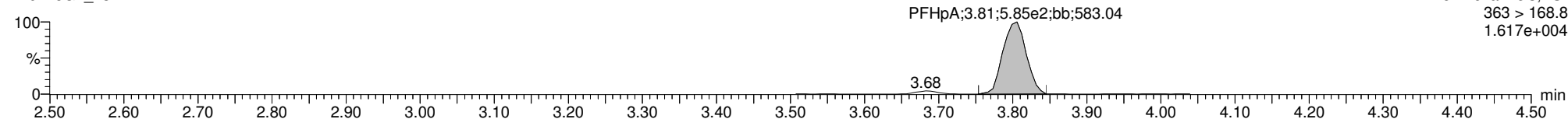
PFHpA

170415G1_13



F4:MRM of 7 channels,ES-
363 > 318.9
1.195e+005

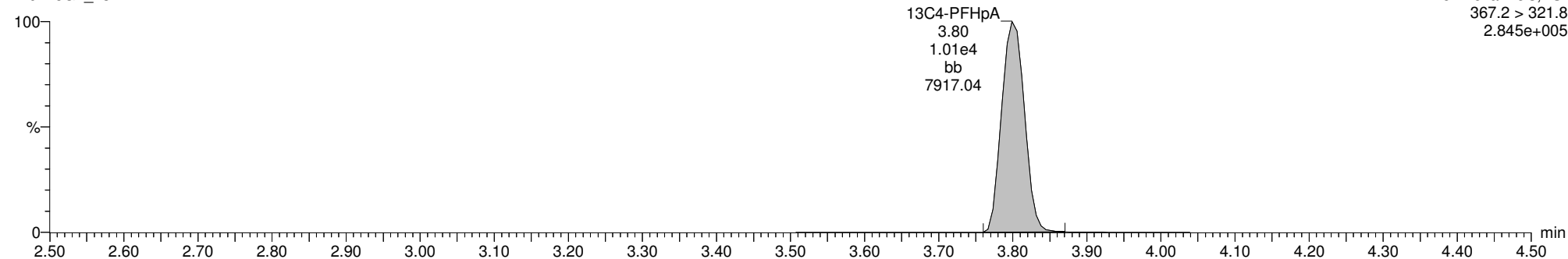
170415G1_13



F4:MRM of 7 channels,ES-
363 > 168.8
1.617e+004

13C4-PFHpA

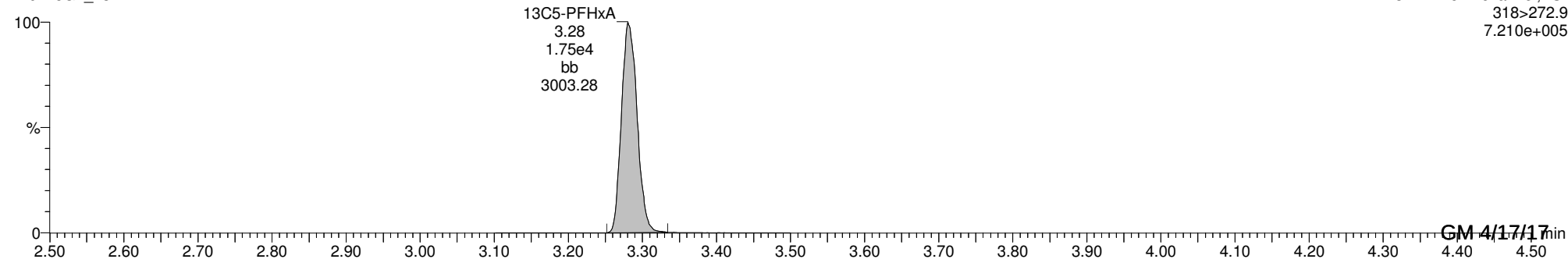
170415G1_13



F4:MRM of 7 channels,ES-
367.2 > 321.8
2.845e+005

13C5-PFHxA

170415G1_13



F3:MRM of 1 channel,ES-
318>272.9
7.210e+005

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-13.qld

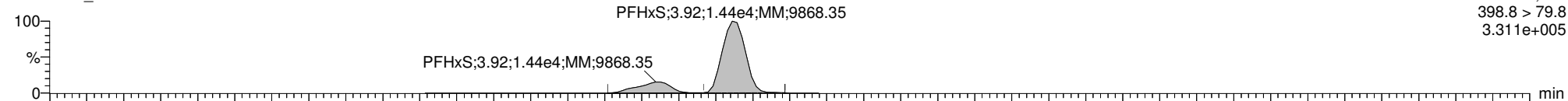
Last Altered: Monday, April 17, 2017 12:24:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:24:56 Pacific Daylight Time

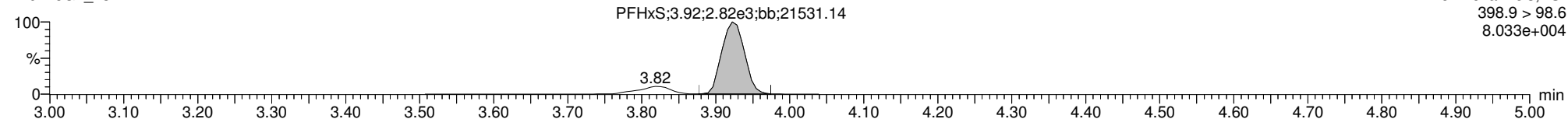
ID: 1700417-05 OW11-MW10D-0417 0.12188, Description: OW11-MW10D-0417, Name: 170415G1_13, Date: 15-Apr-2017, Time: 13:54:15, Instrument: , Lab: , User:

Total PFHxS

170415G1_13

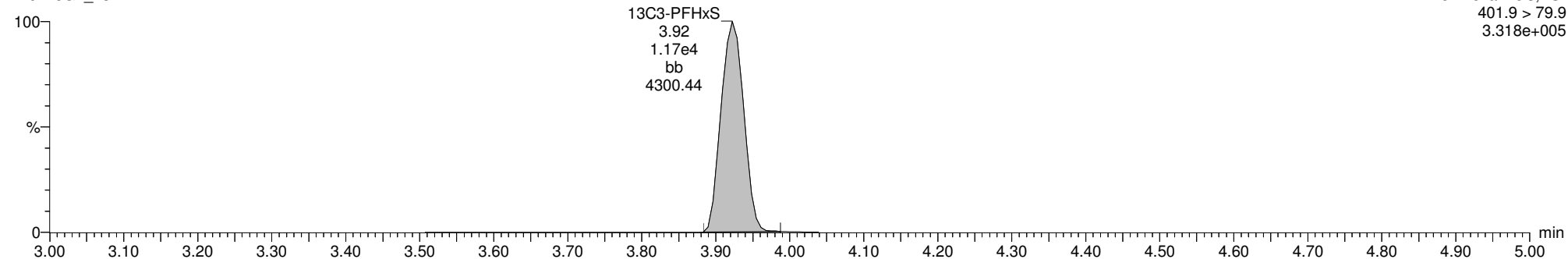


170415G1_13



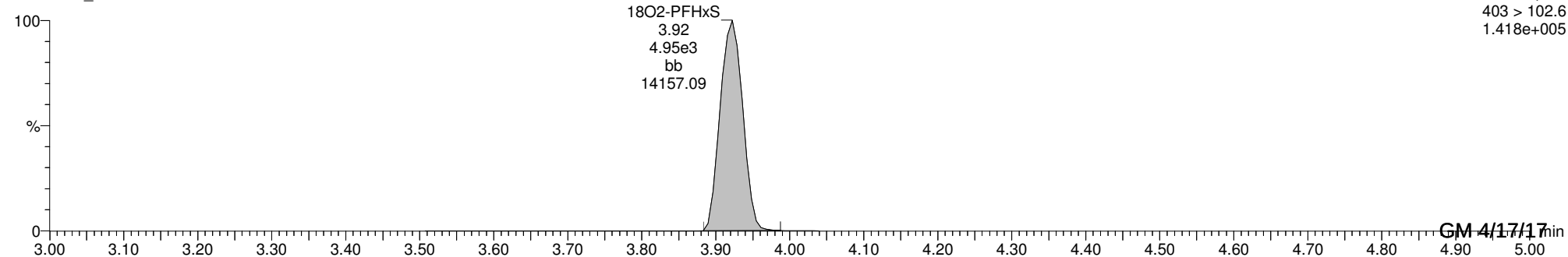
13C3-PFHxS

170415G1_13



18O2-PFHxS

170415G1_13



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-13.qld

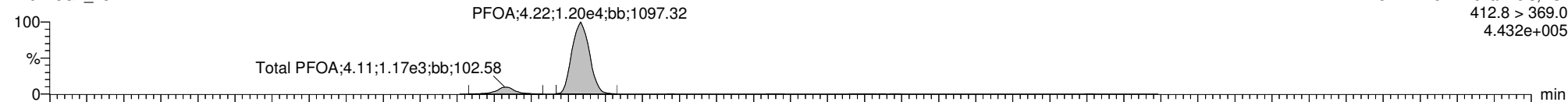
Last Altered: Monday, April 17, 2017 12:24:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:24:56 Pacific Daylight Time

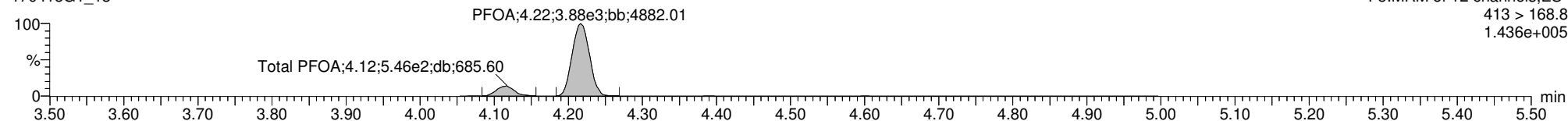
ID: 1700417-05 OW11-MW10D-0417 0.12188, Description: OW11-MW10D-0417, Name: 170415G1_13, Date: 15-Apr-2017, Time: 13:54:15, Instrument: , Lab: , User:

Total PFOA

170415G1_13

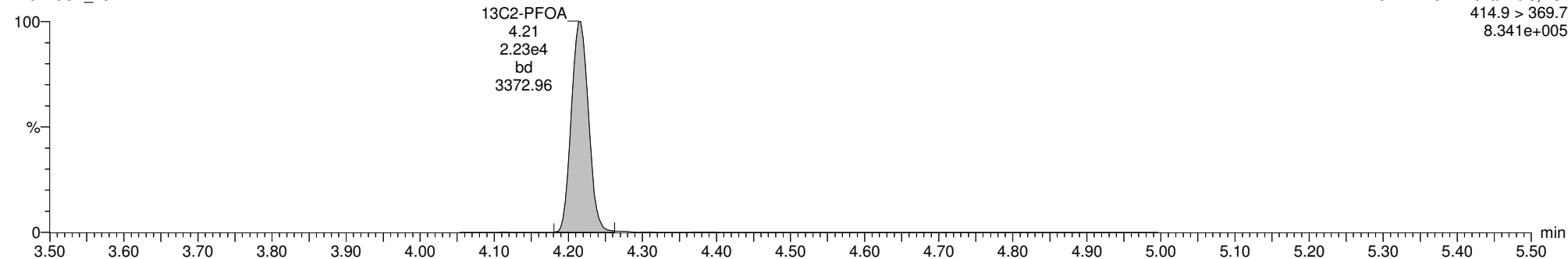


170415G1_13



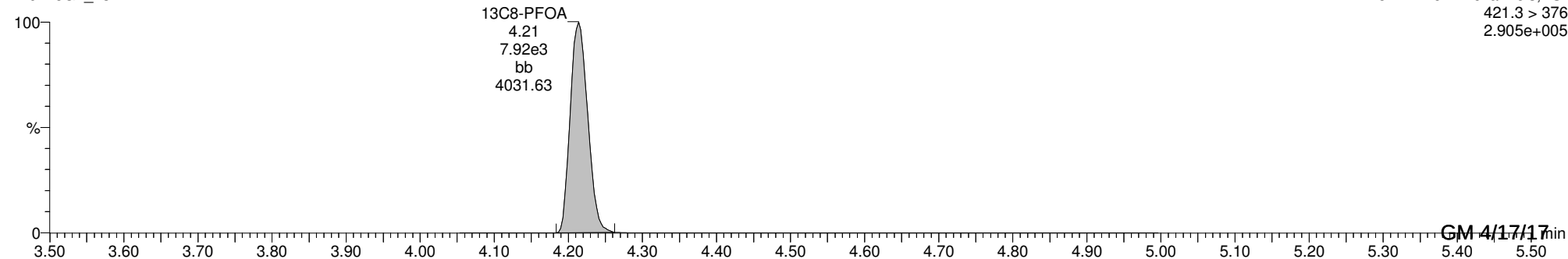
13C2-PFOA

170415G1_13



13C8-PFOA

170415G1_13



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-13.qld

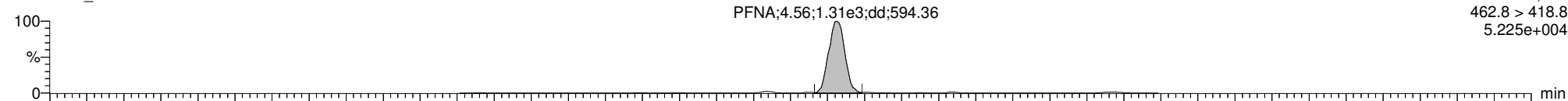
Last Altered: Monday, April 17, 2017 12:24:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:24:56 Pacific Daylight Time

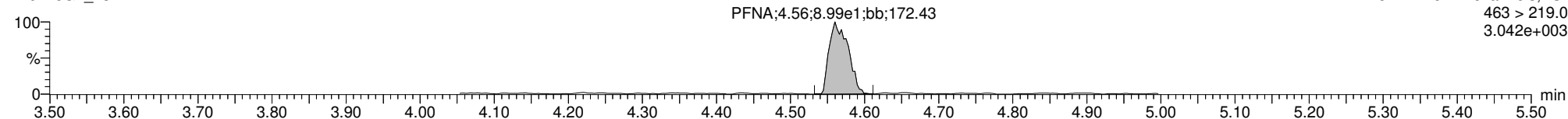
ID: 1700417-05 OW11-MW10D-0417 0.12188, Description: OW11-MW10D-0417, Name: 170415G1_13, Date: 15-Apr-2017, Time: 13:54:15, Instrument: , Lab: , User:

PFNA

170415G1_13

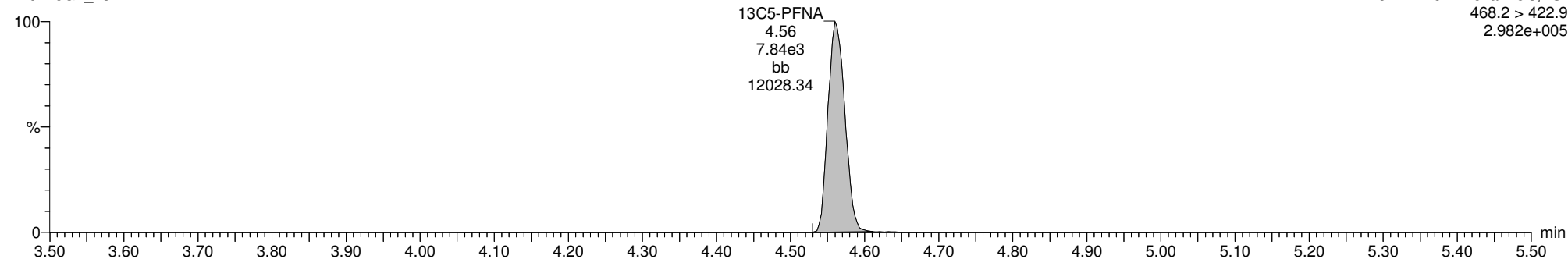


170415G1_13



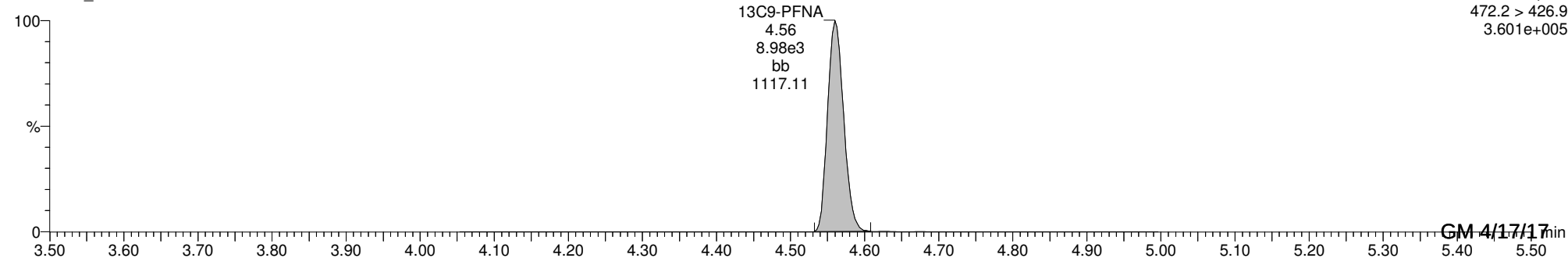
13C5-PFNA

170415G1_13



13C9-PFNA

170415G1_13



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-13.qld

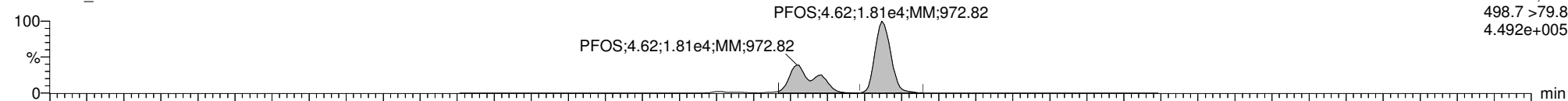
Last Altered: Monday, April 17, 2017 12:24:29 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:24:56 Pacific Daylight Time

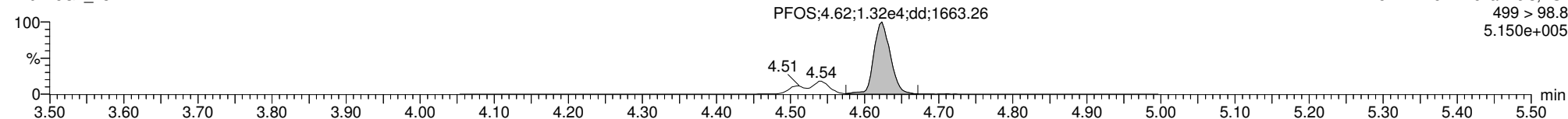
ID: 1700417-05 OW11-MW10D-0417 0.12188, Description: OW11-MW10D-0417, Name: 170415G1_13, Date: 15-Apr-2017, Time: 13:54:15, Instrument: , Lab: , User:

Total PFOS

170415G1_13

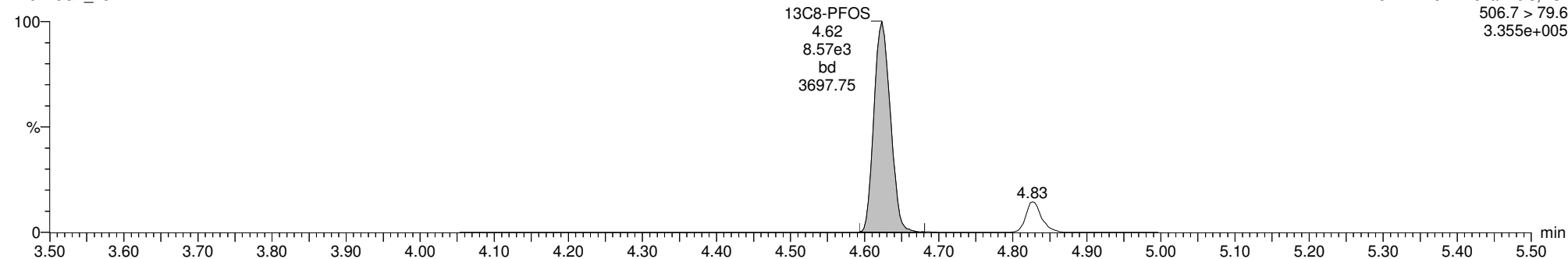


170415G1_13



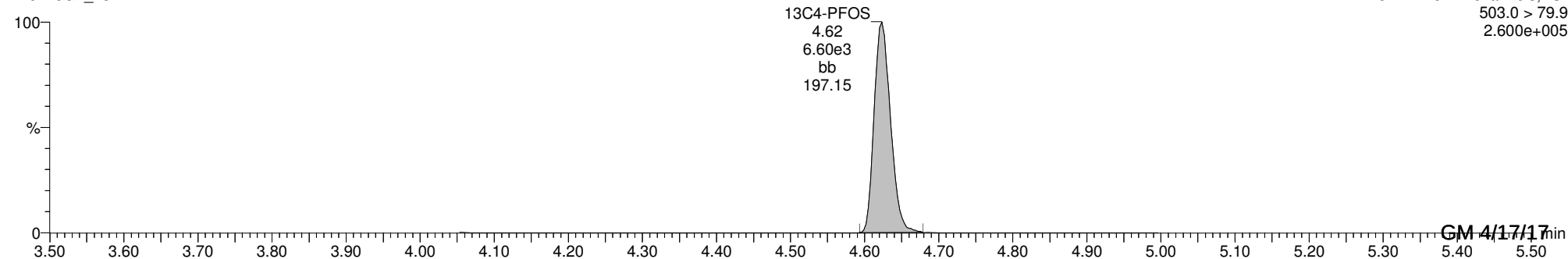
13C8-PFOS

170415G1_13



13C4-PFOS

170415G1_13



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-14.qld

Last Altered: Monday, April 17, 2017 12:28:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:28:57 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-06 OC-F8F9-MW-F4-0417 0.0011, Description: OC-F8F9-MW-F4-0417, Name: 170415G1_14, Date: 15-Apr-2017, Time: 14:06:49

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	2.466e0	5.311e3		0.00110	2.92	1.84	
2	2 PFHpA	363 > 318.9		9.693e3		0.00110			
3	3 PFHxS	398.8 > 79.8	4.643e1	4.255e3		0.00110	3.93	14.7	
4	4 PFOA	412.8 > 369.0	7.869e1	1.866e4		0.00110	4.22		
5	5 PFNA	462.8 > 418.8		7.108e3		0.00110			
6	6 PFOS	498.7 > 79.8		6.743e3		0.00110			
7	7 13C3-PFBS	302.0 > 98.8	5.311e3	1.088e4	0.453	0.00110	2.91	12300	108
8	8 13C4-PFHpA	367.2 > 321.8	9.693e3	1.088e4	0.857	0.00110	3.81	11800	104
9	9 18O2-PFHxS	403 > 102.6	4.255e3	1.088e4	0.440	0.00110	3.92	10100	89.0
10	10 13C2-PFOA	414.9 > 369.7	1.866e4	6.815e3	3.366	0.00110	4.22	9240	81.3
11	11 13C5-PFNA	468.2 > 422.9	7.108e3	7.977e3	0.909	0.00110	4.56	11100	98.1
12	12 13C8-PFOS	506.7 > 79.6	6.743e3	5.544e3	1.304	0.00110	4.62	10600	93.2
13	13 13C5-PFHxA	318>272.9	1.869e4	1.869e4	1.000	0.00110	3.28	11400	100
14	14 13C3-PFHxS	401.9 > 79.9	1.088e4	1.088e4	1.000	0.00110	3.92	11400	100
15	15 13C8-PFOA	421.3 > 376	6.815e3	6.815e3	1.000	0.00110	4.22	11400	100
16	16 13C9-PFNA	472.2 > 426.9	7.977e3	7.977e3	1.000	0.00110	4.56	11400	100
17	17 13C4-PFOS	503.0 > 79.9	5.544e3	5.544e3	1.000	0.00110	4.62	11400	100
18	18 Total PFBS	298.8 > 79.7		4.255e3		0.00110		1.84	
19	19 Total PFHxS	398.8 > 79.8		4.255e3		0.00110		14.7	
20	20 Total PFOA	412.8 > 369.0		1.866e4		0.00110			
21	21 Total PFOS	498.7 > 79.8		6.743e3		0.00110			

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-14.qld

Last Altered: Monday, April 17, 2017 12:28:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:28:57 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-06 OC-F8F9-MW-F4-0417 0.0011, Description: OC-F8F9-MW-F4-0417, Name: 170415G1_14, Date: 15-Apr-2017, Time: 14:06:49

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7	2.92	2.466	5311.301	1.8

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.93	46.433	4255.106	14.7

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	78.687	18658.080	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-14.qld

Last Altered: Monday, April 17, 2017 12:28:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:28:57 Pacific Daylight Time

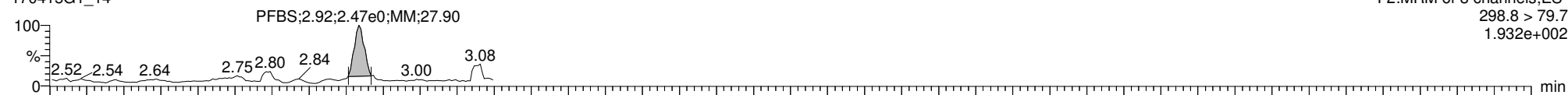
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

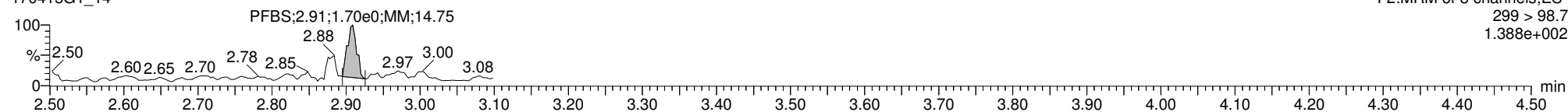
ID: 1700417-06 OC-F8F9-MW-F4-0417 0.0011, Description: OC-F8F9-MW-F4-0417, Name: 170415G1_14, Date: 15-Apr-2017, Time: 14:06:49, Instrument: , Lab: , User:

PFBS

170415G1_14

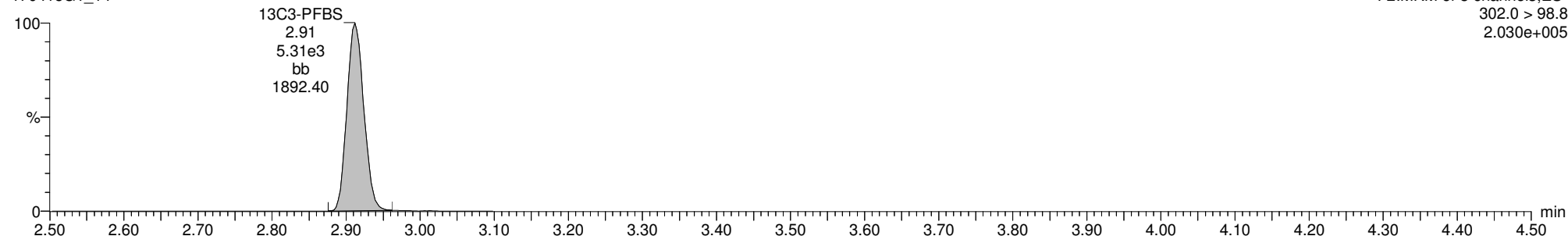


170415G1_14



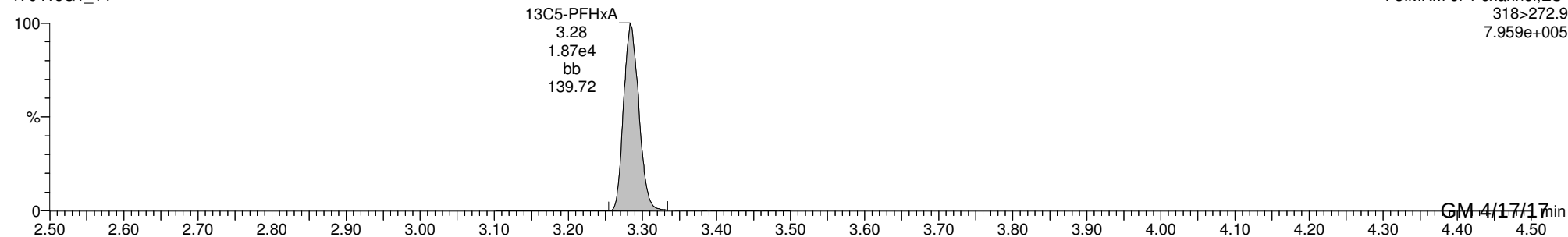
13C3-PFBS

170415G1_14



13C5-PFHxA

170415G1_14



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-14.qld

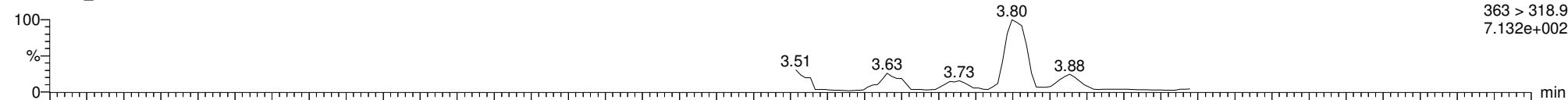
Last Altered: Monday, April 17, 2017 12:28:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:28:57 Pacific Daylight Time

ID: 1700417-06 OC-F8F9-MW-F4-0417 0.0011, Description: OC-F8F9-MW-F4-0417, Name: 170415G1_14, Date: 15-Apr-2017, Time: 14:06:49, Instrument: , Lab: , User:

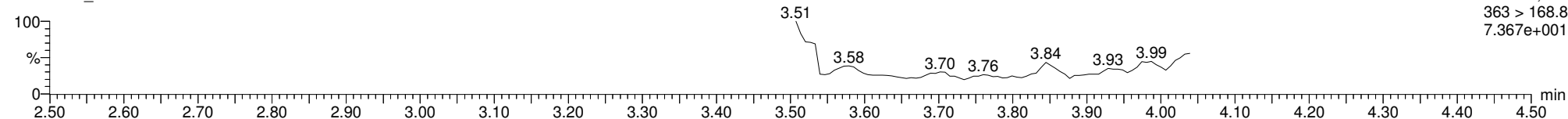
PFHpA

170415G1_14



F4:MRM of 7 channels,ES-
363 > 318.9
7.132e+002

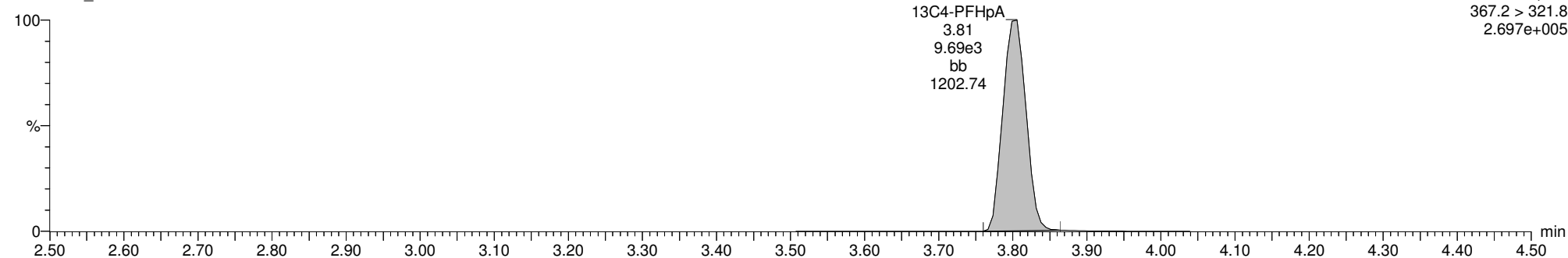
170415G1_14



F4:MRM of 7 channels,ES-
363 > 168.8
7.367e+001

13C4-PFHpA

170415G1_14

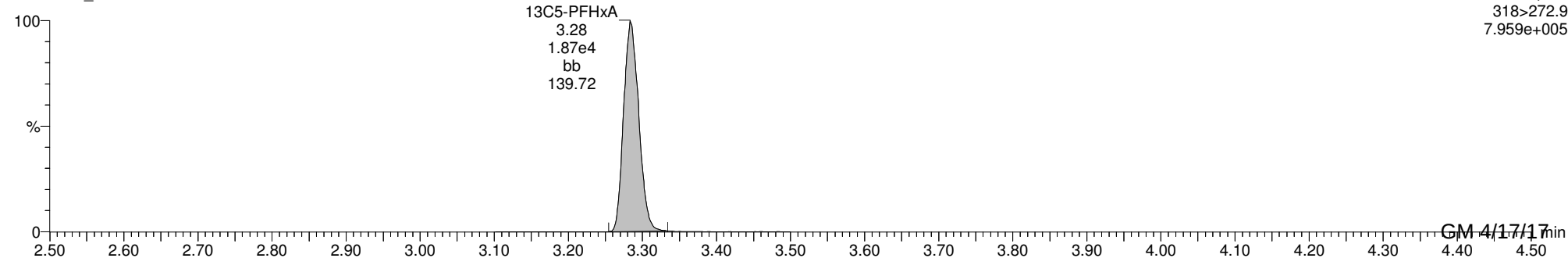


13C4-PFHpA
3.81
9.69e3
bb
1202.74

F4:MRM of 7 channels,ES-
367.2 > 321.8
2.697e+005

13C5-PFHxA

170415G1_14



13C5-PFHxA
3.28
1.87e4
bb
139.72

F3:MRM of 1 channel,ES-
318>272.9
7.959e+005

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-14.qld

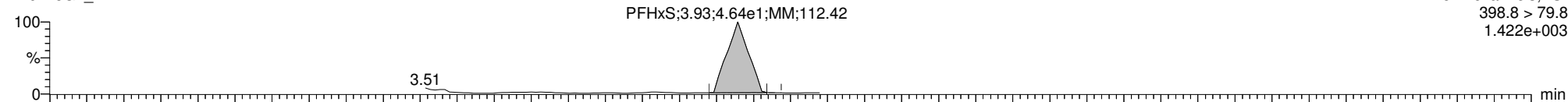
Last Altered: Monday, April 17, 2017 12:28:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:28:57 Pacific Daylight Time

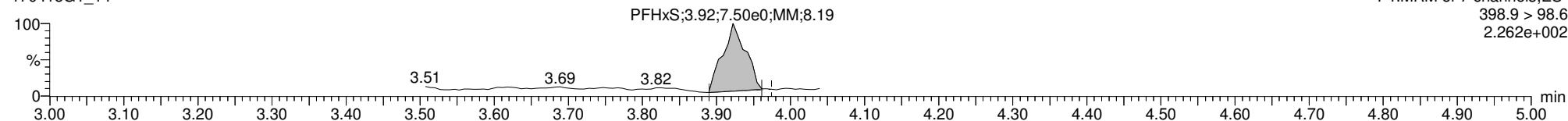
ID: 1700417-06 OC-F8F9-MW-F4-0417 0.0011, Description: OC-F8F9-MW-F4-0417, Name: 170415G1_14, Date: 15-Apr-2017, Time: 14:06:49, Instrument: , Lab: , User:

Total PFHxS

170415G1_14

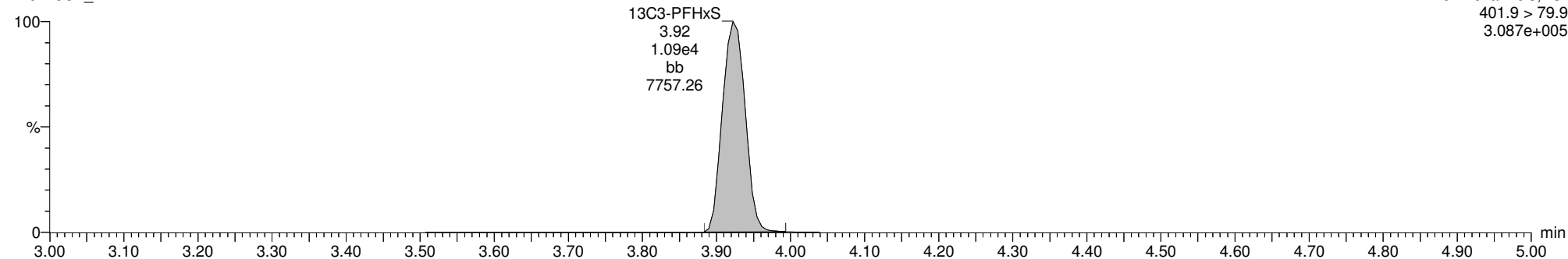


170415G1_14



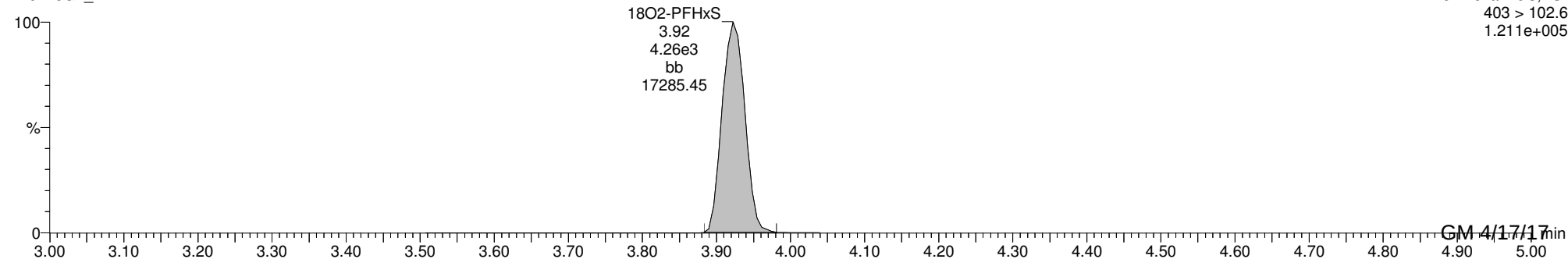
13C3-PFHxS

170415G1_14



18O2-PFHxS

170415G1_14



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-14.qld

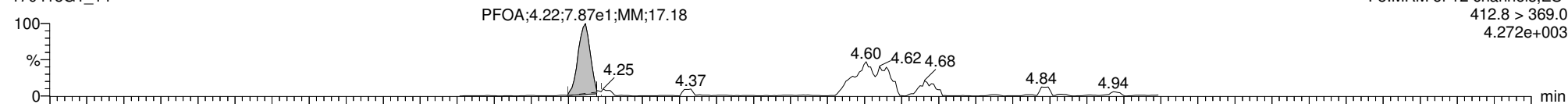
Last Altered: Monday, April 17, 2017 12:28:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:28:57 Pacific Daylight Time

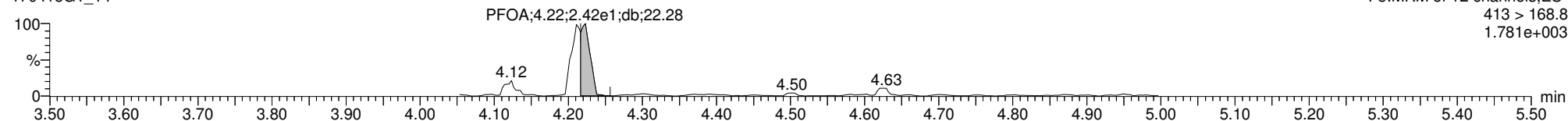
ID: 1700417-06 OC-F8F9-MW-F4-0417 0.0011, Description: OC-F8F9-MW-F4-0417, Name: 170415G1_14, Date: 15-Apr-2017, Time: 14:06:49, Instrument: , Lab: , User:

Total PFOA

170415G1_14

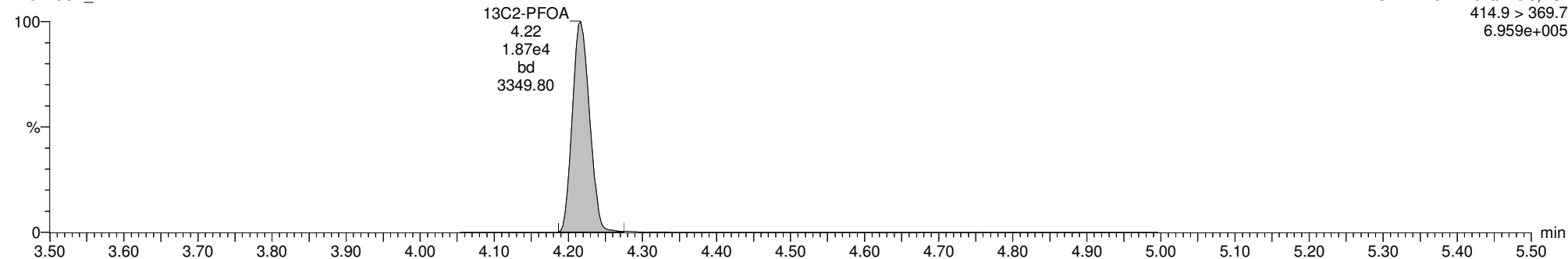


170415G1_14



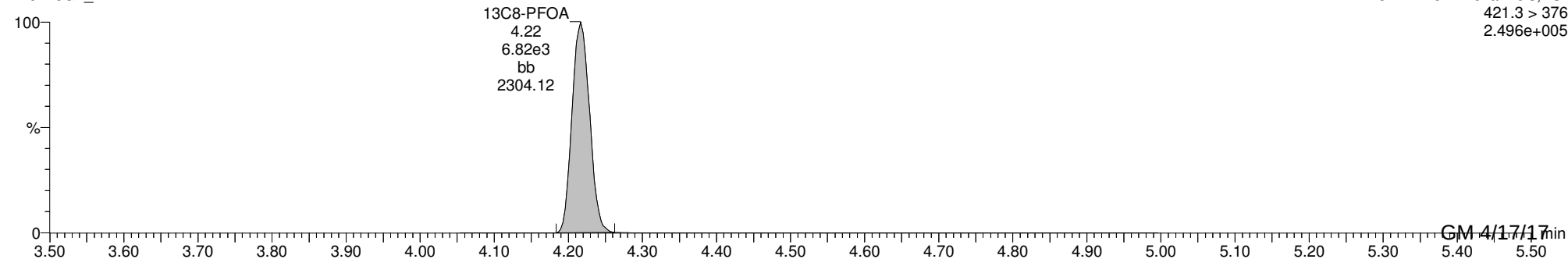
13C2-PFOA

170415G1_14



13C8-PFOA

170415G1_14



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-14.qld

Last Altered: Monday, April 17, 2017 12:28:43 Pacific Daylight Time

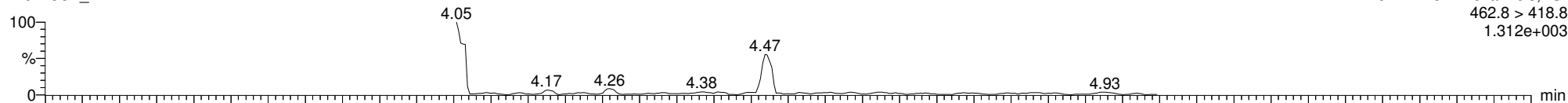
Printed: Monday, April 17, 2017 12:28:57 Pacific Daylight Time

ID: 1700417-06 OC-F8F9-MW-F4-0417 0.0011, Description: OC-F8F9-MW-F4-0417, Name: 170415G1_14, Date: 15-Apr-2017, Time: 14:06:49, Instrument: , Lab: , User:

PFNA

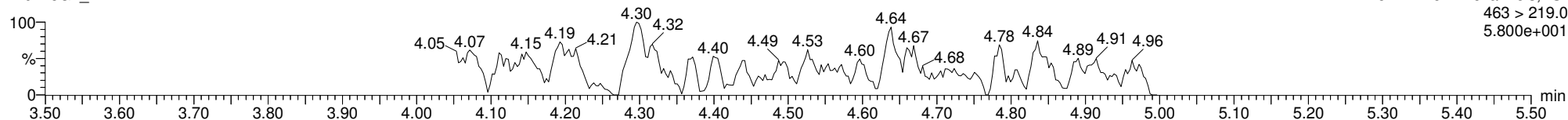
170415G1_14

F5:MRM of 12 channels,ES-
462.8 > 418.8
1.312e+003



170415G1_14

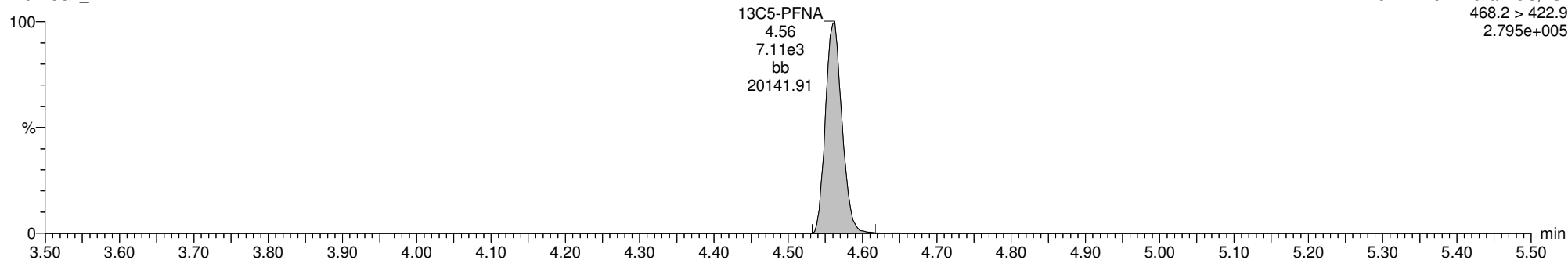
F5:MRM of 12 channels,ES-
463 > 219.0
5.800e+001



13C5-PFNA

170415G1_14

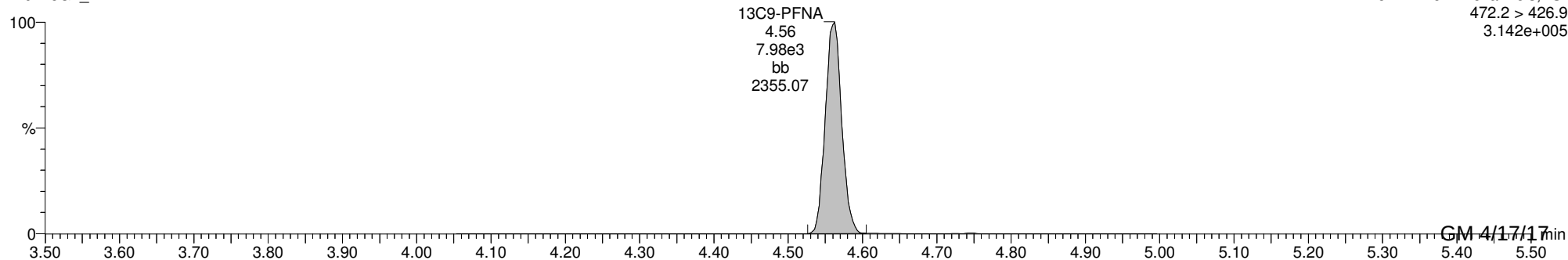
F5:MRM of 12 channels,ES-
468.2 > 422.9
2.795e+005



13C9-PFNA

170415G1_14

F5:MRM of 12 channels,ES-
472.2 > 426.9
3.142e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-14.qld

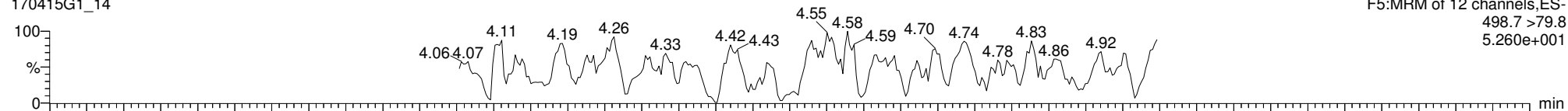
Last Altered: Monday, April 17, 2017 12:28:43 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:28:57 Pacific Daylight Time

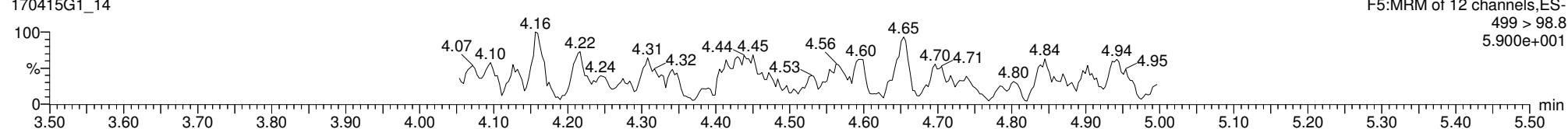
ID: 1700417-06 OC-F8F9-MW-F4-0417 0.0011, Description: OC-F8F9-MW-F4-0417, Name: 170415G1_14, Date: 15-Apr-2017, Time: 14:06:49, Instrument: , Lab: , User:

Total PFOS

170415G1_14

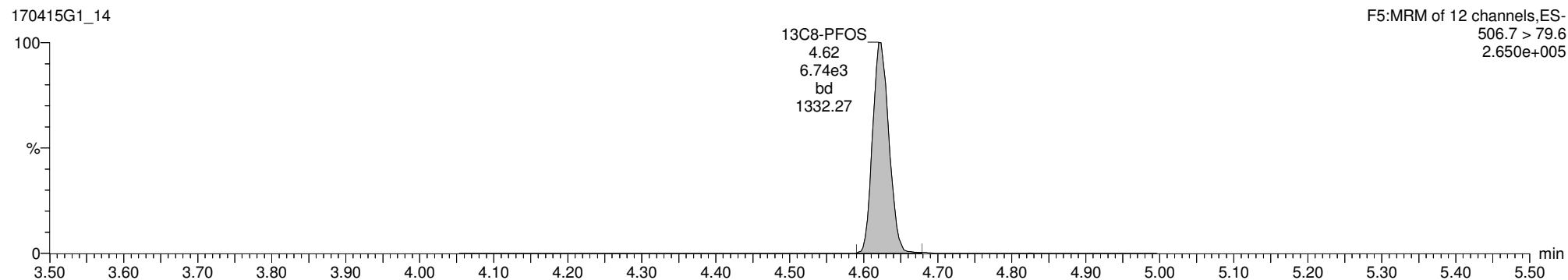


170415G1_14



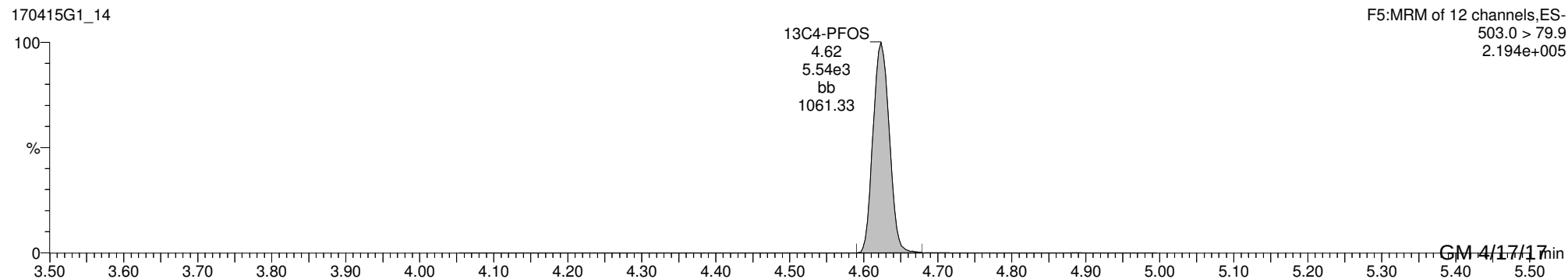
13C8-PFOS

170415G1_14



13C4-PFOS

170415G1_14



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-15.qld

Last Altered: Monday, April 17, 2017 12:31:53 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:32:19 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-07 OC-MW07D-0417 0.11771, Description: OC-MW07D-0417, Name: 170415G1_15, Date: 15-Apr-2017, Time: 14:19:25

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7		5.793e3		0.118			
2	2 PFHpA	363 > 318.9		1.004e4		0.118			
3	3 PFHxS	398.8 > 79.8	7.573e1	5.103e3		0.118	3.92	0.311	
4	4 PFOA	412.8 > 369.0	1.117e2	2.150e4		0.118	4.21		
5	5 PFNA	462.8 > 418.8		7.005e3		0.118			
6	6 PFOS	498.7 > 79.8		7.115e3		0.118			
7	7 13C3-PFBS	302.0 > 98.8	5.793e3	1.287e4	0.453	0.118	2.91	106	99.5
8	8 13C4-PFHxA	367.2 > 321.8	1.004e4	1.287e4	0.857	0.118	3.80	96.7	91.0
9	9 18O2-PFHxS	403 > 102.6	5.103e3	1.287e4	0.440	0.118	3.92	95.8	90.2
10	10 13C2-PFOA	414.9 > 369.7	2.150e4	7.453e3	3.366	0.118	4.21	91.0	85.7
11	11 13C5-PFNA	468.2 > 422.9	7.005e3	8.901e3	0.909	0.118	4.56	92.0	86.6
12	12 13C8-PFOS	506.7 > 79.6	7.115e3	6.556e3	1.304	0.118	4.62	88.3	83.2
13	13 13C5-PFHxA	318>272.9	1.906e4	1.906e4	1.000	0.118	3.28	106	100
14	14 13C3-PFHxS	401.9 > 79.9	1.287e4	1.287e4	1.000	0.118	3.92	106	100
15	15 13C8-PFOA	421.3 > 376	7.453e3	7.453e3	1.000	0.118	4.21	106	100
16	16 13C9-PFNA	472.2 > 426.9	8.901e3	8.901e3	1.000	0.118	4.56	106	100
17	17 13C4-PFOS	503.0 > 79.9	6.556e3	6.556e3	1.000	0.118	4.62	106	100
18	18 Total PFBS	298.8 > 79.7		5.103e3		0.118			
19	19 Total PFHxS	398.8 > 79.8		5.103e3		0.118		0.311	
20	20 Total PFOA	412.8 > 369.0		2.150e4		0.118			
21	21 Total PFOS	498.7 > 79.8		7.115e3		0.118			

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-15.qld

Last Altered: Monday, April 17, 2017 12:31:53 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:32:19 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-07 OC-MW07D-0417 0.11771, Description: OC-MW07D-0417, Name: 170415G1_15, Date: 15-Apr-2017, Time: 14:19:25

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	75.728	5103.292	0.3

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.21	111.678	21502.535	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-15.qld

Last Altered: Monday, April 17, 2017 12:31:53 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:32:19 Pacific Daylight Time

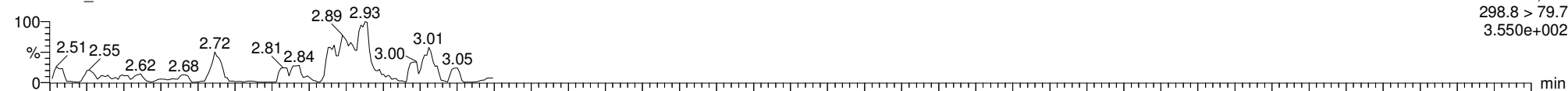
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

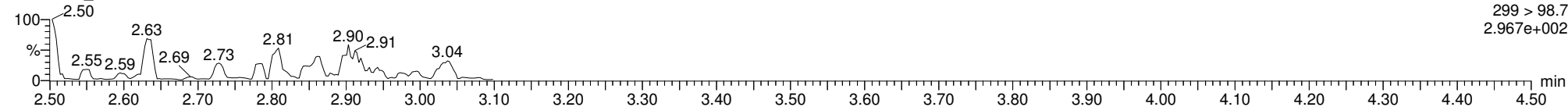
ID: 1700417-07 OC-MW07D-0417 0.11771, Description: OC-MW07D-0417, Name: 170415G1_15, Date: 15-Apr-2017, Time: 14:19:25, Instrument: , Lab: , User:

PFBS

170415G1_15

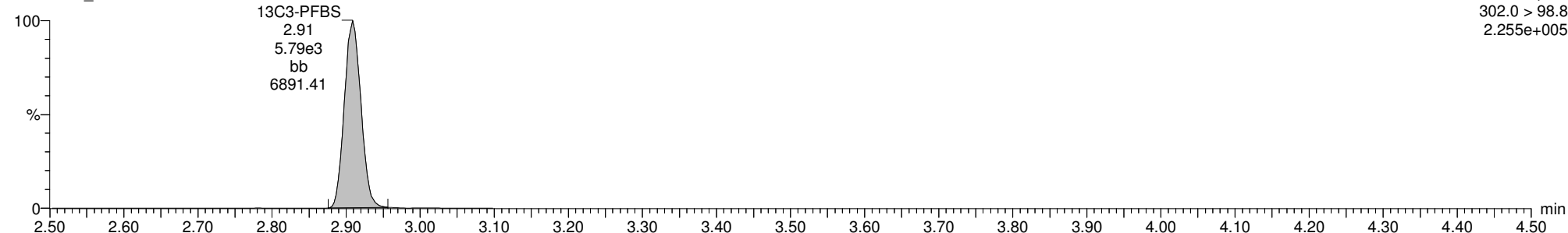


170415G1_15



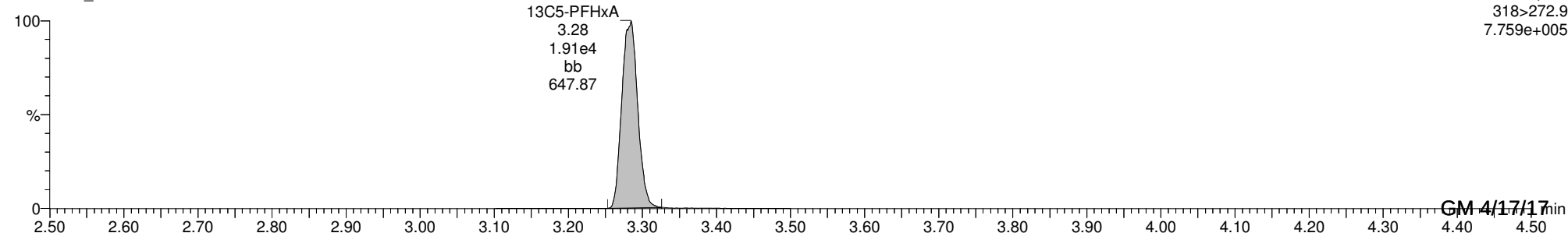
13C3-PFBS

170415G1_15



13C5-PFHxA

170415G1_15



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-15.qld

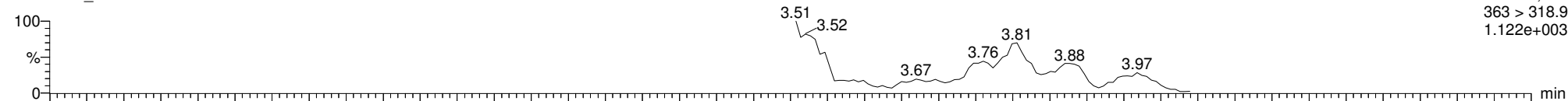
Last Altered: Monday, April 17, 2017 12:31:53 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:32:19 Pacific Daylight Time

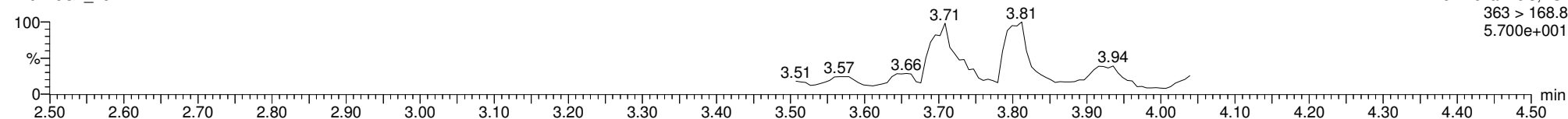
ID: 1700417-07 OC-MW07D-0417 0.11771, Description: OC-MW07D-0417, Name: 170415G1_15, Date: 15-Apr-2017, Time: 14:19:25, Instrument: , Lab: , User:

PFHpA

170415G1_15

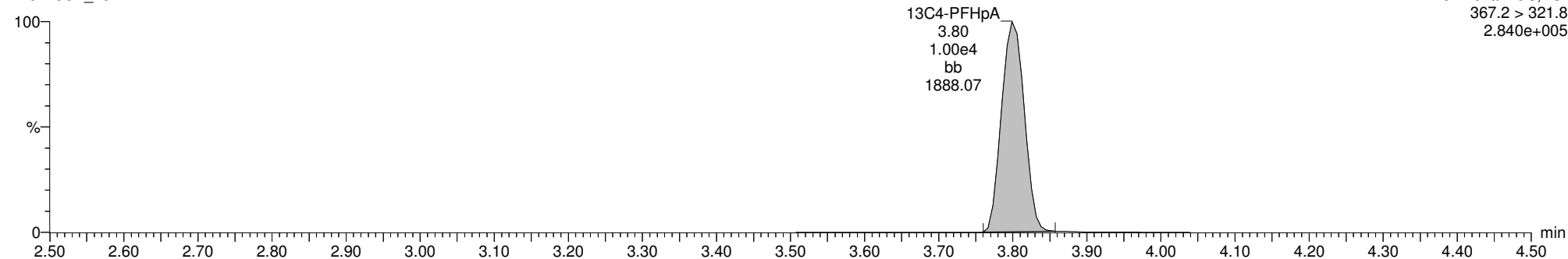


170415G1_15



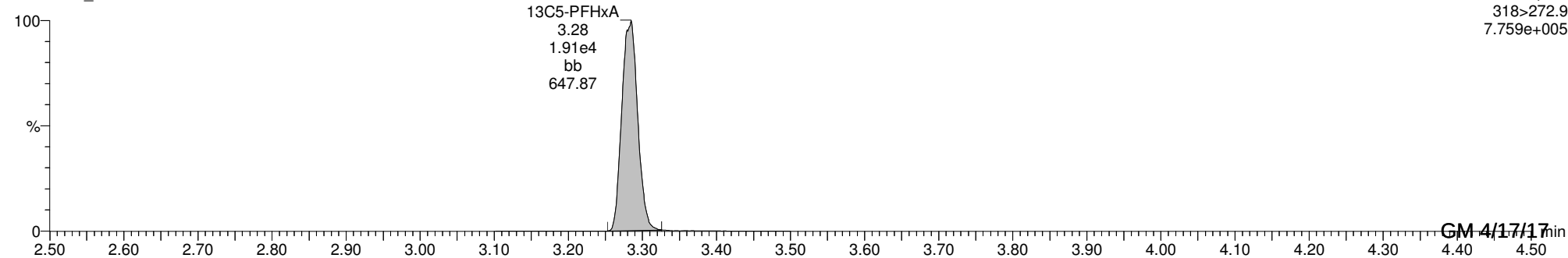
13C4-PFHpA

170415G1_15



13C5-PFHxA

170415G1_15



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-15.qld

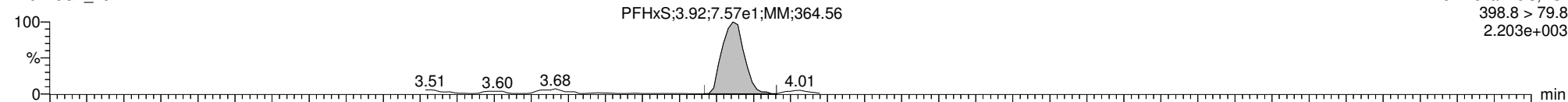
Last Altered: Monday, April 17, 2017 12:31:53 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:32:19 Pacific Daylight Time

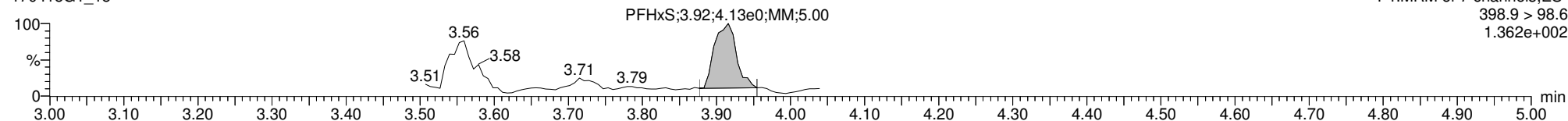
ID: 1700417-07 OC-MW07D-0417 0.11771, Description: OC-MW07D-0417, Name: 170415G1_15, Date: 15-Apr-2017, Time: 14:19:25, Instrument: , Lab: , User:

Total PFHxS

170415G1_15

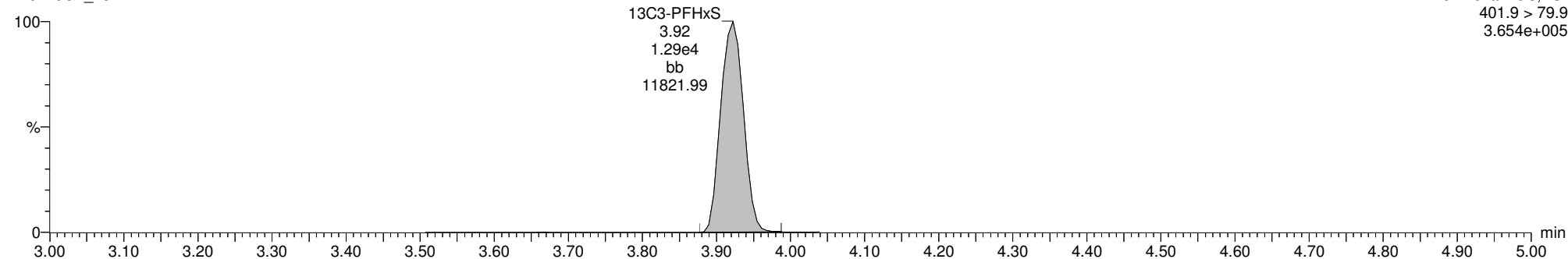


170415G1_15



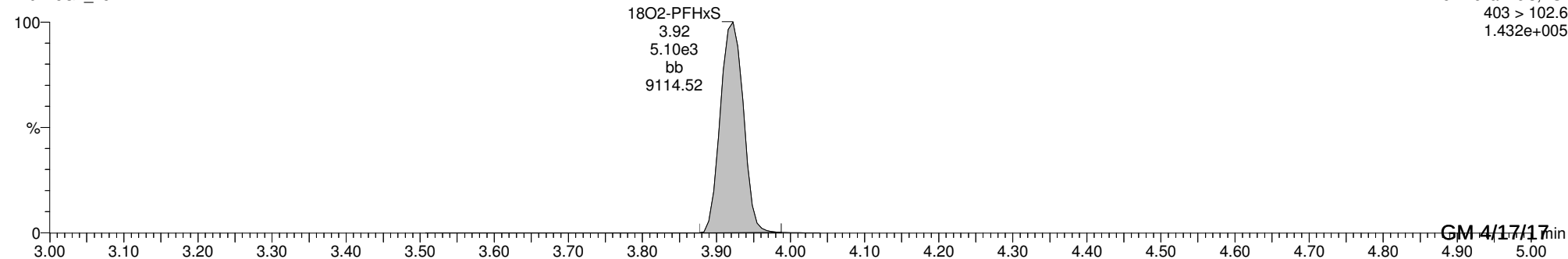
13C3-PFHxS

170415G1_15



18O2-PFHxS

170415G1_15



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-15.qld

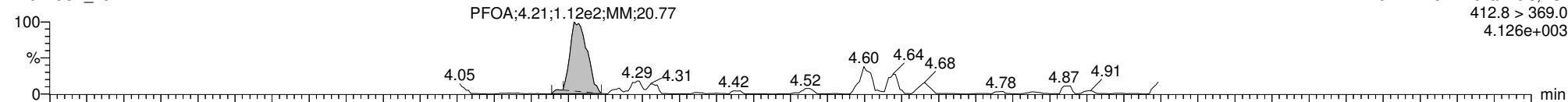
Last Altered: Monday, April 17, 2017 12:31:53 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:32:19 Pacific Daylight Time

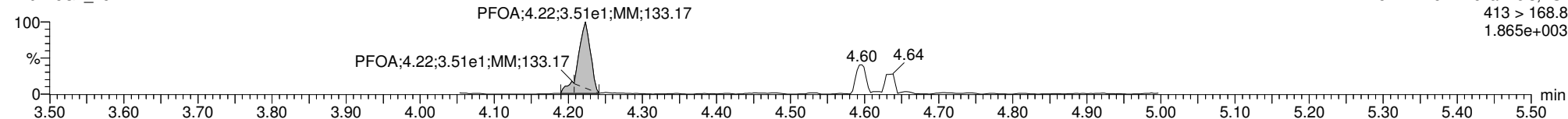
ID: 1700417-07 OC-MW07D-0417 0.11771, Description: OC-MW07D-0417, Name: 170415G1_15, Date: 15-Apr-2017, Time: 14:19:25, Instrument: , Lab: , User:

Total PFOA

170415G1_15

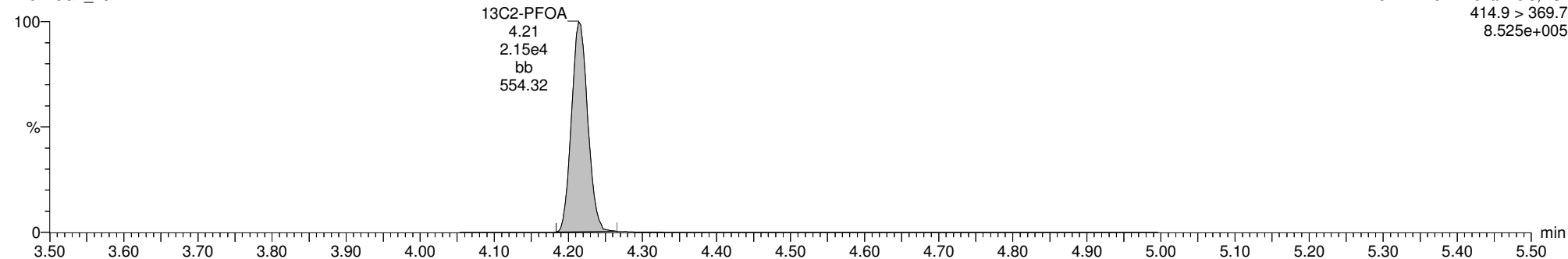


170415G1_15



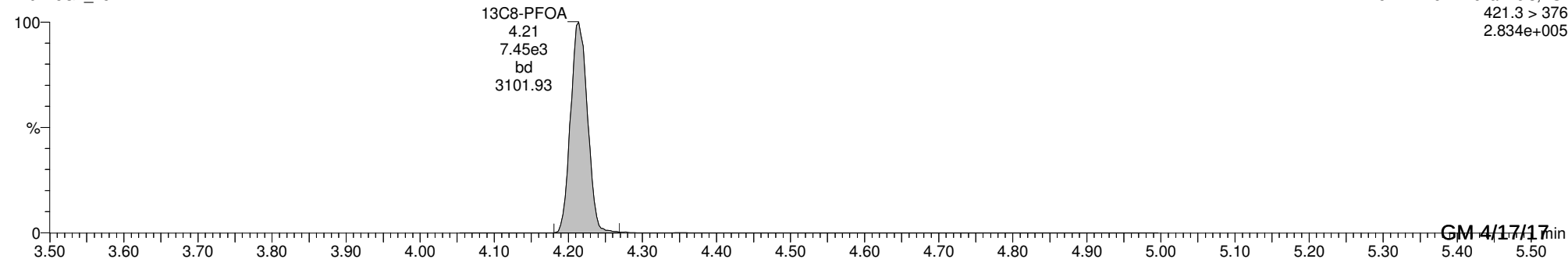
13C2-PFOA

170415G1_15



13C8-PFOA

170415G1_15



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-15.qld

Last Altered: Monday, April 17, 2017 12:31:53 Pacific Daylight Time

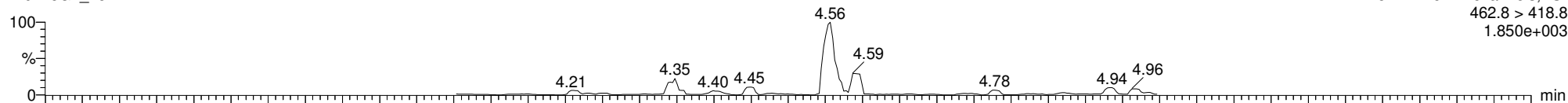
Printed: Monday, April 17, 2017 12:32:19 Pacific Daylight Time

ID: 1700417-07 OC-MW07D-0417 0.11771, Description: OC-MW07D-0417, Name: 170415G1_15, Date: 15-Apr-2017, Time: 14:19:25, Instrument: , Lab: , User:

PFNA

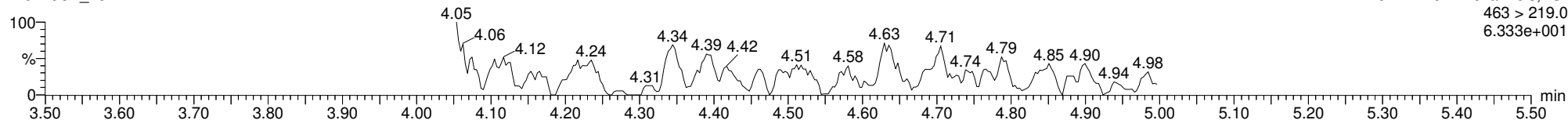
170415G1_15

F5:MRM of 12 channels,ES-
462.8 > 418.8
1.850e+003



170415G1_15

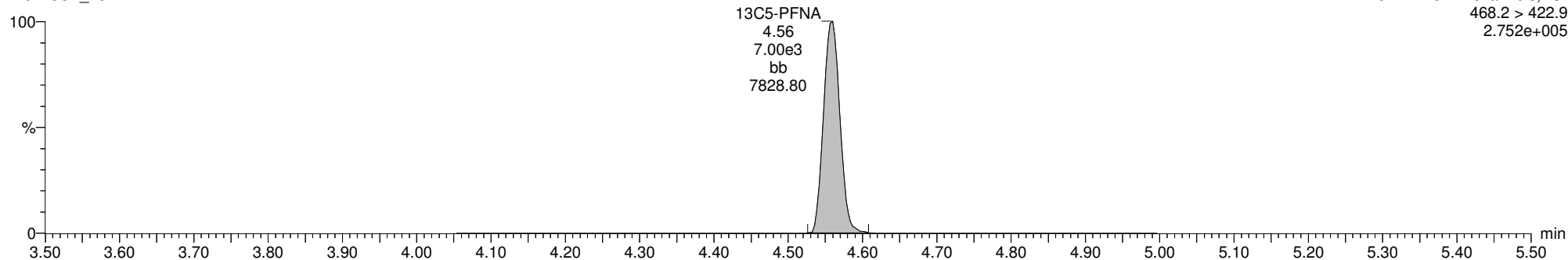
F5:MRM of 12 channels,ES-
463 > 219.0
6.333e+001



13C5-PFNA

170415G1_15

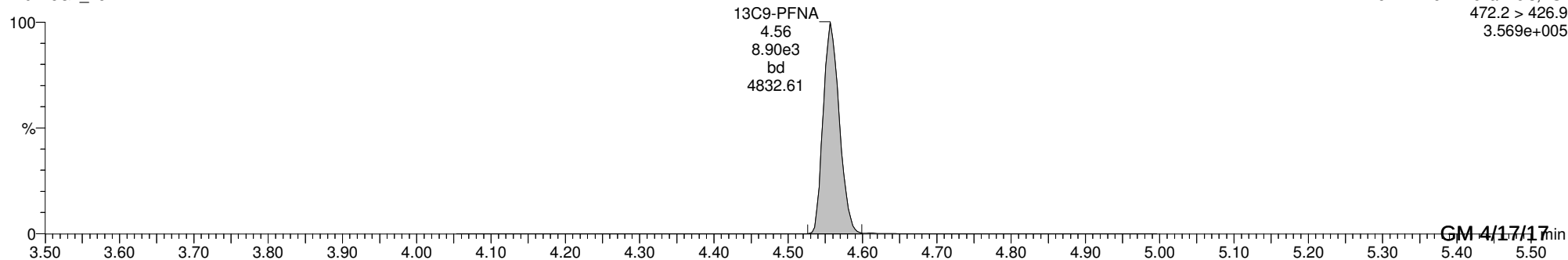
F5:MRM of 12 channels,ES-
468.2 > 422.9
2.752e+005



13C9-PFNA

170415G1_15

F5:MRM of 12 channels,ES-
472.2 > 426.9
3.569e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-15.qld

Last Altered: Monday, April 17, 2017 12:31:53 Pacific Daylight Time

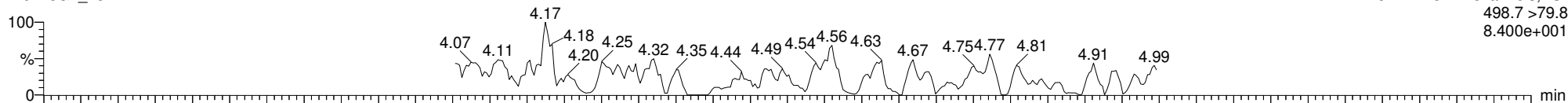
Printed: Monday, April 17, 2017 12:32:19 Pacific Daylight Time

ID: 1700417-07 OC-MW07D-0417 0.11771, Description: OC-MW07D-0417, Name: 170415G1_15, Date: 15-Apr-2017, Time: 14:19:25, Instrument: , Lab: , User:

Total PFOS

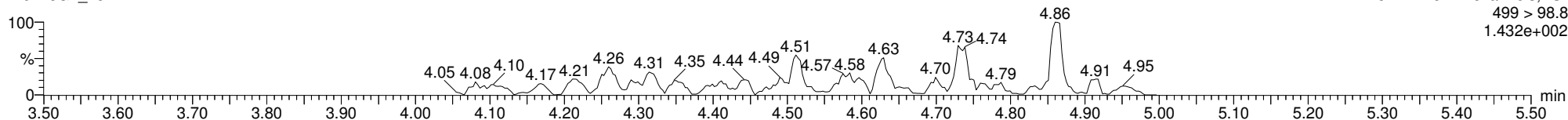
170415G1_15

F5:MRM of 12 channels,ES-
498.7 >79.8
8.400e+001



170415G1_15

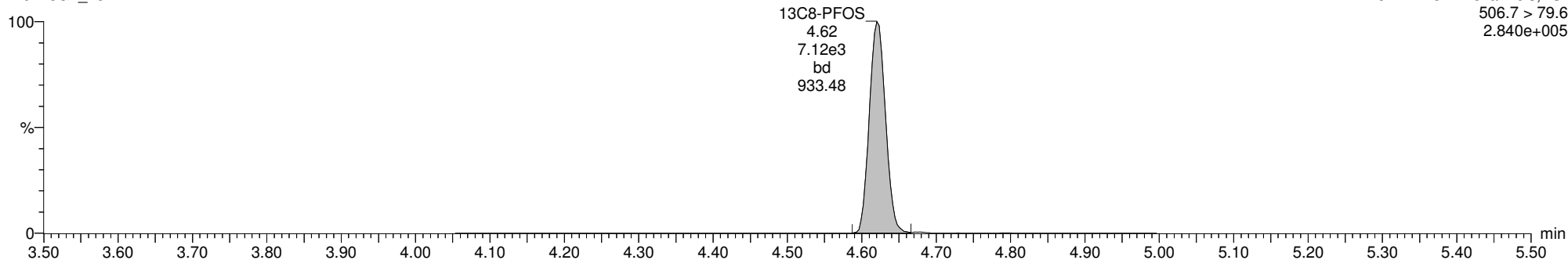
F5:MRM of 12 channels,ES-
499 > 98.8
1.432e+002



13C8-PFOS

170415G1_15

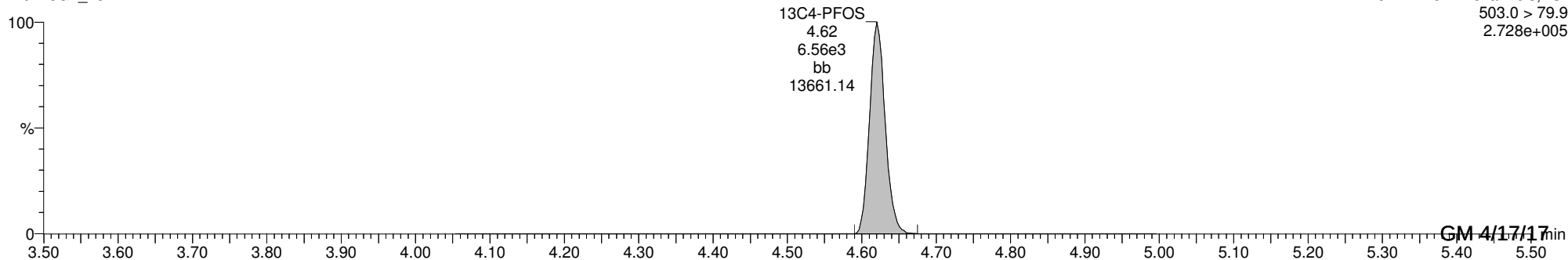
F5:MRM of 12 channels,ES-
506.7 > 79.6
2.840e+005



13C4-PFOS

170415G1_15

F5:MRM of 12 channels,ES-
503.0 > 79.9
2.728e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-16.qld

Last Altered: Monday, April 17, 2017 12:36:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:37:37 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-08 OC-MW07-0417 0.12374, Description: OC-MW07-0417, Name: 170415G1_16, Date: 15-Apr-2017, Time: 14:31:59

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	3.163e1	5.431e3		0.124	2.91	0.208	
2	2 PFHpA	363 > 318.9	9.585e1	9.836e3		0.124	3.81	0.108	
3	3 PFHxS	398.8 > 79.8	1.382e2	5.509e3		0.124	3.92	0.727	
4	4 PFOA	412.8 > 369.0	2.843e2	2.168e4		0.124	4.22	0.685	
5	5 PFNA	462.8 > 418.8		6.590e3		0.124			
6	6 PFOS	498.7 > 79.8	8.248e1	7.420e3		0.124	4.62	3.63	
7	7 13C3-PFBS	302.0 > 98.8	5.431e3	1.312e4	0.453	0.124	2.91	92.4	91.4
8	8 13C4-PFHpA	367.2 > 321.8	9.836e3	1.312e4	0.857	0.124	3.80	88.4	87.5
9	9 18O2-PFHxS	403 > 102.6	5.509e3	1.312e4	0.440	0.124	3.92	96.5	95.5
10	10 13C2-PFOA	414.9 > 369.7	2.168e4	7.419e3	3.366	0.124	4.21	87.7	86.8
11	11 13C5-PFNA	468.2 > 422.9	6.590e3	7.786e3	0.909	0.124	4.56	94.1	93.2
12	12 13C8-PFOS	506.7 > 79.6	7.420e3	6.202e3	1.304	0.124	4.62	92.6	91.7
13	13 13C5-PFHxA	318>272.9	1.794e4	1.794e4	1.000	0.124	3.28	101	100
14	14 13C3-PFHxS	401.9 > 79.9	1.312e4	1.312e4	1.000	0.124	3.92	101	100
15	15 13C8-PFOA	421.3 > 376	7.419e3	7.419e3	1.000	0.124	4.21	101	100
16	16 13C9-PFNA	472.2 > 426.9	7.786e3	7.786e3	1.000	0.124	4.56	101	100
17	17 13C4-PFOS	503.0 > 79.9	6.202e3	6.202e3	1.000	0.124	4.62	101	100
18	18 Total PFBS	298.8 > 79.7		5.509e3		0.124		0.208	
19	19 Total PFHxS	398.8 > 79.8		5.509e3		0.124		0.727	
20	20 Total PFOA	412.8 > 369.0		2.168e4		0.124		0.685	
21	21 Total PFOS	498.7 > 79.8		7.420e3		0.124		3.63	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-16.qld

Last Altered: Monday, April 17, 2017 12:36:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:37:37 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-08 OC-MW07-0417 0.12374, Description: OC-MW07-0417, Name: 170415G1_16, Date: 15-Apr-2017, Time: 14:31:59

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7	2.91	31.631	5430.715	0.2

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	138.247	5509.367	0.7

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	284.301	21675.057	0.7

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	498.7 > 79.8	4.62	82.482	7420.090	3.6

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-16.qld

Last Altered: Monday, April 17, 2017 12:36:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:37:37 Pacific Daylight Time

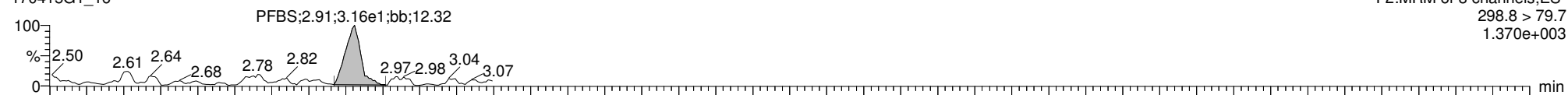
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

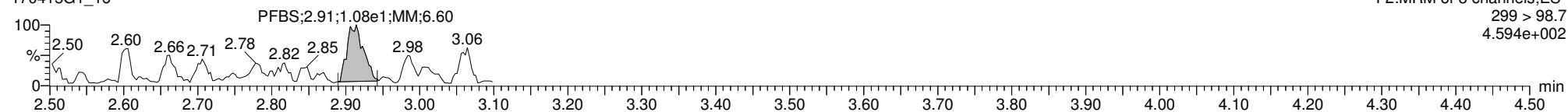
ID: 1700417-08 OC-MW07-0417 0.12374, Description: OC-MW07-0417, Name: 170415G1_16, Date: 15-Apr-2017, Time: 14:31:59, Instrument: , Lab: , User:

PFBS

170415G1_16

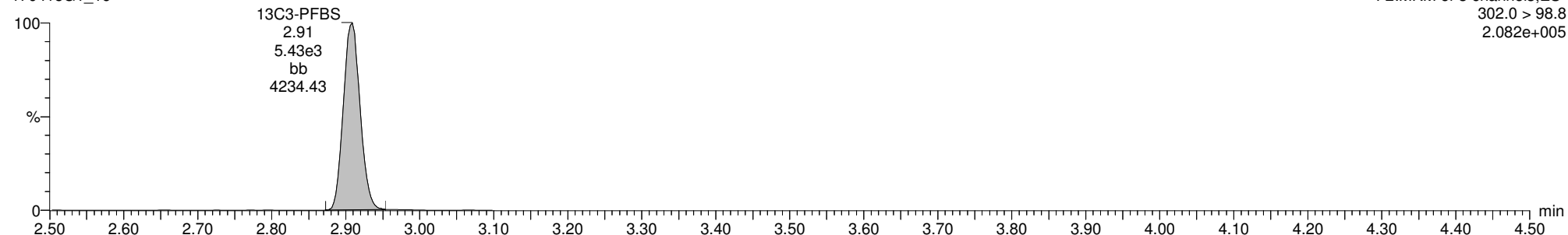


170415G1_16



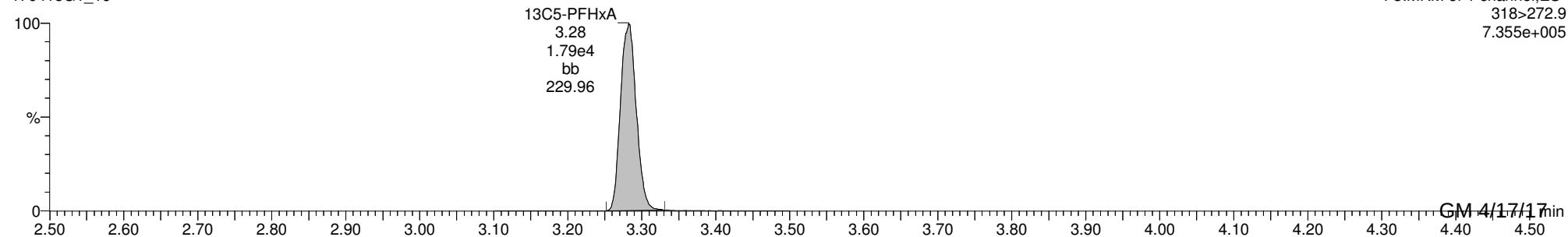
13C3-PFBS

170415G1_16



13C5-PFHxA

170415G1_16



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-16.qld

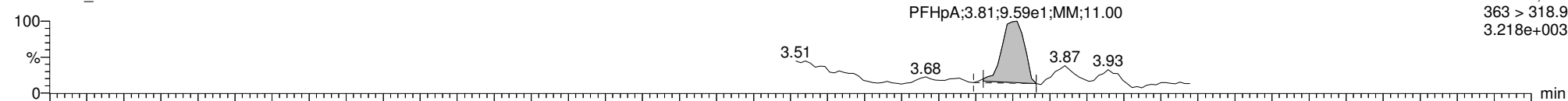
Last Altered: Monday, April 17, 2017 12:36:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:37:37 Pacific Daylight Time

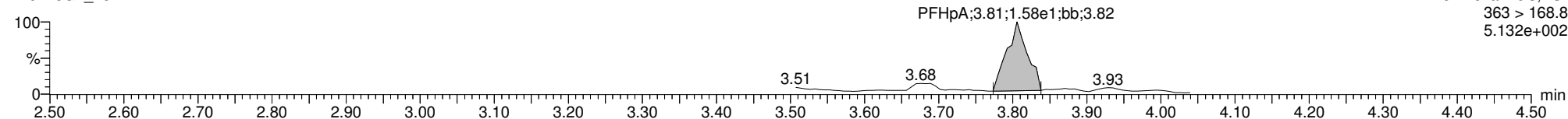
ID: 1700417-08 OC-MW07-0417 0.12374, Description: OC-MW07-0417, Name: 170415G1_16, Date: 15-Apr-2017, Time: 14:31:59, Instrument: , Lab: , User:

PFHpA

170415G1_16

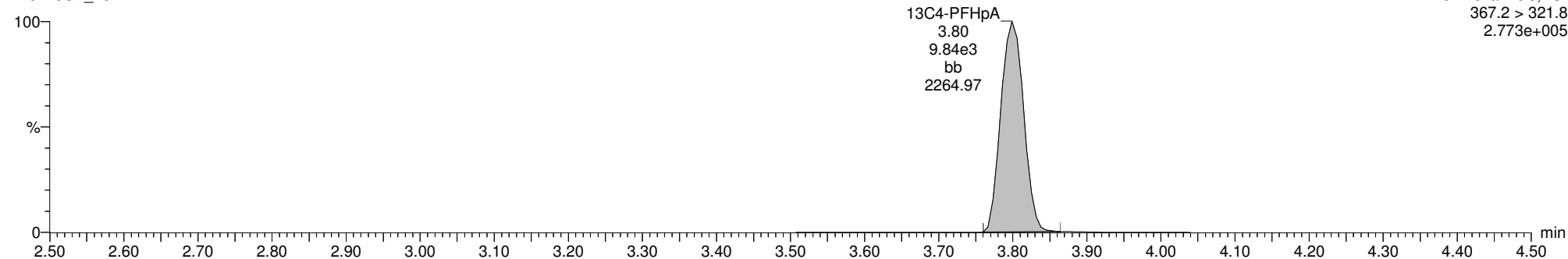


170415G1_16



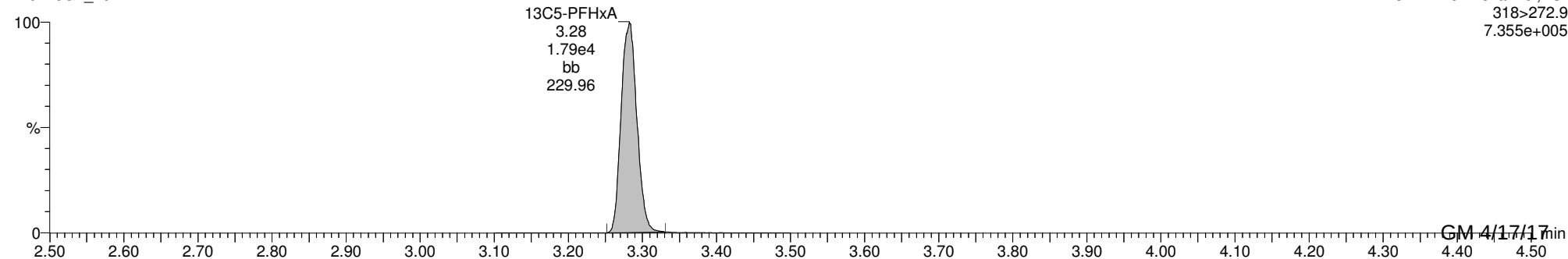
13C4-PFHpA

170415G1_16



13C5-PFHxA

170415G1_16



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-16.qld

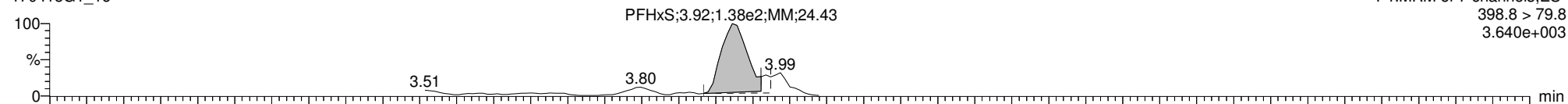
Last Altered: Monday, April 17, 2017 12:36:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:37:37 Pacific Daylight Time

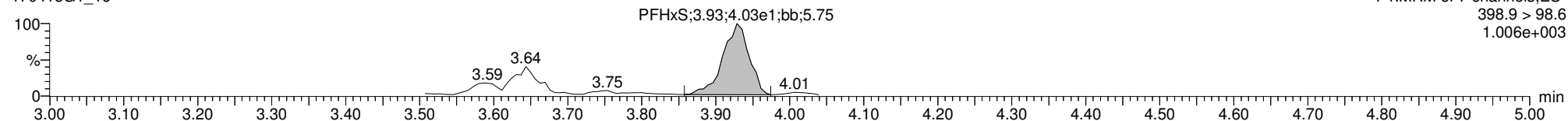
ID: 1700417-08 OC-MW07-0417 0.12374, Description: OC-MW07-0417, Name: 170415G1_16, Date: 15-Apr-2017, Time: 14:31:59, Instrument: , Lab: , User:

Total PFHxS

170415G1_16

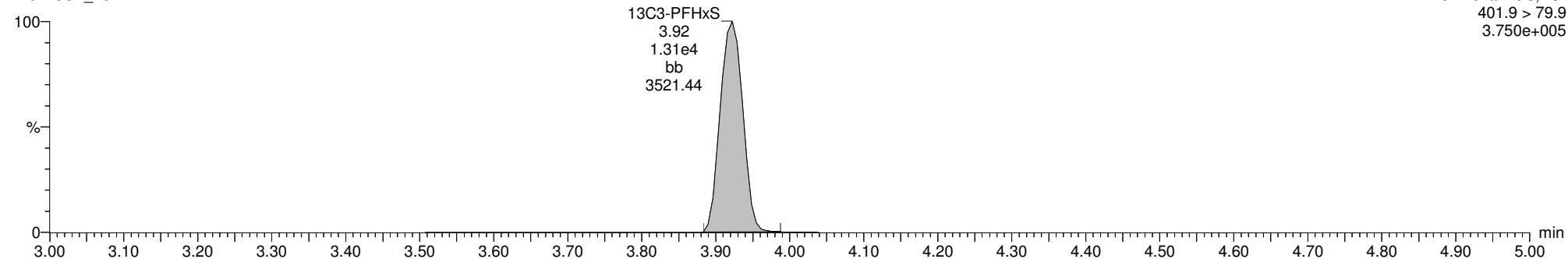


170415G1_16



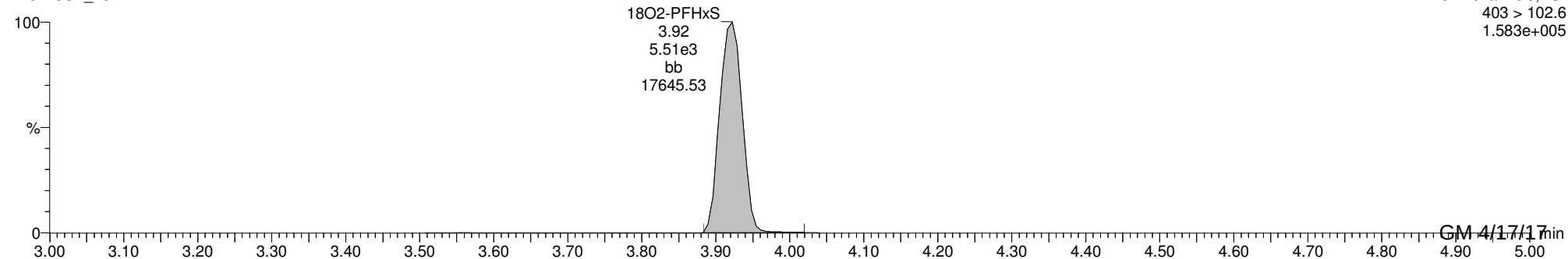
13C3-PFHxS

170415G1_16



18O2-PFHxS

170415G1_16



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-16.qld

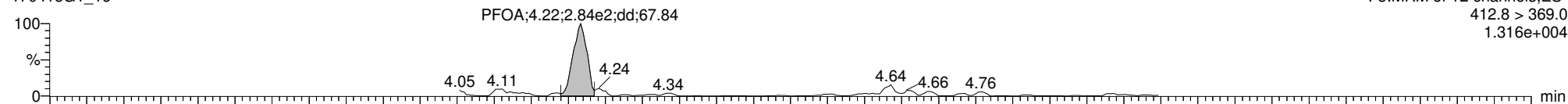
Last Altered: Monday, April 17, 2017 12:36:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:37:37 Pacific Daylight Time

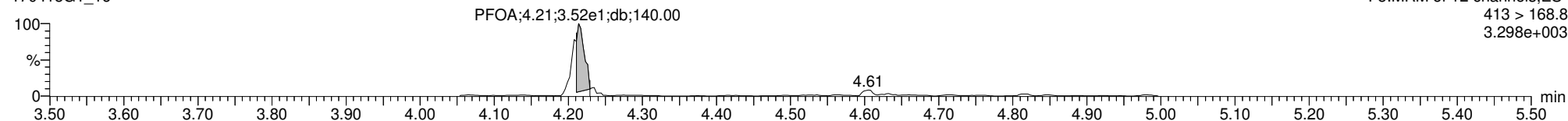
ID: 1700417-08 OC-MW07-0417 0.12374, Description: OC-MW07-0417, Name: 170415G1_16, Date: 15-Apr-2017, Time: 14:31:59, Instrument: , Lab: , User:

Total PFOA

170415G1_16

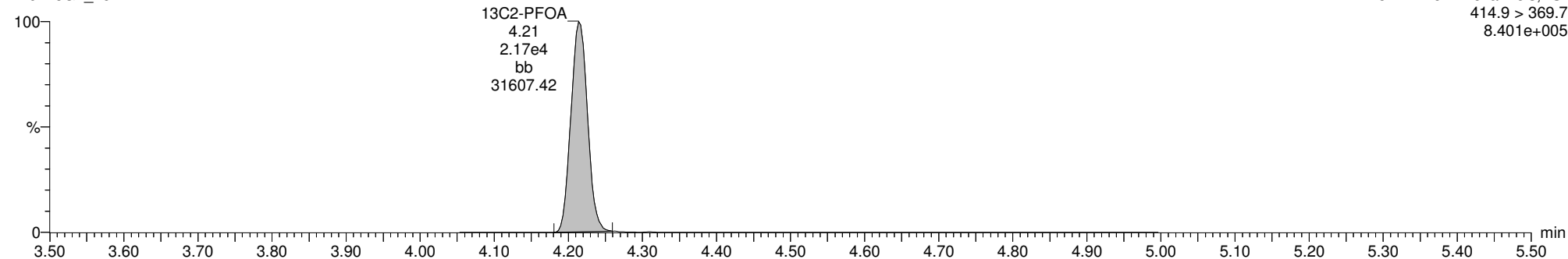


170415G1_16



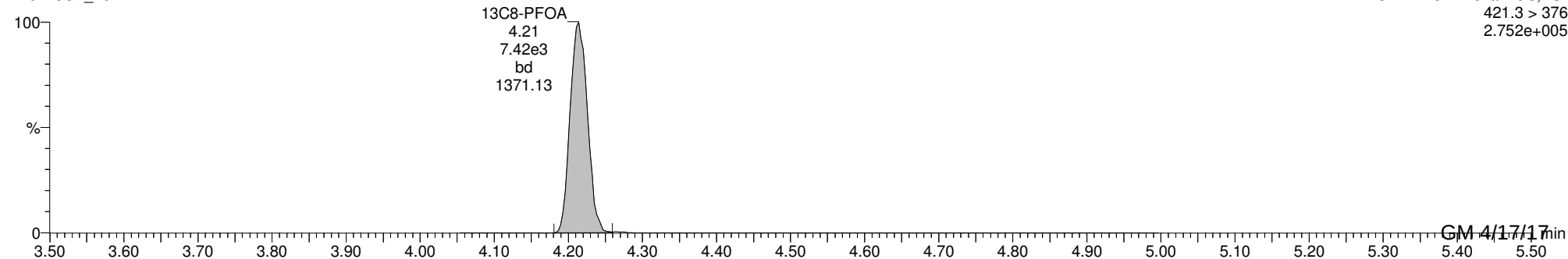
13C2-PFOA

170415G1_16



13C8-PFOA

170415G1_16



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-16.qld

Last Altered: Monday, April 17, 2017 12:36:25 Pacific Daylight Time

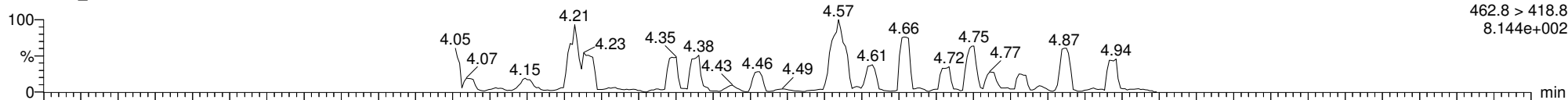
Printed: Monday, April 17, 2017 12:37:37 Pacific Daylight Time

ID: 1700417-08 OC-MW07-0417 0.12374, Description: OC-MW07-0417, Name: 170415G1_16, Date: 15-Apr-2017, Time: 14:31:59, Instrument: , Lab: , User:

PFNA

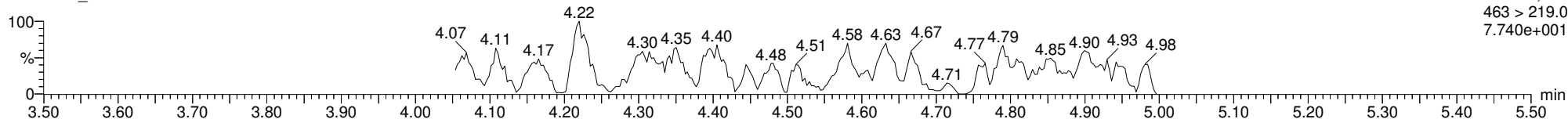
170415G1_16

F5:MRM of 12 channels,ES-
462.8 > 418.8
8.144e+002



170415G1_16

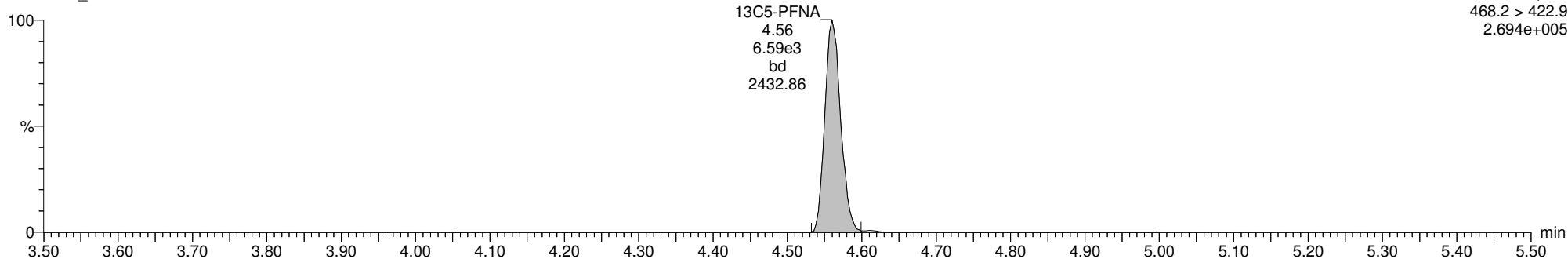
F5:MRM of 12 channels,ES-
463 > 219.0
7.740e+001



13C5-PFNA

170415G1_16

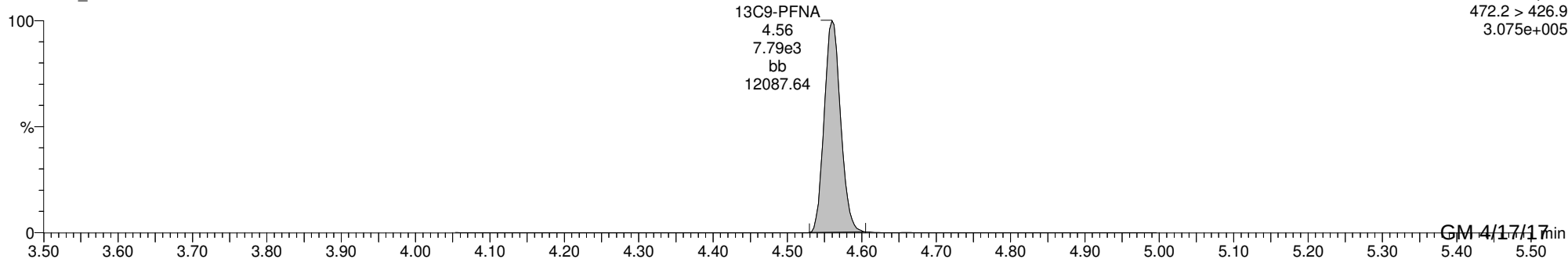
F5:MRM of 12 channels,ES-
468.2 > 422.9
2.694e+005



13C9-PFNA

170415G1_16

F5:MRM of 12 channels,ES-
472.2 > 426.9
3.075e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-16.qld

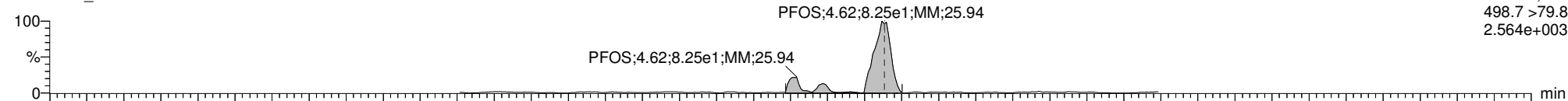
Last Altered: Monday, April 17, 2017 12:36:25 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:37:37 Pacific Daylight Time

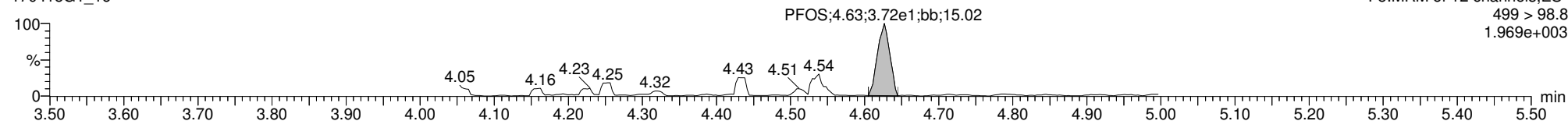
ID: 1700417-08 OC-MW07-0417 0.12374, Description: OC-MW07-0417, Name: 170415G1_16, Date: 15-Apr-2017, Time: 14:31:59, Instrument: , Lab: , User:

Total PFOS

170415G1_16

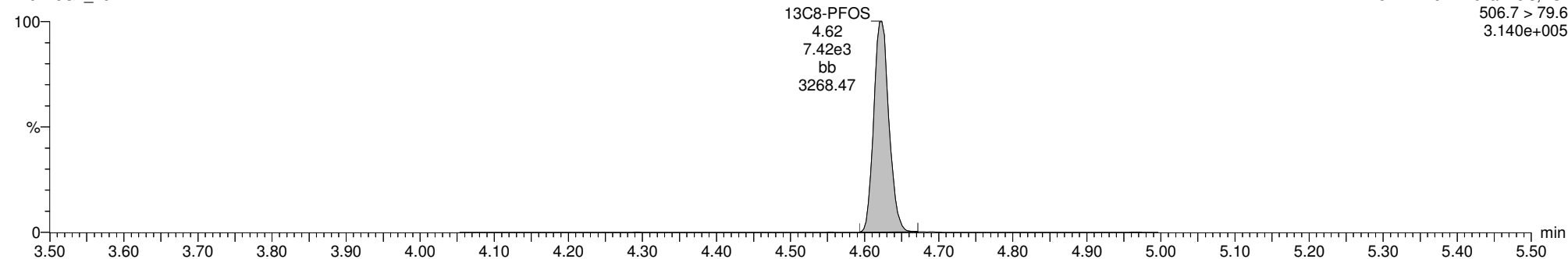


170415G1_16



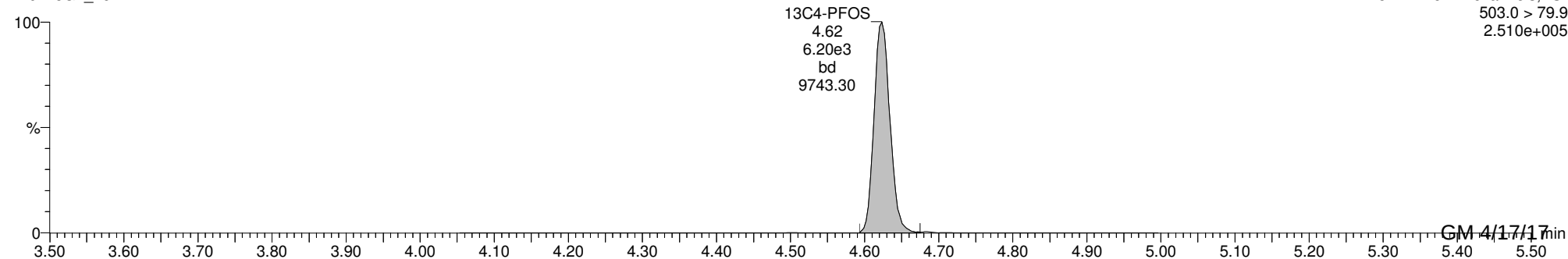
13C8-PFOS

170415G1_16



13C4-PFOS

170415G1_16



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	1.513e4	5.599e3		0.124	2.91	96.9	
2	2 PFHpA	363 > 318.9	1.971e4	1.016e4		0.124	3.80	101	
3	3 PFHxS	398.8 > 79.8	1.385e4	5.549e3		0.124	3.92	105	
4	4 PFOA	412.8 > 369.0	2.092e4	2.582e4		0.124	4.22	83.8	
5	5 PFNA	462.8 > 418.8	2.328e4	7.936e3		0.124	4.56	96.3	
6	6 PFOS	498.7 > 79.8	3.432e3	1.030e4		0.124	4.62	90.5	
7	7 13C3-PFBS	302.0 > 98.8	5.599e3	1.364e4	0.453	0.124	2.91	91.7	90.7
8	8 13C4-PFHpA	367.2 > 321.8	1.016e4	1.364e4	0.857	0.124	3.80	87.9	86.9
9	9 18O2-PFHxS	403 > 102.6	5.549e3	1.364e4	0.440	0.124	3.92	93.6	92.6
10	10 13C2-PFOA	414.9 > 369.7	2.582e4	7.735e3	3.366	0.124	4.22	100	99.2
11	11 13C5-PFNA	468.2 > 422.9	7.936e3	8.754e3	0.909	0.124	4.56	101	99.8
12	12 13C8-PFOS	506.7 > 79.6	1.030e4	8.063e3	1.304	0.124	4.62	99.0	97.9
13	13 13C5-PFHxA	318>272.9	1.863e4	1.863e4	1.000	0.124	3.28	101	100
14	14 13C3-PFHxS	401.9 > 79.9	1.364e4	1.364e4	1.000	0.124	3.92	101	100
15	15 13C8-PFOA	421.3 > 376	7.735e3	7.735e3	1.000	0.124	4.22	101	100
16	16 13C9-PFNA	472.2 > 426.9	8.754e3	8.754e3	1.000	0.124	4.55	101	100
17	17 13C4-PFOS	503.0 > 79.9	8.063e3	8.063e3	1.000	0.124	4.62	101	100
18	18 Total PFBS	298.8 > 79.7		5.549e3		0.124		96.9	
19	19 Total PFHxS	398.8 > 79.8		5.549e3		0.124		105	
20	20 Total PFOA	412.8 > 369.0		2.582e4		0.124		83.8	
21	21 Total PFOS	498.7 > 79.8		1.030e4		0.124		90.5	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7	2.91	15134.854	5599.090	96.9

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	13847.700	5549.060	104.7

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	20917.314	25821.313	83.8

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	498.7 > 79.8	4.62	3432.344	10302.018	90.5

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

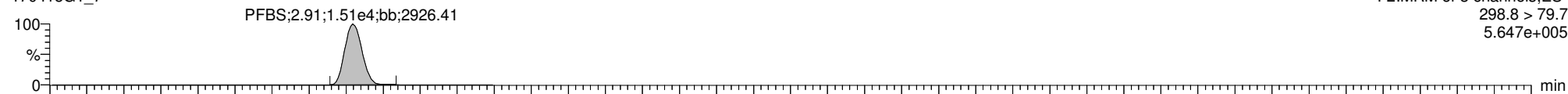
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

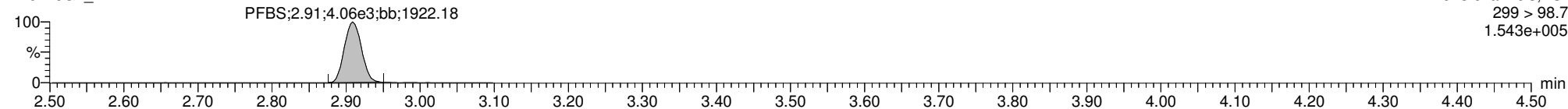
ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

PFBS

170415G1_7

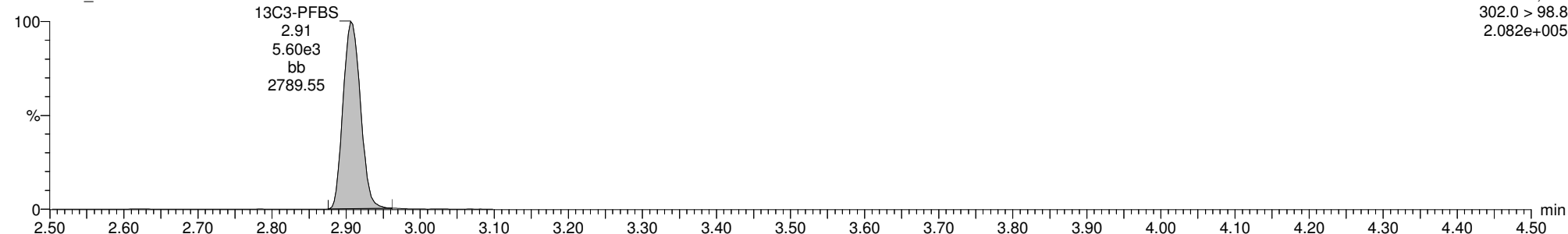


170415G1_7



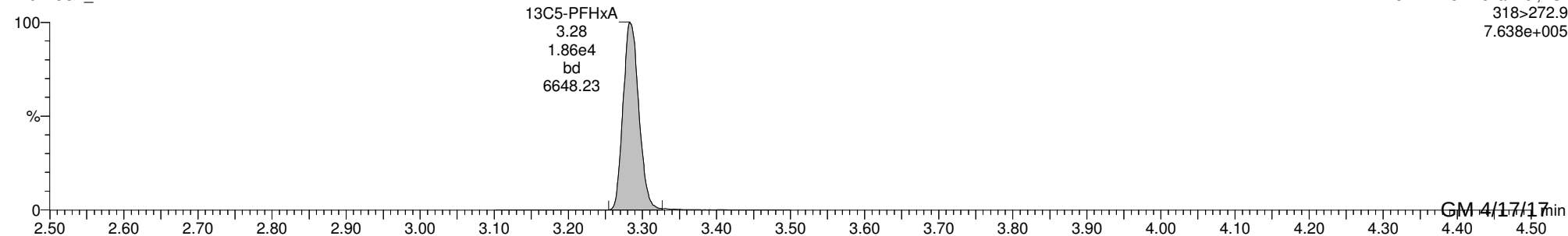
13C3-PFBS

170415G1_7



13C5-PFHxA

170415G1_7



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

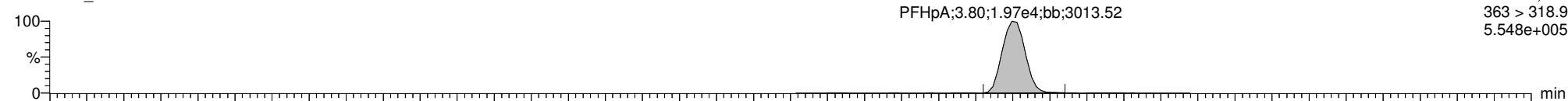
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

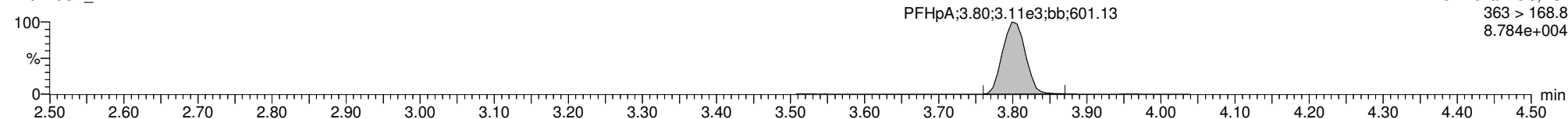
PFHpA

170415G1_7



F4:MRM of 7 channels,ES-
363 > 318.9
5.548e+005

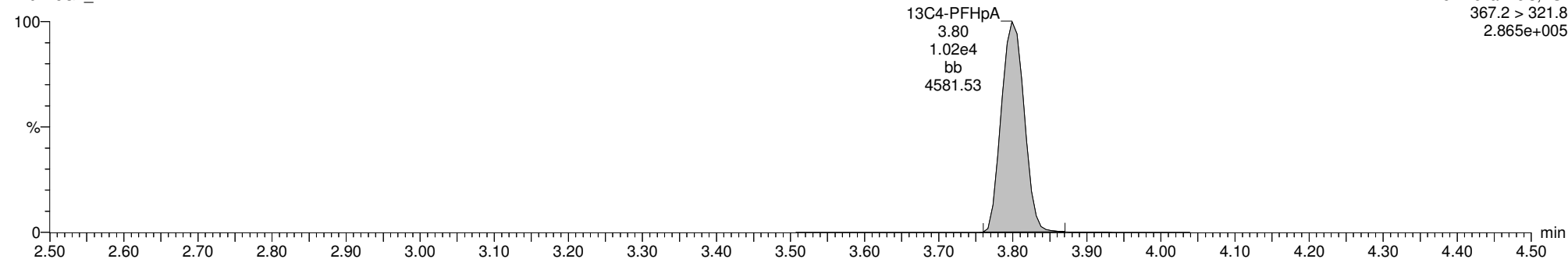
170415G1_7



F4:MRM of 7 channels,ES-
363 > 168.8
8.784e+004

13C4-PFHpA

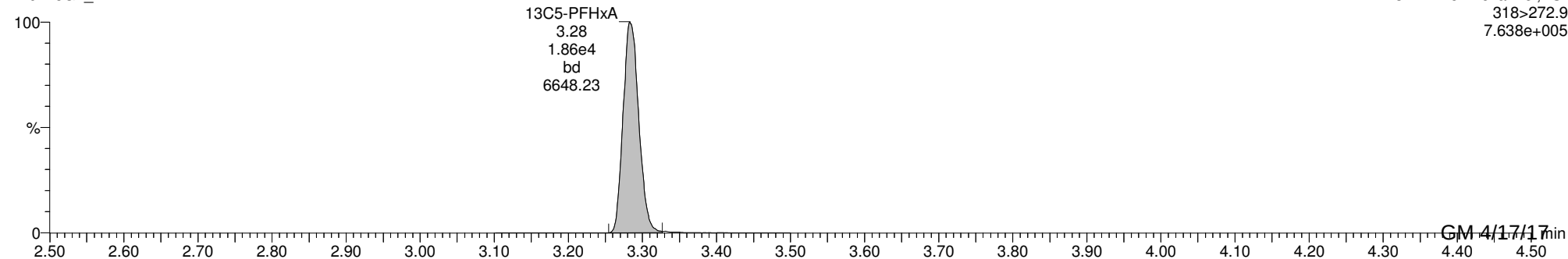
170415G1_7



F4:MRM of 7 channels,ES-
367.2 > 321.8
2.865e+005

13C5-PFHxA

170415G1_7



F3:MRM of 1 channel,ES-
318>272.9
7.638e+005

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

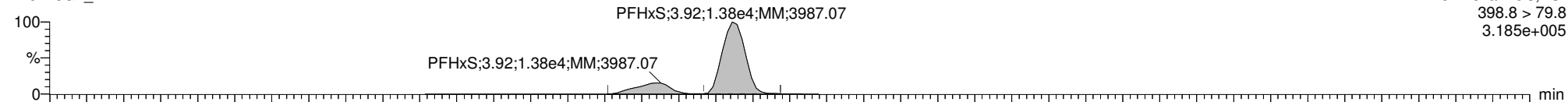
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

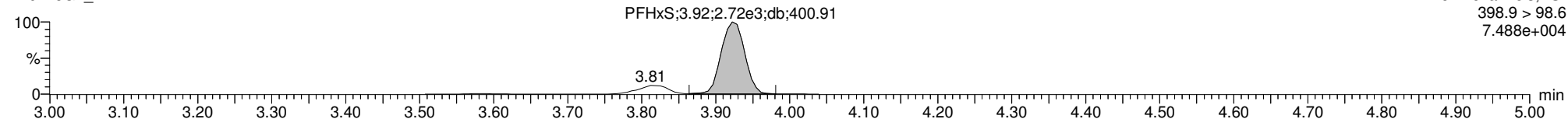
ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

Total PFHxS

170415G1_7

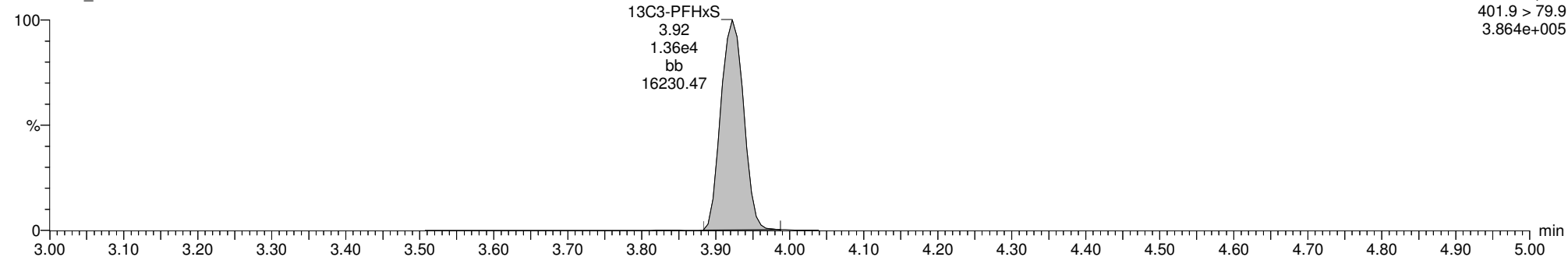


170415G1_7



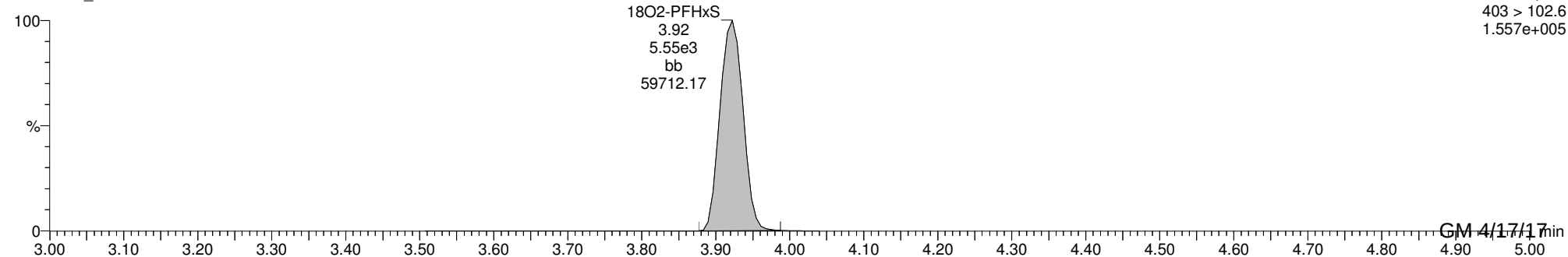
13C3-PFHxS

170415G1_7



18O2-PFHxS

170415G1_7



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

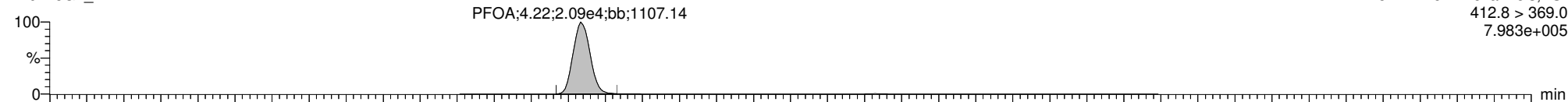
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

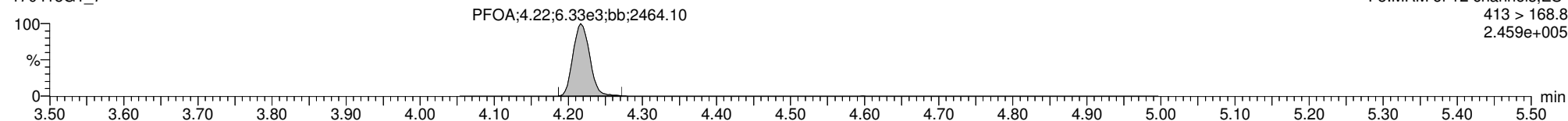
Total PFOA

170415G1_7



F5:MRM of 12 channels,ES-
412.8 > 369.0
7.983e+005

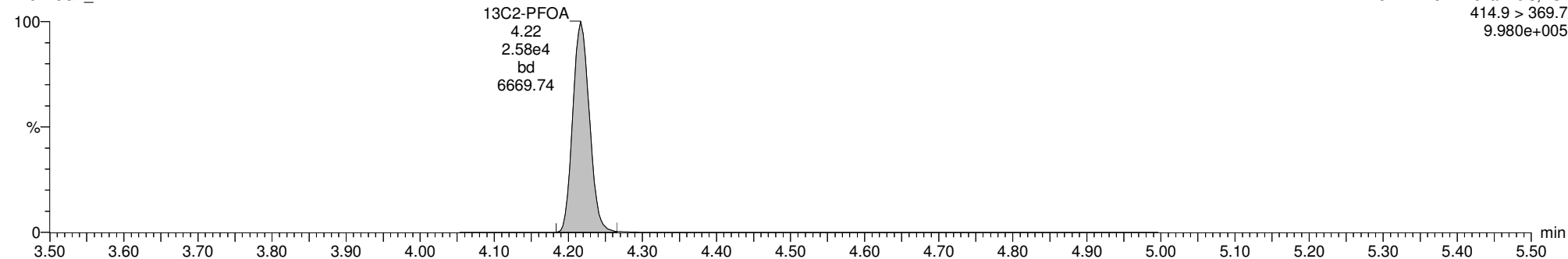
170415G1_7



F5:MRM of 12 channels,ES-
413 > 168.8
2.459e+005

13C2-PFOA

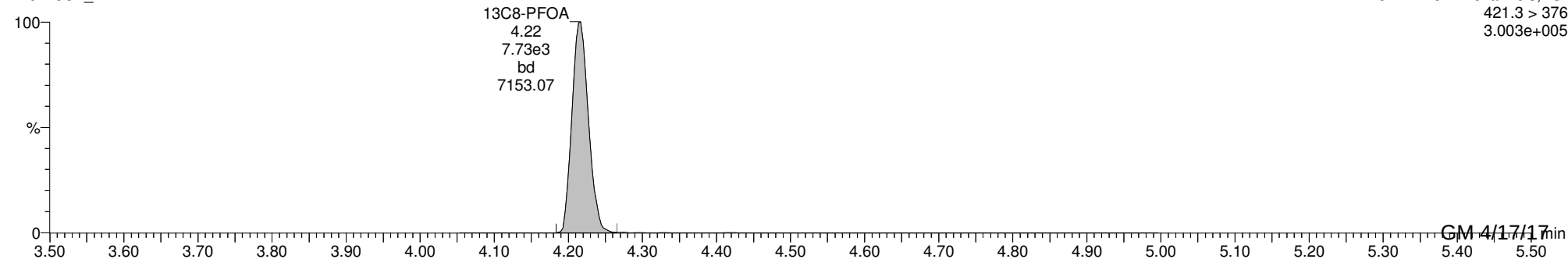
170415G1_7



F5:MRM of 12 channels,ES-
414.9 > 369.7
9.980e+005

13C8-PFOA

170415G1_7



F5:MRM of 12 channels,ES-
421.3 > 376
3.003e+005

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

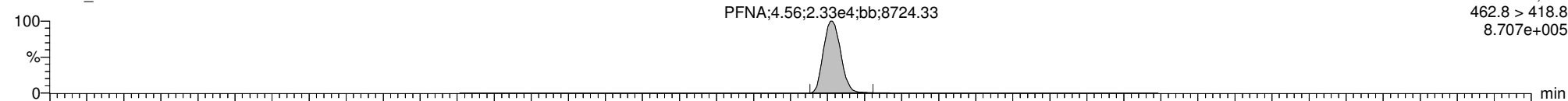
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

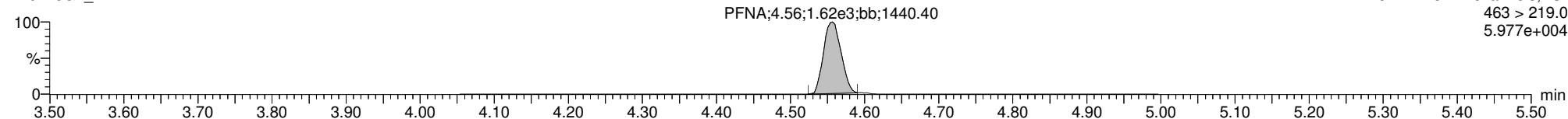
ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

PFNA

170415G1_7

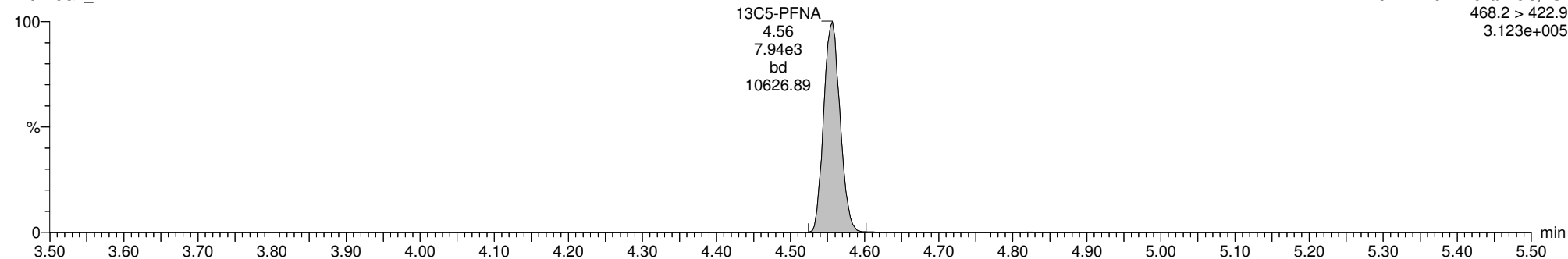


170415G1_7



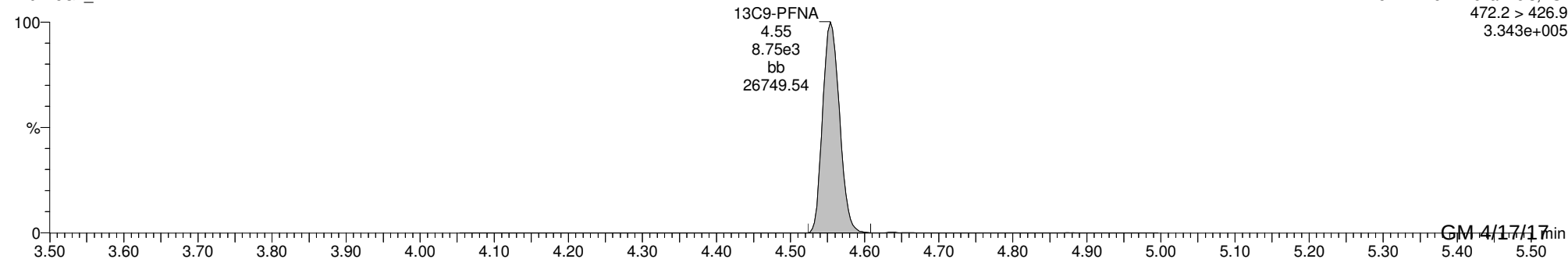
13C5-PFNA

170415G1_7



13C9-PFNA

170415G1_7



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

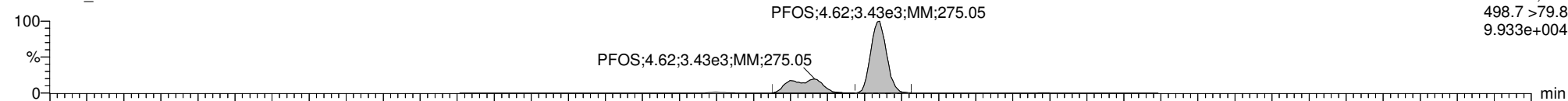
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

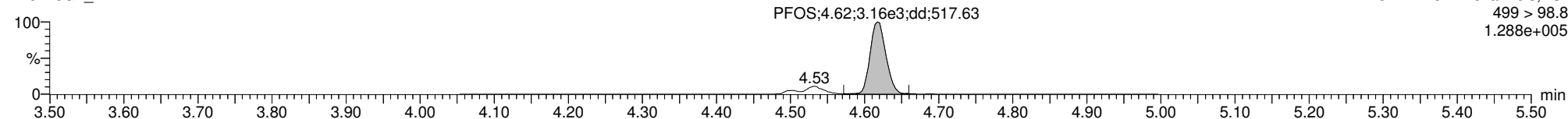
ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

Total PFOS

170415G1_7

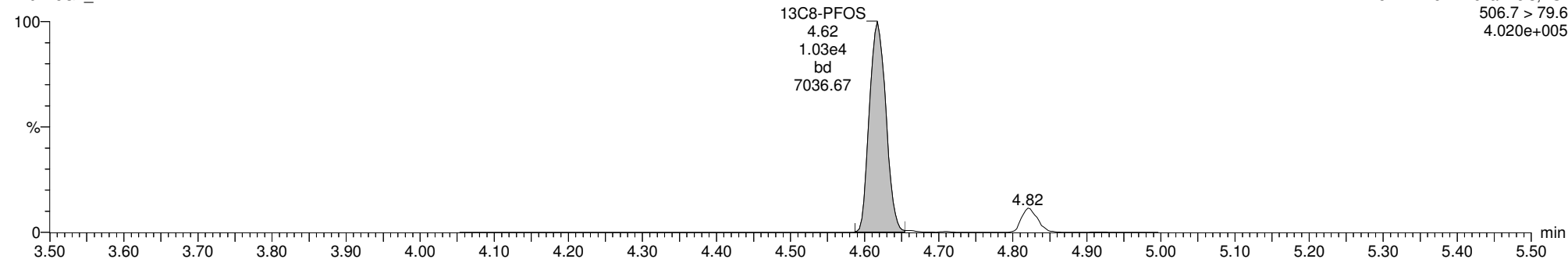


170415G1_7



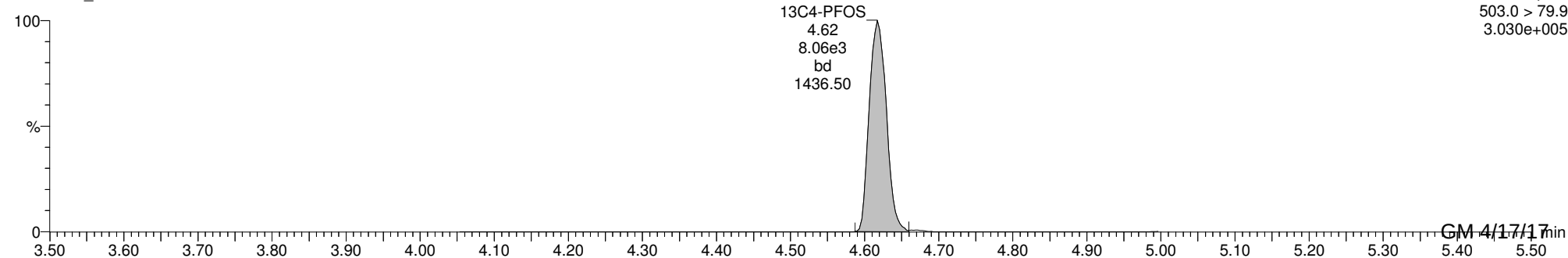
13C8-PFOS

170415G1_7



13C4-PFOS

170415G1_7



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	1.513e4	5.599e3		0.124	2.91	96.9	
2	2 PFHpA	363 > 318.9	1.971e4	1.016e4		0.124	3.80	101	
3	3 PFHxS	398.8 > 79.8	1.385e4	5.549e3		0.124	3.92	105	
4	4 PFOA	412.8 > 369.0	2.092e4	2.582e4		0.124	4.22	83.8	
5	5 PFNA	462.8 > 418.8	2.328e4	7.936e3		0.124	4.56	96.3	
6	6 PFOS	498.7 > 79.8	3.432e3	1.030e4		0.124	4.62	90.5	
7	7 13C3-PFBS	302.0 > 98.8	5.599e3	1.364e4	0.453	0.124	2.91	91.7	90.7
8	8 13C4-PFHpA	367.2 > 321.8	1.016e4	1.364e4	0.857	0.124	3.80	87.9	86.9
9	9 18O2-PFHxS	403 > 102.6	5.549e3	1.364e4	0.440	0.124	3.92	93.6	92.6
10	10 13C2-PFOA	414.9 > 369.7	2.582e4	7.735e3	3.366	0.124	4.22	100	99.2
11	11 13C5-PFNA	468.2 > 422.9	7.936e3	8.754e3	0.909	0.124	4.56	101	99.8
12	12 13C8-PFOS	506.7 > 79.6	1.030e4	8.063e3	1.304	0.124	4.62	99.0	97.9
13	13 13C5-PFHxA	318>272.9	1.863e4	1.863e4	1.000	0.124	3.28	101	100
14	14 13C3-PFHxS	401.9 > 79.9	1.364e4	1.364e4	1.000	0.124	3.92	101	100
15	15 13C8-PFOA	421.3 > 376	7.735e3	7.735e3	1.000	0.124	4.22	101	100
16	16 13C9-PFNA	472.2 > 426.9	8.754e3	8.754e3	1.000	0.124	4.55	101	100
17	17 13C4-PFOS	503.0 > 79.9	8.063e3	8.063e3	1.000	0.124	4.62	101	100
18	18 Total PFBS	298.8 > 79.7		5.549e3		0.124		96.9	
19	19 Total PFHxS	398.8 > 79.8		5.549e3		0.124		105	
20	20 Total PFOA	412.8 > 369.0		2.582e4		0.124		83.8	
21	21 Total PFOS	498.7 > 79.8		1.030e4		0.124		90.5	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7	2.91	15134.854	5599.090	96.9

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	13847.700	5549.060	104.7

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	20917.314	25821.313	83.8

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	498.7 > 79.8	4.62	3432.344	10302.018	90.5

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

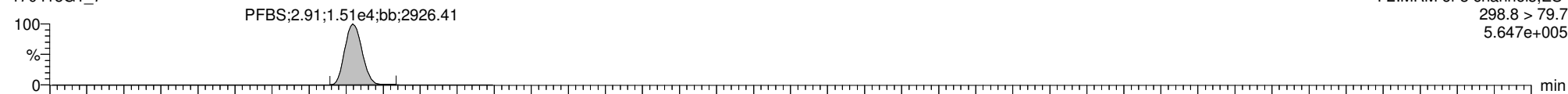
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

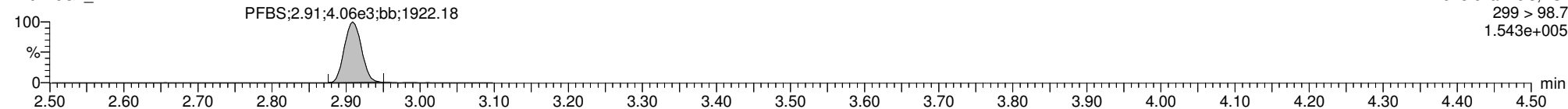
ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

PFBS

170415G1_7

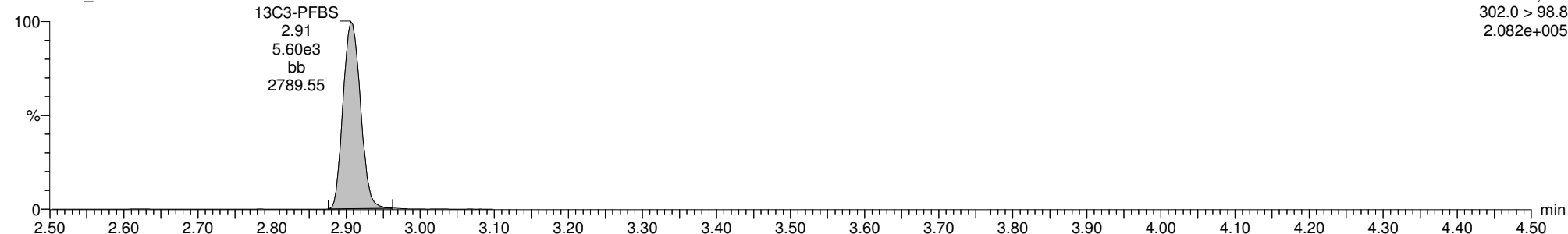


170415G1_7



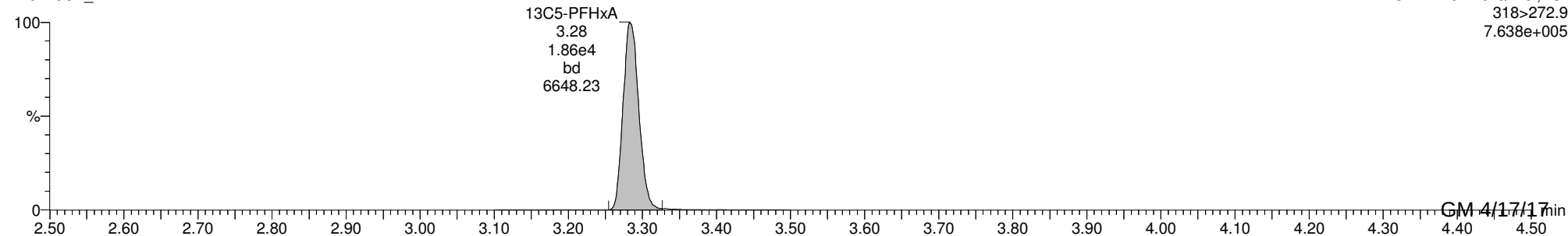
13C3-PFBS

170415G1_7



13C5-PFHxA

170415G1_7



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

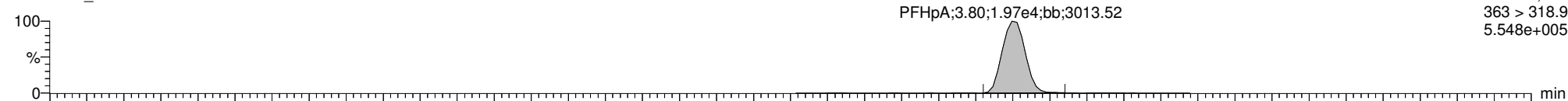
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

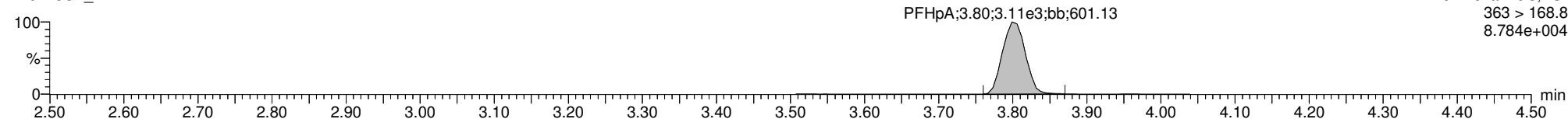
ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

PFHpA

170415G1_7

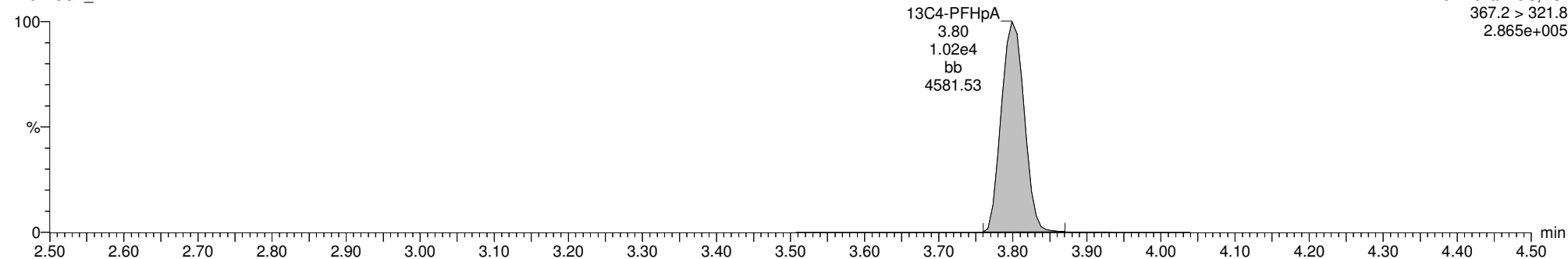


170415G1_7



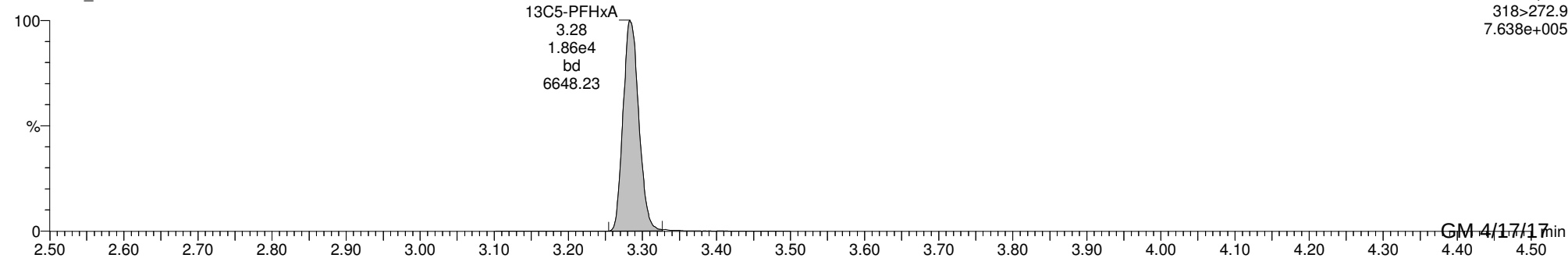
13C4-PFHpA

170415G1_7



13C5-PFHxA

170415G1_7



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

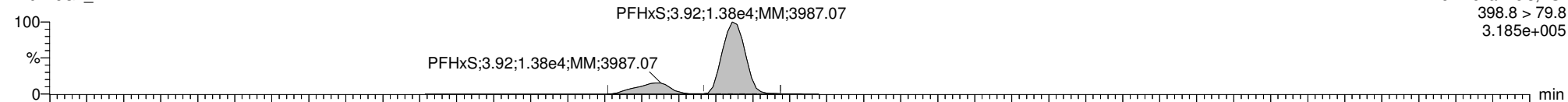
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

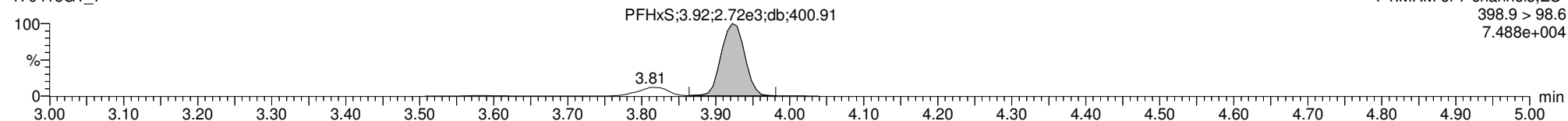
ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

Total PFHxS

170415G1_7

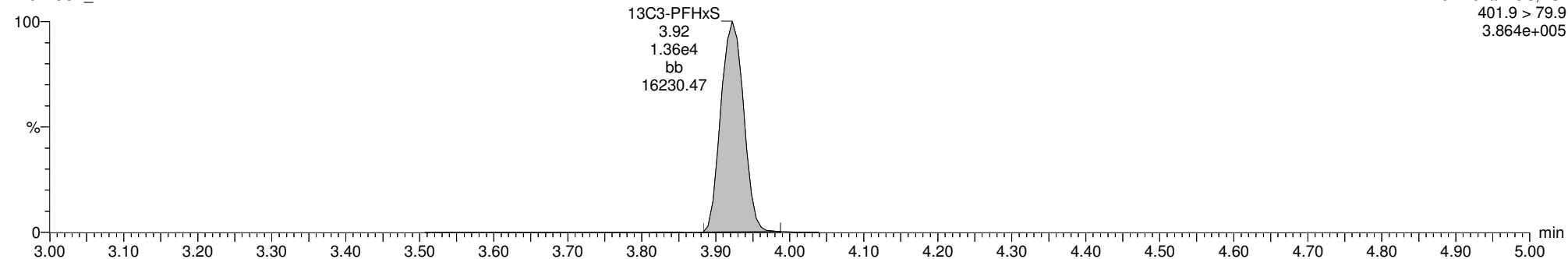


170415G1_7



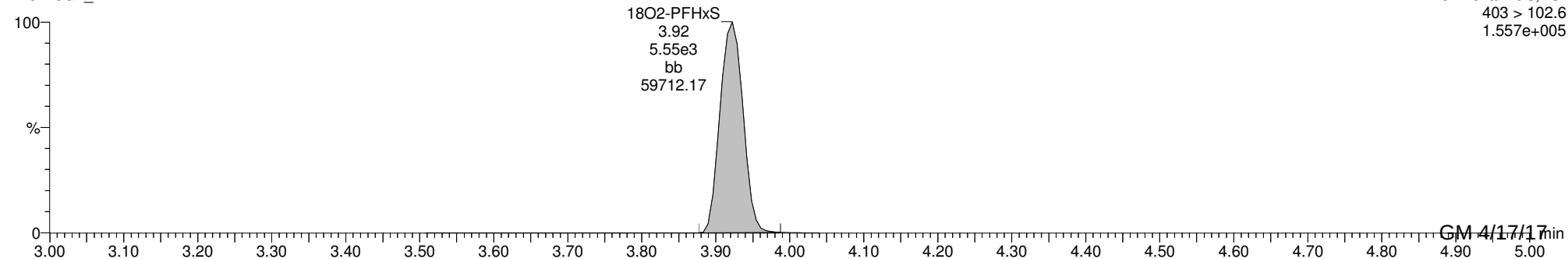
13C3-PFHxS

170415G1_7



18O2-PFHxS

170415G1_7



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

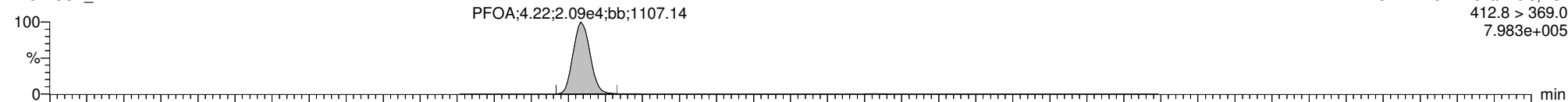
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

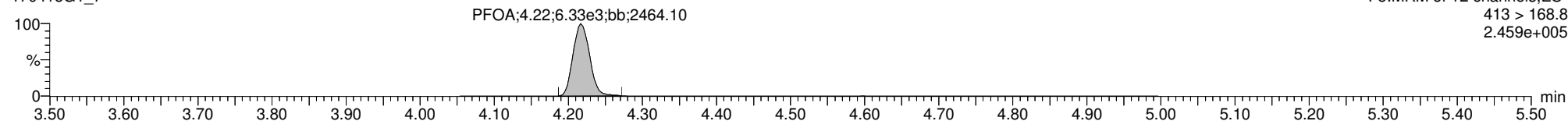
Total PFOA

170415G1_7



F5:MRM of 12 channels,ES-
412.8 > 369.0
7.983e+005

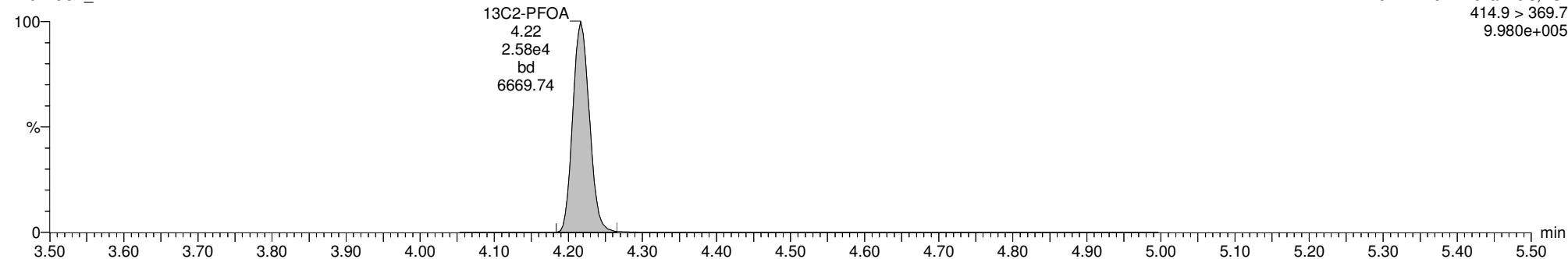
170415G1_7



F5:MRM of 12 channels,ES-
413 > 168.8
2.459e+005

13C2-PFOA

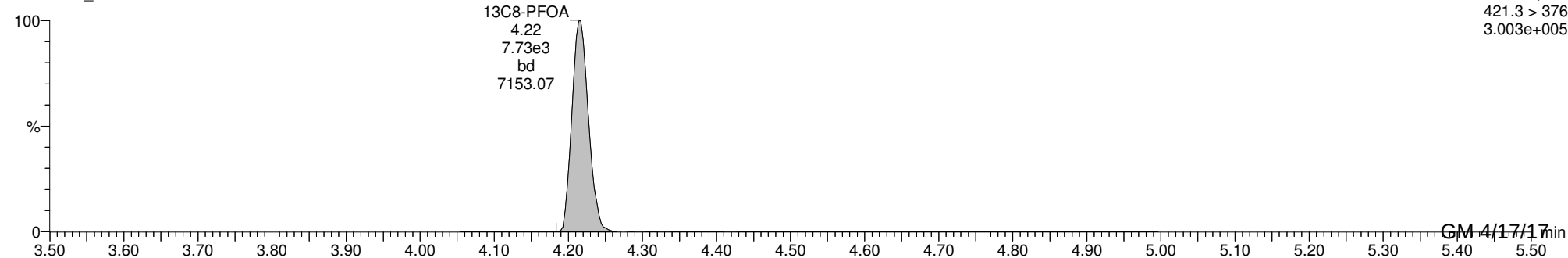
170415G1_7



F5:MRM of 12 channels,ES-
414.9 > 369.7
9.980e+005

13C8-PFOA

170415G1_7



F5:MRM of 12 channels,ES-
421.3 > 376
3.003e+005

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

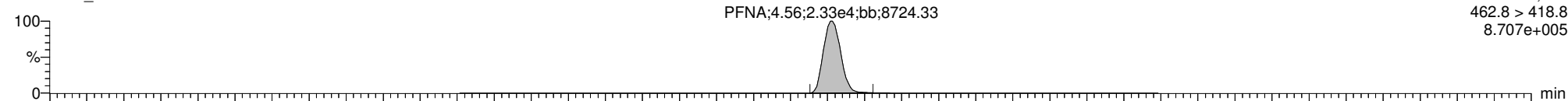
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

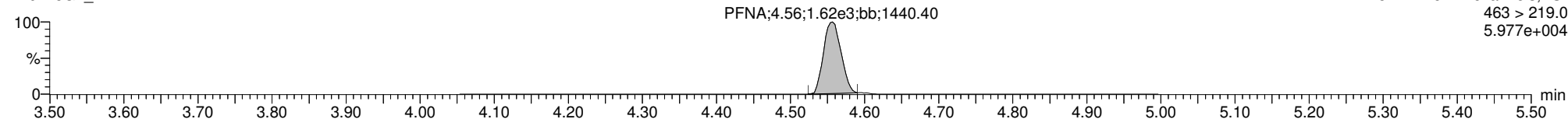
ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

PFNA

170415G1_7

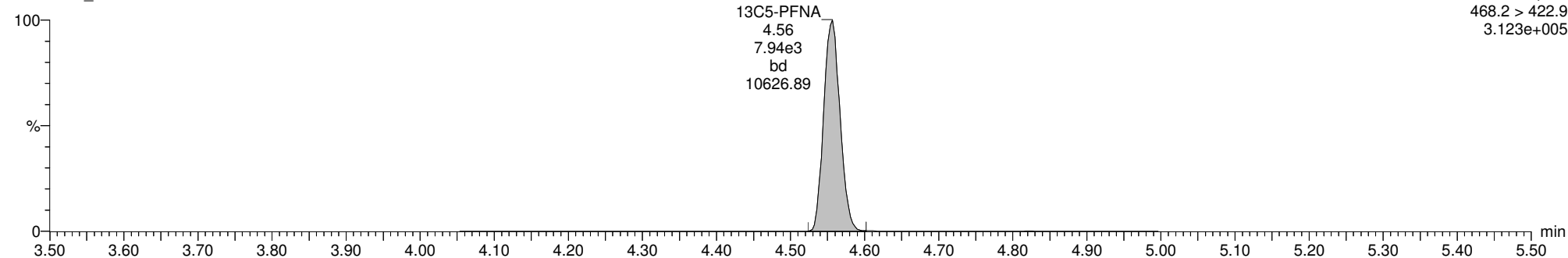


170415G1_7



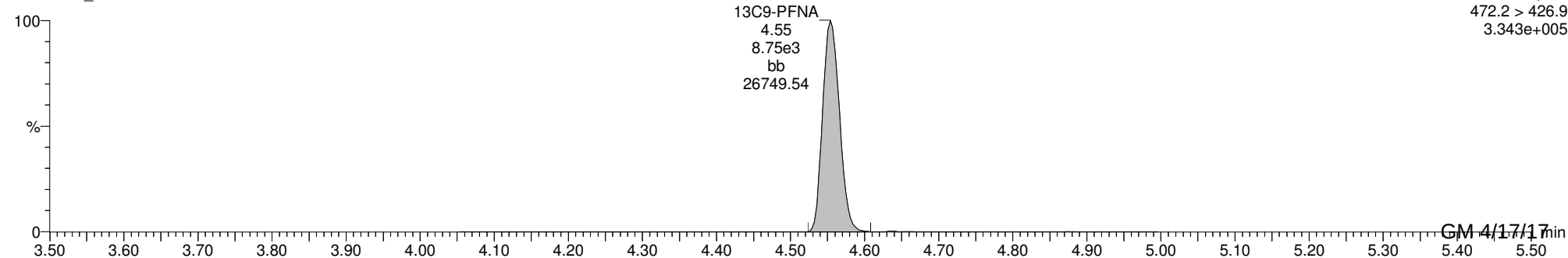
13C5-PFNA

170415G1_7



13C9-PFNA

170415G1_7



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-7.qld

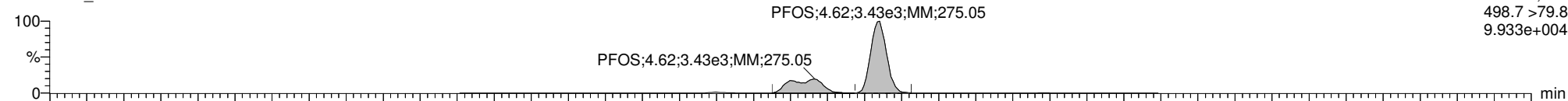
Last Altered: Monday, April 17, 2017 11:50:23 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:50:58 Pacific Daylight Time

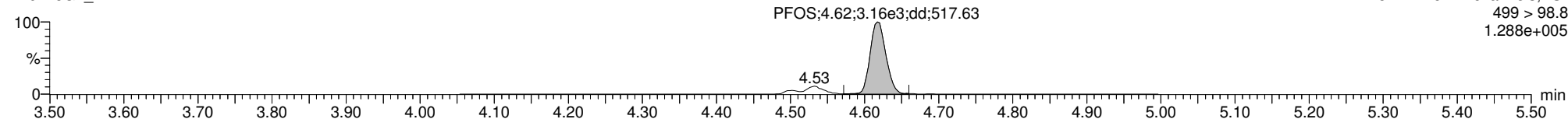
ID: B7D0026-MS1 Matrix Spike 0.12364, Description: Matrix Spike, Name: 170415G1_7, Date: 15-Apr-2017, Time: 12:38:37, Instrument: , Lab: , User:

Total PFOS

170415G1_7

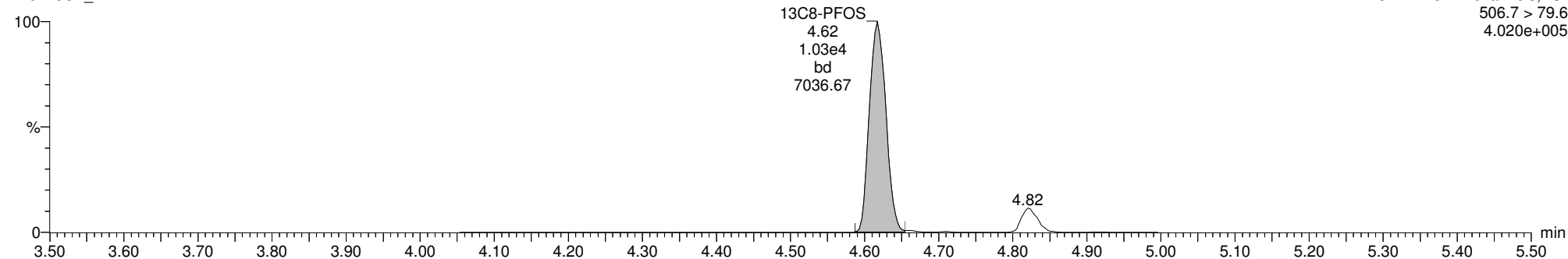


170415G1_7



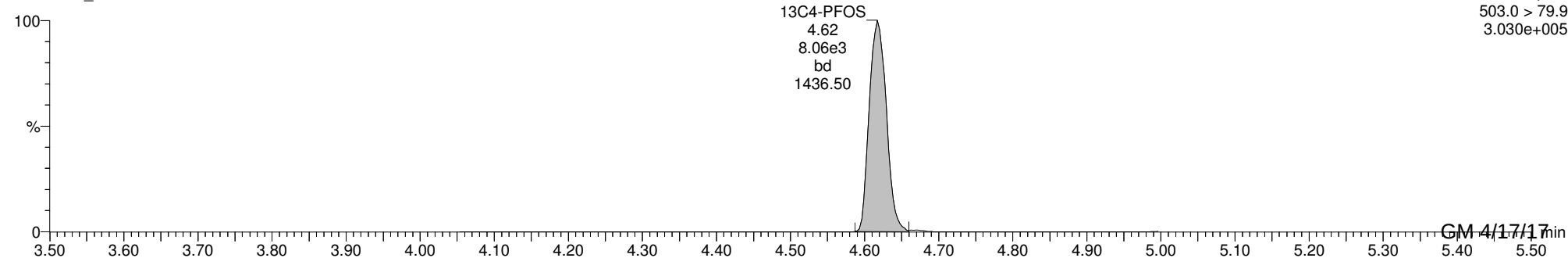
13C8-PFOS

170415G1_7



13C4-PFOS

170415G1_7



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-8.qld

Last Altered: Monday, April 17, 2017 11:54:06 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:55:36 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-MSD1 Matrix Spike Dup 0.12005, Description: Matrix Spike Dup, Name: 170415G1_8, Date: 15-Apr-2017, Time: 12:51:13

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	1.646e4	5.912e3		0.120	2.91	103	
2	2 PFHpA	363 > 318.9	2.092e4	1.127e4		0.120	3.80	99.8	
3	3 PFHxS	398.8 > 79.8	1.499e4	6.013e3		0.120	3.92	108	
4	4 PFOA	412.8 > 369.0	2.247e4	2.612e4		0.120	4.22	91.7	
5	5 PFNA	462.8 > 418.8	2.732e4	8.517e3		0.120	4.55	109	
6	6 PFOS	498.7 > 79.8	3.399e3	1.054e4		0.120	4.61	90.2	
7	7 13C3-PFBS	302.0 > 98.8	5.912e3	1.392e4	0.453	0.120	2.91	97.7	93.8
8	8 13C4-PFHpA	367.2 > 321.8	1.127e4	1.392e4	0.857	0.120	3.80	98.4	94.5
9	9 18O2-PFHxS	403 > 102.6	6.013e3	1.392e4	0.440	0.120	3.92	102	98.3
10	10 13C2-PFOA	414.9 > 369.7	2.612e4	8.106e3	3.366	0.120	4.21	99.7	95.7
11	11 13C5-PFNA	468.2 > 422.9	8.517e3	1.023e4	0.909	0.120	4.55	95.4	91.6
12	12 13C8-PFOS	506.7 > 79.6	1.054e4	8.941e3	1.304	0.120	4.62	94.1	90.3
13	13 13C5-PFHxA	318>272.9	1.945e4	1.945e4	1.000	0.120	3.28	104	100
14	14 13C3-PFHxS	401.9 > 79.9	1.392e4	1.392e4	1.000	0.120	3.92	104	100
15	15 13C8-PFOA	421.3 > 376	8.106e3	8.106e3	1.000	0.120	4.21	104	100
16	16 13C9-PFNA	472.2 > 426.9	1.023e4	1.023e4	1.000	0.120	4.55	104	100
17	17 13C4-PFOS	503.0 > 79.9	8.941e3	8.941e3	1.000	0.120	4.62	104	100
18	18 Total PFBS	298.8 > 79.7		6.013e3		0.120		103	
19	19 Total PFHxS	398.8 > 79.8		6.013e3		0.120		108	
20	20 Total PFOA	412.8 > 369.0		2.612e4		0.120		91.7	
21	21 Total PFOS	498.7 > 79.8		1.054e4		0.120		90.2	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-8.qld

Last Altered: Monday, April 17, 2017 11:54:06 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:55:36 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: B7D0026-MSD1 Matrix Spike Dup 0.12005, Description: Matrix Spike Dup, Name: 170415G1_8, Date: 15-Apr-2017, Time: 12:51:13

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	298.8 > 79.7	2.91	16461.223	5911.727	102.8

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	14991.736	6012.860	107.7
2	19 Total PFHxS	398.8 > 79.8	3.70	9.415	6012.860	

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	22473.660	26116.367	91.7

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	498.7 > 79.8	4.61	3399.387	10536.900	90.2

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-8.qld

Last Altered: Monday, April 17, 2017 11:54:06 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:55:36 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

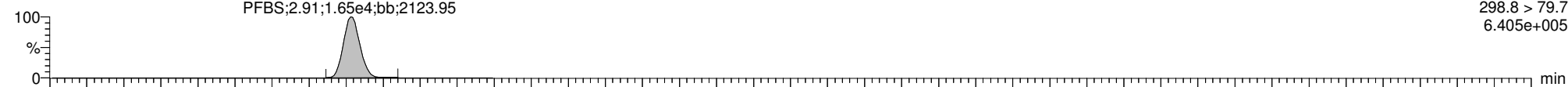
ID: B7D0026-MSD1 Matrix Spike Dup 0.12005, Description: Matrix Spike Dup, Name: 170415G1_8, Date: 15-Apr-2017, Time: 12:51:13, Instrument: , Lab: , User:

PFBS

170415G1_8

PFBS;2.91;1.65e4;bb;2123.95

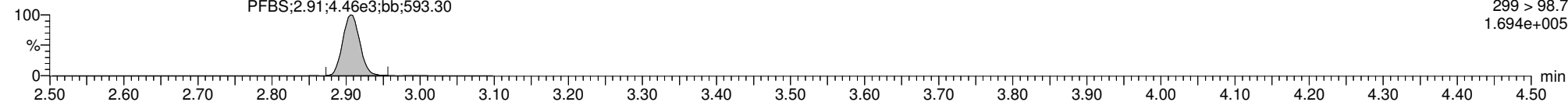
F2:MRM of 3 channels,ES-
298.8 > 79.7
6.405e+005



170415G1_8

PFBS;2.91;4.46e3;bb;593.30

F2:MRM of 3 channels,ES-
299 > 98.7
1.694e+005

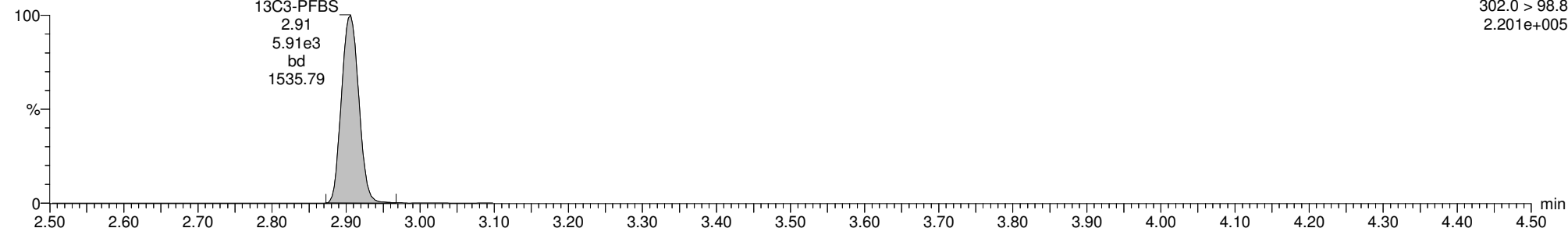


13C3-PFBS

170415G1_8

13C3-PFBS
2.91
5.91e3
bd
1535.79

F2:MRM of 3 channels,ES-
302.0 > 98.8
2.201e+005

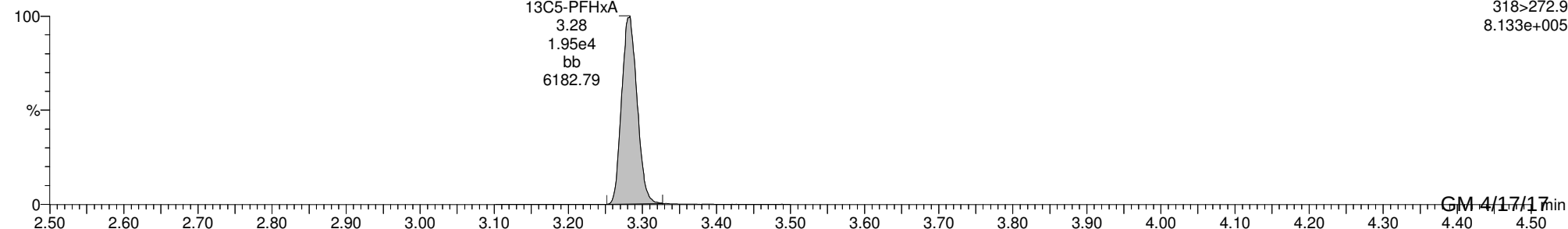


13C5-PFHxA

170415G1_8

13C5-PFHxA
3.28
1.95e4
bb
6182.79

F3:MRM of 1 channel,ES-
318>272.9
8.133e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-8.qld

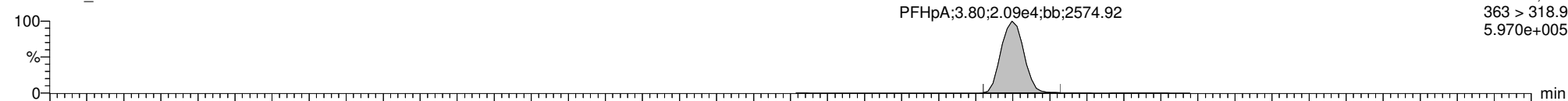
Last Altered: Monday, April 17, 2017 11:54:06 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:55:36 Pacific Daylight Time

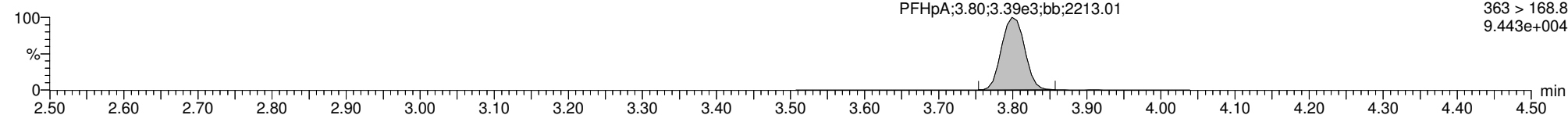
ID: B7D0026-MSD1 Matrix Spike Dup 0.12005, Description: Matrix Spike Dup, Name: 170415G1_8, Date: 15-Apr-2017, Time: 12:51:13, Instrument: , Lab: , User:

PFHpA

170415G1_8

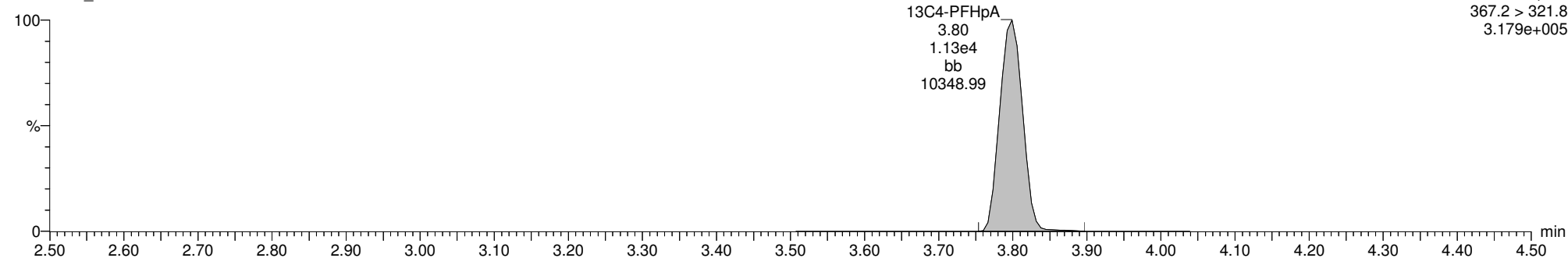


170415G1_8



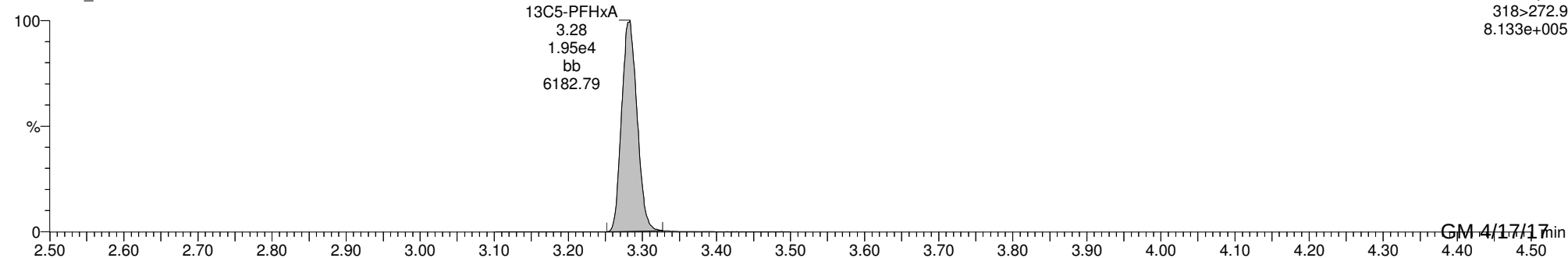
13C4-PFHpA

170415G1_8



13C5-PFHxA

170415G1_8



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-8.qld

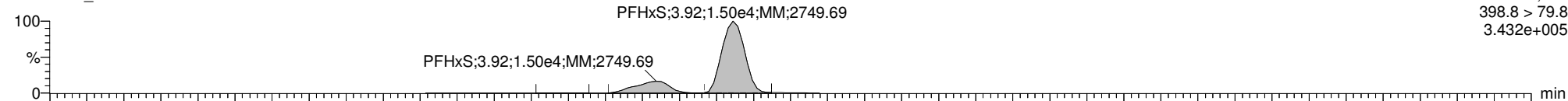
Last Altered: Monday, April 17, 2017 11:54:06 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:55:36 Pacific Daylight Time

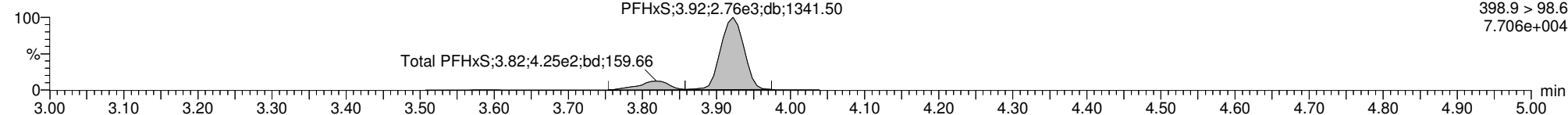
ID: B7D0026-MSD1 Matrix Spike Dup 0.12005, Description: Matrix Spike Dup, Name: 170415G1_8, Date: 15-Apr-2017, Time: 12:51:13, Instrument: , Lab: , User:

Total PFHxS

170415G1_8

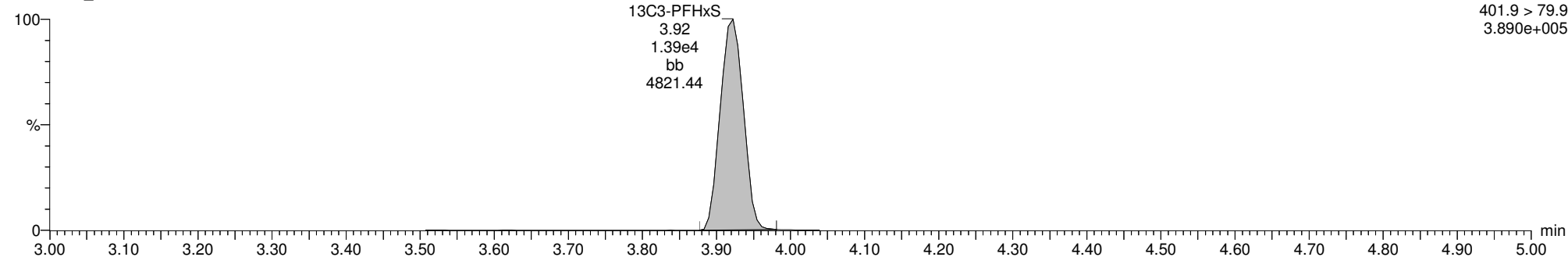


170415G1_8



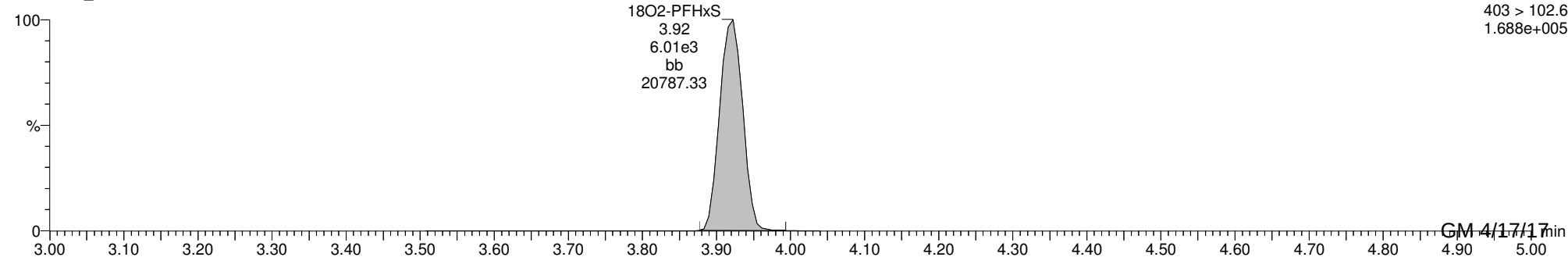
13C3-PFHxS

170415G1_8



18O2-PFHxS

170415G1_8



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-8.qld

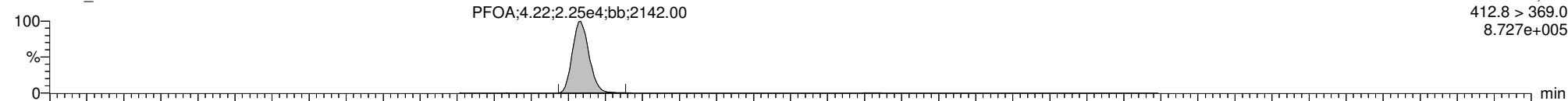
Last Altered: Monday, April 17, 2017 11:54:06 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:55:36 Pacific Daylight Time

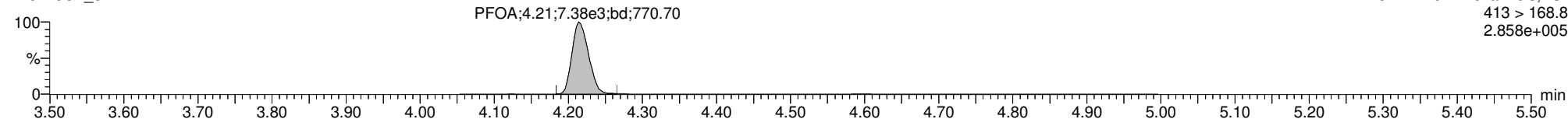
ID: B7D0026-MSD1 Matrix Spike Dup 0.12005, Description: Matrix Spike Dup, Name: 170415G1_8, Date: 15-Apr-2017, Time: 12:51:13, Instrument: , Lab: , User:

Total PFOA

170415G1_8

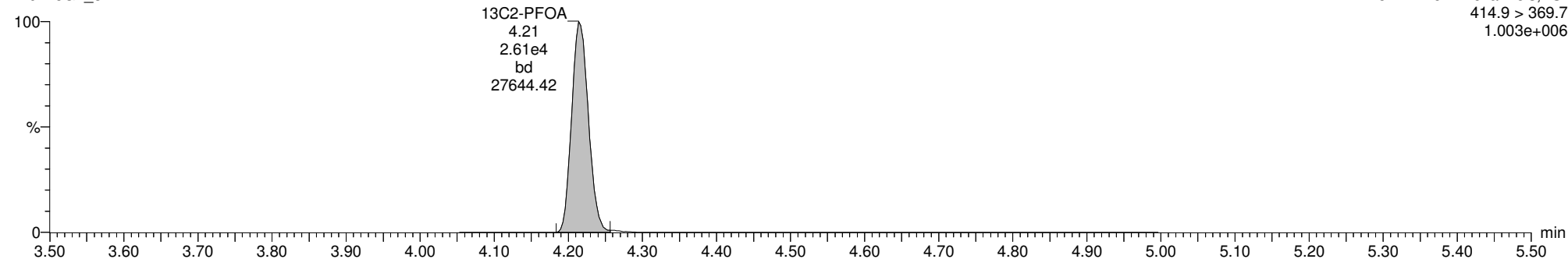


170415G1_8



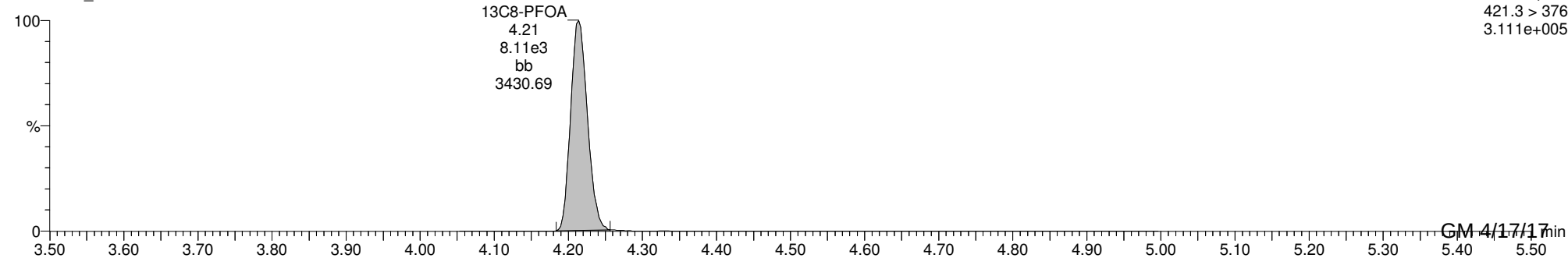
13C2-PFOA

170415G1_8



13C8-PFOA

170415G1_8



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-8.qld

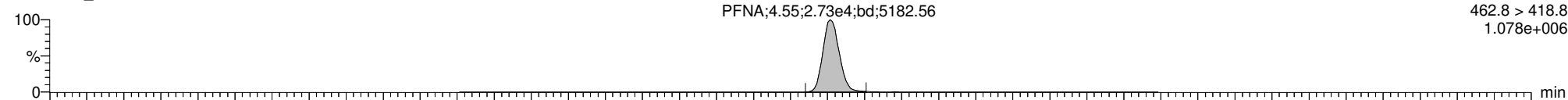
Last Altered: Monday, April 17, 2017 11:54:06 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:55:36 Pacific Daylight Time

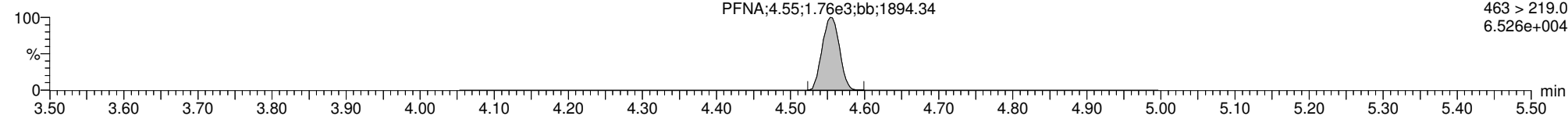
ID: B7D0026-MSD1 Matrix Spike Dup 0.12005, Description: Matrix Spike Dup, Name: 170415G1_8, Date: 15-Apr-2017, Time: 12:51:13, Instrument: , Lab: , User:

PFNA

170415G1_8

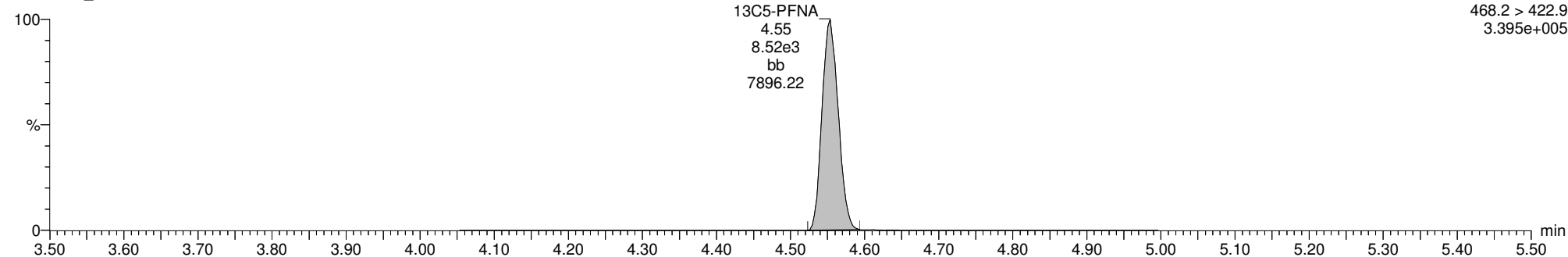


170415G1_8



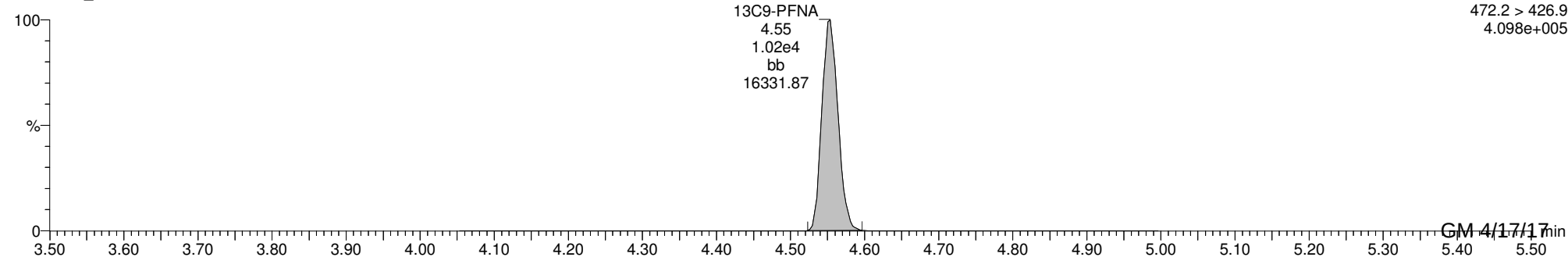
13C5-PFNA

170415G1_8



13C9-PFNA

170415G1_8



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-8.qld

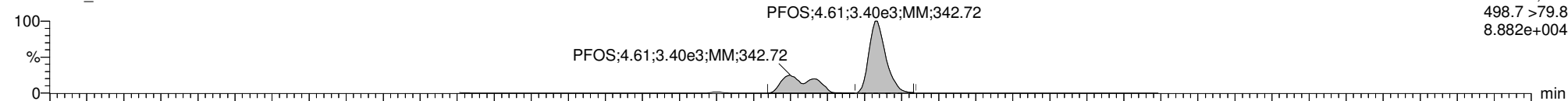
Last Altered: Monday, April 17, 2017 11:54:06 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:55:36 Pacific Daylight Time

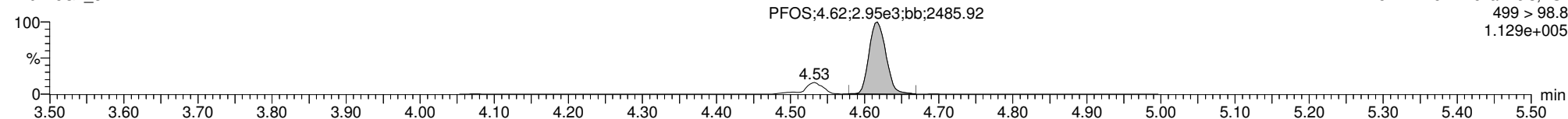
ID: B7D0026-MSD1 Matrix Spike Dup 0.12005, Description: Matrix Spike Dup, Name: 170415G1_8, Date: 15-Apr-2017, Time: 12:51:13, Instrument: , Lab: , User:

Total PFOS

170415G1_8

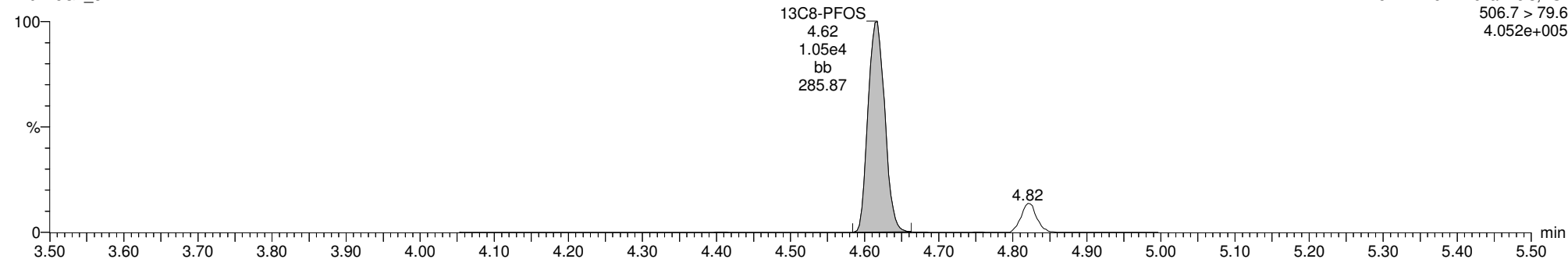


170415G1_8



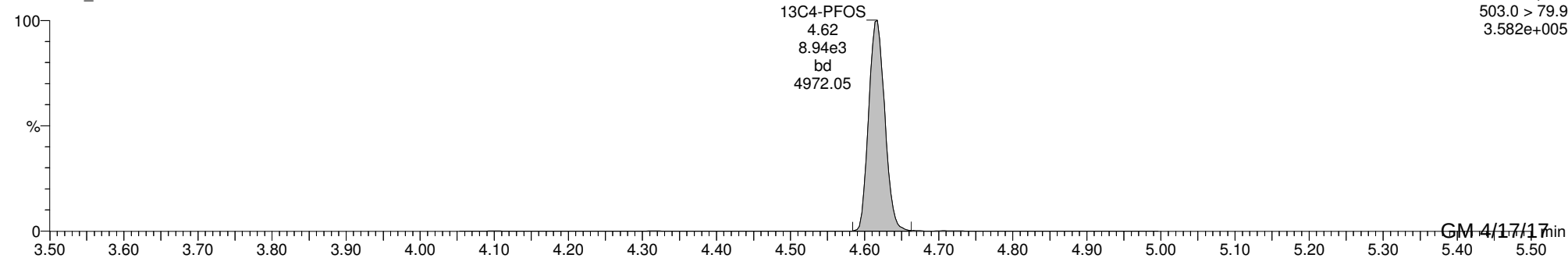
13C8-PFOS

170415G1_8



13C4-PFOS

170415G1_8



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-17.qld

Last Altered: Monday, April 17, 2017 12:41:02 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:41:53 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-09 OC-EB040417 0.11684, Description: OC-EB040417, Name: 170415G1_17, Date: 15-Apr-2017, Time: 14:44:35

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7		6.027e3		0.117			
2	2 PFHpA	363 > 318.9		1.110e4		0.117			
3	3 PFHxS	398.8 > 79.8	6.201e1	5.679e3		0.117	3.92	0.139	
4	4 PFOA	412.8 > 369.0	1.013e2	2.339e4		0.117	4.23		
5	5 PFNA	462.8 > 418.8		9.318e3		0.117			
6	6 PFOS	498.7 > 79.8		1.251e4		0.117			
7	7 13C3-PFBS	302.0 > 98.8	6.027e3	1.380e4	0.453	0.117	2.91	103	96.5
8	8 13C4-PFHxA	367.2 > 321.8	1.110e4	1.380e4	0.857	0.117	3.80	100	93.9
9	9 18O2-PFHxS	403 > 102.6	5.679e3	1.380e4	0.440	0.117	3.92	100	93.6
10	10 13C2-PFOA	414.9 > 369.7	2.339e4	8.304e3	3.366	0.117	4.21	89.5	83.7
11	11 13C5-PFNA	468.2 > 422.9	9.318e3	1.121e4	0.909	0.117	4.56	97.9	91.5
12	12 13C8-PFOS	506.7 > 79.6	1.251e4	1.004e4	1.304	0.117	4.62	102	95.5
13	13 13C5-PFHxA	318>272.9	1.915e4	1.915e4	1.000	0.117	3.28	107	100
14	14 13C3-PFHxS	401.9 > 79.9	1.380e4	1.380e4	1.000	0.117	3.92	107	100
15	15 13C8-PFOA	421.3 > 376	8.304e3	8.304e3	1.000	0.117	4.22	107	100
16	16 13C9-PFNA	472.2 > 426.9	1.121e4	1.121e4	1.000	0.117	4.56	107	100
17	17 13C4-PFOS	503.0 > 79.9	1.004e4	1.004e4	1.000	0.117	4.62	107	100
18	18 Total PFBS	298.8 > 79.7		5.679e3		0.117			
19	19 Total PFHxS	398.8 > 79.8		5.679e3		0.117		0.139	
20	20 Total PFOA	412.8 > 369.0		2.339e4		0.117			
21	21 Total PFOS	498.7 > 79.8		1.251e4		0.117			

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-17.qld

Last Altered: Monday, April 17, 2017 12:41:02 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:41:53 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-09 OC-EB040417 0.11684, Description: OC-EB040417, Name: 170415G1_17, Date: 15-Apr-2017, Time: 14:44:35

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.8 > 79.8	3.92	62.005	5679.458	0.1

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.23	101.260	23392.889	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-17.qld

Last Altered: Monday, April 17, 2017 12:41:02 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:41:53 Pacific Daylight Time

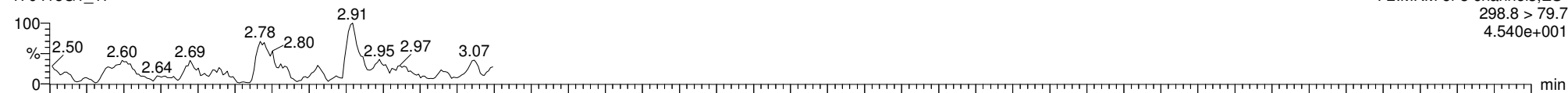
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

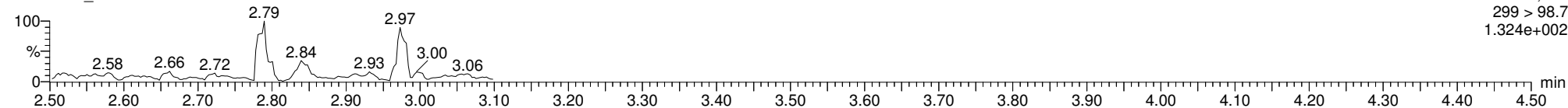
ID: 1700417-09 OC-EB040417 0.11684, Description: OC-EB040417, Name: 170415G1_17, Date: 15-Apr-2017, Time: 14:44:35, Instrument: , Lab: , User:

PFBS

170415G1_17

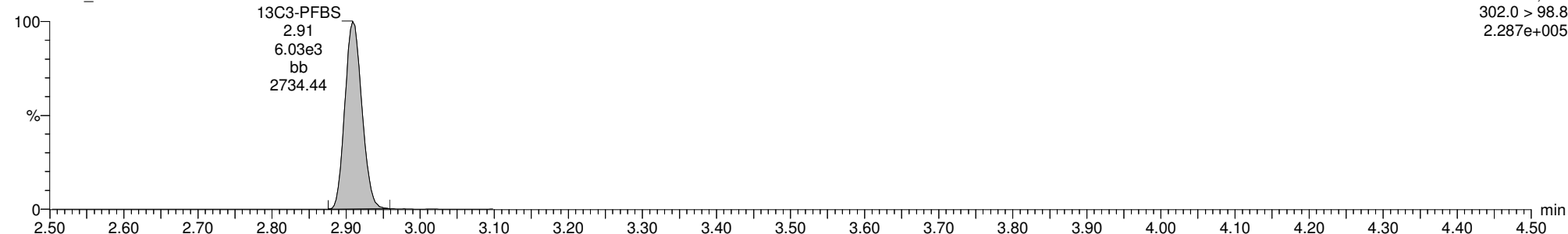


170415G1_17



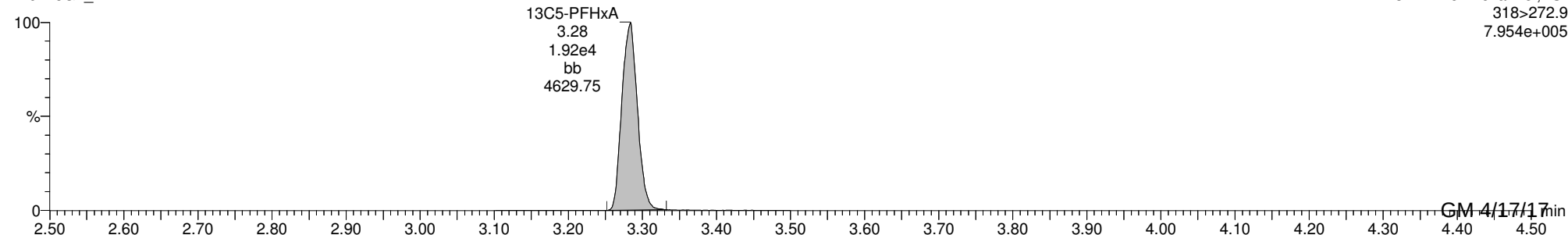
13C3-PFBS

170415G1_17



13C5-PFHxA

170415G1_17



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-17.qld

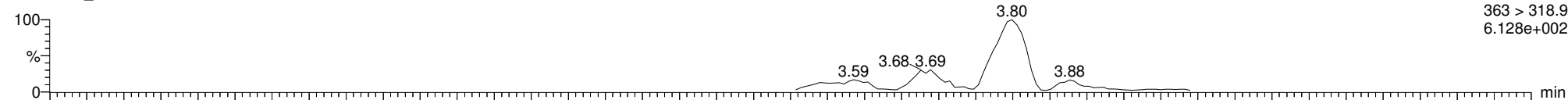
Last Altered: Monday, April 17, 2017 12:41:02 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:41:53 Pacific Daylight Time

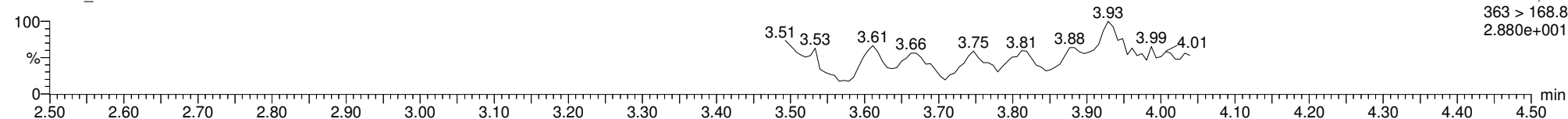
ID: 1700417-09 OC-EB040417 0.11684, Description: OC-EB040417, Name: 170415G1_17, Date: 15-Apr-2017, Time: 14:44:35, Instrument: , Lab: , User:

PFHpA

170415G1_17

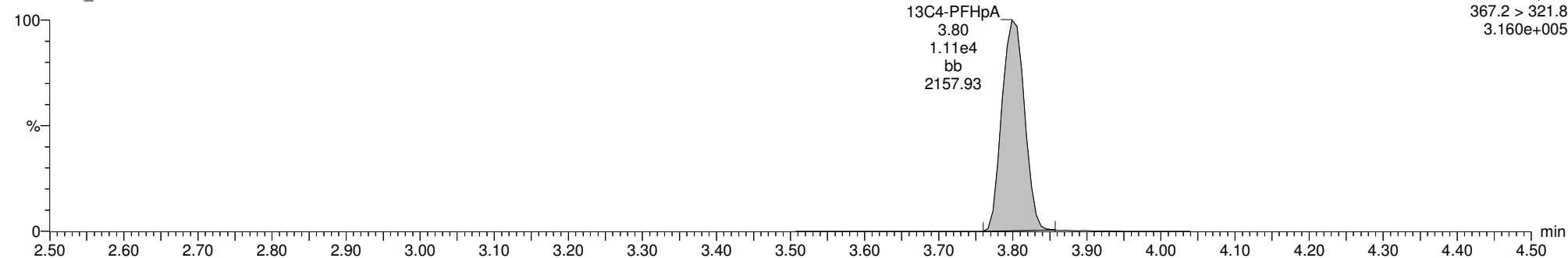


170415G1_17



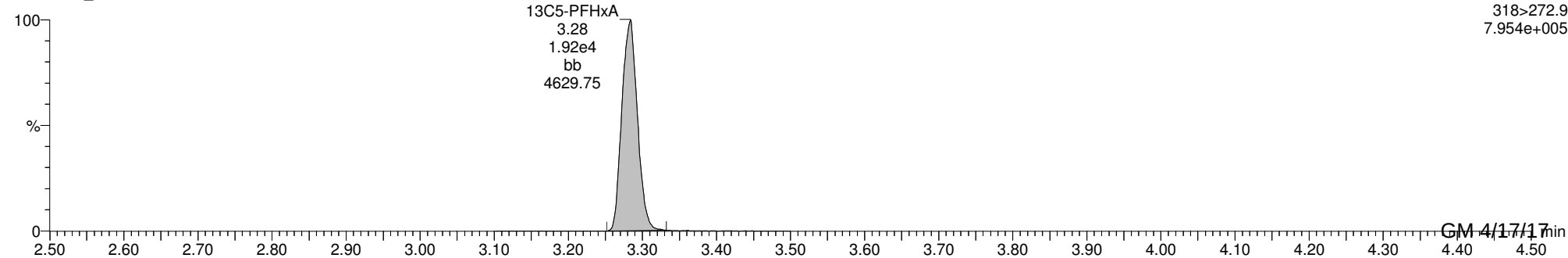
13C4-PFHpA

170415G1_17



13C5-PFHxA

170415G1_17



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-17.qld

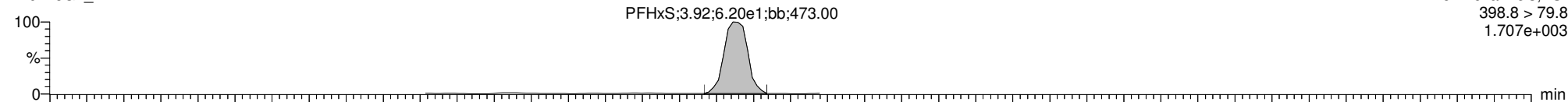
Last Altered: Monday, April 17, 2017 12:41:02 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:41:53 Pacific Daylight Time

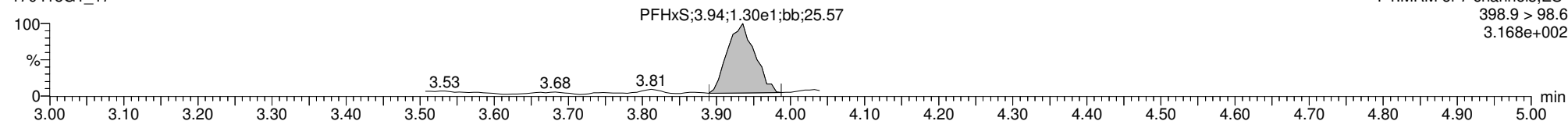
ID: 1700417-09 OC-EB040417 0.11684, Description: OC-EB040417, Name: 170415G1_17, Date: 15-Apr-2017, Time: 14:44:35, Instrument: , Lab: , User:

Total PFHxS

170415G1_17

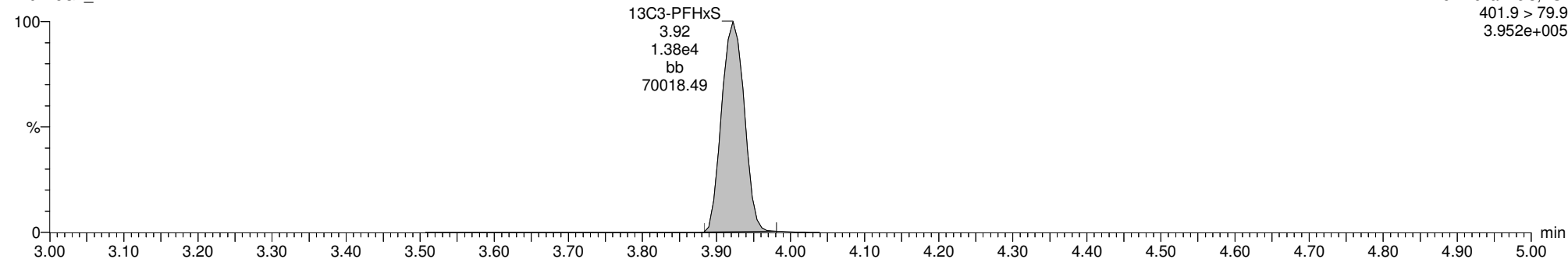


170415G1_17



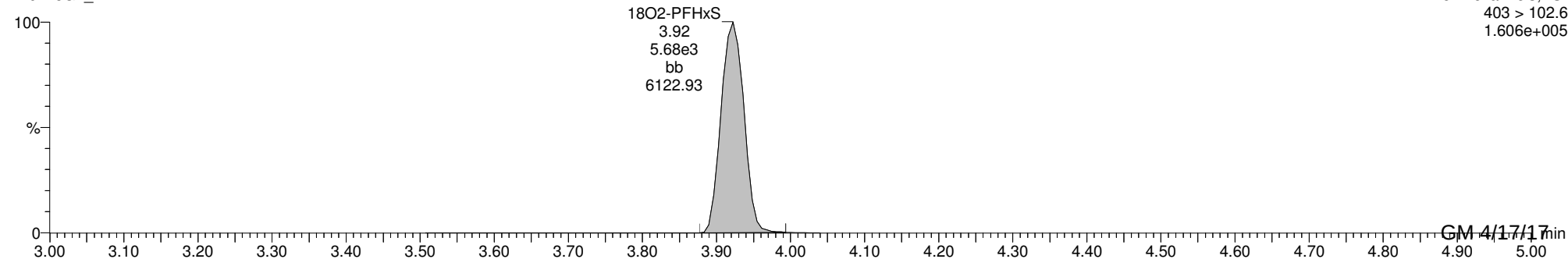
13C3-PFHxS

170415G1_17



18O2-PFHxS

170415G1_17



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-17.qld

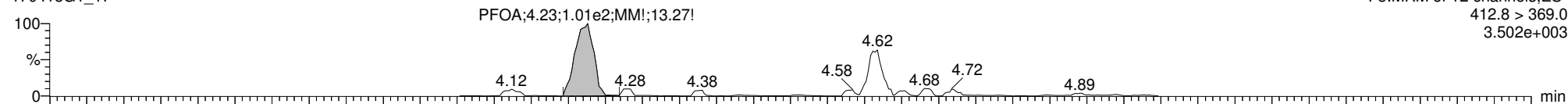
Last Altered: Monday, April 17, 2017 12:41:02 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:41:53 Pacific Daylight Time

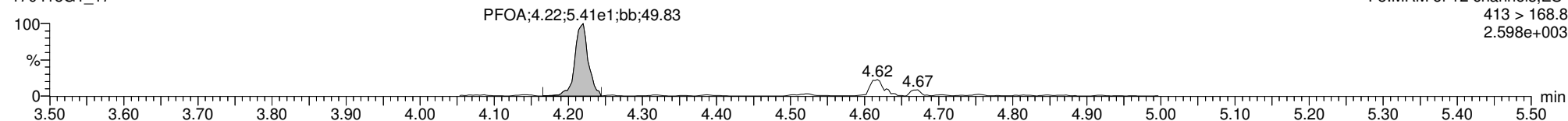
ID: 1700417-09 OC-EB040417 0.11684, Description: OC-EB040417, Name: 170415G1_17, Date: 15-Apr-2017, Time: 14:44:35, Instrument: , Lab: , User:

Total PFOA

170415G1_17

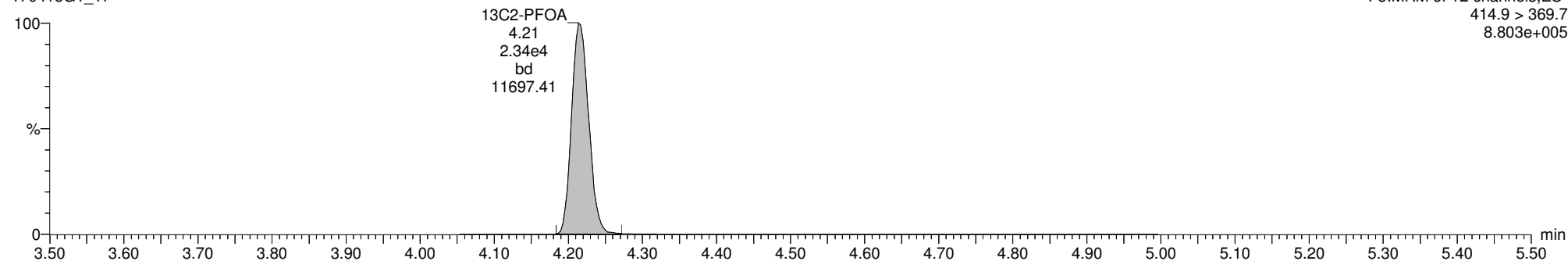


170415G1_17



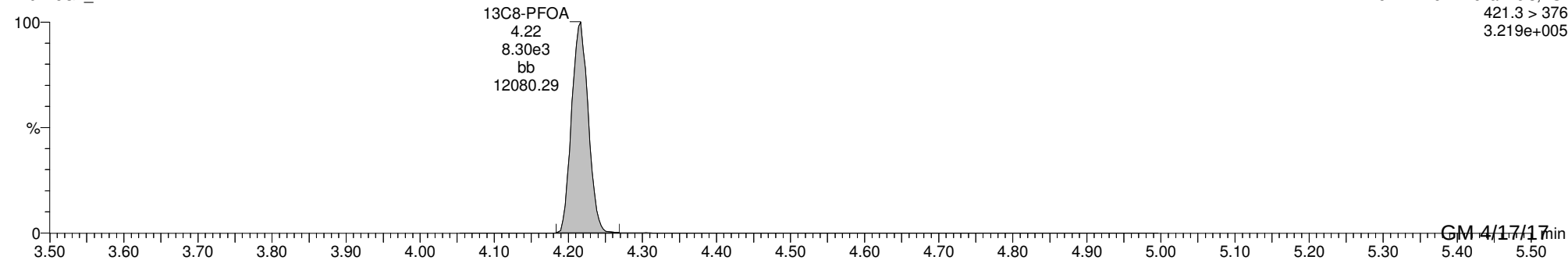
13C2-PFOA

170415G1_17



13C8-PFOA

170415G1_17



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-17.qld

Last Altered: Monday, April 17, 2017 12:41:02 Pacific Daylight Time

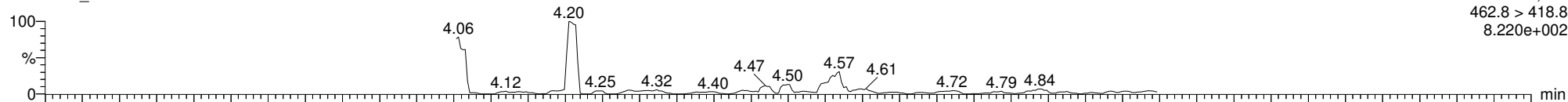
Printed: Monday, April 17, 2017 12:41:53 Pacific Daylight Time

ID: 1700417-09 OC-EB040417 0.11684, Description: OC-EB040417, Name: 170415G1_17, Date: 15-Apr-2017, Time: 14:44:35, Instrument: , Lab: , User:

PFNA

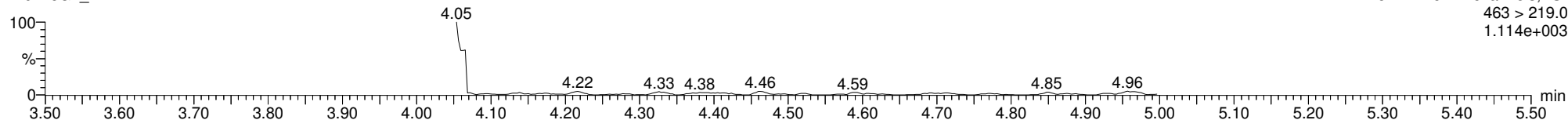
170415G1_17

F5:MRM of 12 channels,ES-
462.8 > 418.8
8.220e+002



170415G1_17

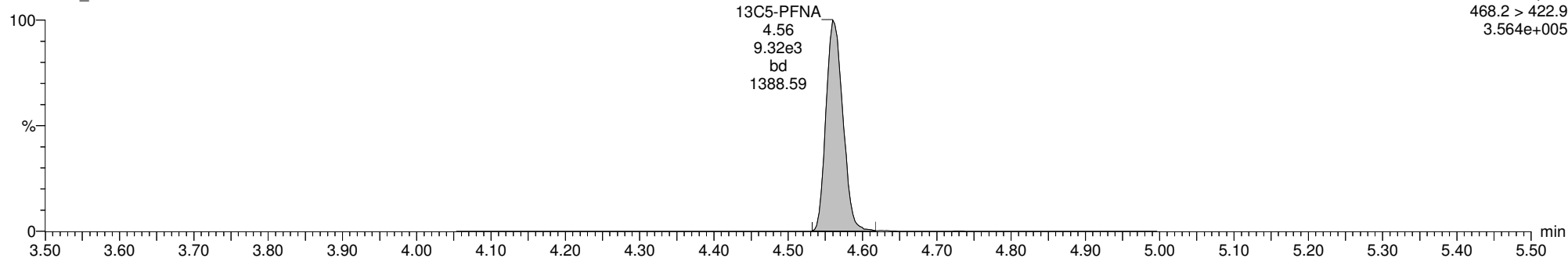
F5:MRM of 12 channels,ES-
463 > 219.0
1.114e+003



13C5-PFNA

170415G1_17

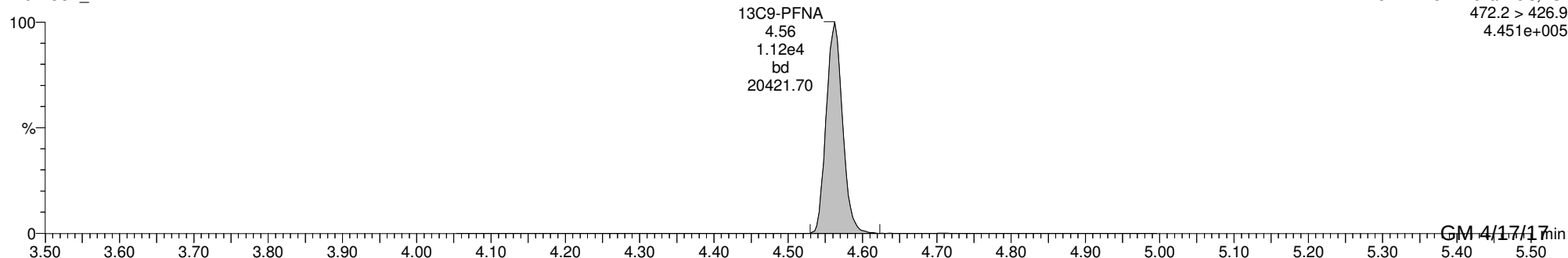
F5:MRM of 12 channels,ES-
468.2 > 422.9
3.564e+005



13C9-PFNA

170415G1_17

F5:MRM of 12 channels,ES-
472.2 > 426.9
4.451e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-17.qld

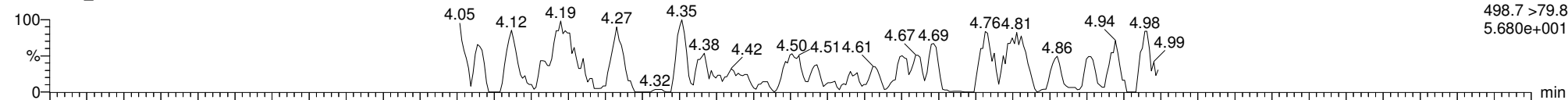
Last Altered: Monday, April 17, 2017 12:41:02 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:41:53 Pacific Daylight Time

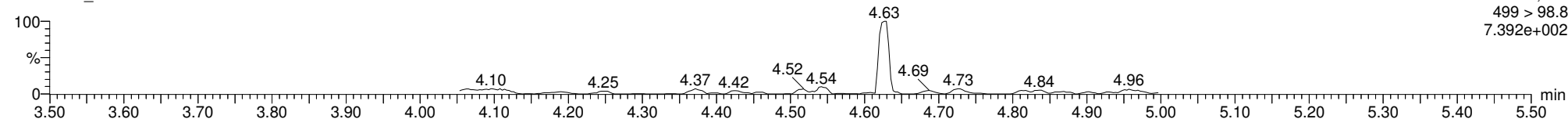
ID: 1700417-09 OC-EB040417 0.11684, Description: OC-EB040417, Name: 170415G1_17, Date: 15-Apr-2017, Time: 14:44:35, Instrument: , Lab: , User:

Total PFOS

170415G1_17

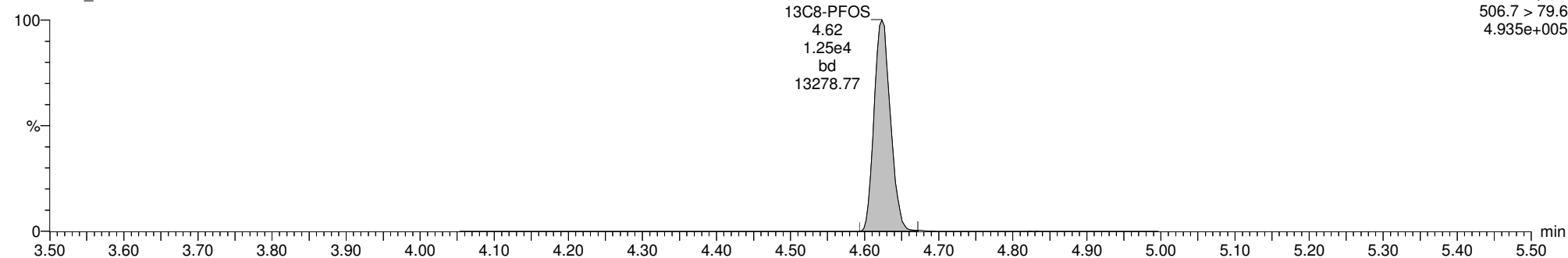


170415G1_17



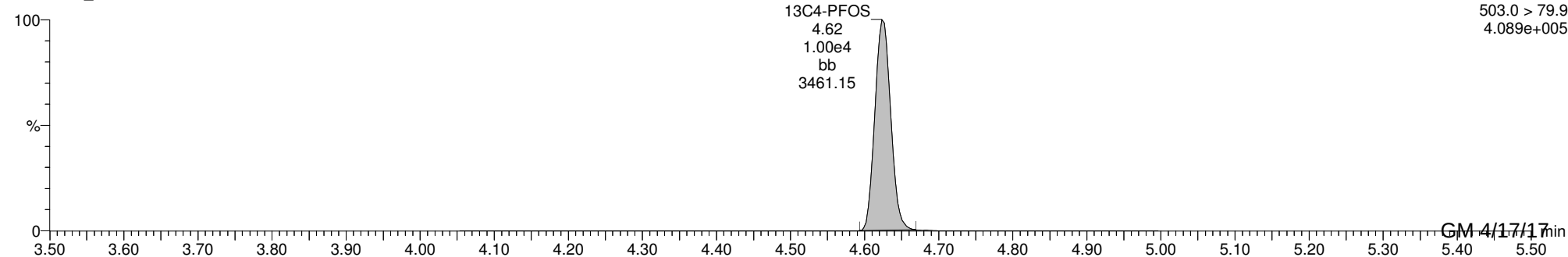
13C8-PFOS

170415G1_17



13C4-PFOS

170415G1_17



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-18.qld

Last Altered: Monday, April 17, 2017 12:44:20 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:45:15 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-10 OC-FB040417 0.12162, Description: OC-FB040417, Name: 170415G1_18, Date: 15-Apr-2017, Time: 14:57:12

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7		5.624e3		0.122			
2	2 PFHpA	363 > 318.9		9.507e3		0.122			
3	3 PFHxS	398.8 > 79.8		4.391e3		0.122			
4	4 PFOA	412.8 > 369.0	8.421e1	1.832e4		0.122	4.22		
5	5 PFNA	462.8 > 418.8		6.555e3		0.122			
6	6 PFOS	498.7 > 79.8		6.482e3		0.122			
7	7 13C3-PFBS	302.0 > 98.8	5.624e3	1.187e4	0.453	0.122	2.91	108	105
8	8 13C4-PFHpA	367.2 > 321.8	9.507e3	1.187e4	0.857	0.122	3.80	96.0	93.5
9	9 18O2-PFHxS	403 > 102.6	4.391e3	1.187e4	0.440	0.122	3.92	86.5	84.1
10	10 13C2-PFOA	414.9 > 369.7	1.832e4	6.427e3	3.366	0.122	4.22	87.0	84.7
11	11 13C5-PFNA	468.2 > 422.9	6.555e3	7.737e3	0.909	0.122	4.56	95.9	93.3
12	12 13C8-PFOS	506.7 > 79.6	6.482e3	5.572e3	1.304	0.122	4.63	91.7	89.2
13	13 13C5-PFHxA	318 > 272.9	1.856e4	1.856e4	1.000	0.122	3.28	103	100
14	14 13C3-PFHxS	401.9 > 79.9	1.187e4	1.187e4	1.000	0.122	3.92	103	100
15	15 13C8-PFOA	421.3 > 376	6.427e3	6.427e3	1.000	0.122	4.21	103	100
16	16 13C9-PFNA	472.2 > 426.9	7.737e3	7.737e3	1.000	0.122	4.56	103	100
17	17 13C4-PFOS	503.0 > 79.9	5.572e3	5.572e3	1.000	0.122	4.62	103	100
18	18 Total PFBS	298.8 > 79.7		4.391e3		0.122			
19	19 Total PFHxS	398.8 > 79.8		4.391e3		0.122			
20	20 Total PFOA	412.8 > 369.0		1.832e4		0.122			
21	21 Total PFOS	498.7 > 79.8		6.482e3		0.122			

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-18.qld

Last Altered: Monday, April 17, 2017 12:44:20 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:45:15 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

ID: 1700417-10 OC-FB040417 0.12162, Description: OC-FB040417, Name: 170415G1_18, Date: 15-Apr-2017, Time: 14:57:12

Total PFBS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Total PFOA

	# Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	412.8 > 369.0	4.22	84.207	18315.502	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Conc.
1						

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-18.qld

Last Altered: Monday, April 17, 2017 12:44:20 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:45:15 Pacific Daylight Time

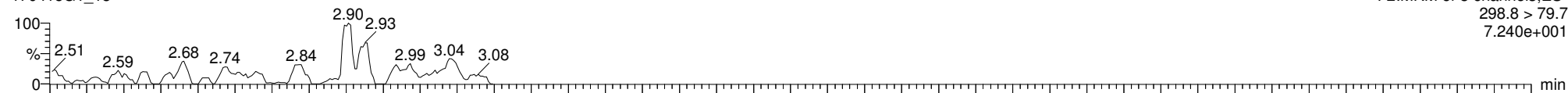
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

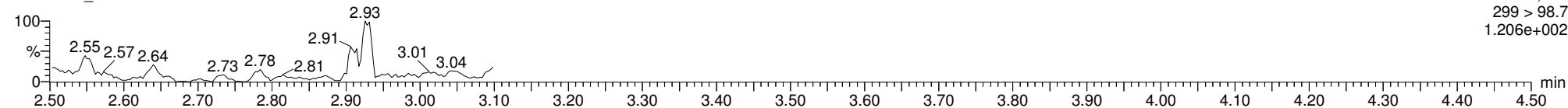
ID: 1700417-10 OC-FB040417 0.12162, Description: OC-FB040417, Name: 170415G1_18, Date: 15-Apr-2017, Time: 14:57:12, Instrument: , Lab: , User:

PFBS

170415G1_18

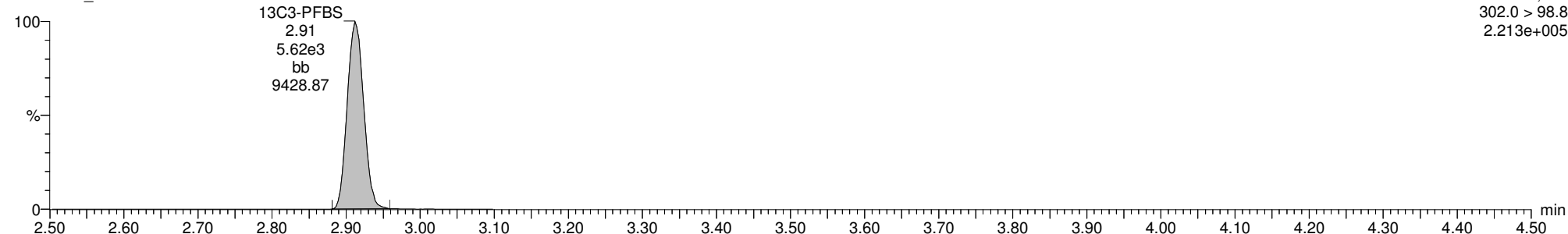


170415G1_18



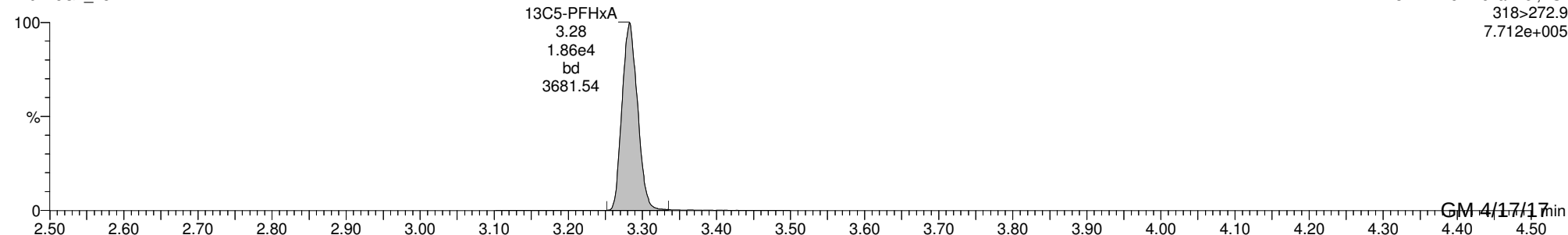
13C3-PFBS

170415G1_18



13C5-PFHxA

170415G1_18



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-18.qld

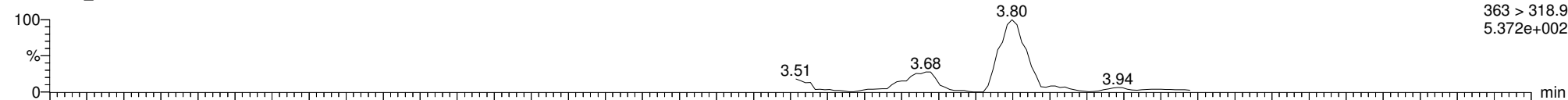
Last Altered: Monday, April 17, 2017 12:44:20 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:45:15 Pacific Daylight Time

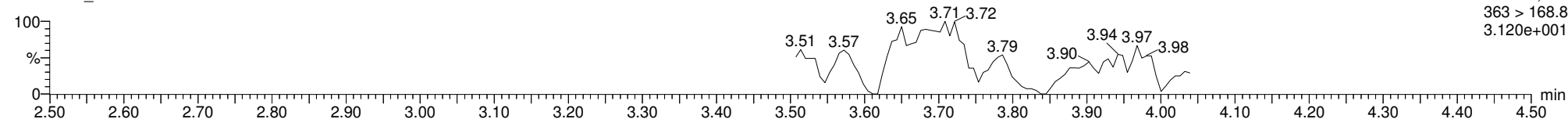
ID: 1700417-10 OC-FB040417 0.12162, Description: OC-FB040417, Name: 170415G1_18, Date: 15-Apr-2017, Time: 14:57:12, Instrument: , Lab: , User:

PFHpA

170415G1_18

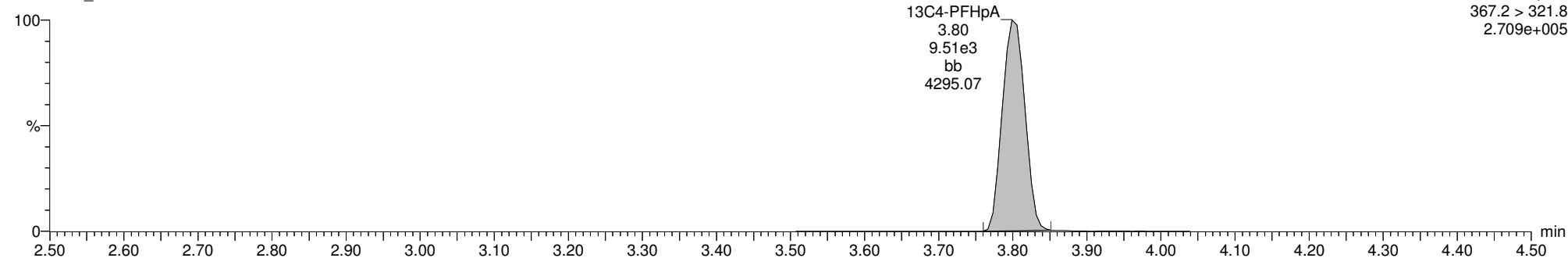


170415G1_18



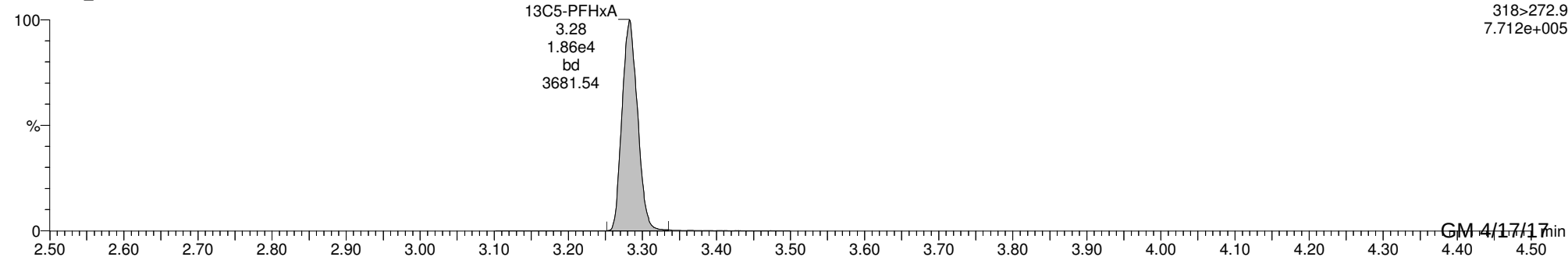
13C4-PFHpA

170415G1_18



13C5-PFHxA

170415G1_18



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-18.qld

Last Altered: Monday, April 17, 2017 12:44:20 Pacific Daylight Time

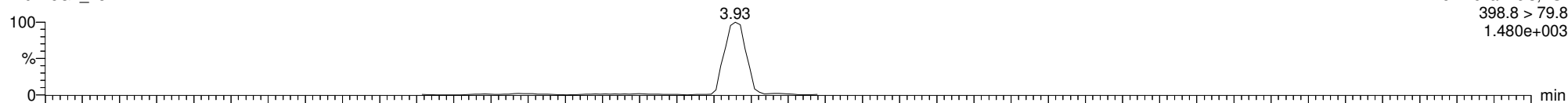
Printed: Monday, April 17, 2017 12:45:15 Pacific Daylight Time

ID: 1700417-10 OC-FB040417 0.12162, Description: OC-FB040417, Name: 170415G1_18, Date: 15-Apr-2017, Time: 14:57:12, Instrument: , Lab: , User:

Total PFHxS

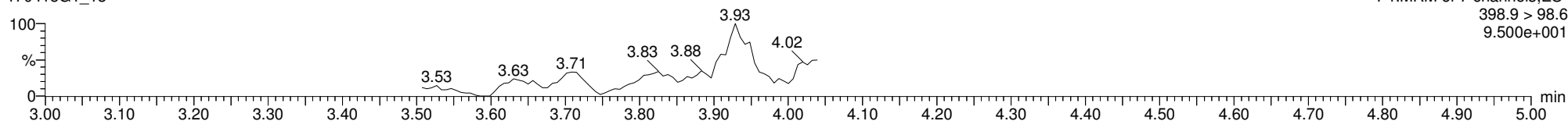
170415G1_18

F4:MRM of 7 channels,ES-
398.8 > 79.8
1.480e+003



170415G1_18

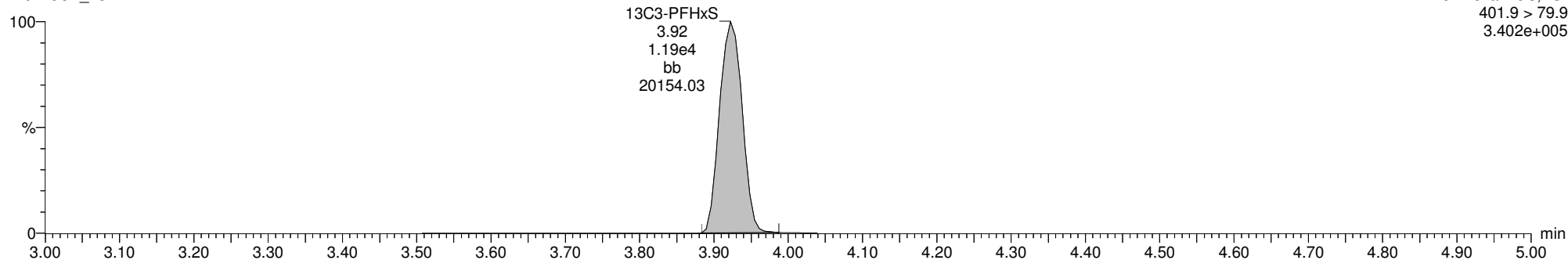
F4:MRM of 7 channels,ES-
398.9 > 98.6
9.500e+001



13C3-PFHxS

170415G1_18

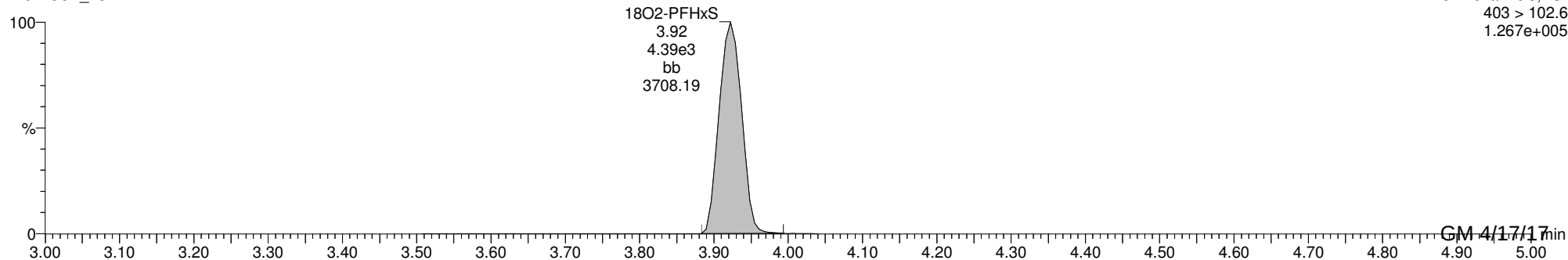
F4:MRM of 7 channels,ES-
401.9 > 79.9
3.402e+005



18O2-PFHxS

170415G1_18

F4:MRM of 7 channels,ES-
403 > 102.6
1.267e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-18.qld

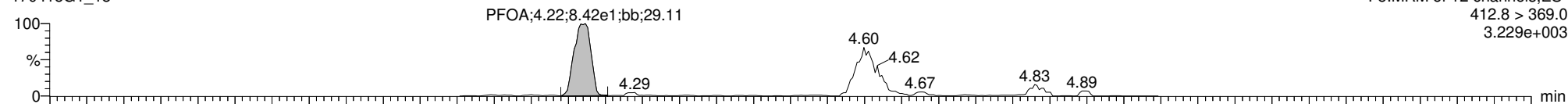
Last Altered: Monday, April 17, 2017 12:44:20 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:45:15 Pacific Daylight Time

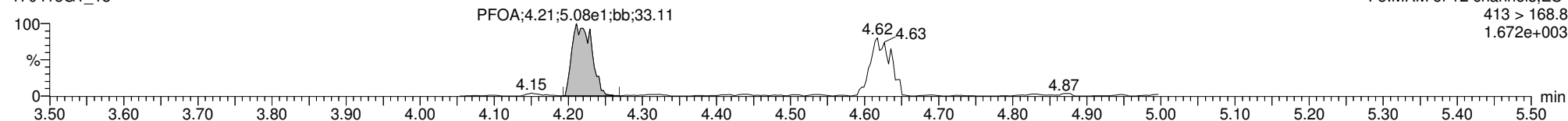
ID: 1700417-10 OC-FB040417 0.12162, Description: OC-FB040417, Name: 170415G1_18, Date: 15-Apr-2017, Time: 14:57:12, Instrument: , Lab: , User:

Total PFOA

170415G1_18

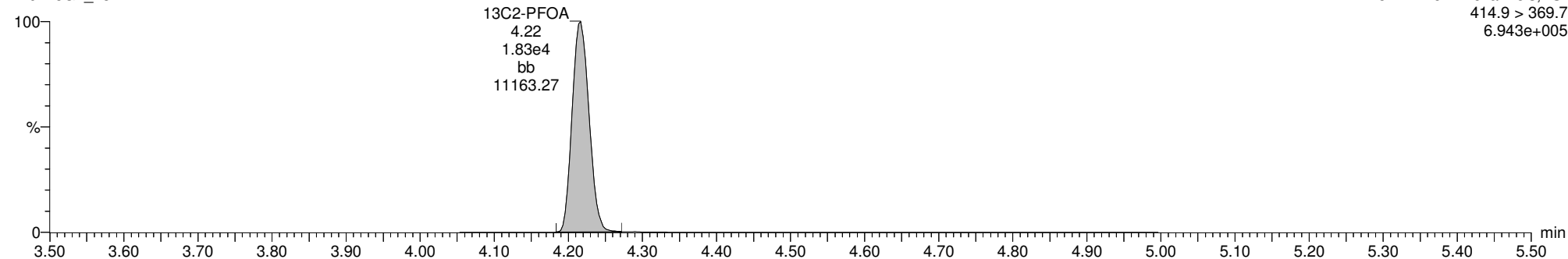


170415G1_18



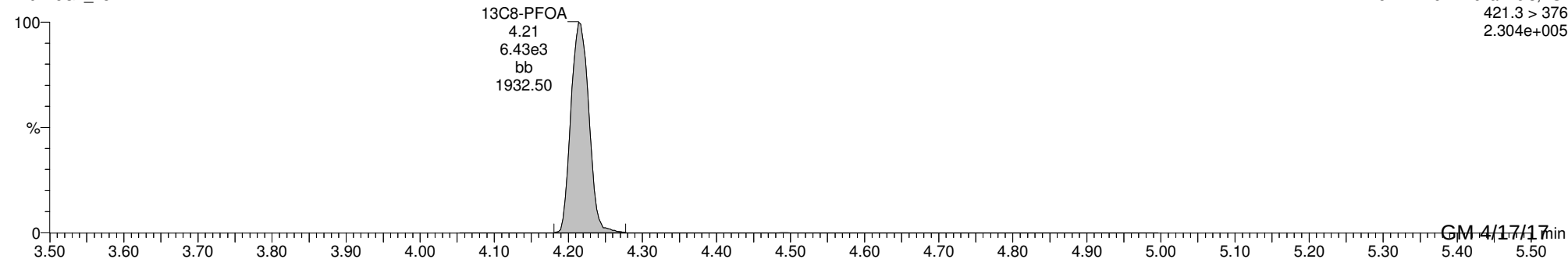
13C2-PFOA

170415G1_18



13C8-PFOA

170415G1_18



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-18.qld

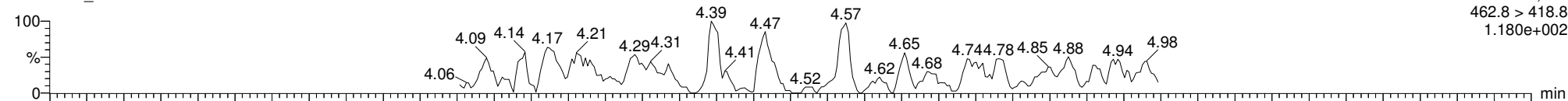
Last Altered: Monday, April 17, 2017 12:44:20 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:45:15 Pacific Daylight Time

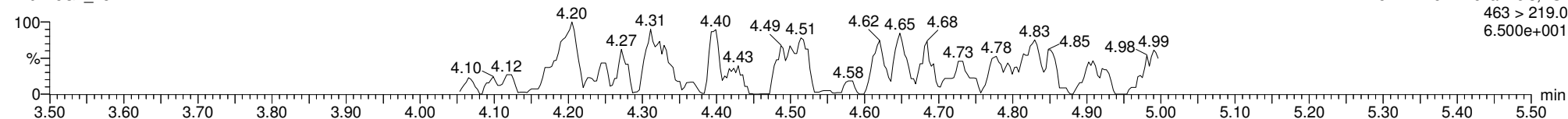
ID: 1700417-10 OC-FB040417 0.12162, Description: OC-FB040417, Name: 170415G1_18, Date: 15-Apr-2017, Time: 14:57:12, Instrument: , Lab: , User:

PFNA

170415G1_18

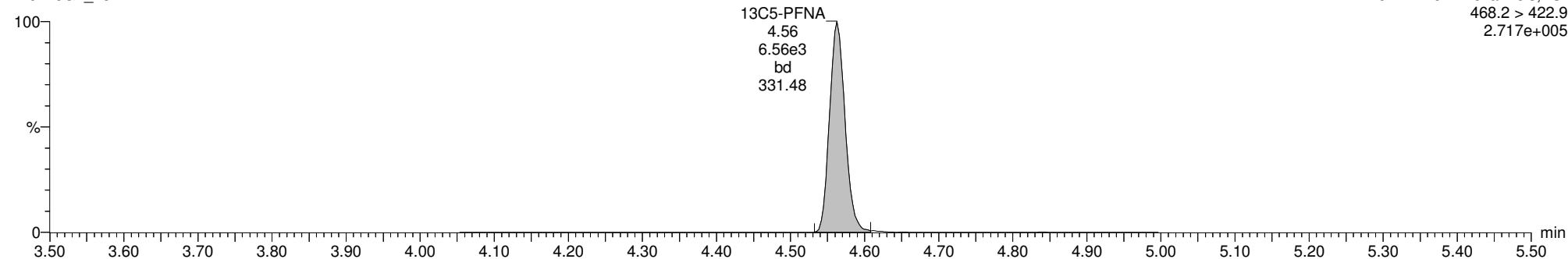


170415G1_18



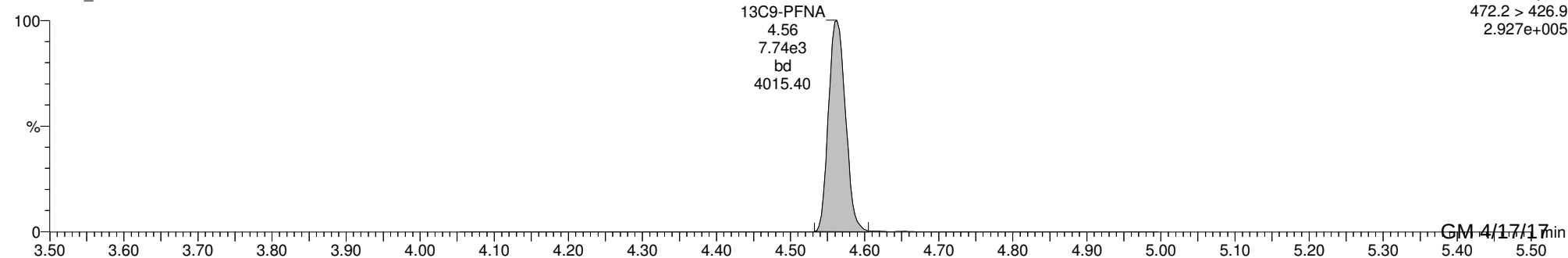
13C5-PFNA

170415G1_18



13C9-PFNA

170415G1_18



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-18.qld

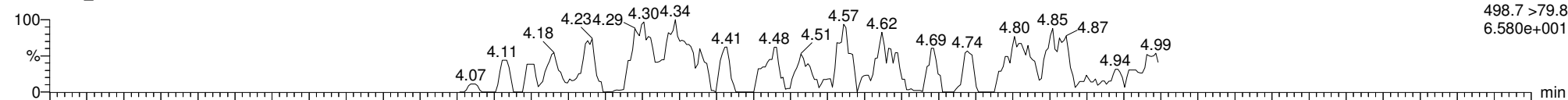
Last Altered: Monday, April 17, 2017 12:44:20 Pacific Daylight Time

Printed: Monday, April 17, 2017 12:45:15 Pacific Daylight Time

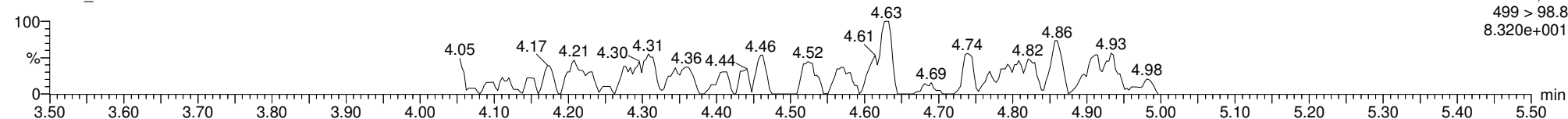
ID: 1700417-10 OC-FB040417 0.12162, Description: OC-FB040417, Name: 170415G1_18, Date: 15-Apr-2017, Time: 14:57:12, Instrument: , Lab: , User:

Total PFOS

170415G1_18

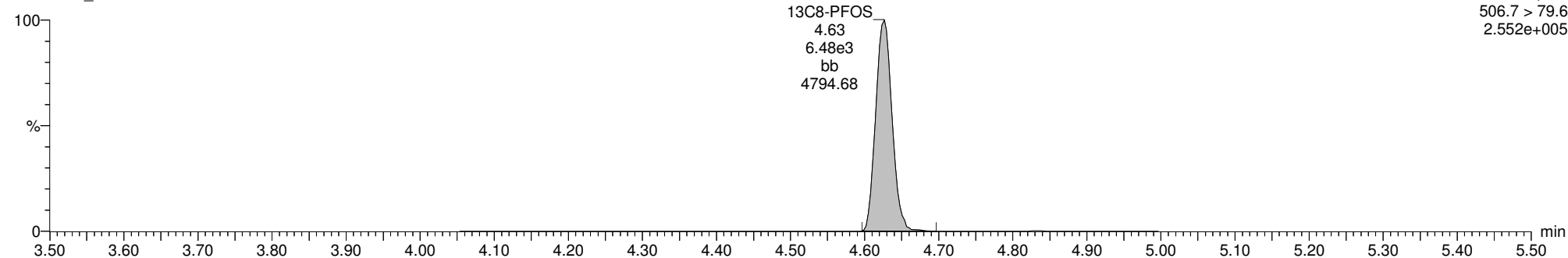


170415G1_18



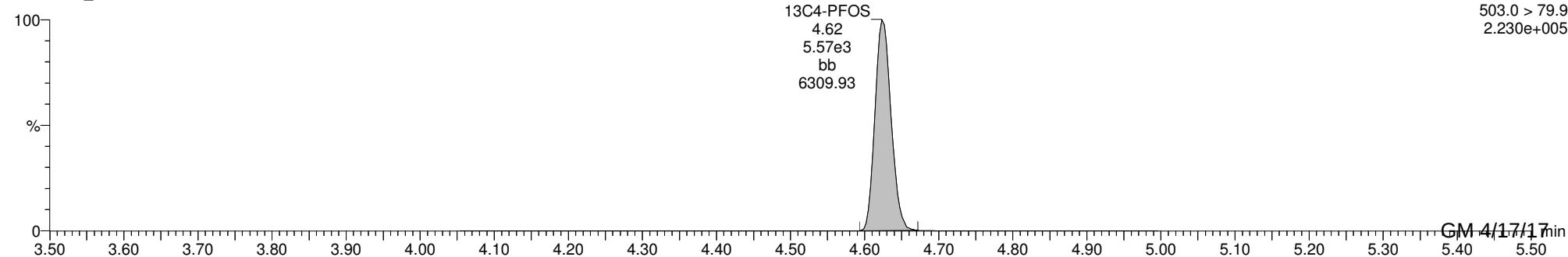
13C8-PFOS

170415G1_18



13C4-PFOS

170415G1_18



CONTINUING CALIBRATION

Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-2.qld

Last Altered: Monday, April 17, 2017 11:24:20 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:33:57 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

Name: 170415G1_2, Date: 15-Apr-2017, Time: 11:35:05, ID: ST170415G1-1 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	1.58e4	6.06e3		1.000	2.91	11.6	115.7
2	2 PFHpA	363 > 318.9	2.03e4	1.11e4		1.000	3.80	11.8	117.6
3	3 PFHxS	398.8 > 79.8	1.23e4	6.27e3		1.000	3.92	10.2	101.7
4	4 PFOA	412.8 > 369.0	1.97e4	2.63e4		1.000	4.21	9.59	95.9
5	5 PFNA	462.8 > 418.8	2.17e4	7.13e3		1.000	4.56	12.4	123.7
6	6 PFOS	498.7 > 79.8	2.38e3	8.30e3		1.000	4.62	9.66	96.6
7	7 13C3-PFBS	302.0 > 98.8	6.06e3	1.39e4	0.453	1.000	2.91	12.1	96.6
8	8 13C4-PFHpA	367.2 > 321.8	1.11e4	1.39e4	0.857	1.000	3.80	11.7	93.7
9	9 18O2-PFHxS	403 > 102.6	6.27e3	1.39e4	0.440	1.000	3.92	12.9	103.0
10	10 13C2-PFOA	414.9 > 369.7	2.63e4	7.42e3	3.366	1.000	4.21	13.2	105.2
11	11 13C5-PFNA	468.2 > 422.9	7.13e3	8.56e3	0.909	1.000	4.56	11.5	91.7
12	12 13C8-PFOS	506.7 > 79.6	8.30e3	5.68e3	1.304	1.000	4.62	14.0	112.0
13	13 13C5-PFHxA	318 > 272.9	2.22e4	2.22e4	1.000	1.000	3.28	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.39e4	1.39e4	1.000	1.000	3.92	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	7.42e3	7.42e3	1.000	1.000	4.21	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	8.56e3	8.56e3	1.000	1.000	4.56	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	5.68e3	5.68e3	1.000	1.000	4.62	12.5	100.0

75-125

40-50

50-100

40-50

DLH
4/17/17

✓ES 4/17/17

Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:39:05 Pacific Daylight Time
Printed: Monday, April 17, 2017 11:39:23 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03
Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170415G1_1	IPA	15-Apr-17	11:22:29
2	170415G1_2	ST170415G1-1 PFC CS3 17D1429	15-Apr-17	11:35:05
3	170415G1_3	IPA	15-Apr-17	11:47:39
4	170415G1_4	B7D0026-BS1 OPR 0.125	15-Apr-17	12:00:36
5	170415G1_5	IPA	15-Apr-17	12:13:25
6	170415G1_6	B7D0026-BLK1 Method Blank 0.125	15-Apr-17	12:26:02
7	170415G1_7	B7D0026-MS1 Matrix Spike 0.12364	15-Apr-17	12:38:37
8	170415G1_8	B7D0026-MSD1 Matrix Spike Dup 0.12005	15-Apr-17	12:51:13
9	170415G1_9	1700417-01 OC-MW05D-0417 0.11841	15-Apr-17	13:03:49
10	170415G1_10	1700417-02 OC-MW05DP-0417 0.12225	15-Apr-17	13:16:26
11	170415G1_11	1700417-03 OC-MW02D-0417 0.1216	15-Apr-17	13:29:03
12	170415G1_12	1700417-04 OW26-MW2-0417 0.1194	15-Apr-17	13:41:41
13	170415G1_13	1700417-05 OW11-MW10D-0417 0.12188	15-Apr-17	13:54:15
14	170415G1_14	1700417-06 OC-F8F9-MW-F4-0417 0.0011	15-Apr-17	14:06:49
15	170415G1_15	1700417-07 OC-MW07D-0417 0.11771	15-Apr-17	14:19:25
16	170415G1_16	1700417-08 OC-MW07-0417 0.12374	15-Apr-17	14:31:59
17	170415G1_17	1700417-09 OC-EB040417 0.11684	15-Apr-17	14:44:35
18	170415G1_18	1700417-10 OC-FB040417 0.12162	15-Apr-17	14:57:12
19	170415G1_19	1700425-01 IDW-AQ-01-0417 0.12545	15-Apr-17	15:09:48
20	170415G1_20	IPA	15-Apr-17	15:22:26
21	170415G1_21	ST170415G1-2 PFC CS3 17D1429	15-Apr-17	15:35:00
22	170415G1_22	IPA	15-Apr-17	15:47:34

LC Calibration Standards Review Checklist Q1

Calibration ID:		ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
ST 170415G1-1	L M H	☒	☒	☒	☒	☒	☒	☒
<u>L -2</u>	L M H	☒	☒	☒	☒	☒	☒	☒
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 4/5/17

Run Log Present: ☒

of Samples per Sequence Checked: ☒

Reviewed By: eg 4/19/17
Initials/Date

Comments:
L6-2 trans

Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:30:21 Pacific Daylight Time
Printed: Monday, April 17, 2017 11:31:08 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

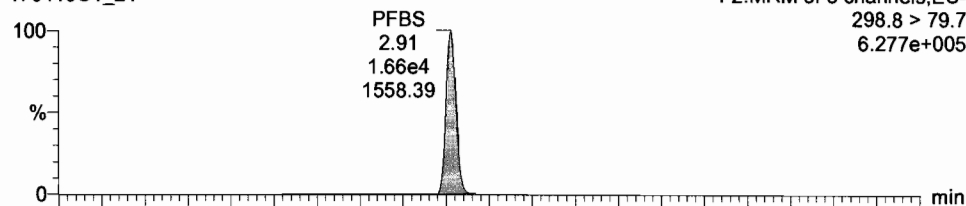
Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

Name: 170415G1_21, Date: 15-Apr-2017, Time: 15:35:00, ID: ST170415G1-2 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

PFBS

170415G1_21

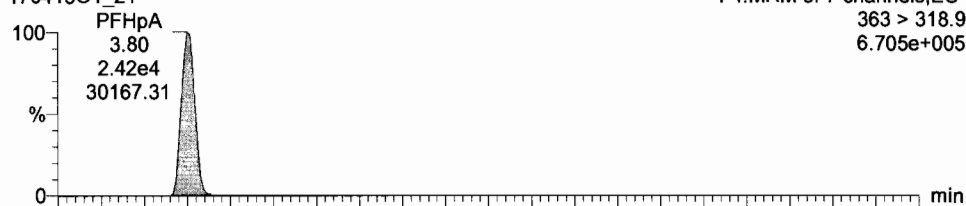
F2:MRM of 3 channels,ES-
298.8 > 79.7
6.277e+005



PFHpA

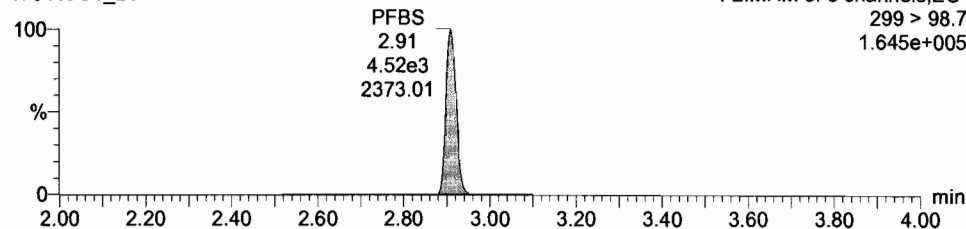
170415G1_21

F4:MRM of 7 channels,ES-
363 > 318.9
6.705e+005



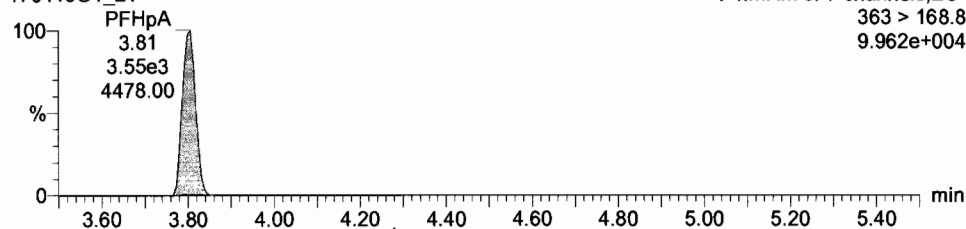
170415G1_21

F2:MRM of 3 channels,ES-
299 > 98.7
1.645e+005



170415G1_21

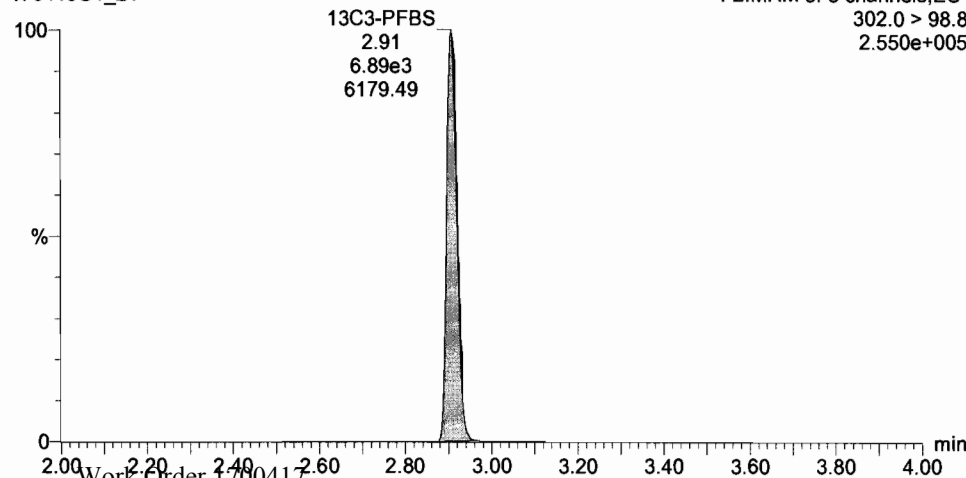
F4:MRM of 7 channels,ES-
363 > 168.8
9.962e+004



13C3-PFBS

170415G1_21

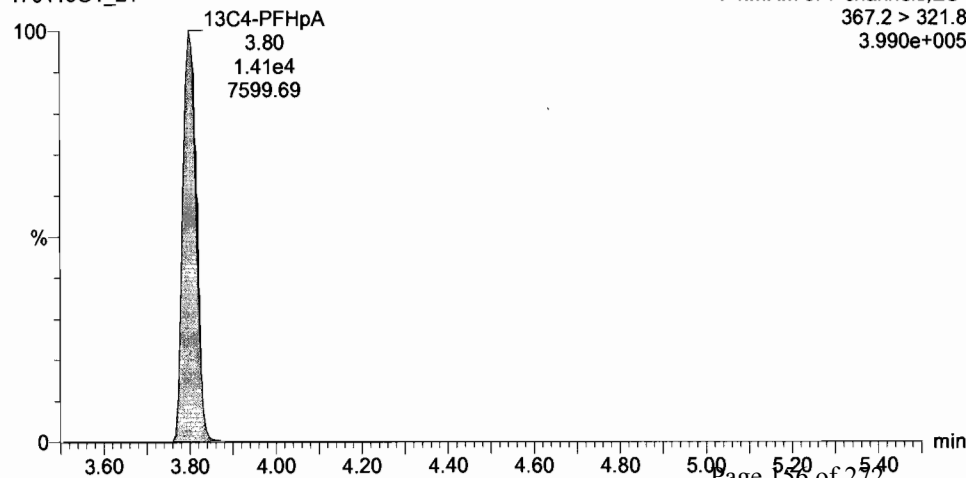
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.550e+005



13C4-PFHpA

170415G1_21

F4:MRM of 7 channels,ES-
367.2 > 321.8
3.990e+005



Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:30:21 Pacific Daylight Time

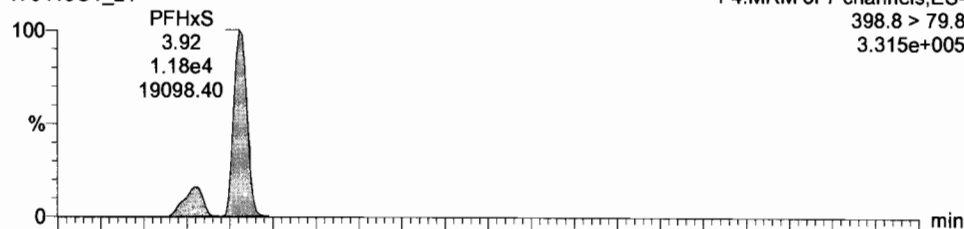
Printed: Monday, April 17, 2017 11:31:08 Pacific Daylight Time

Name: 170415G1_21, Date: 15-Apr-2017, Time: 15:35:00, ID: ST170415G1-2 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

PFHxS

170415G1_21

F4:MRM of 7 channels,ES-
398.8 > 79.8
3.315e+005



PFOA

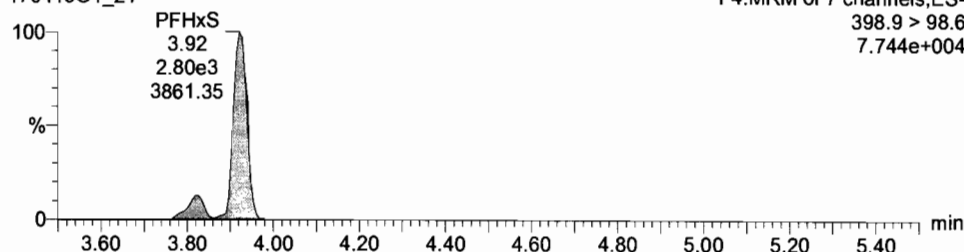
170415G1_21

F5:MRM of 12 channels,ES-
412.8 > 369.0
9.133e+005



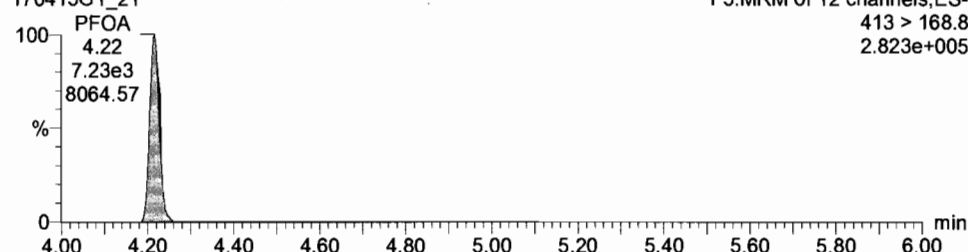
170415G1_21

F4:MRM of 7 channels,ES-
398.9 > 98.6
7.744e+004



170415G1_21

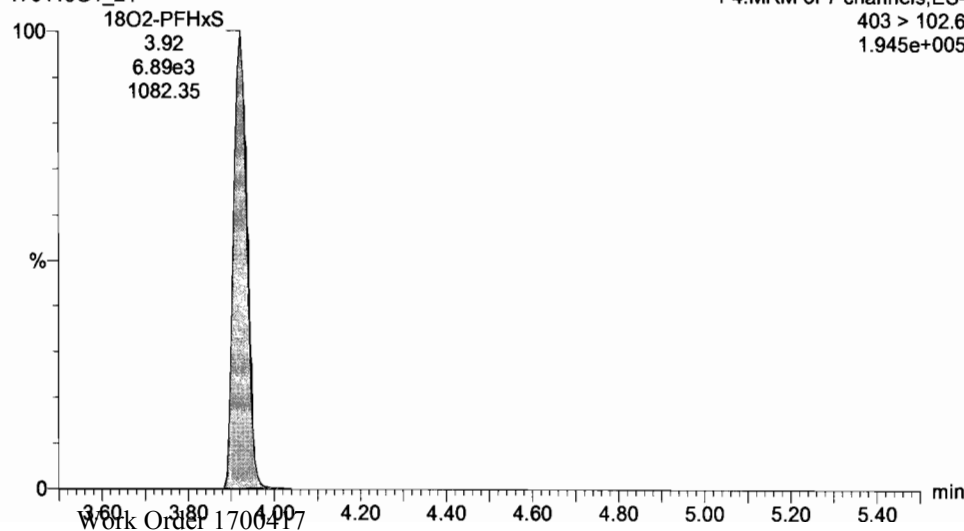
F5:MRM of 12 channels,ES-
413 > 168.8
2.823e+005



18O2-PFHxS

170415G1_21

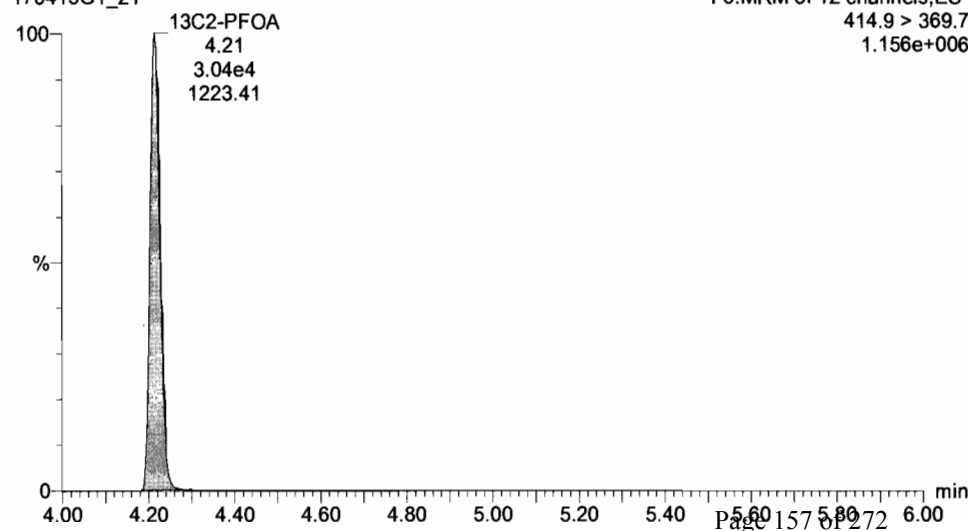
F4:MRM of 7 channels,ES-
403 > 102.6
1.945e+005



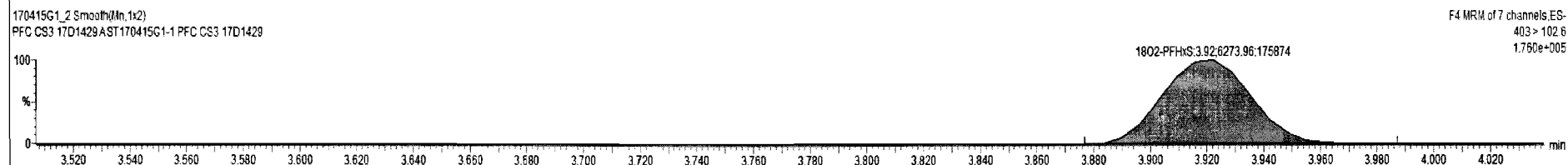
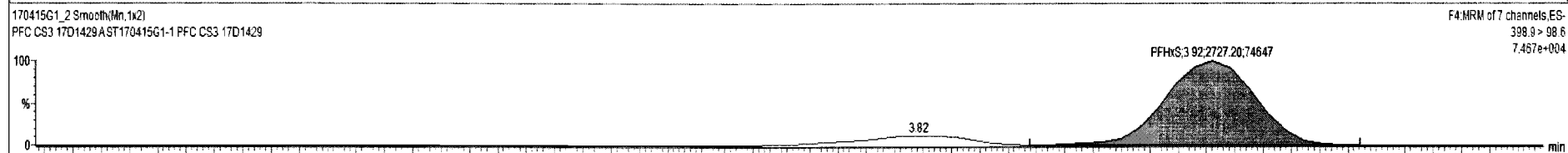
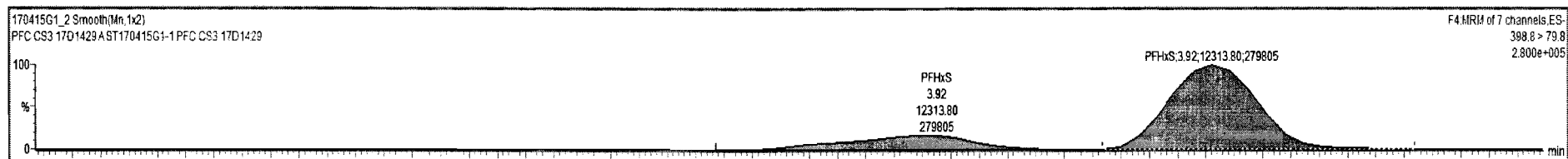
13C2-PFOA

170415G1_21

F5:MRM of 12 channels,ES-
414.9 > 369.7
1.156e+006



Name	Conc	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	ISF	RA	Y/N	RRT	Acq.Date	Acq.Time	1 st Chr.Noise	D	Sample.Text	Factor1	SWt	Cal.File	>MDL
1 PFBS	11.569757	0.00158	115.7		1.582e4		2.91	1	7	0.264	YES	1.001	15-Apr-17	11:35:05	15.403		ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	YES
2 PFHpA	11.762413	0.0000	117.6		2.028e4		3.80	2	8			1.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	YES
3 PFHxS	10.170291	0.0000	101.7		1.231e4		3.92	3	9			1.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	YES
4 PFOA	9.5936527	0.0000	95.9		1.973e4		4.21	4	10			1.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	YES
5 PFNA	12.368388	0.0000	123.7		2.172e4		4.56	5	11			1.001	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	YES
6 PFOS	9.6567910	0.118	96.6		2.384e3		4.62	6	12			1.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	YES
7 13C3-PFBS	12.072835	0.0152	96.6		6.060e3	0.453	2.91	7	14			0.886	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
8 13C4-PFHpA	11.716951	0.000560	93.7		1.113e4	0.857	3.80	8	14			0.969	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
9 18O2-PFHxS	12.870952	0.00102	103.0		6.274e3	0.440	3.92	9	14			1.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
10 13C2-PFOA	13.153904	0.00825	105.2		2.628e4	3.366	4.21	10	15			1.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
11 13C5-PFNA	11.463369	0.0177	91.7		7.129e3	0.909	4.56	11	16			1.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
12 13C8-PFOS	13.996957	0.0196	112.0		8.298e3	1.304	4.62	12	17			1.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
13 13C5-PFHxS	12.500000	0.00923	100.0		2.221e4	1.000	3.28	13	13			0.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
14 13C3-PFHxS	12.500000	0.0772	100.0		1.386e4	1.000	3.92	14	14			0.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
15 13C8-PFOA	12.500000	0.00478	100.0		7.420e3	1.000	4.21	15	15			0.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
16 13C9-PFNA	12.500000	0.00788	100.0		8.557e3	1.000	4.56	16	16			0.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
17 13C4-PFOS	12.500000	0.00113	100.0		5.681e3	1.000	4.62	17	17			0.000	15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
18 Total PFBS	11.569757							18					15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
19 Total PFHxS	10.170291							19					15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
20 Total PFOA	9.5936527							20					15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO
21 Total PFOS	9.6567910	0.118						21					15-Apr-17	11:35:05			ST170415G... PFC CS3 17D14...	1.0	1.00	C18_V...	NO



Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:30:21 Pacific Daylight Time

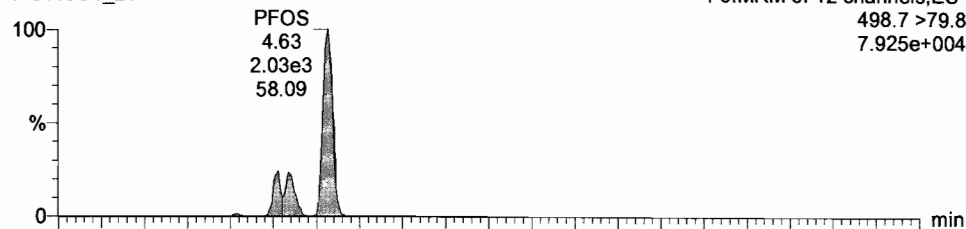
Printed: Monday, April 17, 2017 11:31:08 Pacific Daylight Time

Name: 170415G1_21, Date: 15-Apr-2017, Time: 15:35:00, ID: ST170415G1-2 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

PFOS

170415G1_21

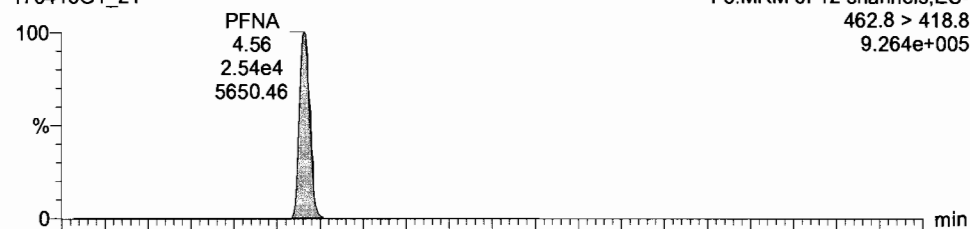
F5:MRM of 12 channels,ES-
498.7 > 79.8
7.925e+004



PFNA

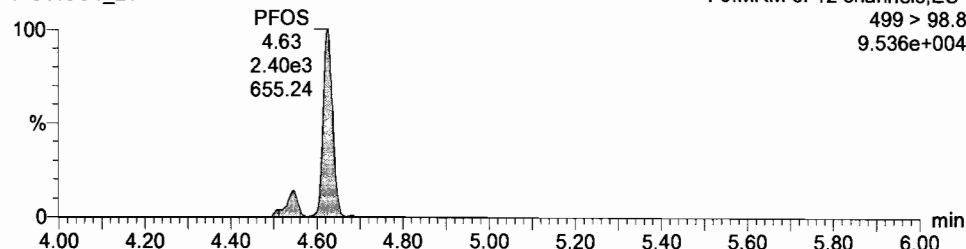
170415G1_21

F5:MRM of 12 channels,ES-
462.8 > 418.8
9.264e+005



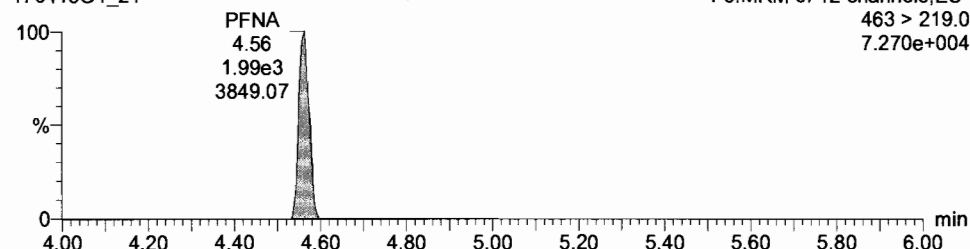
170415G1_21

F5:MRM of 12 channels,ES-
499 > 98.8
9.536e+004



170415G1_21

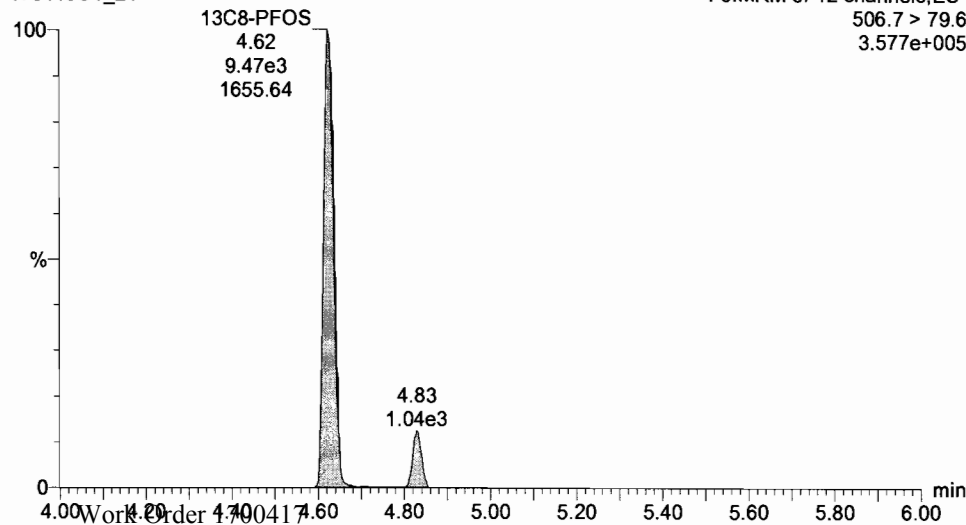
F5:MRM of 12 channels,ES-
463 > 219.0
7.270e+004



13C8-PFOS

170415G1_21

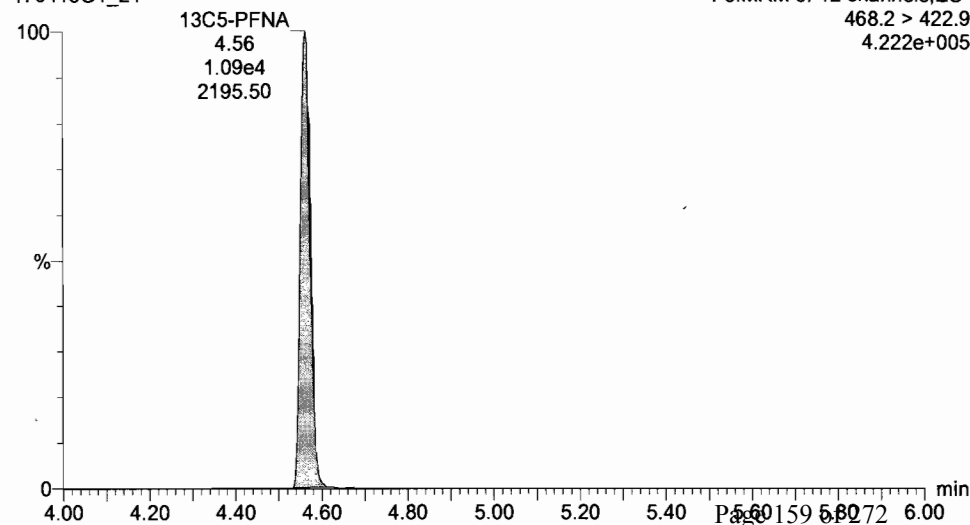
F5:MRM of 12 channels,ES-
506.7 > 79.6
3.577e+005



13C5-PFNA

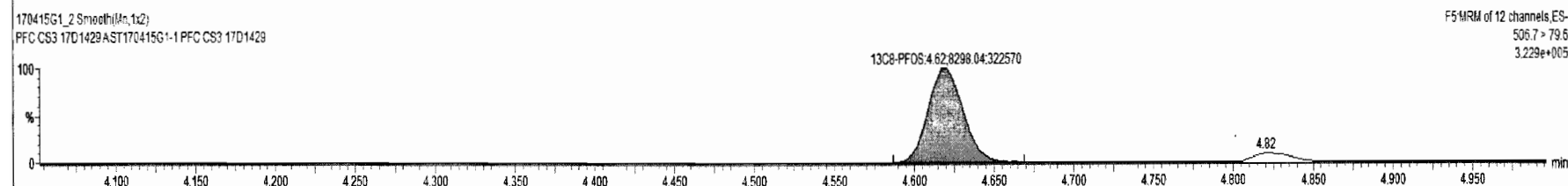
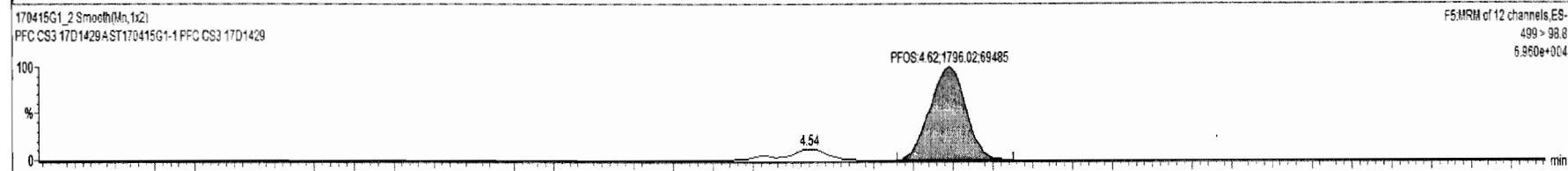
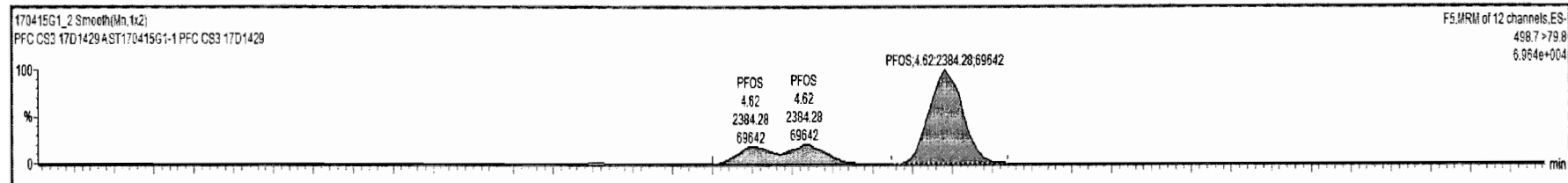
170415G1_21

F5:MRM of 12 channels,ES-
468.2 > 422.9
4.222e+005



170415G1_2 - ST170415G1-1 PFC CS3 17D1429 - PFC CS3 17D1429 A

	Name	Conc.	DL	%Rec	EMPC	Abs.Rsp	RRF	RT	#	IS	RA	Y/N	RRT	Acq.Date	Acq.Time	1 st Chr.Noise	D	Sample Text	Factor1	SWH	Cal File	>MDL
1	PFBS	11.569757	0.00158	115.7		1.582e4	2.91	1	7	0.264	YES	1.001	15-Apr-17	11:35:05		15.403	ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	YES
2	PFHpA	11.762413	0.0000...	117.6		2.028e4	3.80	2	8			1.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	YES
3	PFHxS	10.170291	0.0000...	101.7		1.231e4	3.92	3	9			1.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	YES
4	PFOA	9.5936527	0.0000...	95.9		1.973e4	4.21	4	10			1.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	YES
5	PFNA	12.368386	0.0000...	123.7		2.172e4	4.56	5	11			1.001	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	YES
6	PFOS	9.6567910	0.118	96.6		2.384e3	4.62	6	12			1.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	YES
7	13C3-PFBS	12.072635	0.0152	96.6		6.060e3	0.453	2.91	7	14		0.886	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
8	13C4-PFHpA	11.716951	0.000560	93.7		1.113e4	0.857	3.80	8	14		0.969	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
9	1802-PFHxS	12.870952	0.00102	103.0		6.274e3	0.440	3.92	9	14		1.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
10	13C2-PFOA	13.153904	0.00825	105.2		2.628e4	3.366	4.21	10	15		1.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
11	13C5-PFNA	11.463398	0.0177	91.7		7.129e3	0.909	4.56	11	16		1.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
12	13C8-PFOS	13.996957	0.0196	112.0		8.269e3	1.304	4.62	12	17		1.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
13	13C3-PFHpA	12.500000	0.00923	100.0		2.221e4	1.000	3.28	13	13		0.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
14	13C3-PFHxS	12.500000	0.0772	100.0		1.386e4	1.000	3.92	14	14		0.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
15	13C8-PFOA	12.500000	0.06478	100.0		7.420e3	1.000	4.21	15	15		0.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
16	13C3-PFNA	12.500000	0.00788	100.0		8.557e3	1.000	4.56	16	16		0.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
17	13C4-PFOS	12.500000	0.00113	100.0		5.681e3	1.000	4.62	17	17		0.000	15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
18	Total PFBS	11.569757							18				15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
19	Total PFHpA	10.170291							19				15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
20	Total PFOA	9.5936527							20				15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO
21	Total PFOS	9.6567910	0.118						21				15-Apr-17	11:35:05			ST170415G...	PFC CS3 17D14...	1.0	1.00	C18_V...	NO



Ready

170415G1_2

CAP NUM

Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:30:21 Pacific Daylight Time

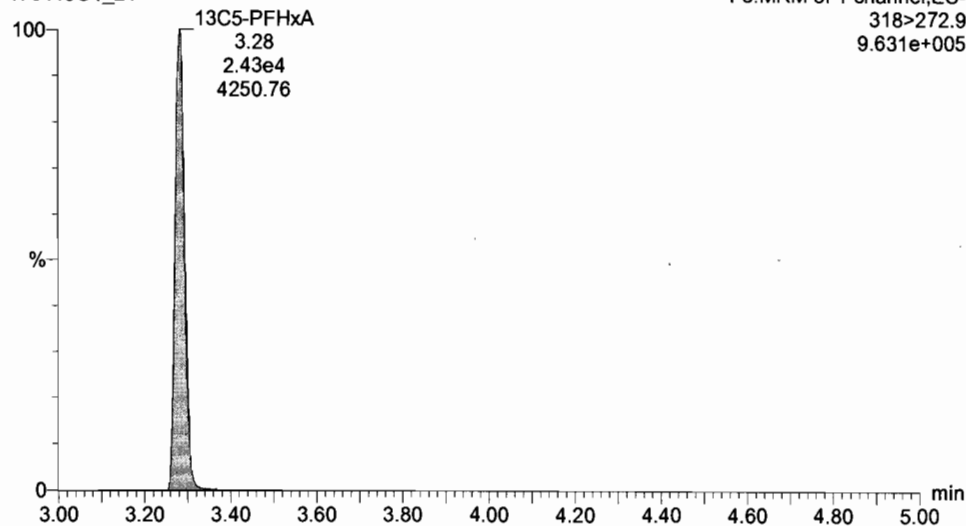
Printed: Monday, April 17, 2017 11:31:08 Pacific Daylight Time

Name: 170415G1_21, Date: 15-Apr-2017, Time: 15:35:00, ID: ST170415G1-2 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

13C5-PFHxA

170415G1_21

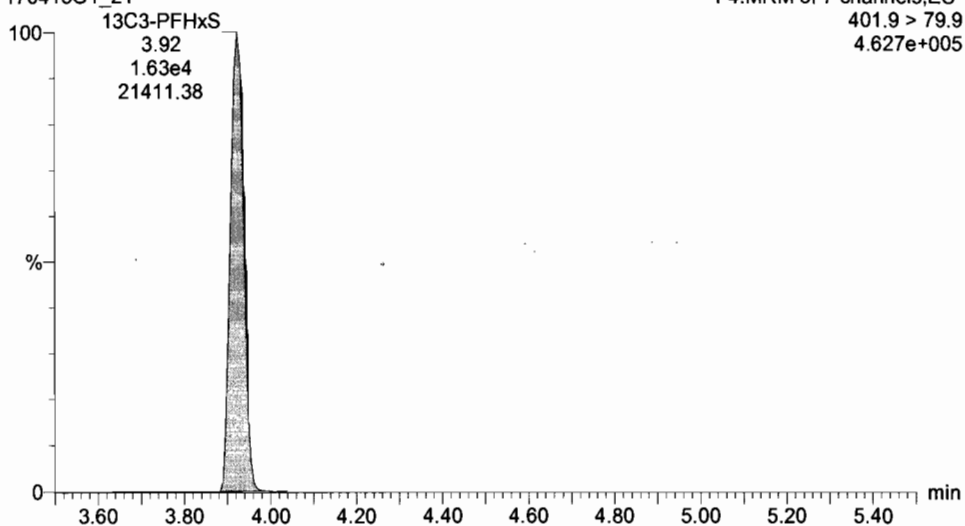
F3:MRM of 1 channel,ES-
318>272.9
9.631e+005



13C3-PFHxS

170415G1_21

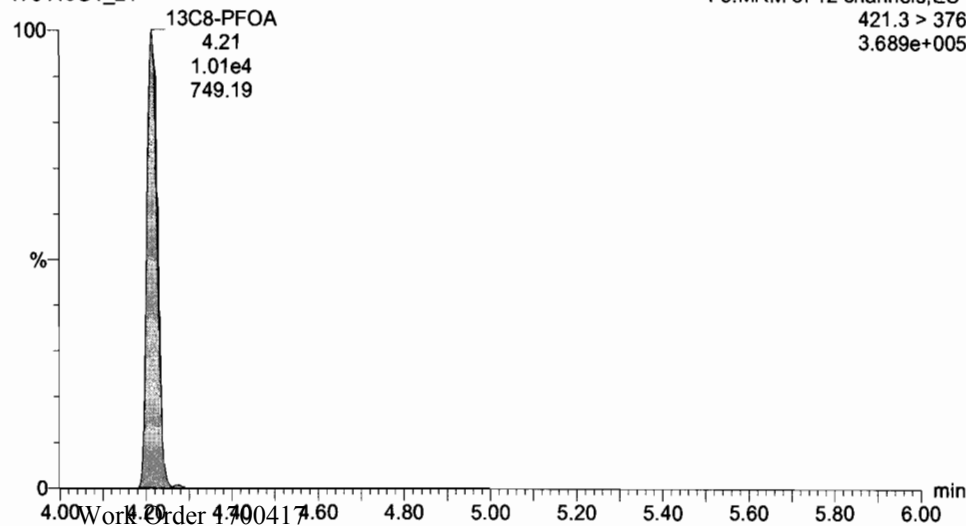
F4:MRM of 7 channels,ES-
401.9 > 79.9
4.627e+005



13C8-PFOA

170415G1_21

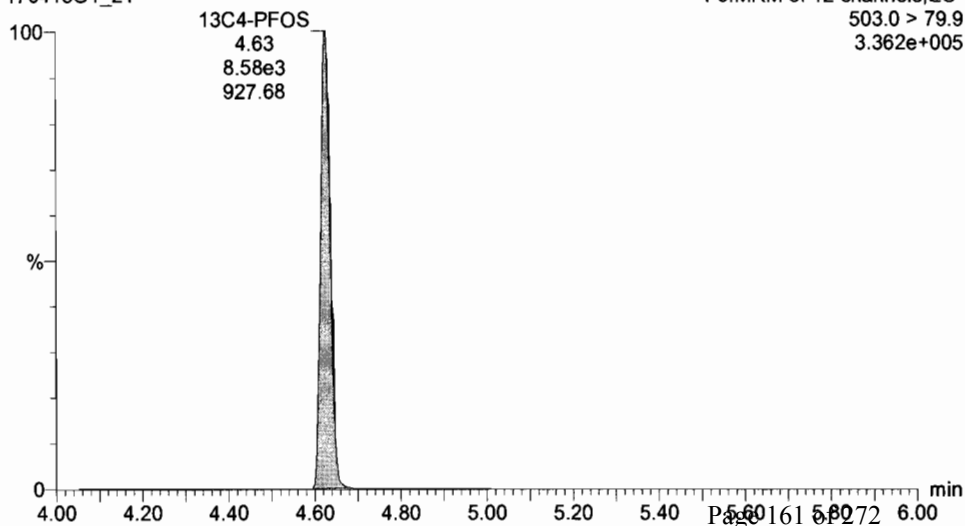
F5:MRM of 12 channels,ES-
421.3 > 376
3.689e+005



13C4-PFOS

170415G1_21

F5:MRM of 12 channels,ES-
503.0 > 79.9
3.362e+005



Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:30:21 Pacific Daylight Time

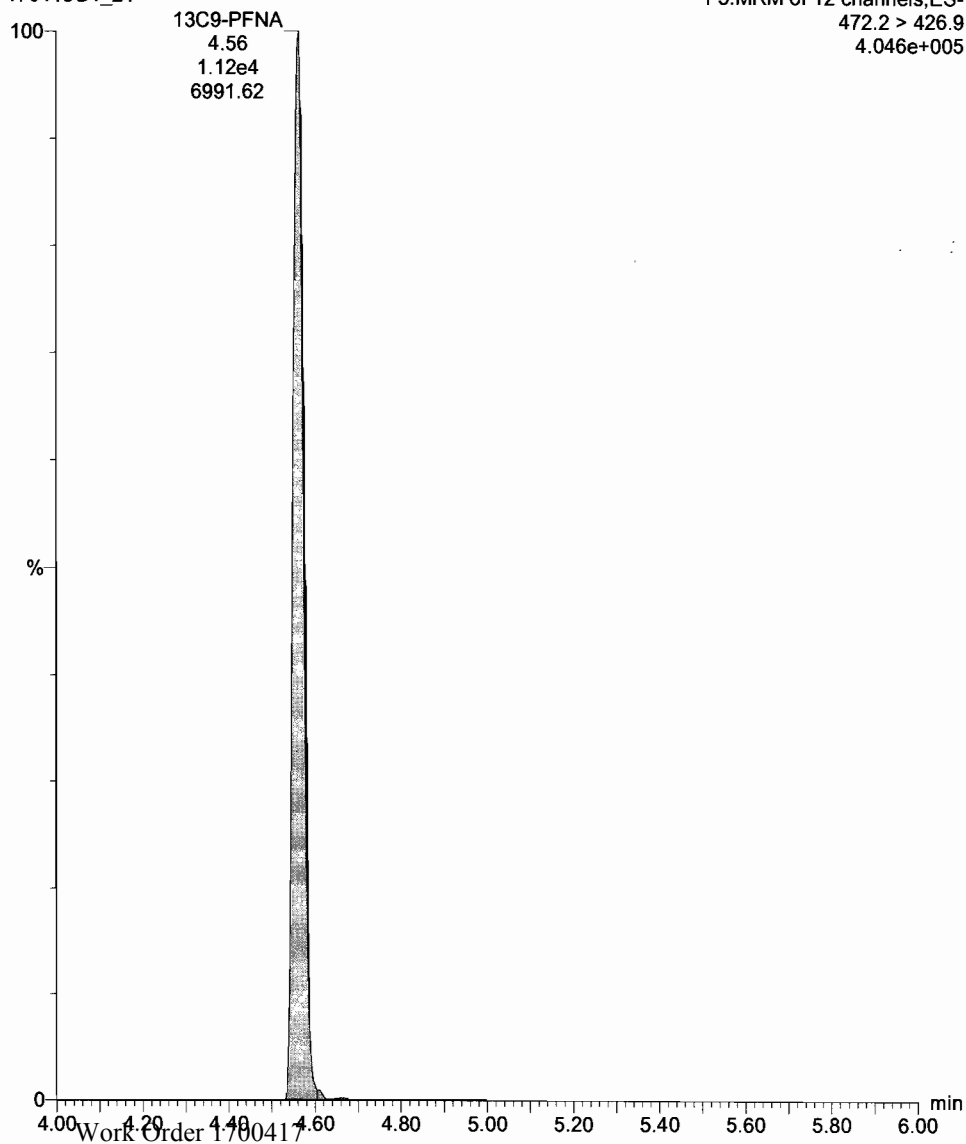
Printed: Monday, April 17, 2017 11:31:08 Pacific Daylight Time

Name: 170415G1_21, Date: 15-Apr-2017, Time: 15:35:00, ID: ST170415G1-2 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

13C9-PFNA

170415G1_21

F5:MRM of 12 channels,ES-
472.2 > 426.9
4.046e+005



Dataset: U:\G1.PRO\Results\2017\170415G1\170415G1-21.qld

Last Altered: Monday, April 17, 2017 11:32:01 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:33:49 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

Name: 170415G1_21, Date: 15-Apr-2017, Time: 15:35:00, ID: ST170415G1-2 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

	# Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	298.8 > 79.7	1.66e4	6.89e3		1.000	2.91	10.7	106.8
2	2 PFHpA	363 > 318.9	2.42e4	1.41e4		1.000	3.80	11.1	110.9
3	3 PFHxS	398.8 > 79.8	1.46e4	6.89e3		1.000	3.92	11.0	109.6
4	4 PFOA	412.8 > 369.0	2.31e4	3.04e4		1.000	4.22	9.70	97.0
5	5 PFNA	462.8 > 418.8	2.54e4	1.09e4		1.000	4.56	9.49	94.9
6	6 PFOS	498.7 > 79.8	2.91e3	9.47e3		1.000	4.63	10.3	103.2
7	7 13C3-PFBS	302.0 > 98.8	6.89e3	1.63e4	0.453	1.000	2.91	11.7	93.4
8	8 13C4-PFHpA	367.2 > 321.8	1.41e4	1.63e4	0.857	1.000	3.80	12.6	100.9
9	9 18O2-PFHxS	403 > 102.6	6.89e3	1.63e4	0.440	1.000	3.92	12.0	96.1
10	10 13C2-PFOA	414.9 > 369.7	3.04e4	1.01e4	3.366	1.000	4.21	11.2	89.5
11	11 13C5-PFNA	468.2 > 422.9	1.09e4	1.12e4	0.909	1.000	4.56	13.3	106.7
12	12 13C8-PFOS	506.7 > 79.6	9.47e3	8.58e3	1.304	1.000	4.62	10.6	84.6
13	13 13C5-PFHxA	318 > 272.9	2.43e4	2.43e4	1.000	1.000	3.28	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.63e4	1.63e4	1.000	1.000	3.92	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	1.01e4	1.01e4	1.000	1.000	4.21	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.12e4	1.12e4	1.000	1.000	4.56	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	8.58e3	8.58e3	1.000	1.000	4.63	12.5	100.0

25-125
↓
10-150
↓
50-150
↓
100-150

elm
4/17/17

✓ 28 4/17/17

Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:39:05 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:39:23 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170415G1_1	IPA	15-Apr-17	11:22:29
2	170415G1_2	ST170415G1-1 PFC CS3 17D1429	15-Apr-17	11:35:05
3	170415G1_3	IPA	15-Apr-17	11:47:39
4	170415G1_4	B7D0026-BS1 OPR 0.125	15-Apr-17	12:00:36
5	170415G1_5	IPA	15-Apr-17	12:13:25
6	170415G1_6	B7D0026-BLK1 Method Blank 0.125	15-Apr-17	12:26:02
7	170415G1_7	B7D0026-MS1 Matrix Spike 0.12364	15-Apr-17	12:38:37
8	170415G1_8	B7D0026-MSD1 Matrix Spike Dup 0.12005	15-Apr-17	12:51:13
9	170415G1_9	1700417-01 OC-MW05D-0417 0.11841	15-Apr-17	13:03:49
10	170415G1_10	1700417-02 OC-MW05DP-0417 0.12225	15-Apr-17	13:16:26
11	170415G1_11	1700417-03 OC-MW02D-0417 0.1216	15-Apr-17	13:29:03
12	170415G1_12	1700417-04 OW26-MW2-0417 0.1194	15-Apr-17	13:41:41
13	170415G1_13	1700417-05 OW11-MW10D-0417 0.12188	15-Apr-17	13:54:15
14	170415G1_14	1700417-06 OC-F8F9-MW-F4-0417 0.0011	15-Apr-17	14:06:49
15	170415G1_15	1700417-07 OC-MW07D-0417 0.11771	15-Apr-17	14:19:25
16	170415G1_16	1700417-08 OC-MW07-0417 0.12374	15-Apr-17	14:31:59
17	170415G1_17	1700417-09 OC-EB040417 0.11684	15-Apr-17	14:44:35
18	170415G1_18	1700417-10 OC-FB040417 0.12162	15-Apr-17	14:57:12
19	170415G1_19	1700425-01 IDW-AQ-01-0417 0.12545	15-Apr-17	15:09:48
20	170415G1_20	IPA	15-Apr-17	15:22:26
21	170415G1_21	ST170415G1-2 PFC CS3 17D1429	15-Apr-17	15:35:00
22	170415G1_22	IPA	15-Apr-17	15:47:34

Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:31:28 Pacific Daylight Time

Printed: Monday, April 17, 2017 11:31:33 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 14:27:03

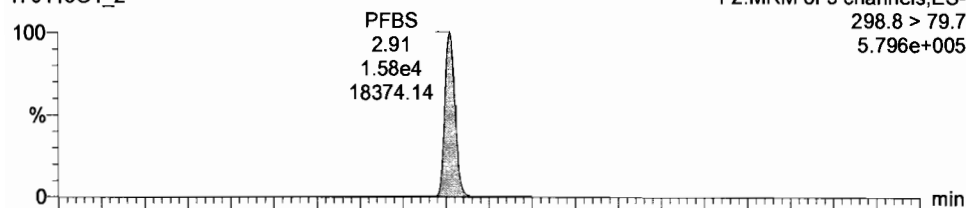
Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

Name: 170415G1_2, Date: 15-Apr-2017, Time: 11:35:05, ID: ST170415G1-1 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

PFBS

170415G1_2

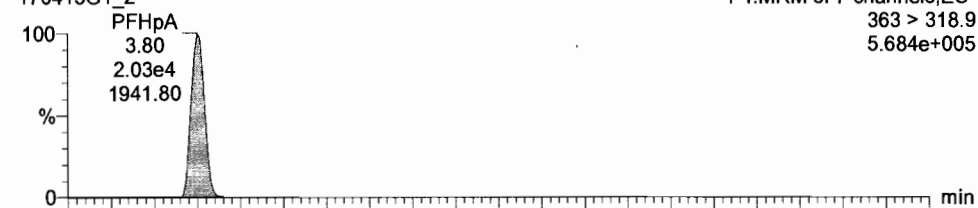
F2:MRM of 3 channels,ES-
298.8 > 79.7
5.796e+005



PFHpA

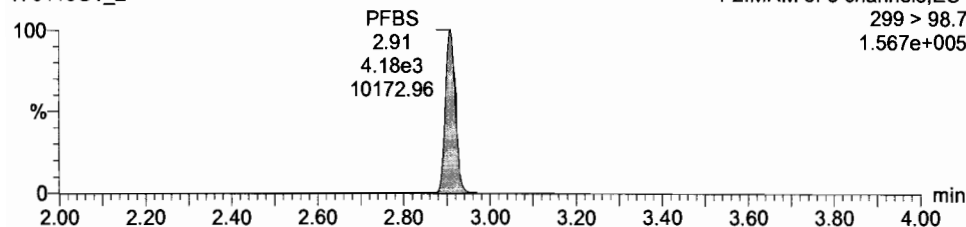
170415G1_2

F4:MRM of 7 channels,ES-
363 > 318.9
5.684e+005



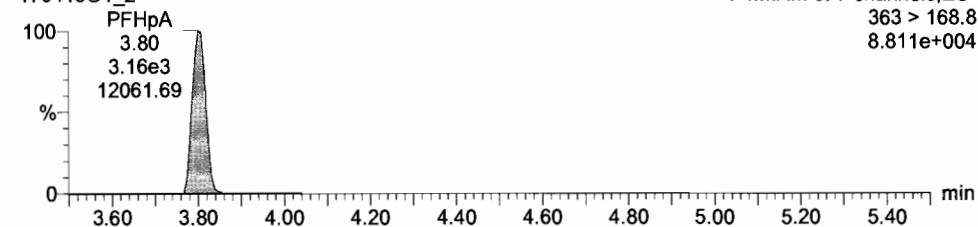
170415G1_2

F2:MRM of 3 channels,ES-
299 > 98.7
1.567e+005



170415G1_2

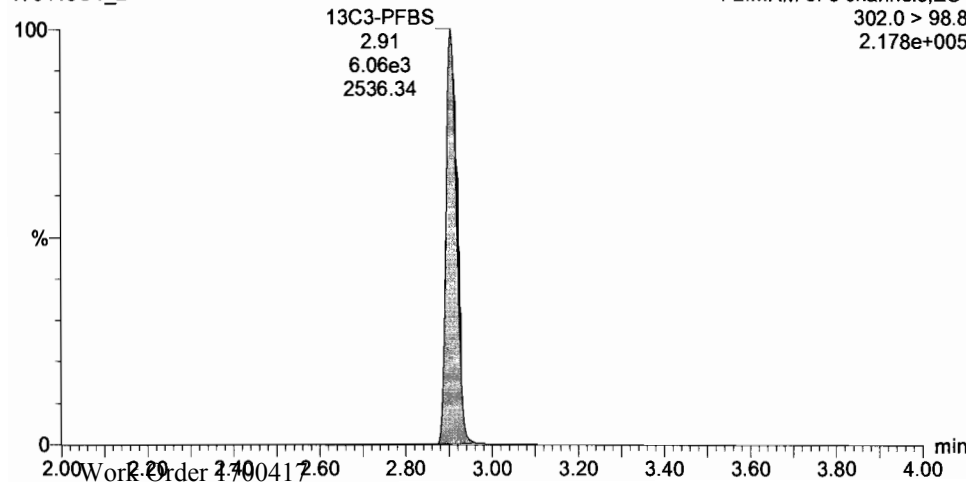
F4:MRM of 7 channels,ES-
363 > 168.8
8.811e+004



13C3-PFBS

170415G1_2

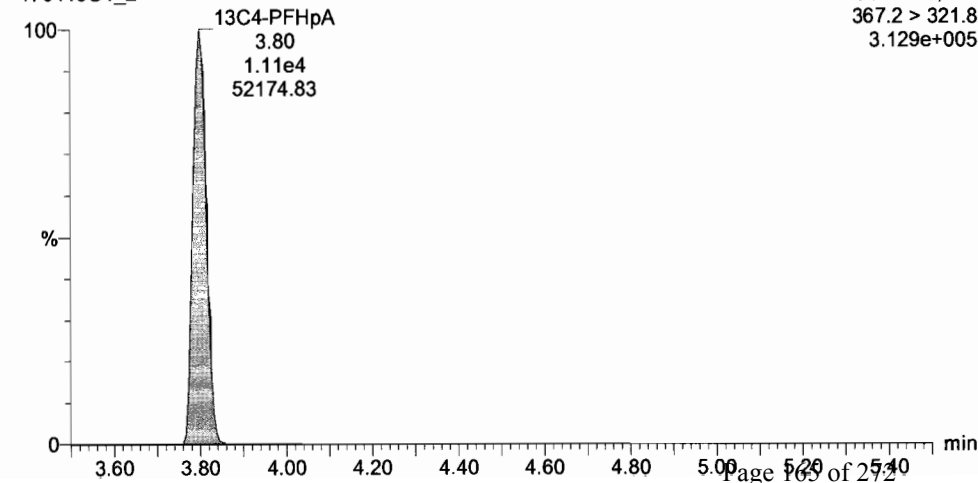
F2:MRM of 3 channels,ES-
302.0 > 98.8
2.178e+005



13C4-PFHpA

170415G1_2

F4:MRM of 7 channels,ES-
367.2 > 321.8
3.129e+005



Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:31:28 Pacific Daylight Time

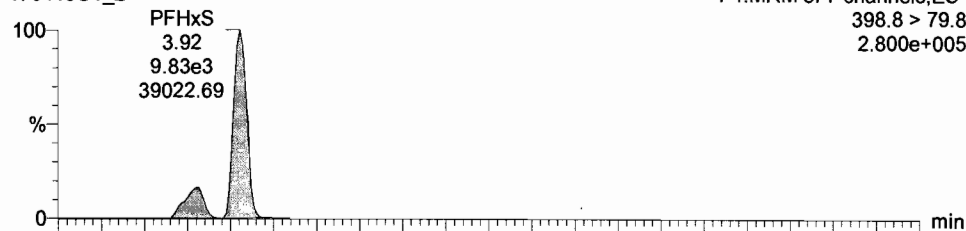
Printed: Monday, April 17, 2017 11:31:33 Pacific Daylight Time

Name: 170415G1_2, Date: 15-Apr-2017, Time: 11:35:05, ID: ST170415G1-1 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

PFHxS

170415G1_2

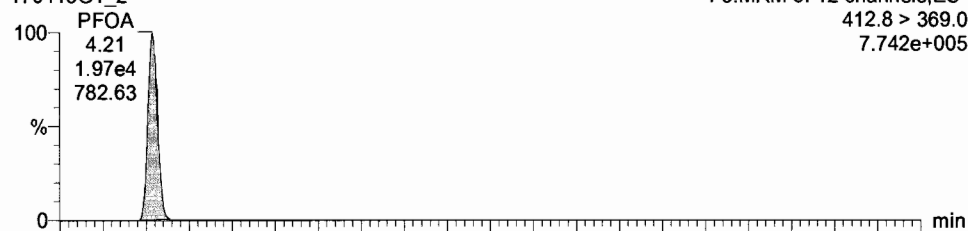
F4:MRM of 7 channels,ES-
398.8 > 79.8
2.800e+005



PFOA

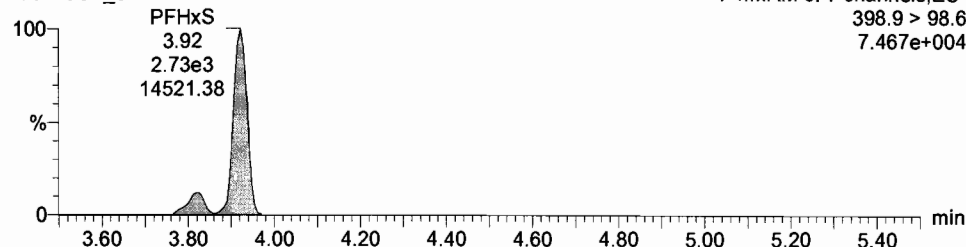
170415G1_2

F5:MRM of 12 channels,ES-
412.8 > 369.0
7.742e+005



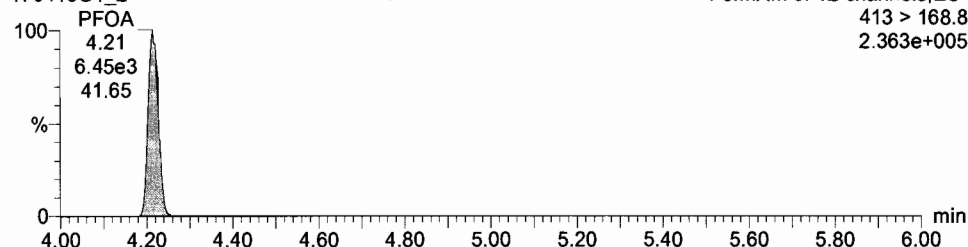
170415G1_2

F4:MRM of 7 channels,ES-
398.9 > 98.6
7.467e+004



170415G1_2

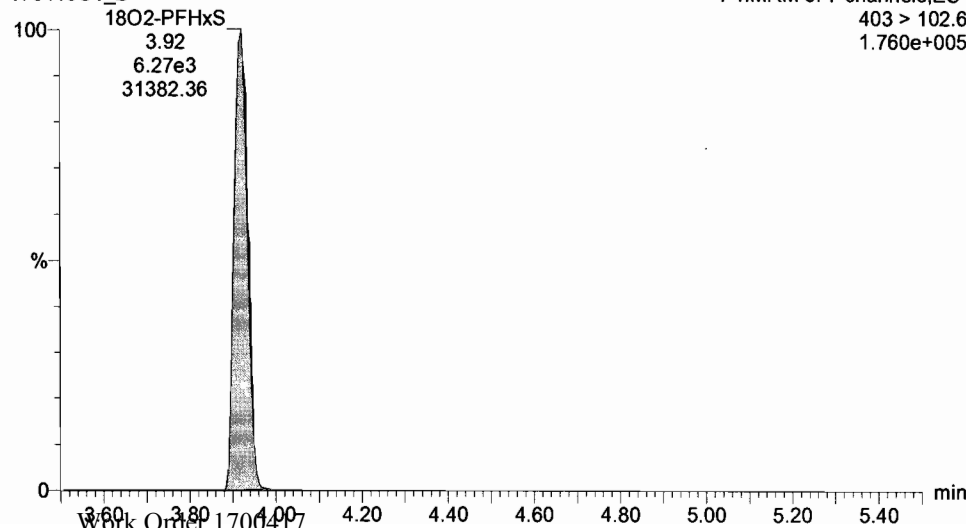
F5:MRM of 12 channels,ES-
413 > 168.8
2.363e+005



18O2-PFHxS

170415G1_2

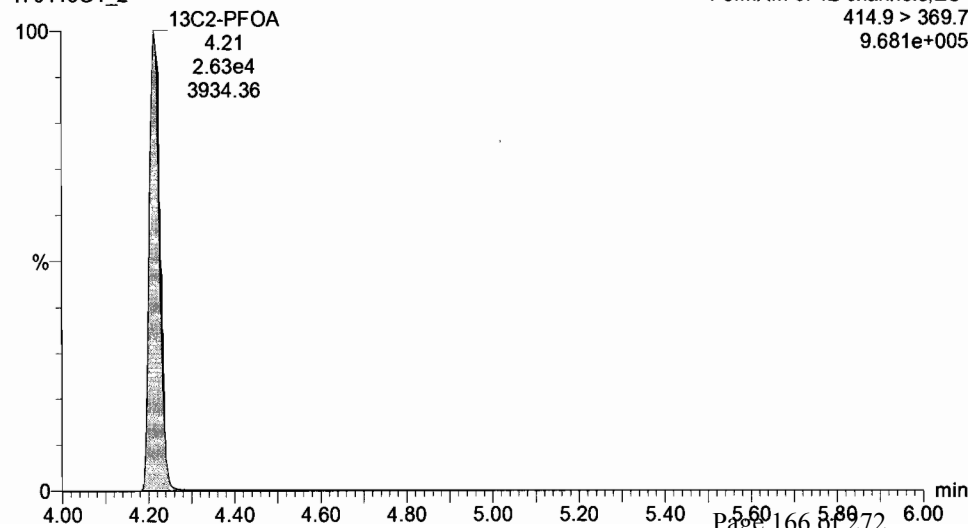
F4:MRM of 7 channels,ES-
403 > 102.6
1.760e+005



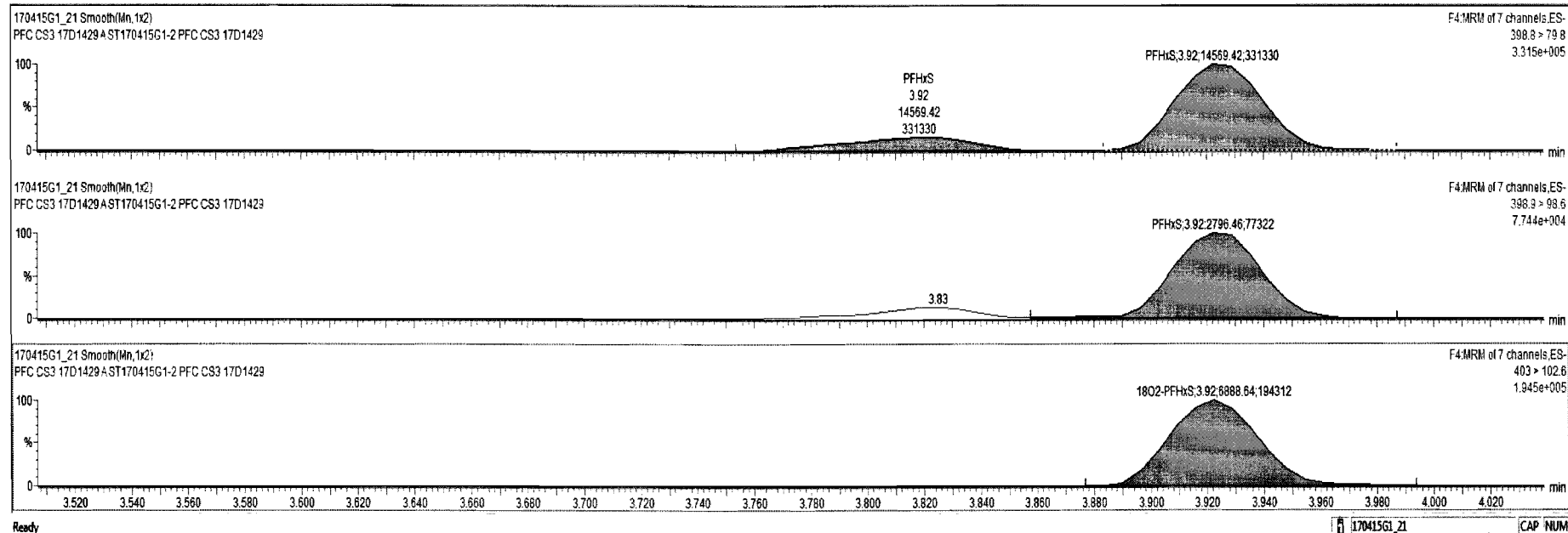
13C2-PFOA

170415G1_2

F5:MRM of 12 channels,ES-
414.9 > 369.7
9.681e+005



#	Name	Trace	Area	Response	RRF	WtVol	RT	Conc.	%Rec	DL	%RSD	Coeff. Of D.
1	PFBS	298.8 > 79.7	1.66e4	30.130	3.013	1.000	2.91	10.7	106.8	0.0174524		0.9996
2	PFHpA	363 > 318.9	2.42e4	21.463	2.146	1.000	3.80	11.1	110.9			0.9981
3	PFHxS	398.8 > 79.8	1.46e4	26.437	2.844	1.000	3.82	11.0	109.6			0.9980
4	PFOA	412.8 > 369.0	2.31e4	9.491	0.949	1.000	4.22	9.70	97.0			0.9993
5	PFNA	462.8 > 418.8	2.54e4	29.239	2.924	1.000	4.56	9.49	94.9			0.9968
6	PFOS	498.7 > 79.8	2.91e3	3.842	0.384	1.000	4.63	10.3	103.2	0.3963588		0.9995
7	13C3-PFBS	302.0 > 98.8	6.89e3	5.285	0.423	1.000	2.91	11.7	93.4	0.0061601	3.87	
8	13C4-PFHpA	367.2 > 321.8	1.41e4	10.802	0.864	1.000	3.80	12.6	100.9	0.0041395	4.31	
9	18O2-PFHxS	403 > 102.6	6.89e3	5.281	0.422	1.000	3.92	12.0	96.1	0.0276298	4.28	
10	13C2-PFOA	414.9 > 369.7	3.04e4	37.671	3.014	1.000	4.21	11.2	89.5	0.0237718	4.54	
11	13C5-PFNA	468.2 > 422.9	1.09e4	12.115	0.969	1.000	4.56	13.3	106.7	0.0163302	7.68	
12	13C8-PFOS	506.7 > 79.6	9.47e3	13.795	1.104	1.000	4.62	10.6	84.8	0.0154084	3.13	
13	13C5-PFHxS	318 > 272.9	2.43e4	12.500	1.000	1.000	3.28	12.5	100.0	0.0073516	0.000	
14	13C3-PFHxS	401.9 > 79.9	1.63e4	12.500	1.000	1.000	3.92	12.5	100.0	0.0014595	0.000	
15	13C8-PFOA	421.3 > 376	1.01e4	12.500	1.000	1.000	4.21	12.5	100.0	0.0417119	0.000	
16	13C9-PFNA	472.2 > 426.9	1.12e4	12.500	1.000	1.000	4.56	12.5	100.0	0.0044896	0.000	
17	13C4-PFOS	503.8 > 79.9	8.58e3	12.500	1.000	1.000	4.63	12.5	100.0	0.0336861	0.000	
18	Total PFBS	298.8 > 79.7	1.66e4	30.142		1.000		10.7				0.0000
19	Total PFHxS	398.8 > 79.8	1.73e4	31.379		1.000		13.0				0.0000
20	Total PFOA	412.8 > 369.0	2.31e4	9.491		1.000		9.70				0.0000
21	Total PFOS	498.7 > 79.8	3.80e3	5.017		1.000		13.7		0.3963588		0.0000



Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:31:28 Pacific Daylight Time

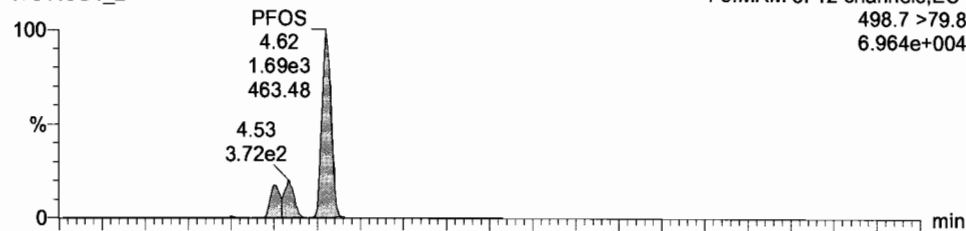
Printed: Monday, April 17, 2017 11:31:33 Pacific Daylight Time

Name: 170415G1_2, Date: 15-Apr-2017, Time: 11:35:05, ID: ST170415G1-1 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

PFOS

170415G1_2

F5:MRM of 12 channels,ES-
498.7 > 79.8
6.964e+004



PFNA

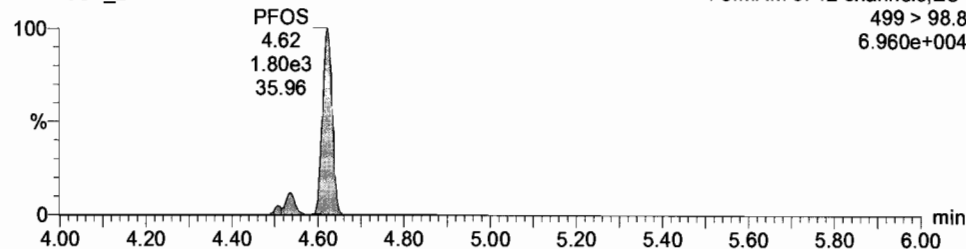
170415G1_2

F5:MRM of 12 channels,ES-
462.8 > 418.8
8.594e+005



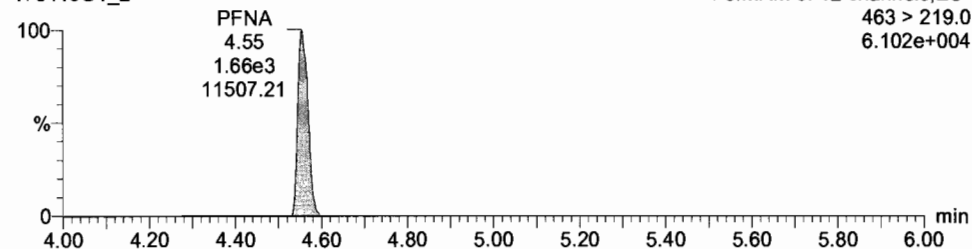
170415G1_2

F5:MRM of 12 channels,ES-
499 > 98.8
6.960e+004



170415G1_2

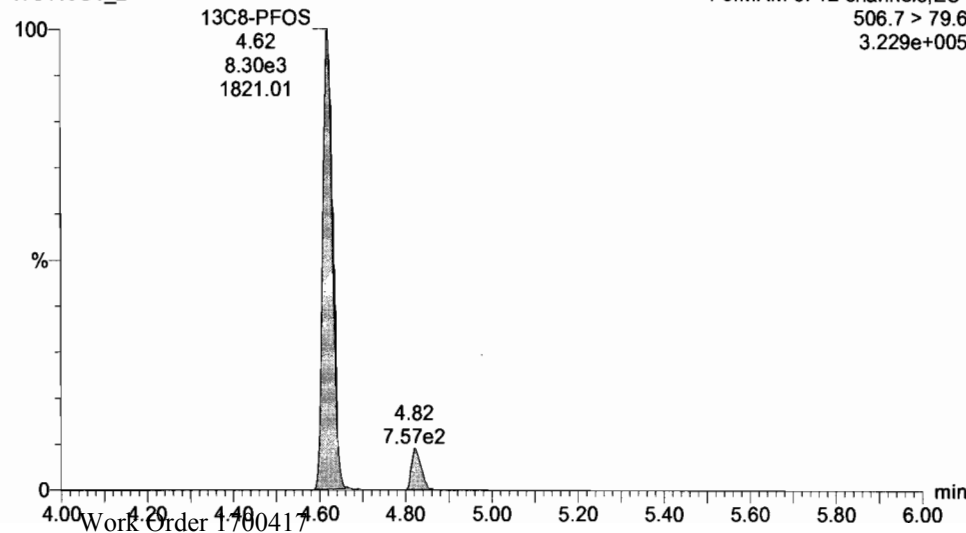
F5:MRM of 12 channels,ES-
463 > 219.0
6.102e+004



13C8-PFOS

170415G1_2

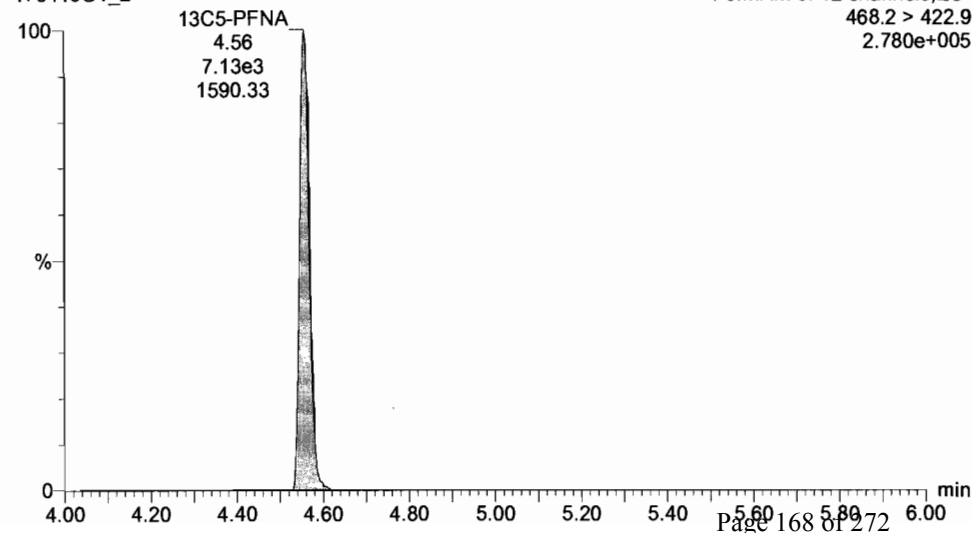
F5:MRM of 12 channels,ES-
506.7 > 79.6
3.229e+005



13C5-PFNA

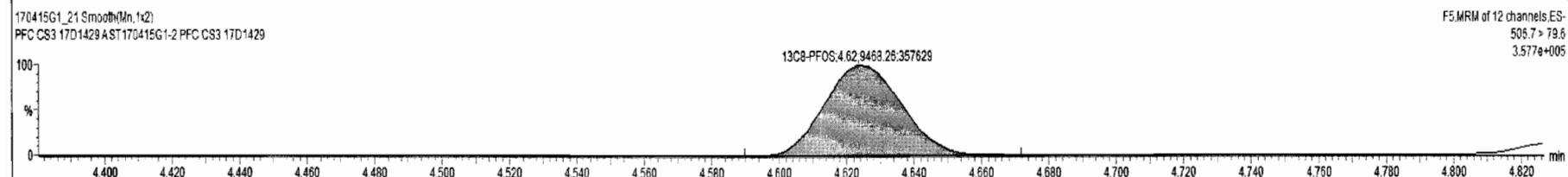
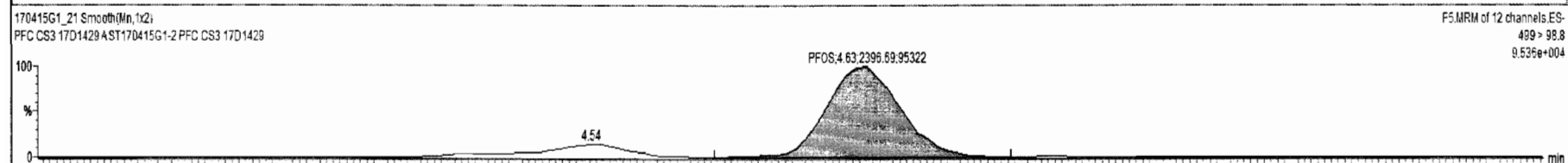
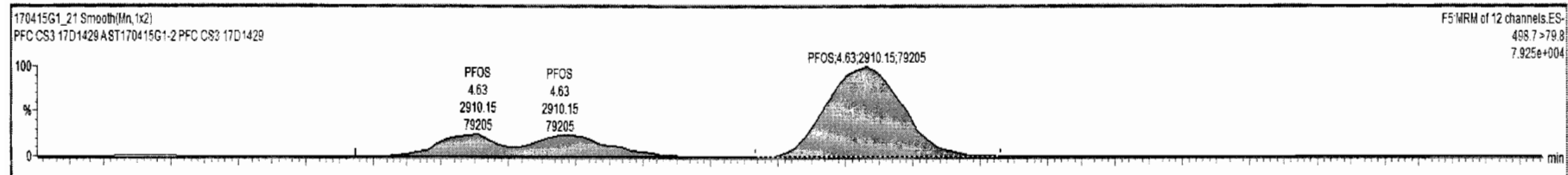
170415G1_2

F5:MRM of 12 channels,ES-
468.2 > 422.9
2.780e+005



170415G1_21 - ST170415G1-2 PFC CS3 17D1429 - PFC CS3 17D1429 A

#	Name	Trace	Area	Response	RRF	WVVL	RT	Conc.	%Rec	DL	%RSD	Coef. OFD
1	PFBS	296.8 > 79.7	1.66e4	30.130	3.013	1.000	2.91	10.7	106.8	0.0174524		0.9996
2	PFHpA	363 > 318.9	2.42e4	21.463	2.146	1.000	3.80	11.1	110.9			0.9961
3	PFHxS	396.8 > 79.8	1.46e4	26.437	2.644	1.000	3.92	11.0	109.6			0.9960
4	PFOA	412.8 > 369.0	2.31e4	9.491	0.949	1.000	4.22	9.70	97.0			0.9993
5	PFNA	462.8 > 418.8	2.54e4	29.239	2.924	1.000	4.56	9.49	94.9			0.9968
6	PFOS	496.7 > 79.8	2.91e3	3.842	0.384	1.000	4.63	10.3	103.2	0.3963586		0.9995
7	13C3-PFBS	302.0 > 98.8	6.89e3	5.285	0.423	1.000	2.91	11.7	93.4	0.0061601	3.87	
8	13C4-PFHpA	367.2 > 321.8	1.41e4	10.802	0.864	1.000	3.80	12.6	100.9	0.0041395	4.31	
9	18O2-PFHxS	403 > 102.6	6.89e3	5.281	0.422	1.000	3.92	12.0	96.1	0.0276298	4.28	
10	13C2-PFOA	414.9 > 369.7	3.04e4	37.671	3.014	1.000	4.21	11.2	89.5	0.0237718	4.64	
11	13C5-PFNA	468.2 > 422.9	1.09e4	12.115	0.969	1.000	4.56	13.3	106.7	0.0163302	7.68	
12	13C8-PFOS	506.7 > 79.6	9.47e3	13.795	1.104	1.000	4.62	10.6	84.6	0.0154084	3.13	
13	13C5-PFHxS	318 > 272.9	2.43e4	12.500	1.000	1.000	3.28	12.5	100.0	0.0073516	0.000	
14	13C3-PFHxS	401.9 > 79.9	1.63e4	12.500	1.000	1.000	3.92	12.5	100.0	0.0014595	0.000	
15	13C8-PFOA	421.3 > 376	1.01e4	12.500	1.000	1.000	4.21	12.5	100.0	0.0417119	0.000	
16	13C9-PFNA	472.2 > 426.9	1.12e4	12.500	1.000	1.000	4.56	12.5	100.0	0.0044696	0.000	
17	13C4-PFOS	503.0 > 79.9	8.58e3	12.500	1.000	1.000	4.63	12.5	100.0	0.0336861	0.000	
18	Total PFBS	296.8 > 79.7	1.66e4	30.142		1.000		10.7				0.0000
19	Total PFHxS	396.8 > 79.8	1.73e4	31.379		1.000		13.0				0.0000
20	Total PFOA	412.8 > 369.0	2.31e4	9.491		1.000		9.70				0.0000
21	Total PFOS	496.7 > 79.8	3.80e3	5.017		1.000		13.7		0.3963586		0.0000



Custom Reporting: Select reports to generate

170415G1_21 CAP INUM

Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:31:28 Pacific Daylight Time

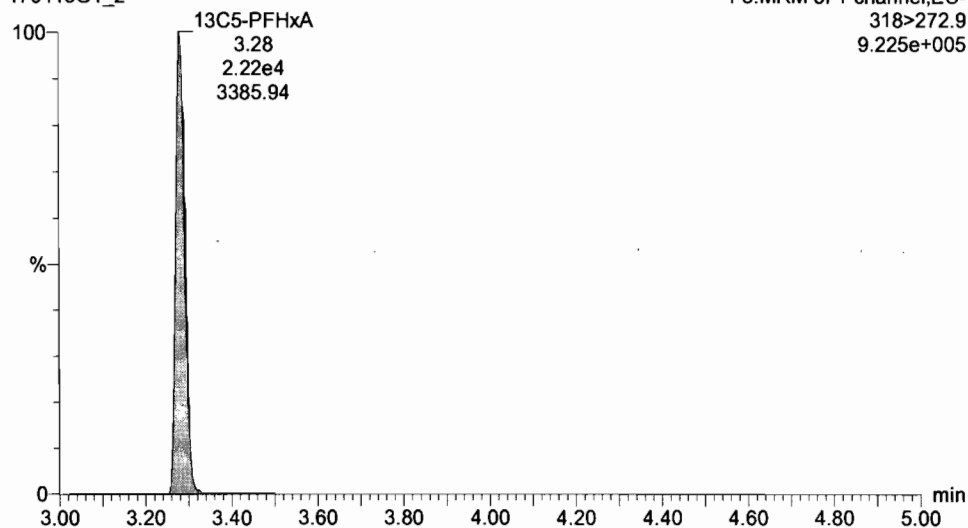
Printed: Monday, April 17, 2017 11:31:33 Pacific Daylight Time

Name: 170415G1_2, Date: 15-Apr-2017, Time: 11:35:05, ID: ST170415G1-1 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

13C5-PFHxA

170415G1_2

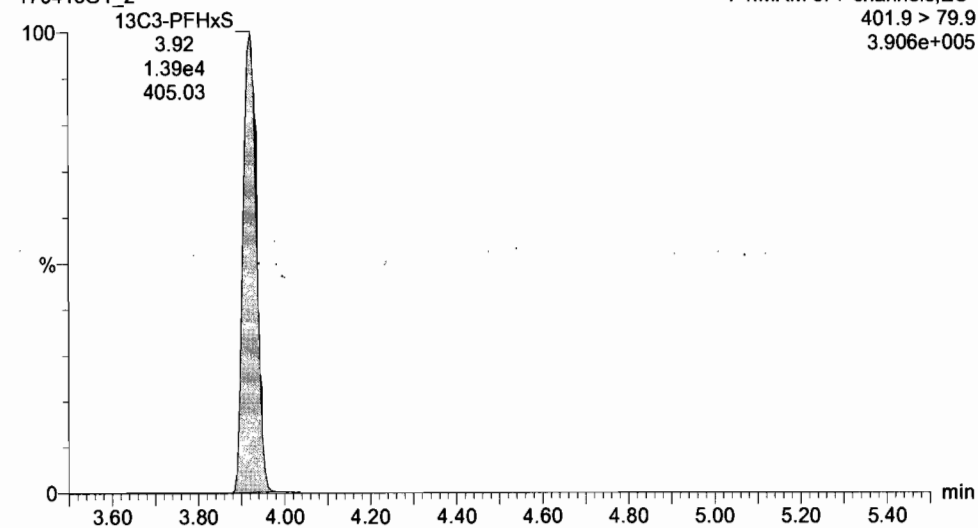
F3:MRM of 1 channel,ES-
318>272.9
9.225e+005



13C3-PFHxS

170415G1_2

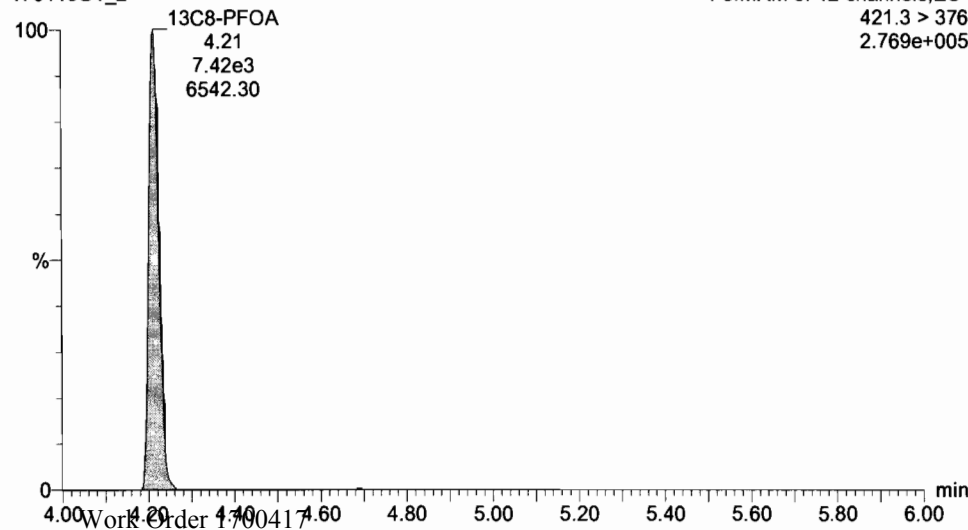
F4:MRM of 7 channels,ES-
401.9 > 79.9
3.906e+005



13C8-PFOA

170415G1_2

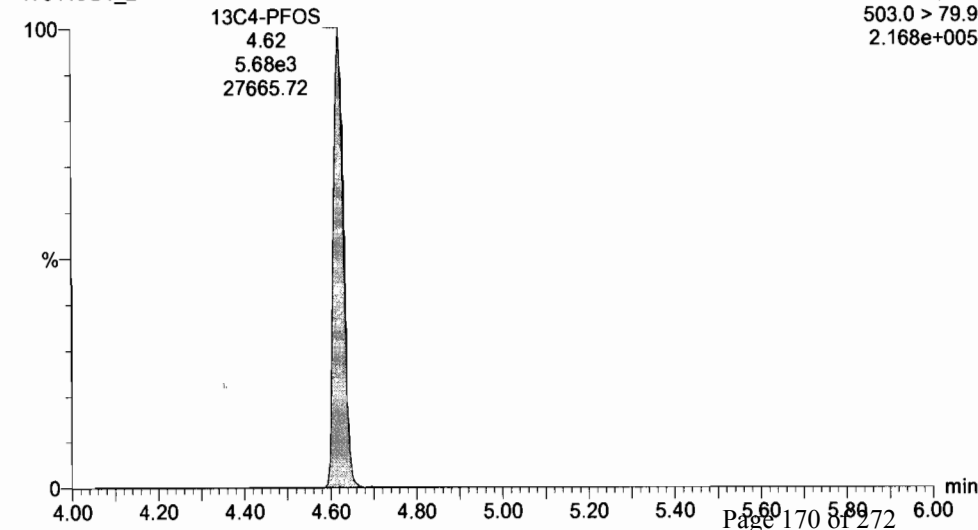
F5:MRM of 12 channels,ES-
421.3 > 376
2.769e+005



13C4-PFOS

170415G1_2

F5:MRM of 12 channels,ES-
503.0 > 79.9
2.168e+005



Dataset: Untitled

Last Altered: Monday, April 17, 2017 11:31:28 Pacific Daylight Time

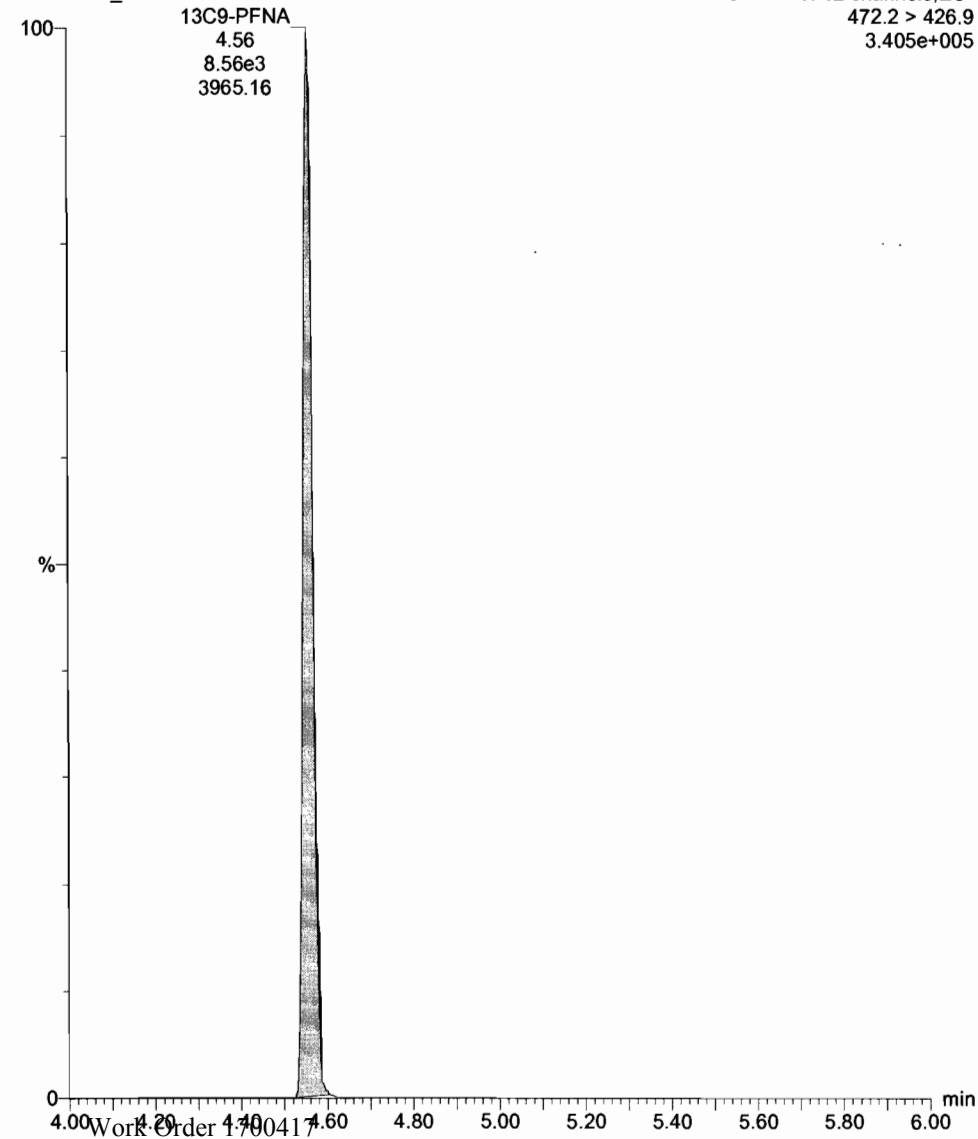
Printed: Monday, April 17, 2017 11:31:33 Pacific Daylight Time

Name: 170415G1_2, Date: 15-Apr-2017, Time: 11:35:05, ID: ST170415G1-1 PFC CS3 17D1429, Description: PFC CS3 17D1429 A

13C9-PFNA

170415G1_2

F5:MRM of 12 channels,ES-
472.2 > 426.9
3.405e+005



INITIAL CALIBRATION

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:42:13 Pacific Daylight Time

Method: Untitled 13 Apr 2017 08:50:47

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_Old.cdb 13 Apr 2017 12:34:50

New

21 4/13/17

Compound name: PFBS

Correlation coefficient: $r = 0.999783$, $r^2 = 0.999567$

Calibration curve: $2.8207 * x + 8.02989e-005$

Response type: Internal Std (Ref 7), 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 170413G1_2	0.250	2.91	3.86e2	5.68e3	0.302	20.6	3.40
2	2 170413G1_3	0.500	2.91	6.77e2	6.83e3	0.439	-12.2	2.48
3	3 170413G1_4	1.00	2.91	1.47e3	6.78e3	0.964	-3.6	2.72
4	4 170413G1_5	2.00	2.89	2.88e3	6.61e3	1.93	-3.5	2.72
5	5 170413G1_6	5.00	2.91	8.03e3	7.49e3	4.75	-4.9	2.68
6	6 170413G1_7	10.0	2.91	1.42e4	6.01e3	10.4	4.4	2.95
7	7 170413G1_8	50.0	2.91	6.68e4	6.01e3	49.2	-1.5	2.78
8	8 170413G1_9	100	2.91	1.29e5	5.69e3	101	0.7	2.84

28 4/13/17

✓ AC 4/13/17

Compound name: PFHpA

Correlation coefficient: $r = 0.999047$, $r^2 = 0.998095$

Calibration curve: $1.92754 * x + 0.0959906$

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 170413G1_2	0.250	3.80	4.81e2	1.02e4	0.257	2.9	2.37
2	2 170413G1_3	0.500	3.80	9.84e2	1.19e4	0.485	-3.0	2.06
3	3 170413G1_4	1.00	3.80	2.10e3	1.32e4	0.977	-2.3	1.98
4	4 170413G1_5	2.00	3.80	3.82e3	1.28e4	1.88	-6.0	1.86
5	5 170413G1_6	5.00	3.80	1.07e4	1.43e4	4.80	-4.0	1.87
6	6 170413G1_7	10.0	3.80	1.92e4	1.07e4	11.5	15.3	2.23
7	7 170413G1_8	50.0	3.80	9.23e4	1.24e4	48.4	-3.3	1.87
8	8 170413G1_9	100	3.80	1.74e5	1.12e4	100	0.5	1.94

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:42:13 Pacific Daylight Time

Compound name: PFHxS

Correlation coefficient: $r = 0.998990$, $r^2 = 0.997981$

Calibration curve: $2.40269 * x + 0.0975035$

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 170413G1_2	0.250	3.92	2.83e2	5.24e3	0.241	-3.7	2.70
2	2 170413G1_3	0.500	3.92	6.53e2	6.49e3	0.483	-3.4	2.52
3	3 170413G1_4	1.00	3.92	1.31e3	6.68e3	0.982	-1.8	2.46
4	4 170413G1_5	2.00	3.92	2.29e3	6.33e3	1.84	-7.8	2.26
5	5 170413G1_6	5.00	3.92	6.93e3	6.81e3	5.25	5.0	2.54
6	6 170413G1_7	10.0	3.92	1.18e4	5.52e3	11.1	10.7	2.67
7	7 170413G1_8	50.0	3.92	6.21e4	6.21e3	52.0	4.1	2.50
8	8 170413G1_9	100	3.92	1.17e5	6.30e3	96.8	-3.2	2.33

Compound name: PFOA

Correlation coefficient: $r = 0.999638$, $r^2 = 0.999277$

Calibration curve: $0.969815 * x + 0.0817292$

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 170413G1_2	0.250	4.21	5.56e2	2.05e4	0.266	6.4	1.36
2	2 170413G1_3	0.500	4.21	1.15e3	2.64e4	0.479	-4.3	1.09
3	3 170413G1_4	1.00	4.21	2.37e3	2.99e4	0.934	-6.6	0.988
4	4 170413G1_5	2.00	4.21	4.28e3	2.68e4	1.98	-1.1	1.00
5	5 170413G1_6	5.00	4.21	1.19e4	3.11e4	4.84	-3.3	0.954
6	6 170413G1_7	10.0	4.21	2.03e4	2.39e4	10.9	8.7	1.06
7	7 170413G1_8	50.0	4.21	1.07e5	2.72e4	50.7	1.4	0.985
8	8 170413G1_9	100	4.21	2.11e5	2.75e4	98.7	-1.3	0.958

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:42:13 Pacific Daylight Time

Compound name: PFNA

Correlation coefficient: $r = 0.998376$, $r^2 = 0.996755$

Calibration curve: $3.06565 * x + 0.157679$

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 170413G1_2	0.250	4.56	3.58e2	4.50e3	0.273	9.1	3.97
2	2 170413G1_3	0.500	4.55	1.13e3	8.38e3	0.501	0.2	3.39
3	3 170413G1_4	1.00	4.55	2.15e3	9.20e3	0.900	-10.0	2.92
4	4 170413G1_5	2.00	4.56	3.73e3	8.28e3	1.79	-10.6	2.82
5	5 170413G1_6	5.00	4.56	1.11e4	9.37e3	4.76	-4.8	2.95
6	6 170413G1_7	10.0	4.56	2.14e4	7.60e3	11.4	14.4	3.52
7	7 170413G1_8	50.0	4.56	1.16e5	9.00e3	52.7	5.3	3.23
8	8 170413G1_9	100	4.56	2.33e5	9.85e3	96.4	-3.6	2.96

Compound name: PFOS

Correlation coefficient: $r = 0.999733$, $r^2 = 0.999466$

Calibration curve: $0.374993 * x + -0.0295857$

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 170413G1_2	0.250	4.61	2.31e1	4.25e3	0.260	3.8	0.271
2	2 170413G1_3	0.500	4.62	9.10e1	7.96e3	0.460	-8.0	0.286
3	3 170413G1_4	1.00	4.62	2.98e2	1.06e4	1.02	1.5	0.351
4	4 170413G1_5	2.00	4.62	4.79e2	8.66e3	1.92	-4.0	0.345
5	5 170413G1_6	5.00	4.62	1.41e3	9.15e3	5.22	4.4	0.386
6	6 170413G1_7	10.0	4.62	2.81e3	9.37e3	10.1	0.9	0.376
7	7 170413G1_8	50.0	4.62	1.43e4	9.27e3	51.4	2.9	0.385
8	8 170413G1_9	100	4.62	3.52e4	1.19e4	98.3	-1.7	0.369

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:42:13 Pacific Daylight Time

Compound name: 13C3-PFBS

Response Factor: 0.45258

RRF SD: 0.0175204, Relative SD: 3.87123

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 170413G1_2	12.5	2.91	5.68e3	1.24e4	12.6	1.2	0.458
2	2 170413G1_3	12.5	2.90	6.83e3	1.46e4	12.9	3.4	0.468
3	3 170413G1_4	12.5	2.90	6.78e3	1.45e4	12.9	3.5	0.468
4	4 170413G1_5	12.5	2.89	6.61e3	1.48e4	12.3	-1.5	0.446
5	5 170413G1_6	12.5	2.91	7.49e3	1.61e4	12.9	3.0	0.466
6	6 170413G1_7	12.5	2.91	6.01e3	1.30e4	12.7	1.9	0.461
7	7 170413G1_8	12.5	2.90	6.01e3	1.41e4	11.8	-5.7	0.427
8	8 170413G1_9	12.5	2.91	5.69e3	1.33e4	11.8	-5.8	0.427

Compound name: 13C4-PFHpA

Response Factor: 0.85684

RRF SD: 0.0369584, Relative SD: 4.31333

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 170413G1_2	12.5	3.80	1.02e4	1.24e4	12.0	-4.3	0.820
2	2 170413G1_3	12.5	3.80	1.19e4	1.46e4	11.9	-4.7	0.817
3	3 170413G1_4	12.5	3.80	1.32e4	1.45e4	13.3	6.7	0.915
4	4 170413G1_5	12.5	3.80	1.28e4	1.48e4	12.6	1.2	0.867
5	5 170413G1_6	12.5	3.79	1.43e4	1.61e4	13.0	4.3	0.894
6	6 170413G1_7	12.5	3.80	1.07e4	1.30e4	12.0	-3.9	0.823
7	7 170413G1_8	12.5	3.80	1.24e4	1.41e4	12.8	2.5	0.878
8	8 170413G1_9	12.5	3.80	1.12e4	1.33e4	12.3	-1.8	0.841

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:42:13 Pacific Daylight Time

Compound name: 18O2-PFHxS

Response Factor: 0.439536

RRF SD: 0.0188125, Relative SD: 4.28009

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 170413G1_2	12.5	3.92	5.24e3	1.24e4	12.0	-3.9	0.422
2	2 170413G1_3	12.5	3.92	6.49e3	1.46e4	12.6	1.1	0.444
3	3 170413G1_4	12.5	3.92	6.68e3	1.45e4	13.1	4.9	0.461
4	4 170413G1_5	12.5	3.92	6.33e3	1.48e4	12.2	-2.8	0.427
5	5 170413G1_6	12.5	3.92	6.81e3	1.61e4	12.1	-3.4	0.424
6	6 170413G1_7	12.5	3.92	5.52e3	1.30e4	12.1	-3.6	0.424
7	7 170413G1_8	12.5	3.92	6.21e3	1.41e4	12.5	0.3	0.441
8	8 170413G1_9	12.5	3.92	6.30e3	1.33e4	13.4	7.4	0.472

Compound name: 13C2-PFOA

Response Factor: 3.36576

RRF SD: 0.156173, Relative SD: 4.64006

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 170413G1_2	12.5	4.21	2.05e4	6.21e3	12.2	-2.1	3.29
2	2 170413G1_3	12.5	4.21	2.64e4	7.91e3	12.4	-0.9	3.34
3	3 170413G1_4	12.5	4.21	2.99e4	8.27e3	13.4	7.6	3.62
4	4 170413G1_5	12.5	4.21	2.68e4	8.34e3	11.9	-4.6	3.21
5	5 170413G1_6	12.5	4.21	3.11e4	8.96e3	12.9	3.1	3.47
6	6 170413G1_7	12.5	4.21	2.39e4	6.78e3	13.1	4.6	3.52
7	7 170413G1_8	12.5	4.21	2.72e4	8.56e3	11.8	-5.7	3.17
8	8 170413G1_9	12.5	4.21	2.75e4	8.33e3	12.3	-1.9	3.30

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:42:13 Pacific Daylight Time

Compound name: 13C5-PFNA

Response Factor: 0.908503

RRF SD: 0.0697745, Relative SD: 7.68015

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 170413G1_2	12.5	4.56	4.50e3	5.85e3	10.6	-15.3	0.769
2	2 170413G1_3	12.5	4.55	8.38e3	8.75e3	13.2	5.4	0.958
3	3 170413G1_4	12.5	4.55	9.20e3	9.33e3	13.6	8.5	0.985
4	4 170413G1_5	12.5	4.56	8.28e3	8.76e3	13.0	4.0	0.945
5	5 170413G1_6	12.5	4.55	9.37e3	1.02e4	12.6	0.7	0.915
6	6 170413G1_7	12.5	4.56	7.60e3	8.88e3	11.8	-5.8	0.856
7	7 170413G1_8	12.5	4.55	9.00e3	9.46e3	13.1	4.7	0.951
8	8 170413G1_9	12.5	4.55	9.85e3	1.11e4	12.2	-2.2	0.889

Compound name: 13C8-PFOS

Response Factor: 1.30448

RRF SD: 0.0408772, Relative SD: 3.13361

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 170413G1_2	12.5	4.62	4.25e3	3.24e3	12.6	0.6	1.31
2	2 170413G1_3	12.5	4.61	7.96e3	5.92e3	12.9	3.1	1.34
3	3 170413G1_4	12.5	4.62	1.06e4	7.69e3	13.2	5.8	1.38
4	4 170413G1_5	12.5	4.62	8.66e3	6.74e3	12.3	-1.4	1.29
5	5 170413G1_6	12.5	4.62	9.15e3	7.06e3	12.4	-0.6	1.30
6	6 170413G1_7	12.5	4.62	9.37e3	7.43e3	12.1	-3.3	1.26
7	7 170413G1_8	12.5	4.62	9.27e3	7.17e3	12.4	-0.9	1.29
8	8 170413G1_9	12.5	4.62	1.19e4	9.46e3	12.1	-3.3	1.26

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:42:13 Pacific Daylight Time

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 170413G1_2	12.5	3.28	2.06e4	2.06e4	12.5	0.0	1.00
2	2 170413G1_3	12.5	3.28	2.34e4	2.34e4	12.5	0.0	1.00
3	3 170413G1_4	12.5	3.28	2.38e4	2.38e4	12.5	0.0	1.00
4	4 170413G1_5	12.5	3.28	2.32e4	2.32e4	12.5	0.0	1.00
5	5 170413G1_6	12.5	3.28	2.53e4	2.53e4	12.5	0.0	1.00
6	6 170413G1_7	12.5	3.28	2.06e4	2.06e4	12.5	0.0	1.00
7	7 170413G1_8	12.5	3.28	2.16e4	2.16e4	12.5	0.0	1.00
8	8 170413G1_9	12.5	3.28	2.04e4	2.04e4	12.5	0.0	1.00

Compound name: 13C3-PFHxS

Response Factor: 1

RRF SD: 0, Relative SD: 0

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 170413G1_2	12.5	3.92	1.24e4	1.24e4	12.5	0.0	1.00
2	2 170413G1_3	12.5	3.92	1.46e4	1.46e4	12.5	0.0	1.00
3	3 170413G1_4	12.5	3.92	1.45e4	1.45e4	12.5	0.0	1.00
4	4 170413G1_5	12.5	3.92	1.48e4	1.48e4	12.5	0.0	1.00
5	5 170413G1_6	12.5	3.92	1.61e4	1.61e4	12.5	0.0	1.00
6	6 170413G1_7	12.5	3.92	1.30e4	1.30e4	12.5	0.0	1.00
7	7 170413G1_8	12.5	3.92	1.41e4	1.41e4	12.5	0.0	1.00
8	8 170413G1_9	12.5	3.92	1.33e4	1.33e4	12.5	0.0	1.00

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:42:13 Pacific Daylight Time

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 170413G1_2	12.5	4.21	6.21e3	6.21e3	12.5	0.0	1.00
2	2 170413G1_3	12.5	4.21	7.91e3	7.91e3	12.5	0.0	1.00
3	3 170413G1_4	12.5	4.21	8.27e3	8.27e3	12.5	0.0	1.00
4	4 170413G1_5	12.5	4.21	8.34e3	8.34e3	12.5	0.0	1.00
5	5 170413G1_6	12.5	4.21	8.96e3	8.96e3	12.5	0.0	1.00
6	6 170413G1_7	12.5	4.21	6.78e3	6.78e3	12.5	0.0	1.00
7	7 170413G1_8	12.5	4.21	8.56e3	8.56e3	12.5	0.0	1.00
8	8 170413G1_9	12.5	4.21	8.33e3	8.33e3	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 170413G1_2	12.5	4.56	5.85e3	5.85e3	12.5	0.0	1.00
2	2 170413G1_3	12.5	4.55	8.75e3	8.75e3	12.5	0.0	1.00
3	3 170413G1_4	12.5	4.55	9.33e3	9.33e3	12.5	0.0	1.00
4	4 170413G1_5	12.5	4.56	8.76e3	8.76e3	12.5	0.0	1.00
5	5 170413G1_6	12.5	4.55	1.02e4	1.02e4	12.5	0.0	1.00
6	6 170413G1_7	12.5	4.56	8.88e3	8.88e3	12.5	0.0	1.00
7	7 170413G1_8	12.5	4.55	9.46e3	9.46e3	12.5	0.0	1.00
8	8 170413G1_9	12.5	4.55	1.11e4	1.11e4	12.5	0.0	1.00

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:42:13 Pacific Daylight Time

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 170413G1_2	12.5	4.62	3.24e3	3.24e3	12.5	0.0	1.00
2	2 170413G1_3	12.5	4.62	5.92e3	5.92e3	12.5	0.0	1.00
3	3 170413G1_4	12.5	4.62	7.69e3	7.69e3	12.5	0.0	1.00
4	4 170413G1_5	12.5	4.62	6.74e3	6.74e3	12.5	0.0	1.00
5	5 170413G1_6	12.5	4.62	7.06e3	7.06e3	12.5	0.0	1.00
6	6 170413G1_7	12.5	4.62	7.43e3	7.43e3	12.5	0.0	1.00
7	7 170413G1_8	12.5	4.62	7.17e3	7.17e3	12.5	0.0	1.00
8	8 170413G1_9	12.5	4.62	9.46e3	9.46e3	12.5	0.0	1.00

Dataset: Untitled

Last Altered: Thursday, April 13, 2017 13:53:17 Pacific Daylight Time

Printed: Thursday, April 13, 2017 13:53:49 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 08:50:47

Calibration: U:\G1.pro\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_New.cdb 13 Apr 2017 12:34:50

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170413G1_1	IPA	13-Apr-17	09:26:27
2	170413G1_2	ST170413G1-1 PFC CS-2 17D1301	13-Apr-17	09:39:06
3	170413G1_3	ST170413G1-2 PFC CS-1 17D1302	13-Apr-17	09:51:40
4	170413G1_4	ST170413G1-3 PFC CS0 17D1303	13-Apr-17	10:04:14
5	170413G1_5	ST170413G1-4 PFC CS1 17D1304	13-Apr-17	10:19:55
6	170413G1_6	ST170413G1-5 PFC CS2 17D1305	13-Apr-17	10:32:30
7	170413G1_7	ST170413G1-6 PFC CS3 17D1306	13-Apr-17	10:45:07
8	170413G1_8	ST170413G1-7 PFC CS4 17D1307	13-Apr-17	10:57:43
9	170413G1_9	ST170413G1-8 PFC CS5 17D1308	13-Apr-17	11:10:56
10	170413G1_10	IPA	13-Apr-17	11:23:39
11	170413G1_11	SS170413G1-1 PFC SSS 17D1309	13-Apr-17	11:36:16
12	170413G1_12	IPA	13-Apr-17	11:48:50
13	170413G1_13	B7D0041-BS1 OPR 0.25	13-Apr-17	12:01:27
14	170413G1_14	IPA	13-Apr-17	12:14:01
15	170413G1_15	B7D0041-BLK1 Method Blank 0.25	13-Apr-17	12:26:40
16	170413G1_16	1700428-01 Kitchen 0.26378	13-Apr-17	12:39:16
17	170413G1_17	IPA	13-Apr-17	12:51:52
18	170413G1_18	ST170413G1-9 PFC CS3 17D1306	13-Apr-17	13:04:29
19	170413G1_19	IPA	13-Apr-17	13:17:06

Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:41:32 Pacific Daylight Time

Method: Untitled 13 Apr 2017 08:50:47

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_Old.cdb 13 Apr 2017 12:34:50

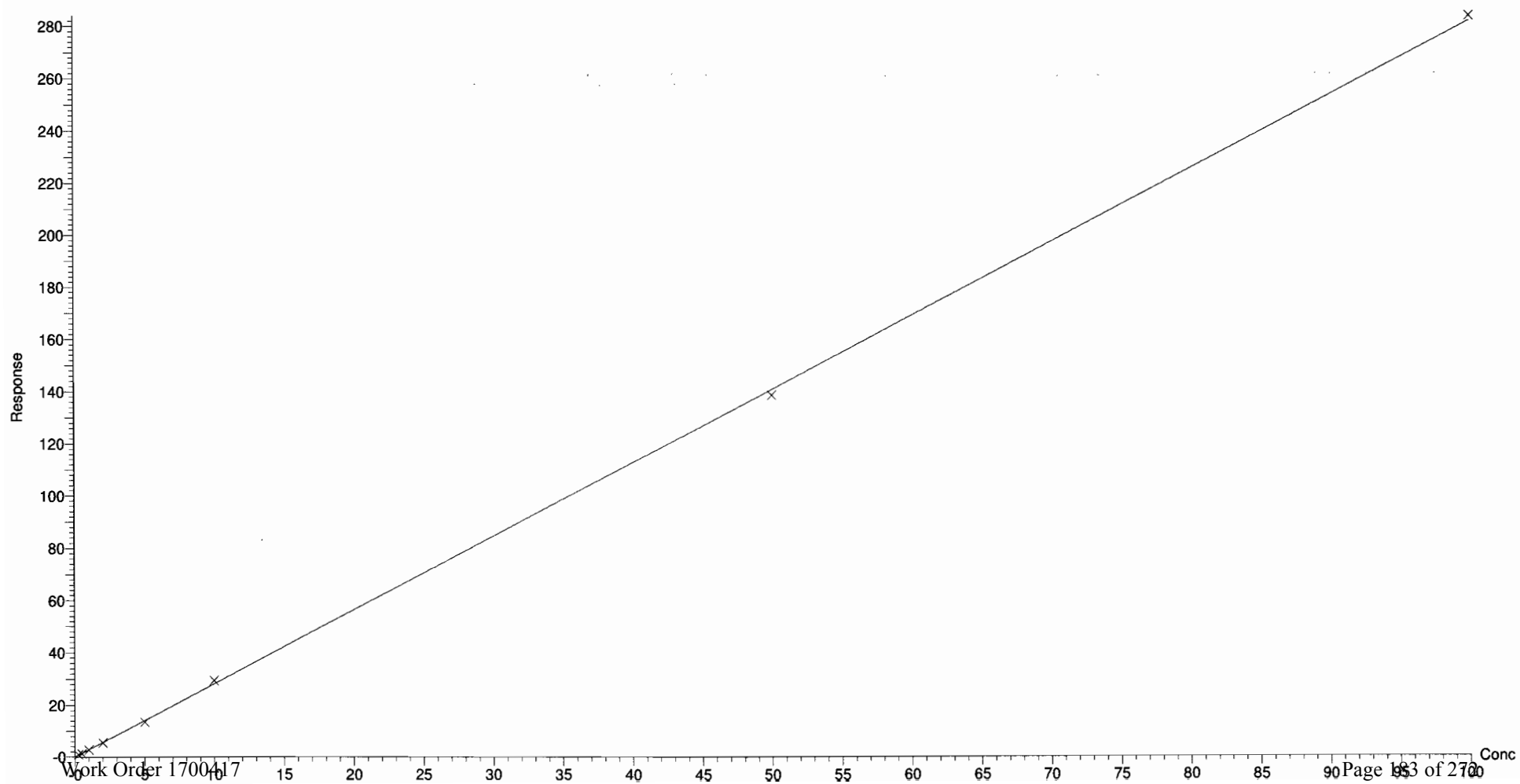
Compound name: PFBS

Correlation coefficient: $r = 0.999783$, $r^2 = 0.999567$

Calibration curve: $2.8207 * x + 8.02989e-005$

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\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:41:32 Pacific Daylight Time

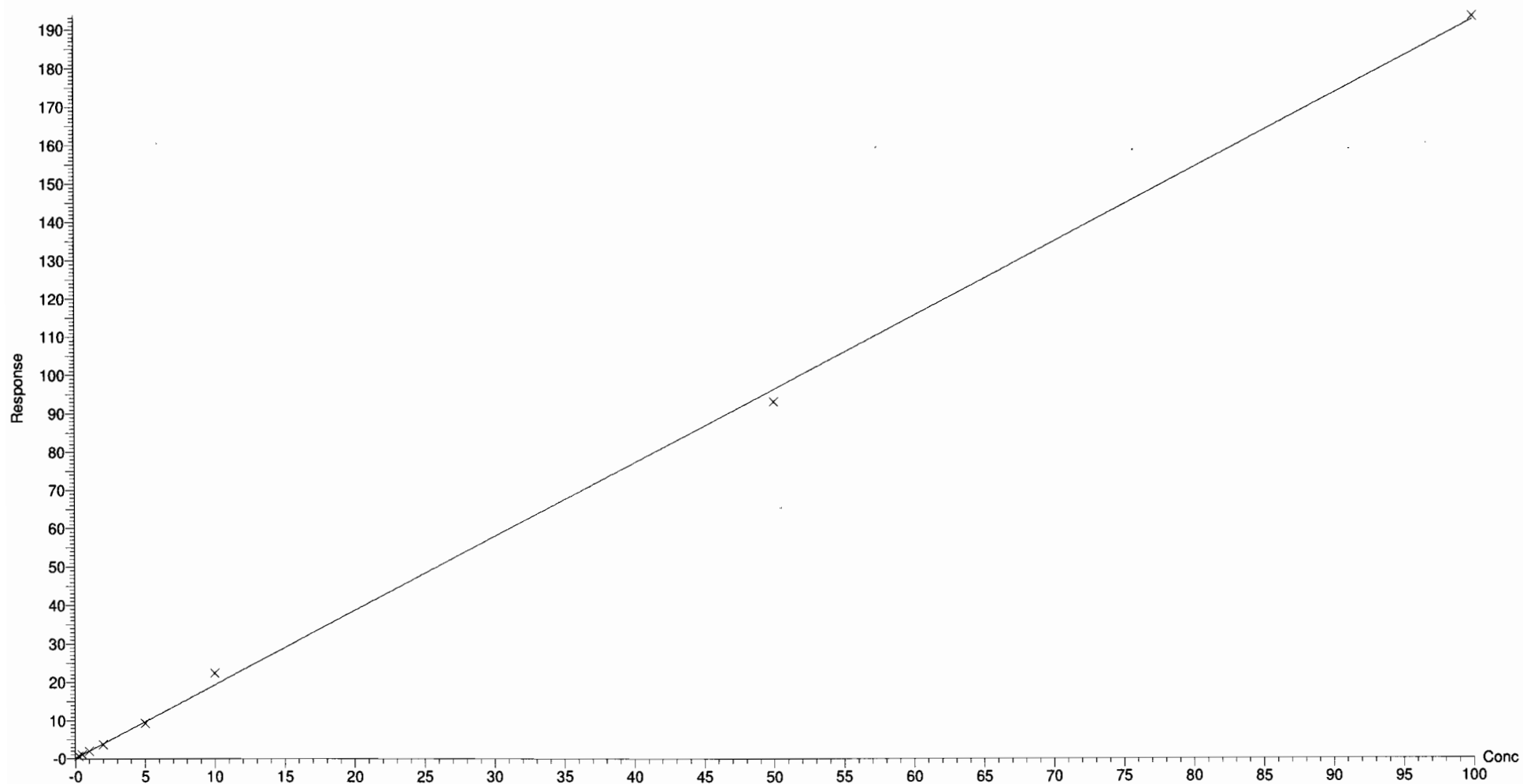
Compound name: PFHpA

Correlation coefficient: $r = 0.999047$, $r^2 = 0.998095$

Calibration curve: $1.92754 * x + 0.0959906$

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\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:41:32 Pacific Daylight Time

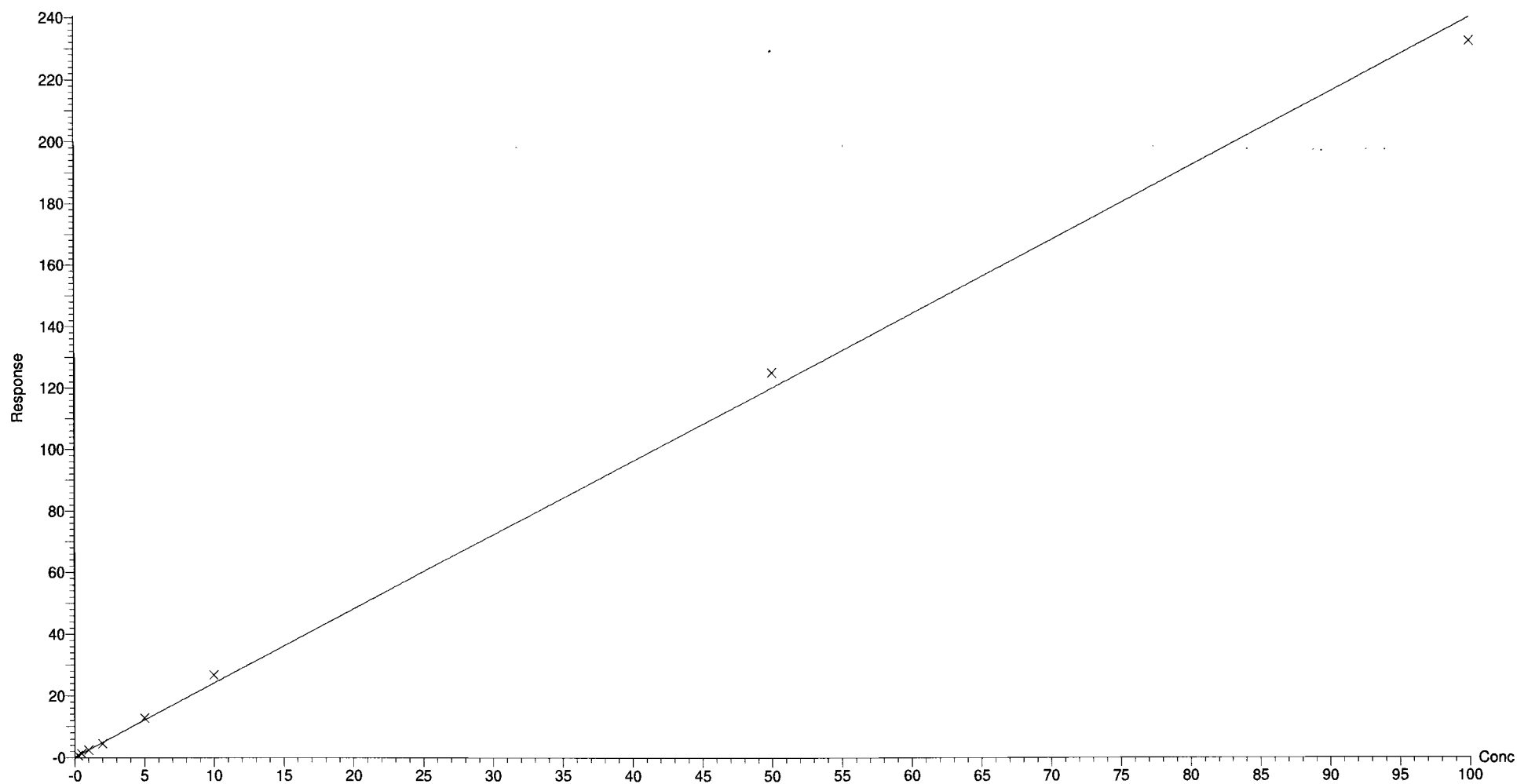
Compound name: PFHxS

Correlation coefficient: $r = 0.998990$, $r^2 = 0.997981$

Calibration curve: $2.40269 * x + 0.0975035$

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\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:41:32 Pacific Daylight Time

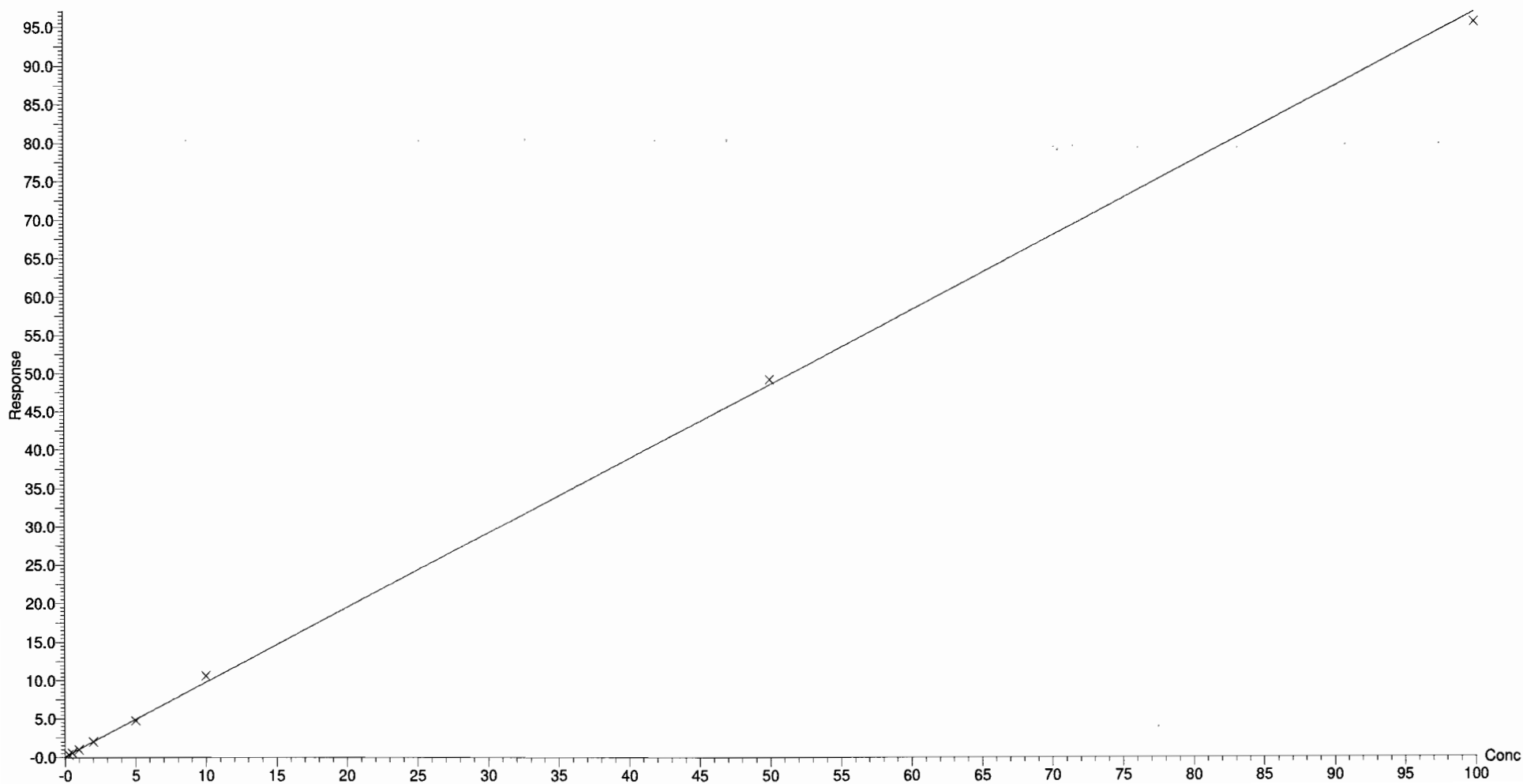
Compound name: PFOA

Correlation coefficient: $r = 0.999638$, $r^2 = 0.999277$

Calibration curve: $0.969815 * x + 0.0817292$

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\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:41:32 Pacific Daylight Time

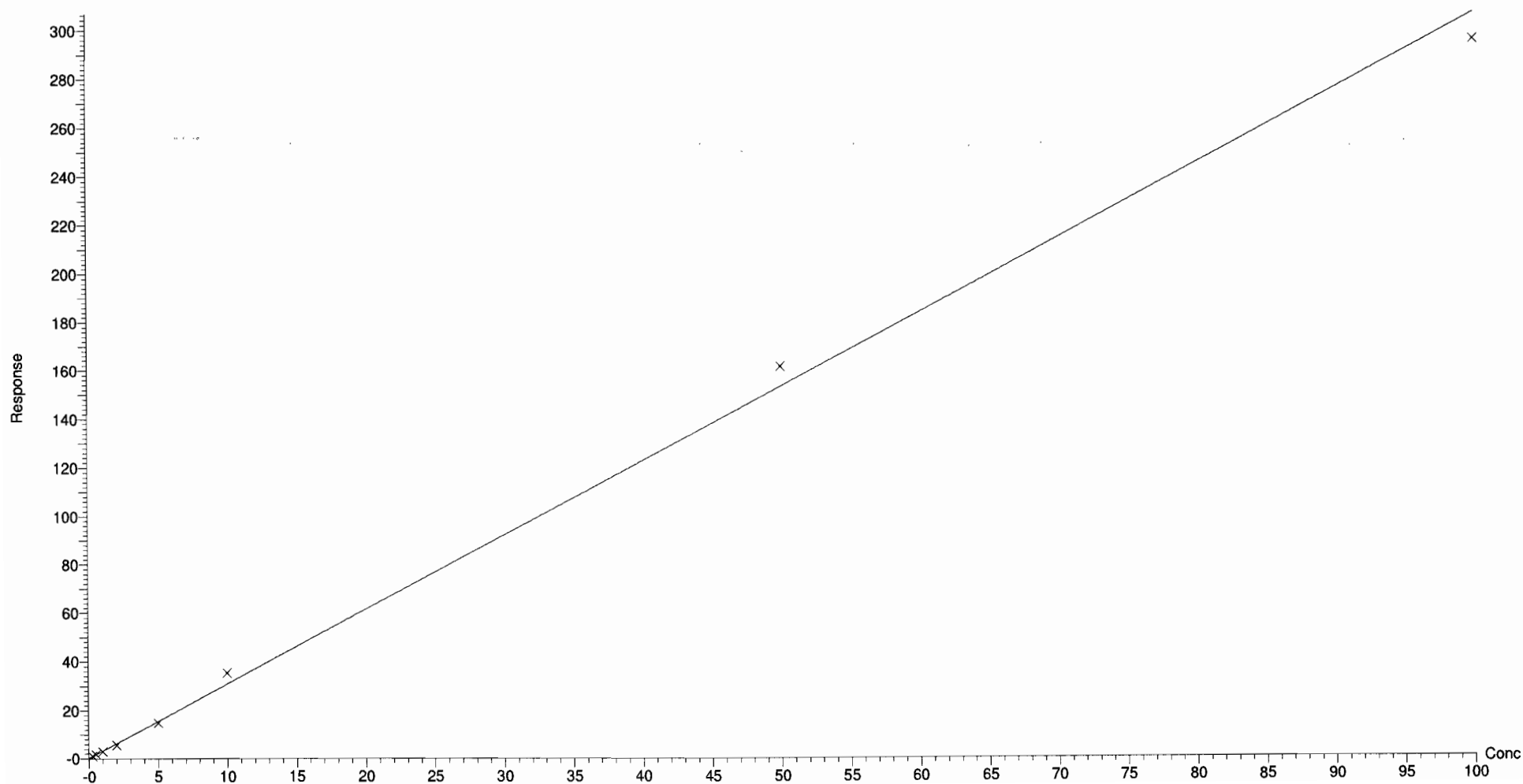
Compound name: PFNA

Correlation coefficient: $r = 0.998376$, $r^2 = 0.996755$

Calibration curve: $3.06565 * x + 0.157679$

Response type: Internal Std (Ref 11), Area * (IS Conc. / IS Area)

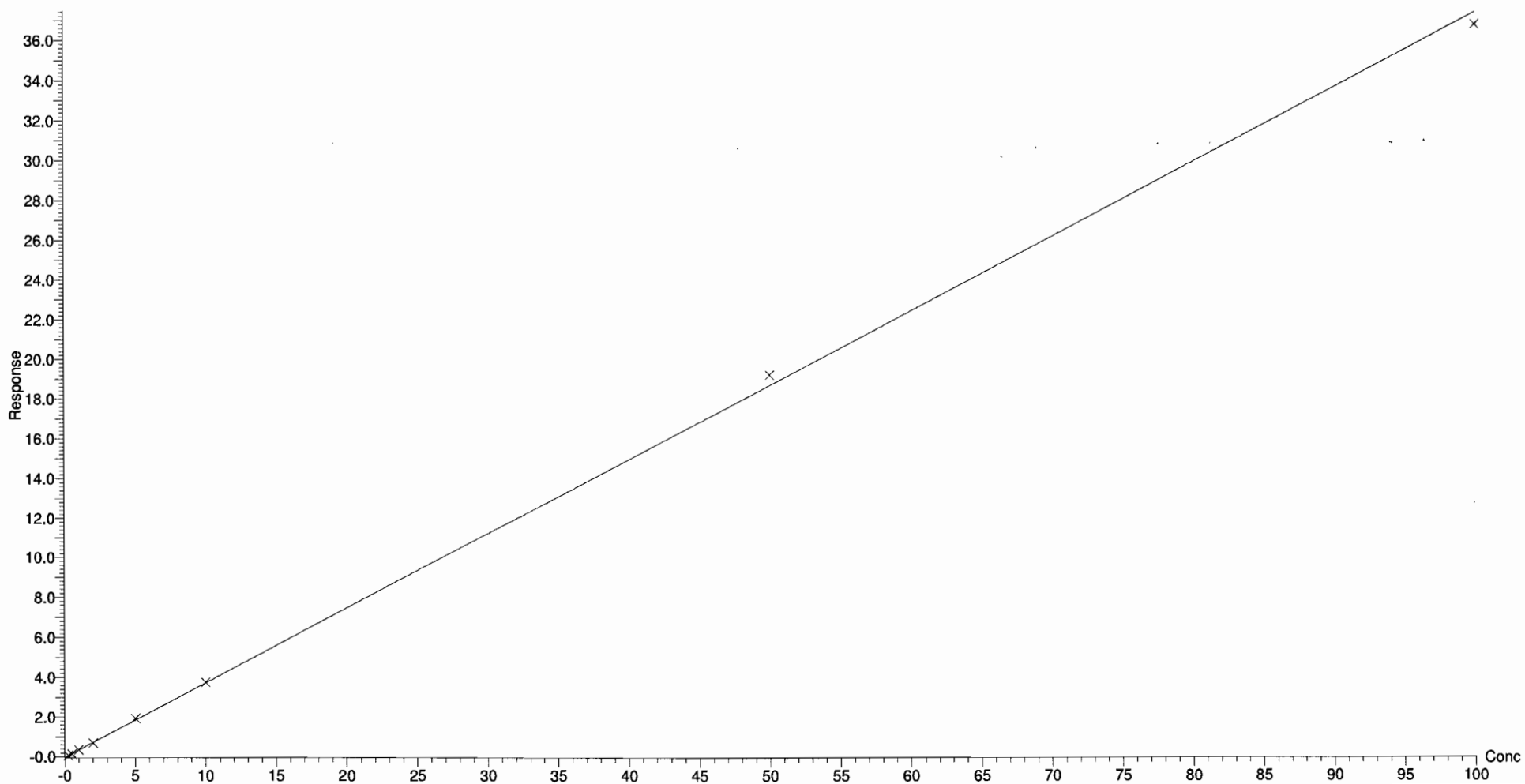
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-CRV.qld

Last Altered: Thursday, April 13, 2017 12:34:50 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:41:32 Pacific Daylight Time

Compound name: PFOS
Correlation coefficient: $r = 0.999733$, $r^2 = 0.999466$
Calibration curve: $0.374993 * x + -0.0295857$
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: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

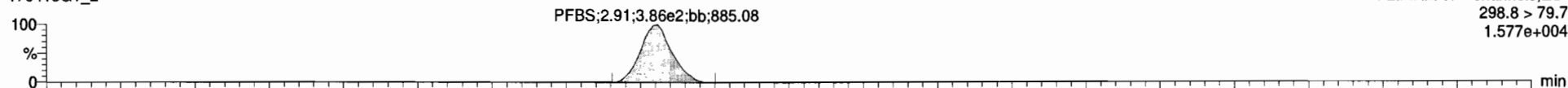
Method: U:\G1.PRO\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 08:50:47

Calibration: 13 Apr 2017 12:09:13

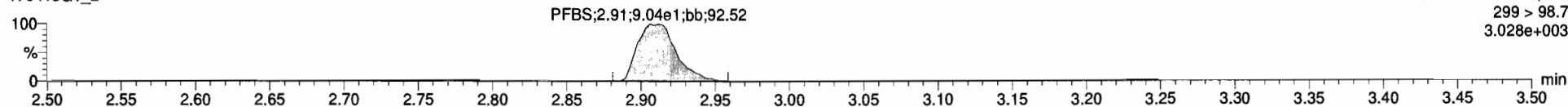
ID: ST170413G1-1 PFC CS-2 17D1301, Description: PFC CS-2 17D1301 A, Name: 170413G1_2, Date: 13-Apr-2017, Time: 09:39:06, Instrument: , Lab: , User:

Total PFBS

170413G1_2

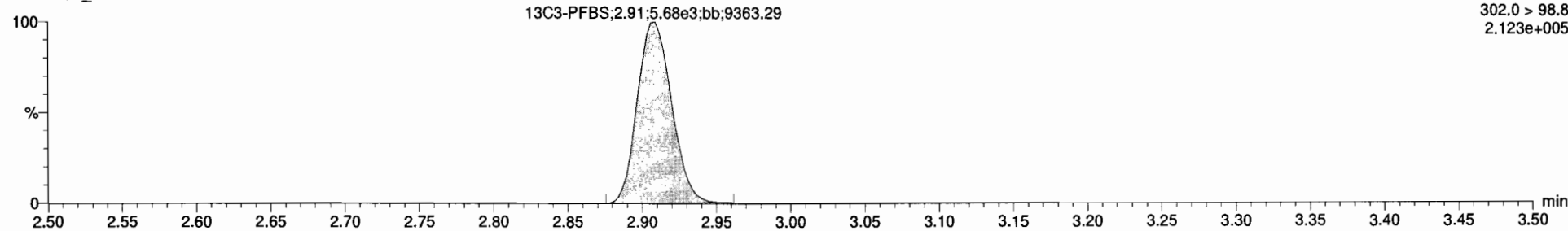


170413G1_2



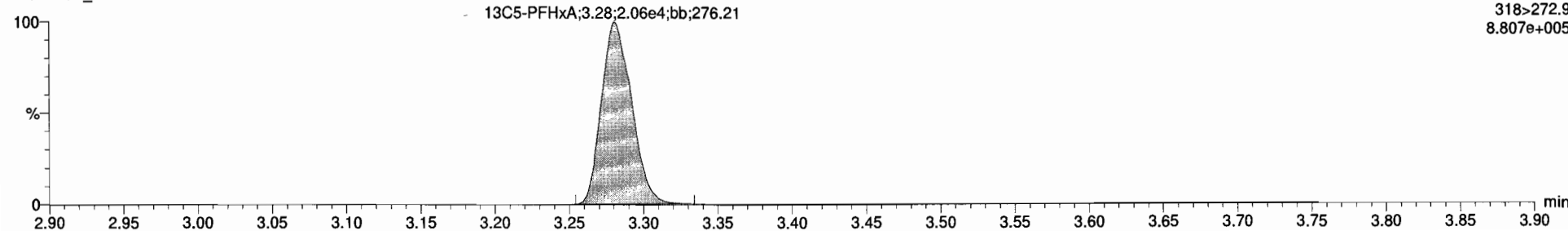
13C3-PFBS

170413G1_2



13C5-PFHxA

170413G1_2



Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

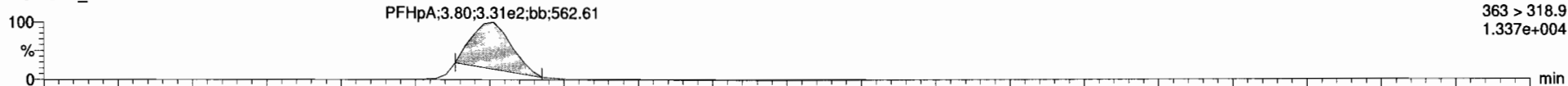
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-1 PFC CS-2 17D1301, Description: PFC CS-2 17D1301 A, Name: 170413G1_2, Date: 13-Apr-2017, Time: 09:39:06, Instrument: , Lab: , User:

PFHpA

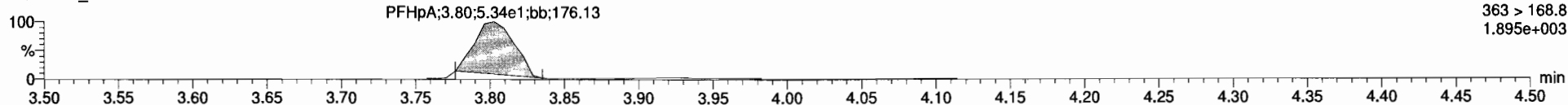
170413G1_2

F4:MRM of 7 channels,ES-
363 > 318.9
1.337e+004



170413G1_2

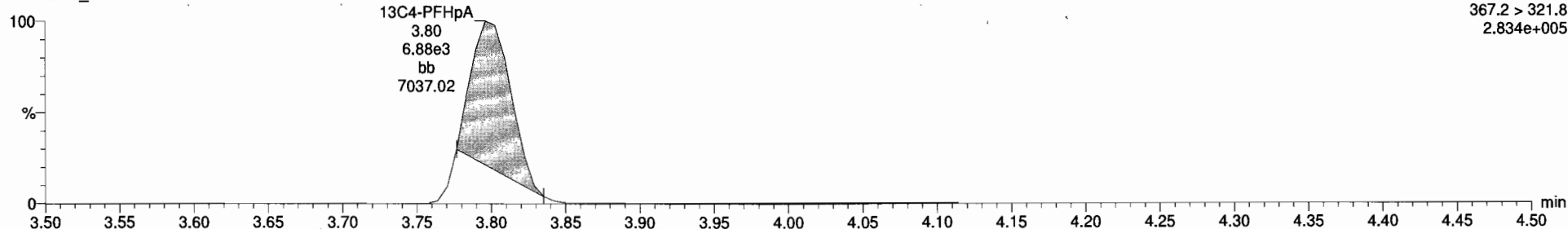
F4:MRM of 7 channels,ES-
363 > 168.8
1.895e+003



13C4-PFHpA

170413G1_2

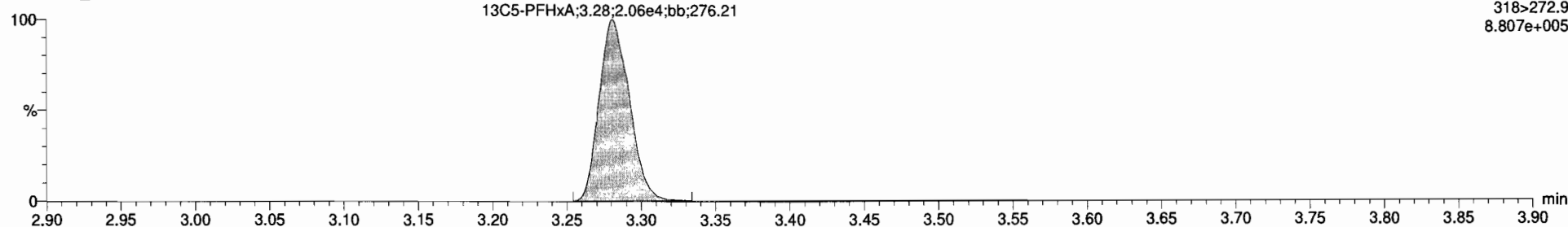
F4:MRM of 7 channels,ES-
367.2 > 321.8
2.834e+005

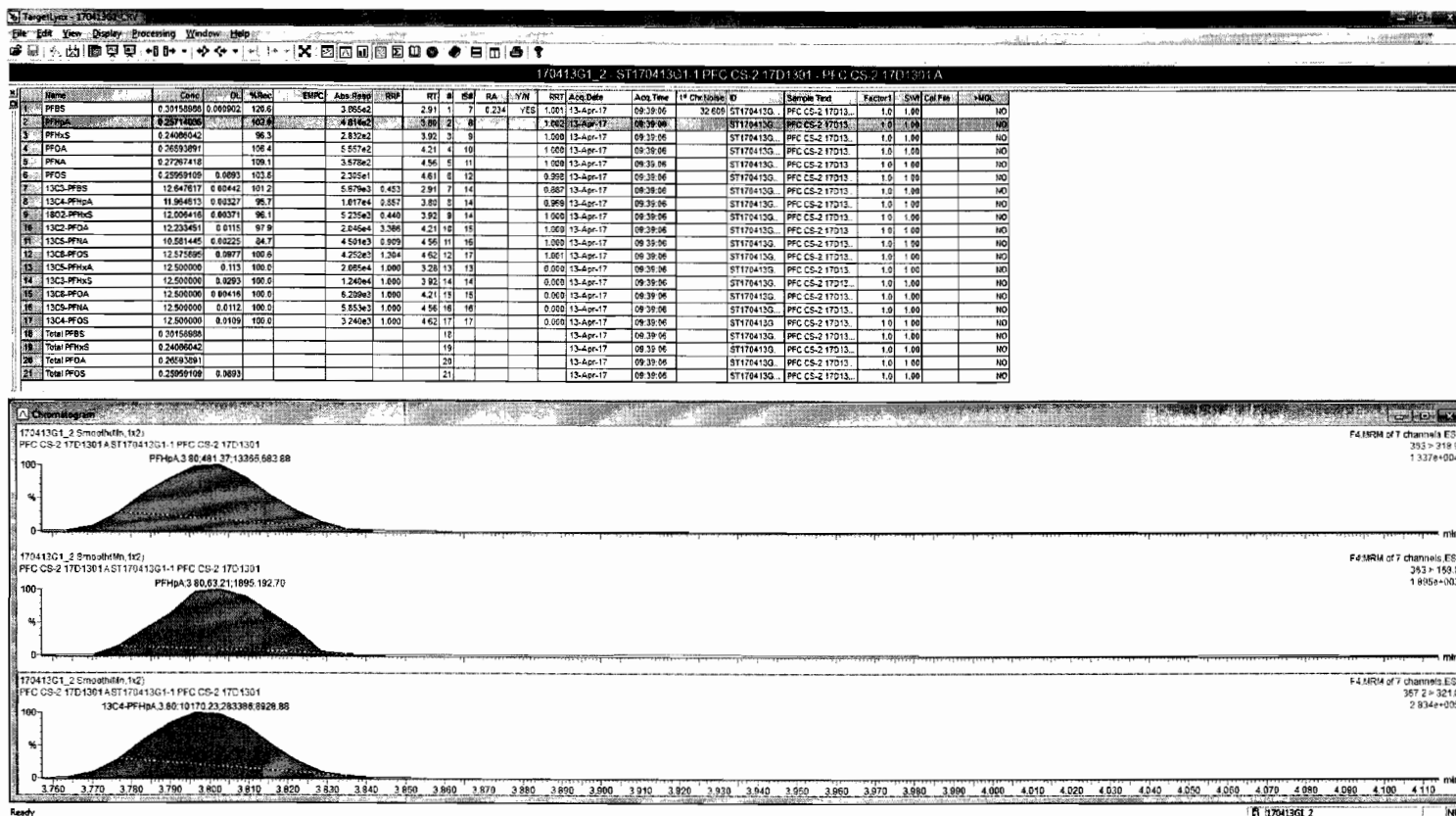


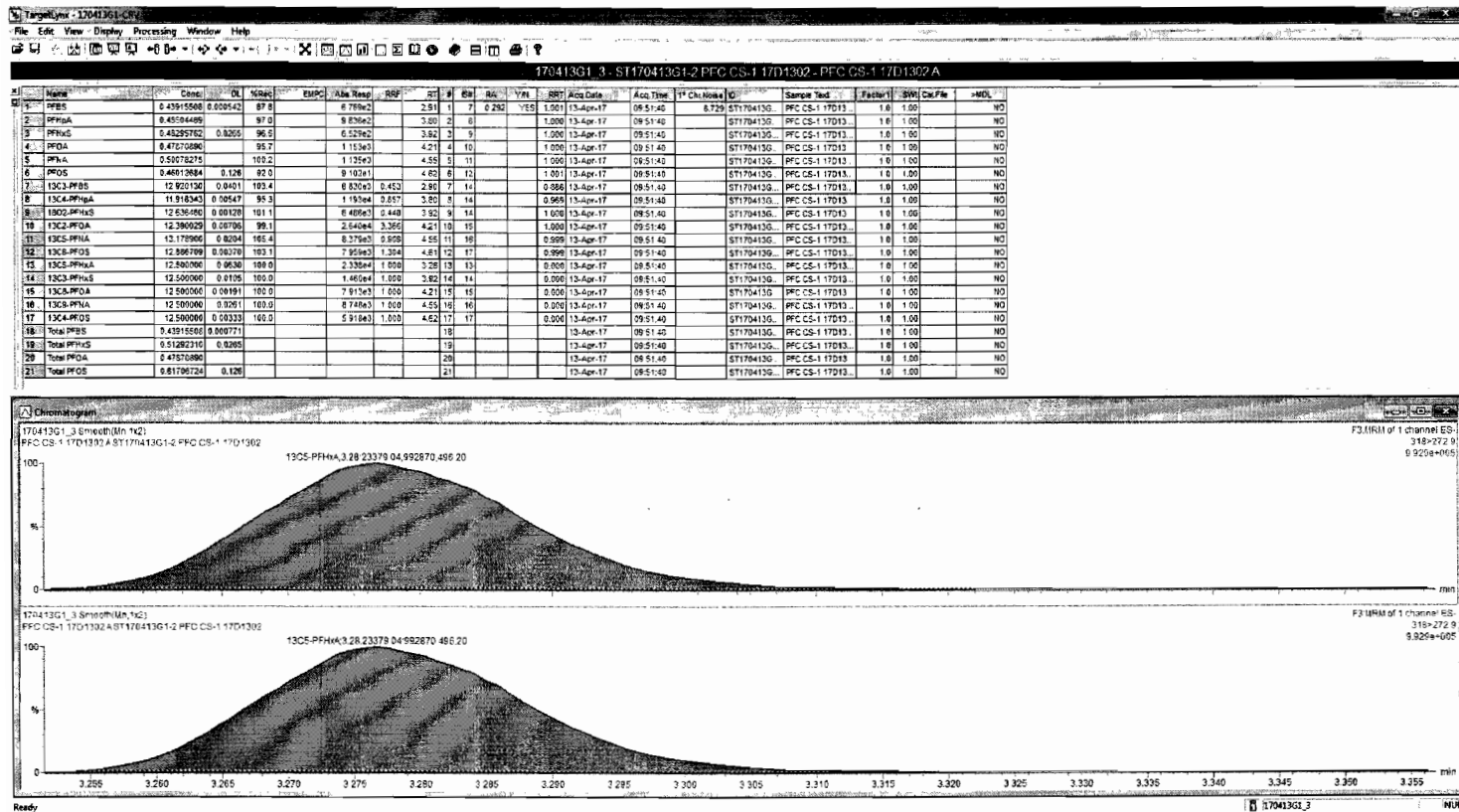
13C5-PFHxA

170413G1_2

F3:MRM of 1 channel,ES-
318>272.9
8.807e+005







Dataset: Untitled

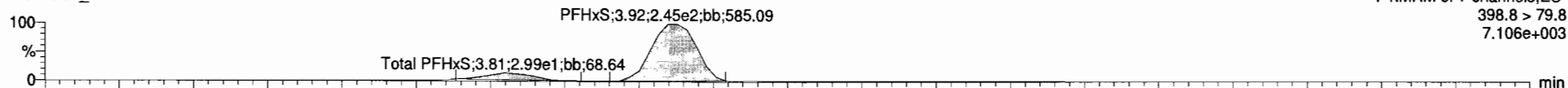
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-1 PFC CS-2 17D1301, Description: PFC CS-2 17D1301 A, Name: 170413G1_2, Date: 13-Apr-2017, Time: 09:39:06, Instrument: , Lab: , User:

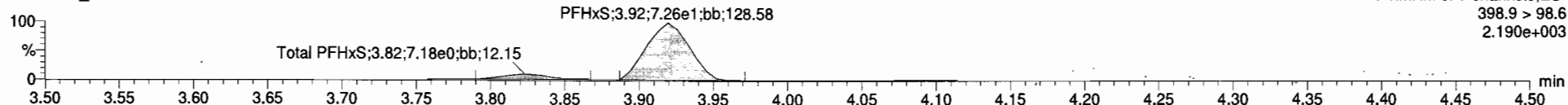
Total PFHxS

170413G1_2



F4:MRM of 7 channels,ES-
398.8 > 79.8
7.106e+003

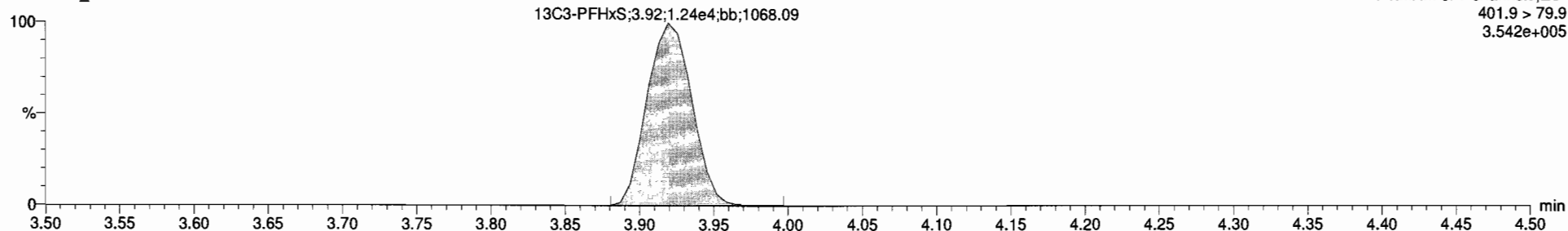
170413G1_2



F4:MRM of 7 channels,ES-
398.9 > 98.6
2.190e+003

13C3-PFHxS

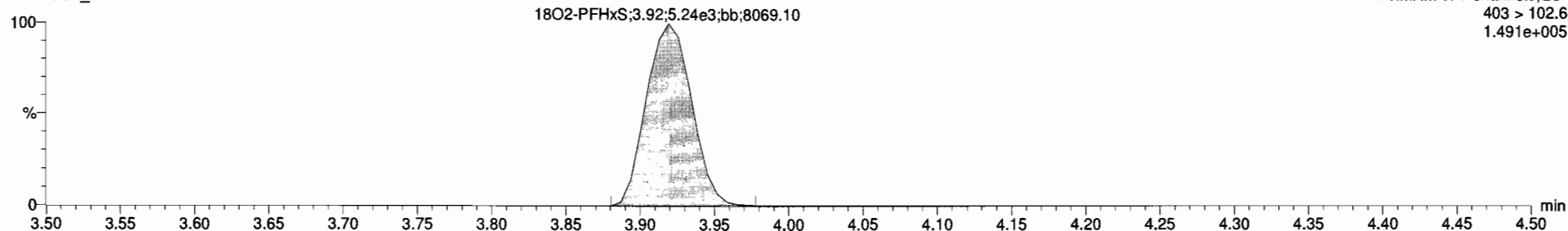
170413G1_2



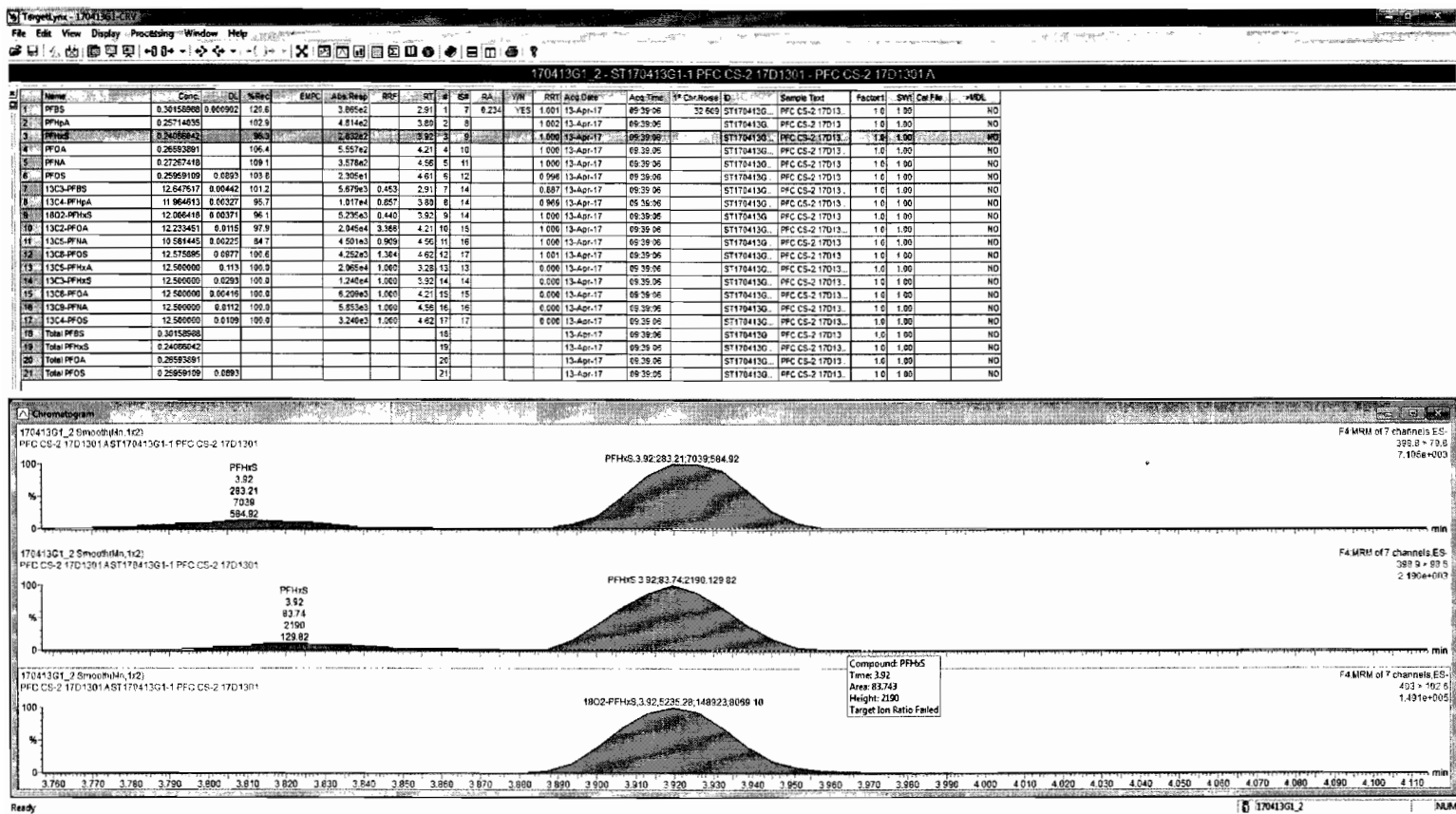
F4:MRM of 7 channels,ES-
401.9 > 79.9
3.542e+005

18O2-PFHxS

170413G1_2



F4:MRM of 7 channels,ES-
403 > 102.6
1.491e+005



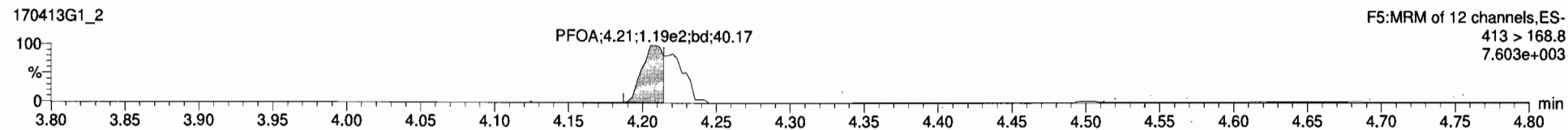
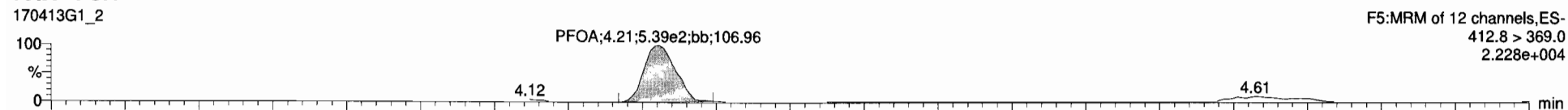
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

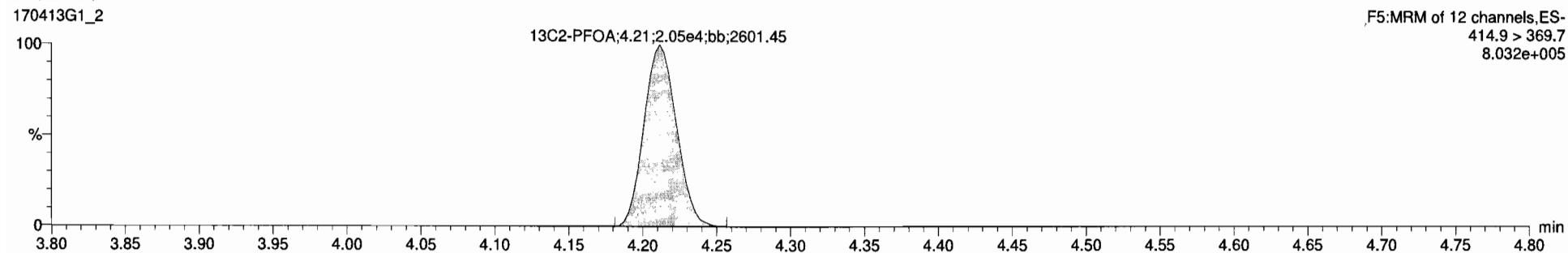
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-1 PFC CS-2 17D1301, Description: PFC CS-2 17D1301 A, Name: 170413G1_2, Date: 13-Apr-2017, Time: 09:39:06, Instrument: , Lab: , User:

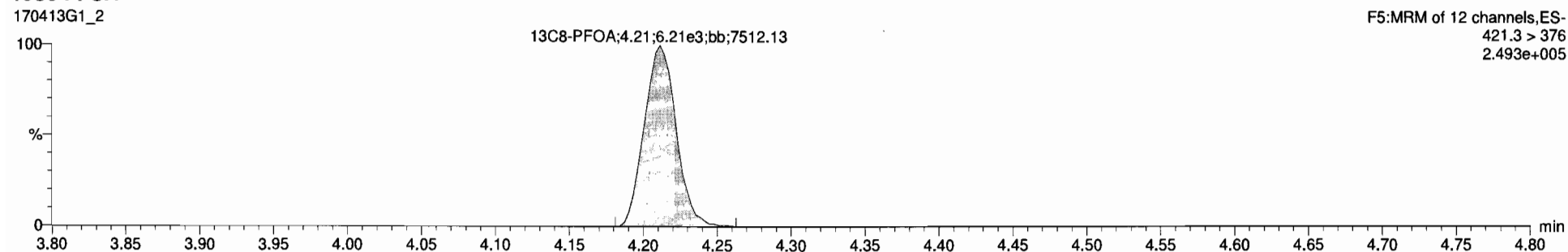
Total PFOA



13C2-PFOA



13C8-PFOA



Dataset: Untitled

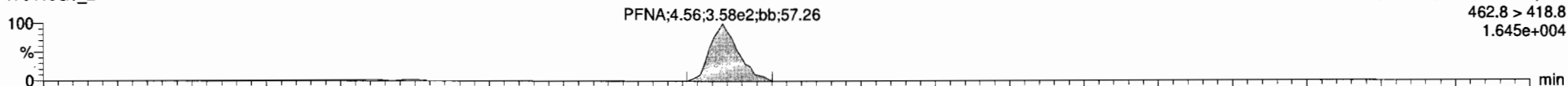
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

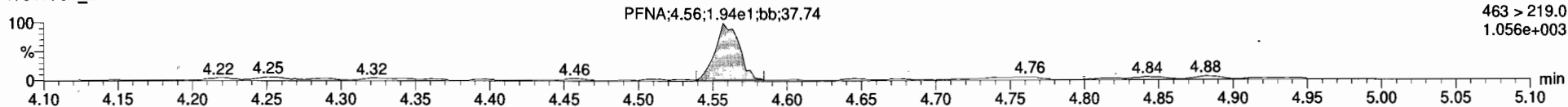
ID: ST170413G1-1 PFC CS-2 17D1301, Description: PFC CS-2 17D1301 A, Name: 170413G1_2, Date: 13-Apr-2017, Time: 09:39:06, Instrument: , Lab: , User:

PFNA

170413G1_2

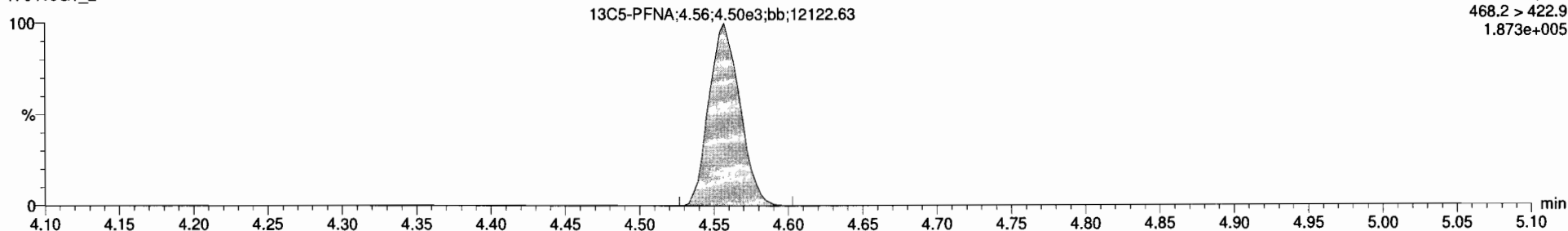


170413G1_2



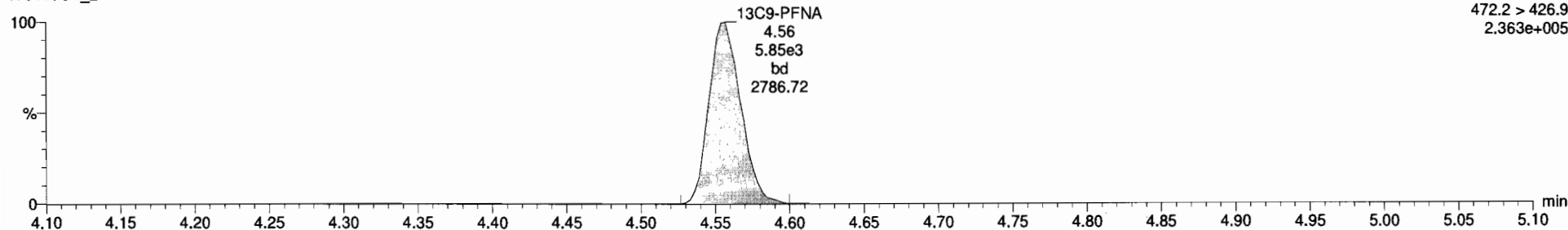
13C5-PFNA

170413G1_2



13C9-PFNA

170413G1_2



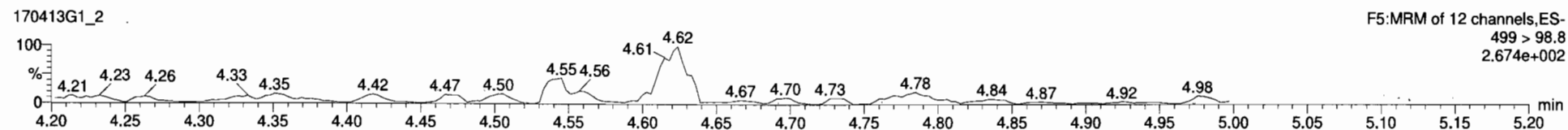
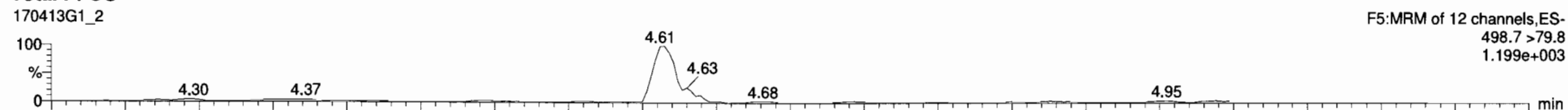
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

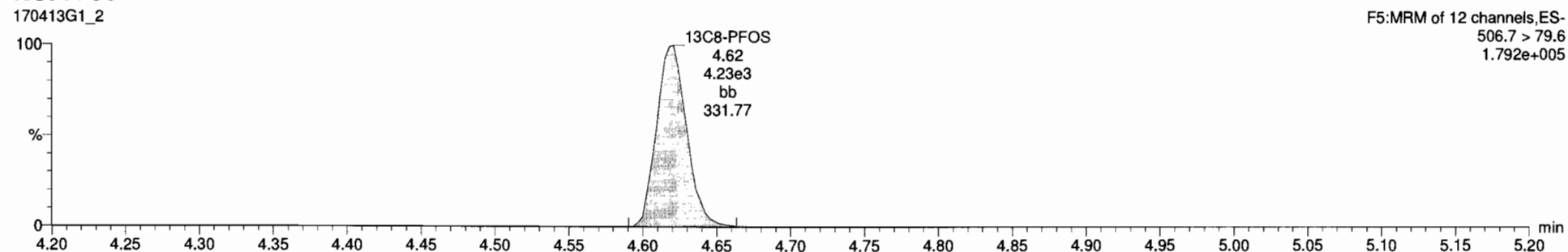
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-1 PFC CS-2 17D1301, Description: PFC CS-2 17D1301 A, Name: 170413G1_2, Date: 13-Apr-2017, Time: 09:39:06, Instrument: , Lab: , User:

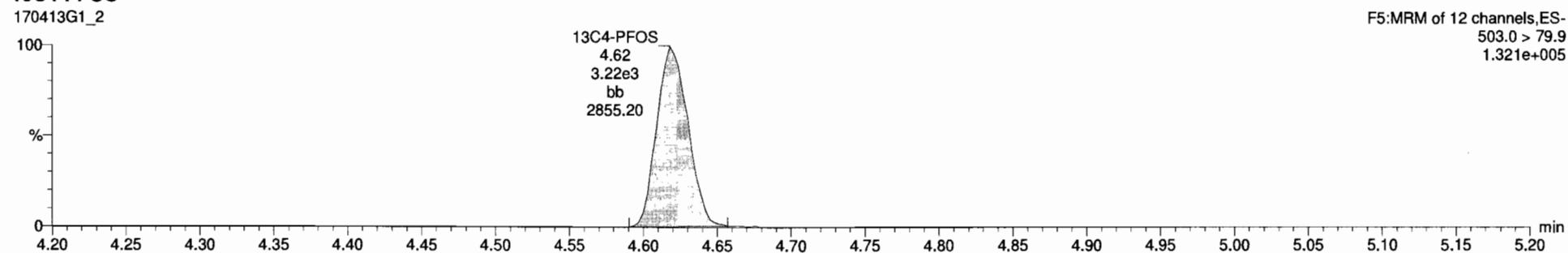
Total PFOS

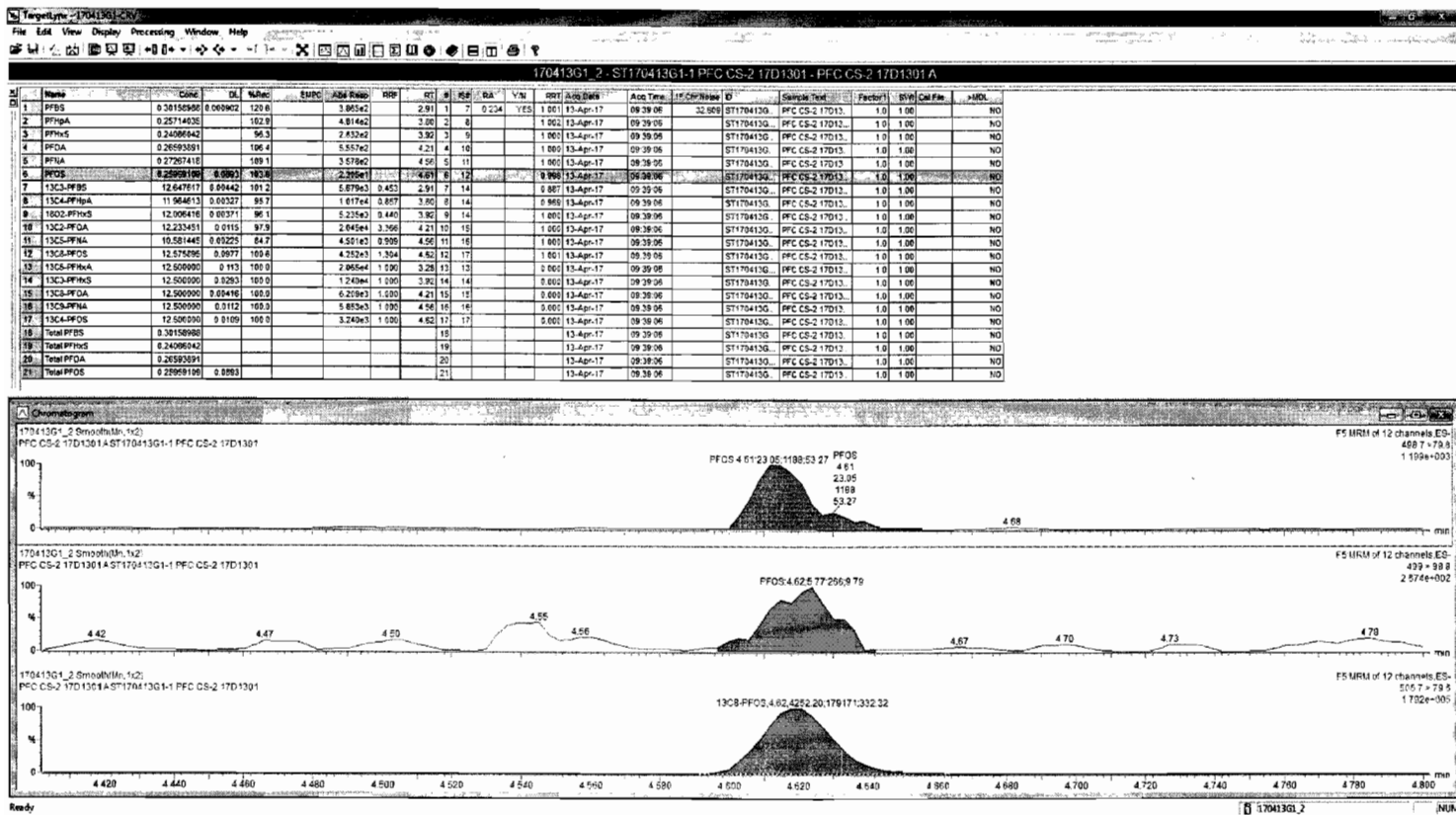


13C8-PFOS



13C4-PFOS



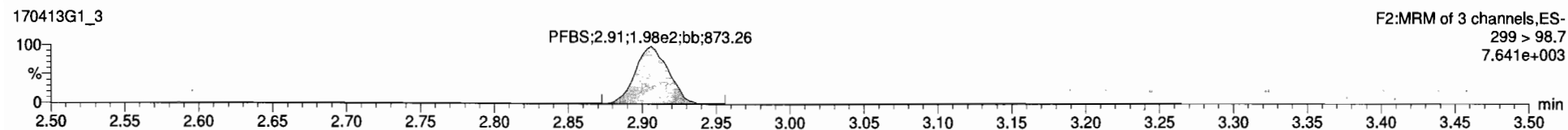
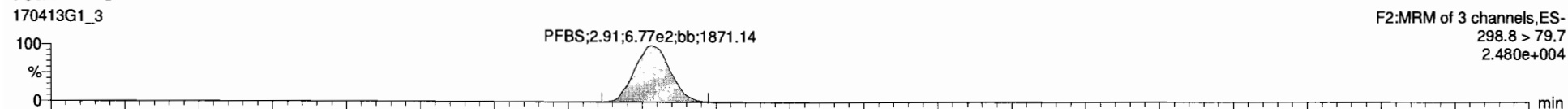


Dataset: Untitled

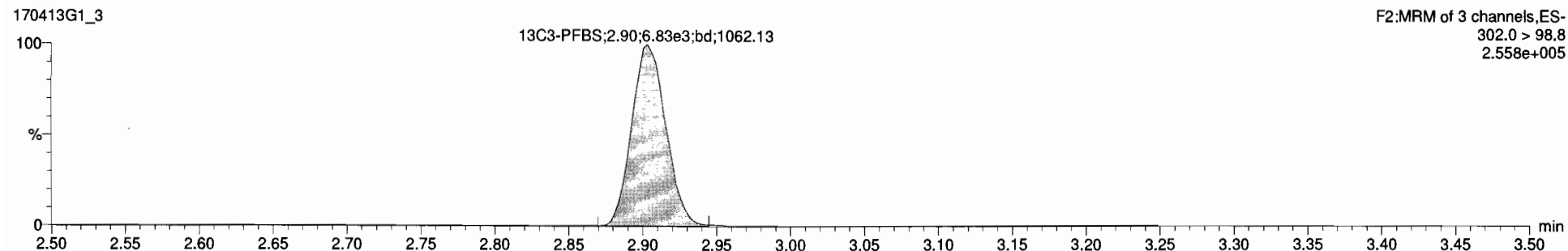
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-2 PFC CS-1 17D1302, Description: PFC CS-1 17D1302 A, Name: 170413G1_3, Date: 13-Apr-2017, Time: 09:51:40, Instrument: , Lab: , User:

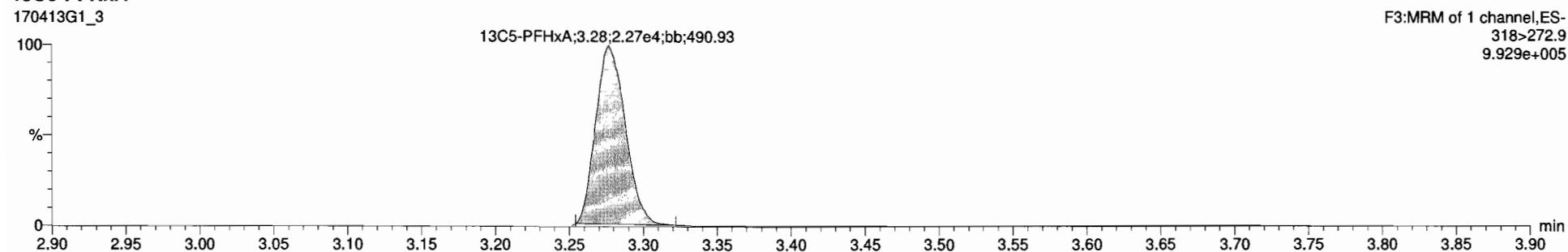
Total PFBS



13C3-PFBS



13C5-PFHxA



Dataset: Untitled

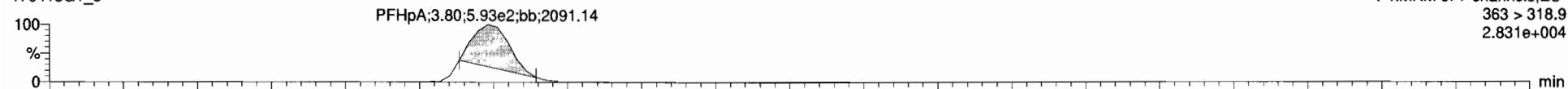
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

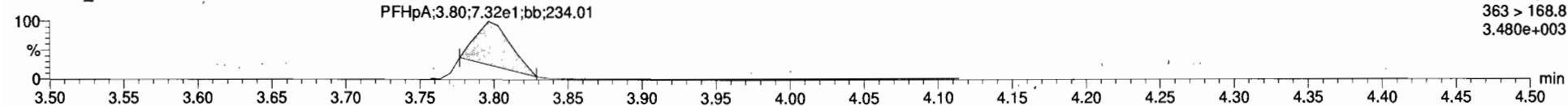
ID: ST170413G1-2 PFC CS-1 17D1302, Description: PFC CS-1 17D1302 A, Name: 170413G1_3, Date: 13-Apr-2017, Time: 09:51:40, Instrument: , Lab: , User:

PFHpA

170413G1_3

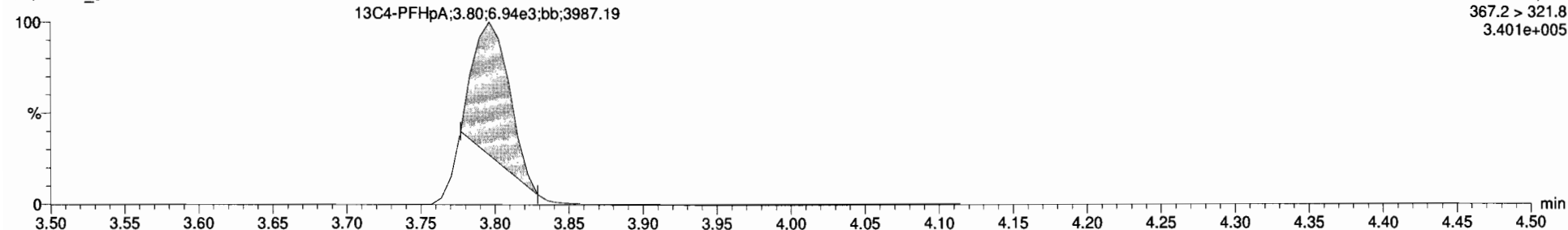


170413G1_3



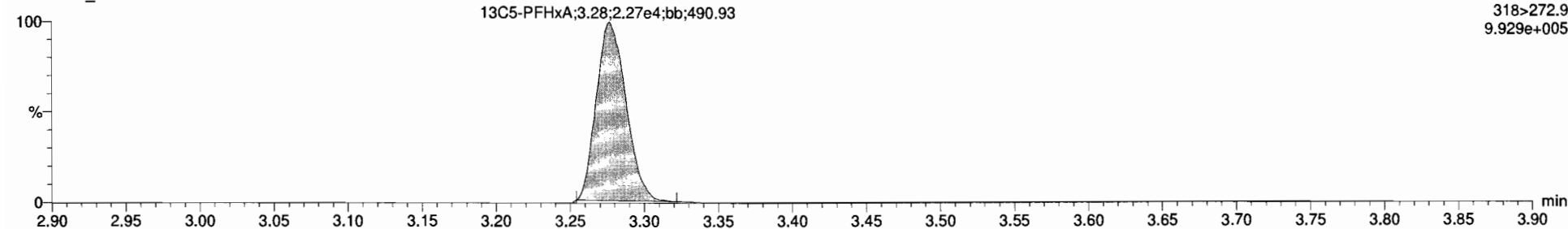
13C4-PFHpA

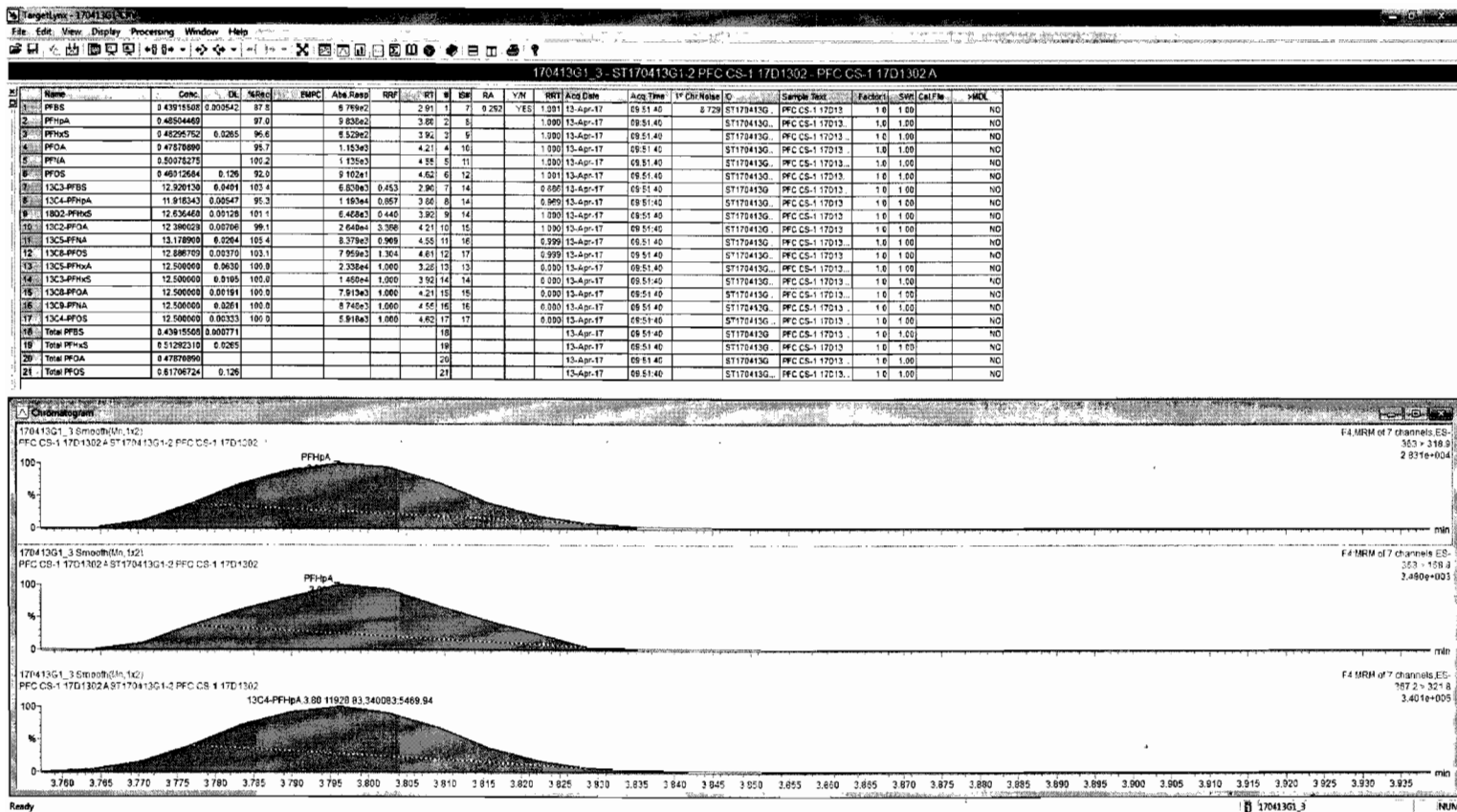
170413G1_3



13C5-PFHxA

170413G1_3





Dataset: Untitled

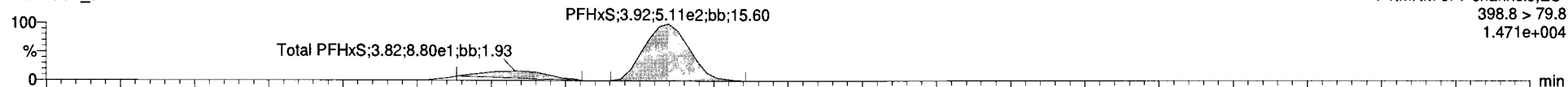
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

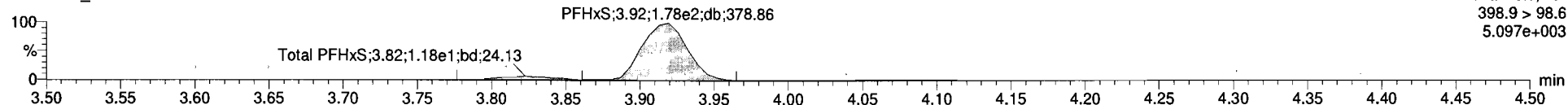
ID: ST170413G1-2 PFC CS-1 17D1302, Description: PFC CS-1 17D1302 A, Name: 170413G1_3, Date: 13-Apr-2017, Time: 09:51:40, Instrument: , Lab: , User:

Total PFHxS

170413G1_3

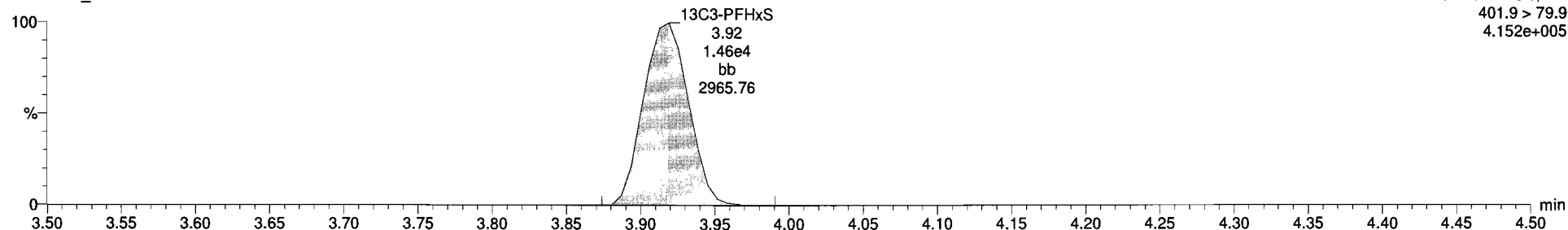


170413G1_3



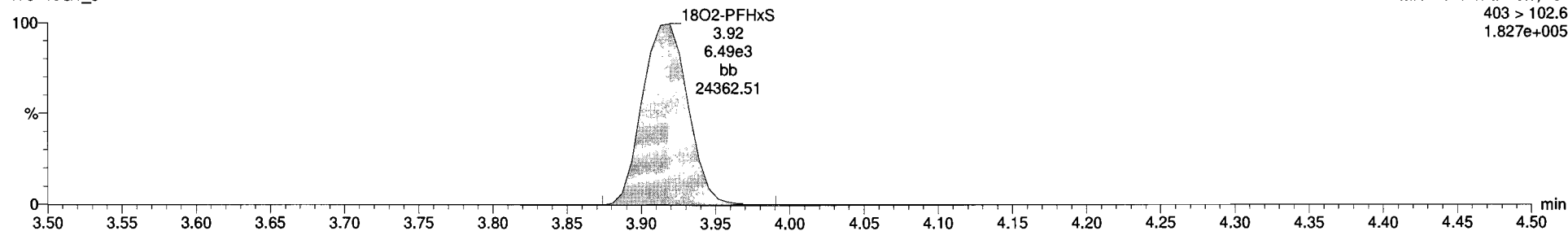
13C3-PFHxS

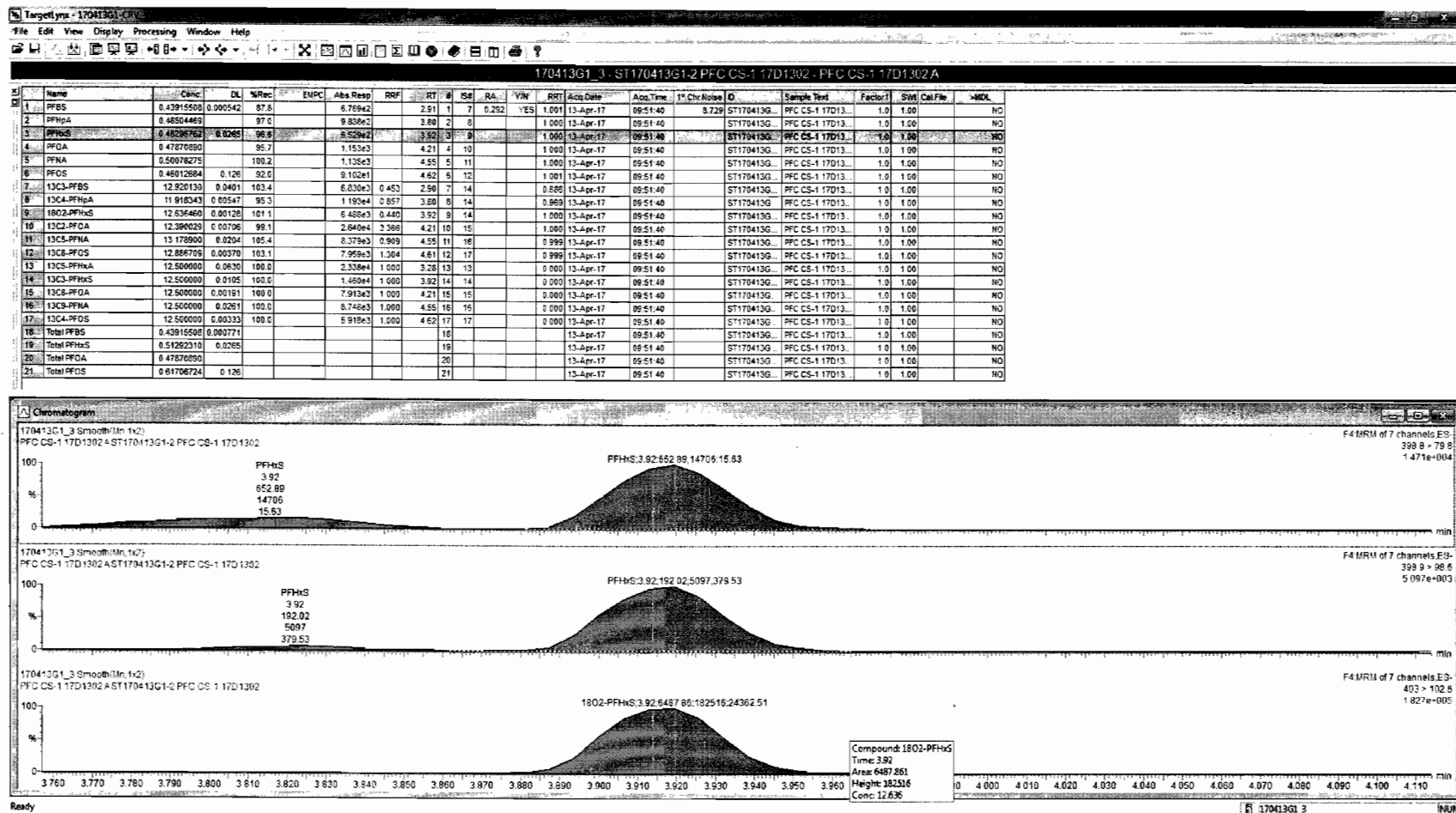
170413G1_3



18O2-PFHxS

170413G1_3





Dataset: Untitled

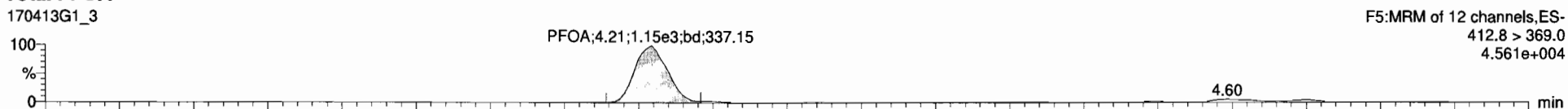
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

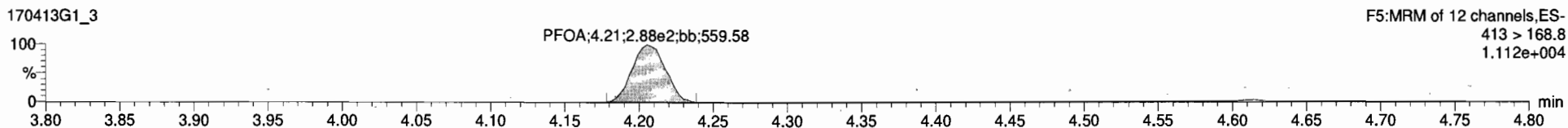
ID: ST170413G1-2 PFC CS-1 17D1302, Description: PFC CS-1 17D1302 A, Name: 170413G1_3, Date: 13-Apr-2017, Time: 09:51:40, Instrument: , Lab: , User:

Total PFOA

170413G1_3

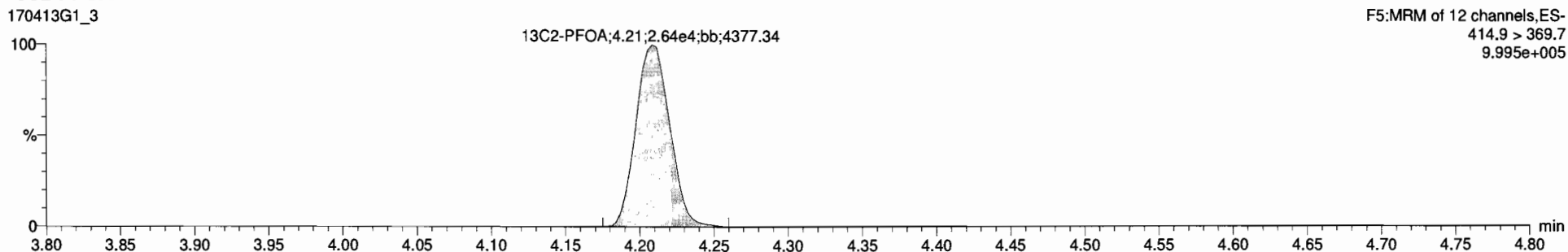


170413G1_3



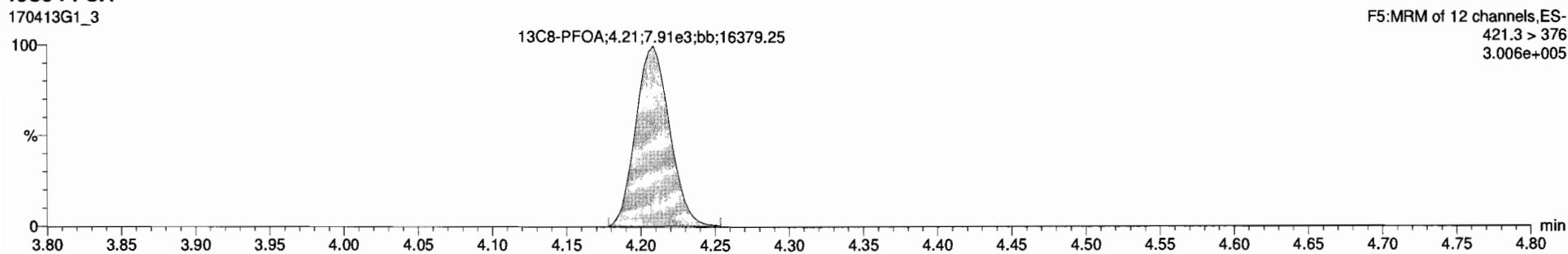
13C2-PFOA

170413G1_3



13C8-PFOA

170413G1_3

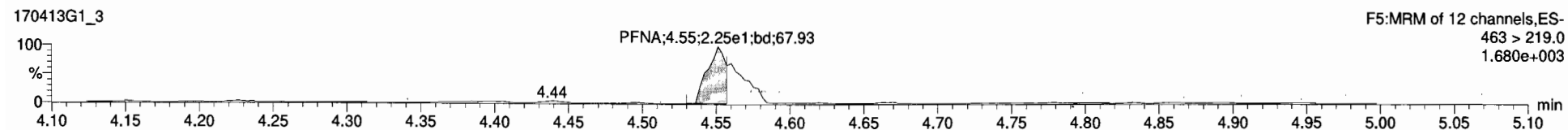
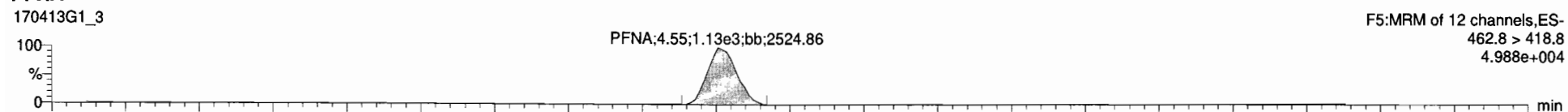


Dataset: Untitled

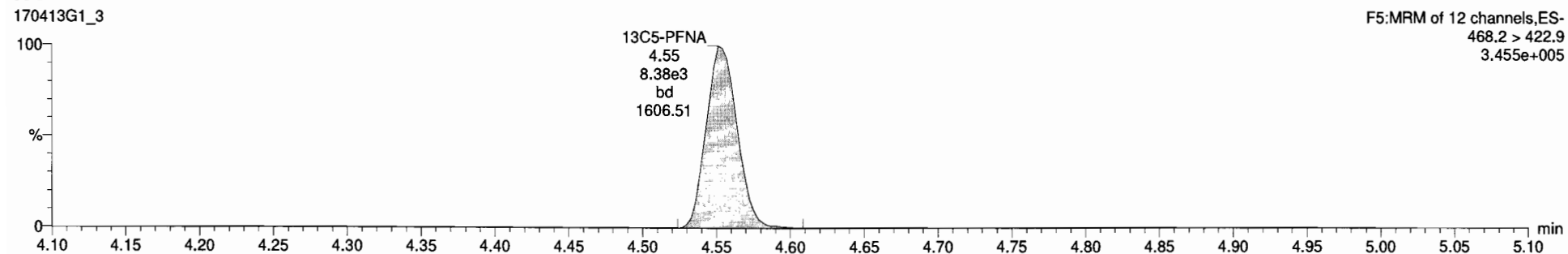
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-2 PFC CS-1 17D1302, Description: PFC CS-1 17D1302 A, Name: 170413G1_3, Date: 13-Apr-2017, Time: 09:51:40, Instrument: , Lab: , User:

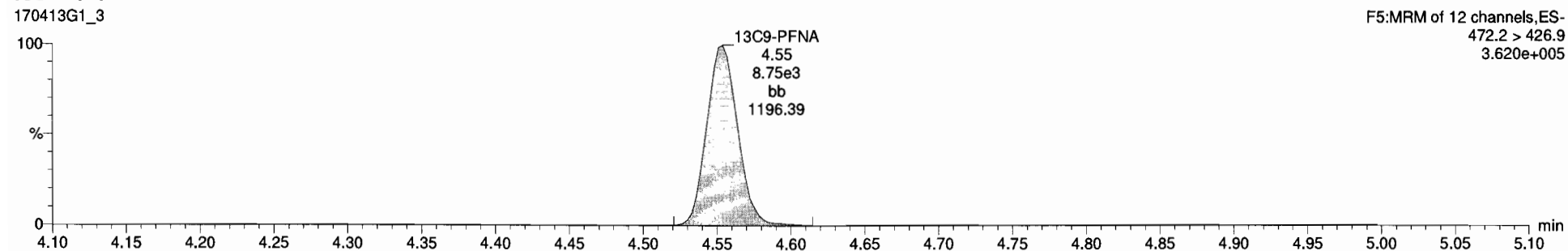
PFNA



13C5-PFNA



13C9-PFNA

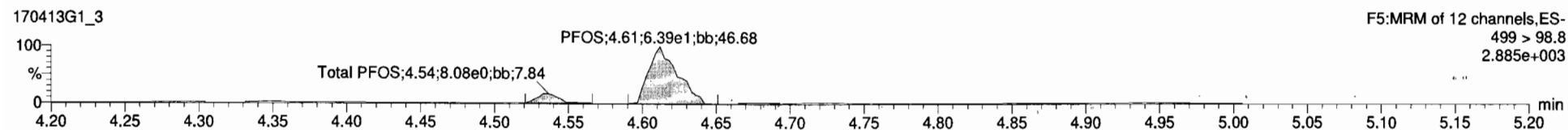
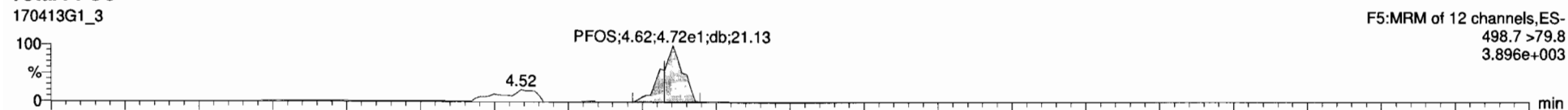


Dataset: Untitled

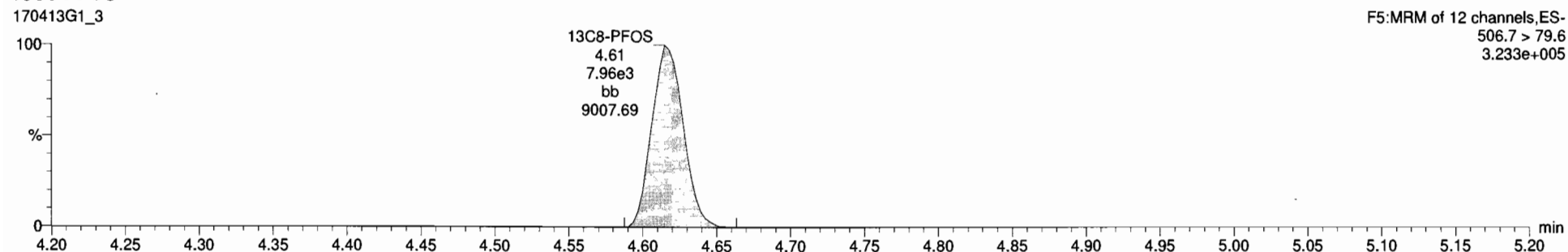
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-2 PFC CS-1 17D1302, Description: PFC CS-1 17D1302 A, Name: 170413G1_3, Date: 13-Apr-2017, Time: 09:51:40, Instrument: , Lab: , User:

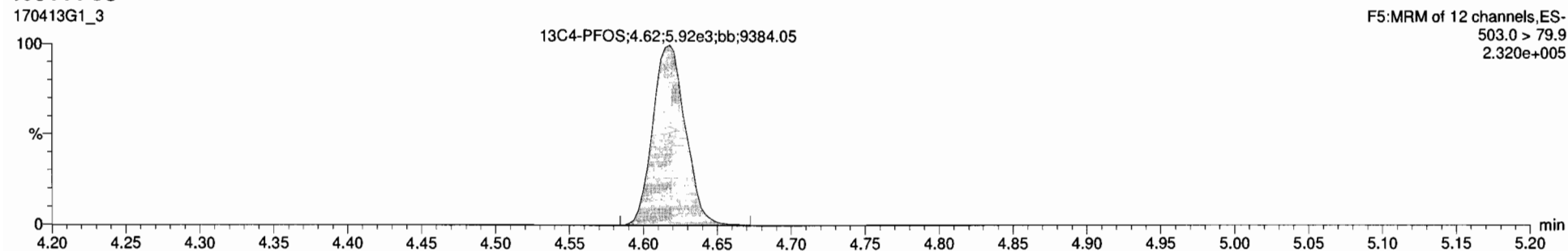
Total PFOS

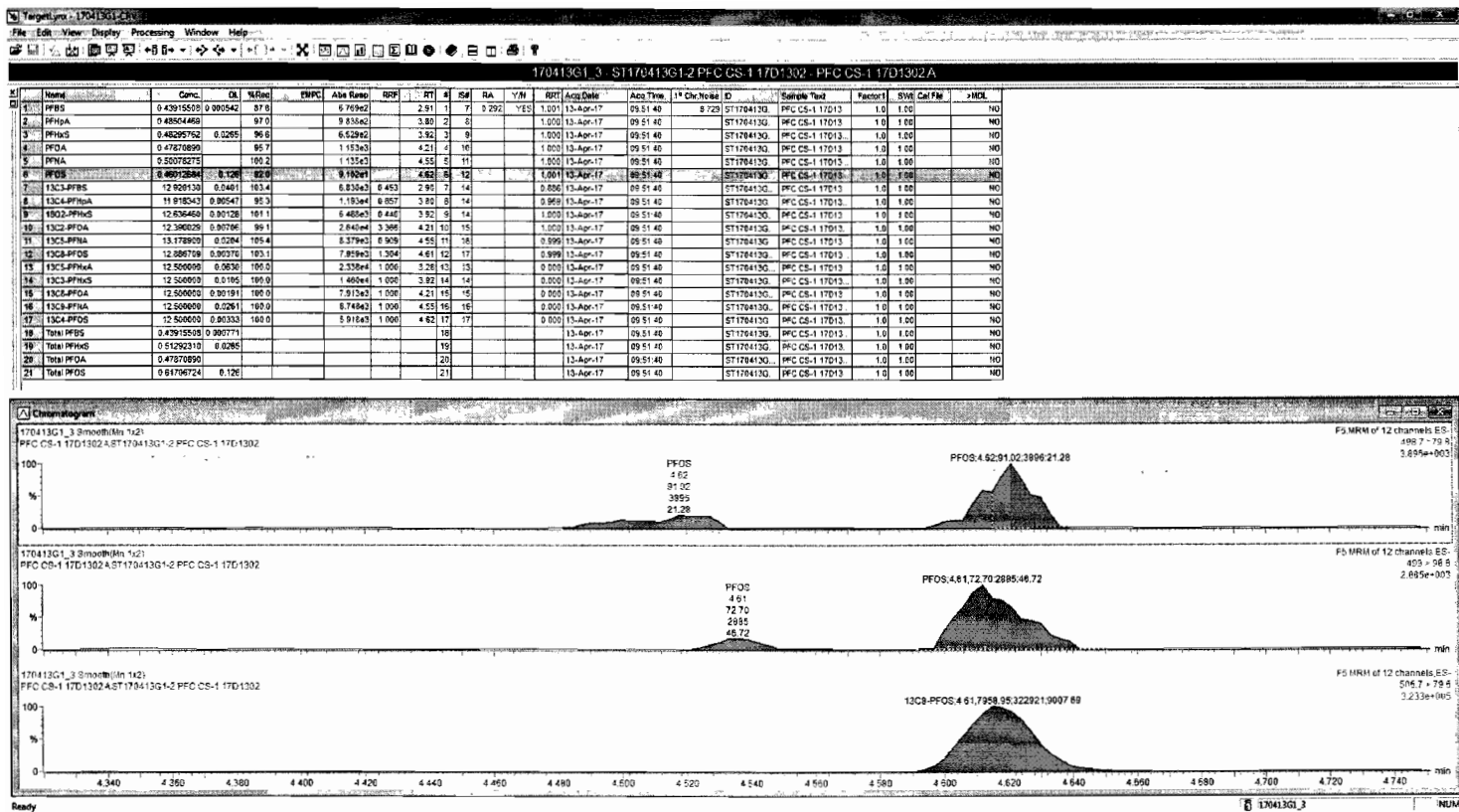


13C8-PFOS



13C4-PFOS





Dataset: Untitled

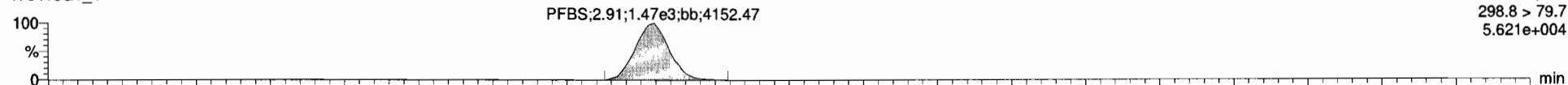
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

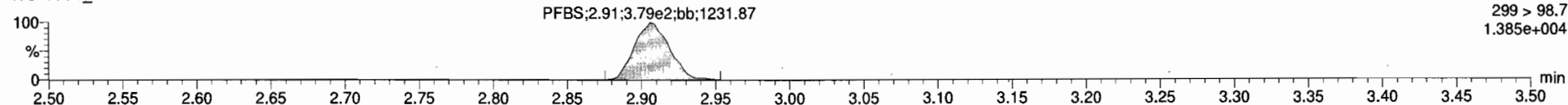
ID: ST170413G1-3 PFC CS0 17D1303, Description: PFC CS0 17D1303 A, Name: 170413G1_4, Date: 13-Apr-2017, Time: 10:04:14, Instrument: , Lab: , User:

Total PFBS

170413G1_4

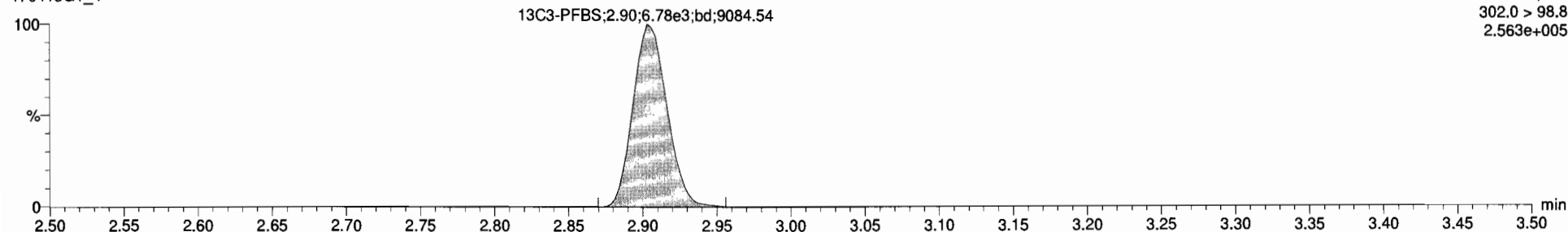


170413G1_4



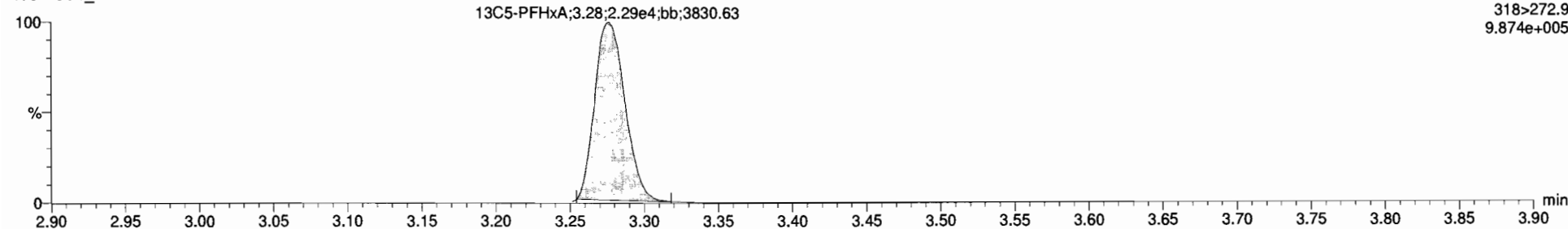
13C3-PFBS

170413G1_4



13C5-PFHxA

170413G1_4



Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-3 PFC CS0 17D1303, Description: PFC CS0 17D1303 A, Name: 170413G1_4, Date: 13-Apr-2017, Time: 10:04:14, Instrument: , Lab: , User:

PFHpA

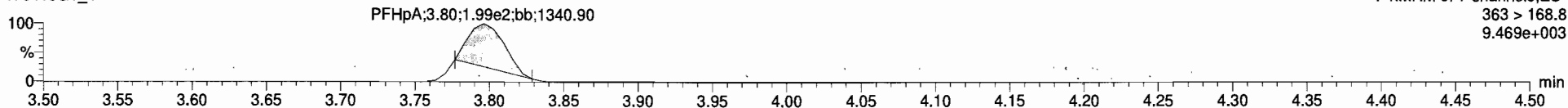
170413G1_4

F4:MRM of 7 channels,ES-
363 > 318.9
5.982e+004



170413G1_4

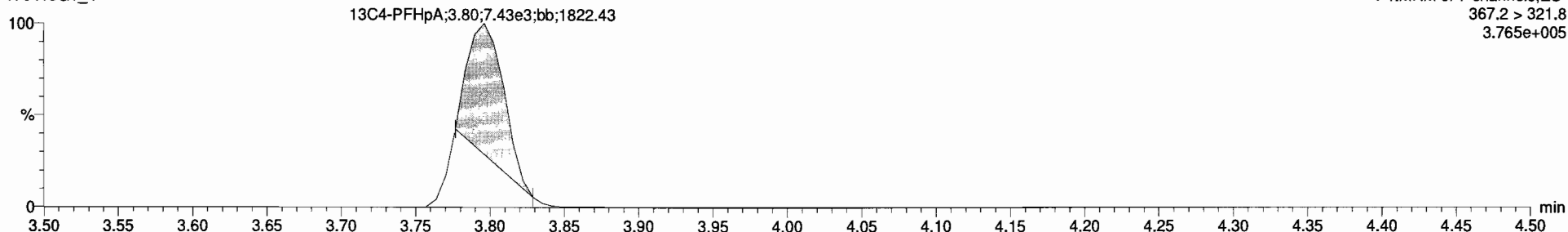
F4:MRM of 7 channels,ES-
363 > 168.8
9.469e+003



13C4-PFHpA

170413G1_4

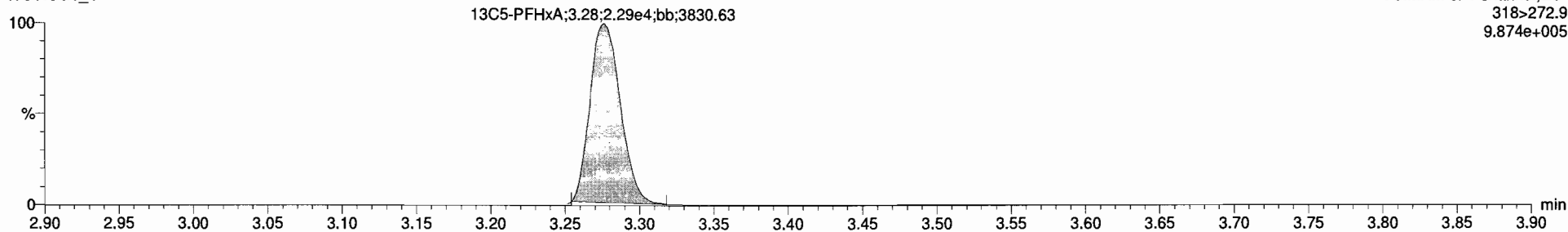
F4:MRM of 7 channels,ES-
367.2 > 321.8
3.765e+005

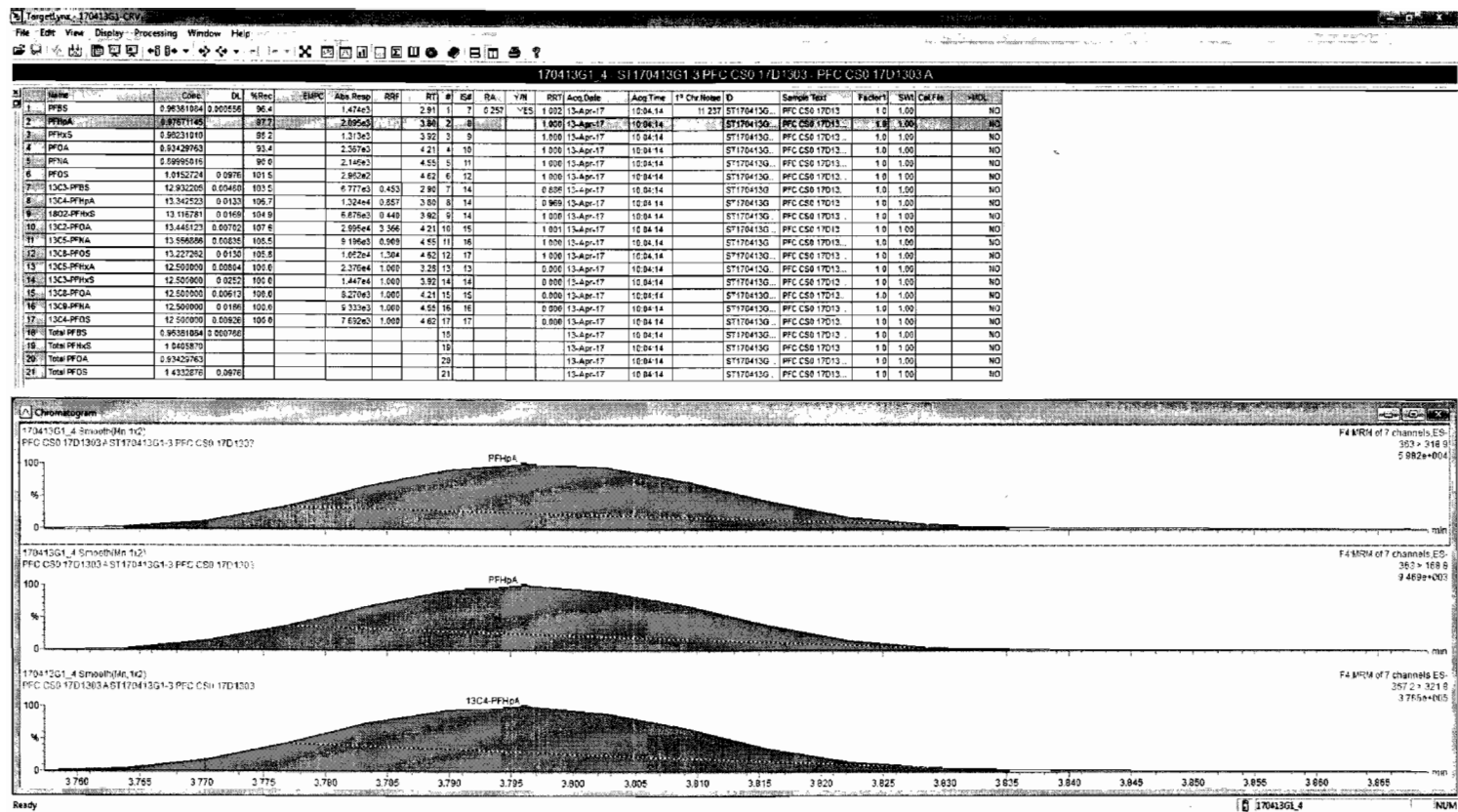


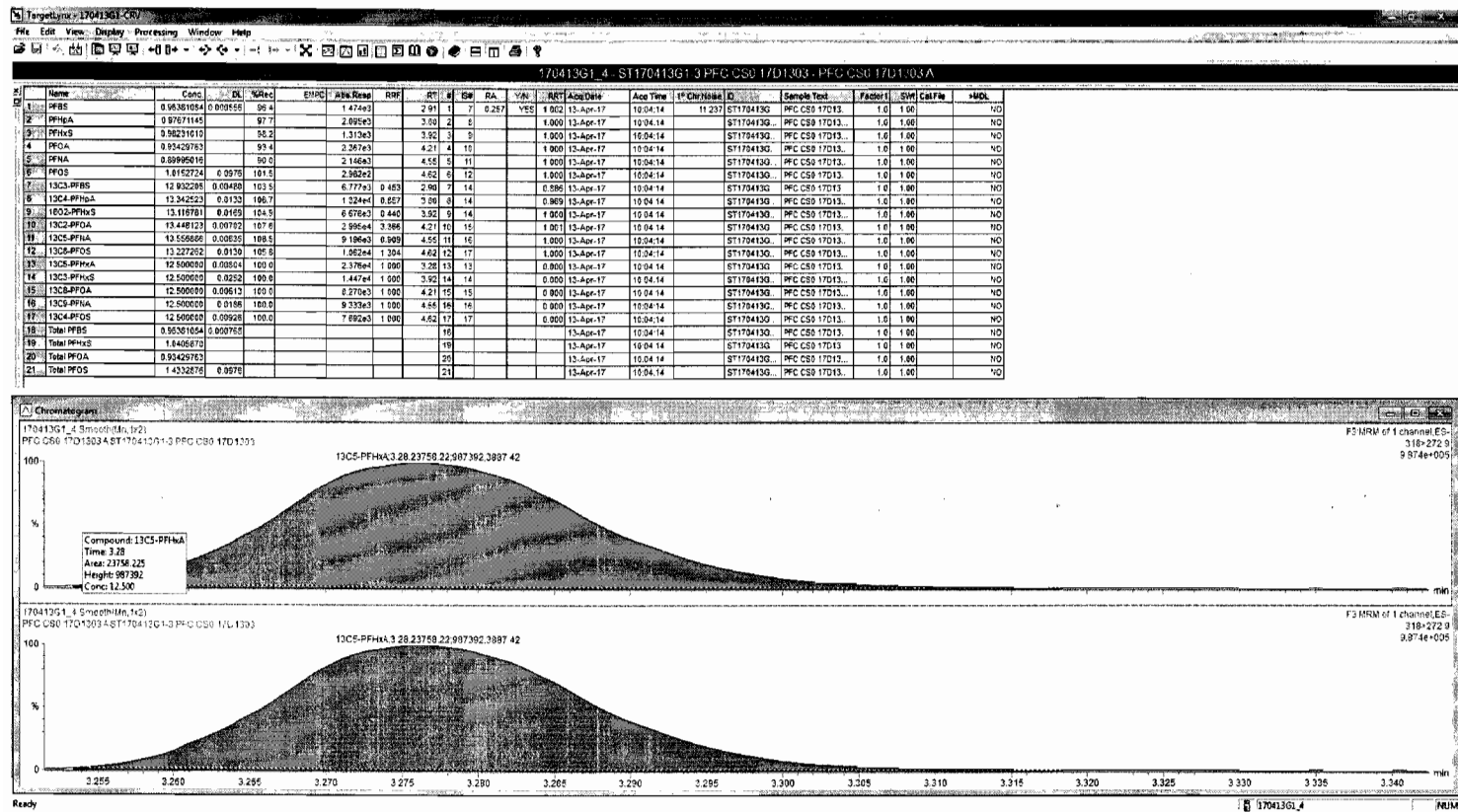
13C5-PFHxA

170413G1_4

F3:MRM of 1 channel,ES-
318>272.9
9.874e+005







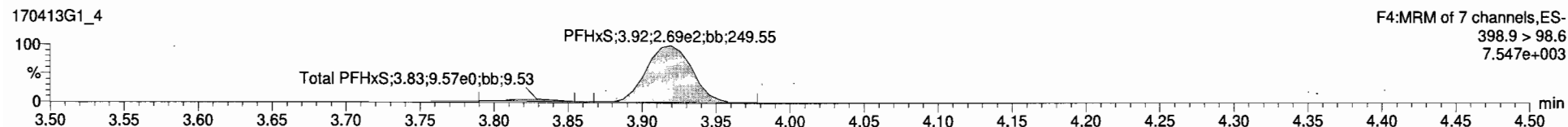
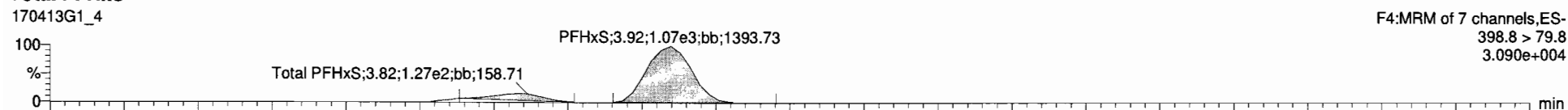
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

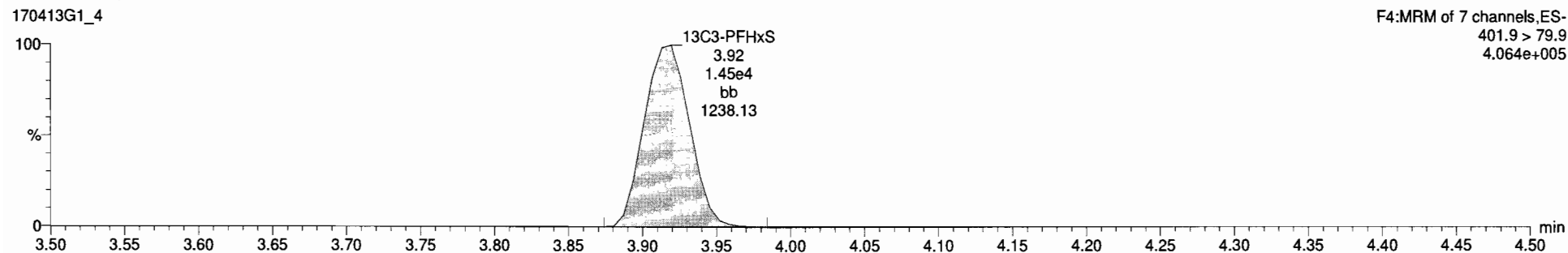
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-3 PFC CS0 17D1303, Description: PFC CS0 17D1303 A, Name: 170413G1_4, Date: 13-Apr-2017, Time: 10:04:14, Instrument: , Lab: , User:

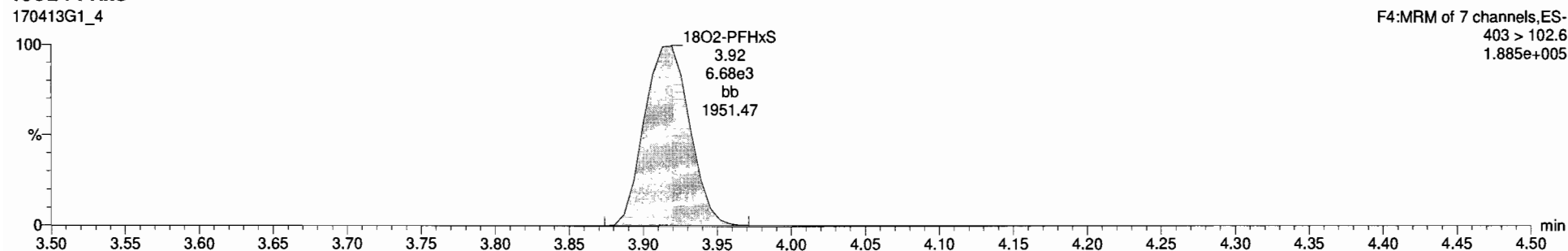
Total PFHxS

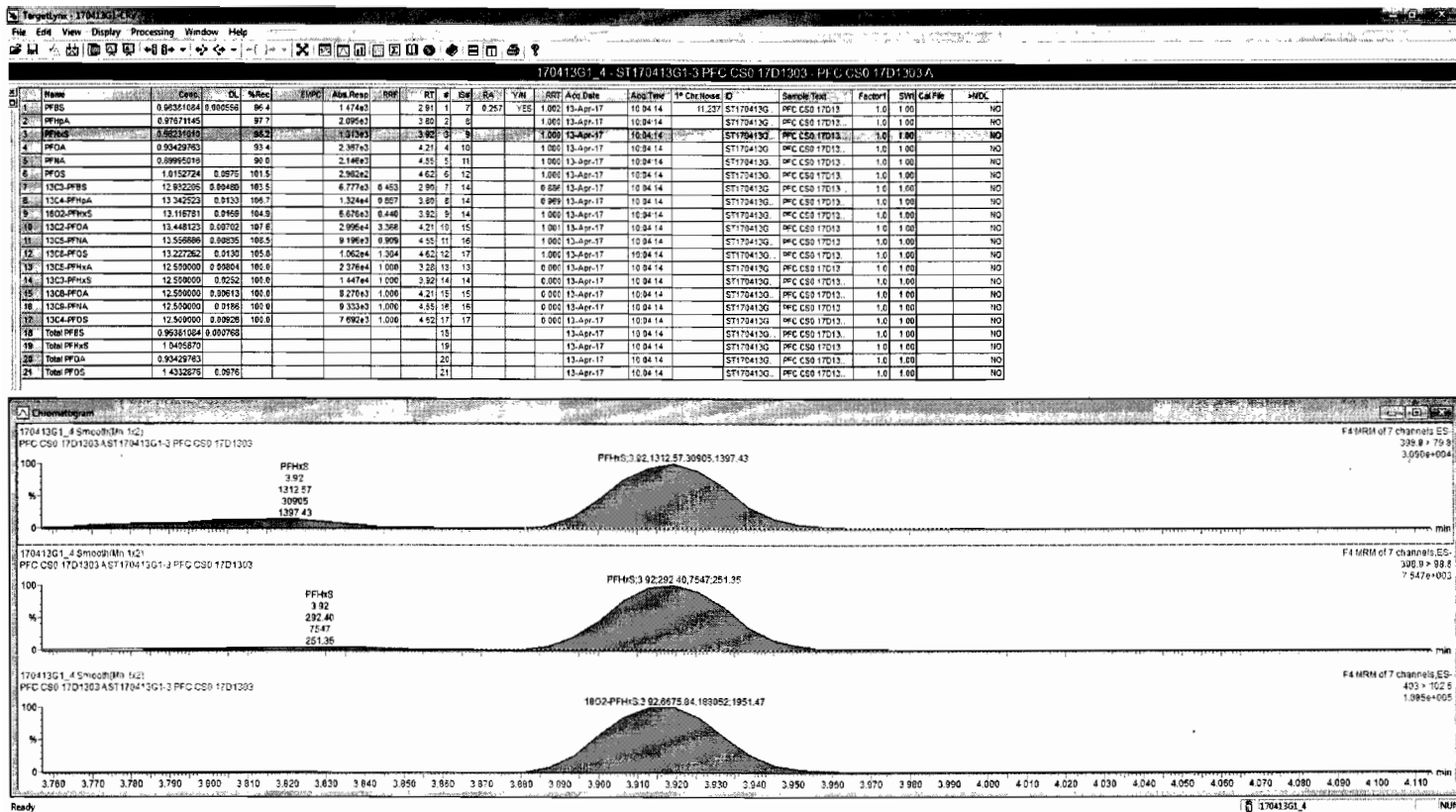


13C3-PFHxS



18O2-PFHxS





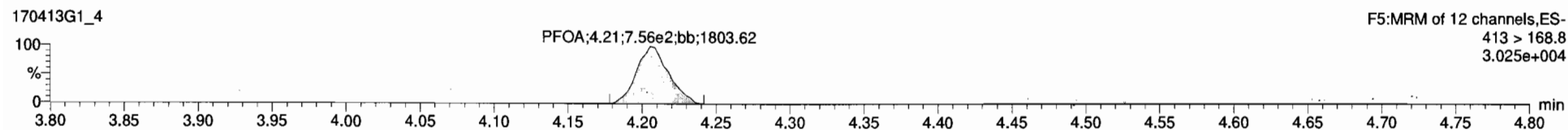
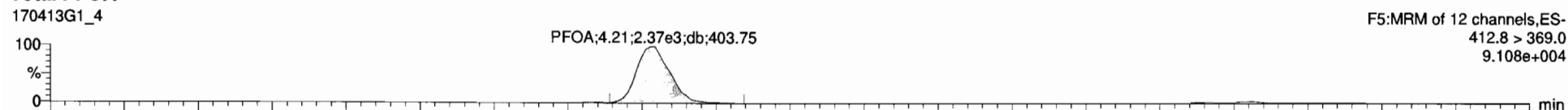
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

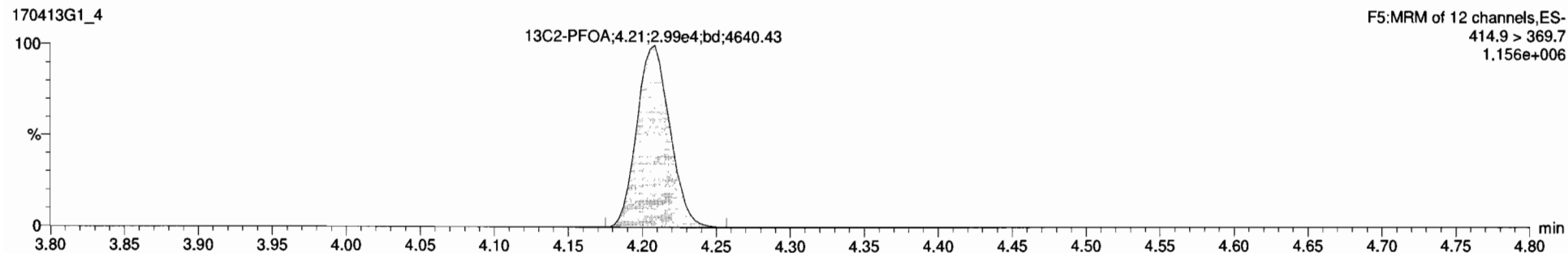
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-3 PFC CS0 17D1303, Description: PFC CS0 17D1303 A, Name: 170413G1_4, Date: 13-Apr-2017, Time: 10:04:14, Instrument: , Lab: , User:

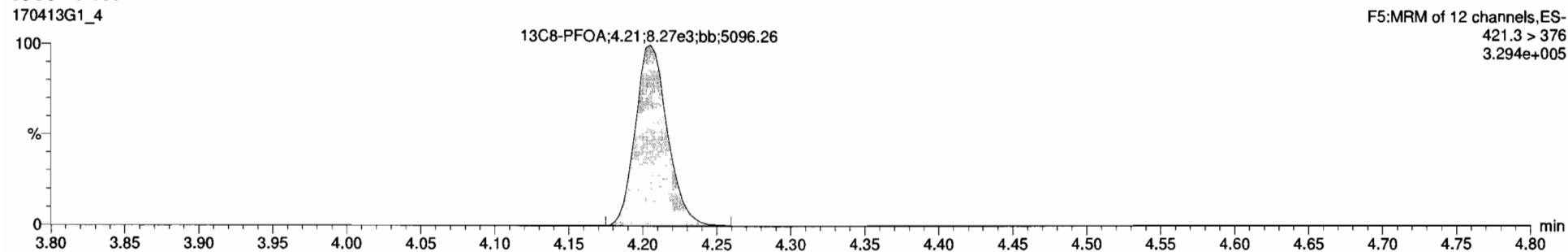
Total PFOA



13C2-PFOA



13C8-PFOA



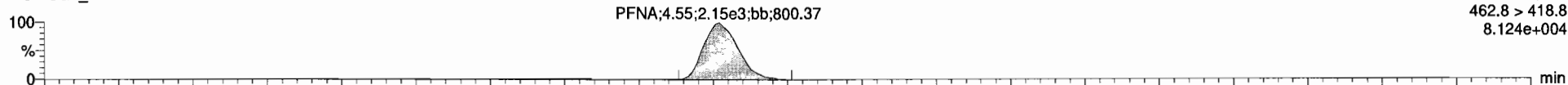
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

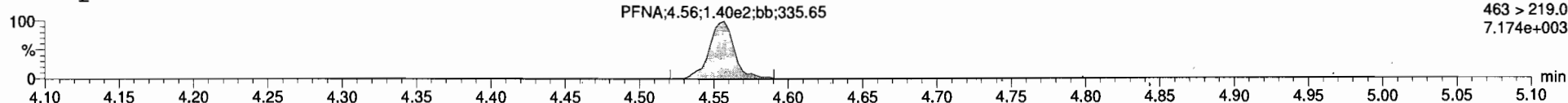
ID: ST170413G1-3 PFC CS0 17D1303, Description: PFC CS0 17D1303 A, Name: 170413G1_4, Date: 13-Apr-2017, Time: 10:04:14, Instrument: , Lab: , User:

PFNA

170413G1_4

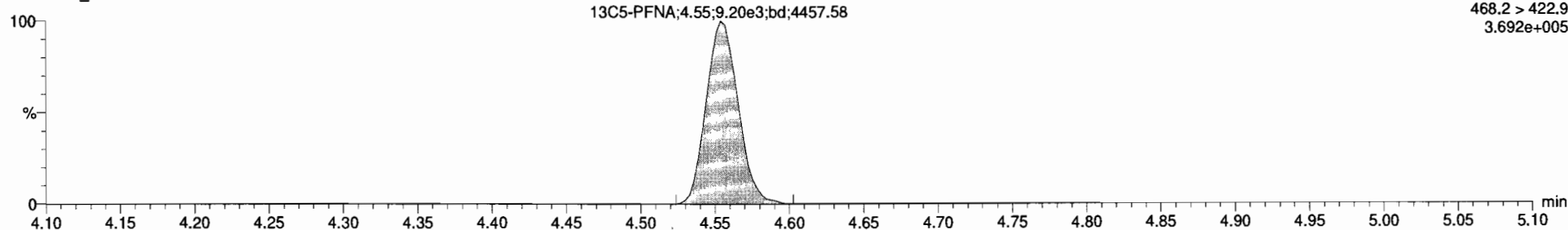


170413G1_4



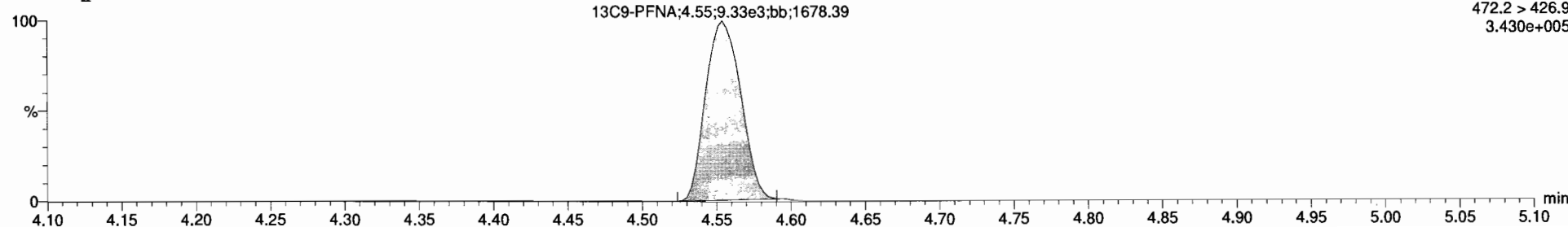
13C5-PFNA

170413G1_4



13C9-PFNA

170413G1_4

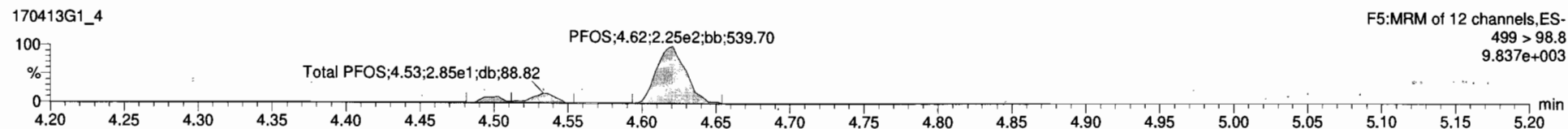
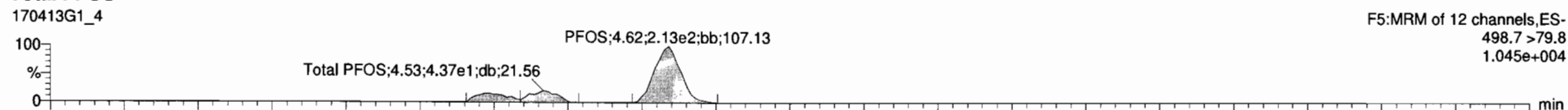


Dataset: Untitled

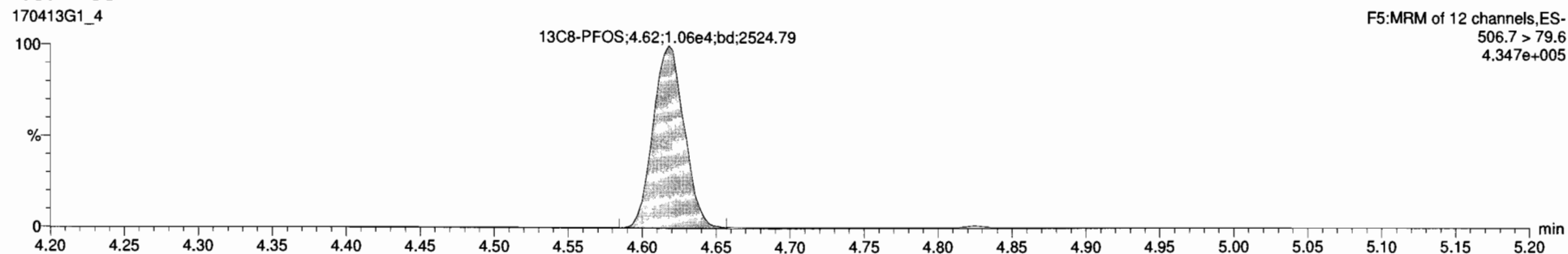
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-3 PFC CS0 17D1303, Description: PFC CS0 17D1303 A, Name: 170413G1_4, Date: 13-Apr-2017, Time: 10:04:14, Instrument: , Lab: , User:

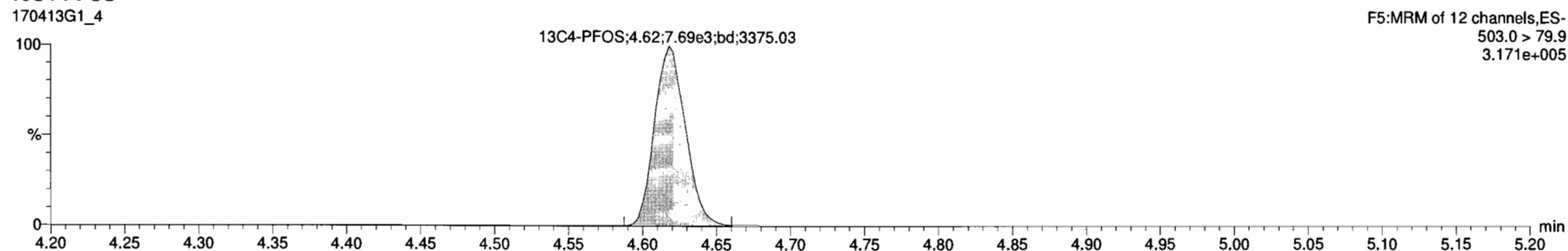
Total PFOS

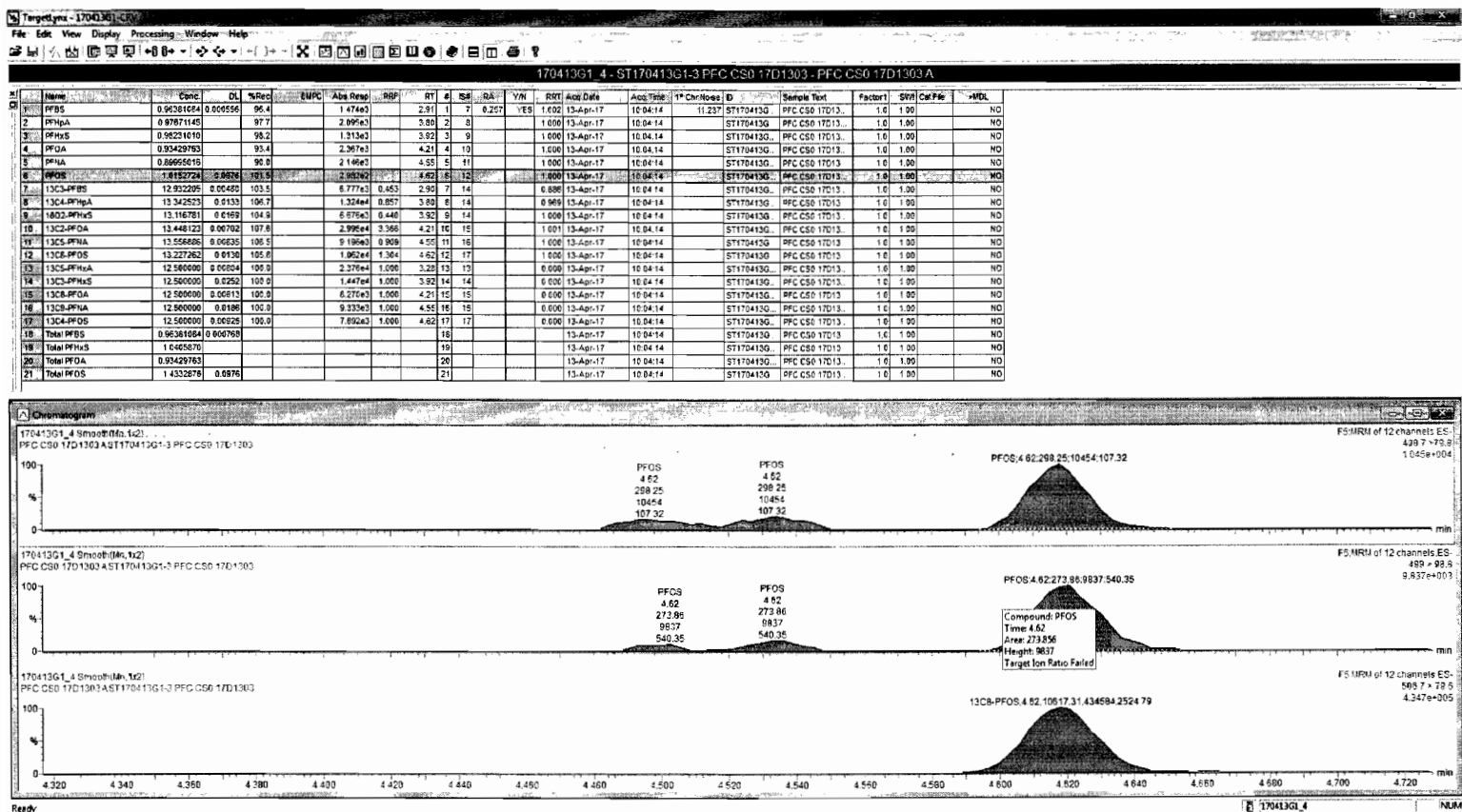


13C8-PFOS



13C4-PFOS





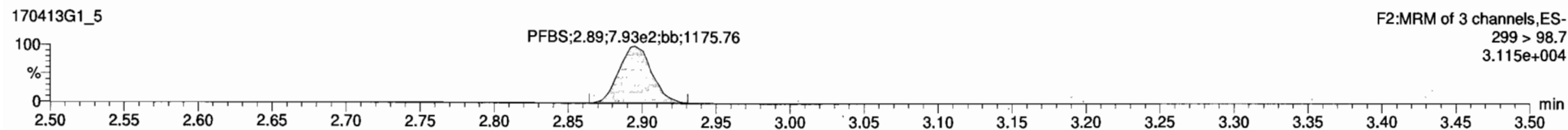
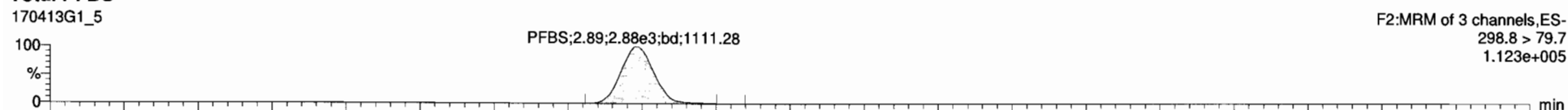
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

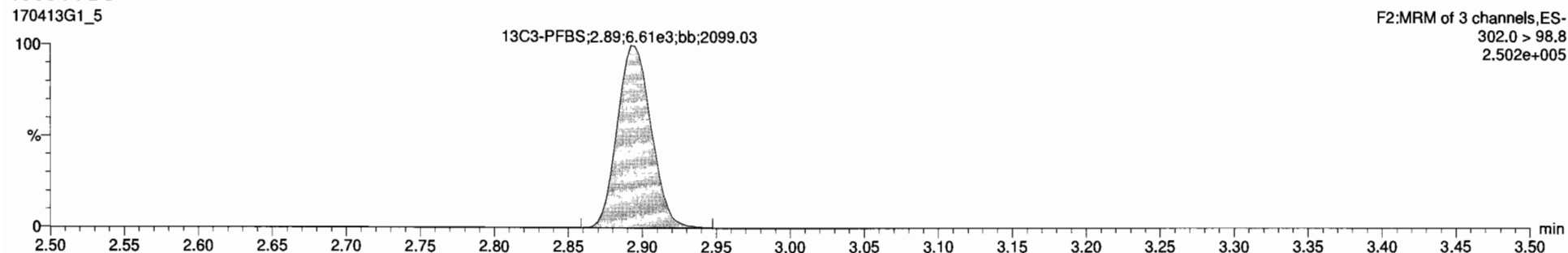
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-4 PFC CS1 17D1304, Description: PFC CS1 17D1304 A, Name: 170413G1_5, Date: 13-Apr-2017, Time: 10:19:55, Instrument: , Lab: , User:

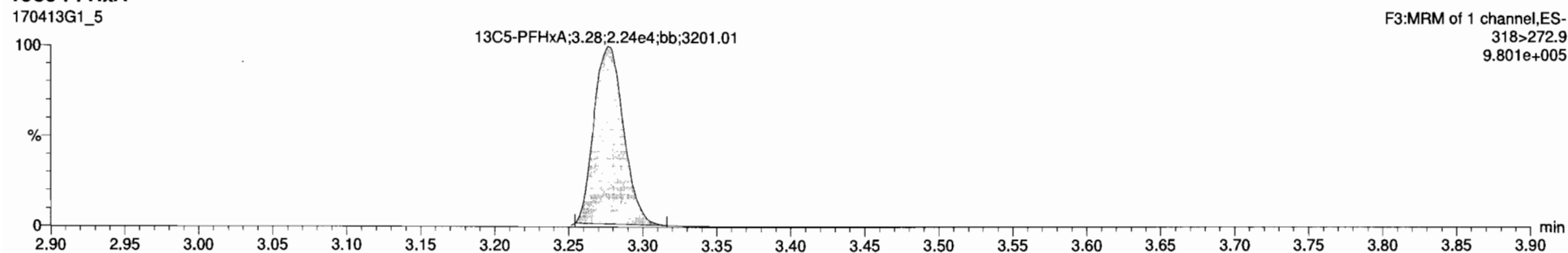
Total PFBS



13C3-PFBS



13C5-PFHxA



Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

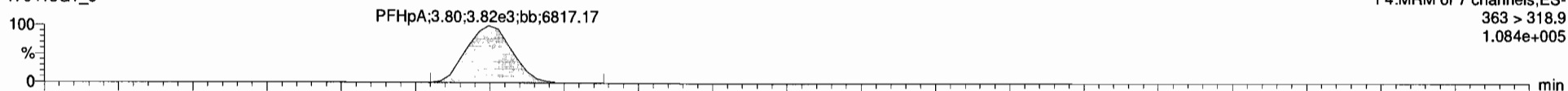
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-4 PFC CS1 17D1304, Description: PFC CS1 17D1304 A, Name: 170413G1_5, Date: 13-Apr-2017, Time: 10:19:55, Instrument: , Lab: , User:

PFHpA

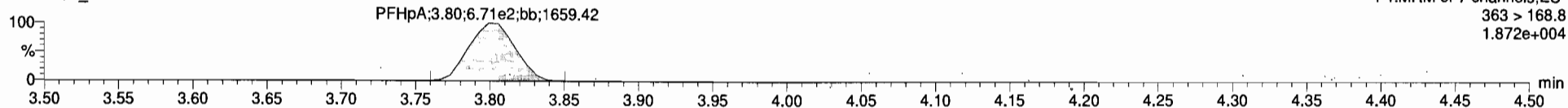
170413G1_5

F4:MRM of 7 channels,ES-
363 > 318.9
1.084e+005



170413G1_5

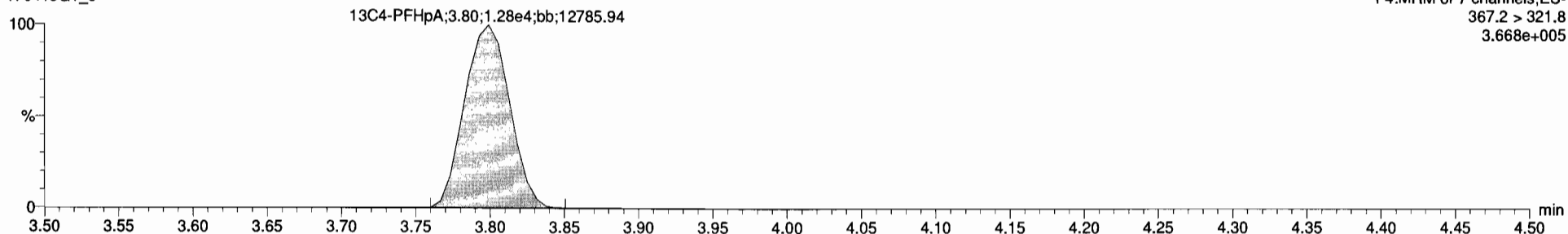
F4:MRM of 7 channels,ES-
363 > 168.8
1.872e+004



13C4-PFHpA

170413G1_5

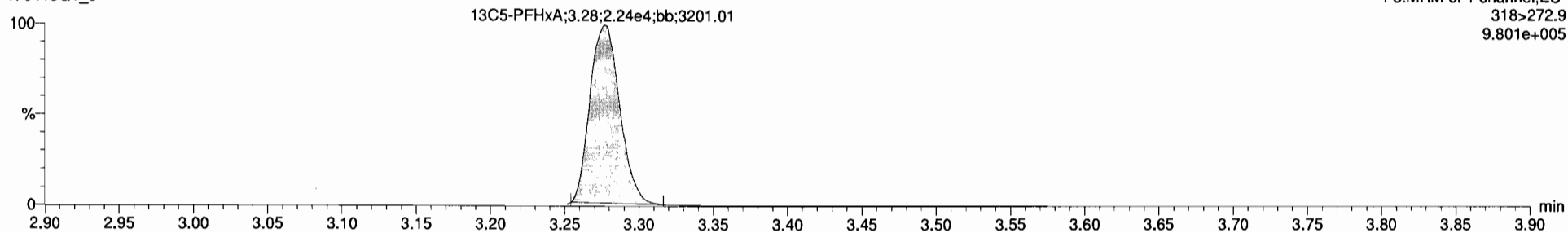
F4:MRM of 7 channels,ES-
367.2 > 321.8
3.668e+005



13C5-PFHxA

170413G1_5

F3:MRM of 1 channel,ES-
318>272.9
9.801e+005



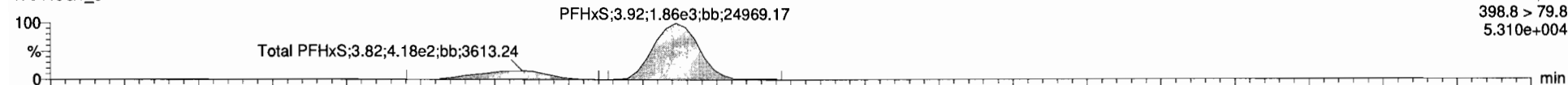
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

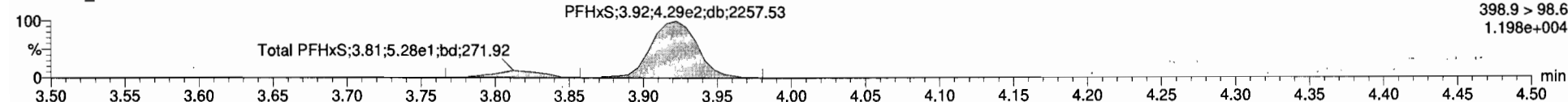
ID: ST170413G1-4 PFC CS1 17D1304, Description: PFC CS1 17D1304 A, Name: 170413G1_5, Date: 13-Apr-2017, Time: 10:19:55, Instrument: , Lab: , User:

Total PFHxS

170413G1_5

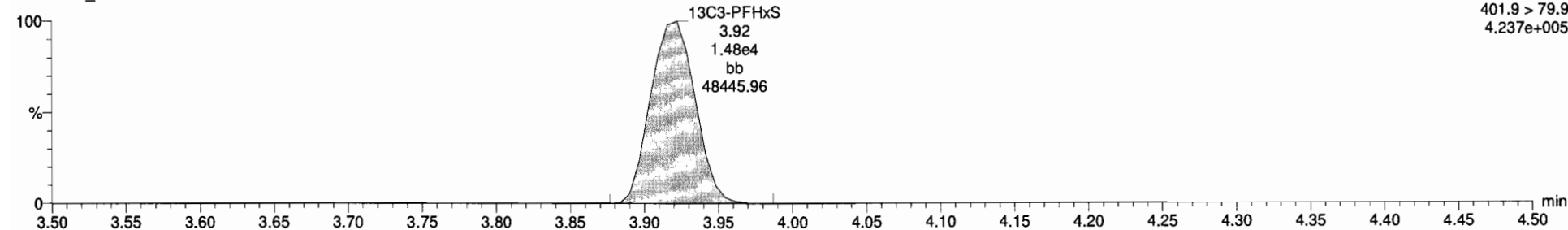


170413G1_5



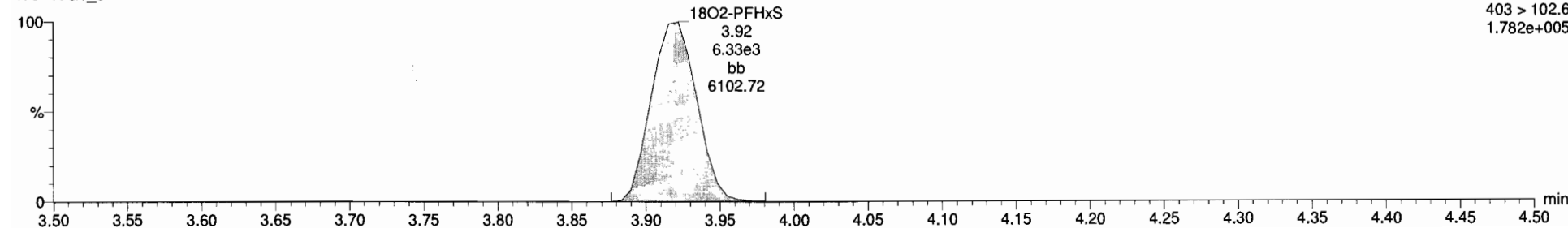
13C3-PFHxS

170413G1_5



18O2-PFHxS

170413G1_5

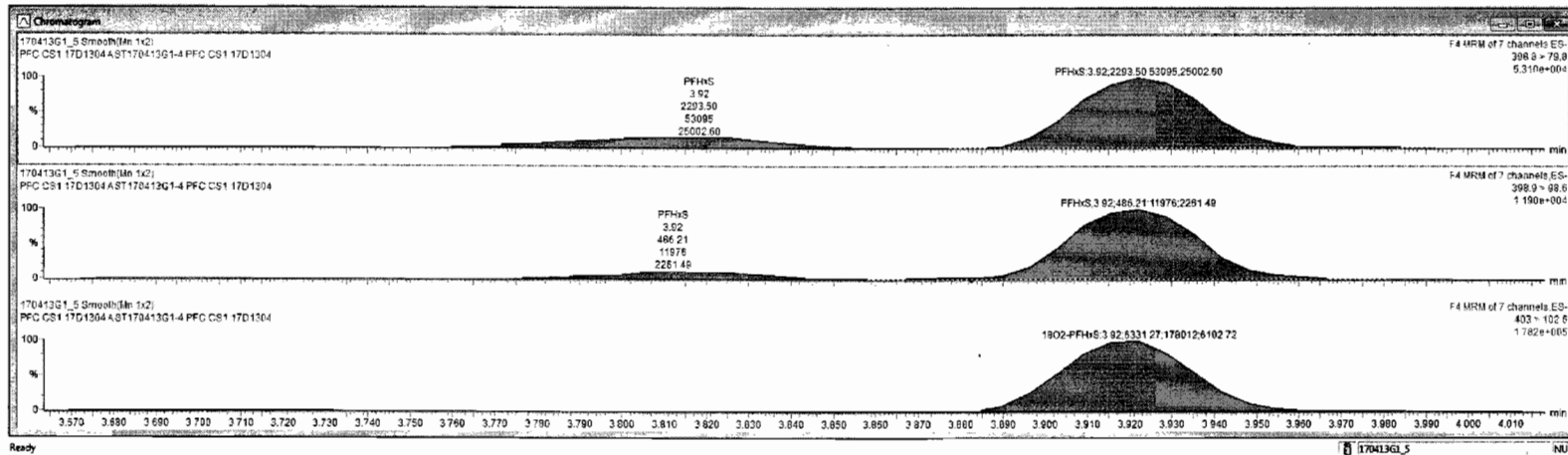


Targetlynx - 170413G1-5

File Edit View Display Processing Window Help

170413G1_5 - ST170413G1-4 PFC CS1 17D1304 - PFC CS1 17D1304 A

#	Name	Comp	DL	%Rec	EMPC	Abs Resp	RR	RT	#	IS#	RA	YIN	RRT	Acq Date	Acq Time	#	Ch Name	Sample Test	Factor	SWR	Cal Fa	INCL
1	PPBS	1.9301239	0.00445	96.5		2.87743	2.99	1	7	0.278		YES	1.001	13-Apr-17	10:19:55	26	419	ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
2	PFNA	1.8792325		94.0		3.82043	3.00	2	8				1.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
3	PFMS	1.8440217		92.2		2.29363	3.92	3	9				1.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
4	PFOA	1.9781954		88.9		4.26241	4.21	4	10				0.999	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
5	PFNA	1.7877932		89.4		3.73363	4.56	5	11				1.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
6	PFOA	1.9209107	0.0990	95.0		4.75642	4.82	6	12				1.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		YES
7	13C3-PFBS	12.313835	0.0194	96.5		6.60963	6.453	7	14				0.999	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
8	13C4-PFNA	12.644358	0.00247	101.2		1.28444	0.887	8	14				1.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
9	1802-PFMS	12.152278	0.00496	97.2		6.33163	6.440	9	14				1.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
10	13C3-PFOA	11.922824	0.00296	95.4		2.67844	3.368	10	15				1.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
11	13C5-PFNA	13.000000	0.0112	104.0		8.27543	8.909	11	16				1.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
12	13C6-PFOS	12.319704	0.0138	95.6		8.60543	1.364	12	17				1.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
13	13C5-PFNA	12.500000	0.00982	108.0		2.31964	1.000	13	13				0.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
14	13C3-PFMS	12.500000	0.000645	100.0		1.40264	1.000	14	14				0.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
15	13C2-PFOA	12.500000	0.0100	100.0		8.33543	1.000	15	15				0.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
16	13C5-PFNA	12.500000	0.00188	108.0		8.75843	1.000	16	16				0.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
17	13C4-PFOS	12.500000	0.00560	100.0		6.75643	1.000	17	17				0.000	13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
18	Total PPBS	1.9339752	0.00626											13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
19	Total PFMS	2.1472319												13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
20	Total PFOA	1.9781964												13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO
21	Total PFOA	2.2574020	0.0990											13-Apr-17	10:19:55			ST170413G1 PFC CS1 17D1304	1.0	1.00		NO



Dataset: Untitled

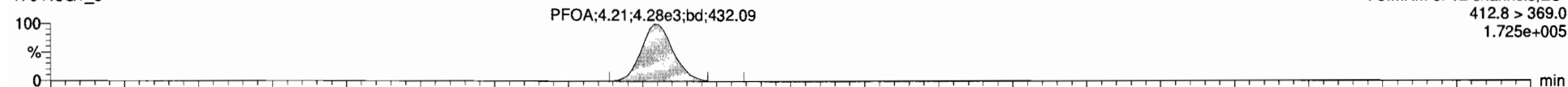
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-4 PFC CS1 17D1304, Description: PFC CS1 17D1304 A, Name: 170413G1_5, Date: 13-Apr-2017, Time: 10:19:55, Instrument: , Lab: , User:

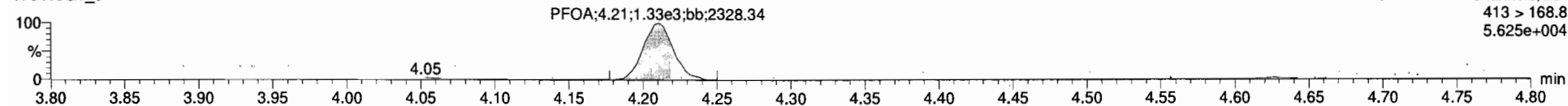
Total PFOA

170413G1_5



F5:MRM of 12 channels,ES-
412.8 > 369.0
1.725e+005

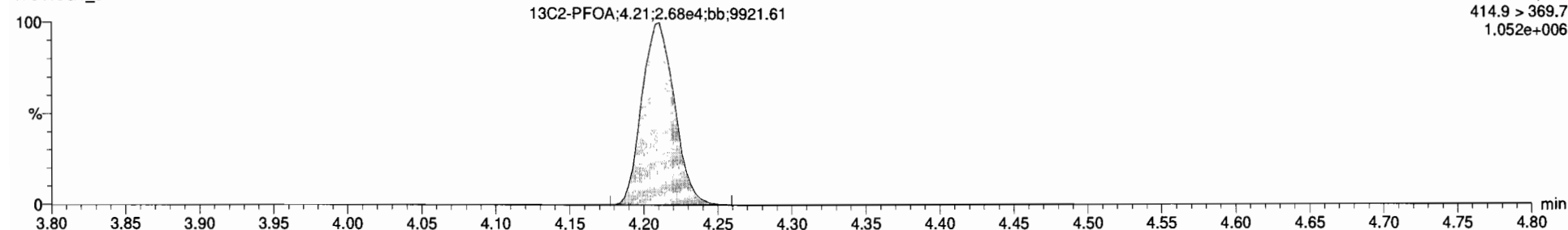
170413G1_5



F5:MRM of 12 channels,ES-
413 > 168.8
5.625e+004

13C2-PFOA

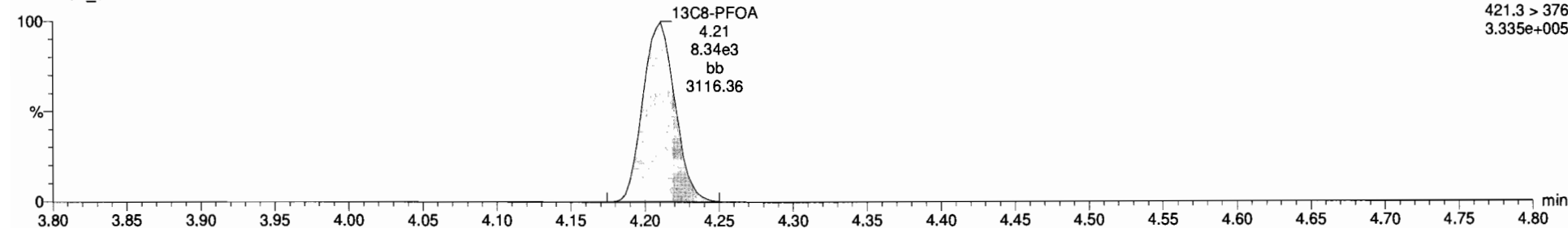
170413G1_5



F5:MRM of 12 channels,ES-
414.9 > 369.7
1.052e+006

13C8-PFOA

170413G1_5



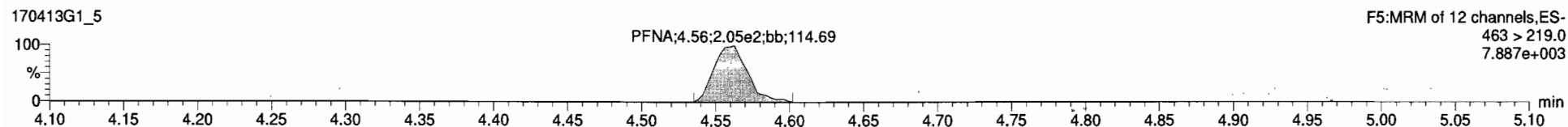
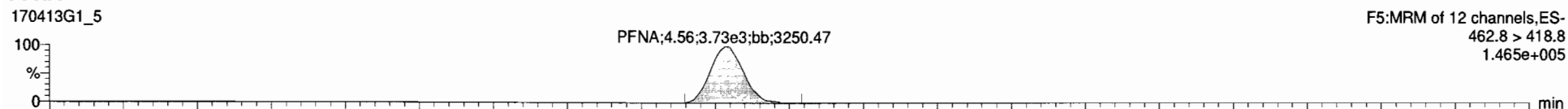
F5:MRM of 12 channels,ES-
421.3 > 376
3.335e+005

Dataset: Untitled

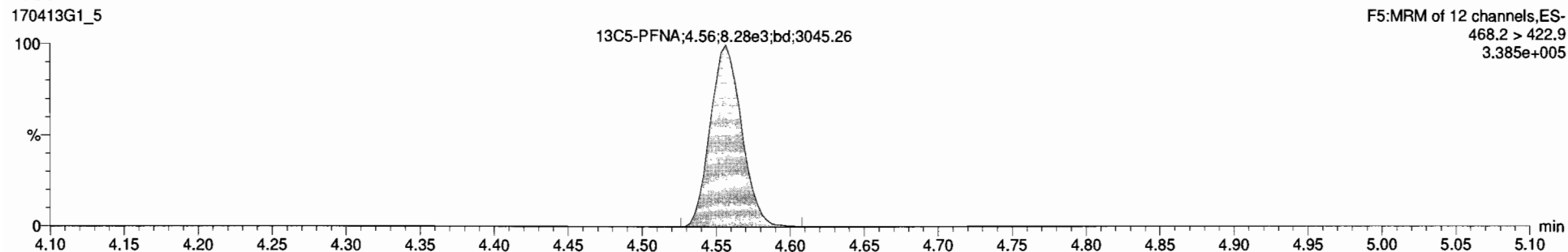
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-4 PFC CS1 17D1304, Description: PFC CS1 17D1304 A, Name: 170413G1_5, Date: 13-Apr-2017, Time: 10:19:55, Instrument: , Lab: , User:

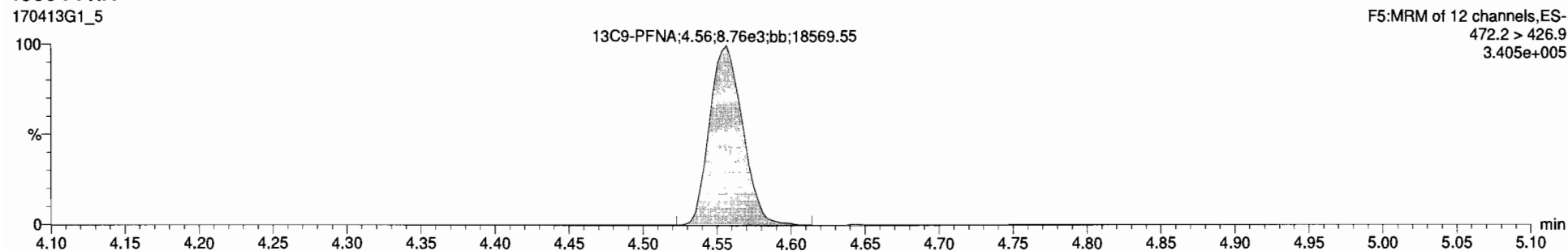
PFNA



13C5-PFNA



13C9-PFNA



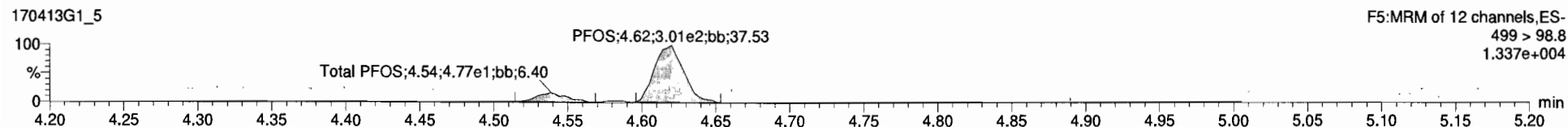
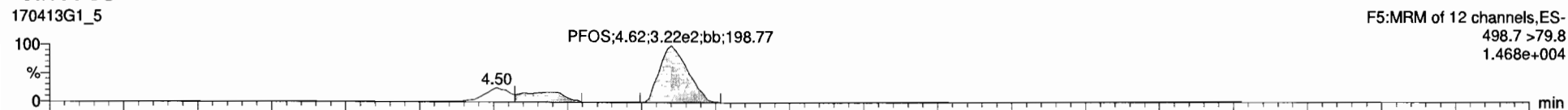
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

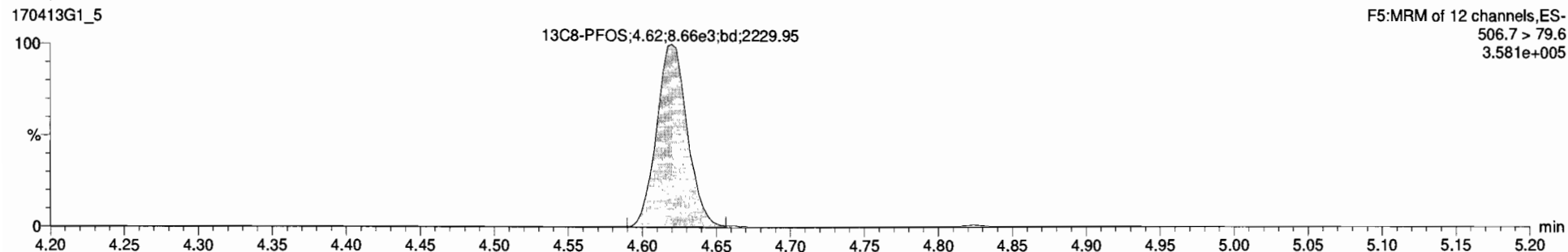
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-4 PFC CS1 17D1304, Description: PFC CS1 17D1304 A, Name: 170413G1_5, Date: 13-Apr-2017, Time: 10:19:55, Instrument: , Lab: , User:

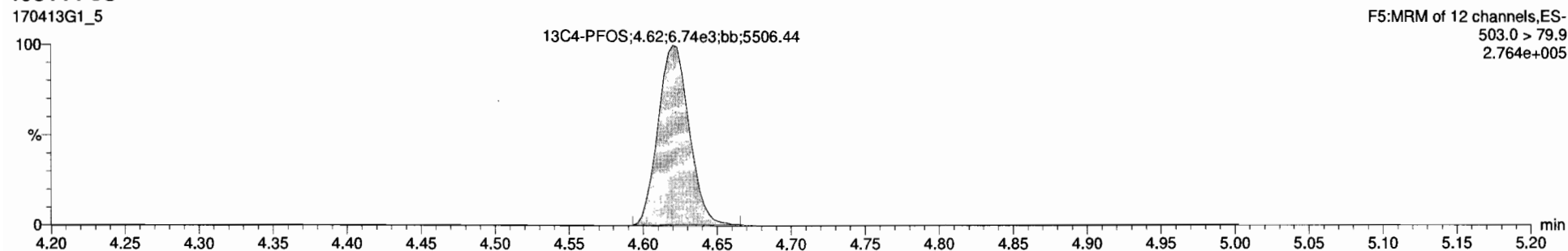
Total PFOS



13C8-PFOS



13C4-PFOS



Dataset: Untitled

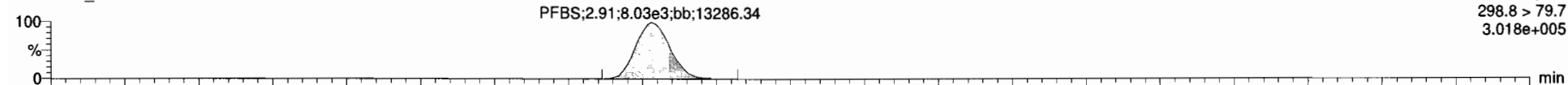
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

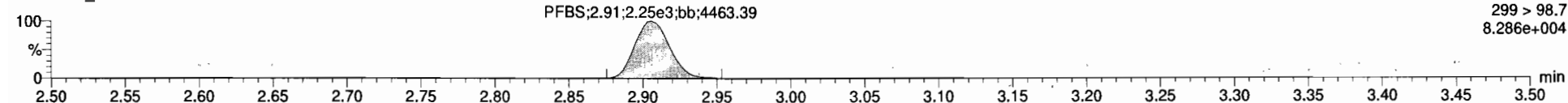
ID: ST170413G1-5 PFC CS2 17D1305, Description: PFC CS2 17D1305 A, Name: 170413G1_6, Date: 13-Apr-2017, Time: 10:32:30, Instrument: , Lab: , User:

Total PFBS

170413G1_6

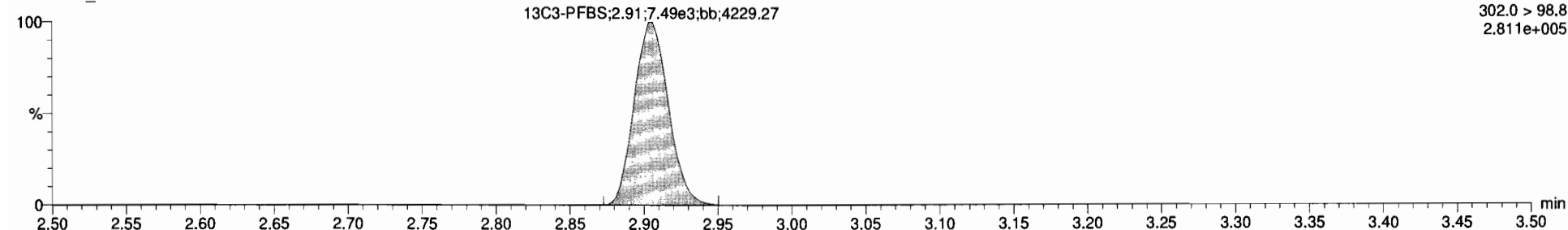


170413G1_6



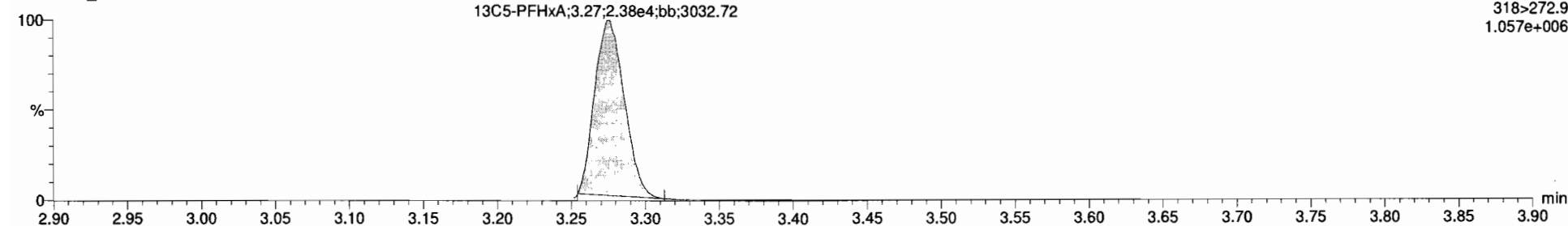
13C3-PFBS

170413G1_6



13C5-PFHxA

170413G1_6



Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

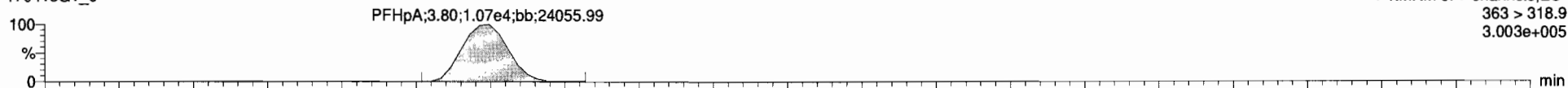
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-5 PFC CS2 17D1305, Description: PFC CS2 17D1305 A, Name: 170413G1_6, Date: 13-Apr-2017, Time: 10:32:30, Instrument: , Lab: , User:

PFHpA

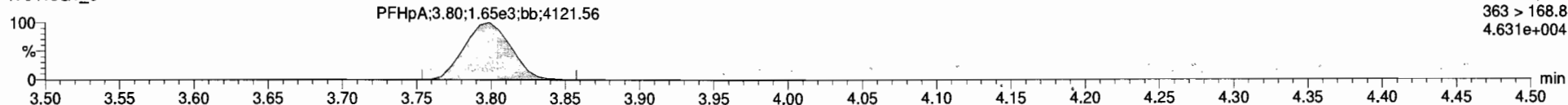
170413G1_6

F4:MRM of 7 channels,ES-
363 > 318.9
3.003e+005



170413G1_6

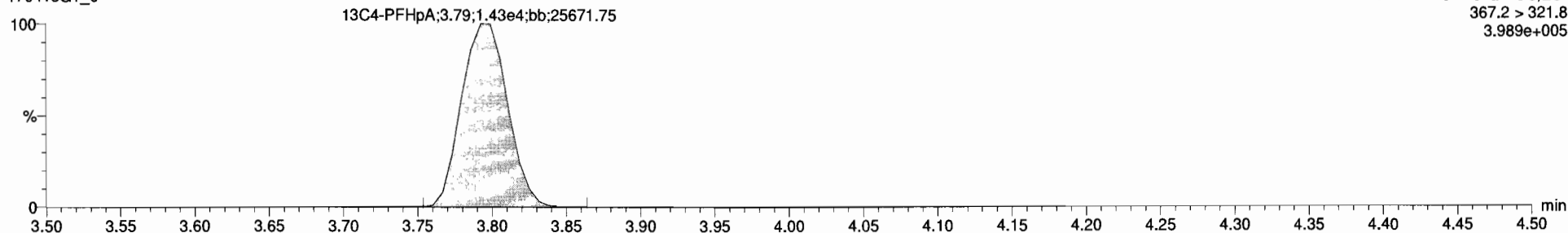
F4:MRM of 7 channels,ES-
363 > 168.8
4.631e+004



13C4-PFHpA

170413G1_6

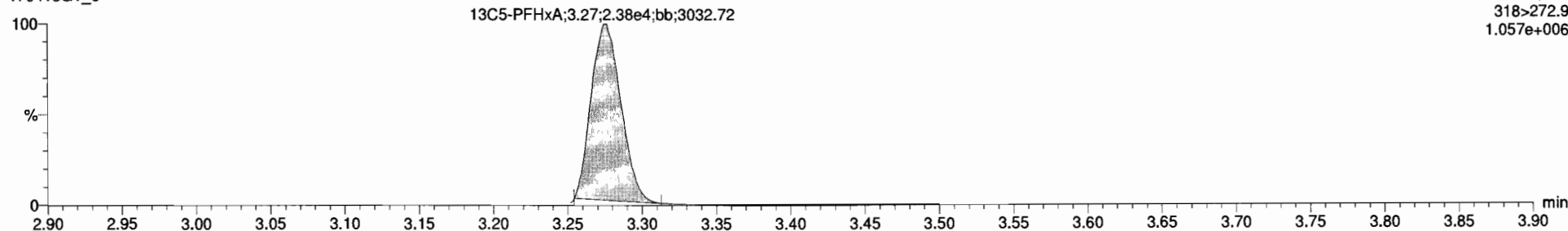
F4:MRM of 7 channels,ES-
367.2 > 321.8
3.989e+005

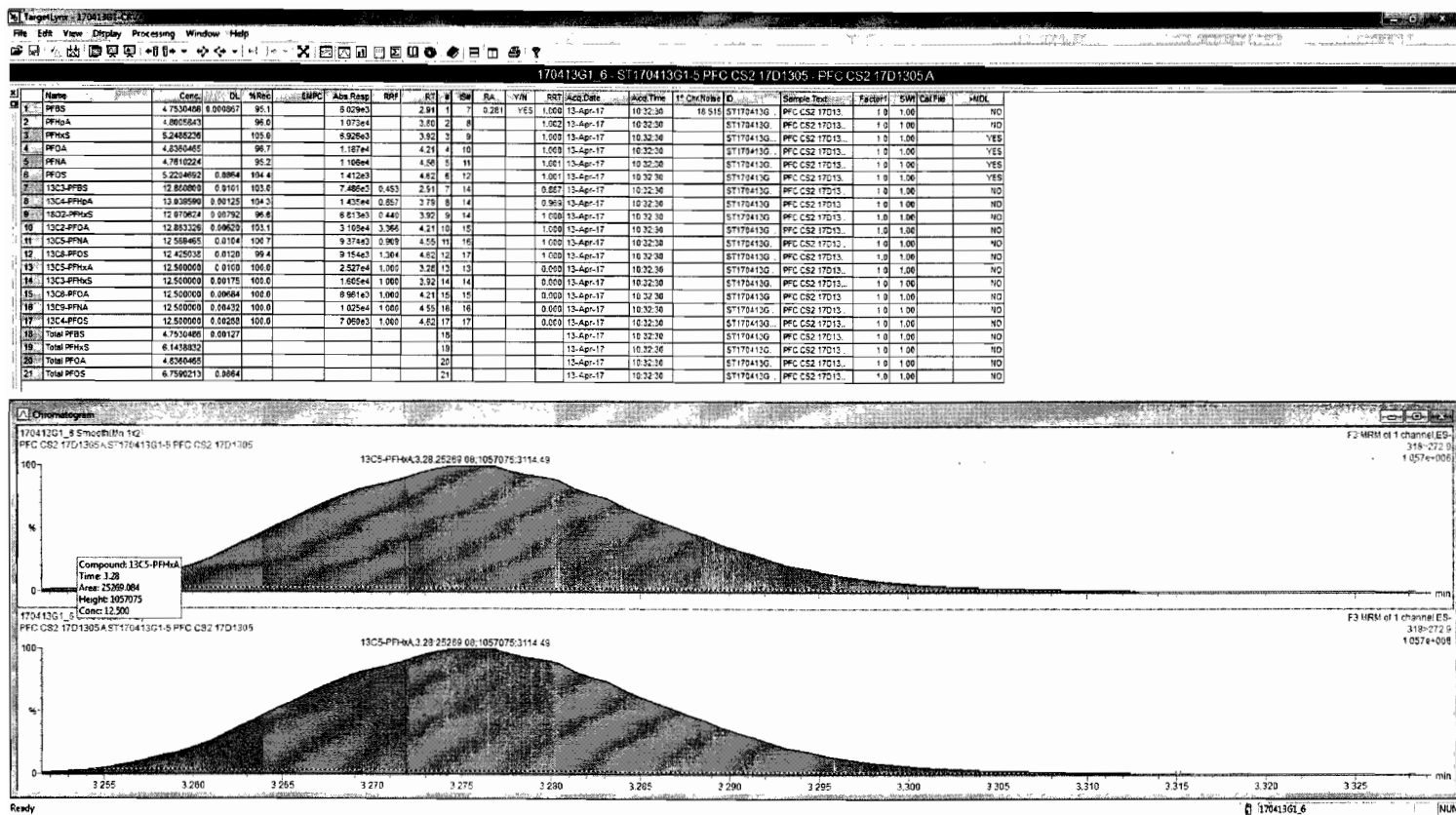


13C5-PFHxA

170413G1_6

F3:MRM of 1 channel,ES-
318>272.9
1.057e+006





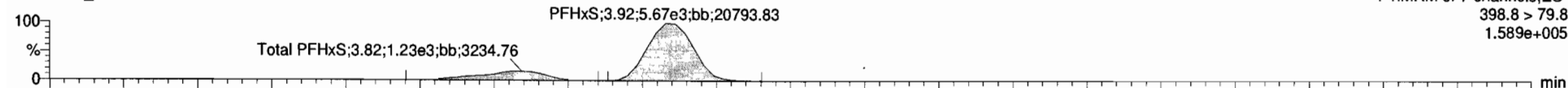
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

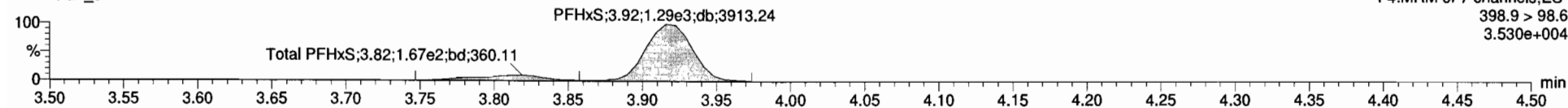
ID: ST170413G1-5 PFC CS2 17D1305, Description: PFC CS2 17D1305 A, Name: 170413G1_6, Date: 13-Apr-2017, Time: 10:32:30, Instrument: , Lab: , User:

Total PFHxS

170413G1_6

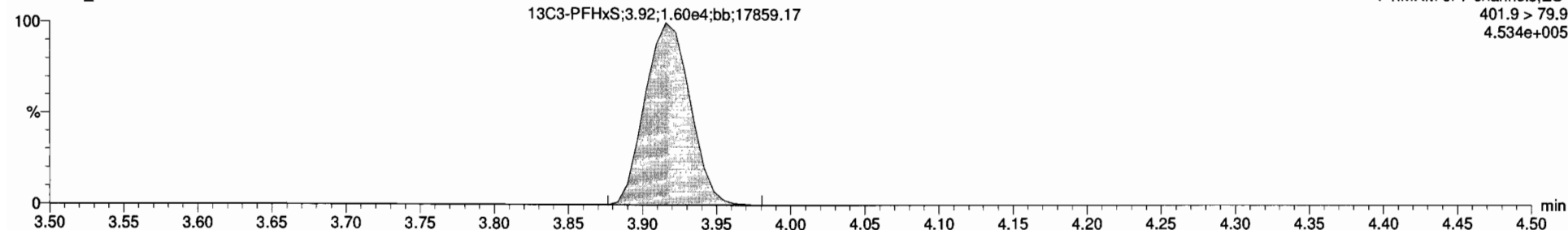


170413G1_6



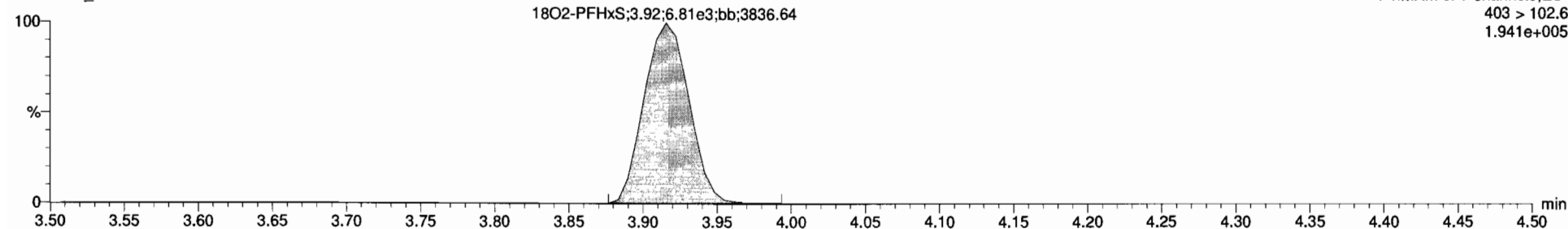
13C3-PFHxS

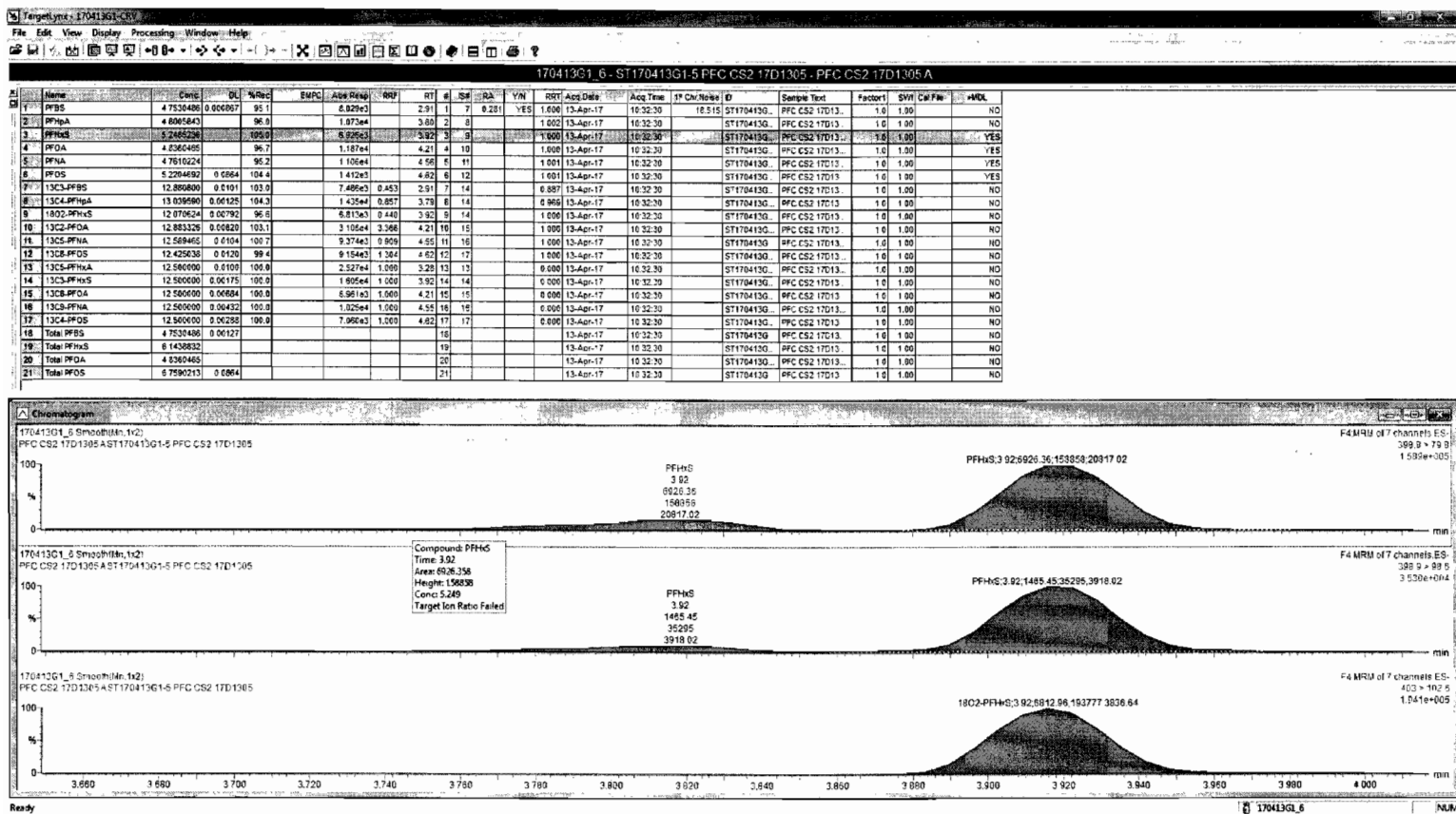
170413G1_6



18O2-PFHxS

170413G1_6





Dataset: Untitled

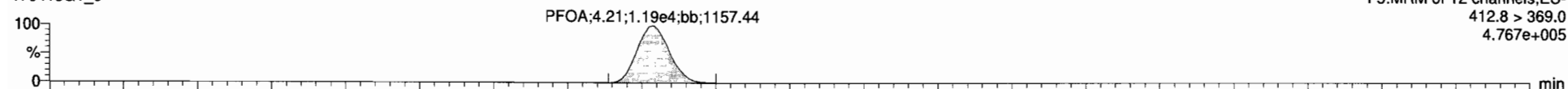
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-5 PFC CS2 17D1305, Description: PFC CS2 17D1305 A, Name: 170413G1_6, Date: 13-Apr-2017, Time: 10:32:30, Instrument: , Lab: , User:

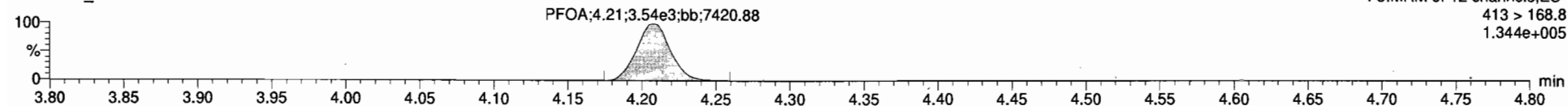
Total PFOA

170413G1_6



F5:MRM of 12 channels,ES-
412.8 > 369.0
4.767e+005

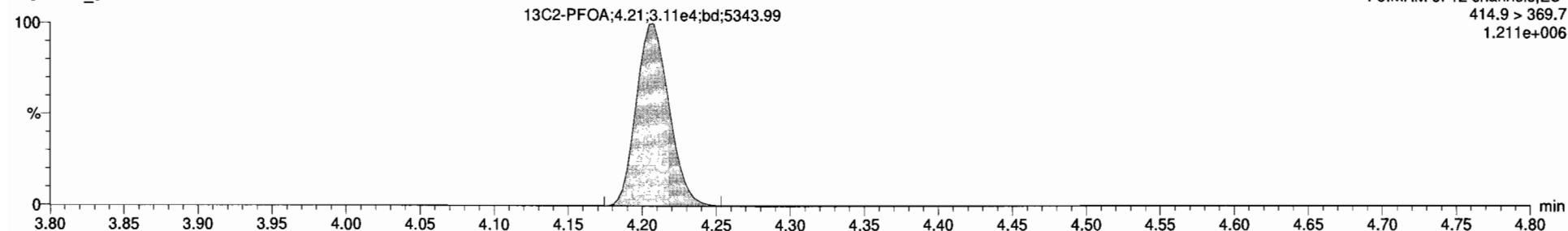
170413G1_6



F5:MRM of 12 channels,ES-
413 > 168.8
1.344e+005

13C2-PFOA

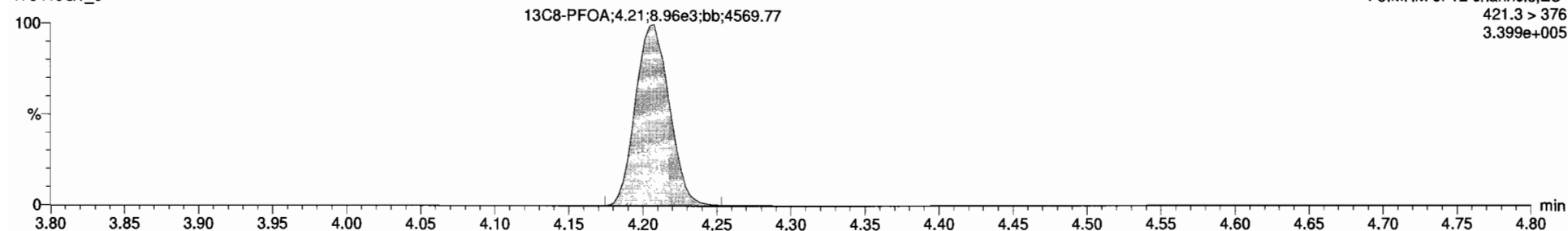
170413G1_6



F5:MRM of 12 channels,ES-
414.9 > 369.7
1.211e+006

13C8-PFOA

170413G1_6



F5:MRM of 12 channels,ES-
421.3 > 376
3.399e+005

Dataset: Untitled

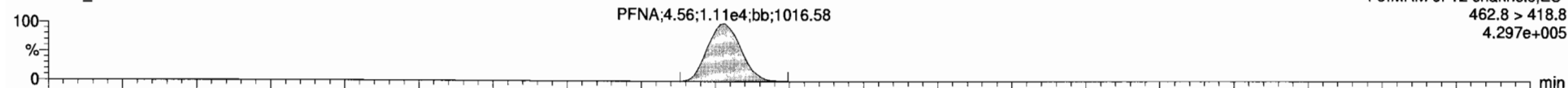
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

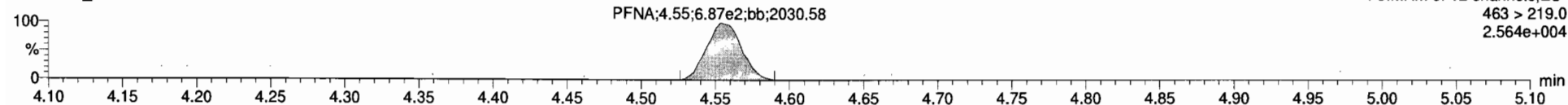
ID: ST170413G1-5 PFC CS2 17D1305, Description: PFC CS2 17D1305 A, Name: 170413G1_6, Date: 13-Apr-2017, Time: 10:32:30, Instrument: , Lab: , User:

PFNA

170413G1_6

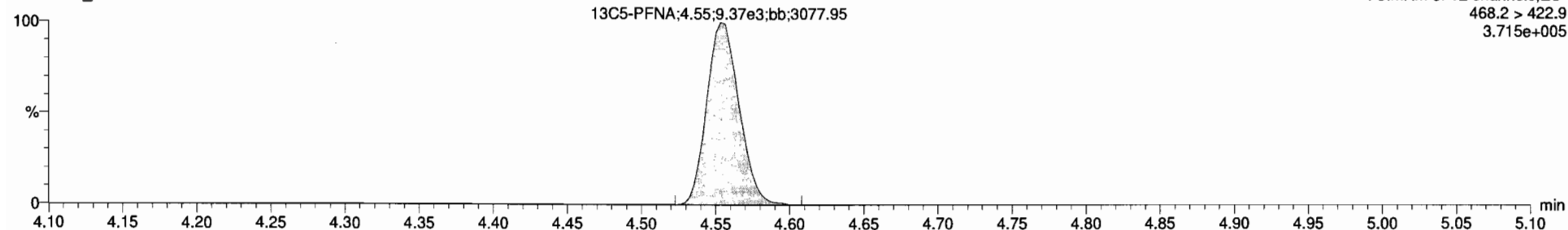


170413G1_6



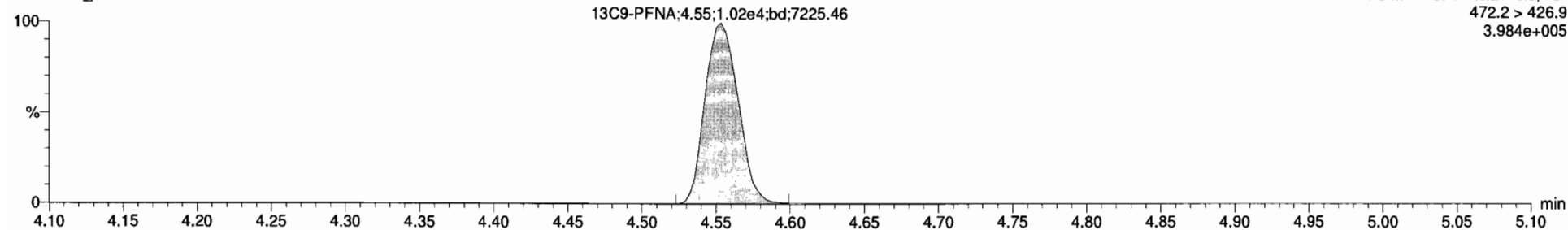
13C5-PFNA

170413G1_6



13C9-PFNA

170413G1_6



Dataset: Untitled

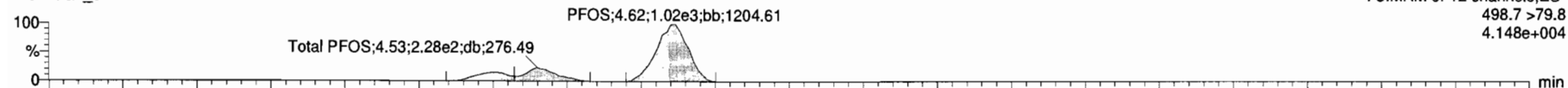
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-5 PFC CS2 17D1305, Description: PFC CS2 17D1305 A, Name: 170413G1_6, Date: 13-Apr-2017, Time: 10:32:30, Instrument: , Lab: , User:

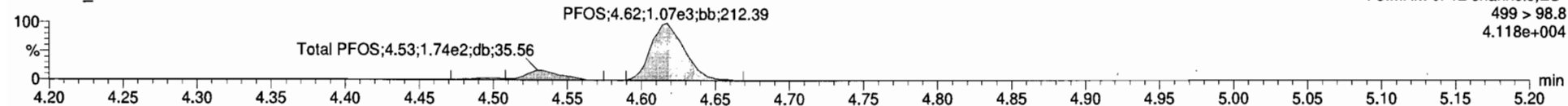
Total PFOS

170413G1_6



F5:MRM of 12 channels,ES-
498.7 >79.8
4.148e+004

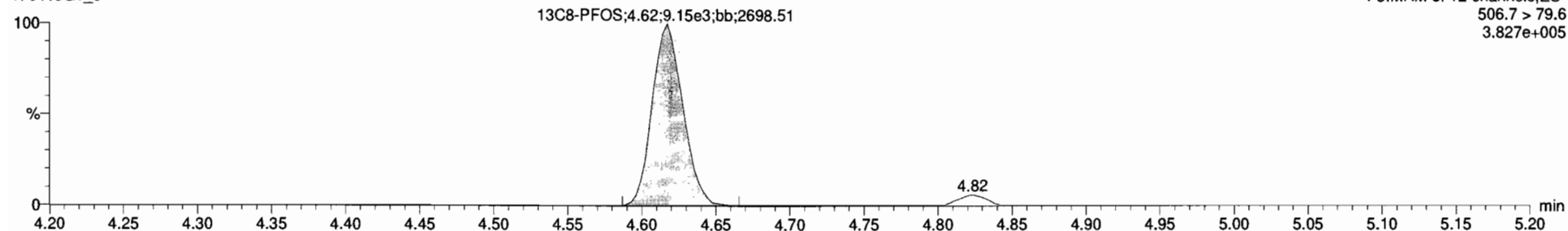
170413G1_6



F5:MRM of 12 channels,ES-
499 > 98.8
4.118e+004

13C8-PFOS

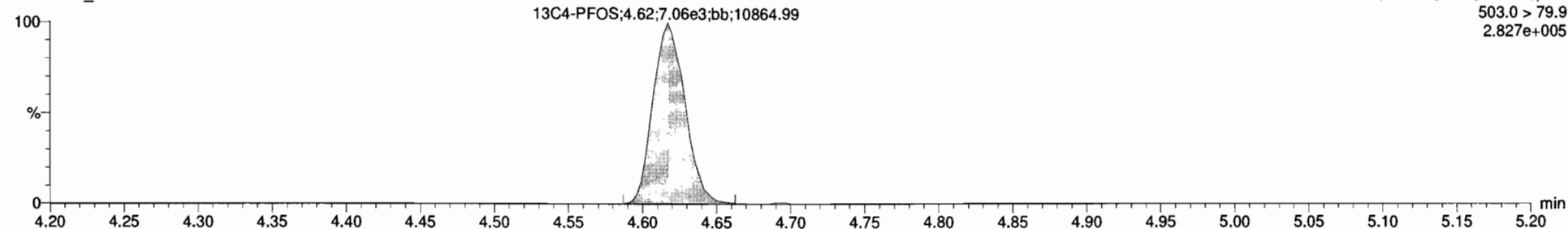
170413G1_6



F5:MRM of 12 channels,ES-
506.7 > 79.6
3.827e+005

13C4-PFOS

170413G1_6



F5:MRM of 12 channels,ES-
503.0 > 79.9
2.827e+005

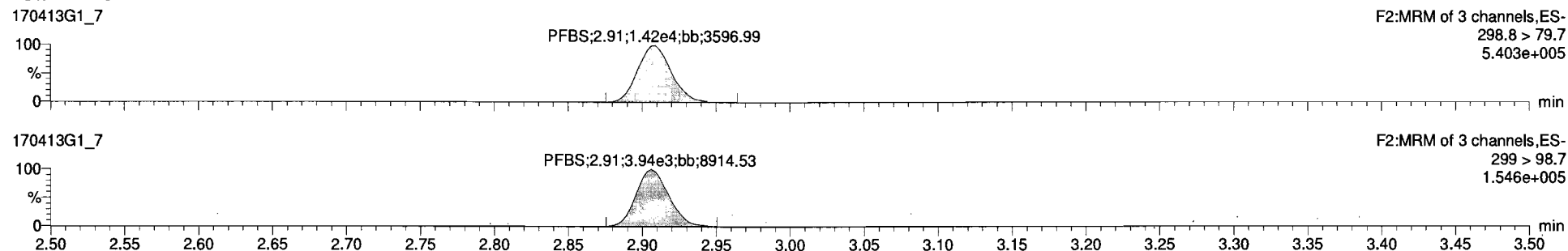
TargetType = 170413G1-CS2																						
File Edit View Display Processing Window Help																						
[Icons]																						
170413G1 6 - ST170413G1.6- PFC CS2 17D1305 - PFC CS2 17D1305.A																						
ID	Name	Class	LA	Ref	EMPC	Area Prod	Ref	RT	#	SB	RA	Y/N	JRT	Acq Date	Acq Time	1 st Chk Rate	ID	Sample Time	Factor1	SW	Cal File	ANAL
1	PHNA	4.7532488	0.00585	85	5.02963	2.81	1	2	0.281	YES	1.002	13-Apr-17	16:32:30	18.515	ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
2	PHNA	4.8005642		86.0	1.07344	3.00	2				1.002	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
3	PHNA	5.2485236		165.0	6.92963	3.30	3	9			1.002	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				YES
4	PFDA	4.8384668		96.7	1.18764	4.21	4	10			1.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				YES
5	PFDA	4.7810224		95.2	1.10864	4.56	5	11			1.001	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				YES
6	PFDA	5.2504062	0.0064	86.0	1.41293	4.60	6	12			1.001	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				YES
7	13CA-PHNA	12.603336	0.0101	100.0	7.44863	4.45	7	14			0.007	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
8	13CA-PHNA	13.035990	0.0125	104.3	1.43564	2.87	8	14			0.989	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
9	13CA-PHNA	12.700624	0.03920	106.3	6.81363	4.40	9	14			1.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
10	13CA-PHNA	12.683336	0.04020	103.7	3.10864	3.66	10	15			1.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
11	13CS-PHNA	12.589465	0.0104	104.1	9.37463	3.89	11	16			1.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
12	13CA-PHNA	12.429338	0.0120	89.4	9.15463	3.54	12	17			1.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
13	13CA-PHNA	12.560090	0.0100	100.0	2.32764	3.00	13	17			0.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
14	13CA-PHNA	12.500090	0.01175	100.0	1.80564	3.00	14	18			0.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
15	13CA-PHNA	12.500090	0.00504	100.0	0.96142	3.00	15	18			0.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
16	13CA-PHNA	12.500090	0.00432	100.0	1.02564	3.00	16	18			0.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
17	13CA-PHNA	12.500090	0.00286	100.0	7.06063	3.00	17	17			0.000	13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00				NO
18	Total PFBS	4.7536498	0.01127					17			13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00					NO
19	Total PFDA	6.143832		19				19			13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00					NO
20	Total PFDA	4.9304485		20				20			13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00					NO
21	Total PFDA	6.7590313	0.0064	21				21			13-Apr-17	16:32:30		ST170413G1	PPC CS2 T7D13	1.0	1.00					NO

Dataset: Untitled

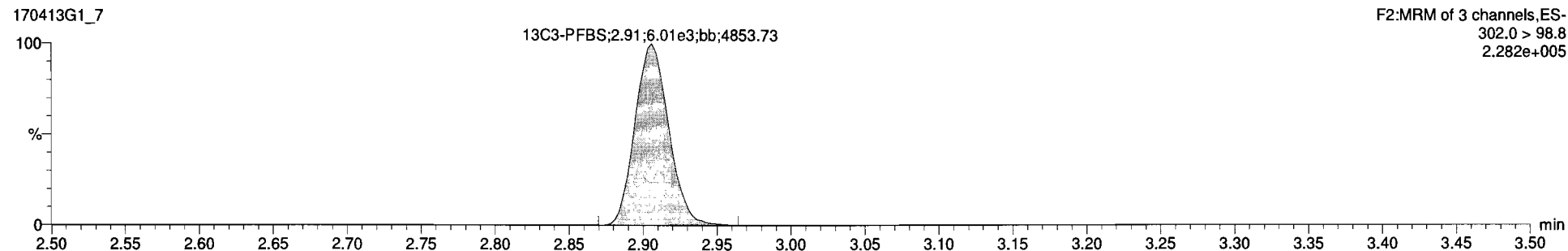
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-6 PFC CS3 17D1306, Description: PFC CS3 17D1306 A, Name: 170413G1_7, Date: 13-Apr-2017, Time: 10:45:07, Instrument: , Lab: , User:

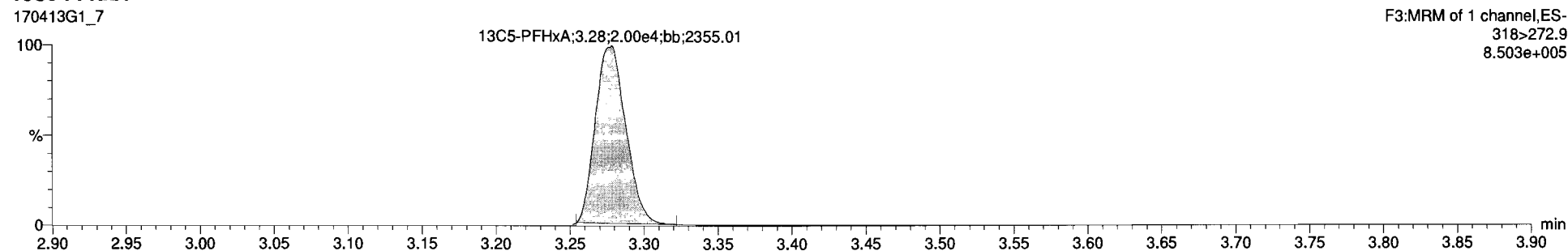
Total PFBS



13C3-PFBS



13C5-PFHxA



Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

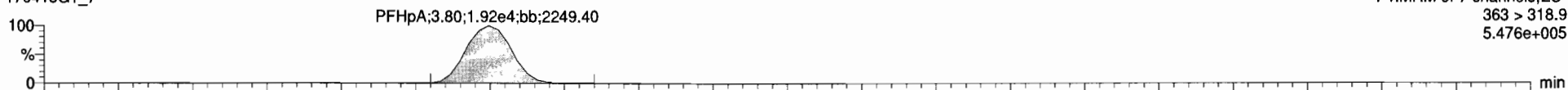
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-6 PFC CS3 17D1306, Description: PFC CS3 17D1306 A, Name: 170413G1_7, Date: 13-Apr-2017, Time: 10:45:07, Instrument: , Lab: , User:

PFHpA

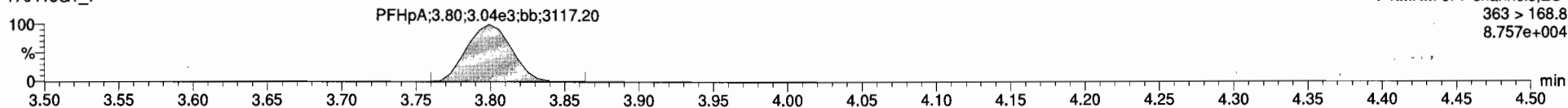
170413G1_7

F4:MRM of 7 channels,ES-
363 > 318.9
5.476e+005



170413G1_7

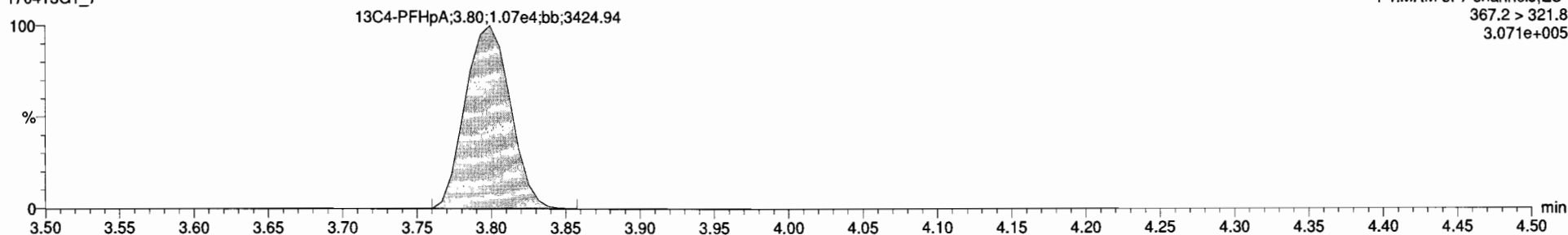
F4:MRM of 7 channels,ES-
363 > 168.8
8.757e+004



13C4-PFHpA

170413G1_7

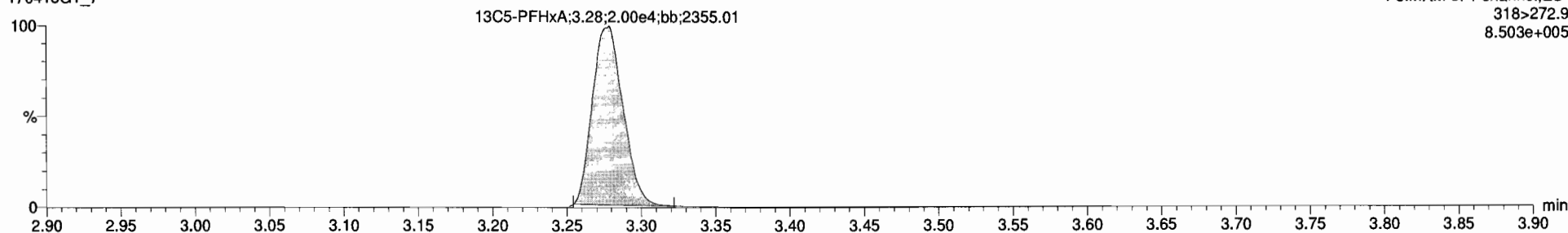
F4:MRM of 7 channels,ES-
367.2 > 321.8
3.071e+005

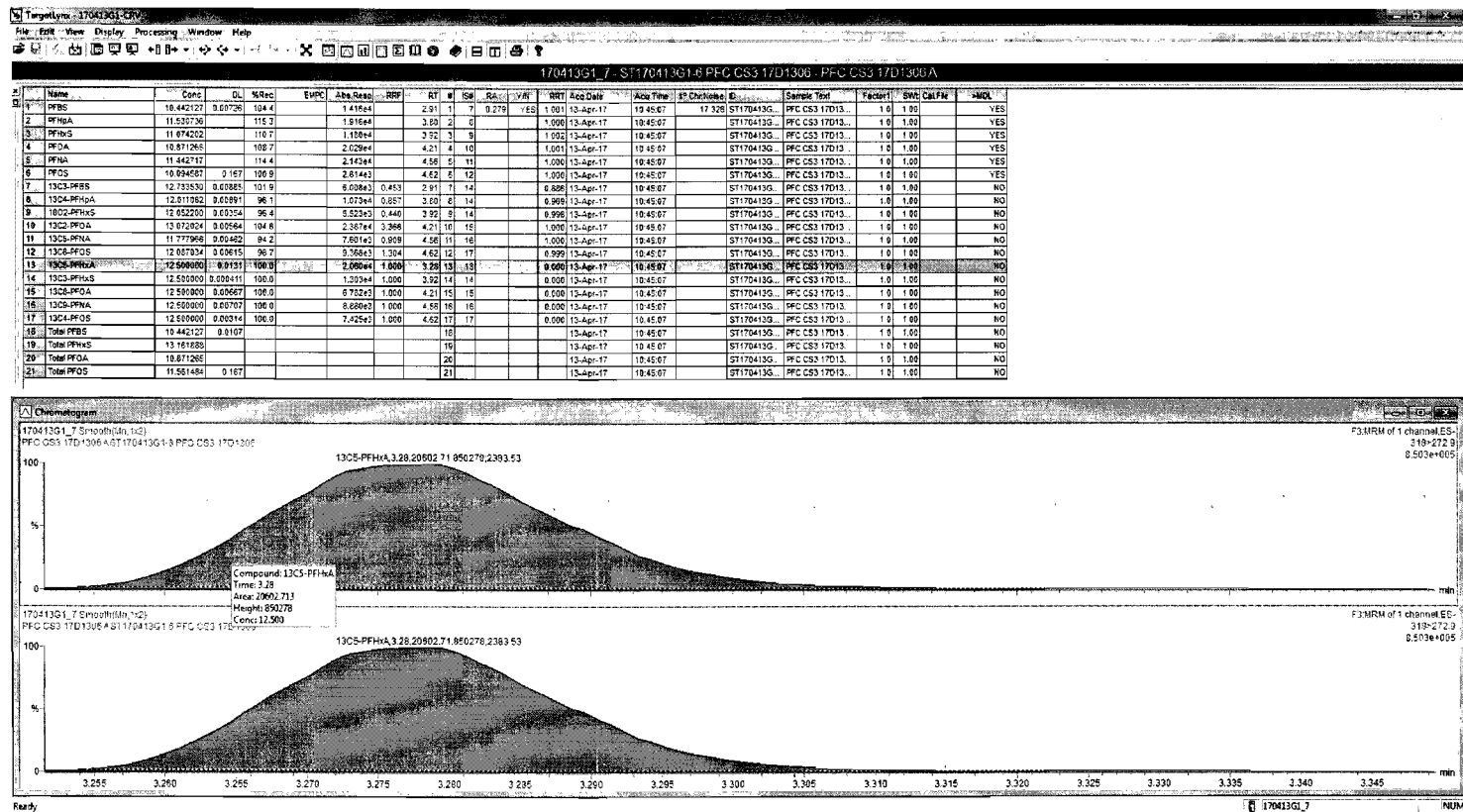


13C5-PFHxA

170413G1_7

F3:MRM of 1 channel,ES-
318>272.9
8.503e+005





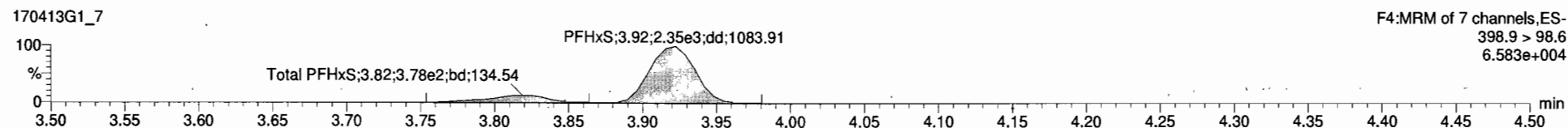
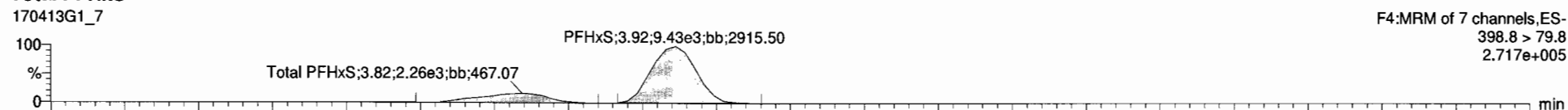
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

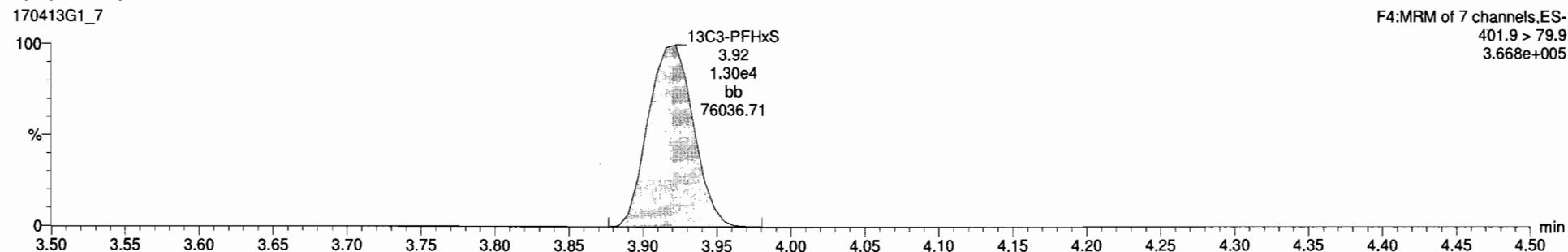
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-6 PFC CS3 17D1306, Description: PFC CS3 17D1306 A, Name: 170413G1_7, Date: 13-Apr-2017, Time: 10:45:07, Instrument: , Lab: , User:

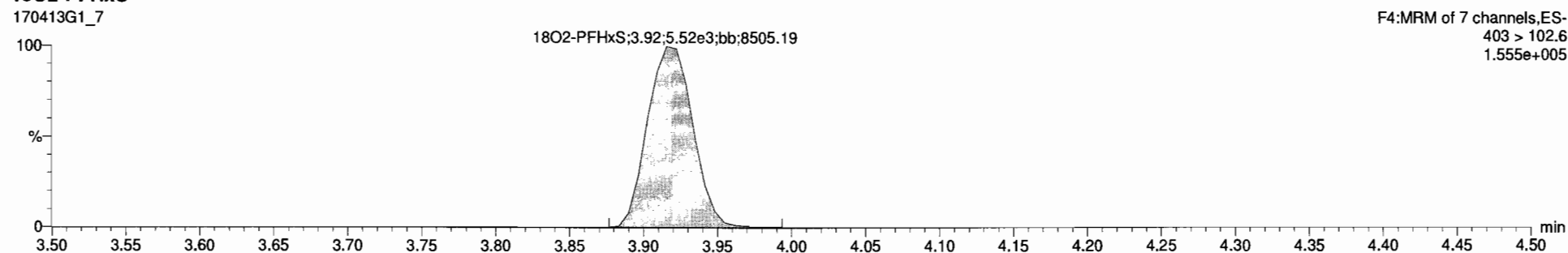
Total PFHxS

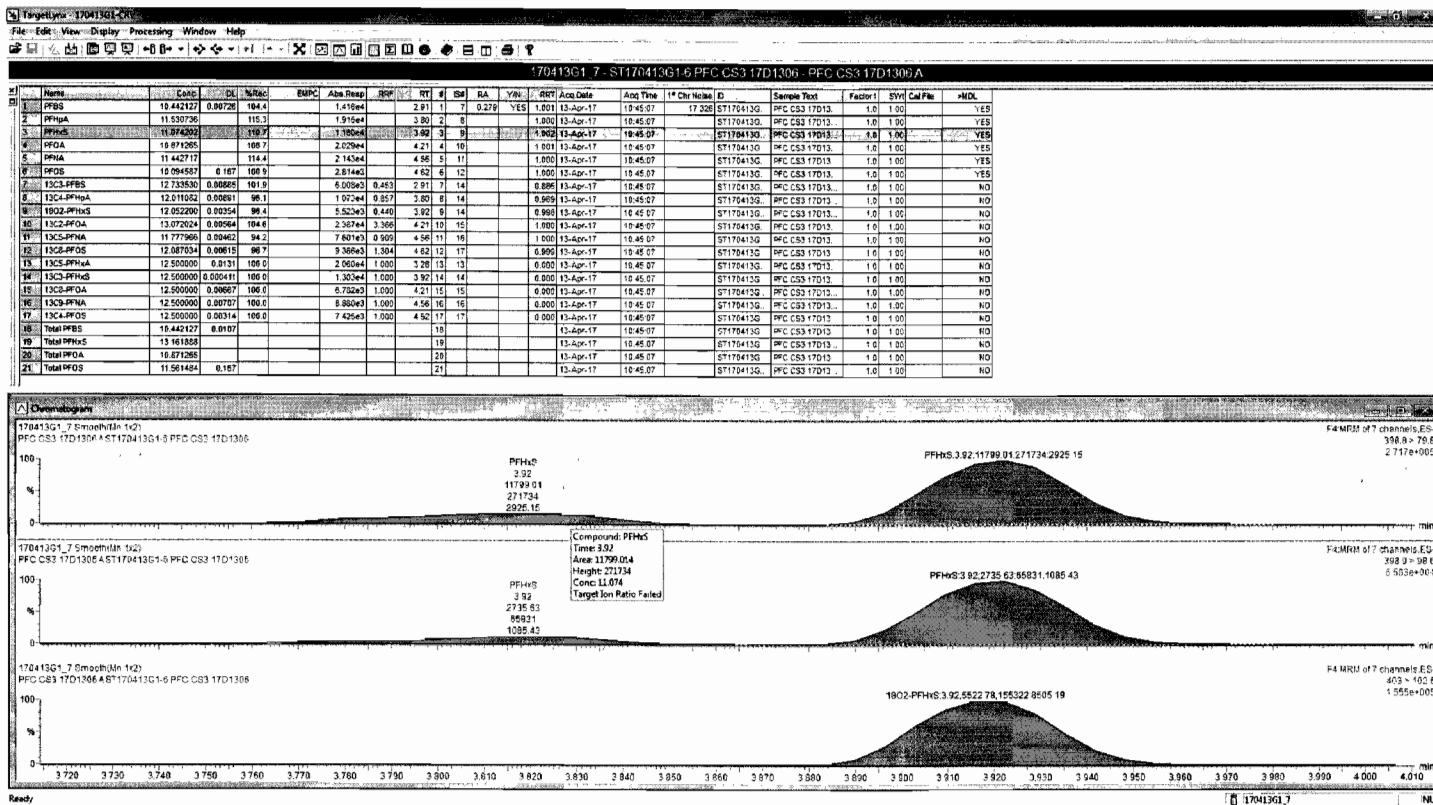


¹³C3-PFHxS



¹⁸O2-PFHxS





Dataset: Untitled

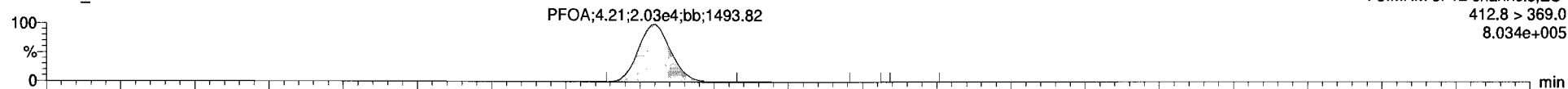
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-6 PFC CS3 17D1306, Description: PFC CS3 17D1306 A, Name: 170413G1_7, Date: 13-Apr-2017, Time: 10:45:07, Instrument: , Lab: , User:

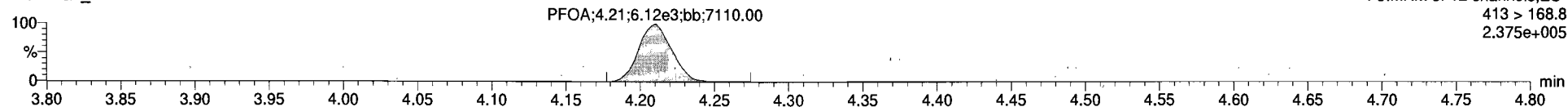
Total PFOA

170413G1_7



F5:MRM of 12 channels,ES-
412.8 > 369.0
8.034e+005

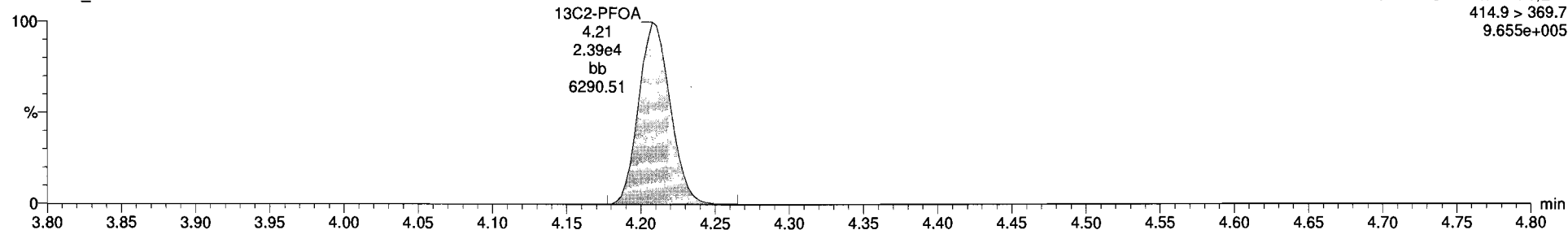
170413G1_7



F5:MRM of 12 channels,ES-
413 > 168.8
2.375e+005

13C2-PFOA

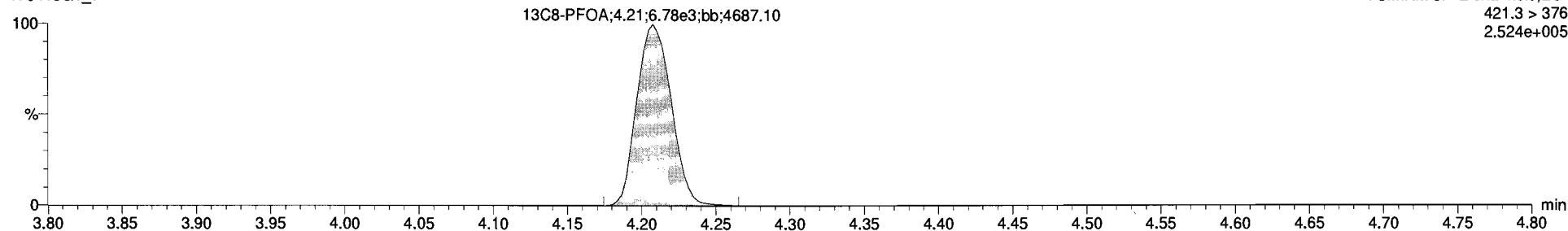
170413G1_7



F5:MRM of 12 channels,ES-
414.9 > 369.7
9.655e+005

13C8-PFOA

170413G1_7



F5:MRM of 12 channels,ES-
421.3 > 376
2.524e+005

Dataset: Untitled

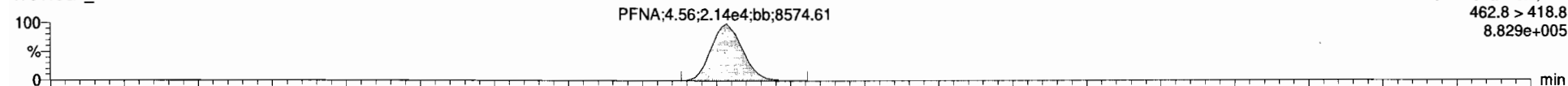
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

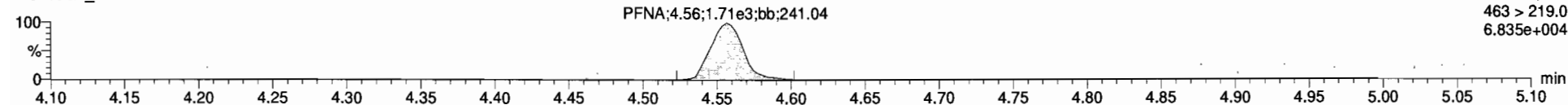
ID: ST170413G1-6 PFC CS3 17D1306, Description: PFC CS3 17D1306 A, Name: 170413G1_7, Date: 13-Apr-2017, Time: 10:45:07, Instrument: , Lab: , User:

PFNA

170413G1_7

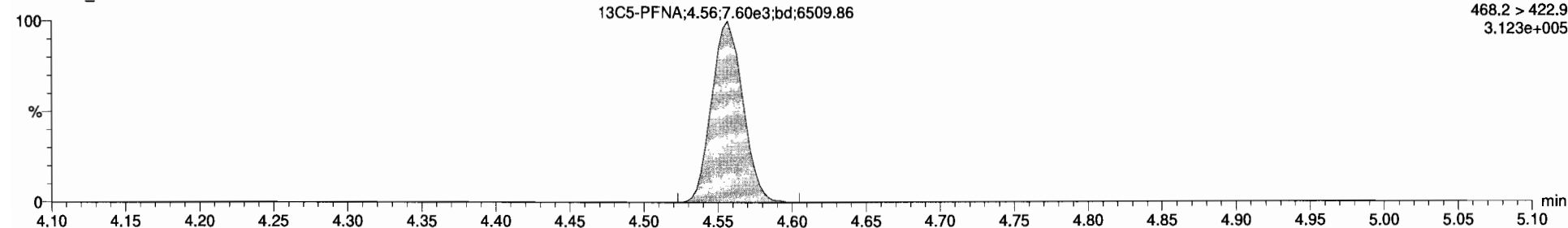


170413G1_7



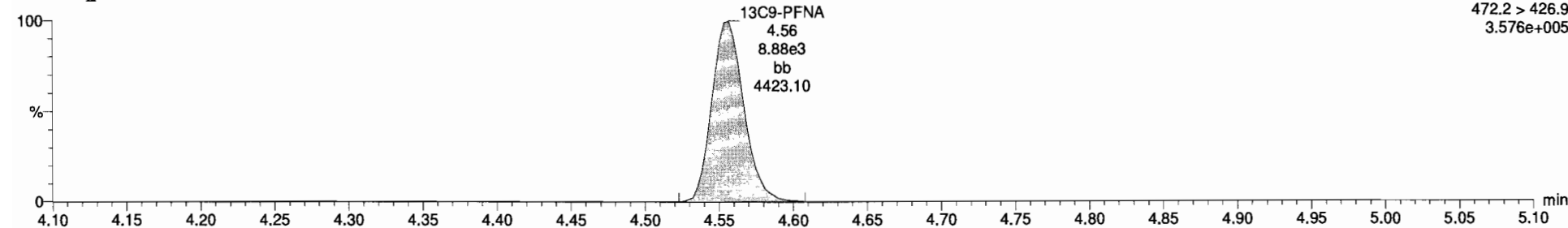
13C5-PFNA

170413G1_7



13C9-PFNA

170413G1_7



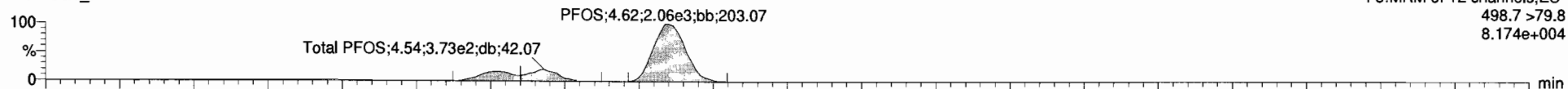
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

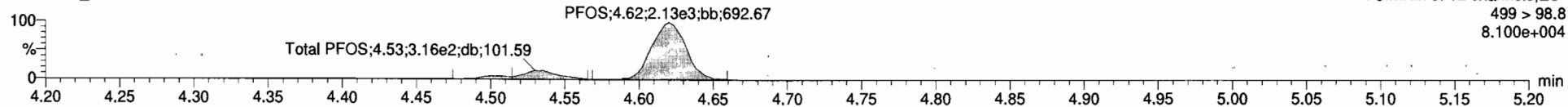
ID: ST170413G1-6 PFC CS3 17D1306, Description: PFC CS3 17D1306 A, Name: 170413G1_7, Date: 13-Apr-2017, Time: 10:45:07, Instrument: , Lab: , User:

Total PFOS

170413G1_7

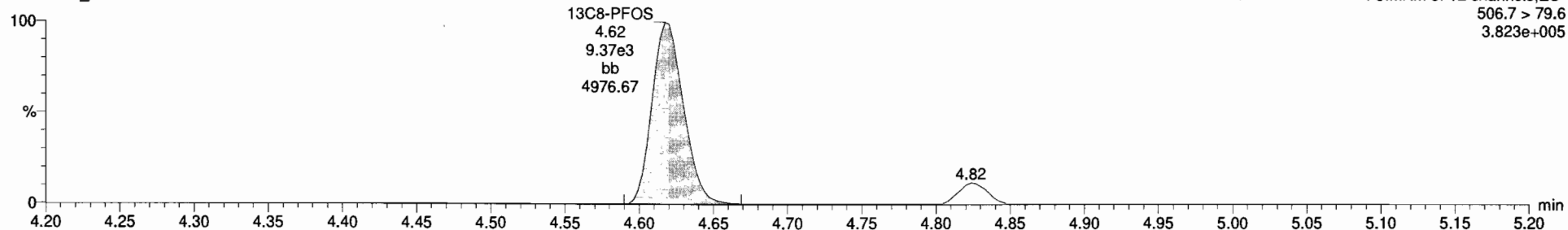


170413G1_7



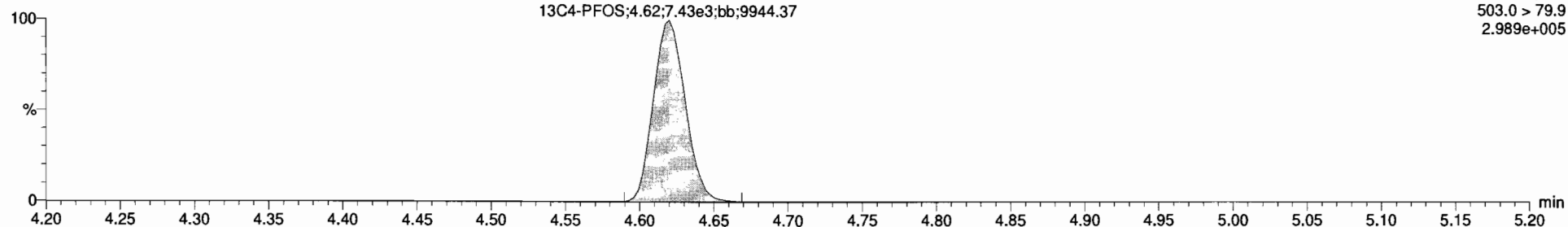
13C8-PFOS

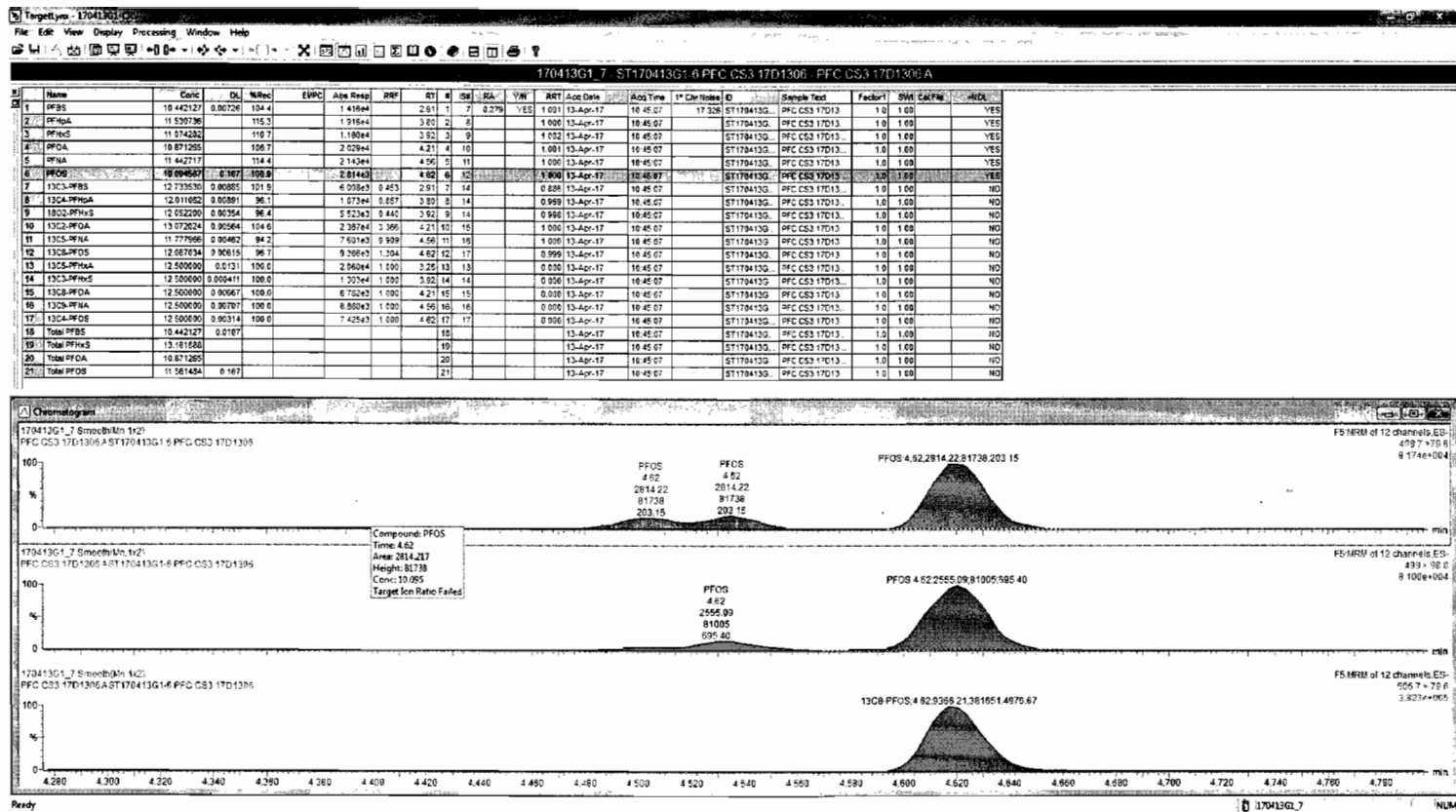
170413G1_7



13C4-PFOS

170413G1_7





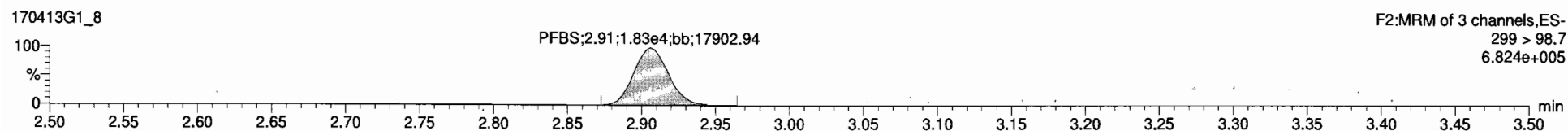
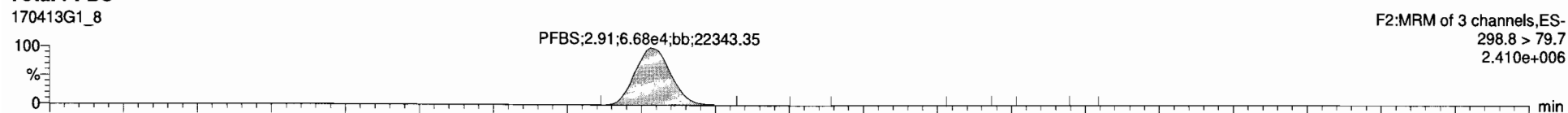
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

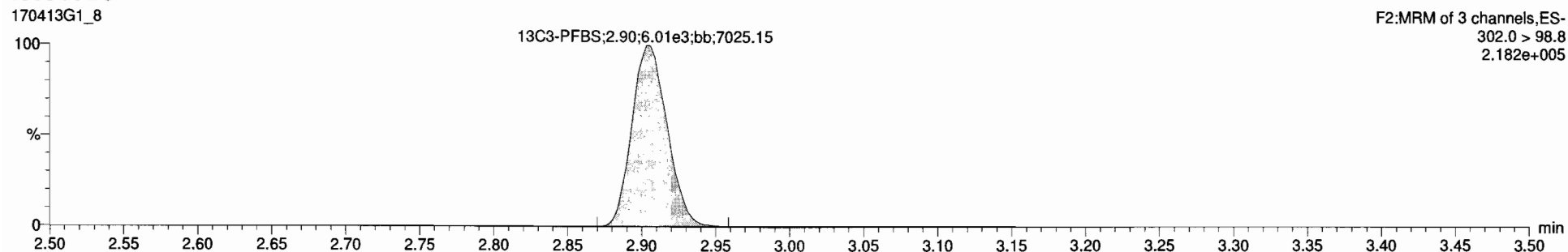
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-7 PFC CS4 17D1307, Description: PFC CS4 17D1307 A, Name: 170413G1_8, Date: 13-Apr-2017, Time: 10:57:43, Instrument: , Lab: , User:

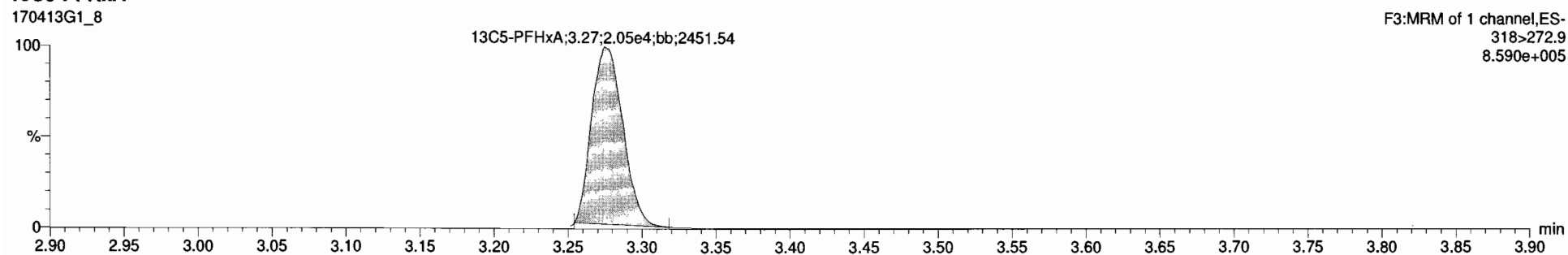
Total PFBS



13C3-PFBS



13C5-PFHxA



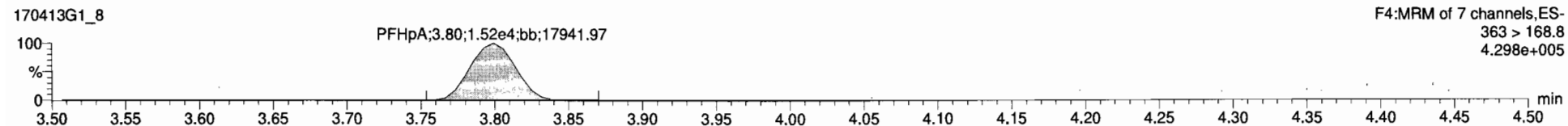
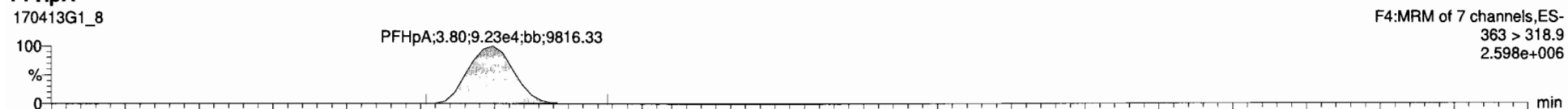
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

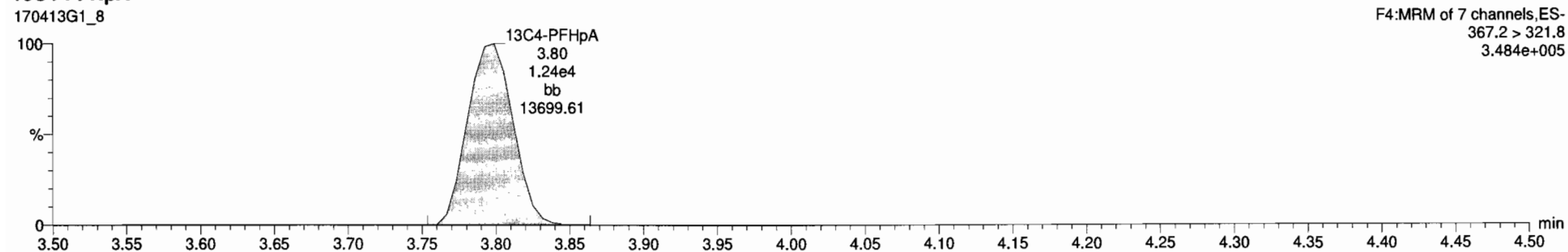
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-7 PFC CS4 17D1307, Description: PFC CS4 17D1307 A, Name: 170413G1_8, Date: 13-Apr-2017, Time: 10:57:43, Instrument: , Lab: , User:

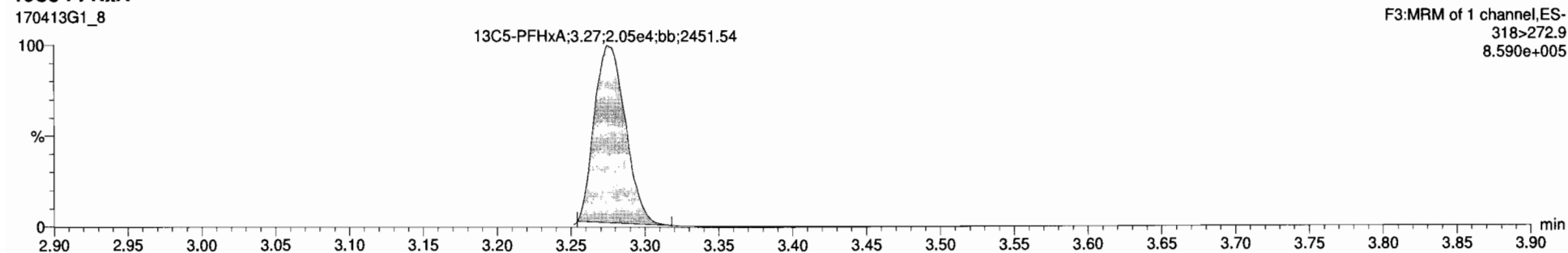
PFHpA

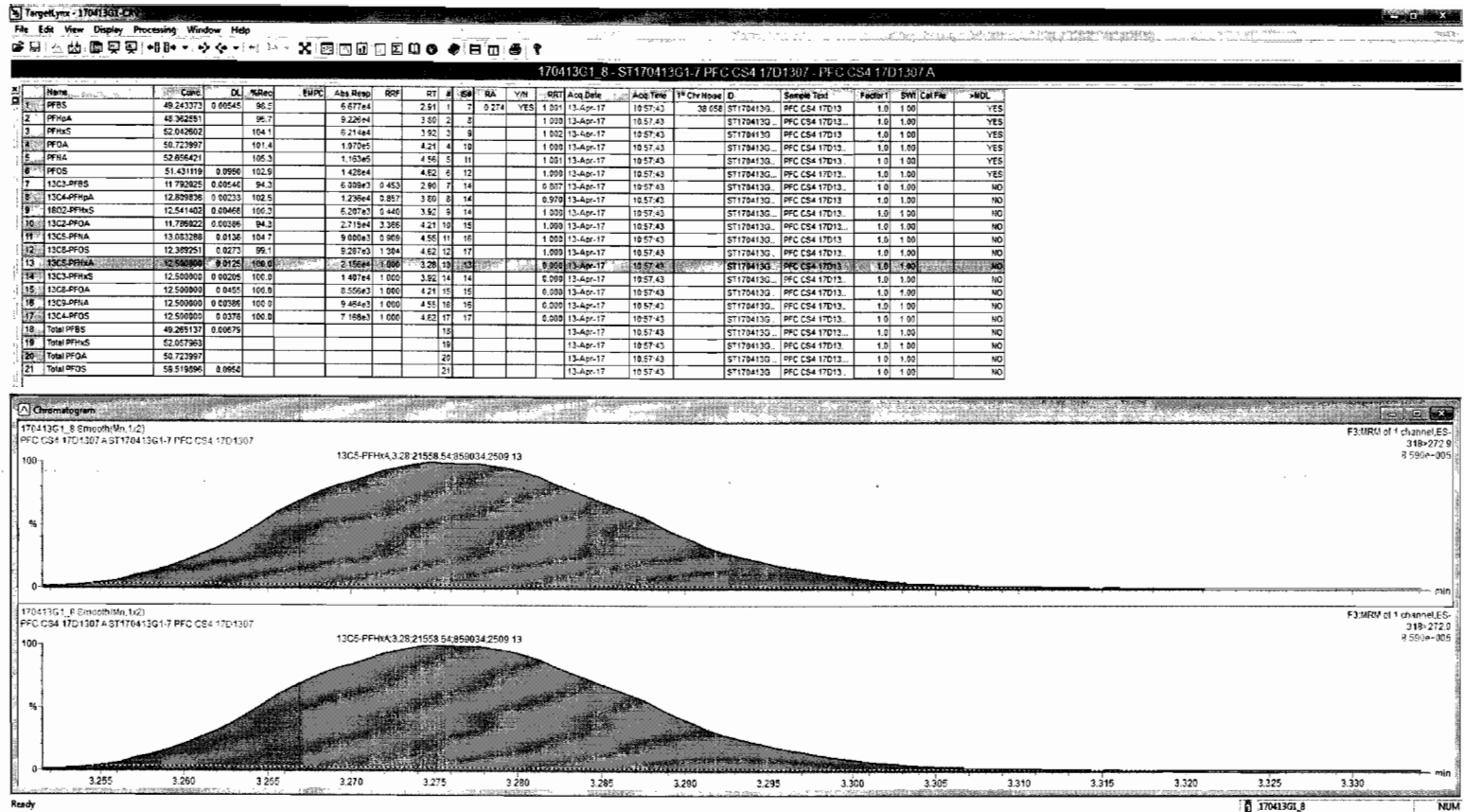


13C4-PFHpA



13C5-PFHxA





Dataset: Untitled

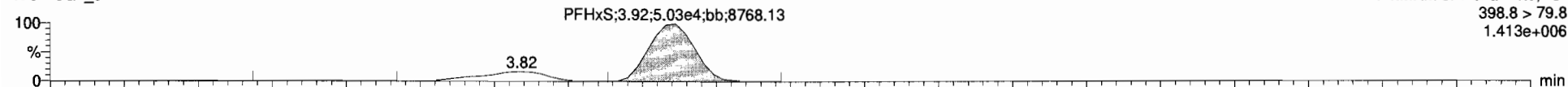
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

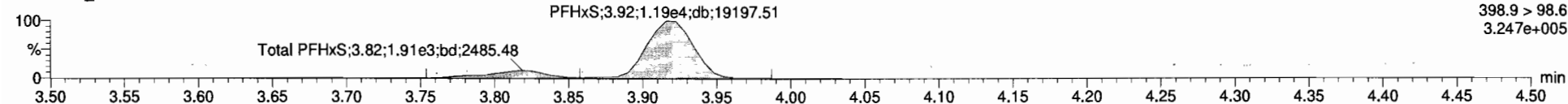
ID: ST170413G1-7 PFC CS4 17D1307, Description: PFC CS4 17D1307 A, Name: 170413G1_8, Date: 13-Apr-2017, Time: 10:57:43, Instrument: , Lab: , User:

Total PFHxS

170413G1_8

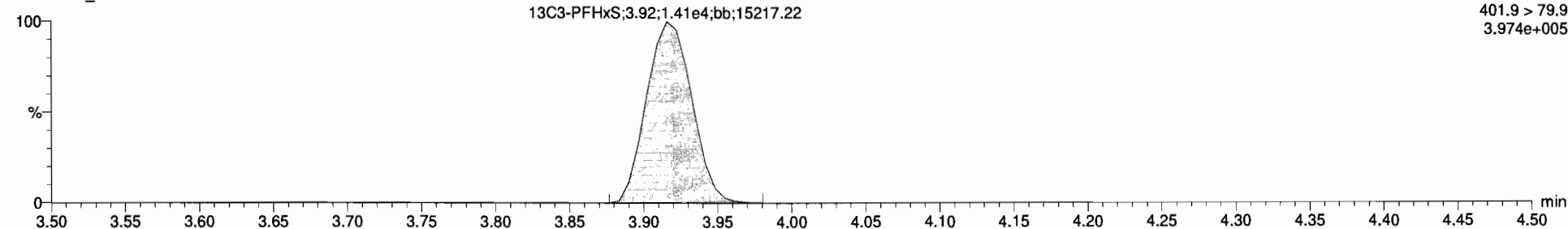


170413G1_8



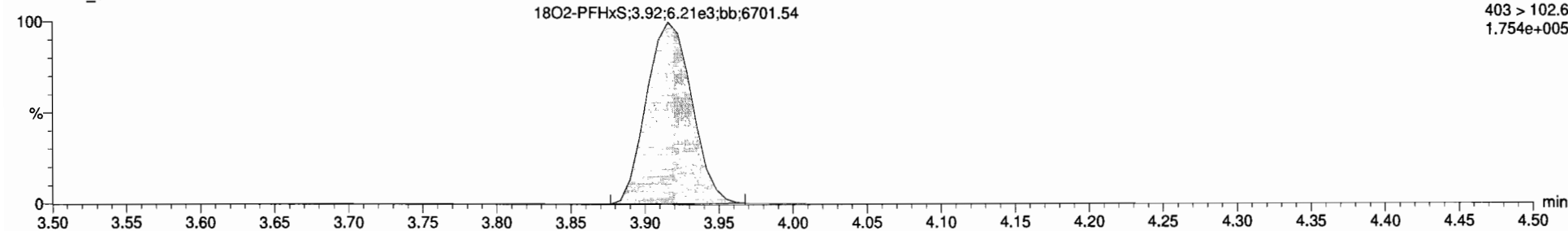
13C3-PFHxS

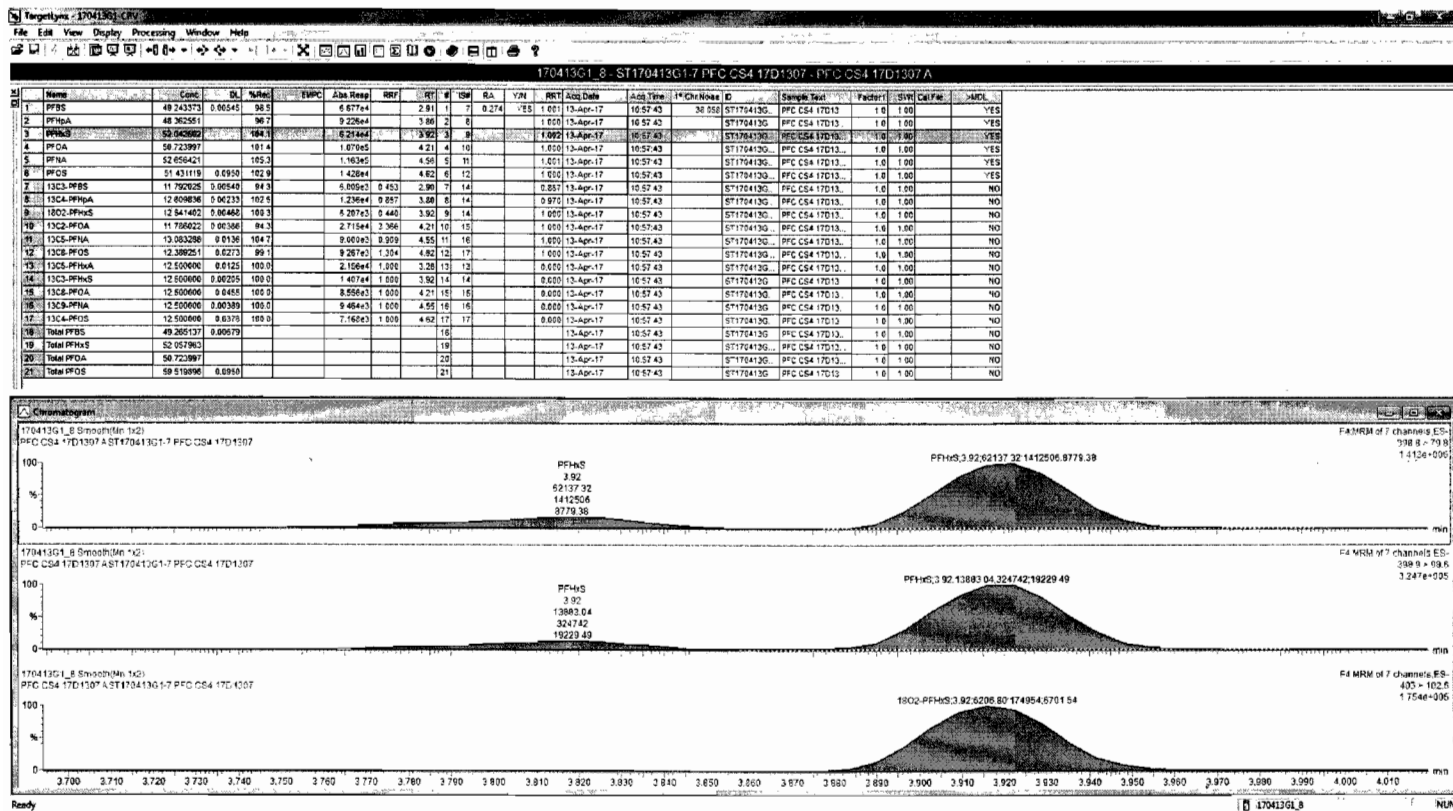
170413G1_8



18O2-PFHxS

170413G1_8





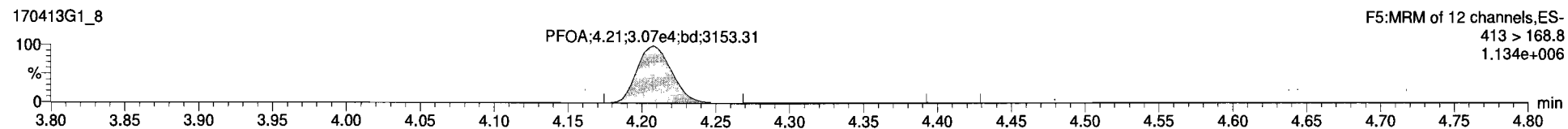
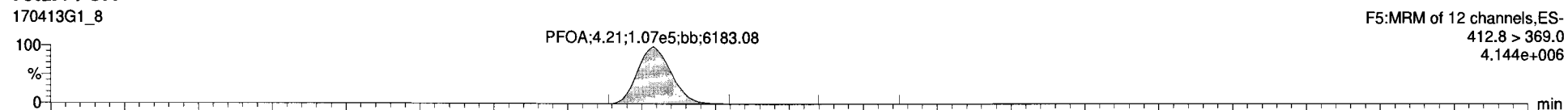
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

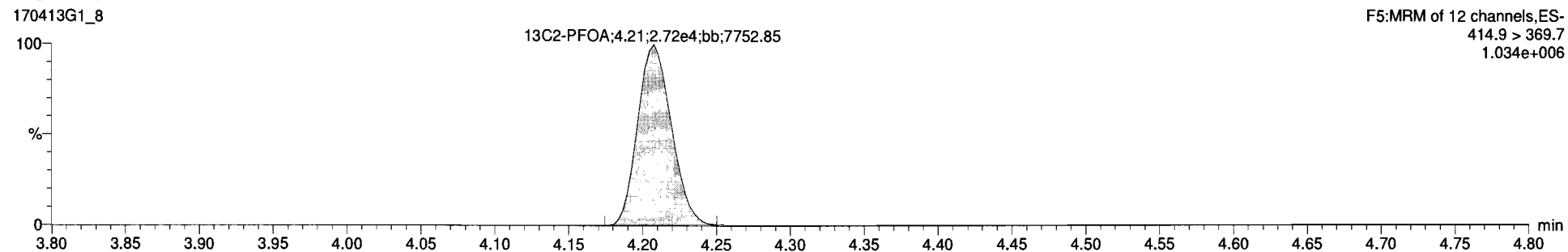
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-7 PFC CS4 17D1307, Description: PFC CS4 17D1307 A, Name: 170413G1_8, Date: 13-Apr-2017, Time: 10:57:43, Instrument: , Lab: , User:

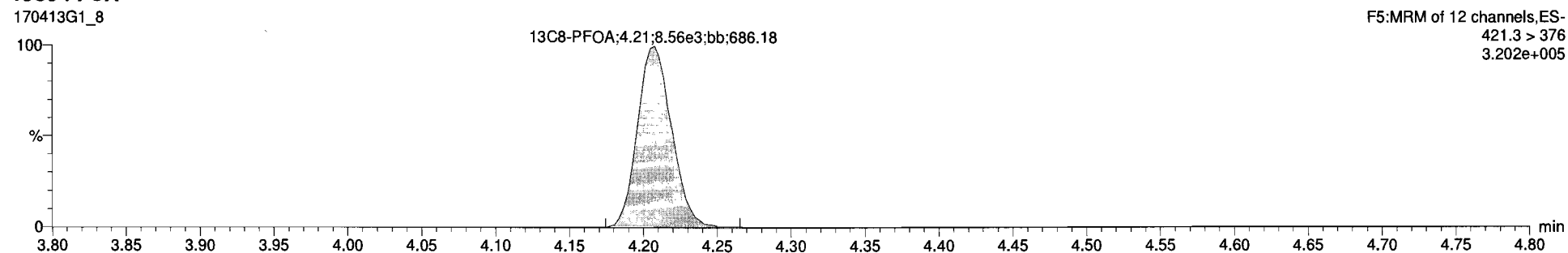
Total PFOA



13C2-PFOA



13C8-PFOA



Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

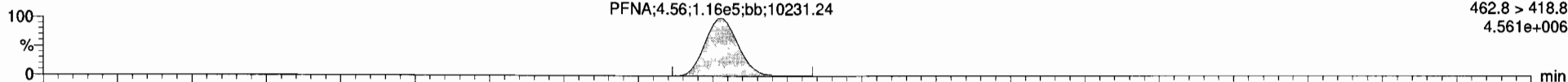
ID: ST170413G1-7 PFC CS4 17D1307, Description: PFC CS4 17D1307 A, Name: 170413G1_8, Date: 13-Apr-2017, Time: 10:57:43, Instrument: , Lab: , User:

PFNA

170413G1_8

PFNA;4.56;1.16e5;bb;10231.24

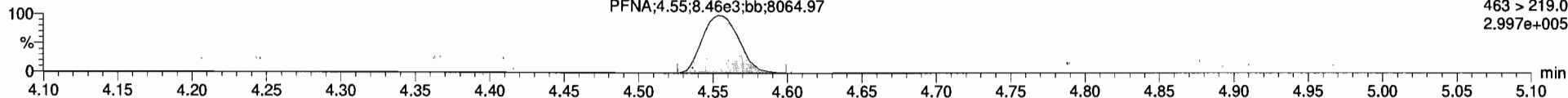
F5:MRM of 12 channels,ES-
462.8 > 418.8
4.561e+006



170413G1_8

PFNA;4.55;8.46e3;bb;8064.97

F5:MRM of 12 channels,ES-
463 > 219.0
2.997e+005

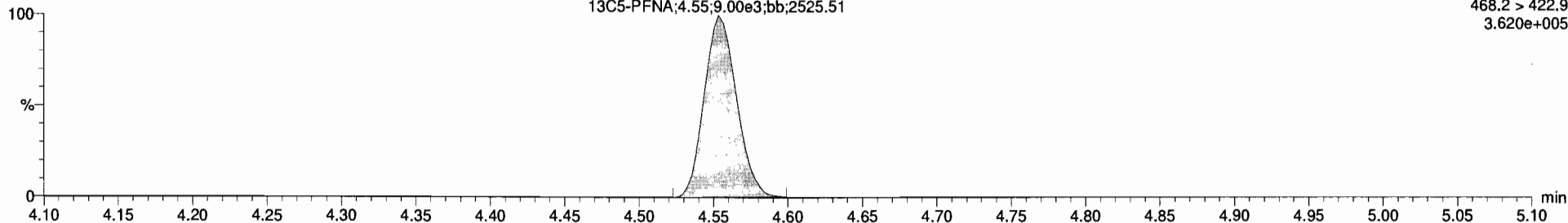


13C5-PFNA

170413G1_8

13C5-PFNA;4.55;9.00e3;bb;2525.51

F5:MRM of 12 channels,ES-
468.2 > 422.9
3.620e+005

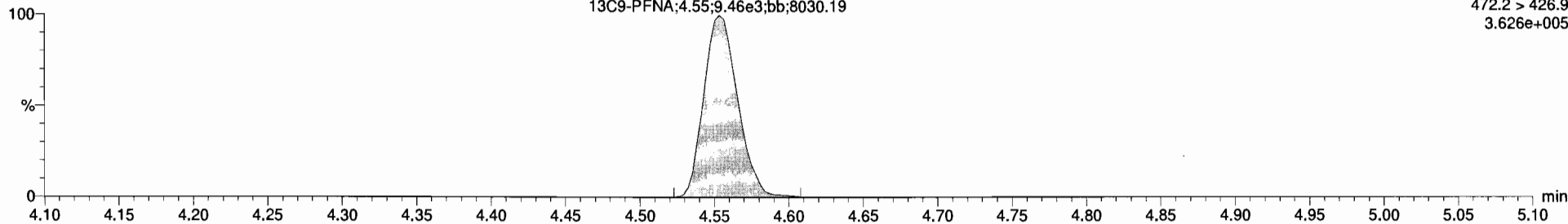


13C9-PFNA

170413G1_8

13C9-PFNA;4.55;9.46e3;bb;8030.19

F5:MRM of 12 channels,ES-
472.2 > 426.9
3.626e+005



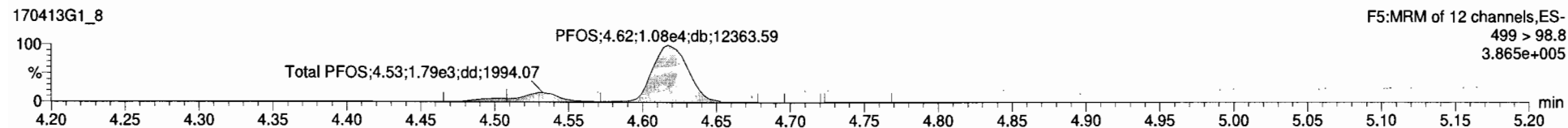
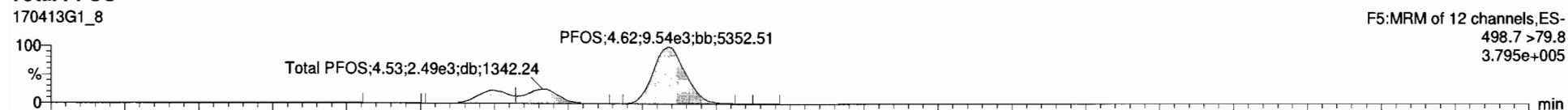
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

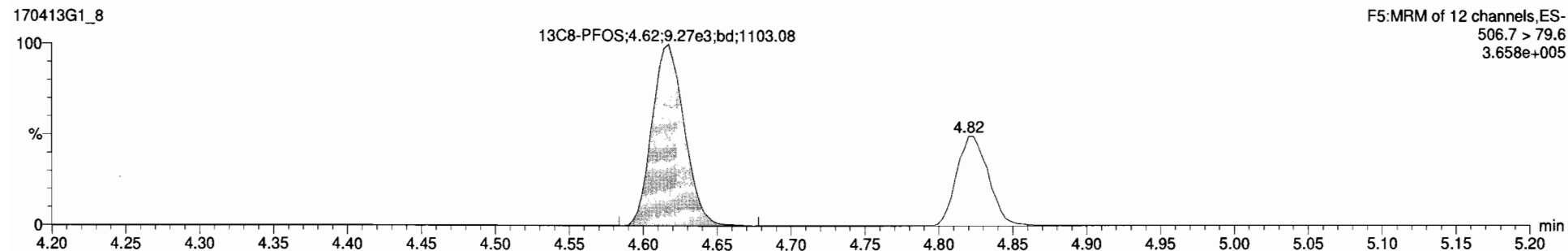
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-7 PFC CS4 17D1307, Description: PFC CS4 17D1307 A, Name: 170413G1_8, Date: 13-Apr-2017, Time: 10:57:43, Instrument: , Lab: , User:

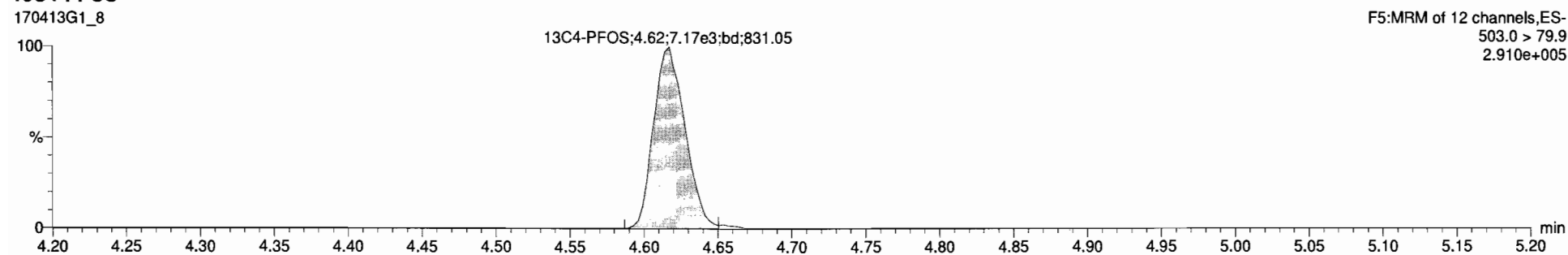
Total PFOS



13C8-PFOS



13C4-PFOS



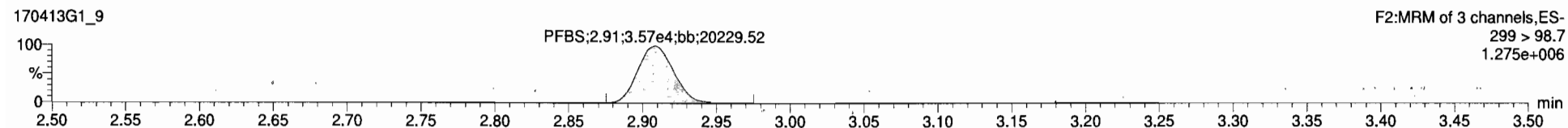
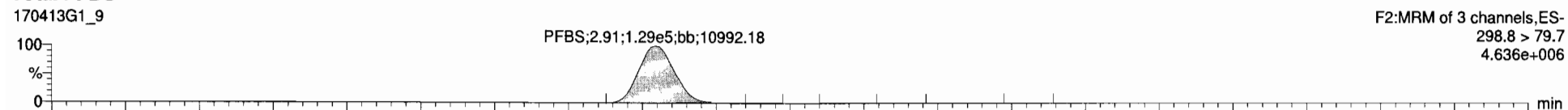
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

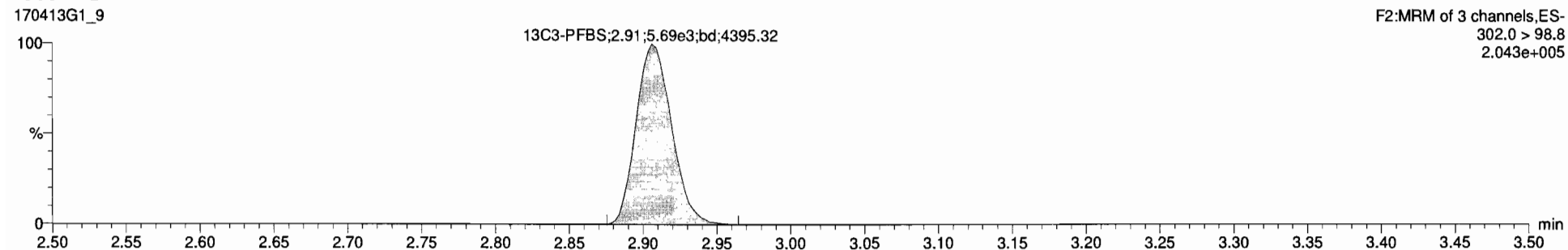
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-8 PFC CS5 17D1308, Description: PFC CS5 17D1308 A, Name: 170413G1_9, Date: 13-Apr-2017, Time: 11:10:56, Instrument: , Lab: , User:

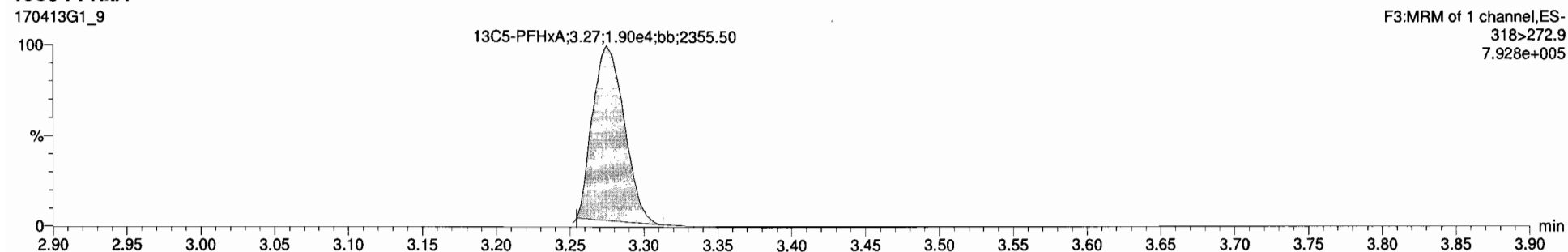
Total PFBS

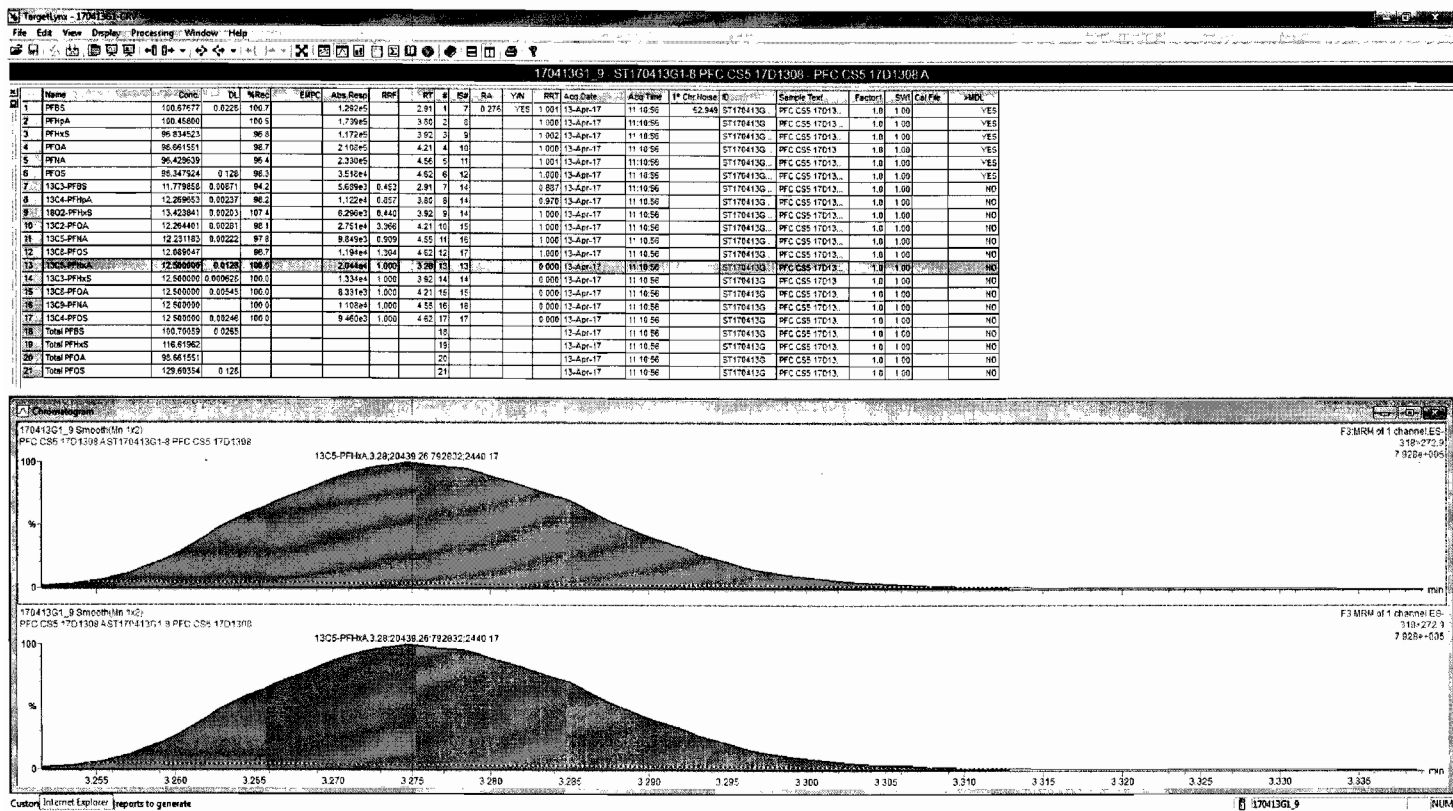


13C3-PFBS



13C5-PFHxA





Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

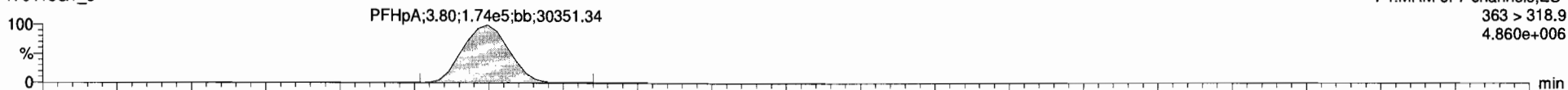
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-8 PFC CS5 17D1308, Description: PFC CS5 17D1308 A, Name: 170413G1_9, Date: 13-Apr-2017, Time: 11:10:56, Instrument: , Lab: , User:

PFHpA

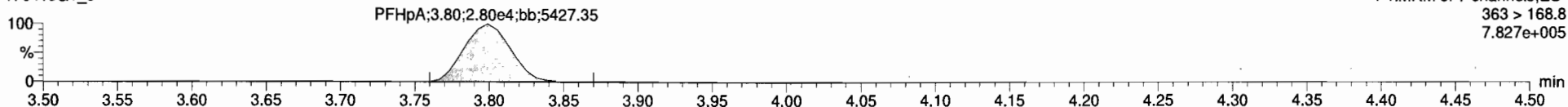
170413G1_9

F4:MRM of 7 channels,ES-
363 > 318.9
4.860e+006



170413G1_9

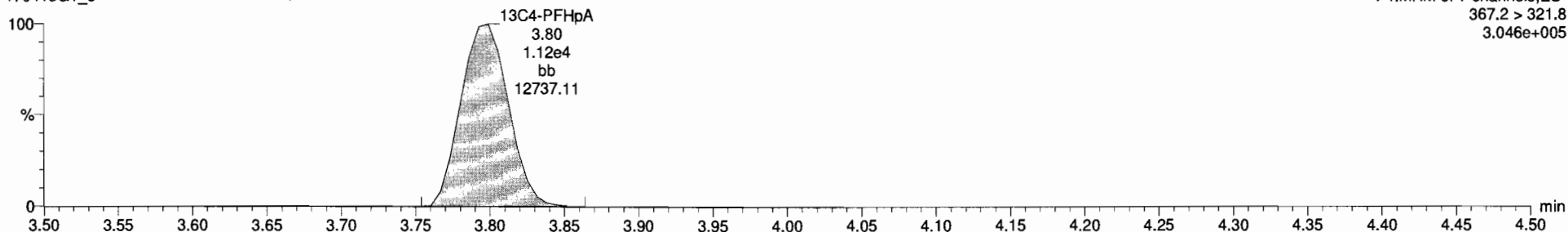
F4:MRM of 7 channels,ES-
363 > 168.8
7.827e+005



13C4-PFHpA

170413G1_9

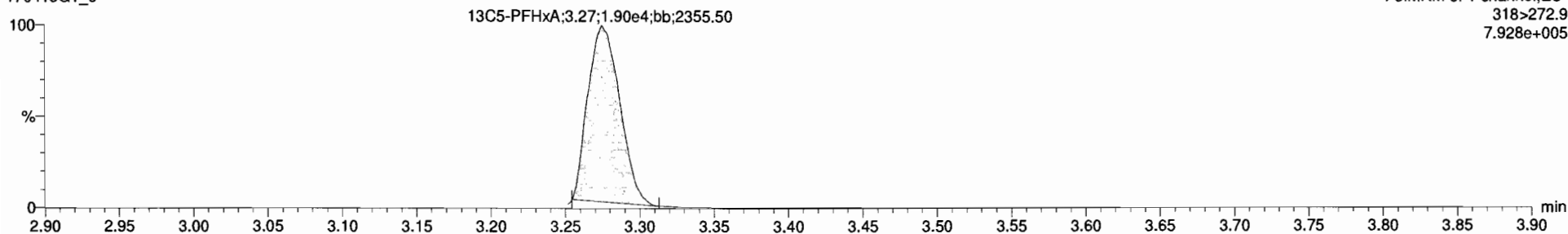
F4:MRM of 7 channels,ES-
367.2 > 321.8
3.046e+005



13C5-PFHxA

170413G1_9

F3:MRM of 1 channel,ES-
318>272.9
7.928e+005



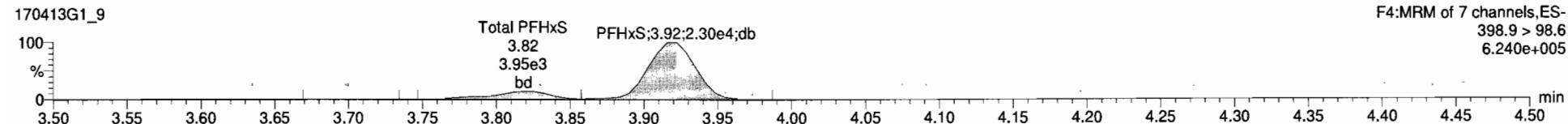
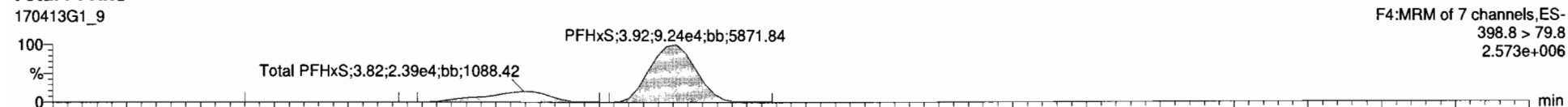
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

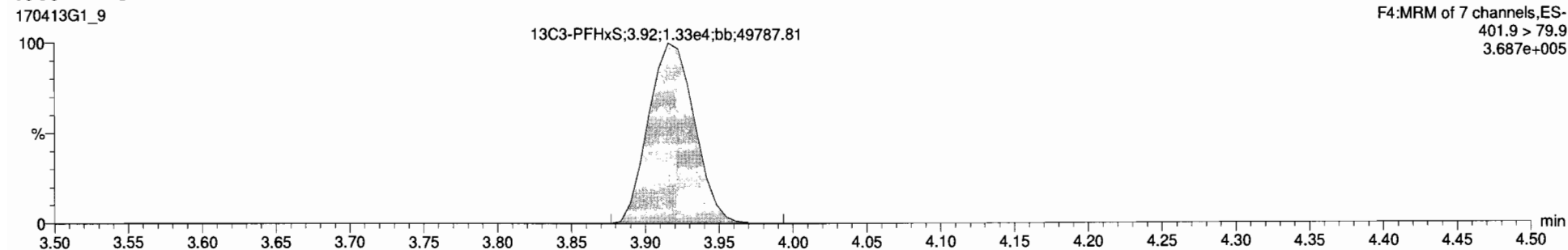
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-8 PFC CS5 17D1308, Description: PFC CS5 17D1308 A, Name: 170413G1_9, Date: 13-Apr-2017, Time: 11:10:56, Instrument: , Lab: , User:

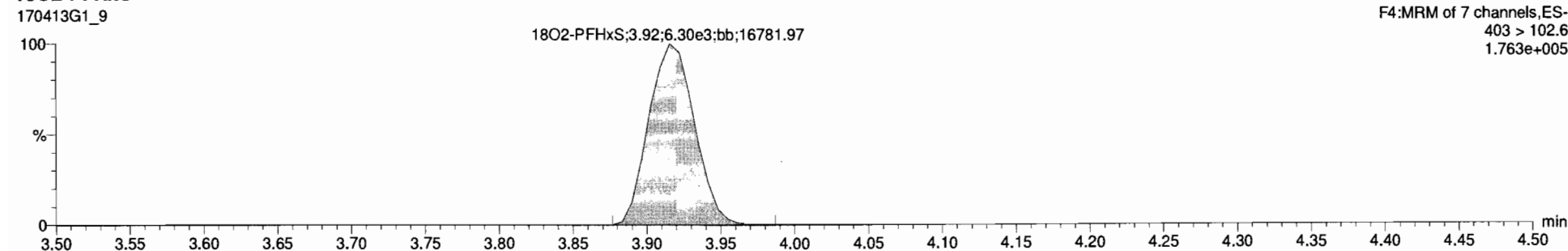
Total PFHxS

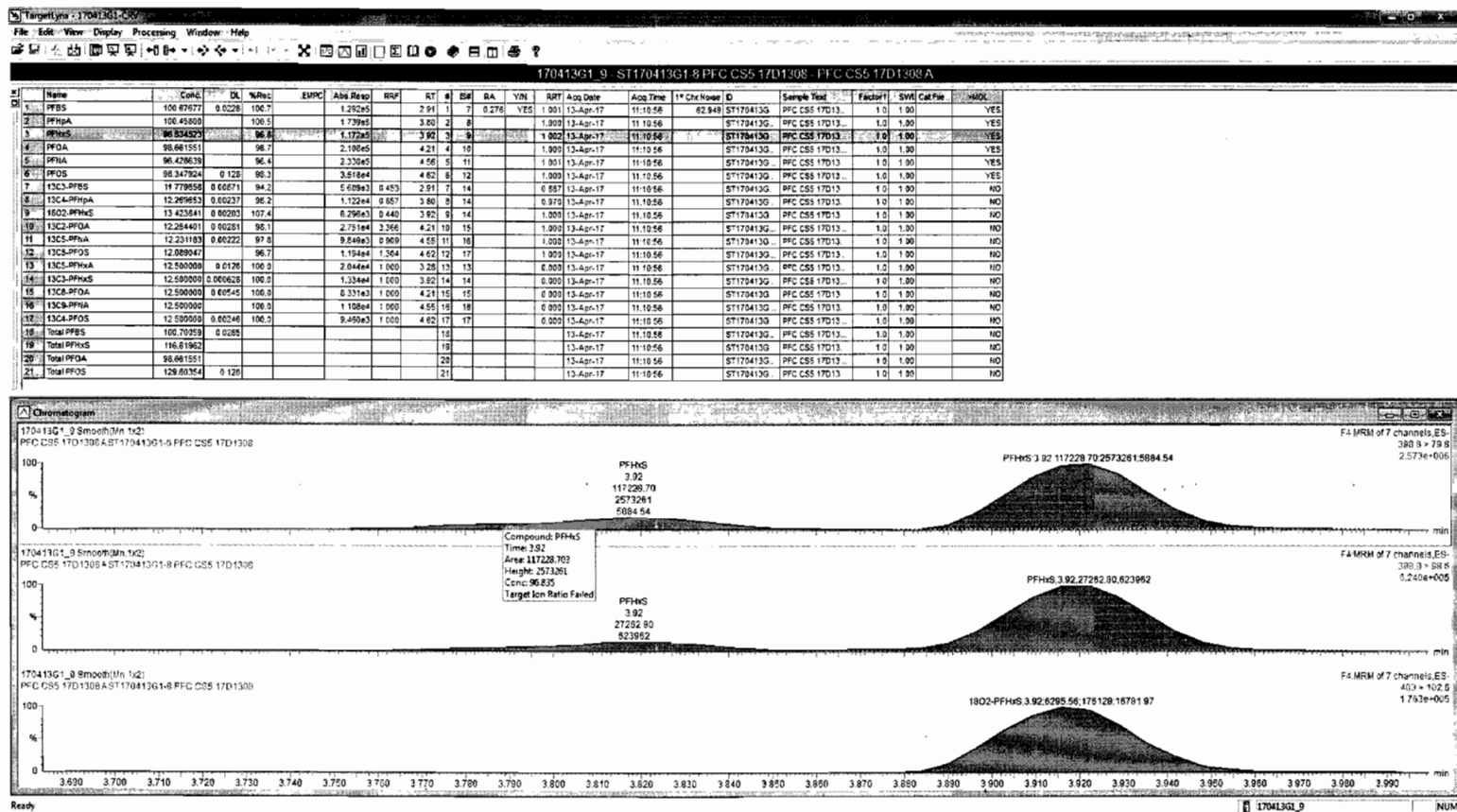


13C3-PFHxS



18O2-PFHxS





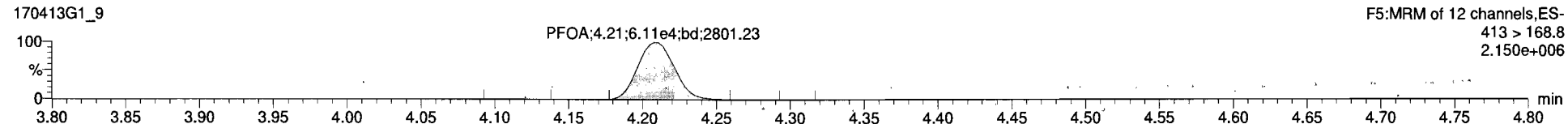
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

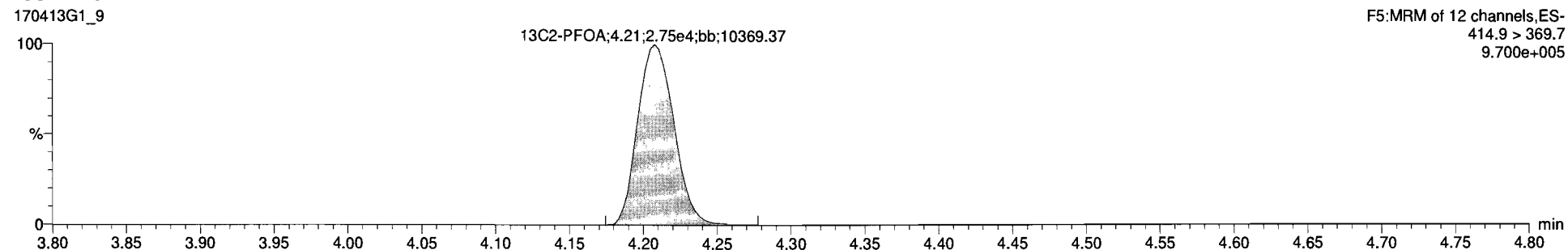
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-8 PFC CS5 17D1308, Description: PFC CS5 17D1308 A, Name: 170413G1_9, Date: 13-Apr-2017, Time: 11:10:56, Instrument: , Lab: , User:

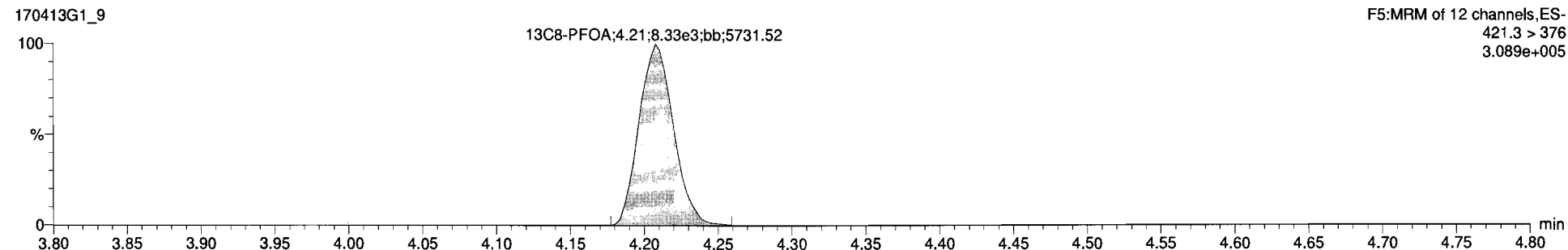
Total PFOA



13C2-PFOA



13C8-PFOA

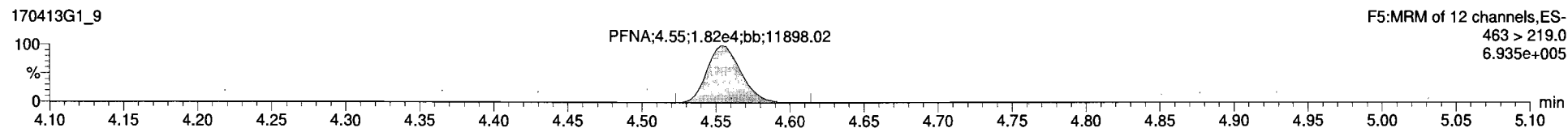
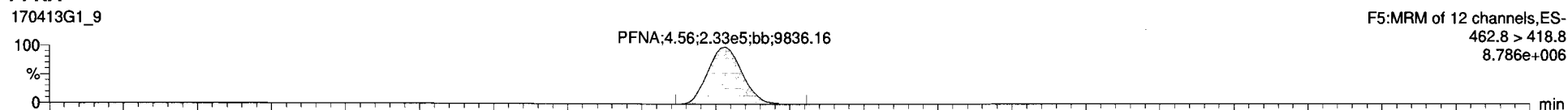


Dataset: Untitled

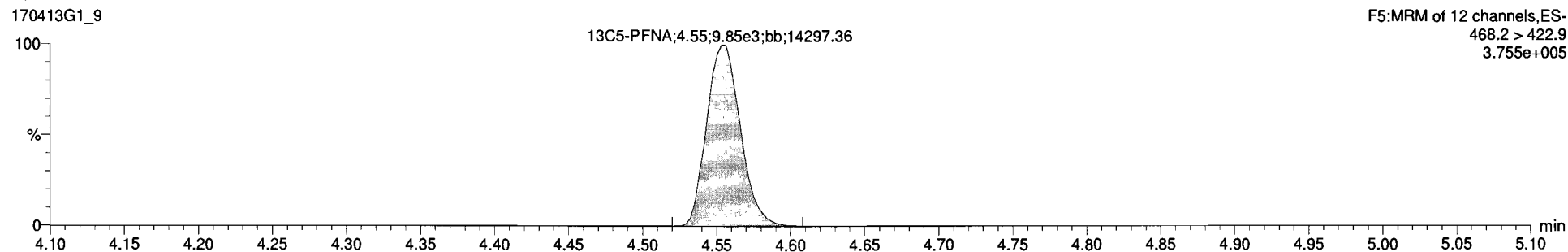
Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-8 PFC CS5 17D1308, Description: PFC CS5 17D1308 A, Name: 170413G1_9, Date: 13-Apr-2017, Time: 11:10:56, Instrument: , Lab: , User:

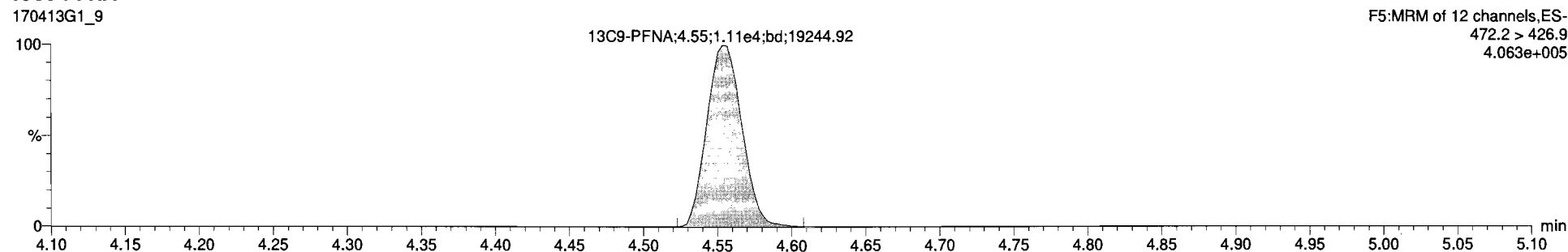
PFNA



13C5-PFNA



13C9-PFNA



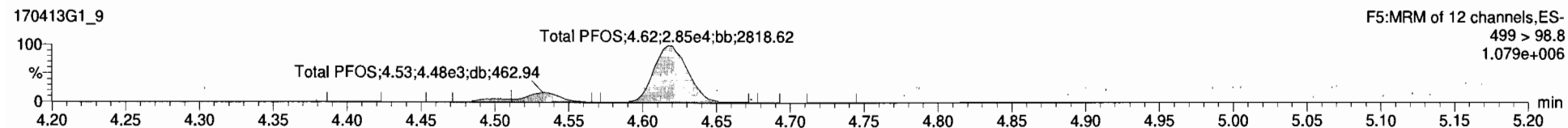
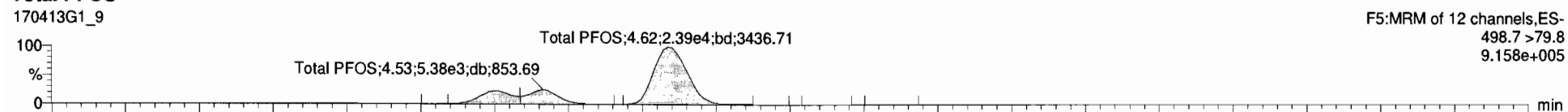
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 12:09:13 Pacific Daylight Time

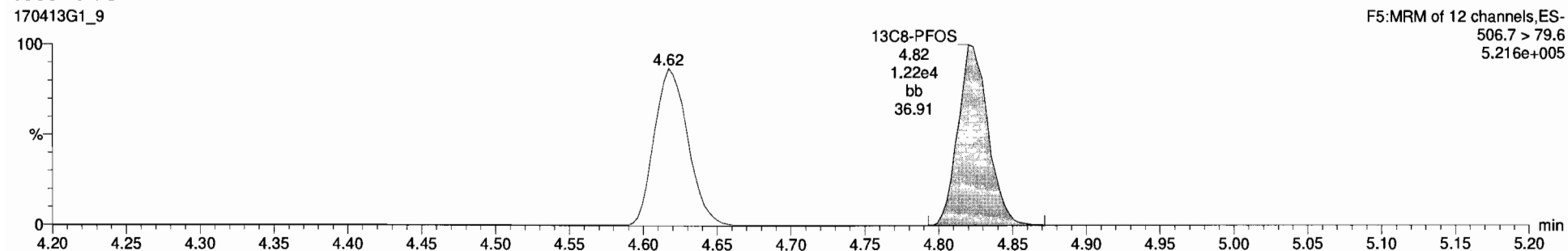
Printed: Thursday, April 13, 2017 12:09:41 Pacific Daylight Time

ID: ST170413G1-8 PFC CS5 17D1308, Description: PFC CS5 17D1308 A, Name: 170413G1_9, Date: 13-Apr-2017, Time: 11:10:56, Instrument: , Lab: , User:

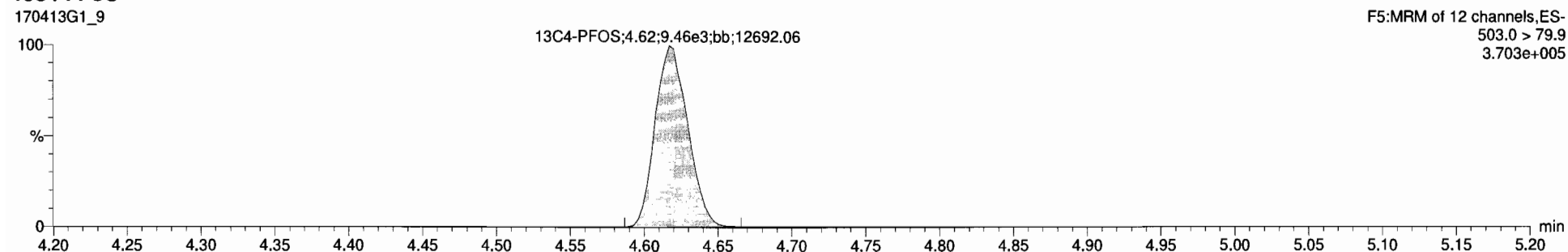
Total PFOS

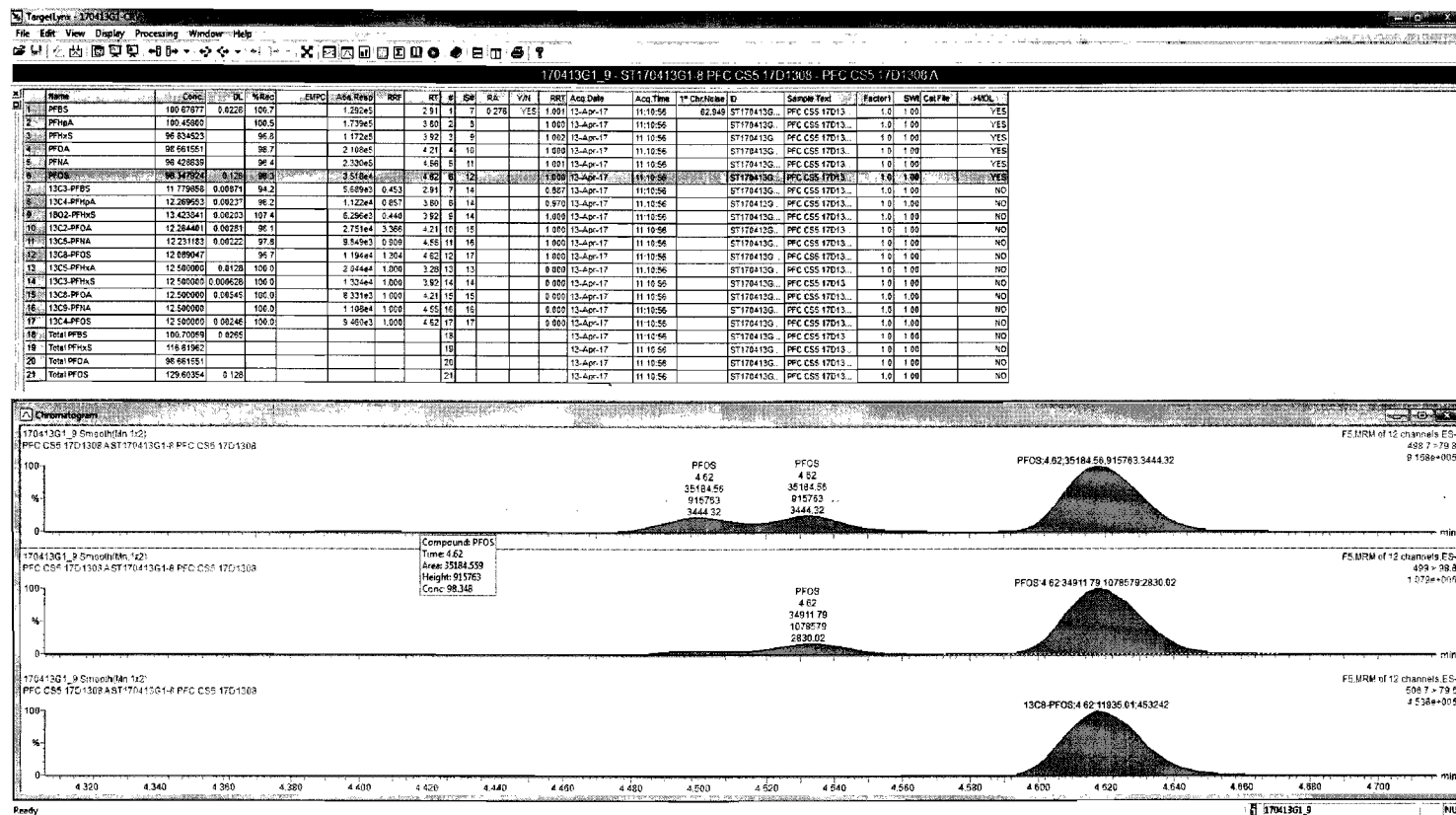


13C8-PFOS



13C4-PFOS





Dataset: U:\G1.PRO\Results\2017\170413G1\170413G1-11.qld

Last Altered: Thursday, April 13, 2017 13:22:10 Pacific Daylight Time

Printed: Thursday, April 13, 2017 13:23:02 Pacific Daylight Time

Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 08:50:47

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_Old.cdb 13 Apr 2017 12:34:50

New 4/13/17

Name: 170413G1_11, Date: 13-Apr-2017, Time: 11:36:16, ID: SS170413G1-1 PFC SSS 17D1309, Description: PFC SSS 17D1309 A

	# Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS ④	298.8 > 79.7	1.18e4	6.78e3		1.000	2.91	7.68	76.8
2	2 PFHpA	363 > 318.9	1.87e4	1.31e4		1.000	3.80	9.20	92.0
3	3 PFHxS ④	398.8 > 79.8	1.02e4	6.65e3		1.000	3.92	7.95	79.5
4	4 PFOA	412.8 > 369.0	1.99e4	2.81e4		1.000	4.21	9.03	90.3
5	5 PFNA	462.8 > 418.8	1.99e4	8.95e3		1.000	4.56	8.99	89.9
6	6 PFOS ④	498.7 > 79.8	2.29e3	9.11e3		1.000	4.62	8.47	84.7
7	7 13C3-PFBS	302.0 > 98.8	6.78e3	1.49e4	0.453	1.000	2.91	12.6	100.7
8	8 13C4-PFHxA	367.2 > 321.8	1.31e4	1.49e4	0.857	1.000	3.80	12.9	103.1
9	9 18O2-PFHxS	403 > 102.6	6.65e3	1.49e4	0.440	1.000	3.92	12.7	101.6
10	10 13C2-PFOA	414.9 > 369.7	2.81e4	7.73e3	3.366	1.000	4.21	13.5	107.9
11	11 13C5-PFNA	468.2 > 422.9	8.95e3	9.38e3	0.909	1.000	4.56	13.1	105.0
12	12 13C8-PFOS	506.7 > 79.6	9.11e3	6.74e3	1.304	1.000	4.62	12.9	103.6
13	13 13C5-PFHxA	318 > 272.9	2.25e4	2.25e4	1.000	1.000	3.28	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.49e4	1.49e4	1.000	1.000	3.92	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	7.73e3	7.73e3	1.000	1.000	4.21	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	9.38e3	9.38e3	1.000	1.000	4.56	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	6.74e3	6.74e3	1.000	1.000	4.62	12.5	100.0

75-125
↓
86.8
87.2
91.3

4/13/17

④ Concentration 210 ng/L in SS native mix 4/13/17.

Dataset: Untitled

Last Altered: Thursday, April 13, 2017 13:20:01 Pacific Daylight Time

Printed: Thursday, April 13, 2017 13:20:07 Pacific Daylight Time

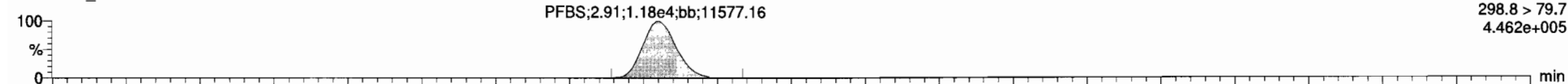
Method: U:\G1.pro\MethDB\PFAS_6_2trans_LINEAR.mdb 13 Apr 2017 08:50:47

Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_04-13-17_6_2Trans_Old.cdb 13 Apr 2017 12:34:50

ID: SS170413G1-1 PFC SSS 17D1309, Description: PFC SSS 17D1309 A, Name: 170413G1_11, Date: 13-Apr-2017, Time: 11:36:16, Instrument: , Lab: , User:

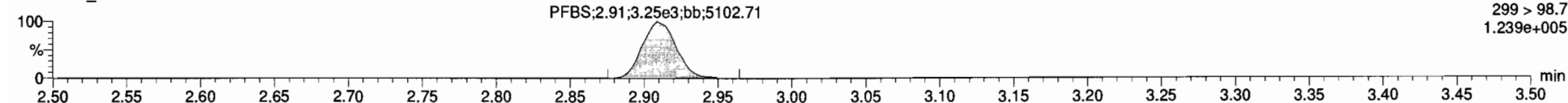
Total PFBS

170413G1_11



F2:MRM of 3 channels,ES-
298.8 > 79.7
4.462e+005

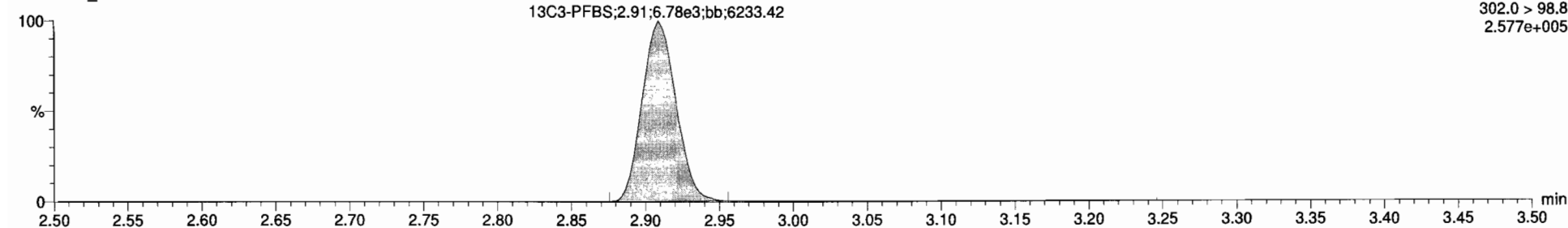
170413G1_11



F2:MRM of 3 channels,ES-
299 > 98.7
1.239e+005

13C3-PFBS

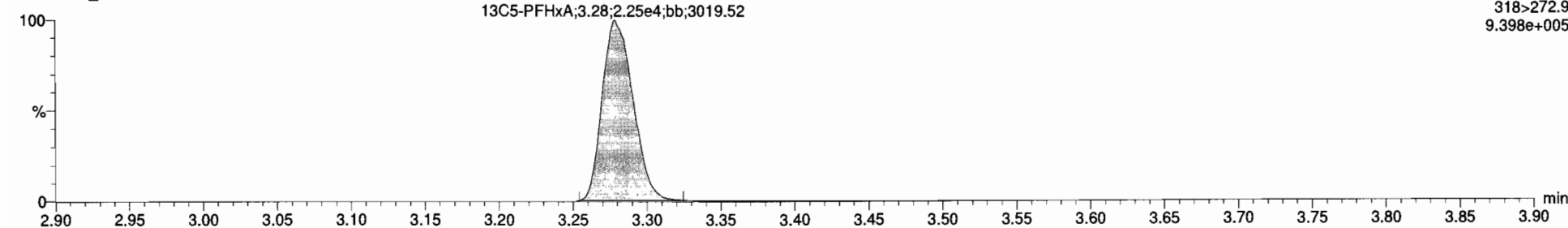
170413G1_11



F2:MRM of 3 channels,ES-
302.0 > 98.8
2.577e+005

13C5-PFHxA

170413G1_11



F3:MRM of 1 channel,ES-
318>272.9
9.398e+005

Dataset: Untitled

Last Altered: Thursday, April 13, 2017 13:20:01 Pacific Daylight Time

Printed: Thursday, April 13, 2017 13:20:07 Pacific Daylight Time

ID: SS170413G1-1 PFC SSS 17D1309, Description: PFC SSS 17D1309 A, Name: 170413G1_11, Date: 13-Apr-2017, Time: 11:36:16, Instrument: , Lab: , User:

PFHpA

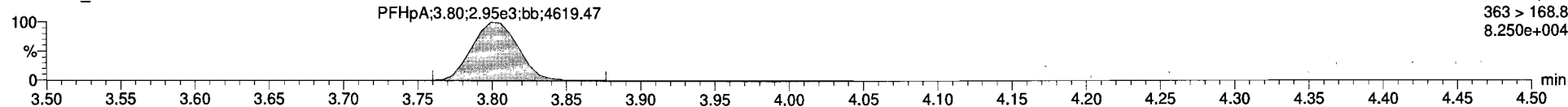
170413G1_11

F4:MRM of 7 channels,ES-
363 > 318.9
5.313e+005



170413G1_11

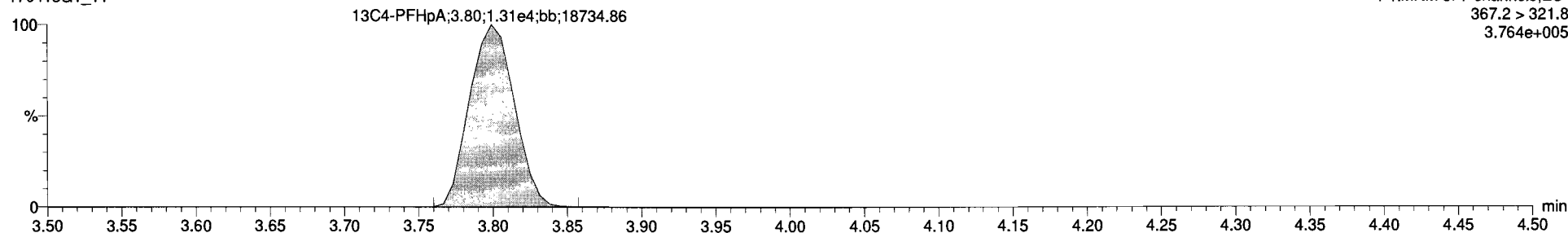
F4:MRM of 7 channels,ES-
363 > 168.8
8.250e+004



13C4-PFHpA

170413G1_11

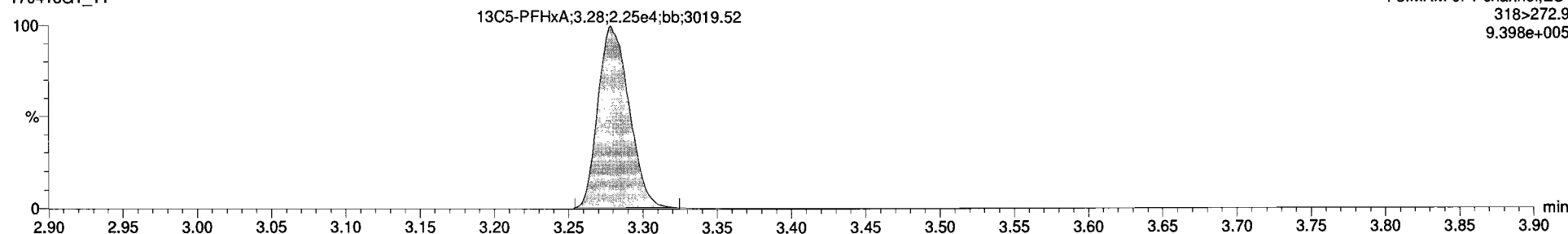
F4:MRM of 7 channels,ES-
367.2 > 321.8
3.764e+005



13C5-PFHxA

170413G1_11

F3:MRM of 1 channel,ES-
318>272.9
9.398e+005



Dataset: Untitled

Last Altered: Thursday, April 13, 2017 13:20:01 Pacific Daylight Time

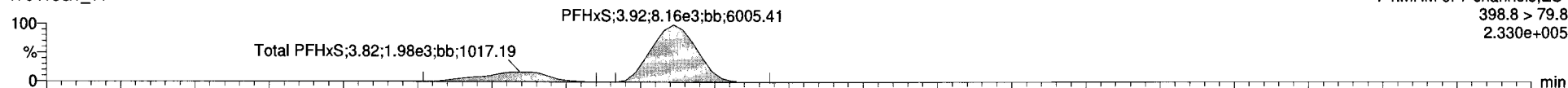
Printed: Thursday, April 13, 2017 13:20:07 Pacific Daylight Time

ID: SS170413G1-1 PFC SSS 17D1309, Description: PFC SSS 17D1309 A, Name: 170413G1_11, Date: 13-Apr-2017, Time: 11:36:16, Instrument: , Lab: , User:

Total PFHxS

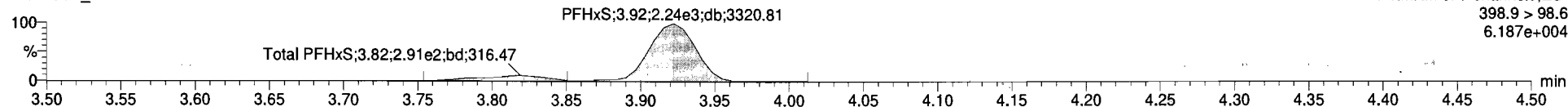
170413G1_11

F4:MRM of 7 channels,ES-
398.8 > 79.8
2.330e+005



170413G1_11

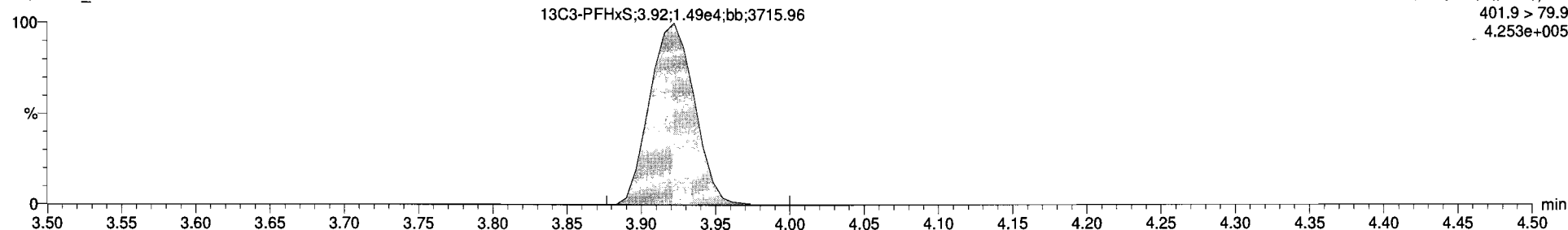
F4:MRM of 7 channels,ES-
398.9 > 98.6
6.187e+004



13C3-PFHxS

170413G1_11

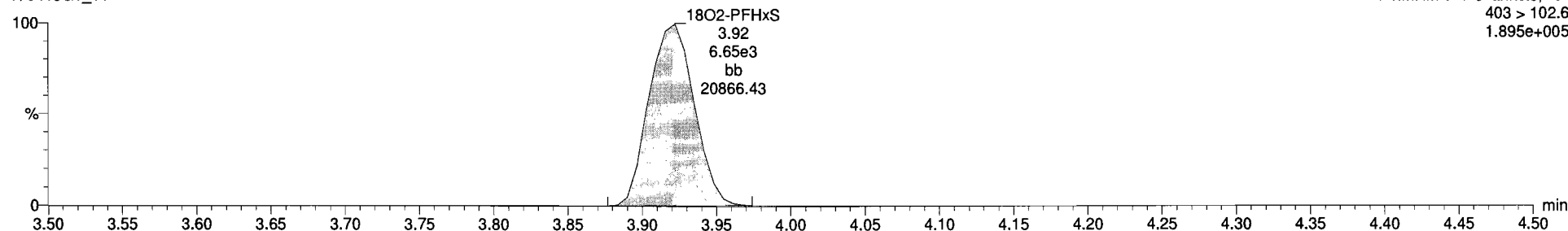
F4:MRM of 7 channels,ES-
401.9 > 79.9
4.253e+005

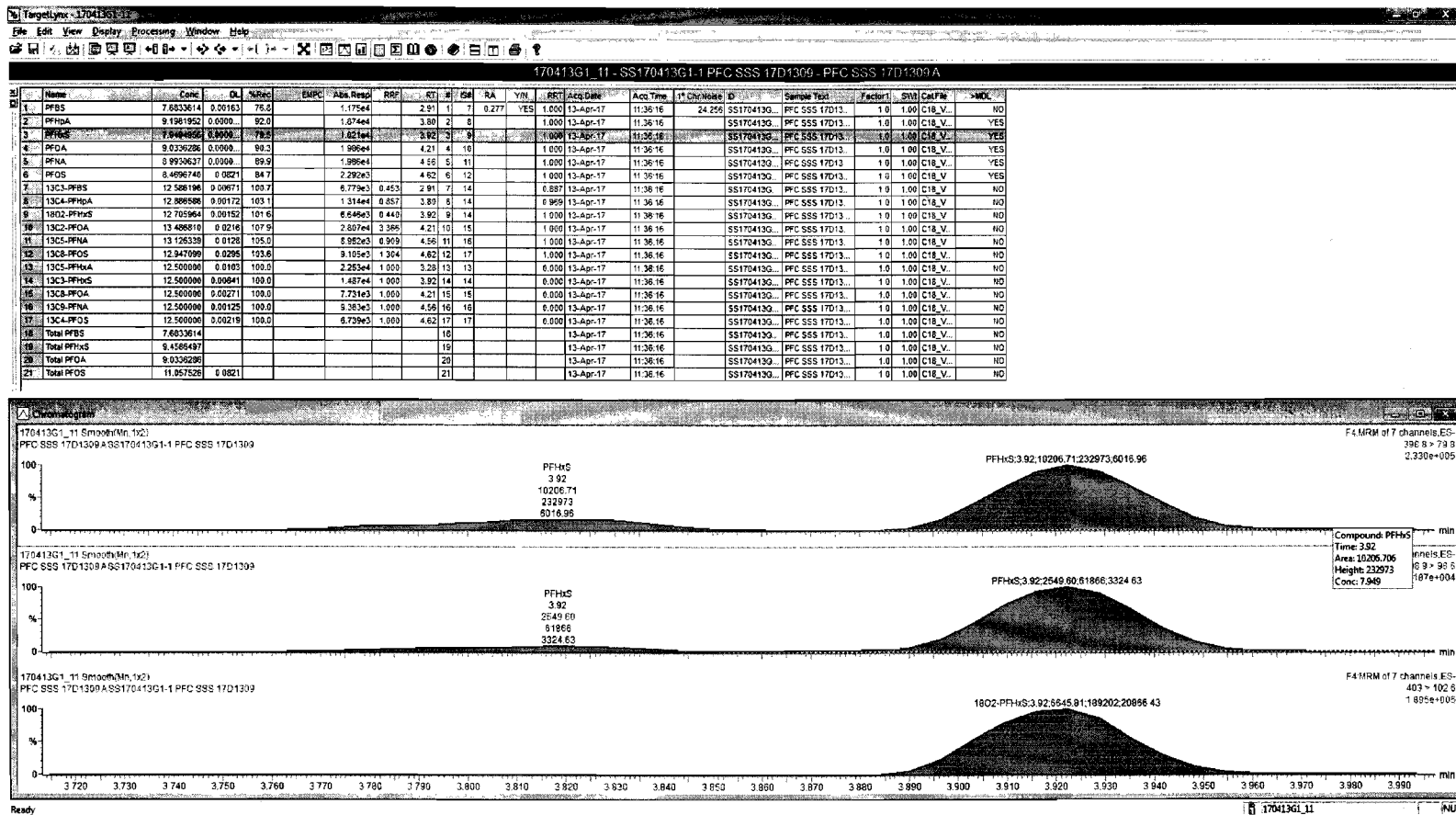


18O2-PFHxS

170413G1_11

F4:MRM of 7 channels,ES-
403 > 102.6
1.895e+005





Dataset: Untitled

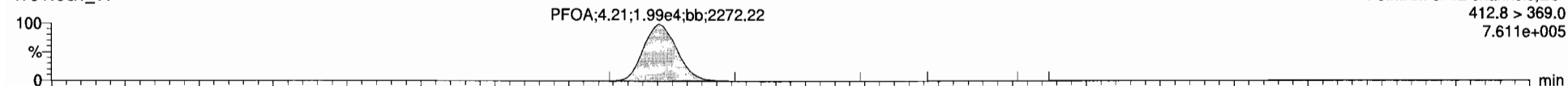
Last Altered: Thursday, April 13, 2017 13:20:01 Pacific Daylight Time
Printed: Thursday, April 13, 2017 13:20:07 Pacific Daylight Time

ID: SS170413G1-1 PFC SSS 17D1309, Description: PFC SSS 17D1309 A, Name: 170413G1_11, Date: 13-Apr-2017, Time: 11:36:16, Instrument: , Lab: , User:

Total PFOA

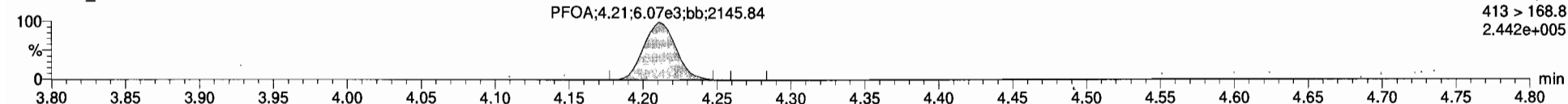
170413G1_11

F5:MRM of 12 channels,ES-
412.8 > 369.0
7.611e+005



170413G1_11

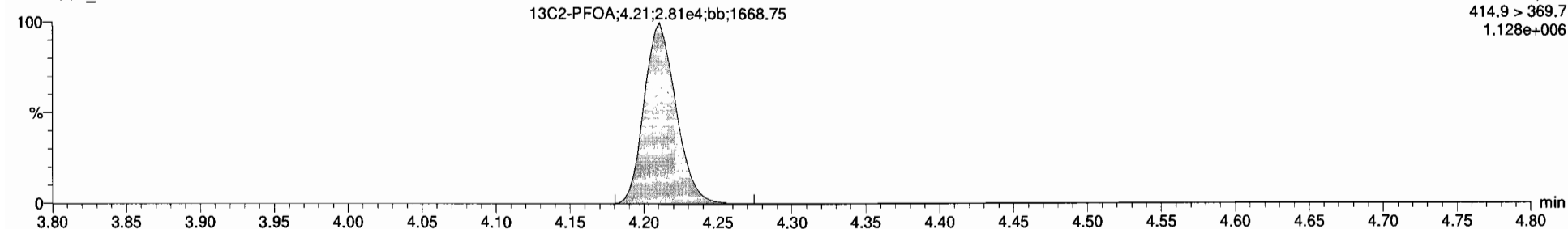
F5:MRM of 12 channels,ES-
413 > 168.8
2.442e+005



13C2-PFOA

170413G1_11

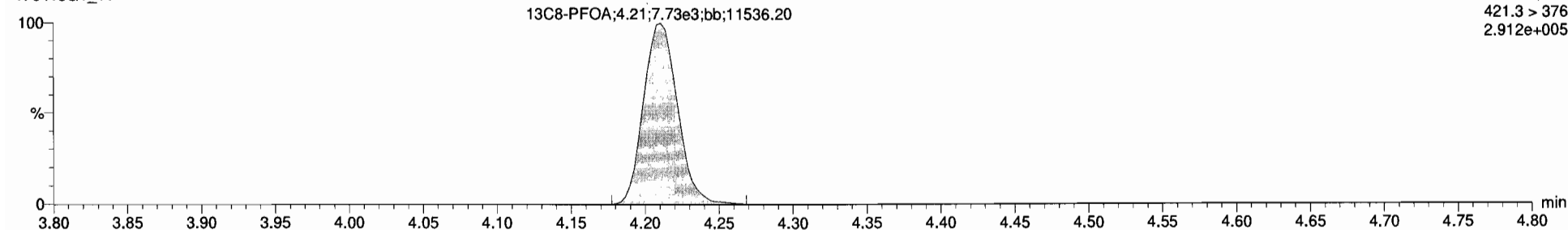
F5:MRM of 12 channels,ES-
414.9 > 369.7
1.128e+006



13C8-PFOA

170413G1_11

F5:MRM of 12 channels,ES-
421.3 > 376
2.912e+005



Dataset: Untitled

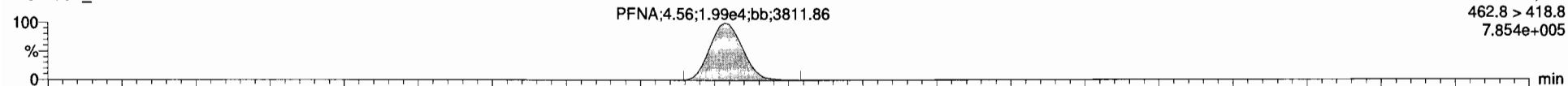
Last Altered: Thursday, April 13, 2017 13:20:01 Pacific Daylight Time

Printed: Thursday, April 13, 2017 13:20:07 Pacific Daylight Time

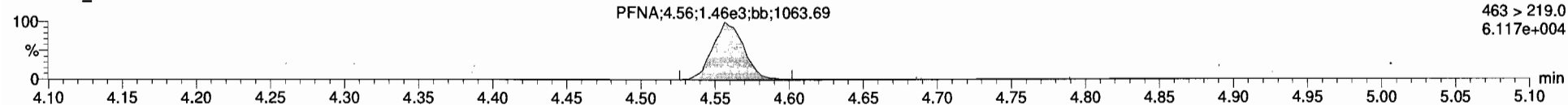
ID: SS170413G1-1 PFC SSS 17D1309, Description: PFC SSS 17D1309 A, Name: 170413G1_11, Date: 13-Apr-2017, Time: 11:36:16, Instrument: , Lab: , User:

PFNA

170413G1_11

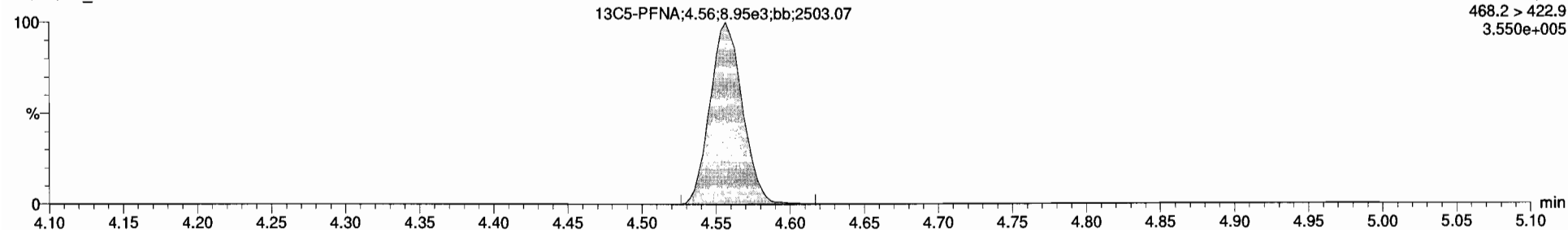


170413G1_11



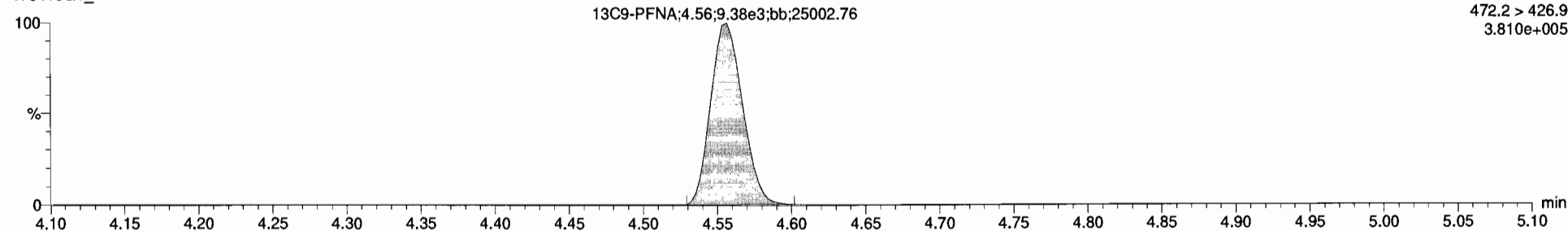
13C5-PFNA

170413G1_11



13C9-PFNA

170413G1_11



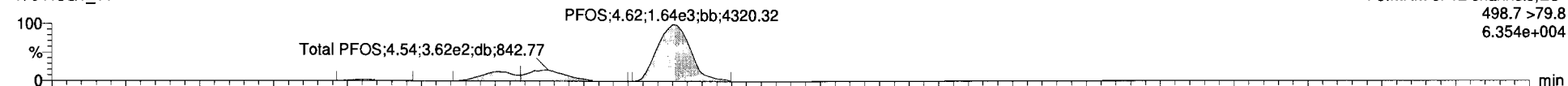
Dataset: Untitled

Last Altered: Thursday, April 13, 2017 13:20:01 Pacific Daylight Time
Printed: Thursday, April 13, 2017 13:20:07 Pacific Daylight Time

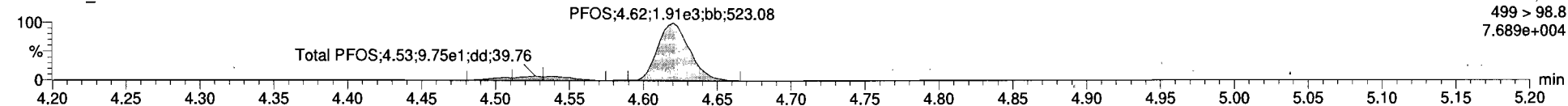
ID: SS170413G1-1 PFC SSS 17D1309, Description: PFC SSS 17D1309 A, Name: 170413G1_11, Date: 13-Apr-2017, Time: 11:36:16, Instrument: , Lab: , User:

Total PFOS

170413G1_11

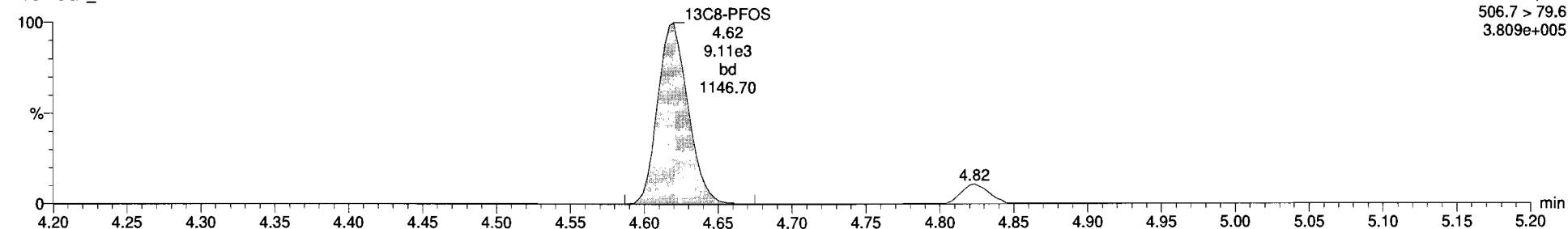


170413G1_11



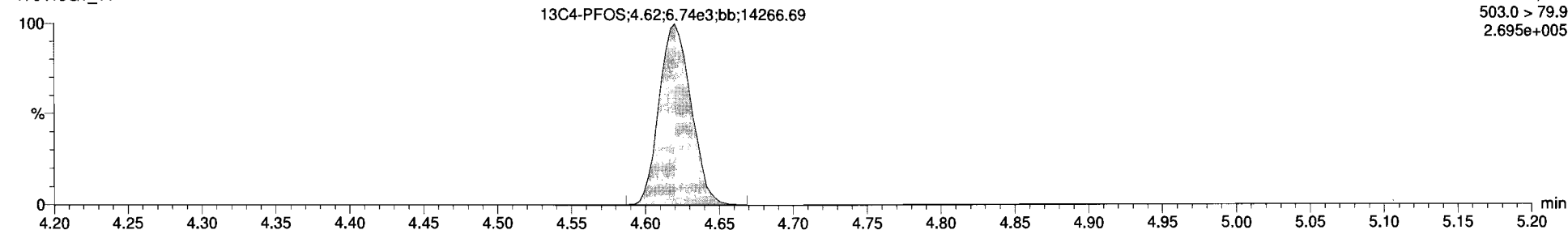
13C8-PFOS

170413G1_11



13C4-PFOS

170413G1_11



DATA VALIDATION SUMMARY REPORT
NAS OCEANA, VIRGINIA BEACH, VIRGINIA - Revised

Client: CH2M HILL, Inc., Virginia Beach, Virginia
SDG: 1700417
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: NAS Oceana, Virginia Beach, Virginia, CTO-WE14
Date: June 26, 2017

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	OC-MW05D-0417	1700417-01	Water
2	OC-MW05DP-0417	1700417-02	Water
3	OC-MW02D-0417	1700417-03	Water
4	OW26-MW01D-0417	1700417-04	Water
5	OW11-MW10D-0417	1700417-05	Water
6	OC-F8F9-MW-F4-0417	1700417-06	Water
6RE	OC-F8F9-MW-F4-0417RE	1700417-06RE	Water
7	OC-MW07D-0417	1700417-07	Water
8	OC-MW07-0417	1700417-08	Water
8MS	OC-MW07-0417MS	1700417-08MS	Water
8MSD	OC-MW07-0417MSD	1700417-08MSD	Water
9	OC-EB040417	1700417-09	Water
10	OC-FB040417	1700417-10	Water

A full data validation was performed on the analytical data for eight water samples, one aqueous equipment blank sample, and one aqueous field blank sample collected on April 3-4, 2017 by CH2M HILL at the NAS Oceana site in Virginia Beach, Virginia. 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 recoveries (%R)
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- 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 deficiencies detailed in this report.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days except for EDS#6 RE which was re-extracted at a lower dilution outside of holding times. The reviewer qualified the results (J/UJ) and this sample should be used for reporting purposes. See compound quantitation section for more information.

Initial Calibration

- All percent difference (%D) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent recovery (%R) criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- The field blank samples were free of contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
OC-EB040417	None - ND	-	-	-
OC-FB040417	None - ND	-	-	-

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD sample exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

- The LCS/LCSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- EDS sample #6 was originally analyzed at too high of a dilution and all results were non-detect. The client instructed the laboratory to re-extract the sample at a lower dilution so detected results could be reported. The holding time was exceeded in the re-extraction, however, the results should be used for reporting purposes anyway.

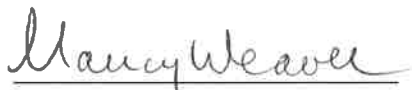
Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	OC-MW05D-0417 ng/L	OC-MW05DP-0417 ng/L	RPD	Qualifier
PFOS	1.01	2.42	82%	None - <5X LOQ

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:



Nancy Weaver
Senior Chemist

Dated: 6/26/17

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: OC-MW05D-0417

Modified EPA Method 537

Client Data			Sample Data		Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous	Lab Sample:	1700417-01	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.118 L	QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	03-Apr-2017 9:45				Date Analyzed:	15-Apr-17 13:03	Column:	BEH C18	
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.89	4.24	8.45		IS 13C3-PFBS	98.5	60- 150	
PFHpA	ND	0.624	2.12	8.45		IS 13C4-PFHpA	97.0	60- 150	
PFHxS	ND	1.00	2.12	8.45		IS 18O2-PFHxS	90.0	60- 150	
PFOA	ND	0.687	2.12	8.45		IS 13C2-PFOA	87.0	60- 150	
PFOS	1.01	0.852	0.953	8.45	J	IS 13C8-PFOS	97.5	60- 150	
PFNA	ND	0.855	2.12	8.45		IS 13C5-PFNA	91.9	50- 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.

NW 6/26/17

2

Sample ID: OC-MW05DP-0417					Modified EPA Method 537				
Client Data			Sample Data		Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous	Lab Sample:	1700417-02	Date Received:	05-Apr-2017	9:50
Project:	678440.51.51.01		Sample Size:	0.122 L	QC Batch:	B7D0026	Date Extracted:	06-Apr-2017	10:58
Date Collected:	03-Apr-2017 9:50				Date Analyzed:	15-Apr-17 13:16	Column:	BEH C18	
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.83	4.10	8.18		IS 13C3-PFBS	94.4	60 - 150	
PFHpA	ND	0.604	2.05	8.18		IS 13C4-PFHpA	94.3	60 - 150	
PFHxS	ND	0.968	2.05	8.18		IS 18O2-PFHxS	97.9	60 - 150	
PFOA	ND	0.666	2.05	8.18		IS 13C2-PFOA	86.5	60 - 150	
PFOS	2.42	0.825	0.922	8.18	J	IS 13C8-PFOS	99.6	60 - 150	
PFNA	ND	0.828	2.05	8.18		IS 13C5-PFNA	95.8	50 - 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.

ms 6/26/17

3

Sample ID: OC-MW02D-0417					Modified EPA Method 537				
Client Data			Sample Data		Laboratory Data				
Name: CH2M Hill			Matrix: Aqueous		Lab Sample: 1700417-03		Date Received: 05-Apr-2017 9:50		
Project: 678440.51.51.01			Sample Size: 0.122 L		QC Batch: B7D0026		Date Extracted: 06-Apr-2017 10:58		
Date Collected: 03-Apr-2017 11:40					Date Analyzed: 15-Apr-17 13:29		Column: BEH C18		
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.84	4.10	8.22	J	IS 13C3-PFBS	103	60 - 150	
PFHpA	3.41	0.608	2.05	8.22		IS 13C4-PFHpA	99.7	60 - 150	
PFHxS	10.0	0.973	2.05	8.22		IS 18O2-PFHxS	94.3	60 - 150	
PFOA	8.98	0.669	2.05	8.22		IS 13C2-PFOA	85.1	60 - 150	
PFOS	ND	0.830	0.922	8.22		IS 13C8-PFOS	89.3	60 - 150	
PFNA	ND	0.833	2.05	8.22		IS 13C5-PFNA	96.0	50 - 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.

NW 6/26/17

4

Sample ID: OW26-MW2-0417					Modified EPA Method 537				
Client Data			Sample Data		Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous	Lab Sample:	1700417-04	Date Received:	05-Apr-2017	9:50
Project:	678440.51.51.01		Sample Size:	0.119 L	QC Batch:	B7D0026	Date Extracted:	06-Apr-2017	10:58
Date Collected:	03-Apr-2017 13:05				Date Analyzed:	15-Apr-17 13:41	Column:	BEH C18	
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.87	4.20	8.38		IS 13C3-PFBS	92.3	60 - 150	
PFHpA	ND	0.619	2.10	8.38		IS 13C4-PFHpA	89.5	60 - 150	
PFHxS	2.37	0.991	2.10	8.38	J	IS 18O2-PFHxS	91.9	60 - 150	
PFOA	ND	0.682	2.10	8.38		IS 13C2-PFOA	80.9	60 - 150	
PFOS	10.1	0.845	0.945	8.38		IS 13C8-PFOS	86.5	60 - 150	
PFNA	ND	0.848	2.10	8.38		IS 13C5-PFNA	87.6	50 - 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.

NW 6/26/17

5

Sample ID: OW11-MW10D-0417				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous	Lab Sample:	1700417-05	Date Received:	05-Apr-2017	9:50	
Project:	678440.51.51.01	Sample Size:	0.122 L	QC Batch:	B7D0026	Date Extracted:	06-Apr-2017	10:58	
Date Collected:	04-Apr-2017 8:45			Date Analyzed:	15-Apr-17 13:54	Column:	BEH C18		
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	8.13	1.84	4.10	8.20	J	IS 13C3-PFBS	101	60 - 150	
PFHpA	22.4	0.606	2.05	8.20		IS 13C4-PFHpA	101	60 - 150	
PFHxS	124	0.971	2.05	8.20		IS 18O2-PFHxS	96.4	60 - 150	
PFOA	61.3	0.668	2.05	8.20		IS 13C2-PFOA	83.7	60 - 150	
PFOS	578	0.828	0.922	8.20		IS 13C8-PFOS	99.5	60 - 150	
PFNA	5.19	0.831	2.05	8.20	J	IS 13C5-PFNA	96.1	50 - 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.

ww 6/26/17

Sample ID: OC-F8F9-MW-F4-0417					Modified EPA Method 537				
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous	Lab Sample:	1700417-06	Date Received:	05-Apr-2017	9:50	
Project:	678440.51.51.01	Sample Size:	0.00110 L	QC Batch:	B7D0026	Date Extracted:	06-Apr-2017	10:58	
Date Collected:	04-Apr-2017	9:55		Date Analyzed:	15-Apr-17	14:06	Column:	BEH C18	
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	203	455	909		IS 13C3-PFBS	108	60- 150	
PFHpA	ND	67.2	227	909		IS 13C4-PFHpA	104	60- 150	
PFHxS	ND	108	227	909		IS 18O2-PFHxS	89.0	60- 150	
PFOA	ND	74.0	227	909		IS 13C2-PFOA	81.3	60- 150	
PFOS	ND	91.7	102	909		IS 13C8-PFOS	93.2	60- 150	
PFNA	ND	92.0	227	909		IS 13C5-PFNA	98.1	50- 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.

6RE

Sample ID: OC-F8F9-MW-F4-0417					Modified EPA Method 537				
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous	Lab Sample:	1700417-06	Date Received:	05-Apr-2017	9:50	
Project:	678440.51.51.01	Sample Size:	0.121 L	QC Batch:	B7E0140	Date Extracted:	26-May-2017	9:26	
Date Collected:	04-Apr-2017 9:55			Date Analyzed:	02-Jun-17 16:25	Column:	BEH C18		
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.85	4.13	8.28	HT	IS 13C3-PFBS	90.3	60- 150	
PFHpA	ND	0.611	2.07	8.28		IS 13C4-PFHpA	90.7	60- 150	
PFHxS	2.71	0.980	2.07	8.28		IS 18O2-PFHxS	101	60- 150	
PFOA	8.35	0.674	2.07	8.28		IS 13C2-PFOA	111	60- 150	
PFOS	20.8	0.835	0.930	8.28		IS 13C8-PFOS	103	60- 150	
PFNA	1.81	0.838	2.07	8.28		IS 13C5-PFNA	84.8	50- 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.

nw 6/26/17

7

Sample ID: OC-MW07D-0417					Modified EPA Method 537				
Client Data			Sample Data		Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous	Lab Sample:	1700417-07	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.118 L	QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:05				Date Analyzed:	15-Apr-17 14:19	Column:	BEH C18	
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.90	4.24	8.50		IS 13C3-PFBS	99.5	60 - 150	
PFHpA	ND	0.628	2.12	8.50		IS 13C4-PFHpA	91.0	60 - 150	
PFHxS	ND	1.01	2.12	8.50		IS 18O2-PFHxS	90.2	60 - 150	
PFOA	ND	0.691	2.12	8.50		IS 13C2-PFOA	85.7	60 - 150	
PFOS	ND	0.857	0.953	8.50		IS 13C8-PFOS	83.2	60 - 150	
PFNA	ND	0.860	2.12	8.50		IS 13C5-PFNA	86.6	50 - 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.

mw6/26/17

Sample ID: OC-MW07-0417					Modified EPA Method 537				
Client Data			Sample Data		Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous	Lab Sample:	1700417-08	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.124 L	QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:45				Date Analyzed:	15-Apr-17 14:31	Column:	BEH C18	
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.81	4.03	8.08		IS 13C3-PFBS	91.4	60- 150	
PFHpA	ND	0.597	2.02	8.08		IS 13C4-PFHpA	87.5	60- 150	
PFHxS	ND	0.957	2.02	8.08		IS 18O2-PFHxS	95.5	60- 150	
PFOA	0.685	0.658	2.02	8.08	J	IS 13C2-PFOA	86.8	60- 150	
PFOS	3.63	0.815	0.907	8.08	J	IS 13C8-PFOS	91.7	60- 150	
PFNA	ND	0.818	2.02	8.08		IS 13C5-PFNA	93.2	50- 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.

new 6/26/17

Sample ID: OC-EB040417

Client Data			Sample Data		Laboratory Data				
Name:	CH2M Hill		Matrix:	Aqueous	Lab Sample:	1700417-09	Date Received:	05-Apr-2017 9:50	
Project:	678440.51.51.01		Sample Size:	0.117 L	QC Batch:	B7D0026	Date Extracted:	06-Apr-2017 10:58	
Date Collected:	04-Apr-2017 11:50				Date Analyzed:	15-Apr-17 14:44	Column:	BEH C18	
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.92	4.27	8.56		IS 13C3-PFBS	96.5	60 - 150	
PFHpA	ND	0.632	2.14	8.56		IS 13C4-PFHpA	93.9	60 - 150	
PFHxS	ND	1.01	2.14	8.56		IS 18O2-PFHxS	93.6	60 - 150	
PFOA	ND	0.696	2.14	8.56		IS 13C2-PFOA	83.7	60 - 150	
PFOS	ND	0.863	0.962	8.56		IS 13C8-PFOS	95.5	60 - 150	
PFNA	ND	0.867	2.14	8.56		IS 13C5-PFNA	91.5	50 - 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.

new 6/26/17

10

Sample ID: OC-FB040417				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous	Lab Sample:	1700417-10	Date Received:	05-Apr-2017	9:50	
Project:	678440.51.51.01	Sample Size:	0.122 L	QC Batch:	B7D0026	Date Extracted:	06-Apr-2017	10:58	
Date Collected:	04-Apr-2017 11:55			Date Analyzed:	15-Apr-17 14:57	Column:	BEH C18		
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.84	4.10	8.22		IS 13C3-PFBS	105	60 - 150	
PFHpA	ND	0.607	2.05	8.22		IS 13C4-PFHpA	93.5	60 - 150	
PFHxS	ND	0.973	2.05	8.22		IS 18O2-PFHxS	84.1	60 - 150	
PFOA	ND	0.669	2.05	8.22		IS 13C2-PFOA	84.7	60 - 150	
PFOS	ND	0.829	0.922	8.22		IS 13C8-PFOS	89.2	60 - 150	
PFNA	ND	0.833	2.05	8.22		IS 13C5-PFNA	93.3	50 - 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.

New 6/26/17

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIX_DESC	COLLECT_DATE
OW11-MW10D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12204008.22	3469397.72	Perfluoroalkyl Compounds	OW11-MW10D-0417	WG	Ground water	04-Apr-17
OC-MW07D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12198113.53	3459527.53	Perfluoroalkyl Compounds	OC-MW07D-0417	WG	Ground water	04-Apr-17
OC-F8F9-MW-F4	SWMU 00011, AOC UST F8/F9	OCEANA_NAS	WLM	Monitoring well	1700417	12201491.29	3467331.72	Perfluoroalkyl Compounds	OC-F8F9-MW-F4-0417	WG	Ground water	04-Apr-17
		OCEANA_NAS			1700417			Perfluoroalkyl Compounds	OC-FB040417	WQ	Water for QC samples	04-Apr-17
		OCEANA_NAS			1700417			Perfluoroalkyl Compounds	OC-FB040417	WQ	Water for QC samples	04-Apr-17
OC-MW07	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12198118	3459532.08	Perfluoroalkyl Compounds	OC-MW07-0417	WG	Ground water	04-Apr-17
OW11-MW10D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12204008.22	3469397.72	Perfluoroalkyl Compounds	OW11-MW10D-0417	WG	Ground water	04-Apr-17
OW11-MW10D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12204008.22	3469397.72	Perfluoroalkyl Compounds	OW11-MW10D-0417	WG	Ground water	04-Apr-17
OW26-MW01D	SWMU 00026	OCEANA_NAS	WLM	Monitoring well	1700417	12206848.04	3465586.92	Perfluoroalkyl Compounds	OW26-MW01D-0417	WG	Ground water	03-Apr-17
OC-MW07D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12198113.53	3459527.53	Perfluoroalkyl Compounds	OC-MW07D-0417	WG	Ground water	04-Apr-17
OC-F8F9-MW-F4	SWMU 00011, AOC UST F8/F9	OCEANA_NAS	WLM	Monitoring well	1700417	12201491.29	3467331.72	Perfluoroalkyl Compounds	OC-F8F9-MW-F4-0417	WG	Ground water	04-Apr-17
OW11-MW10D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12204008.22	3469397.72	Perfluoroalkyl Compounds	OW11-MW10D-0417	WG	Ground water	04-Apr-17
OC-MW07	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12198118	3459532.08	Perfluoroalkyl Compounds	OC-MW07-0417	WG	Ground water	04-Apr-17
OW26-MW01D	SWMU 00026	OCEANA_NAS	WLM	Monitoring well	1700417	12206848.04	3465586.92	Perfluoroalkyl Compounds	OW26-MW01D-0417	WG	Ground water	03-Apr-17
OC-MW05D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12205440.12	3474053.93	Perfluoroalkyl Compounds	OC-MW05D-0417	WG	Ground water	03-Apr-17
OC-MW05D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12205440.12	3474053.93	Perfluoroalkyl Compounds	OC-MW05D-0417	WG	Ground water	03-Apr-17
OC-F8F9-MW-F4	SWMU 00011, AOC UST F8/F9	OCEANA_NAS	WLM	Monitoring well	1700417	12201491.29	3467331.72	Perfluoroalkyl Compounds	OC-F8F9-MW-F4-0417	WG	Ground water	04-Apr-17
OC-MW07	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12198118	3459532.08	Perfluoroalkyl Compounds	OC-MW07-0417	WG	Ground water	04-Apr-17
OC-MW05D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12205440.12	3474053.93	Perfluoroalkyl Compounds	OC-MW05DP-0417	WG	Ground water	03-Apr-17
OC-MW05D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12205440.12	3474053.93	Perfluoroalkyl Compounds	OC-MW05DP-0417	WG	Ground water	03-Apr-17
OW26-MW01D	SWMU 00026	OCEANA_NAS	WLM	Monitoring well	1700417	12206848.04	3465586.92	Perfluoroalkyl Compounds	OW26-MW01D-0417	WG	Ground water	03-Apr-17
		OCEANA_NAS			1700417			Perfluoroalkyl Compounds	OC-EB040417	WQ	Water for QC samples	04-Apr-17
OC-MW05D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12205440.12	3474053.93	Perfluoroalkyl Compounds	OC-MW05DP-0417	WG	Ground water	03-Apr-17
		OCEANA_NAS			1700417			Perfluoroalkyl Compounds	OC-FB040417	WQ	Water for QC samples	04-Apr-17
OC-F8F9-MW-F4	SWMU 00011, AOC UST F8/F9	OCEANA_NAS	WLM	Monitoring well	1700417	12201491.29	3467331.72	Perfluoroalkyl Compounds	OC-F8F9-MW-F4-0417	WG	Ground water	04-Apr-17
OC-MW02D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12211475.87	3470248.68	Perfluoroalkyl Compounds	OC-MW02D-0417	WG	Ground water	03-Apr-17
OW11-MW10D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12204008.22	3469397.72	Perfluoroalkyl Compounds	OW11-MW10D-0417	WG	Ground water	04-Apr-17
OC-MW07D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12198113.53	3459527.53	Perfluoroalkyl Compounds	OC-MW07D-0417	WG	Ground water	04-Apr-17

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIX_DESC	COLLECT_DATE
		OCEANA_NAS			1700417			Perfluoroalkyl Compounds	OC-FB040417	WQ	Water for QC samples	04-Apr-17
OC-MW02D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12211475.87	3470248.68	Perfluoroalkyl Compounds	OC-MW02D-0417	WG	Ground water	03-Apr-17
OC-F8F9-MW-F4	SWMU 00011, AOC UST F8/F9	OCEANA_NAS	WLM	Monitoring well	1700417	12201491.29	3467331.72	Perfluoroalkyl Compounds	OC-F8F9-MW-F4-0417	WG	Ground water	04-Apr-17
		OCEANA_NAS			1700417			Perfluoroalkyl Compounds	OC-FB040417	WQ	Water for QC samples	04-Apr-17
OC-MW05D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12205440.12	3474053.93	Perfluoroalkyl Compounds	OC-MW05DP-0417	WG	Ground water	03-Apr-17
		OCEANA_NAS			1700417			Perfluoroalkyl Compounds	OC-EB040417	WQ	Water for QC samples	04-Apr-17
OC-MW05D	SWMU 00011	OCEANA_NAS	WLM	Monitoring well	1700417	12205440.12	3474053.93	Perfluoroalkyl Compounds	OC-MW05D-0417	WG	Ground water	03-Apr-17
	SWMU 00011, AOC UST F8/F9											
OC-F8F9-MW-F4		OCEANA_NAS	WLM	Monitoring well	1700417	12201491.29	3467331.72	Perfluoroalkyl Compounds	OC-F8F9-MW-F4-0417	WG	Ground water	04-Apr-17