



**Groundwater Sample Results,
Level 4 Laboratory Report, Electronic Data
Deliverable, Data Validation Report, Sample Location
Report, SDG B7S7424**

*NS
Treasure Island, CA*

April 2021



Prepared for: EMAX Laboratories Inc

Project: TREASURE ISLAND, IR SITE 06
(T10000006825)

Analytical Data Package (Level IV)

Analysis: PFOS and PFOA in water (Method 537 mod.)

Maxxam Job #: B7S7424

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



Table of Contents

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Table of Contents

Certification Page

1. Project Narrative
2. Sample Management Records
 - 2.1 Sample Custody
3. Analytical Results
 - 3.1 Summary Report
 - 3.2 Sample Chromatograms
4. QA/QC Data
5. Initial Calibration
6. Continuing Calibration

Last Page



I hereby certify that to the best of my knowledge all analytical data presented in this report:

- Has been checked for completeness.
- Is accurate, legible and error free.
- Has been conducted in accordance with approved SOP's and that all deviations are clearly listed in the Case Narrative.
- This report has been generated in .pdf format.

Review Performed By:

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Glossary of Terms

- **Detection Limit (DL)** this can also be called **Method Detection Limit (MDL)**: The lowest concentration or amount of the target analyte that can be identified, measured, and reported with confidence that the analyte concentration is not a false positive value. (Clarification): The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. At the DL, the false positive rate (Type I error) is 1%.
- **Limit of Detection (LOD)**: An estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. (Clarification): The smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.
- **Limits of Quantitation (LOQ)** this can also be called **Reporting Detection Limit (RDL)**: The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. (Clarification): The lowest concentration that produces a quantitative result within specified limits of precision and bias. For DoD projects, the LOQ shall be set at or above the concentration of the lowest initial calibration standard.
- **Acceptance Criteria** are values used by the laboratory to determine that a process is in control.
- **Accuracy** is the degree of agreement of a measured value with the true or expected value.
- **Calibration Standards** are a set of solutions containing the analytes of interest at a specified concentration.
- **Calibration Verification Standard** consists of a calibration standard solution of intermediate concentration (mid-point initial calibration level) used to assess whether the initial calibration is still valid
- **Certified Reference Material** is a stable homogenous material that is certified by repetitive analysis from a supplier who is certified to generate said materials.

- **Internal Standard** a deuterated or ^{13}C -labelled analyte that is added to a sample extract prior to instrumental analysis to compensate for injection variability.
- **Isomer** is a member of a group of compounds that differ from each other only in the locations of a specific number of common substituent atoms or groups of atoms on the parent compound.
- **Method Blank** is a laboratory control sample using reagents that are known to be free of contamination.
- **Precision** is the degree of agreement between the data generated from repetitive measurements under specific conditions.
- **Quality Assurance** is a system of activities whose purpose is to provide the producer or user of a product with the assurance that the product meets a defined standard of quality.
- **Quality Control** is the overall system of activities whose purpose is to control the quality of a product so that it meets the needs of the end user.
- **RSD** is the relative standard deviation.
- **Blank Spike** is a laboratory control sample that has been fortified with native analytes of interest.
- **Window Defining Mixture** is a solution containing only the earliest and latest eluting congeners within each homologous group of target analytes on a specified GC column.
- **RPD** or Relative Percent Difference. A measure used to compare duplicate sample analysis.
- **EMPC/NDR** – Peak detected does not meet ratio criteria and has resulted in a higher detection limit.



1.0 Project Narrative

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Maxxam Job: B7S7424Sample Analysis

Samples were initially pre-screened and estimated concentrations were obtained so that appropriate sample volumes could be extracted on QC batches 5330576 (2018/01/13) and 5330618 (2018/01/13). Due to high concentrations, the following samples were analyzed for selected analytes using reduced sample extraction volumes:

FUH125	06-MW25-1217	All analytes
FUH126	06-MW26-1217	Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonate (PFOS)
FUH128	06-MW31-1217	Perfluorohexanesulfonate (PFHxS), Perfluorooctanesulfonate (PFOS)
FUH129	06-MW32-1217	All analytes
FUH130	06-MW32-1217DUP	All analytes
FUH131	06-MW33-1217	Perfluorohexanoic acid (PFHxA), Perfluorohexanesulfonate (PFHxS), Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonate (PFOS)
FUH132	06-MW34-1217	Perfluorohexanesulfonate (PFHxS), Perfluorooctanesulfonate (PFOS)
FUH133	06-MW35-1217	Perfluorohexanesulfonate (PFHxS), Perfluorooctanesulfonate (PFOS)
FUH134	06-MW36-1217	Perfluorohexanesulfonate (PFHxS), Perfluorooctanesulfonate (PFOS)

Detection limits were adjusted accordingly.

Extracted Internal Standard Analytes

The extracted internal standard analyte $^{13}\text{C}_2$ -Perfluorotetradecanoic acid ($^{13}\text{C}_2$ -PFTeDA) is used to quantify native Perfluorotridecanoic acid (PFTTrDA) & Perfluorotetradecanoic acid (PFTeDA). The recovery observed for this extracted internal standard analyte was below the defined lower control limit (LCL) for the following sample:

FUH128 06-MW31-1217

Results for the associated native analytes were reported from the reduced volume extract where acceptable extracted internal standard analyte recovery was obtained. Detection limit was adjusted accordingly.

Data Qualifiers

U – Analyte was not detected and is reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.

J – The reported result is an estimated value (e.g., matrix interference was observed, or the analyte was detected at a concentration outside the calibration range).

Sin Chii Chia, B.Sc.

schia@maxxam.ca

Office 905 817 5700

PROJECT NARRATIVE

Maxxam Analytics
Client Project #: TREASURE ISLAND, IR SITE 06



Client: EMAX Laboratories Inc
Client Project: TREASURE ISLAND, IR SITE 06

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Maxxam ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Date Run	Initial Calibration
PFOS and PFOA in water by SPE/LCMS						
FUH125	06-MW25-1217	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13
FUH126	06-MW26-1217	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13
FUH127	06-MW30-1217	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13
FUH128	06-MW31-1217	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13
FUH129	06-MW32-1217	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13
FUH130	06-MW32-1217 DUP	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13
FUH131	06-MW33-1217	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13
FUH132	06-MW34-1217	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13
FUH133	06-MW35-1217	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13
FUH134	06-MW36-1217	2017/12/12	2017/12/19	2017/12/23	2018/01/13	2018/01/13

Run Date is defined as the date of injection of the last calibration standard (12 hours or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

b) Shipping Problems: none encountered

c) Documentation Problems: none encountered

II. SAMPLE PREP:

No problems encountered

III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis

a) Hold Times: all within recommended hold times

b) Instrument Calibration: all within control limits

c) Quality Control: All applicable QC meets control criteria, except where otherwise noted.

d) All analytes requiring manual intergration(s) are noted on the sample chromatograms

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for other than the conditions detailed above.

In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by the cognizant laboratory official or his/her designee, as verified by this signature.


Project Manager- Site Assessment
and Remediation/ Ultra Trace

2018/01/17

Date



2. Sample Management Records

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



2.1 Sample Custody

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

AIR

CHAIN OF CUSTODY

			1835 W. 205TH Street, Torrance, CA 90501 Tel # : 310-618-8889 FAX#: 310-618-0818 Email: info@emaxlabs.com					PO NUMBER:					EMAX CONTROL NO. 17L143														
CLIENT NOREAS			MATRIX CODE					PRESERVATIVE CODE					ANALYSIS REQUIRED					TAT									
PROJECT TREASURE ISLAND, IR SITE 06			DW-Drinking Water					HC = Ice					Perfluorinated Compounds, EPA 3371 incl.					MSMSD					<input type="checkbox"/> Rush __24__hrs.				
COORDINATOR			GW-Ground Water					HC = HCl															<input type="checkbox"/> Rush __48__hrs.				
TEL FAX EMAIL			WW-Waste Water					HN-HNO3															<input type="checkbox"/> Rush __72__hrs.				
SEND REPORT TO RICHARD BEAUVIL			SD-Solid Waste SL-Sludge					SH-NaOH															<input type="checkbox"/> 7 days				
COMPANY EMAX			SS-Soil/ Sediment					ST-Na2S2O3															<input checked="" type="checkbox"/> 14 days				
ADDRESS 1835 W. 205TH STREET, TORRANCE CA 90501			WP-Wipes PP-Pure Products					ZA-Zinc Acetate															<input type="checkbox"/> 21 days				
EMAX PM RICHARD BEAUVIL			AR-Air					HS-H2SO4															<input type="checkbox"/> 30 days				
O=																							<input type="checkbox"/> __ days				

LAB	SAMPLE ID	SAMPLING			CONTAINER			MATRIX CODE	QC	PRESERVATIVE CODE										COMMENTS				
		CLIENT	LOCATION	DATE	TIME	NO.	SIZE			TYPE	1	2	3	4	5	6	7	8	9		10	11	12	
1	06-MW25-1217	06-MW25	12/12/2017	10:30	2	125 ML	POLY	W	3	X														
2	06-MW26-1217	06-MW26	12/12/2017	13:40	2	125 ML	POLY	W	3	X														
3	06-MW30-1217	06-MW30	12/12/2017	9:27	2	125 ML	POLY	W	3	X														
4	06-MW31-1217	06-MW31	12/12/2017	9:38	2	125 ML	POLY	W	3	X														
5	06-MW32-1217	06-MW32	12/12/2017	12:20	2	125 ML	POLY	W	4	X														
6	06-MW32-1217 DUP	06-MW32	12/12/2017	12:25	2	125 ML	POLY	W	3	X														
7	06-MW33-1217	06-MW33	12/12/2017	12:58	2	125 ML	POLY	W	3	X														
8	06-MW34-1217	06-MW34	12/12/2017	13:02	2	125 ML	POLY	W	3	X														
9	06-MW35-1217	06-MW35	12/12/2017	12:26	6	125 ML	POLY	W	3	X											X			17HL143-09 MS/MSD
10	06-MW36-1217	06-MW36	12/12/2017	13:32	2	125 ML	POLY	W	3	X														17HL143-10

Instructions

DATA PACKAGE: LEVEL III DATA PACKAGE, LEVEL IV ON SAMPLE (06-MW32-1217)

EDD: NEDD & EDF GEOTRACKER (SPECS. WILL BE EMAILED)

SAMPLER

RELINQUISHED BY: [Signature] Date: 12/18/17 Time: 1400 RECEIVED BY: Stephanie Pollen Date: 12/19/17 Time: 15:35

Cooler # Temp. (°C) Sample #s

MAXXAM

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical but not prior to fifteen (15) calendar days after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be \$5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

19-Dec-17 15:35

Stephanie Pollen
 B7S7424
 MAF ENV-1387

Custody seal intact



3. Analytical Results

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



3.1 Summary Report

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Your P.O. #: 17L143
 Your Project #: TREASURE ISLAND, IR SITE 06
 Site Location: T10000006825
 Your C.O.C. #: 17L143

Attention: Richard Beauvil

EMAX Laboratories Inc
 1835 W 205th St
 Torrance, CA
 USA 90501

Report Date: 2018/01/17
 Report #: R4940538
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B7S7424

Received: 2017/12/19, 15:35

Sample Matrix: Water
 # Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
PFOS and PFOA in water by SPE/LCMS (1)	10	2017/12/23	2018/01/13	CAM SOP-00894	EPA 537 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

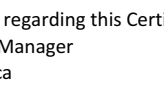
Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding in the apparent difference.
 (1) Per- and polyfluoroalkyl substances (PFAS) in the certificate of analysis represent the extracted internal standard.

Encryption Key 

Please direct all questions regarding this Certificate to  Project Manager.
 Stephanie Pollen, Project Manager
 Email: SPollen@maxxam.ca
 Phone# (905) 817-5700

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

RESULTS OF ANALYSES OF WATER

Maxxam ID		FUH125				FUH126				
Sampling Date		2017/12/12 10:30				2017/12/12 13:40				
COC Number		17L143				17L143				
	UNITS	06-MW25-1217	DL	LOD	LOQ	06-MW26-1217	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
N-ethylperfluorooctane sulfonamide	ug/L	0.15 U (1)	0.050	0.15	0.20	0.030 U	0.010	0.030	0.040	5330576
N-methylperfluorooctane sulfonamide	ug/L	0.15 U (1)	0.065	0.15	0.20	0.030 U	0.013	0.030	0.040	5330576
Perfluorobutane Sulfonate (PFBS)	ug/L	0.084 J (1)	0.027	0.075	0.10	0.028	0.0054	0.015	0.020	5330576
Perfluoroheptanoic Acid (PFHpA)	ug/L	0.52 (1)	0.037	0.075	0.10	0.16	0.0074	0.015	0.020	5330576
Perfluorohexanoic Acid (PFHxA)	ug/L	1.8 (1)	0.018	0.050	0.10	0.41	0.0035	0.010	0.020	5330576
Perfluorohexane Sulfonate (PFHxS)	ug/L	2.6 (1)	0.028	0.075	0.10	0.83	0.0056	0.015	0.020	5330576
Perfluorononanoic Acid (PFNA)	ug/L	0.084 J (1)	0.044	0.090	0.10	0.017 J	0.0087	0.018	0.020	5330576
Perfluorotetradecanoic Acid	ug/L	0.050 U (1)	0.014	0.050	0.10	0.010 U	0.0027	0.010	0.020	5330576
Perfluorotridecanoic Acid	ug/L	0.050 U (1)	0.019	0.050	0.10	0.010 U	0.0038	0.010	0.020	5330576
Perfluoroundecanoic Acid (PFUnA)	ug/L	0.050 U (1)	0.013	0.050	0.10	0.010 U	0.0025	0.010	0.020	5330576
Perfluorodecanoic Acid (PFDA)	ug/L	0.075 U (1)	0.031	0.075	0.10	0.014 J	0.0061	0.015	0.020	5330576
Perfluorododecanoic Acid (PFDoA)	ug/L	0.050 U (1)	0.025	0.050	0.10	0.010 U	0.0050	0.010	0.020	5330576
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	4.1 (1)	0.017	0.050	0.10	0.96 (2)	0.033	0.10	0.20	5330576
Perfluorooctane Sulfonate (PFOS)	ug/L	18 (3)	0.30	0.75	1.0	3.8 (2)	0.060	0.15	0.20	5330576
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	89				93				5330576
13C2-Perfluorododecanoic acid	%	95				83				5330576
13C2-Perfluorohexanoic acid	%	106				91				5330576
13C2-perfluorotetradecanoic acid	%	86				77				5330576
13C2-Perfluoroundecanoic acid	%	94				81				5330576
13C4-Perfluoroheptanoic acid	%	106				96				5330576
13C4-Perfluorooctanesulfonate	%	97				99				5330576
13C4-Perfluorooctanoic acid	%	95				103				5330576
13C5-Perfluorononanoic acid	%	105				92				5330576
18O2-Perfluorohexanesulfonate	%	103				96				5330576
DL = Detection Limit LOD = Limit of Detection LOQ = Limit of Quantitation QC Batch = Quality Control Batch N/A = Not Applicable (1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (5x). (2) Due to high concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). (3) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (50x).										

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T1000006825
Your P.O. #: 17L143

RESULTS OF ANALYSES OF WATER

Maxxam ID		FUH127				FUH128				
Sampling Date		2017/12/12 09:27				2017/12/12 09:38				
COC Number		17L143				17L143				
	UNITS	06-MW30-1217	DL	LOD	LOQ	06-MW31-1217	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
N-ethylperfluorooctane sulfonamide	ug/L	0.030 U	0.010	0.030	0.040	0.030 U	0.010	0.030	0.040	5330576
N-methylperfluorooctane sulfonamide	ug/L	0.030 U	0.013	0.030	0.040	0.030 U	0.013	0.030	0.040	5330576
Perfluorobutane Sulfonate (PFBS)	ug/L	0.015 U	0.0054	0.015	0.020	0.061	0.0054	0.015	0.020	5330576
Perfluoroheptanoic Acid (PFHpA)	ug/L	0.015 U	0.0074	0.015	0.020	0.30	0.0074	0.015	0.020	5330576
Perfluorohexanoic Acid (PFHxA)	ug/L	0.0093 J	0.0035	0.010	0.020	0.66	0.0035	0.010	0.020	5330576
Perfluorohexane Sulfonate (PFHxS)	ug/L	0.059	0.0056	0.015	0.020	1.8 (1)	0.056	0.15	0.20	5330576
Perfluorononanoic Acid (PFNA)	ug/L	0.018 U	0.0087	0.018	0.020	0.047	0.0087	0.018	0.020	5330576
Perfluorotetradecanoic Acid	ug/L	0.010 U	0.0027	0.010	0.020	0.10 U (2)	0.027	0.10	0.20	5330576
Perfluorotridecanoic Acid	ug/L	0.010 U	0.0038	0.010	0.020	0.10 U (2)	0.038	0.10	0.20	5330576
Perfluoroundecanoic Acid (PFUnA)	ug/L	0.010 U	0.0025	0.010	0.020	0.010 U	0.0025	0.010	0.020	5330576
Perfluorodecanoic Acid (PFDA)	ug/L	0.015 U	0.0061	0.015	0.020	0.013 J	0.0061	0.015	0.020	5330576
Perfluorododecanoic Acid (PFDoA)	ug/L	0.010 U	0.0050	0.010	0.020	0.010 U	0.0050	0.010	0.020	5330576
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	0.027	0.0033	0.010	0.020	0.27	0.0033	0.010	0.020	5330576
Perfluorooctane Sulfonate (PFOS)	ug/L	0.097	0.0060	0.015	0.020	1.2 (1)	0.060	0.15	0.20	5330576
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	91				88				5330576
13C2-Perfluorododecanoic acid	%	85				67				5330576
13C2-Perfluorohexanoic acid	%	105				95				5330576
13C2-perfluorotetradecanoic acid	%	83				90				5330576
13C2-Perfluoroundecanoic acid	%	87				80				5330576
13C4-Perfluoroheptanoic acid	%	106				100				5330576
13C4-Perfluorooctanesulfonate	%	110				107				5330576
13C4-Perfluorooctanoic acid	%	99				97				5330576
13C5-Perfluorononanoic acid	%	106				96				5330576
18O2-Perfluorohexanesulfonate	%	108				116				5330576
DL = Detection Limit LOD = Limit of Detection LOQ = Limit of Quantitation QC Batch = Quality Control Batch N/A = Not Applicable (1) Due to high concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). (2) Due to matrix interference, the extracted internal standard analyte exhibited low recovery and as such, may not have allowed for accurate recovery correction of the associated native compound. A reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).										

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

RESULTS OF ANALYSES OF WATER

Maxxam ID		FUH129	FUH130				
Sampling Date		2017/12/12 12:20	2017/12/12 12:25				
COC Number		17L143	17L143				
	UNITS	06-MW32-1217	06-MW32-1217 DUP	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters							
N-ethylperfluorooctane sulfonamide	ug/L	0.15 U (1)	0.15 U (1)	0.050	0.15	0.20	5330618
N-methylperfluorooctane sulfonamide	ug/L	0.15 U (1)	0.15 U (1)	0.065	0.15	0.20	5330618
Perfluorobutane Sulfonate (PFBS)	ug/L	0.13 (1)	0.15 (1)	0.027	0.075	0.10	5330618
Perfluoroheptanoic Acid (PFHpA)	ug/L	0.89 (1)	0.86 (1)	0.037	0.075	0.10	5330618
Perfluorohexanoic Acid (PFHxA)	ug/L	2.2 (1)	2.2 (1)	0.018	0.050	0.10	5330618
Perfluorohexane Sulfonate (PFHxS)	ug/L	7.0 (2)	6.6 (2)	0.28	0.75	1.0	5330618
Perfluorononanoic Acid (PFNA)	ug/L	0.11 (1)	0.12 (1)	0.044	0.090	0.10	5330618
Perfluorotetradecanoic Acid	ug/L	0.050 U (1)	0.050 U (1)	0.014	0.050	0.10	5330618
Perfluorotridecanoic Acid	ug/L	0.050 U (1)	0.050 U (1)	0.019	0.050	0.10	5330618
Perfluoroundecanoic Acid (PFUnA)	ug/L	0.050 U (1)	0.050 U (1)	0.013	0.050	0.10	5330618
Perfluorodecanoic Acid (PFDA)	ug/L	0.033 J (1)	0.075 U (1)	0.031	0.075	0.10	5330618
Perfluorododecanoic Acid (PFDoA)	ug/L	0.050 U (1)	0.050 U (1)	0.025	0.050	0.10	5330618
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	1.2 (1)	1.1 (1)	0.017	0.050	0.10	5330618
Perfluorooctane Sulfonate (PFOS)	ug/L	19 (2)	18 (2)	0.30	0.75	1.0	5330618
Surrogate Recovery (%)							
13C2-Perfluorodecanoic acid	%	87	84				5330618
13C2-Perfluorododecanoic acid	%	85	75				5330618
13C2-Perfluorohexanoic acid	%	88	92				5330618
13C2-perfluorotetradecanoic acid	%	83	75				5330618
13C2-Perfluoroundecanoic acid	%	88	89				5330618
13C4-Perfluoroheptanoic acid	%	89	93				5330618
13C4-Perfluorooctanesulfonate	%	94	99				5330618
13C4-Perfluorooctanoic acid	%	83	89				5330618
13C5-Perfluorononanoic acid	%	89	90				5330618
18O2-Perfluorohexanesulfonate	%	88	95				5330618
DL = Detection Limit LOD = Limit of Detection LOQ = Limit of Quantitation QC Batch = Quality Control Batch N/A = Not Applicable (1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (5x). (2) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (50x).							

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

RESULTS OF ANALYSES OF WATER

Maxxam ID		FUH131				FUH132				
Sampling Date		2017/12/12 12:58				2017/12/12 13:02				
COC Number		17L143				17L143				
	UNITS	06-MW33-1217	DL	LOD	LOQ	06-MW34-1217	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
N-ethylperfluorooctane sulfonamide	ug/L	0.030 U	0.010	0.030	0.040	0.030 U	0.010	0.030	0.040	5330618
N-methylperfluorooctane sulfonamide	ug/L	0.030 U	0.013	0.030	0.040	0.030 U	0.013	0.030	0.040	5330618
Perfluorobutane Sulfonate (PFBS)	ug/L	0.064	0.0054	0.015	0.020	0.065	0.0054	0.015	0.020	5330618
Perfluoroheptanoic Acid (PFHpA)	ug/L	0.39	0.0074	0.015	0.020	0.13	0.0074	0.015	0.020	5330618
Perfluorohexanoic Acid (PFHxA)	ug/L	1.2 (1)	0.035	0.10	0.20	0.50	0.0035	0.010	0.020	5330618
Perfluorohexane Sulfonate (PFHxS)	ug/L	2.0 (1)	0.056	0.15	0.20	1.6 (1)	0.056	0.15	0.20	5330618
Perfluorononanoic Acid (PFNA)	ug/L	0.031	0.0087	0.018	0.020	0.017 J	0.0087	0.018	0.020	5330618
Perfluorotetradecanoic Acid	ug/L	0.010 U	0.0027	0.010	0.020	0.010 U	0.0027	0.010	0.020	5330618
Perfluorotridecanoic Acid	ug/L	0.010 U	0.0038	0.010	0.020	0.010 U	0.0038	0.010	0.020	5330618
Perfluoroundecanoic Acid (PFUnA)	ug/L	0.010 U	0.0025	0.010	0.020	0.010 U	0.0025	0.010	0.020	5330618
Perfluorodecanoic Acid (PFDA)	ug/L	0.010 J	0.0061	0.015	0.020	0.0071 J	0.0061	0.015	0.020	5330618
Perfluorododecanoic Acid (PFDoA)	ug/L	0.010 U	0.0050	0.010	0.020	0.010 U	0.0050	0.010	0.020	5330618
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	1.3 (1)	0.033	0.10	0.20	0.38	0.0033	0.010	0.020	5330618
Perfluorooctane Sulfonate (PFOS)	ug/L	6.1 (1)	0.060	0.15	0.20	3.1 (1)	0.060	0.15	0.20	5330618
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	85				87				5330618
13C2-Perfluorododecanoic acid	%	82				84				5330618
13C2-Perfluorohexanoic acid	%	97				90				5330618
13C2-perfluorotetradecanoic acid	%	74				80				5330618
13C2-Perfluoroundecanoic acid	%	84				87				5330618
13C4-Perfluoroheptanoic acid	%	88				88				5330618
13C4-Perfluorooctanesulfonate	%	93				94				5330618
13C4-Perfluorooctanoic acid	%	92				86				5330618
13C5-Perfluorononanoic acid	%	96				96				5330618
18O2-Perfluorohexanesulfonate	%	96				93				5330618
DL = Detection Limit LOD = Limit of Detection LOQ = Limit of Quantitation QC Batch = Quality Control Batch N/A = Not Applicable (1) Due to high concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).										

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

RESULTS OF ANALYSES OF WATER

Maxxam ID		FUH133	FUH134				
Sampling Date		2017/12/12 12:26	2017/12/12 13:32				
COC Number		17L143	17L143				
	UNITS	06-MW35-1217	06-MW36-1217	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters							
N-ethylperfluorooctane sulfonamide	ug/L	0.030 U	0.030 U	0.010	0.030	0.040	5330618
N-methylperfluorooctane sulfonamide	ug/L	0.030 U	0.030 U	0.013	0.030	0.040	5330618
Perfluorobutane Sulfonate (PFBS)	ug/L	0.048	0.076	0.0054	0.015	0.020	5330618
Perfluoroheptanoic Acid (PFHpA)	ug/L	0.16	0.44	0.0074	0.015	0.020	5330618
Perfluorohexanoic Acid (PFHxA)	ug/L	0.48	0.93	0.0035	0.010	0.020	5330618
Perfluorohexane Sulfonate (PFHxS)	ug/L	1.5 (1)	2.6 (1)	0.056	0.15	0.20	5330618
Perfluorononanoic Acid (PFNA)	ug/L	0.029	0.027	0.0087	0.018	0.020	5330618
Perfluorotetradecanoic Acid	ug/L	0.010 U	0.010 U	0.0027	0.010	0.020	5330618
Perfluorotridecanoic Acid	ug/L	0.010 U	0.010 U	0.0038	0.010	0.020	5330618
Perfluoroundecanoic Acid (PFUnA)	ug/L	0.010 U	0.010 U	0.0025	0.010	0.020	5330618
Perfluorodecanoic Acid (PFDA)	ug/L	0.0066 J	0.015 U	0.0061	0.015	0.020	5330618
Perfluorododecanoic Acid (PFDoA)	ug/L	0.010 U	0.010 U	0.0050	0.010	0.020	5330618
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	0.25	0.35	0.0033	0.010	0.020	5330618
Perfluorooctane Sulfonate (PFOS)	ug/L	3.8 (1)	1.4 (1)	0.060	0.15	0.20	5330618
Surrogate Recovery (%)							
13C2-Perfluorodecanoic acid	%	84	94				5330618
13C2-Perfluorododecanoic acid	%	85	87				5330618
13C2-Perfluorohexanoic acid	%	87	93				5330618
13C2-perfluorotetradecanoic acid	%	78	86				5330618
13C2-Perfluoroundecanoic acid	%	82	95				5330618
13C4-Perfluoroheptanoic acid	%	94	89				5330618
13C4-Perfluorooctanesulfonate	%	81	89				5330618
13C4-Perfluorooctanoic acid	%	95	93				5330618
13C5-Perfluorononanoic acid	%	98	99				5330618
18O2-Perfluorohexanesulfonate	%	89	81				5330618
DL = Detection Limit LOD = Limit of Detection LOQ = Limit of Quantitation QC Batch = Quality Control Batch N/A = Not Applicable (1) Due to high concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).							

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

TEST SUMMARY

Maxxam ID: FUH125
Sample ID: 06-MW25-1217
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330576	2017/12/23	2018/01/13	Kenneth Chu

Maxxam ID: FUH126
Sample ID: 06-MW26-1217
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330576	2017/12/23	2018/01/13	Kenneth Chu

Maxxam ID: FUH127
Sample ID: 06-MW30-1217
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330576	2017/12/23	2018/01/13	Kenneth Chu

Maxxam ID: FUH128
Sample ID: 06-MW31-1217
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330576	2017/12/23	2018/01/13	Kenneth Chu

Maxxam ID: FUH129
Sample ID: 06-MW32-1217
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330618	2017/12/23	2018/01/13	Kenneth Chu

Maxxam ID: FUH130
Sample ID: 06-MW32-1217 DUP
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330618	2017/12/23	2018/01/13	Kenneth Chu

Maxxam ID: FUH131
Sample ID: 06-MW33-1217
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330618	2017/12/23	2018/01/13	Kenneth Chu

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T1000006825
Your P.O. #: 17L143

TEST SUMMARY

Maxxam ID: FUH132
Sample ID: 06-MW34-1217
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330618	2017/12/23	2018/01/13	Kenneth Chu

Maxxam ID: FUH133
Sample ID: 06-MW35-1217
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330618	2017/12/23	2018/01/13	Kenneth Chu

Maxxam ID: FUH134
Sample ID: 06-MW36-1217
Matrix: Water

Collected: 2017/12/12
Shipped:
Received: 2017/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5330618	2017/12/23	2018/01/13	Kenneth Chu



Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

GENERAL COMMENTS

Maxxam Analytics is not accredited by DoD-ELAP for the following parameters:

N-methylperfluorooctanesulfonamide

N-ethylperfluorooctanesulfonamide

Results relate only to the items tested.

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits	
5330576	KC1	Spiked Blank	13C2-Perfluorodecanoic acid	2018/01/13	91	%	50 - 150			
			13C2-Perfluorododecanoic acid	2018/01/13	86	%	50 - 150			
			13C2-Perfluorohexanoic acid	2018/01/13	90	%	50 - 150			
			13C2-perfluorotetradecanoic acid	2018/01/13	74	%	50 - 150			
			13C2-Perfluoroundecanoic acid	2018/01/13	90	%	50 - 150			
			13C4-Perfluoroheptanoic acid	2018/01/13	89	%	50 - 150			
			13C4-Perfluorooctanesulfonate	2018/01/13	95	%	50 - 150			
			13C4-Perfluorooctanoic acid	2018/01/13	91	%	50 - 150			
			13C5-Perfluorononanoic acid	2018/01/13	90	%	50 - 150			
			18O2-Perfluorohexanesulfonate	2018/01/13	101	%	50 - 150			
			N-ethylperfluorooctane sulfonamide	2018/01/13	114	%	70 - 130			
			N-methylperfluorooctane sulfonamide	2018/01/13	126	%	70 - 130			
			Perfluorobutane Sulfonate (PFBS)	2018/01/13	105	%	70 - 130			
			Perfluoroheptanoic Acid (PFHpA)	2018/01/13	125	%	70 - 130			
			Perfluorohexanoic Acid (PFHxA)	2018/01/13	121	%	70 - 130			
			Perfluorohexane Sulfonate (PFHxS)	2018/01/13	108	%	70 - 130			
			Perfluorononanoic Acid (PFNA)	2018/01/13	117	%	70 - 130			
			Perfluorotetradecanoic Acid	2018/01/13	123	%	70 - 130			
			Perfluorotridecanoic Acid	2018/01/13	119	%	70 - 130			
			Perfluoroundecanoic Acid (PFUnA)	2018/01/13	108	%	70 - 130			
			Perfluorodecanoic Acid (PFDA)	2018/01/13	112	%	70 - 130			
			Perfluorododecanoic Acid (PFDoA)	2018/01/13	105	%	70 - 130			
			Perfluoro-n-Octanoic Acid (PFOA)	2018/01/13	120	%	70 - 130			
			Perfluorooctane Sulfonate (PFOS)	2018/01/13	103	%	70 - 130			
			5330576	KC1	Spiked Blank DUP	13C2-Perfluorodecanoic acid	2018/01/13	98	%	50 - 150
						13C2-Perfluorododecanoic acid	2018/01/13	86	%	50 - 150
						13C2-Perfluorohexanoic acid	2018/01/13	102	%	50 - 150
13C2-perfluorotetradecanoic acid	2018/01/13	82				%	50 - 150			
13C2-Perfluoroundecanoic acid	2018/01/13	95				%	50 - 150			
13C4-Perfluoroheptanoic acid	2018/01/13	97				%	50 - 150			
13C4-Perfluorooctanesulfonate	2018/01/13	102				%	50 - 150			
13C4-Perfluorooctanoic acid	2018/01/13	101				%	50 - 150			
13C5-Perfluorononanoic acid	2018/01/13	93				%	50 - 150			
18O2-Perfluorohexanesulfonate	2018/01/13	92				%	50 - 150			
N-ethylperfluorooctane sulfonamide	2018/01/13	122				%	70 - 130			
N-methylperfluorooctane sulfonamide	2018/01/13	122				%	70 - 130			
Perfluorobutane Sulfonate (PFBS)	2018/01/13	119				%	70 - 130			
Perfluoroheptanoic Acid (PFHpA)	2018/01/13	120				%	70 - 130			
Perfluorohexanoic Acid (PFHxA)	2018/01/13	110				%	70 - 130			
Perfluorohexane Sulfonate (PFHxS)	2018/01/13	127				%	70 - 130			
Perfluorononanoic Acid (PFNA)	2018/01/13	115				%	70 - 130			
Perfluorotetradecanoic Acid	2018/01/13	120				%	70 - 130			
Perfluorotridecanoic Acid	2018/01/13	114				%	70 - 130			
Perfluoroundecanoic Acid (PFUnA)	2018/01/13	110				%	70 - 130			
Perfluorodecanoic Acid (PFDA)	2018/01/13	115				%	70 - 130			
Perfluorododecanoic Acid (PFDoA)	2018/01/13	115				%	70 - 130			
Perfluoro-n-Octanoic Acid (PFOA)	2018/01/13	112				%	70 - 130			
Perfluorooctane Sulfonate (PFOS)	2018/01/13	100				%	70 - 130			
5330576	KC1	RPD				N-ethylperfluorooctane sulfonamide	2018/01/13	7.0	%	30
						N-methylperfluorooctane sulfonamide	2018/01/13	3.7	%	30
						Perfluorobutane Sulfonate (PFBS)	2018/01/13	12	%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/01/13	4.0	%	30			

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorohexanoic Acid (PFHxA)	2018/01/13	9.6		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/01/13	17		%	30
			Perfluorononanoic Acid (PFNA)	2018/01/13	1.2		%	30
			Perfluorotetradecanoic Acid	2018/01/13	2.5		%	30
			Perfluorotridecanoic Acid	2018/01/13	4.6		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/01/13	1.4		%	30
			Perfluorodecanoic Acid (PFDA)	2018/01/13	2.7		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/01/13	9.1		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/01/13	7.0		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/01/13	3.1		%	30
5330576	KC1	Method Blank	13C2-Perfluorodecanoic acid	2018/01/13		99	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/01/13		91	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/01/13		107	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/01/13		90	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/01/13		95	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/01/13		99	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/01/13		106	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/01/13		102	%	50 - 150
			13C5-Perfluorononanoic acid	2018/01/13		105	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/01/13		106	%	50 - 150
			N-ethylperfluorooctane sulfonamide	2018/01/13	0.030 U, LOD=0.030		ug/L	
			N-methylperfluorooctane sulfonamide	2018/01/13	0.030 U, LOD=0.030		ug/L	
			Perfluorobutane Sulfonate (PFBS)	2018/01/13	0.015 U, LOD=0.015		ug/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/01/13	0.015 U, LOD=0.015		ug/L	
			Perfluorohexanoic Acid (PFHxA)	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/01/13	0.015 U, LOD=0.015		ug/L	
			Perfluorononanoic Acid (PFNA)	2018/01/13	0.018 U, LOD=0.018		ug/L	
			Perfluorotetradecanoic Acid	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluorotridecanoic Acid	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluorodecanoic Acid (PFDA)	2018/01/13	0.015 U, LOD=0.015		ug/L	
			Perfluorododecanoic Acid (PFDoA)	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluorooctane Sulfonate (PFOS)	2018/01/13	0.015 U, LOD=0.015		ug/L	
5330618	KC1	Matrix Spike(FUH133)	13C2-Perfluorodecanoic acid	2018/01/13		93	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/01/13		85	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/01/13		97	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/01/13		86	%	50 - 150

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			13C2-Perfluoroundecanoic acid	2018/01/13		90	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/01/13		95	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/01/13		97	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/01/13		101	%	50 - 150
			13C5-Perfluorononanoic acid	2018/01/13		100	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/01/13		89	%	50 - 150
			N-ethylperfluorooctane sulfonamide	2018/01/13		101	%	70 - 130
			N-methylperfluorooctane sulfonamide	2018/01/13		100	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2018/01/13		126	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/01/13		111	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/01/13		102	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2018/01/13		NC	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/01/13		105	%	70 - 130
			Perfluorotetradecanoic Acid	2018/01/13		101	%	70 - 130
			Perfluorotridecanoic Acid	2018/01/13		110	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/01/13		109	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/01/13		109	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/01/13		111	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2018/01/13		105	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/01/13		NC	%	70 - 130
5330618	KC1	Matrix Spike DUP(FUH133)	13C2-Perfluorodecanoic acid	2018/01/13		92	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/01/13		86	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/01/13		102	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/01/13		86	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/01/13		88	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/01/13		100	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/01/13		95	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/01/13		100	%	50 - 150
			13C5-Perfluorononanoic acid	2018/01/13		97	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/01/13		98	%	50 - 150
			N-ethylperfluorooctane sulfonamide	2018/01/13		103	%	70 - 130
			N-methylperfluorooctane sulfonamide	2018/01/13		104	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2018/01/13		112	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/01/13		102	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/01/13		91	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2018/01/13		NC	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/01/13		109	%	70 - 130
			Perfluorotetradecanoic Acid	2018/01/13		108	%	70 - 130
			Perfluorotridecanoic Acid	2018/01/13		116	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/01/13		113	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/01/13		116	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/01/13		113	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2018/01/13		108	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/01/13		NC	%	70 - 130
5330618	KC1	MS/MSD RPD	N-ethylperfluorooctane sulfonamide	2018/01/13	2.0		%	30
			N-methylperfluorooctane sulfonamide	2018/01/13	3.5		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/01/13	12		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/01/13	8.1		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/01/13	12		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/01/13	0		%	30
			Perfluorononanoic Acid (PFNA)	2018/01/13	3.0		%	30
			Perfluorotetradecanoic Acid	2018/01/13	5.9		%	30

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorotridecanoic Acid	2018/01/13	4.9		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/01/13	3.5		%	30
			Perfluorodecanoic Acid (PFDA)	2018/01/13	6.5		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/01/13	1.7		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/01/13	3.0		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/01/13	0		%	30
5330618	KC1	Spiked Blank	13C2-Perfluorodecanoic acid	2018/01/13		91	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/01/13		92	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/01/13		92	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/01/13		81	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/01/13		94	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/01/13		93	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/01/13		87	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/01/13		92	%	50 - 150
			13C5-Perfluorononanoic acid	2018/01/13		94	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/01/13		91	%	50 - 150
			N-ethylperfluorooctane sulfonamide	2018/01/13		104	%	70 - 130
			N-methylperfluorooctane sulfonamide	2018/01/13		107	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2018/01/13		114	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/01/13		108	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/01/13		114	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2018/01/13		119	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/01/13		108	%	70 - 130
			Perfluorotetradecanoic Acid	2018/01/13		112	%	70 - 130
			Perfluorotridecanoic Acid	2018/01/13		118	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/01/13		106	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/01/13		112	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/01/13		104	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2018/01/13		116	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/01/13		113	%	70 - 130
5330618	KC1	Method Blank	13C2-Perfluorodecanoic acid	2018/01/13		95	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/01/13		97	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/01/13		100	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/01/13		89	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/01/13		95	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/01/13		98	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/01/13		101	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/01/13		88	%	50 - 150
			13C5-Perfluorononanoic acid	2018/01/13		99	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/01/13		99	%	50 - 150
			N-ethylperfluorooctane sulfonamide	2018/01/13	0.030 U, LOD=0.030		ug/L	
			N-methylperfluorooctane sulfonamide	2018/01/13	0.030 U, LOD=0.030		ug/L	
			Perfluorobutane Sulfonate (PFBS)	2018/01/13	0.015 U, LOD=0.015		ug/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/01/13	0.015 U, LOD=0.015		ug/L	
			Perfluorohexanoic Acid (PFHxA)	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/01/13	0.015 U, LOD=0.015		ug/L	

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorononanoic Acid (PFNA)	2018/01/13	0.018 U, LOD=0.018		ug/L	
			Perfluorotetradecanoic Acid	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluorotridecanoic Acid	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluorodecanoic Acid (PFDA)	2018/01/13	0.015 U, LOD=0.015		ug/L	
			Perfluorododecanoic Acid (PFDoA)	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/01/13	0.010 U, LOD=0.010		ug/L	
			Perfluorooctane Sulfonate (PFOS)	2018/01/13	0.015 U, LOD=0.015		ug/L	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

Maxxam Job #: B7S7424
Report Date: 2018/01/17

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 06
Site Location: T10000006825
Your P.O. #: 17L143

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Colm McNamara, Senior Analyst, Liquid Chromatography

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



METHOD 537 Modified
DETERMINATION OF SELECTED PERFLUORINATED ALKYL
ACIDS IN DRINKING WATER BY SOLID PHASE EXTRACTION
AND LIQUID CHROMATOGRAPHY/TANDEM MASS SPECTROMETRY
(LC/MS/MS)

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



3.2 Sample Chromatograms

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

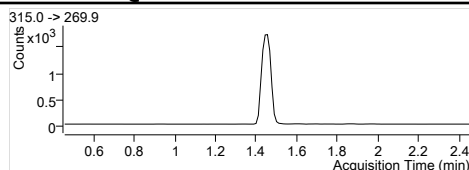
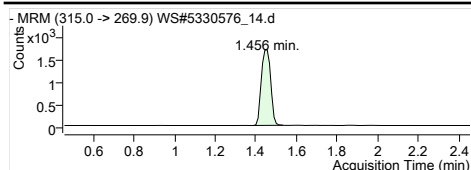
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:FUH125-01:50x	Instrument	LCMS04
Data File	WS#5330576_14.d	Operator	
Sample Type	Sample	Dilution	1.2
Acq. Method	PFC_Water_Low.m	Position	P3-B4
Acq. Date	2018/01/13 2:52:14 AM	Injection Volume	Per Method
Sample Annotation	Reported for PFOS		

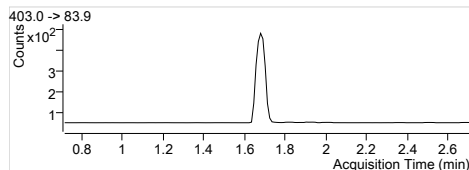
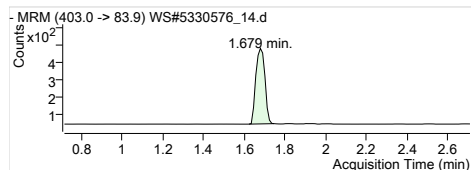
ISTD Compounds	Response	RT	Target conc.
MPFHxA	5390	1.46	1 µg/L
MPFHxS	1344	1.68	1 µg/L
MPFHpA	6269	1.71	1 µg/L
MPFOA	6904	1.89	1 µg/L
MPFOS	1426	1.97	1 µg/L
MPFNA	6760	2.04	1 µg/L
MPFDA	5586	2.15	1 µg/L
MPFUnA	6978	2.25	1 µg/L
MPFDoA	8322	2.33	1 µg/L
MPFTeDA	9125	2.47	1 µg/L
D3-MeFOSA IS	2408	2.83	1 µg/L
D5-EtFOSA IS	2012	2.91	1 µg/L
13C6-PFHxA IS	20694	1.46	1 µg/L
13C9-PFDA IS	25504	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	3754	1.44	-	1.97 µg/L	-
PFHxS 1	1210	1.68	-	2.14 µg/L	-
PFHpA 1	1566	1.71	-	0.63 µg/L	-
PFOA 1	10436	1.89	-	3.98 µg/L	-
PFOS 1	9105	1.96	-	18.47 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	5390	1.46	-	103.90 µg/L	-
18O2-PFHxS	1344	1.68	-	112.39 µg/L	-
13C4-PFHpA	6269	1.71	-	95.35 µg/L	-
13C4-PFOA	6904	1.89	-	101.83 µg/L	-
13C4-PFOS	1426	1.97	-	96.87 µg/L	-
13C5-PFNA	6672	2.04	-	100.62 µg/L	-
13C2-PFDA	5489	2.15	-	97.69 µg/L	-
13C2-PFUnA	6978	2.25	-	97.70 µg/L	-
13C2-PFDoA	8322	2.33	-	92.27 µg/L	-
13C2-PFTeDA	9281	2.47	-	91.61 µg/L	-
D3-MeFOSA	2490	2.83	-	74.90 µg/L	-
D5-EtFOSA	2050	2.91	-	75.82 µg/L	-
13C6-PFHxA	20694	1.46	-	116.46 µg/L	-
13C9-PFDA	25504	2.15	-	116.98 µg/L	-

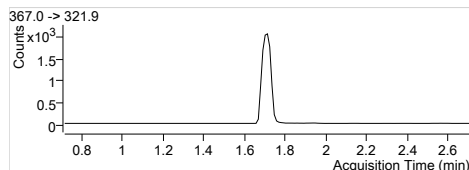
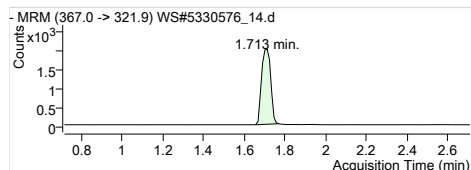
Quantitation Results



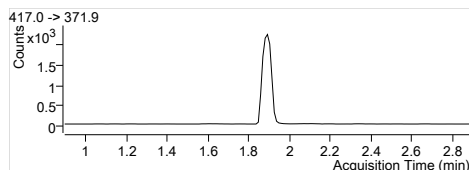
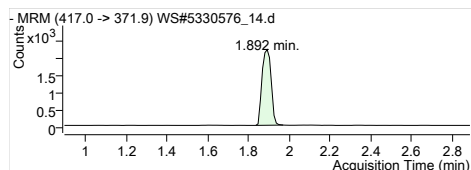
MPFHxA
Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



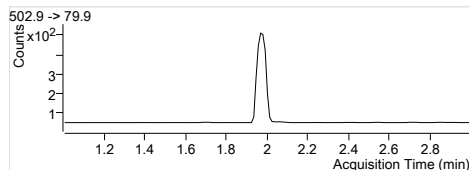
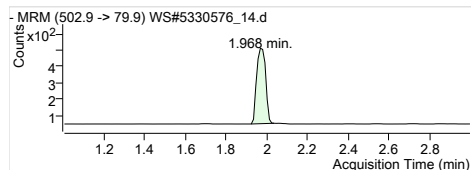
MPFHxS
Internal Standard
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample



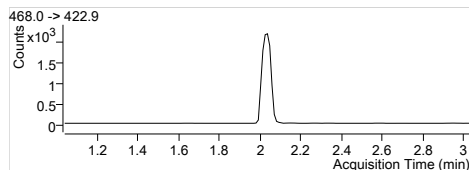
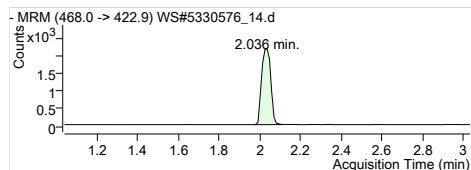
MPFHpA
Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



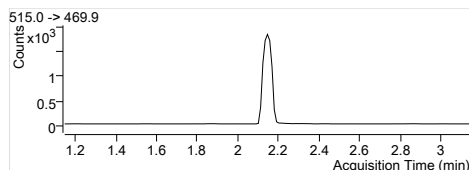
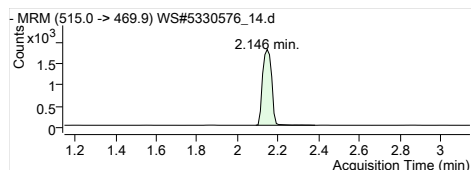
MPFOA
Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



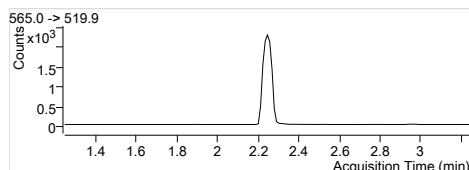
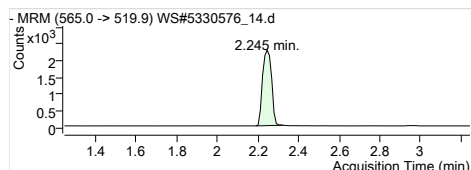
MPFOS
Internal Standard
RT (Exp. RT): 1.968 (2.002)
Concentration: 1 µg/L
Sample type: Sample



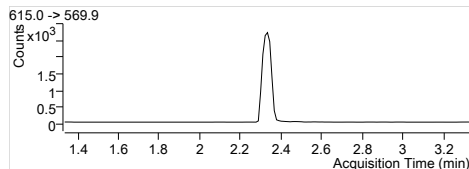
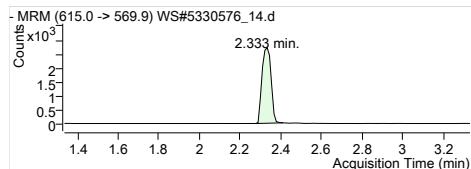
MPFNA
Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



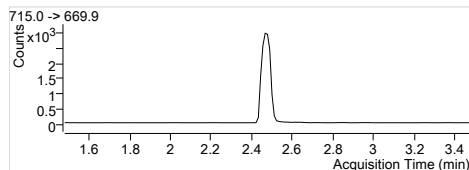
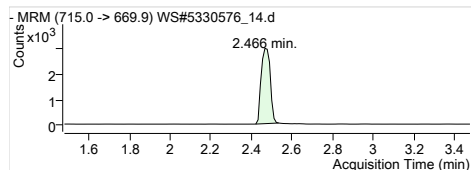
MPFDA
Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

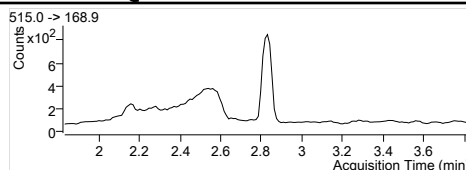
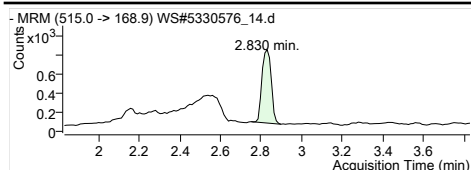


MPFDaA
Internal Standard
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

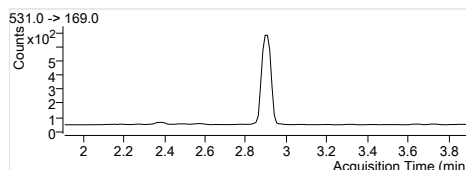
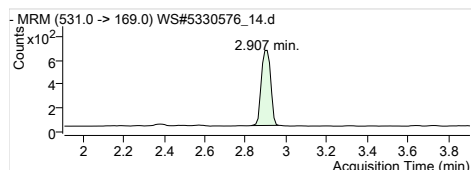


MPFTeDA
Internal Standard
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample

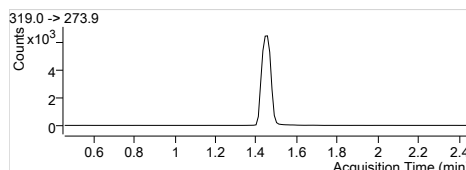
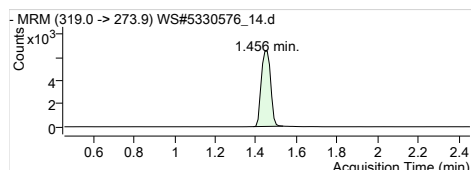
Quantitation Results



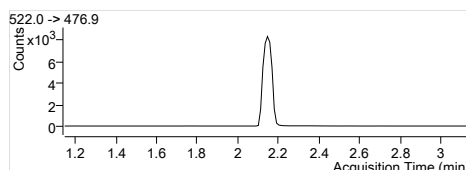
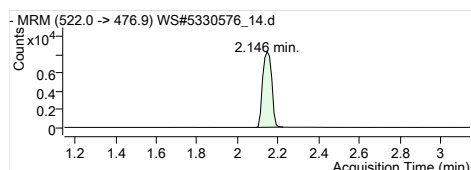
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



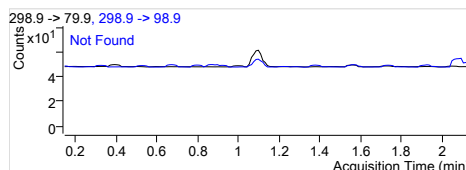
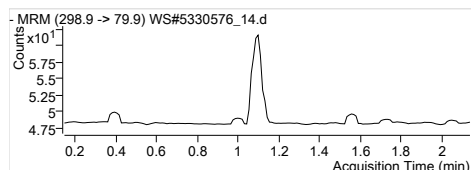
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.907 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



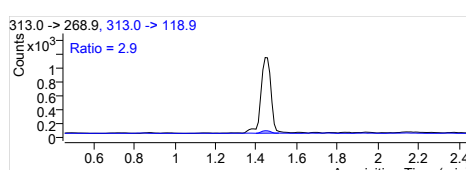
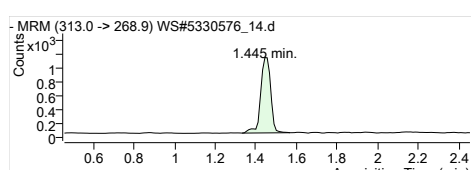
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



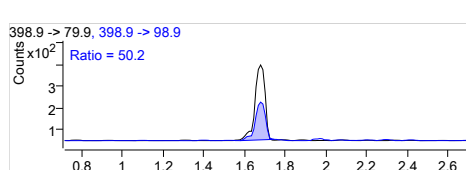
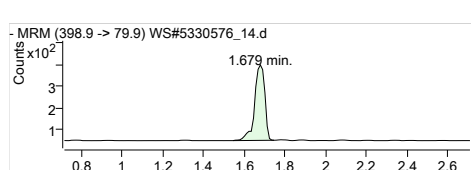
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



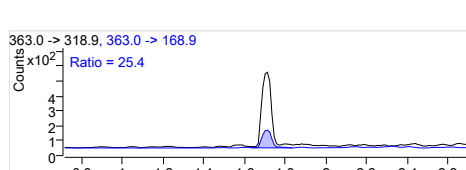
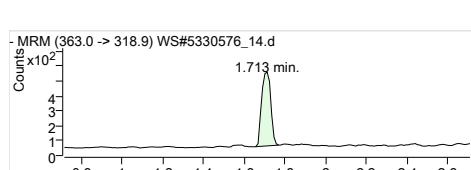
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.143)
 Area ratio: N.D.
 Sample type: 0
 Sample type: Sample



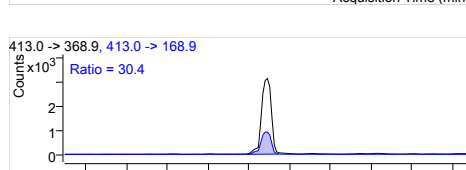
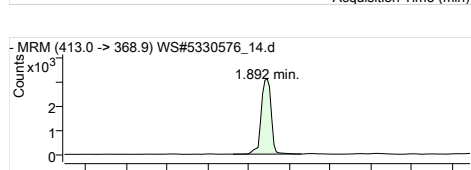
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 1.97 µg/L
 Sample type: 0.69647
 Sample type: Sample



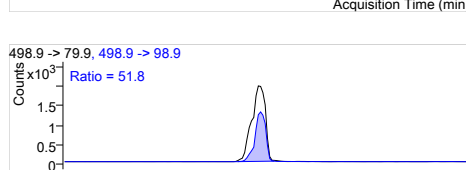
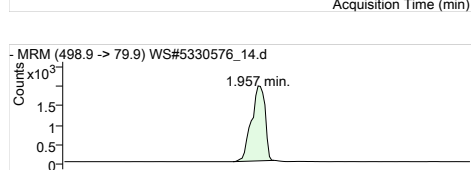
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 2.14 µg/L
 Sample type: 0.90030
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 0.63 µg/L
 Sample type: 0.24980
 Sample type: Sample

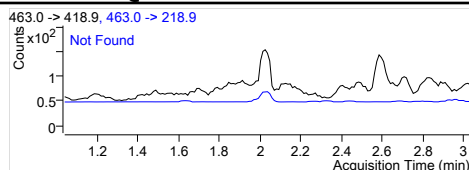
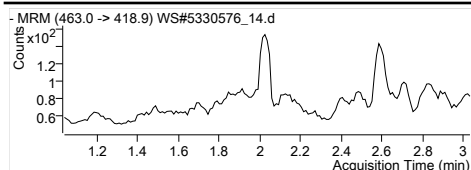


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 3.98 µg/L
 Sample type: 1.51159
 Sample type: Sample

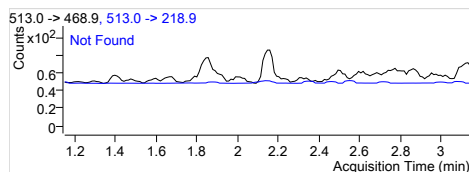
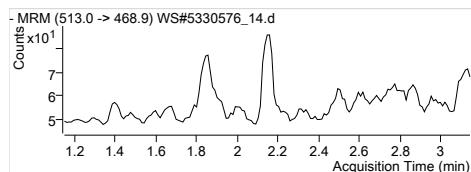


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.957 (2.002)
 Area ratio: 18.47 µg/L
 Sample type: 6.38499
 Sample type: Sample

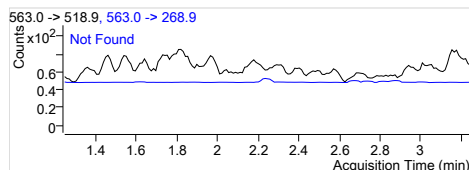
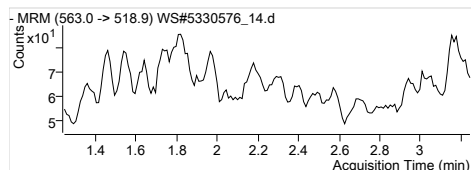
Quantitation Results



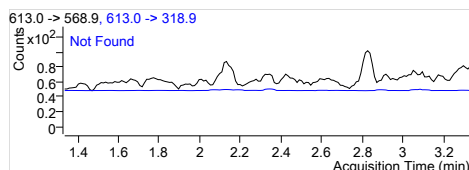
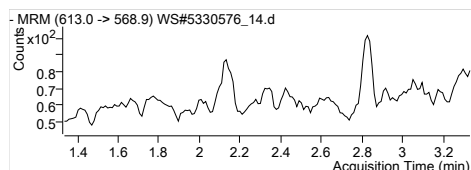
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



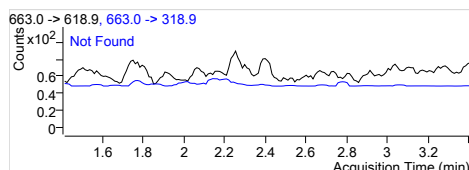
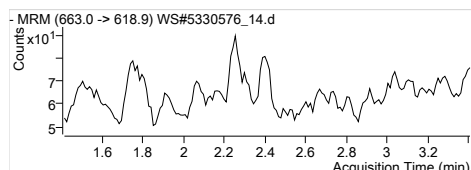
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



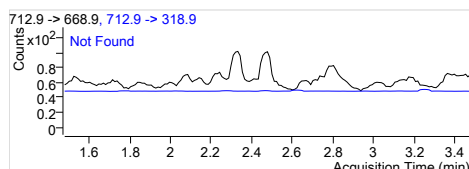
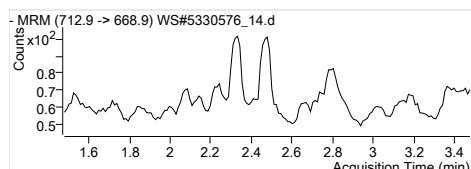
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



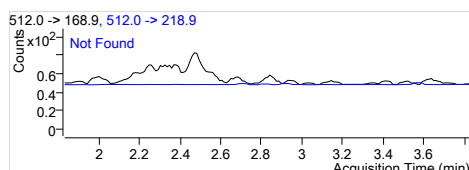
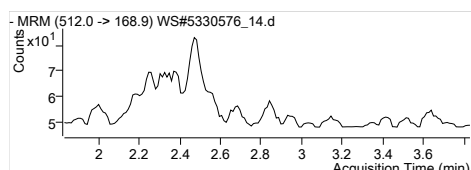
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



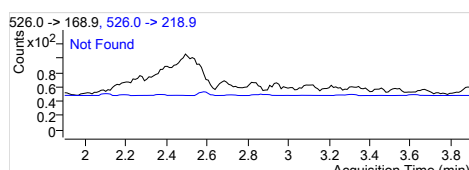
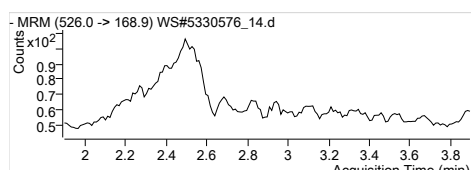
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



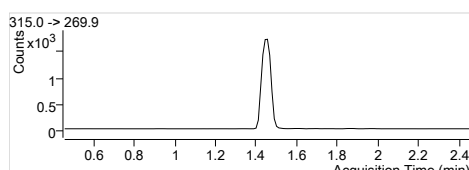
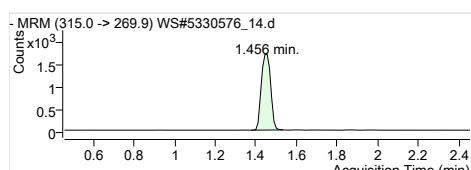
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

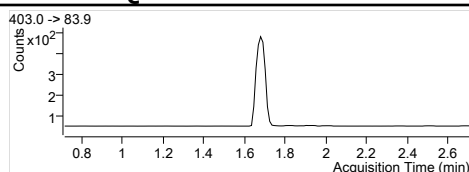
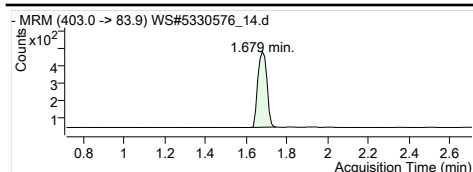


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

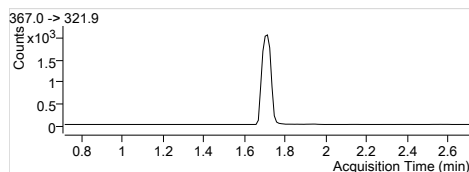
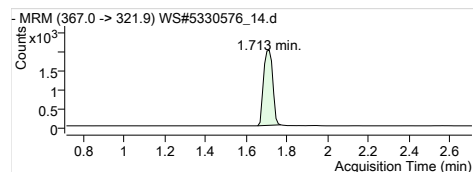


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 103.90 µg/L
 Sample type: 0.26046
 Sample

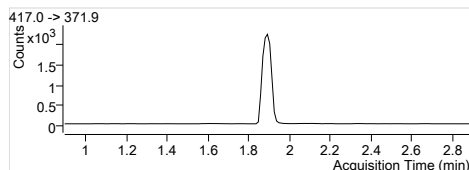
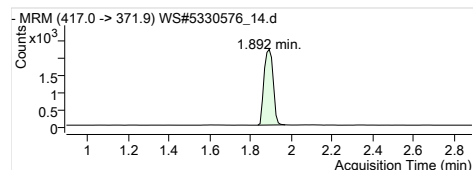
Quantitation Results



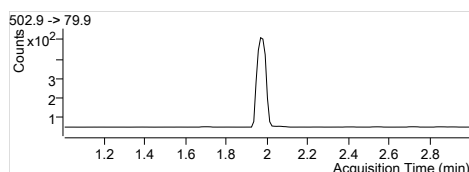
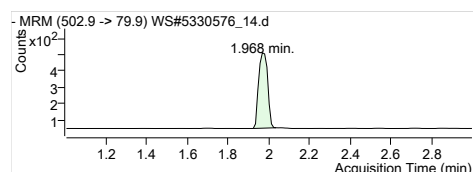
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 112.39 µg/L
Sample type: 0.06495
Sample



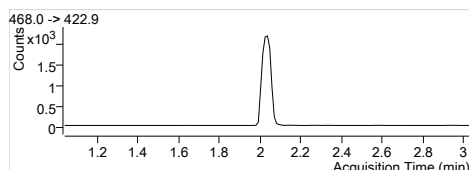
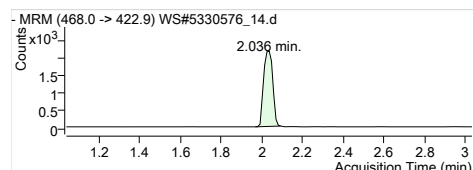
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 95.35 µg/L
Sample type: 0.30294
Sample



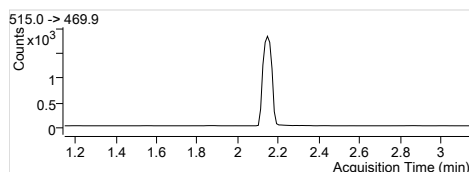
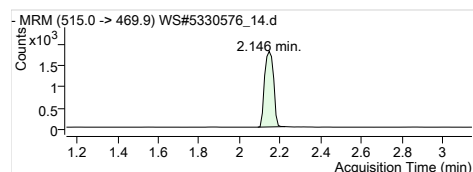
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 101.83 µg/L
Sample type: 0.33362
Sample



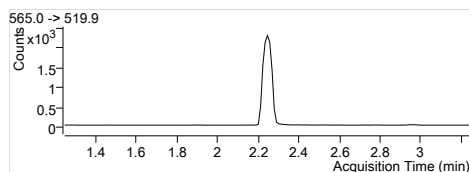
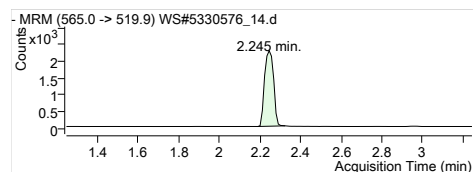
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.968 (2.002)
Area ratio: 96.87 µg/L
Sample type: 0.06891
Sample



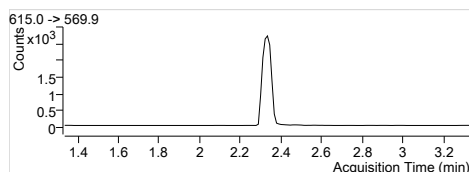
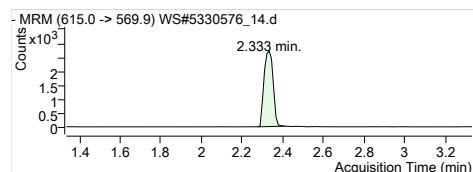
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 100.62 µg/L
Sample type: 0.32241
Sample



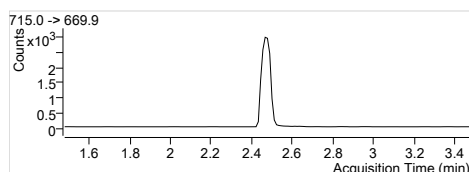
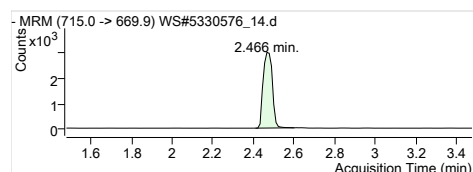
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 97.69 µg/L
Sample type: 0.21522
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 97.70 µg/L
Sample type: 0.27360
Sample

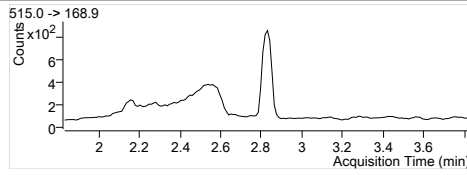
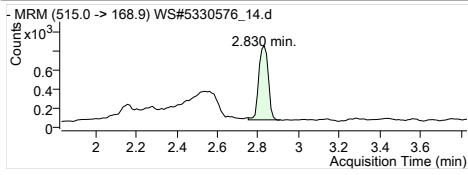


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 92.27 µg/L
Sample type: 0.32630
Sample

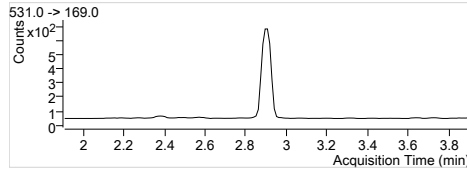
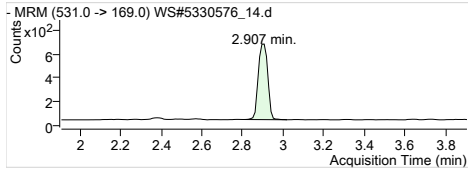


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 91.61 µg/L
Sample type: 0.36390
Sample

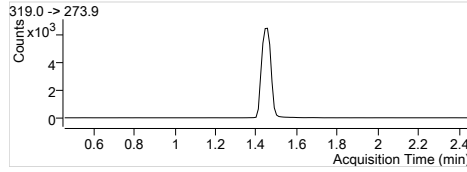
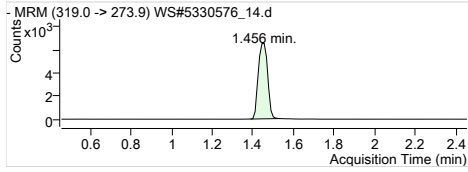
Quantitation Results



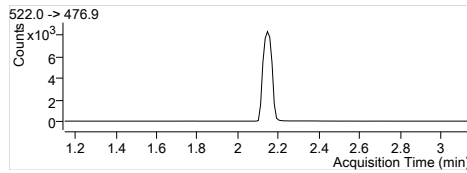
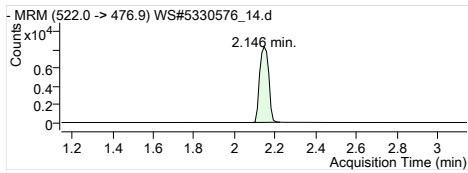
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 74.90 µg/L
Area ratio: 0.12032
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.907 (2.907)
Calc. conc. 75.82 µg/L
Area ratio: 0.09906
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.456 (1.456)
Calc. conc. 116.46 µg/L
Area ratio: 0
Sample type: Sample



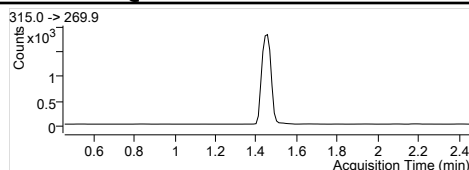
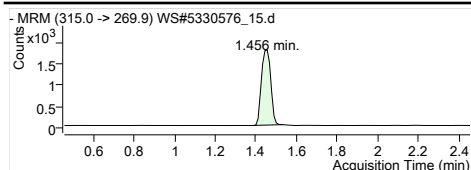
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 116.98 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

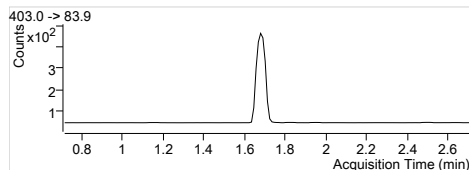
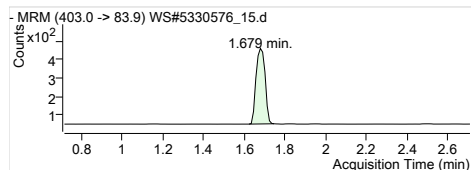
Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:FUH125-01:5x	Instrument	LCMS04
Data File	WS#5330576_15.d	Operator	
Sample Type	Sample	Dilution	0.12
Acq. Method	PFC_Water_Low.m	Position	P3-B5
Acq. Date	2018/01/13 2:57:10 AM	Injection Volume	Per Method
Sample Annotation	Reported for all except PFOS		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	5699	1.46	1 µg/L
MPFHxS	1281	1.68	1 µg/L
MPFHpA	7243	1.71	1 µg/L
MPFOA	6655	1.89	1 µg/L
MPFOS	1389	1.98	1 µg/L
MPFNA	7283	2.04	1 µg/L
MPFDA	5474	2.15	1 µg/L
MPFUnA	7256	2.25	1 µg/L
MPFDoA	9194	2.33	1 µg/L
MPFTeDA	9179	2.47	1 µg/L
D3-MeFOSA IS	1517	2.83	1 µg/L
D5-EtFOSA IS	1320	2.90	1 µg/L
13C6-PFHxA IS	21448	1.46	1 µg/L
13C9-PFDA IS	27471	2.15	1 µg/L

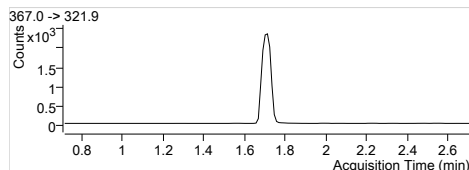
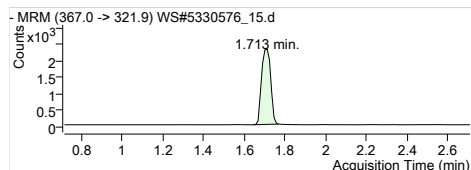
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	476	1.10	-	0.08 µg/L	-
PFHxA 1	37082	1.46	-	1.82 µg/L	-
PFHxS 1	13228	1.68	-	2.63 µg/L	-
PFHpA 1	13185	1.71	-	0.52 µg/L	-
PFOA 1	105460	1.89	-	4.09 µg/L	-
PFOS 1	91826	1.96	-	18.93 µg/L	-
PFNA 1	2109	2.02	-	0.08 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	5699	1.46	-	106.00 µg/L	-
18O2-PFHxS	1281	1.68	-	103.36 µg/L	-
13C4-PFHpA	7243	1.71	-	106.29 µg/L	-
13C4-PFOA	6655	1.89	-	94.70 µg/L	-
13C4-PFOS	1389	1.98	-	91.04 µg/L	-
13C5-PFNA	7220	2.04	-	105.06 µg/L	-
13C2-PFDA	5398	2.15	-	89.19 µg/L	-
13C2-PFUnA	7256	2.25	-	94.31 µg/L	-
13C2-PFDoA	9194	2.33	-	94.64 µg/L	-
13C2-PFTeDA	9401	2.47	-	86.15 µg/L	-
D3-MeFOSA	1530	2.83	-	44.40 µg/L	-
D5-EtFOSA	1375	2.90	-	49.06 µg/L	-
13C6-PFHxA	21448	1.46	-	12.07 µg/L	-
13C9-PFDA	27471	2.15	-	12.60 µg/L	-



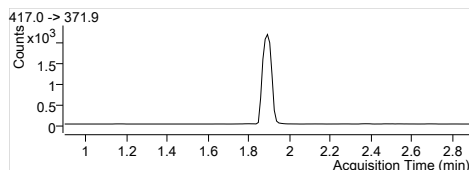
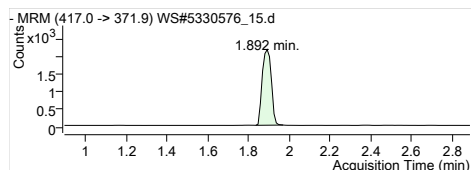
MPFHxA
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



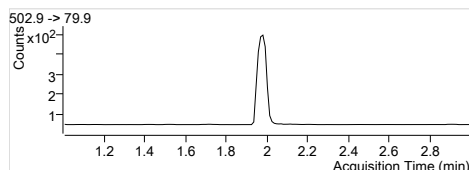
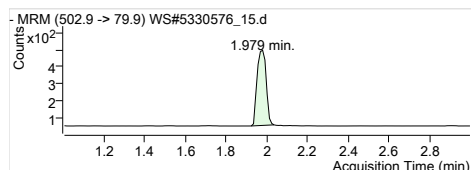
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample



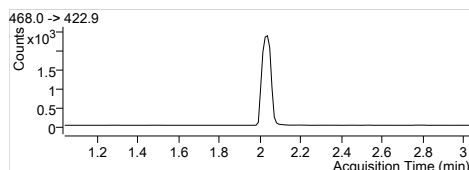
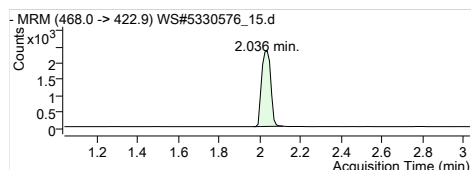
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



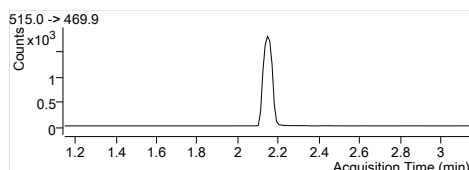
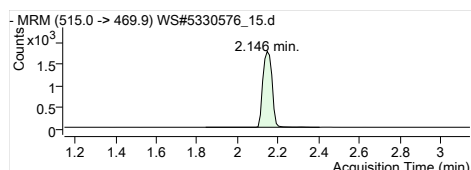
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



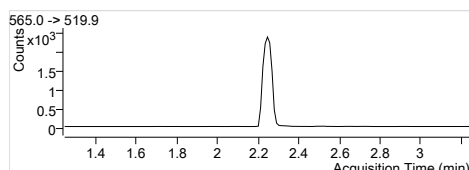
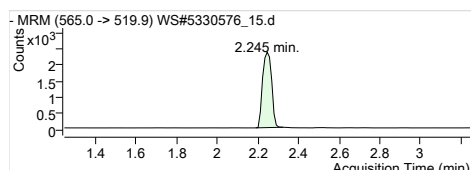
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: Sample



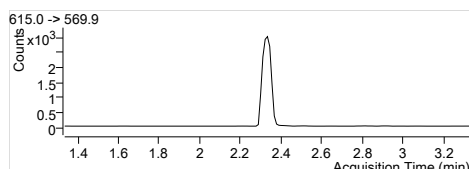
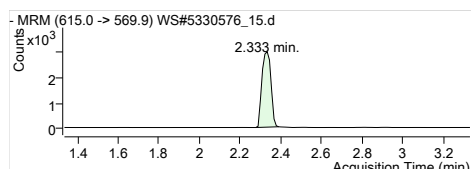
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



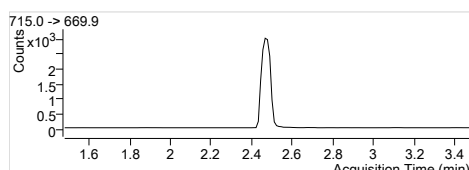
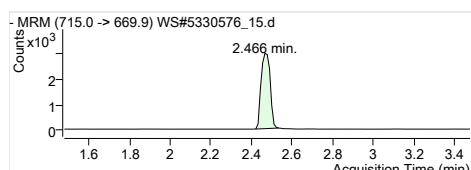
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



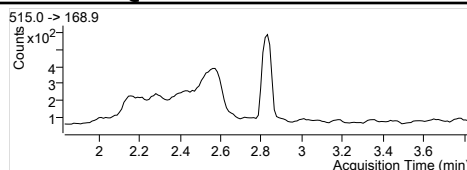
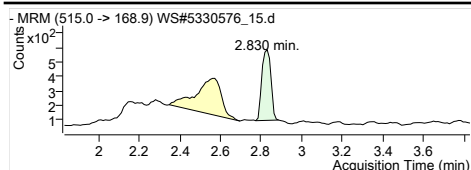
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



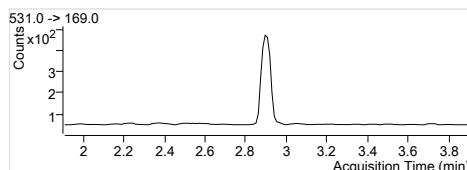
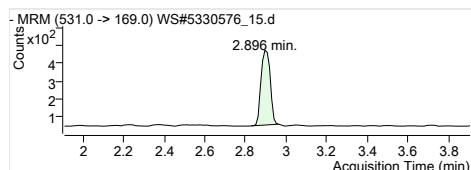
MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample



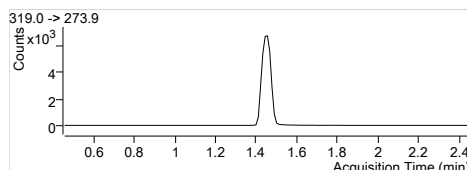
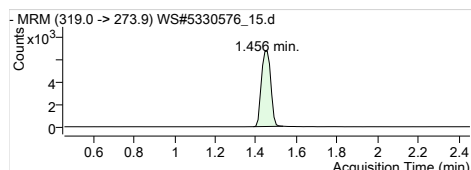
MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample



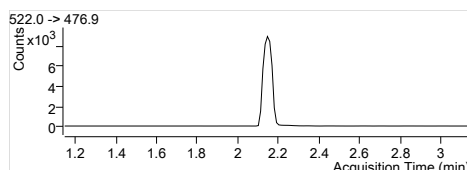
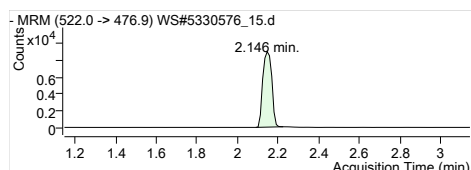
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



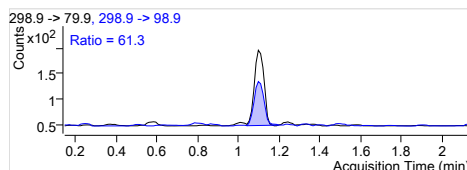
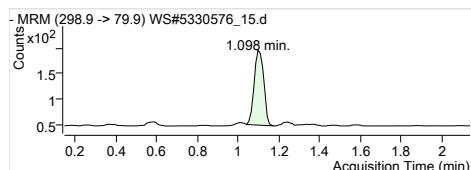
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



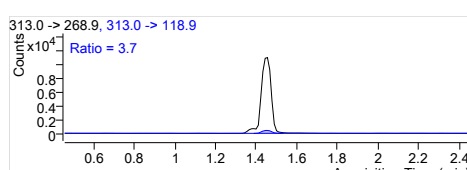
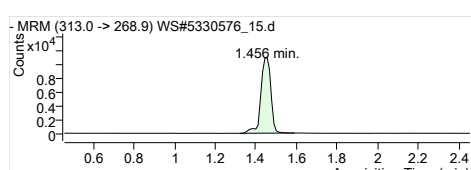
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



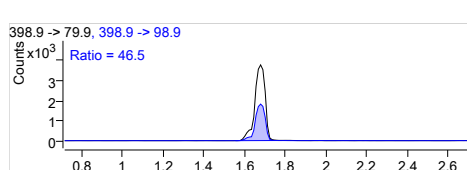
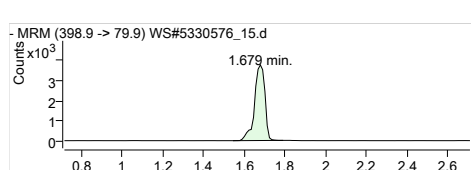
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



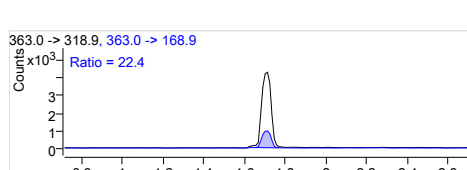
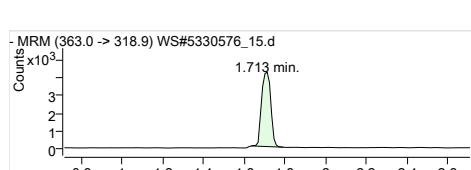
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.098 (1.143)
 Calc. conc. 0.08 µg/L
 Area ratio: 0.37158
 Sample type: Sample



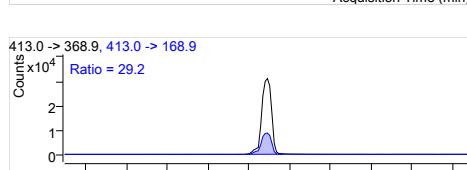
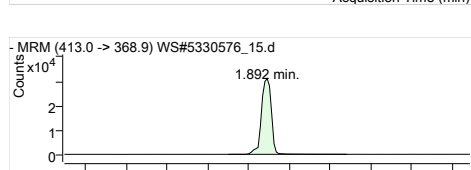
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.456 (1.456)
 Calc. conc. 1.82 µg/L
 Area ratio: 6.50676
 Sample type: Sample



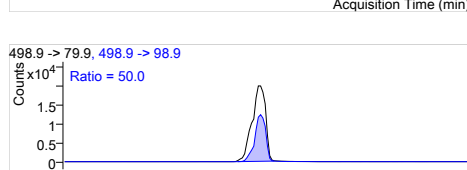
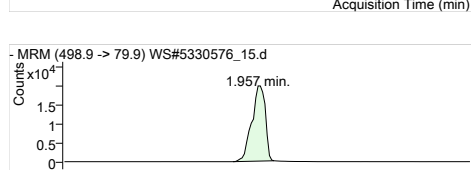
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.713)
 Calc. conc. 2.63 µg/L
 Area ratio: 10.32631
 Sample type: Sample



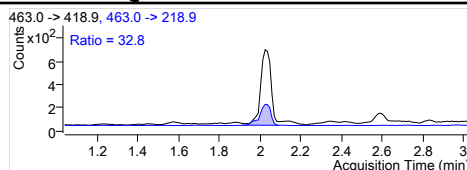
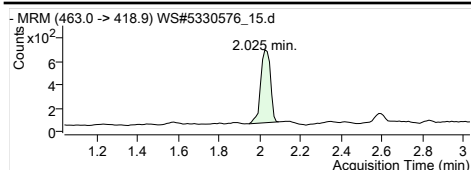
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 0.52 µg/L
 Area ratio: 1.82038
 Sample type: Sample



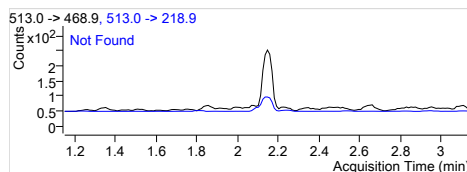
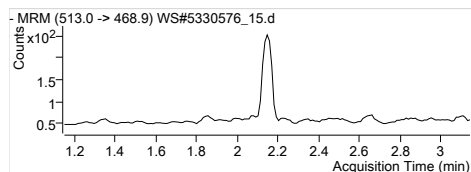
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 4.09 µg/L
 Area ratio: 15.84673
 Sample type: Sample



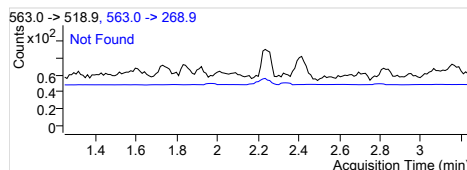
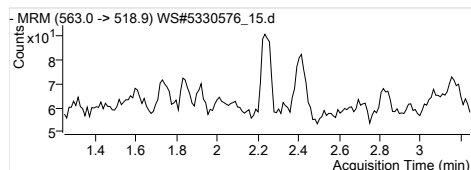
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.957 (2.002)
 Calc. conc. 18.93 µg/L
 Area ratio: 66.10943
 Sample type: Sample



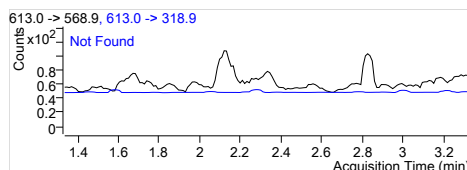
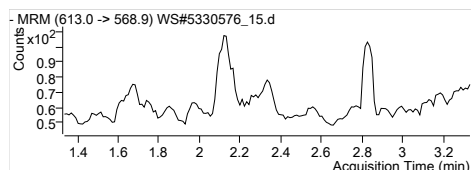
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 0.08 µg/L
 Sample type: 0.28958
 Sample



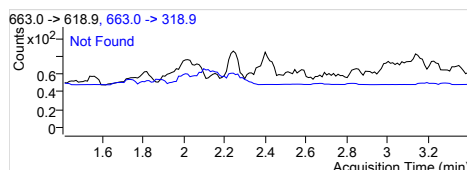
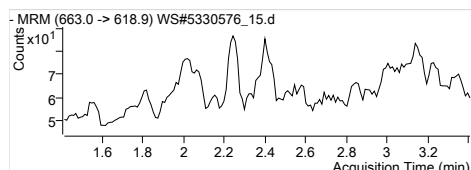
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



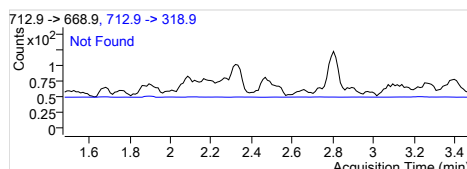
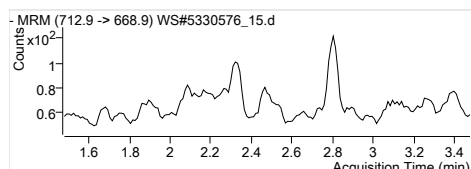
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



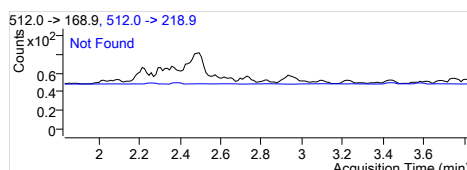
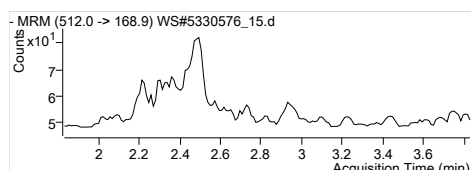
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



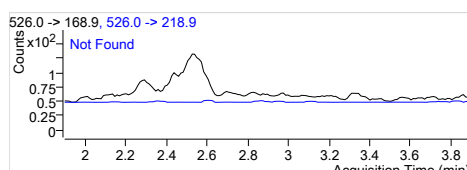
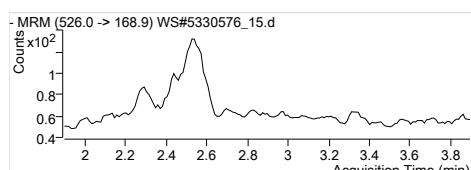
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



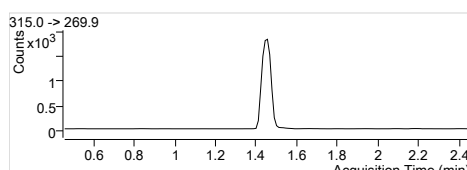
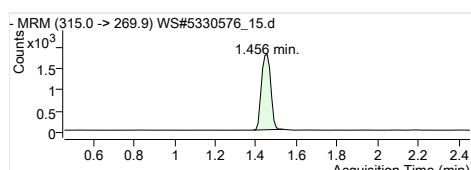
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

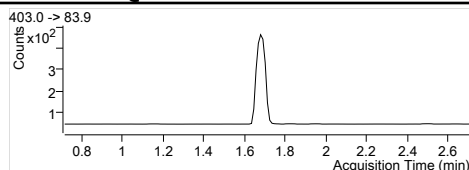
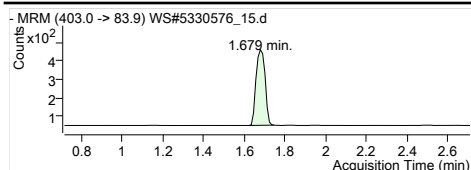


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

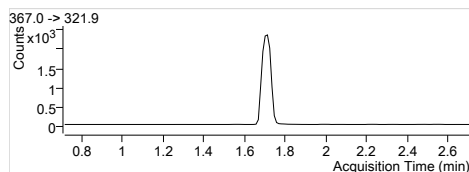
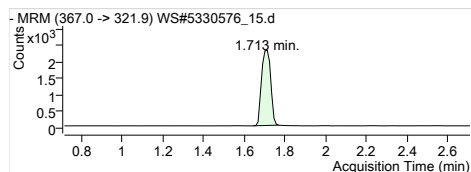


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 106.00 µg/L
 Sample type: 0.26571
 Sample

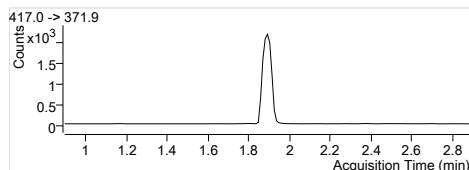
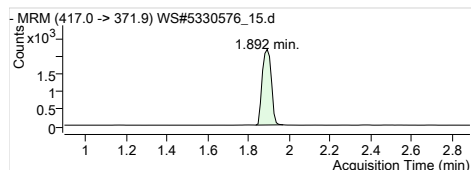
Quantitation Results



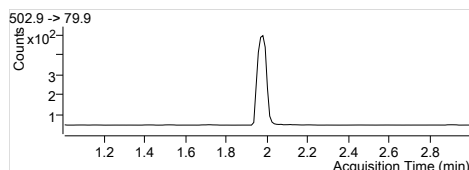
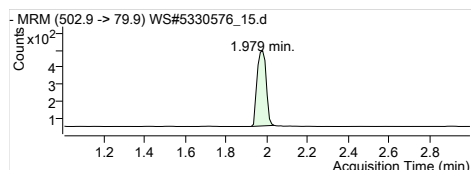
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 103.36 µg/L
Sample type: 0.05973
Sample



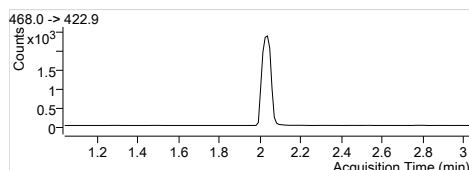
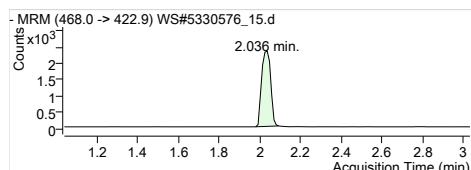
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 106.29 µg/L
Sample type: 0.33770
Sample



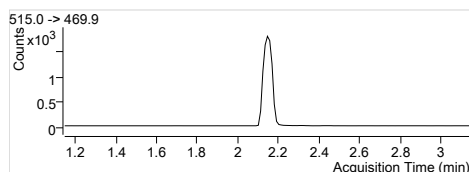
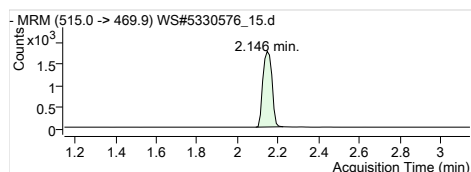
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 94.70 µg/L
Sample type: 0.31029
Sample



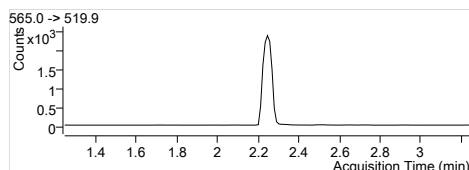
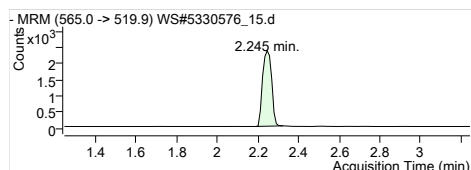
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (2.002)
Area ratio: 91.04 µg/L
Sample type: 0.06476
Sample



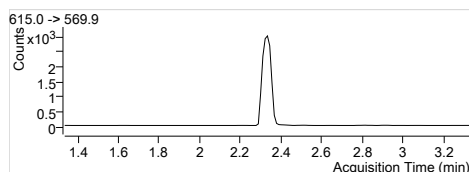
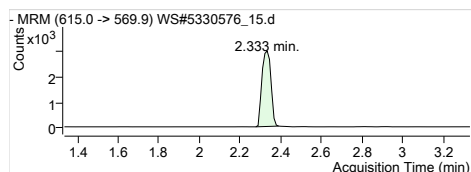
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 105.06 µg/L
Sample type: 0.33663
Sample



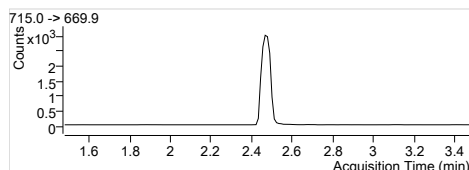
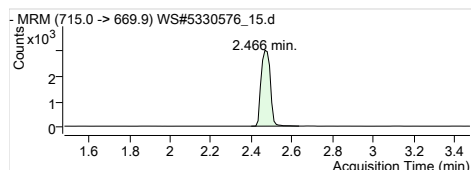
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 89.19 µg/L
Sample type: 0.19650
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 94.31 µg/L
Sample type: 0.26413
Sample

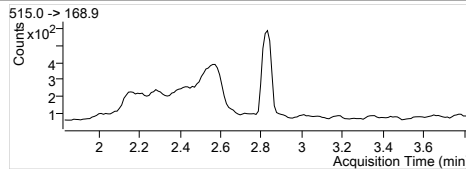
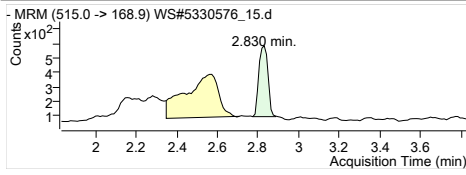


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 94.64 µg/L
Sample type: 0.33468
Sample

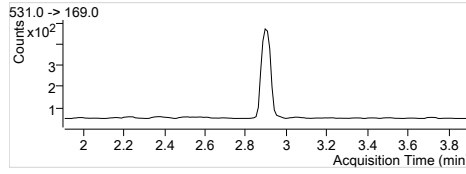
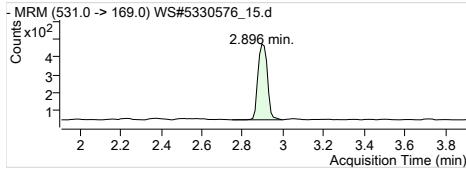


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 86.15 µg/L
Sample type: 0.34222
Sample

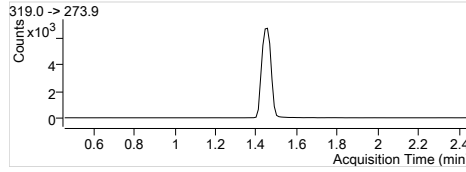
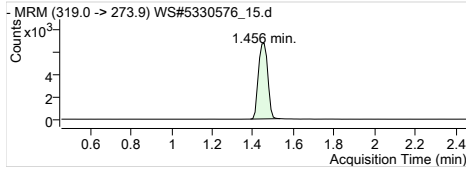
Quantitation Results



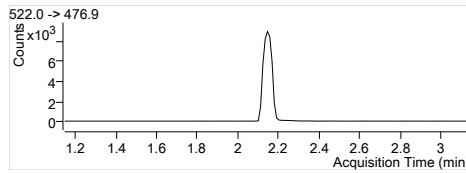
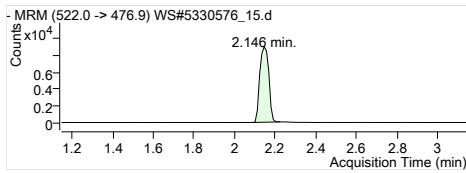
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 44.40 µg/L
Area ratio: 0.07134
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 49.06 µg/L
Area ratio: 0.06411
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.456 (1.456)
Calc. conc. 12.07 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 12.60 µg/L
Area ratio: 0
Sample type: Sample

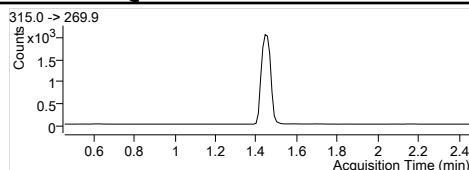
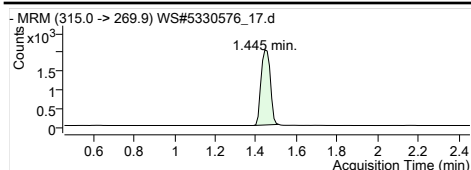
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:FUH126-01:10x	Instrument	LCMS04
Data File	WS#5330576_17.d	Operator	
Sample Type	Sample	Dilution	0.24
Acq. Method	PFC_Water_Low.m	Position	P3-B6
Acq. Date	2018/01/13 3:07:02 AM	Injection Volume	Per Method
Sample Annotation	Reported for all PFOA, PFOS		

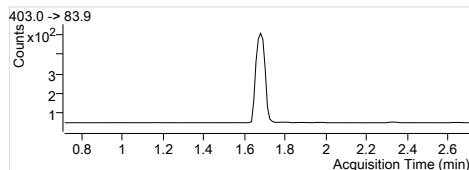
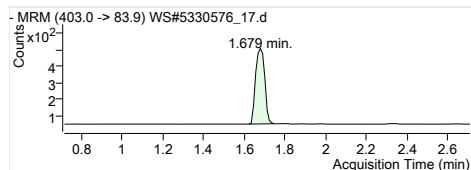
ISTD Compounds	Response	RT	Target conc.
MPFHxA	6353	1.44	1 µg/L
MPFHxS	1435	1.68	1 µg/L
MPFHpA	8008	1.70	1 µg/L
MPFOA	8303	1.89	1 µg/L
MPFOS	1736	1.98	1 µg/L
MPFNA	8411	2.04	1 µg/L
MPFDA	6386	2.15	1 µg/L
MPFUnA	7834	2.25	1 µg/L
MPFDoA	10300	2.33	1 µg/L
MPFTeDA	10387	2.47	1 µg/L
D3-MeFOSA IS	1581	2.83	1 µg/L
D5-EtFOSA IS	1396	2.90	1 µg/L
13C6-PFHxA IS	24587	1.44	1 µg/L
13C9-PFDA IS	31325	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	4544	1.44	-	0.40 µg/L	-
PFHxS 1	2490	1.68	-	0.86 µg/L	-
PFHpA 1	2303	1.70	-	0.15 µg/L	-
PFOA 1	15108	1.89	-	0.96 µg/L	-
PFOS 1	11383	1.97	-	3.79 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6353	1.44	-	103.08 µg/L	-
18O2-PFHxS	1435	1.68	-	101.00 µg/L	-
13C4-PFHpA	8008	1.70	-	102.51 µg/L	-
13C4-PFOA	8303	1.89	-	103.07 µg/L	-
13C4-PFOS	1736	1.98	-	99.26 µg/L	-
13C5-PFNA	8326	2.04	-	105.68 µg/L	-
13C2-PFDA	6263	2.15	-	90.75 µg/L	-
13C2-PFUnA	7834	2.25	-	89.30 µg/L	-
13C2-PFDoA	10300	2.33	-	92.98 µg/L	-
13C2-PFTeDA	10573	2.47	-	84.97 µg/L	-
D3-MeFOSA	1658	2.83	-	41.97 µg/L	-
D5-EtFOSA	1422	2.90	-	44.26 µg/L	-
13C6-PFHxA	24587	1.44	-	27.67 µg/L	-
13C9-PFDA	31325	2.15	-	28.74 µg/L	-

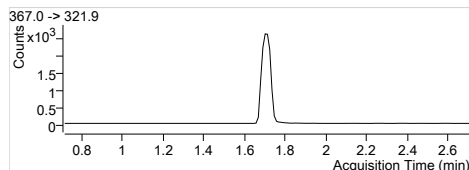
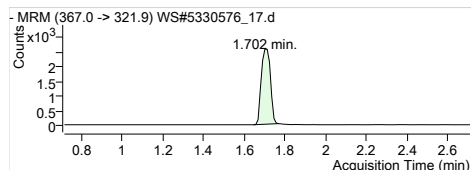
Quantitation Results



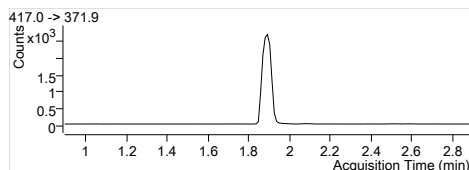
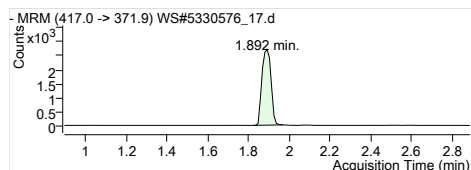
MPFHxA
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Sample



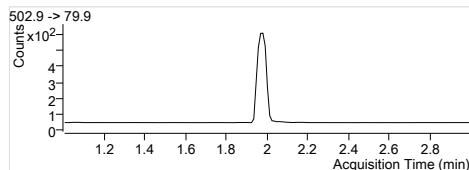
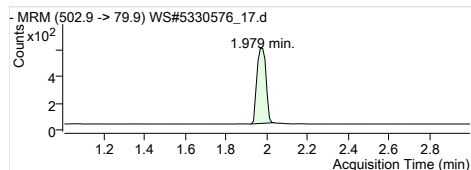
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample



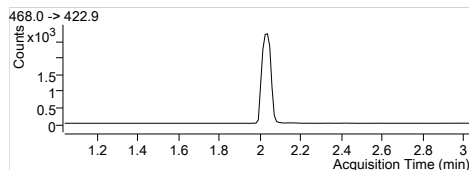
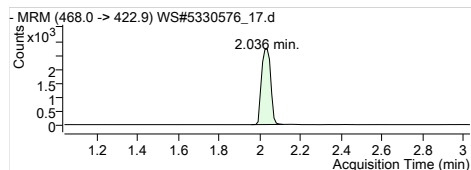
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



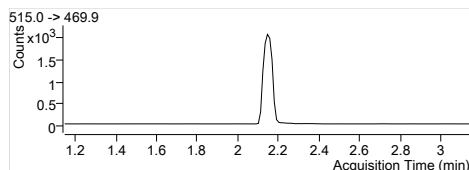
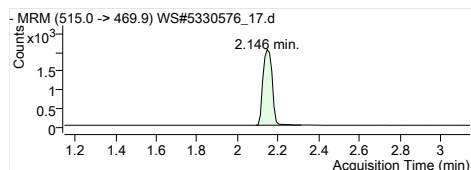
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



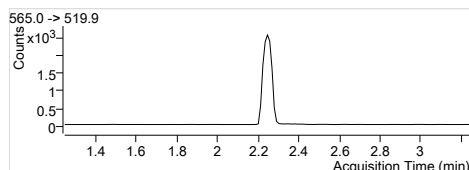
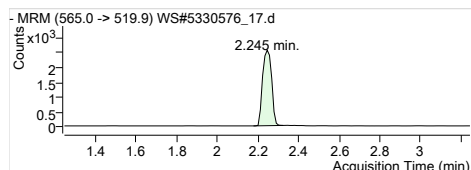
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: Sample



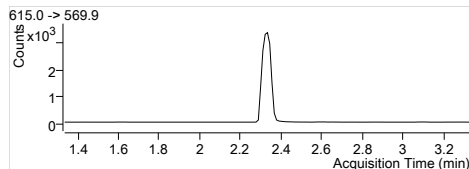
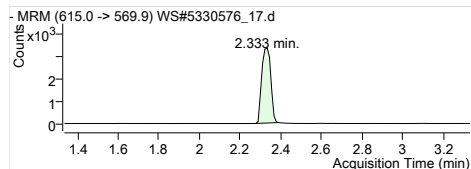
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



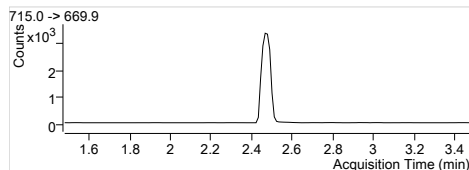
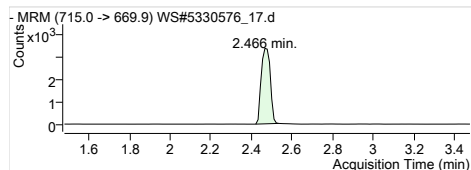
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

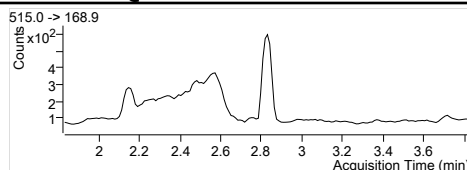
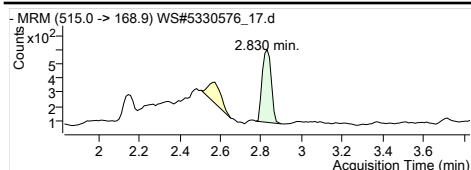


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

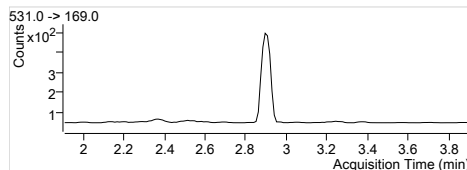
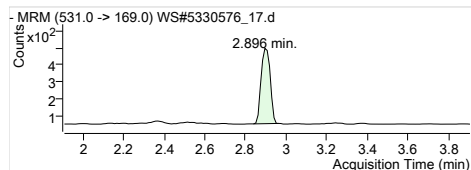


MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample

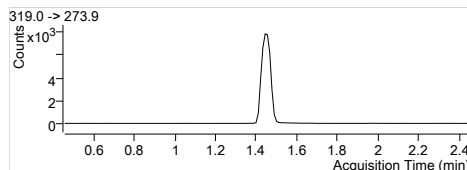
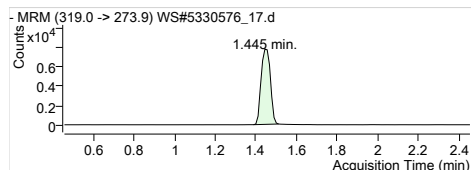
Quantitation Results



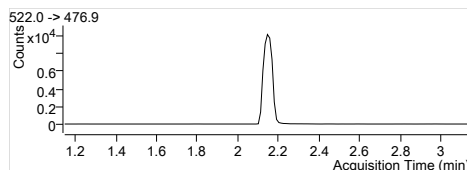
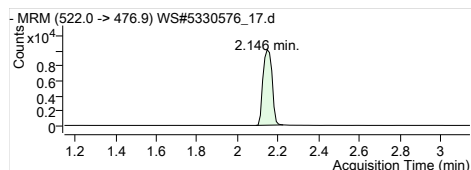
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



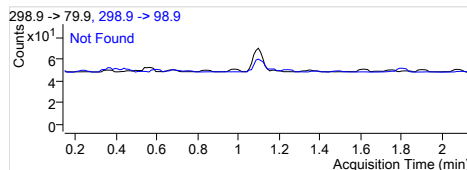
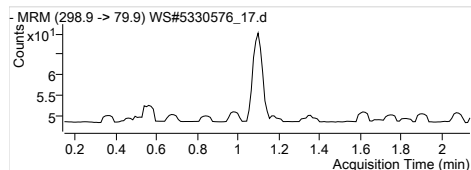
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



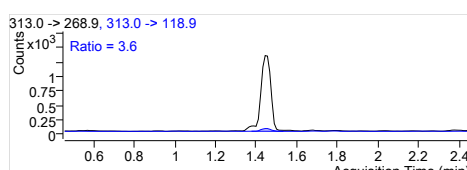
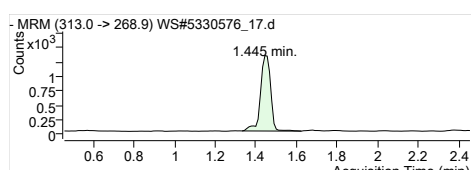
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



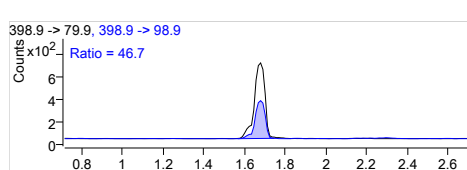
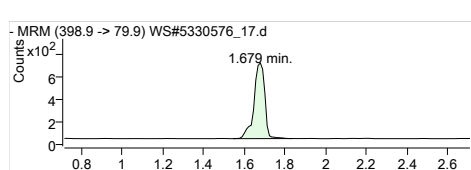
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



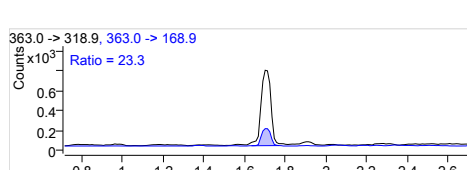
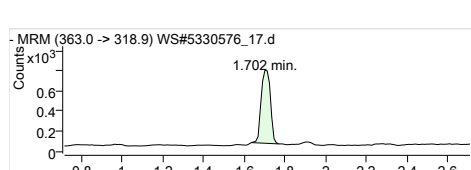
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.143)
 Area ratio: N.D.
 Sample type: 0
 Sample type: Sample



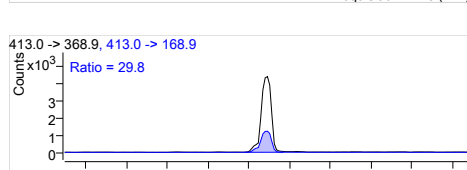
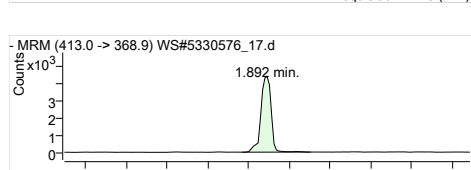
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 0.40 µg/L
 Sample type: 0.71525
 Sample type: Sample



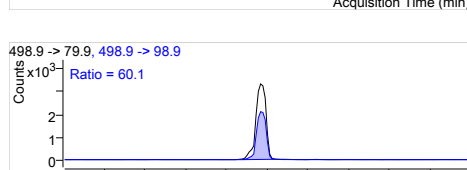
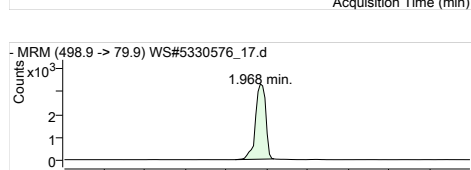
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 0.86 µg/L
 Sample type: 1.73519
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.15 µg/L
 Sample type: 0.28759
 Sample type: Sample

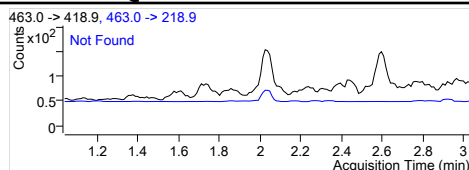
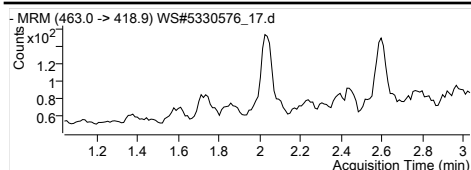


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.96 µg/L
 Sample type: 1.81958
 Sample type: Sample

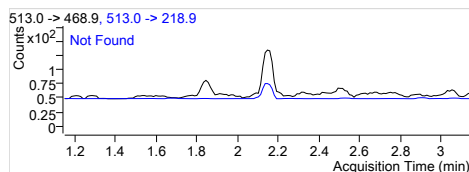
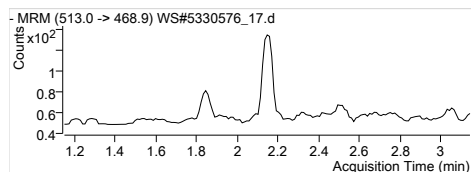


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 3.79 µg/L
 Sample type: 6.55703
 Sample type: Sample

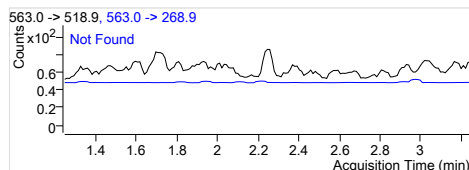
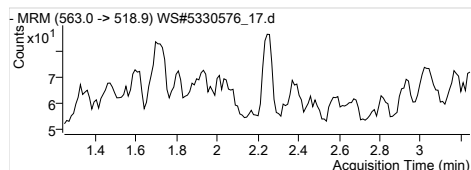
Quantitation Results



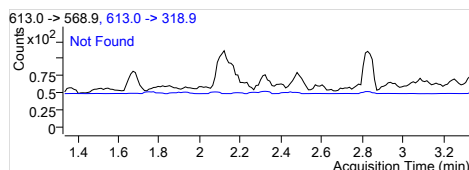
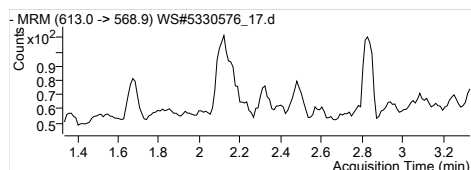
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



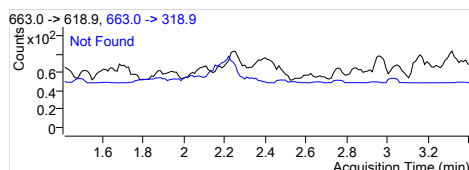
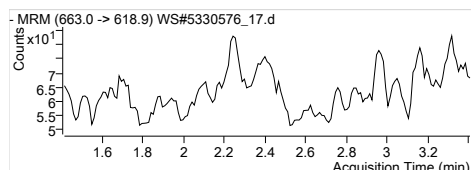
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



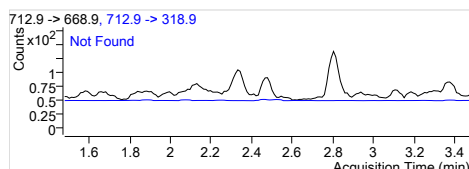
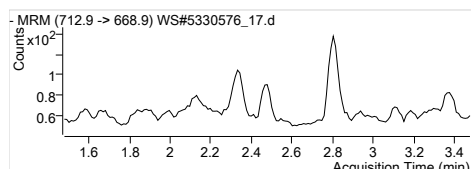
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



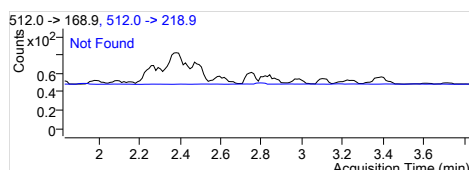
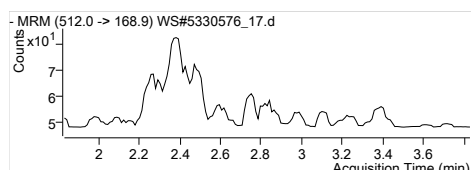
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



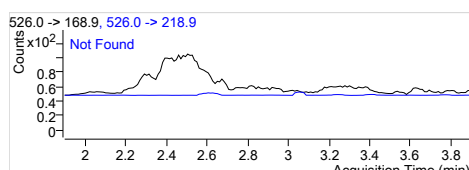
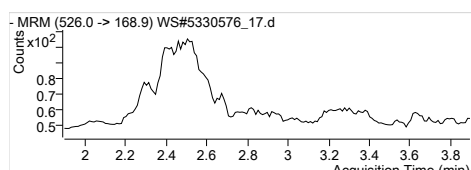
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



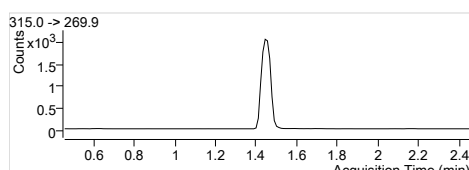
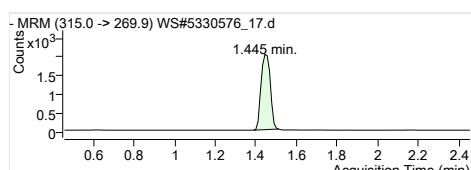
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



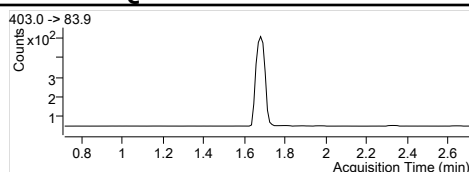
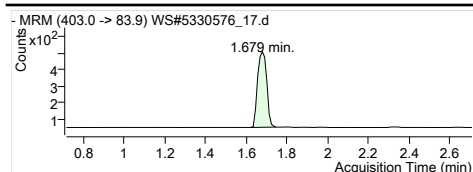
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample



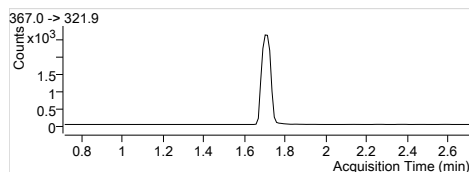
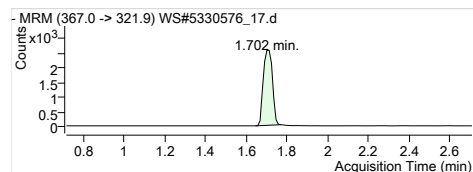
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample



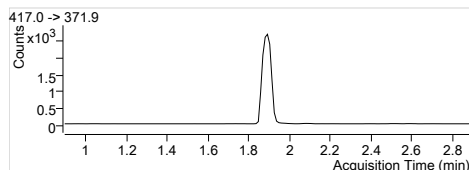
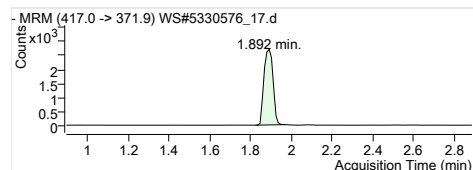
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.456)
 Area ratio: 103.08 µg/L
 Sample type: 0.25839
 Sample



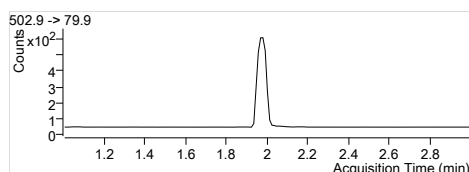
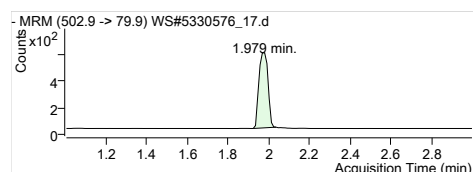
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 101.00 µg/L
 Sample type: 0.05836
 Sample



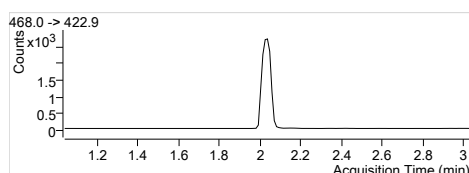
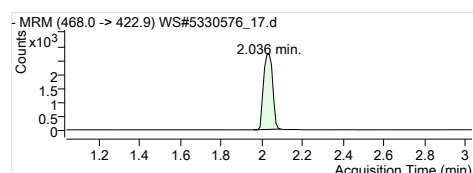
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 102.51 µg/L
 Sample type: 0.32570
 Sample



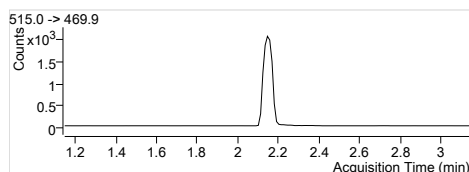
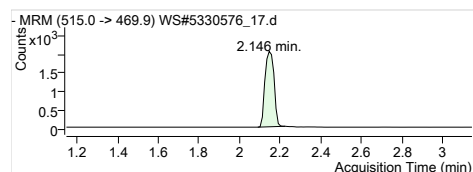
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 103.07 µg/L
 Sample type: 0.33770
 Sample



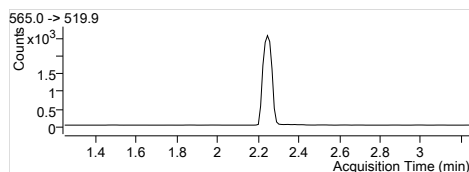
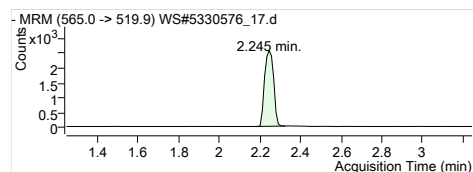
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (2.002)
 Area ratio: 99.26 µg/L
 Sample type: 0.07061
 Sample



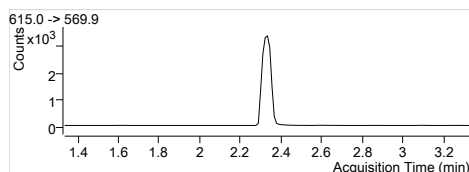
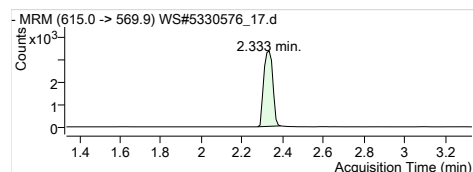
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 105.68 µg/L
 Sample type: 0.33863
 Sample



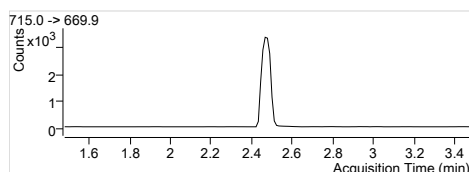
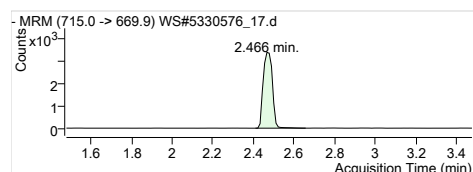
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 90.75 µg/L
 Sample type: 0.19994
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 89.30 µg/L
 Sample type: 0.25009
 Sample

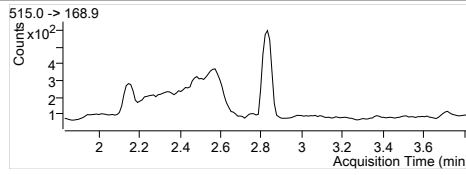
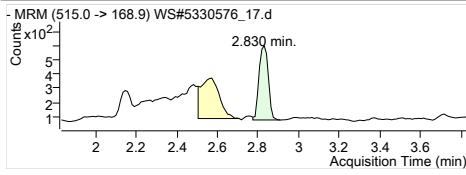


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 92.98 µg/L
 Sample type: 0.32881
 Sample

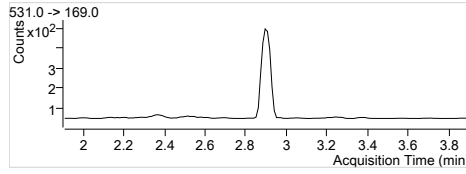
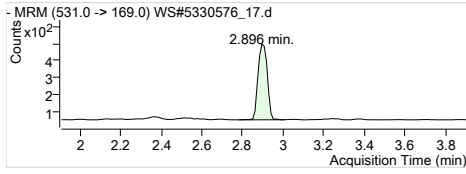


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.478)
 Area ratio: 84.97 µg/L
 Sample type: 0.33753
 Sample

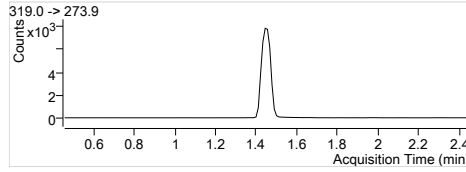
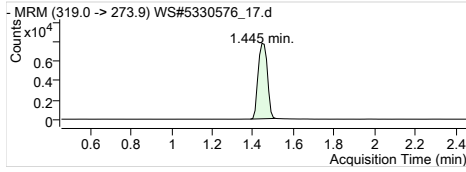
Quantitation Results



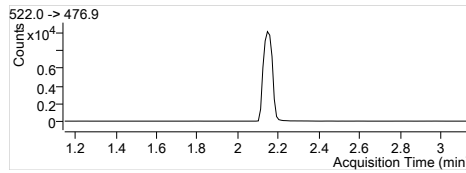
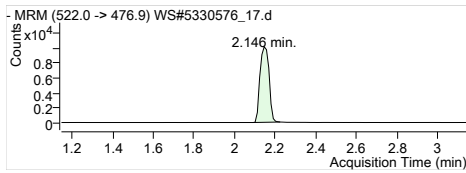
D3-MeFOSA
 RT (Exp. RT): 515.0 -> 168.9
 Calc. conc: 2.830 (2.830)
 Area ratio: 41.97 µg/L
 Sample type: 0.06743
 Sample



D5-EtFOSA
 RT (Exp. RT): 531.0 -> 169.0
 Calc. conc: 2.896 (2.907)
 Area ratio: 44.26 µg/L
 Sample type: 0.05784
 Sample



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc: 1.445 (1.456)
 Area ratio: 27.67 µg/L
 Sample type: 0
 Sample



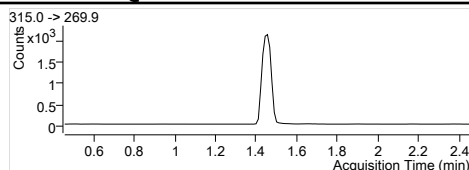
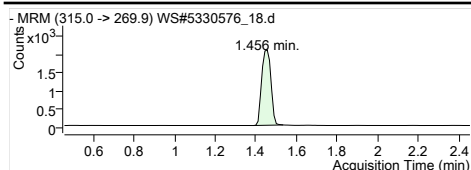
13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 28.74 µg/L
 Sample type: 0
 Sample

Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:FUH126-01	Instrument	LCMS04
Data File	WS#5330576_18.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-B7
Acq. Date	2018/01/13 3:11:58 AM	Injection Volume	Per Method
Sample Annotation	Reported for all except PFOA, PFOS		

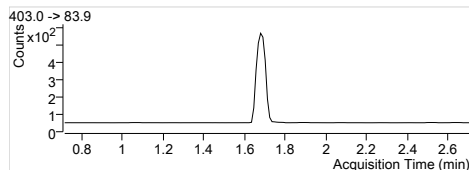
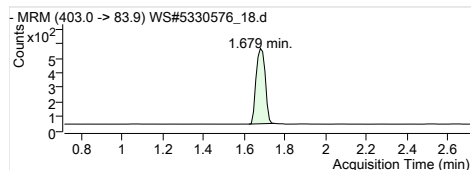
ISTD Compounds	Response	RT	Target conc.	
MPFHxA	6596	1.46	1 µg/L	
MPFHxS	1607	1.68	1 µg/L	
MPFHpA	8821	1.71	1 µg/L	
MPFOA	8687	1.89	1 µg/L	
MPFOS	1606	1.98	1 µg/L	
MPFNA	8607	2.04	1 µg/L	
MPFDA	7459	2.15	1 µg/L	
MPFUnA	8214	2.25	1 µg/L	
MPFDoA	10516	2.33	1 µg/L	
MPFTeDA	10798	2.47	1 µg/L	
D3-MeFOSA IS	3164	2.83	1 µg/L	
D5-EtFOSA IS	2798	2.90	1 µg/L	
13C6-PFHxA IS	28839	1.46	1 µg/L	
13C9-PFDA IS	36021	2.15	1 µg/L	

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	984	1.11	-	0.03 µg/L	-
PFHxA 1	48889	1.46	-	0.41 µg/L	-
PFHxS 1	26202	1.68	-	0.83 µg/L	-
PFHpA 1	25289	1.71	-	0.16 µg/L	-
PFOA 1	176729	1.89	-	1.05 µg/L	-
PFOS 1	119450	1.97	-	4.26 µg/L	-
PFNA 1	2478	2.04	-	0.02 µg/L	-
PFDA 1	1953	2.15	-	0.01 µg/L	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6596	1.46	-	91.24 µg/L	-
18O2-PFHxS	1607	1.68	-	96.43 µg/L	-
13C4-PFHpA	8821	1.71	-	96.27 µg/L	-
13C4-PFOA	8687	1.89	-	91.94 µg/L	-
13C4-PFOS	1606	1.98	-	78.29 µg/L	-
13C5-PFNA	8487	2.04	-	91.84 µg/L	-
13C2-PFDA	7370	2.15	-	92.87 µg/L	-
13C2-PFUnA	8214	2.25	-	81.42 µg/L	-
13C2-PFDoA	10516	2.33	-	82.55 µg/L	-
13C2-PFTeDA	11005	2.47	-	76.92 µg/L	-
D3-MeFOSA	3246	2.83	-	70.06 µg/L	-
D5-EtFOSA	2881	2.90	-	76.46 µg/L	-
13C6-PFHxA	28839	1.46	-	3.25 µg/L	-
13C9-PFDA	36021	2.15	-	3.30 µg/L	-



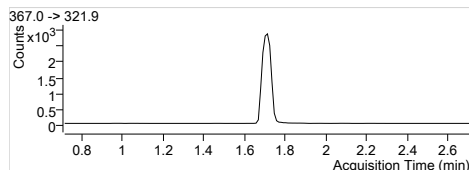
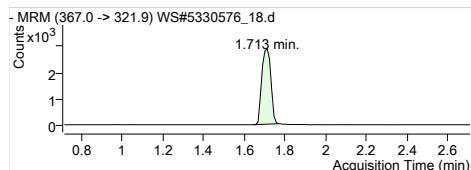
MPFHxA
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.456 (1.456)
1 µg/L
Sample



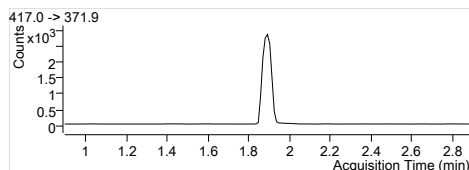
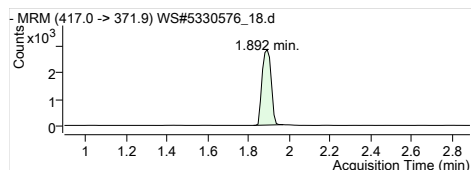
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.713)
1 µg/L
Sample



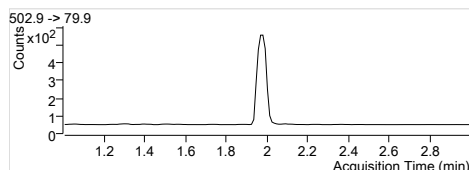
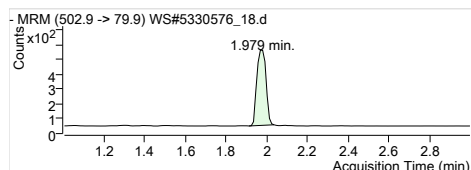
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.713 (1.713)
1 µg/L
Sample



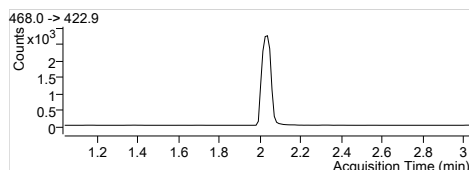
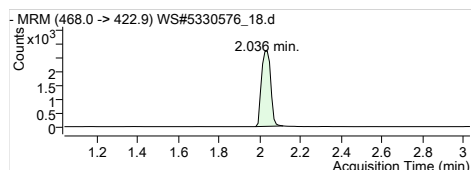
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



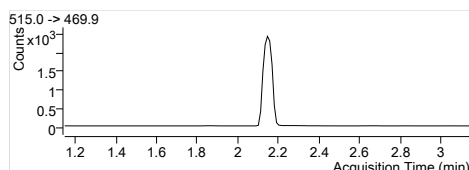
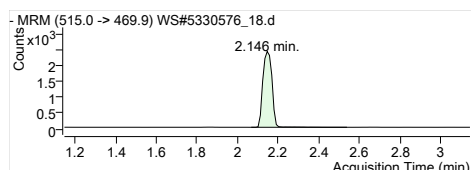
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.979 (2.002)
1 µg/L
Sample



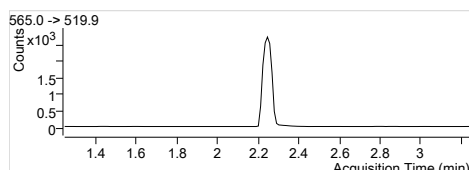
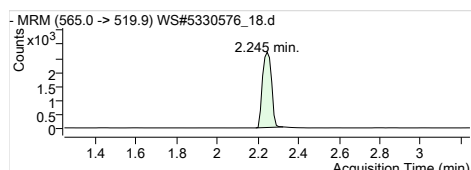
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.036 (2.036)
1 µg/L
Sample



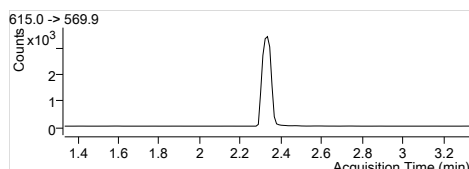
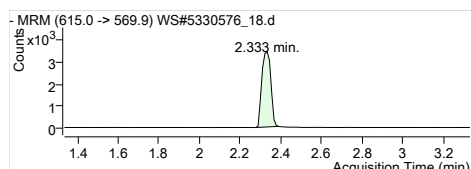
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



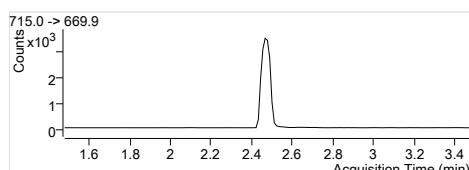
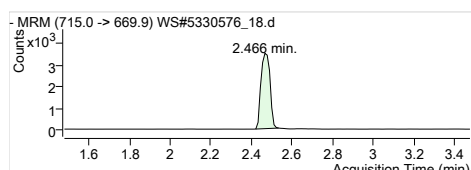
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

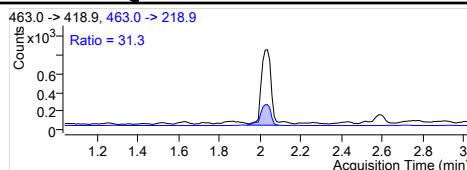
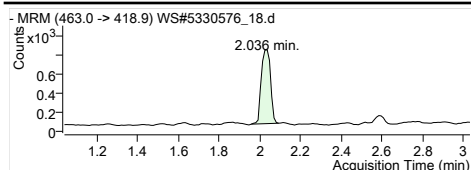
Internal Standard
2.333 (2.333)
1 µg/L
Sample



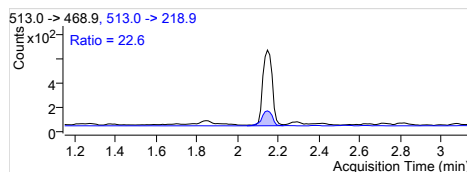
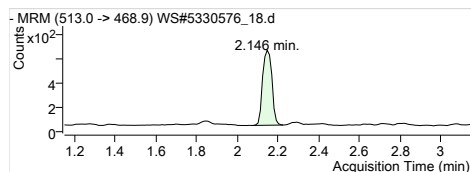
MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.478)
1 µg/L
Sample

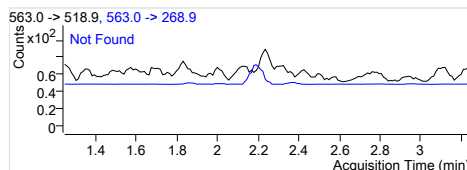
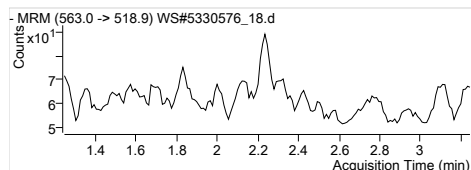
<p>-MRM (515.0 -> 168.9) WS#5330576_18.d 2.830 min.</p>	<p>515.0 -> 168.9</p>	<p>D3-MeFOSA IS Internal Standard RT (Exp. RT): 2.830 (2.830) Concentration: 1 µg/L Sample type: Sample</p>
<p>-MRM (531.0 -> 169.0) WS#5330576_18.d 2.896 min.</p>	<p>531.0 -> 169.0</p>	<p>D5-EtFOSA IS Internal Standard RT (Exp. RT): 2.896 (2.907) Concentration: 1 µg/L Sample type: Sample</p>
<p>-MRM (319.0 -> 273.9) WS#5330576_18.d 1.456 min.</p>	<p>319.0 -> 273.9</p>	<p>13C6-PFHxA IS Internal Standard RT (Exp. RT): 1.456 (1.456) Concentration: 1 µg/L Sample type: Sample</p>
<p>-MRM (522.0 -> 476.9) WS#5330576_18.d 2.146 min.</p>	<p>522.0 -> 476.9</p>	<p>13C9-PFDA IS Internal Standard RT (Exp. RT): 2.146 (2.146) Concentration: 1 µg/L Sample type: Sample</p>
<p>-MRM (298.9 -> 79.9) WS#5330576_18.d 1.109 min.</p>	<p>298.9 -> 79.9, 298.9 -> 98.9 Ratio = 54.0</p>	<p>PFBS 1 RT (Exp. RT): 298.9 -> 79.9 Calc. conc. 1.109 (1.143) Area ratio: 0.03 µg/L Sample type: Sample</p>
<p>-MRM (313.0 -> 268.9) WS#5330576_18.d 1.456 min.</p>	<p>313.0 -> 268.9, 313.0 -> 118.9 Ratio = 4.1</p>	<p>PFHxA 1 RT (Exp. RT): 313.0 -> 268.9 Calc. conc. 1.456 (1.456) Area ratio: 0.41 µg/L Sample type: Sample</p>
<p>-MRM (398.9 -> 79.9) WS#5330576_18.d 1.679 min.</p>	<p>398.9 -> 79.9, 398.9 -> 98.9 Ratio = 45.3</p>	<p>PFHxS 1 RT (Exp. RT): 398.9 -> 79.9 Calc. conc. 1.679 (1.713) Area ratio: 0.83 µg/L Sample type: Sample</p>
<p>-MRM (363.0 -> 318.9) WS#5330576_18.d 1.713 min.</p>	<p>363.0 -> 318.9, 363.0 -> 168.9 Ratio = 21.4</p>	<p>PFHpA 1 RT (Exp. RT): 363.0 -> 318.9 Calc. conc. 1.713 (1.713) Area ratio: 0.16 µg/L Sample type: Sample</p>
<p>-MRM (413.0 -> 368.9) WS#5330576_18.d 1.892 min.</p>	<p>413.0 -> 368.9, 413.0 -> 168.9 Ratio = 30.4</p>	<p>PFOA 1 RT (Exp. RT): 413.0 -> 368.9 Calc. conc. 1.892 (1.892) Area ratio: 1.05 µg/L Sample type: Sample</p>
<p>-MRM (498.9 -> 79.9) WS#5330576_18.d 1.968 min.</p>	<p>498.9 -> 79.9, 498.9 -> 98.9 Ratio = 57.7</p>	<p>PFOS 1 RT (Exp. RT): 498.9 -> 79.9 Calc. conc. 1.968 (2.002) Area ratio: 4.26 µg/L Sample type: Sample</p>



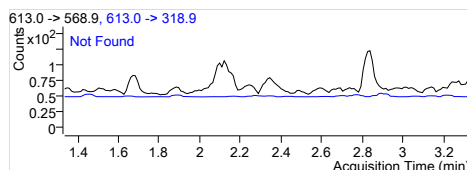
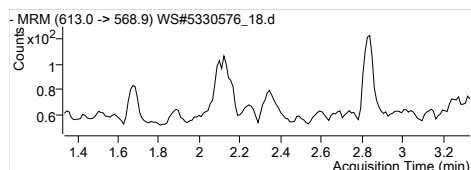
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 2.036 (2.036)
 Area ratio: 0.02 µg/L
 Sample type: 0.28791
 Sample



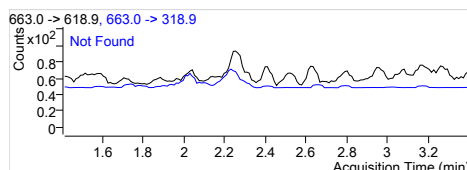
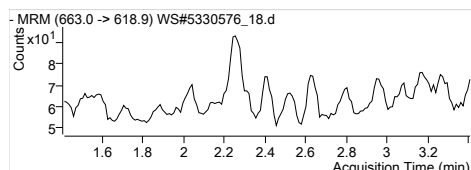
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 0.01 µg/L
 Sample type: 0.26183
 Sample



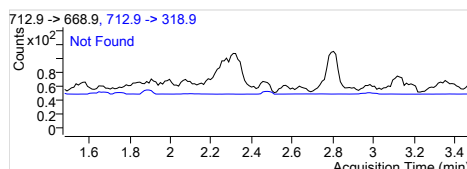
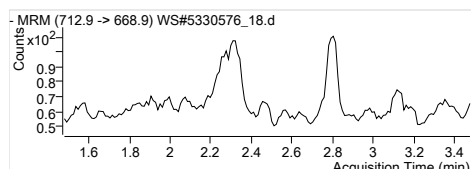
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



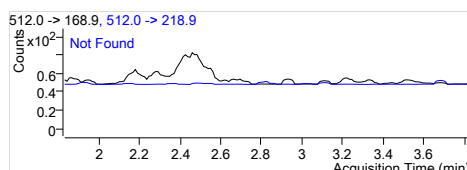
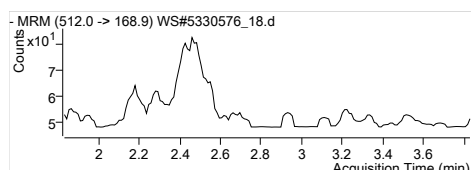
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



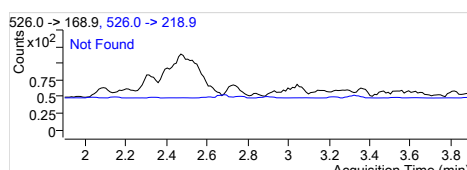
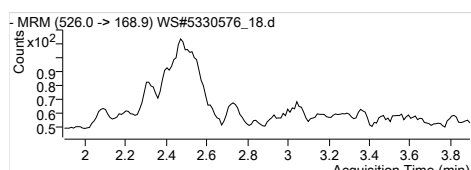
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



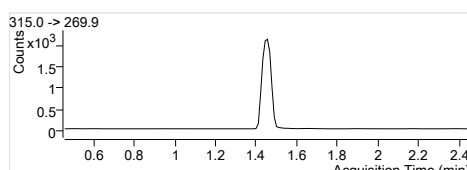
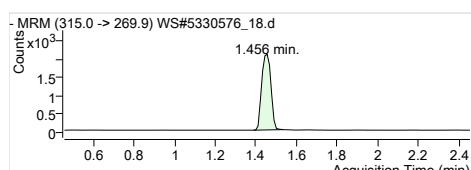
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

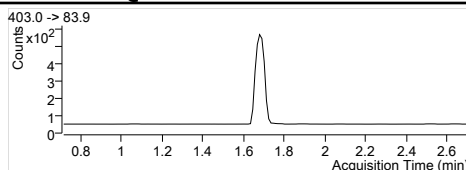
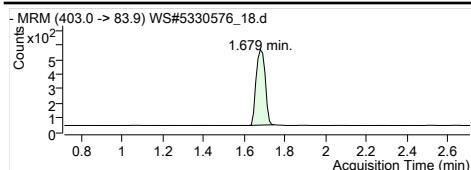


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

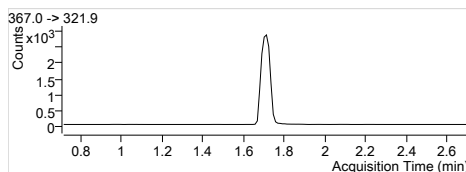
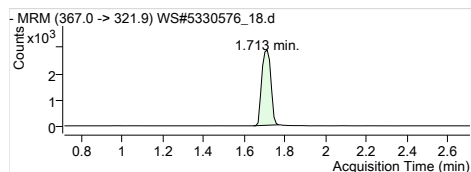


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.456 (1.456)
 Area ratio: 91.24 µg/L
 Sample type: 0.22872
 Sample

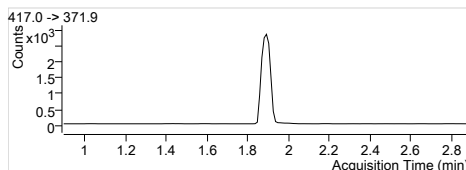
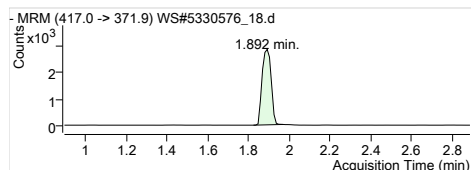
Quantitation Results



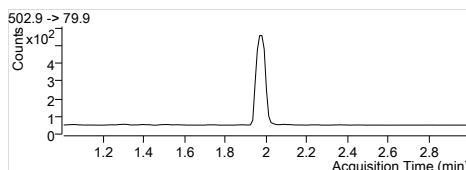
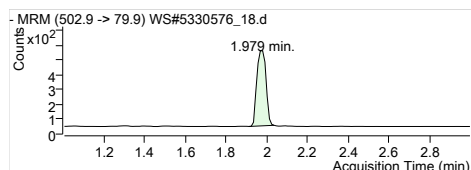
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 96.43 µg/L
Sample type: 0.05572
Sample



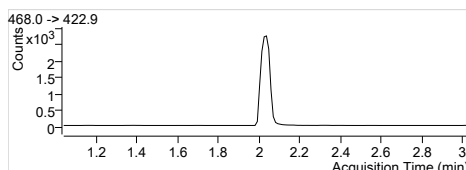
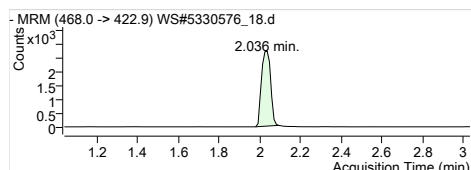
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 96.27 µg/L
Sample type: 0.30587
Sample



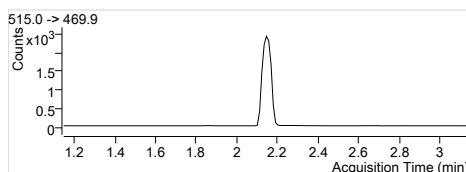
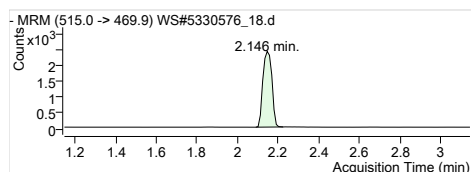
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 91.94 µg/L
Sample type: 0.30122
Sample



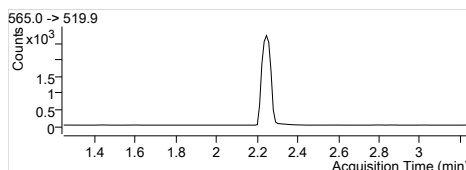
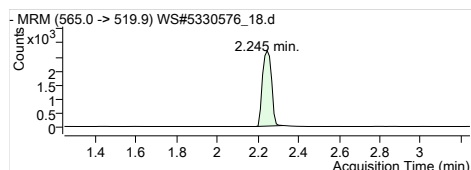
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (2.002)
Area ratio: 78.29 µg/L
Sample type: 0.05569
Sample



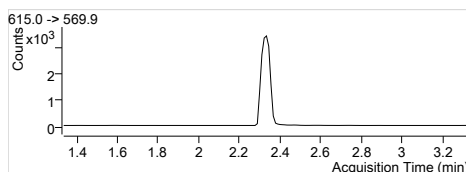
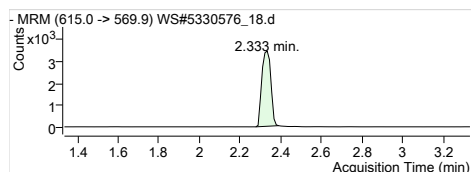
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 91.84 µg/L
Sample type: 0.29429
Sample



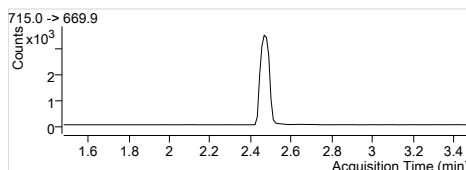
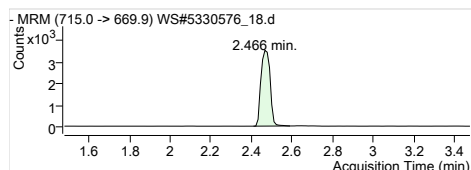
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 92.87 µg/L
Sample type: 0.20460
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 81.42 µg/L
Sample type: 0.22803
Sample

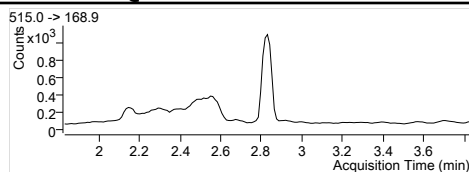
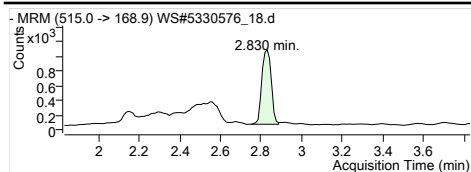


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 82.55 µg/L
Sample type: 0.29194
Sample

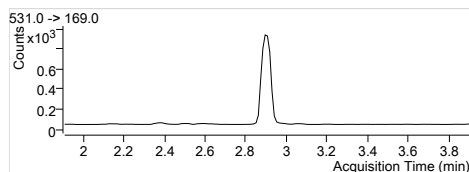
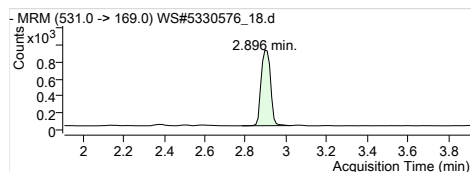


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 76.92 µg/L
Sample type: 0.30552
Sample

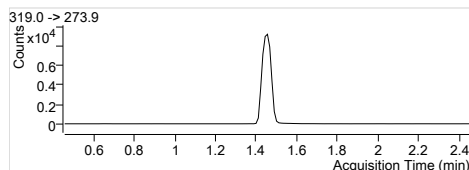
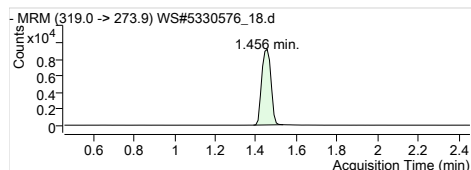
Quantitation Results



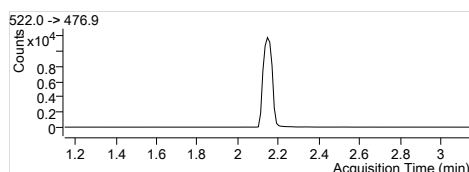
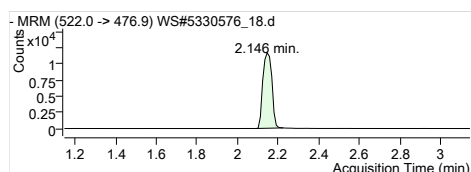
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 70.06 µg/L
Area ratio: 0.11256
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 76.46 µg/L
Area ratio: 0.09990
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.456 (1.456)
Calc. conc. 3.25 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 3.30 µg/L
Area ratio: 0
Sample type: Sample

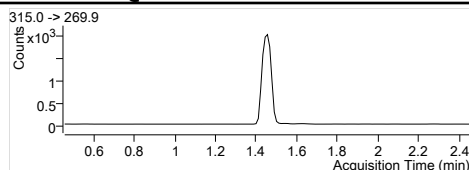
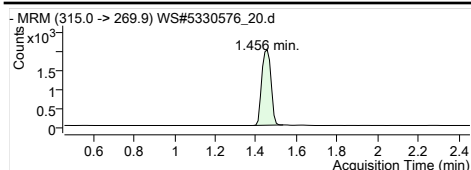
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:FUH127-01	Instrument	LCMS04
Data File	WS#5330576_20.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-B8
Acq. Date	2018/01/13 3:21:50 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	6304	1.46	1 µg/L
MPFHxS	1502	1.68	1 µg/L
MPFHpA	8086	1.71	1 µg/L
MPFOA	7782	1.89	1 µg/L
MPFOS	1883	1.98	1 µg/L
MPFNA	8248	2.04	1 µg/L
MPFDA	6363	2.15	1 µg/L
MPFUnA	7627	2.25	1 µg/L
MPFDoA	9414	2.33	1 µg/L
MPFTeDA	10147	2.47	1 µg/L
D3-MeFOSA IS	2956	2.83	1 µg/L
D5-EtFOSA IS	2337	2.90	1 µg/L
13C6-PFHxA IS	24035	1.46	1 µg/L
13C9-PFDA IS	31292	2.15	1 µg/L

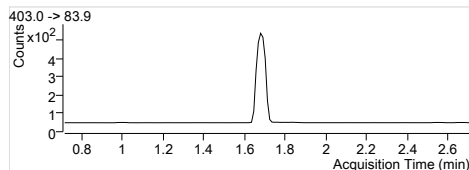
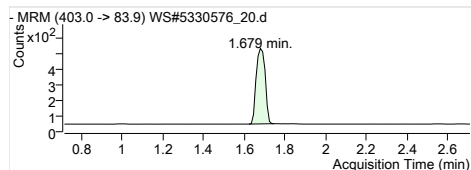
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	991	1.46	-	0.01 µg/L	-
PFHxS 1	1840	1.68	-	0.06 µg/L	-
PFHpA 1			-	ND	-
PFOA 1	3755	1.89	-	0.03 µg/L	-
PFOS 1	3040	1.97	-	0.10 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6304	1.46	-	104.63 µg/L	-
18O2-PFHxS	1502	1.68	-	108.14 µg/L	-
13C4-PFHpA	8086	1.71	-	105.89 µg/L	-
13C4-PFOA	7782	1.89	-	98.82 µg/L	-
13C4-PFOS	1883	1.98	-	110.13 µg/L	-
13C5-PFNA	8189	2.04	-	106.33 µg/L	-
13C2-PFDA	6266	2.15	-	90.89 µg/L	-
13C2-PFUnA	7627	2.25	-	87.03 µg/L	-
13C2-PFDoA	9414	2.33	-	85.07 µg/L	-
13C2-PFTeDA	10286	2.47	-	82.75 µg/L	-
D3-MeFOSA	3033	2.83	-	78.55 µg/L	-
D5-EtFOSA	2409	2.90	-	76.71 µg/L	-
13C6-PFHxA	24035	1.46	-	2.71 µg/L	-
13C9-PFDA	31292	2.15	-	2.87 µg/L	-

Quantitation Results



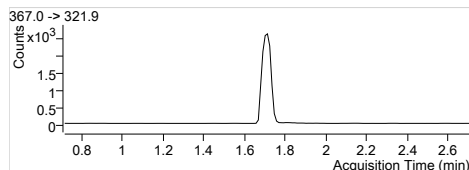
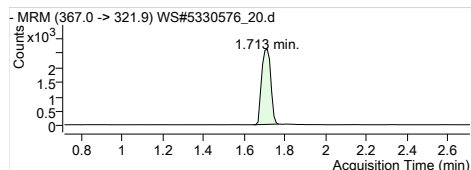
MPFHxA
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.456 (1.456)
1 µg/L
Sample



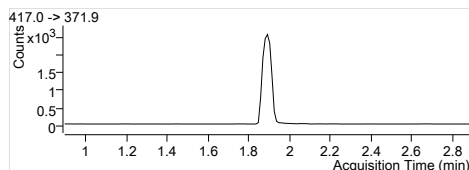
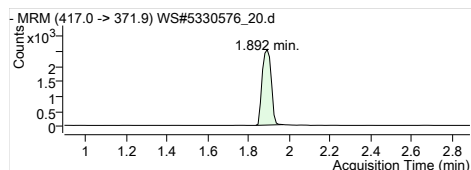
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.713)
1 µg/L
Sample



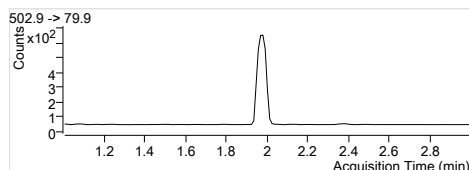
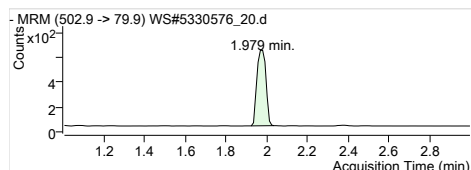
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.713 (1.713)
1 µg/L
Sample



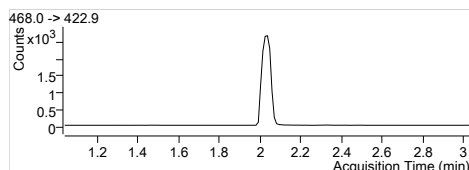
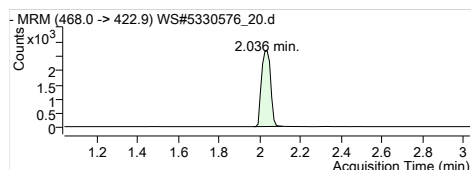
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



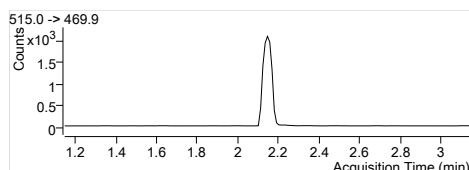
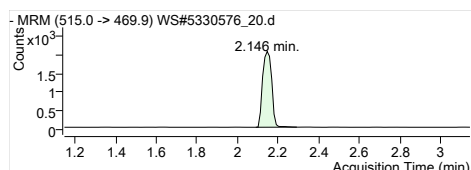
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.979 (2.002)
1 µg/L
Sample



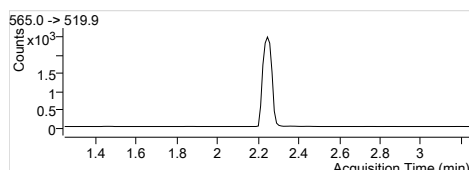
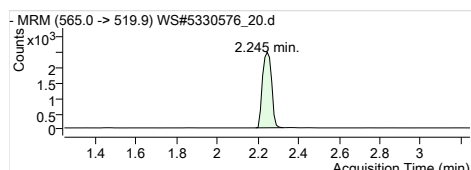
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.036 (2.036)
1 µg/L
Sample



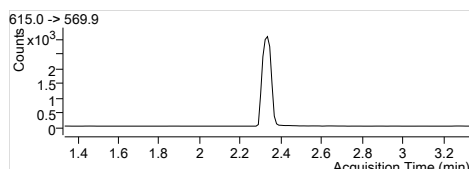
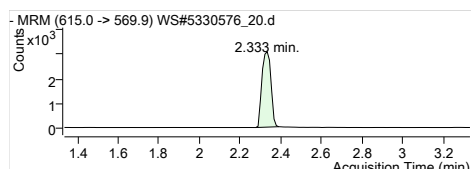
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



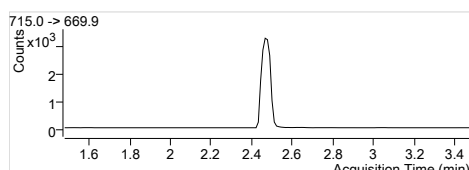
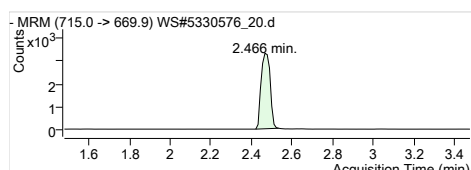
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

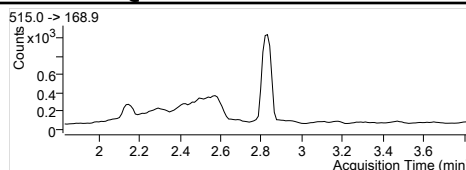
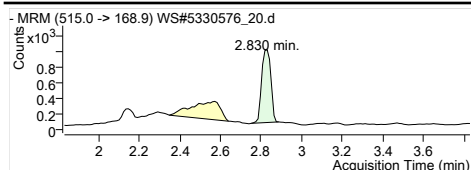
Internal Standard
2.333 (2.333)
1 µg/L
Sample



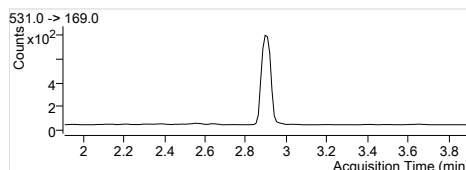
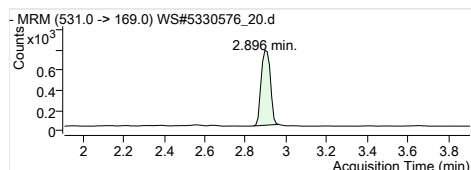
MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.478)
1 µg/L
Sample

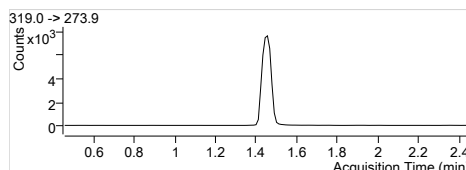
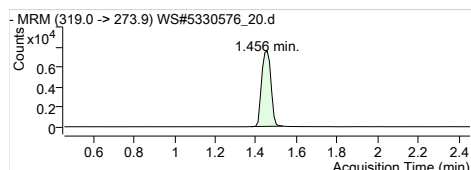
Quantitation Results



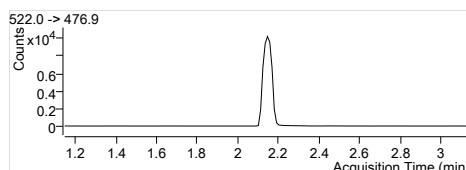
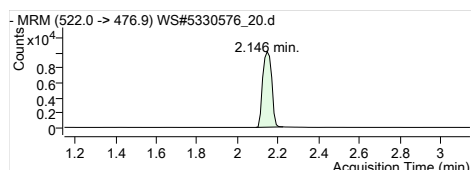
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



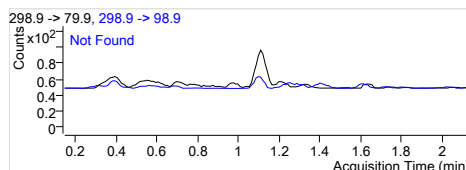
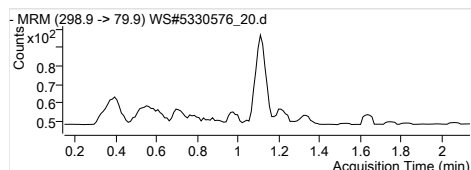
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



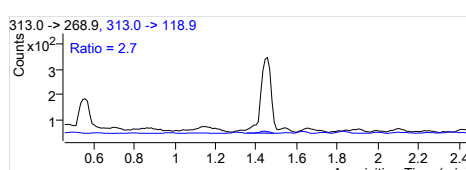
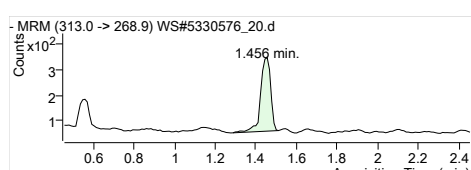
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



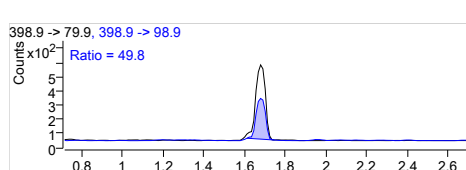
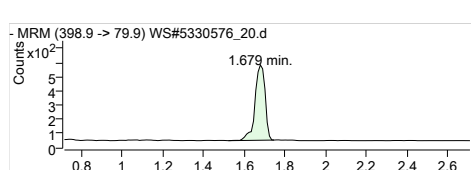
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



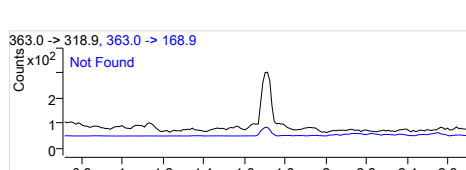
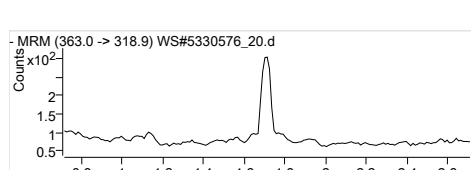
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.143)
 Area ratio: N.D.
 Sample type: 0
 Sample



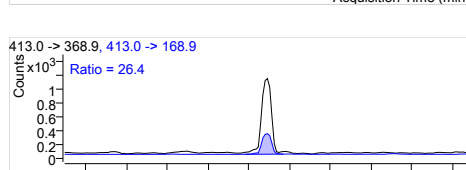
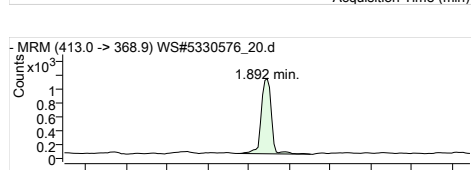
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 0.01 µg/L
 Sample type: 0.15720
 Sample



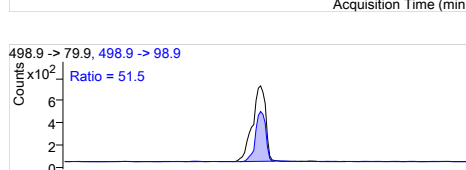
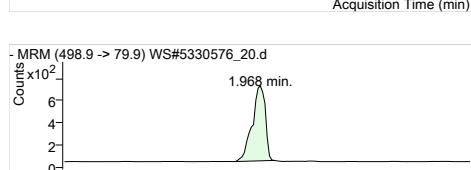
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 0.06 µg/L
 Sample type: 1.22503
 Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: N.D.
 Sample type: 0
 Sample

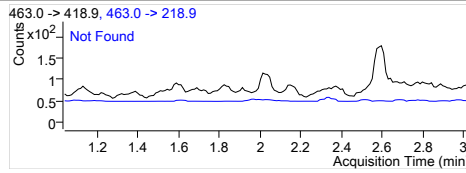
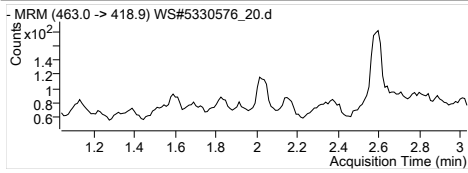


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.03 µg/L
 Sample type: 0.48252
 Sample

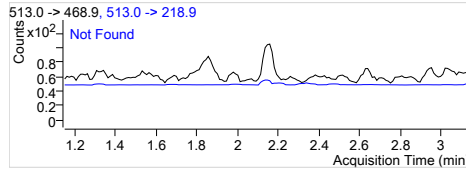
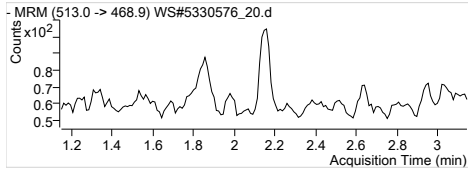


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 0.10 µg/L
 Sample type: 1.61445
 Sample

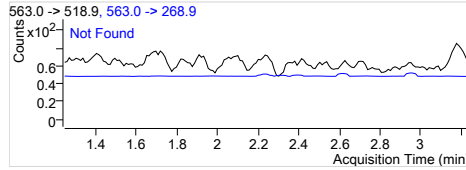
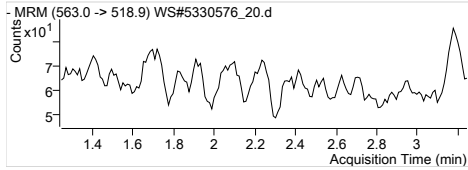
Quantitation Results



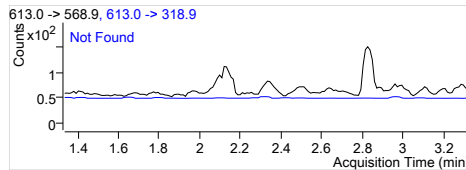
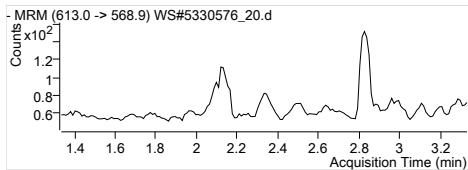
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



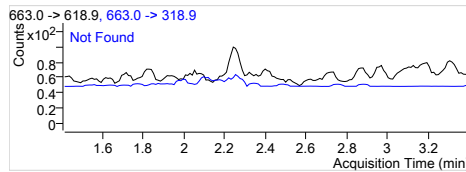
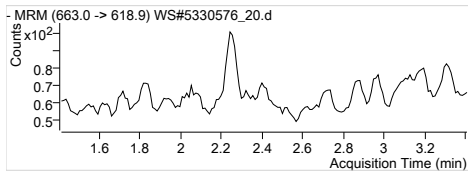
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



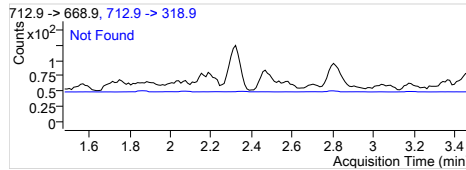
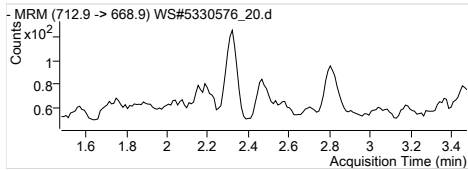
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



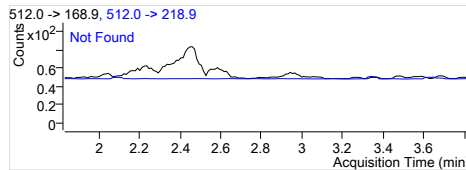
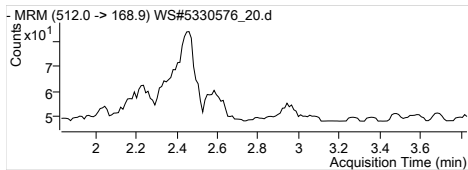
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



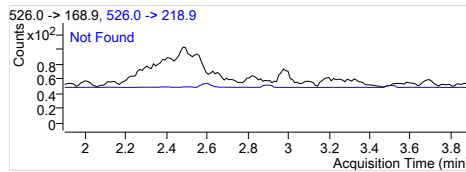
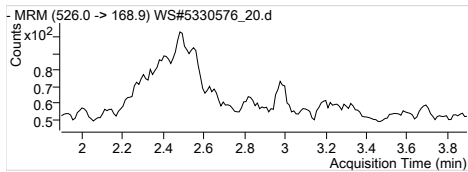
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



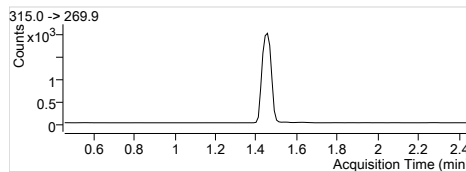
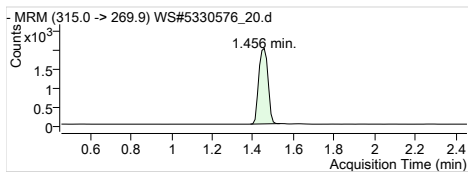
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

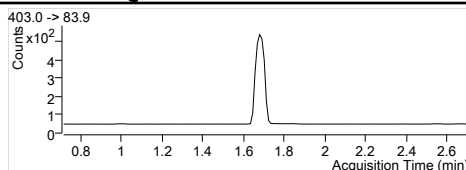
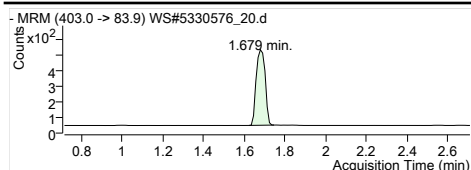


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

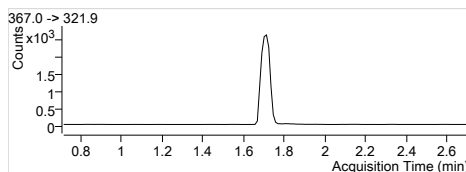
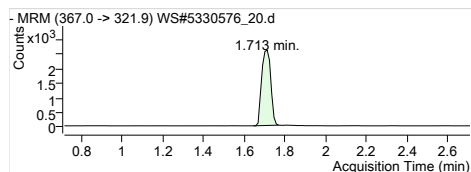


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.456 (1.456)
 Area ratio: 104.63 µg/L
 Sample type: 0.26228
 Sample

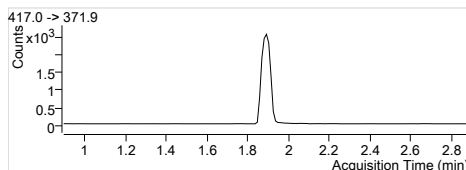
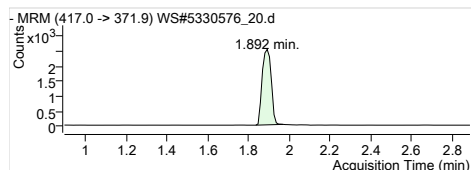
Quantitation Results



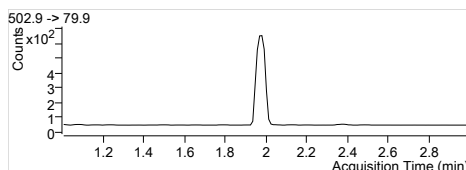
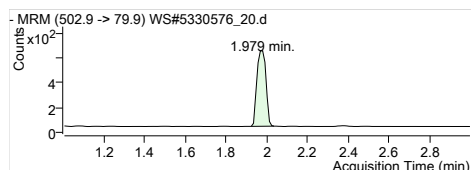
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 108.14 µg/L
Sample type: 0.06249
Sample



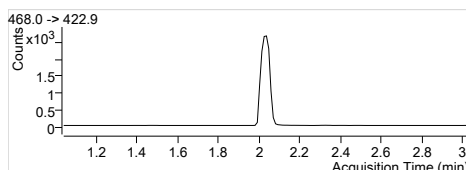
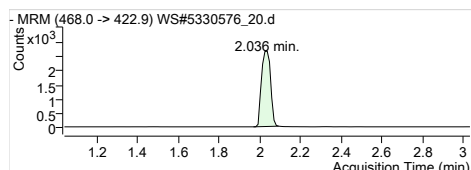
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 105.89 µg/L
Sample type: 0.33643
Sample



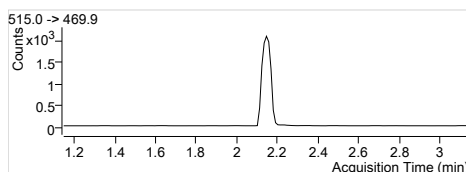
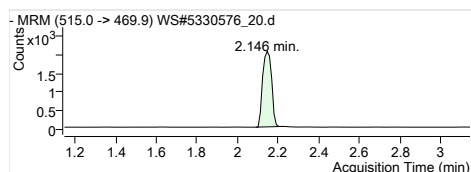
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 98.82 µg/L
Sample type: 0.32378
Sample



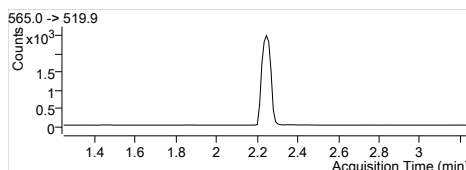
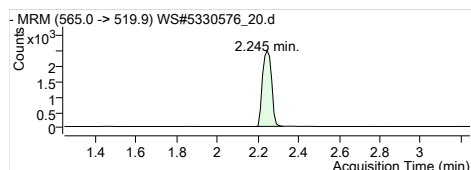
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (2.002)
Area ratio: 110.13 µg/L
Sample type: 0.07834
Sample



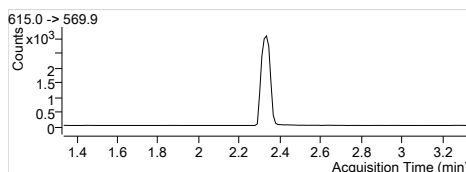
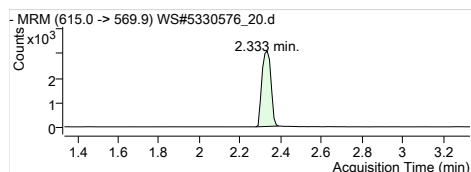
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 106.33 µg/L
Sample type: 0.34071
Sample



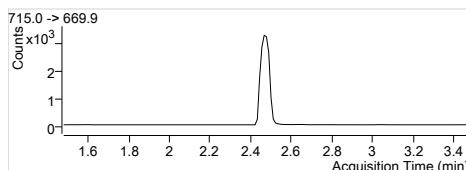
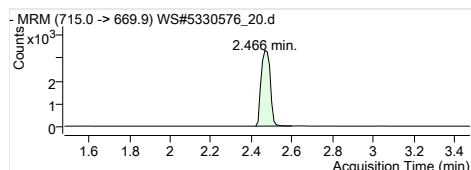
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 90.89 µg/L
Sample type: 0.20024
Sample



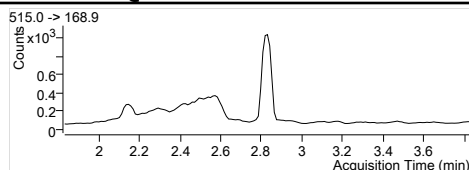
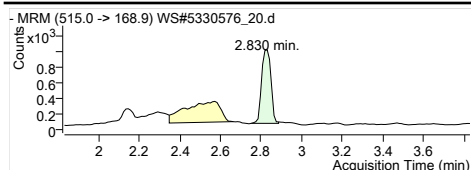
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 87.03 µg/L
Sample type: 0.24374
Sample



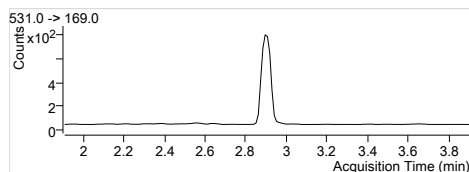
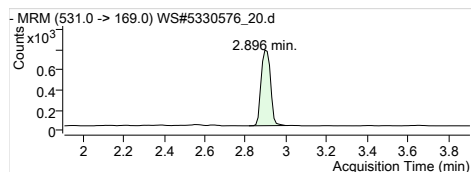
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 85.07 µg/L
Sample type: 0.30084
Sample



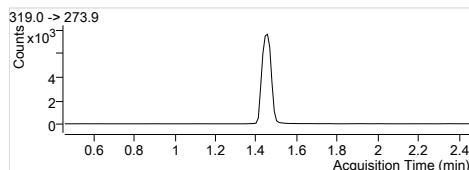
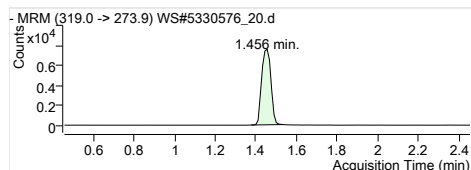
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 82.75 µg/L
Sample type: 0.32871
Sample



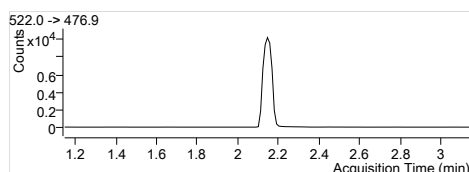
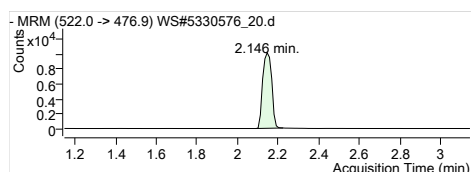
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 78.55 µg/L
Sample type: 0.12619
Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.907)
Area ratio: 76.71 µg/L
Sample type: 0.10023
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.456 (1.456)
Area ratio: 2.71 µg/L
Sample type: 0
Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 2.87 µg/L
Sample type: 0
Sample

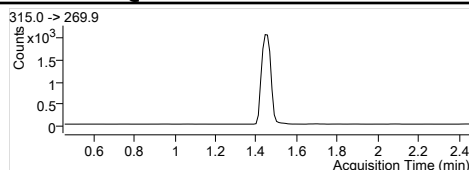
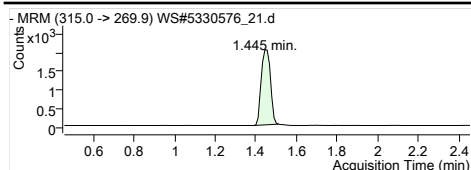
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:FUH128-01:10x	Instrument	LCMS04
Data File	WS#5330576_21.d	Operator	
Sample Type	Sample	Dilution	0.24
Acq. Method	PFC_Water_Low.m	Position	P3-B9
Acq. Date	2018/01/13 3:26:46 AM	Injection Volume	Per Method
Sample Annotation	Reported for PFHxS, PFOS, PFTeDA, PFTrDA		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	6392	1.44	1 µg/L
MPFHxS	1586	1.68	1 µg/L
MPFHpA	7895	1.71	1 µg/L
MPFOA	8842	1.89	1 µg/L
MPFOS	1803	1.98	1 µg/L
MPFNA	7747	2.04	1 µg/L
MPFDA	6695	2.15	1 µg/L
MPFUnA	8022	2.25	1 µg/L
MPFDoA	10014	2.33	1 µg/L
MPFTeDA	10852	2.47	1 µg/L
D3-MeFOSA IS	2616	2.83	1 µg/L
D5-EtFOSA IS	2154	2.90	1 µg/L
13C6-PFHxA IS	23713	1.44	1 µg/L
13C9-PFDA IS	30740	2.15	1 µg/L

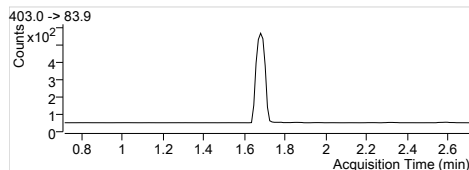
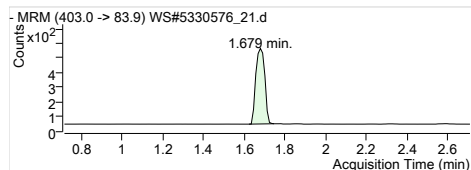
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	246	1.10	-	0.07 µg/L	-
PFHxA 1	7010	1.44	-	0.62 µg/L	-
PFHxS 1	5694	1.68	-	1.80 µg/L	-
PFHpA 1	4351	1.71	-	0.30 µg/L	-
PFOA 1	4274	1.89	-	0.27 µg/L	-
PFOS 1	3670	1.97	-	1.21 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6392	1.44	-	107.53 µg/L	-
18O2-PFHxS	1586	1.68	-	115.74 µg/L	-
13C4-PFHpA	7895	1.71	-	104.79 µg/L	-
13C4-PFOA	8842	1.89	-	113.81 µg/L	-
13C4-PFOS	1803	1.98	-	106.89 µg/L	-
13C5-PFNA	7718	2.04	-	101.57 µg/L	-
13C2-PFDA	6606	2.15	-	97.54 µg/L	-
13C2-PFUnA	8022	2.25	-	93.18 µg/L	-
13C2-PFDoA	10014	2.33	-	92.12 µg/L	-
13C2-PFTeDA	11037	2.47	-	90.39 µg/L	-
D3-MeFOSA	2736	2.83	-	71.82 µg/L	-
D5-EtFOSA	2180	2.90	-	70.36 µg/L	-
13C6-PFHxA	23713	1.44	-	26.69 µg/L	-
13C9-PFDA	30740	2.15	-	28.20 µg/L	-

Quantitation Results



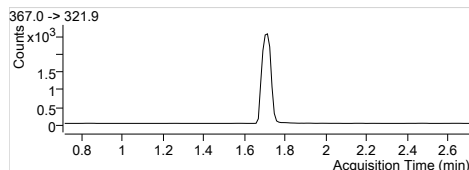
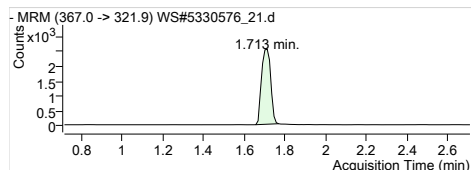
MPFHxA
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.456)
1 µg/L
Sample



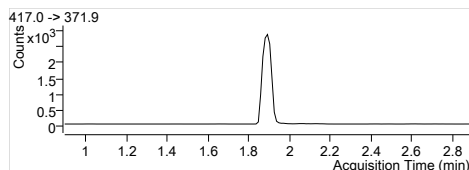
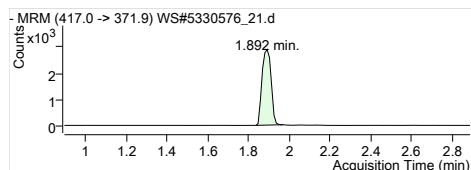
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.713)
1 µg/L
Sample



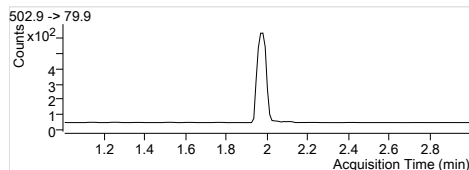
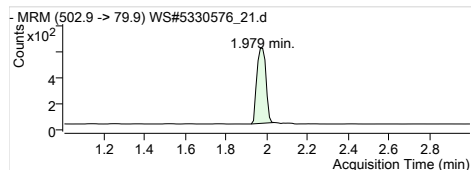
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.713 (1.713)
1 µg/L
Sample



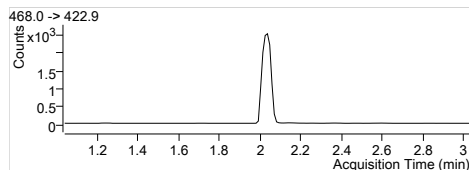
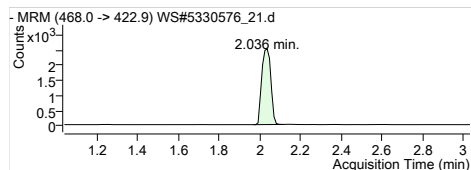
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



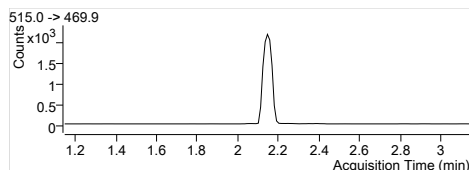
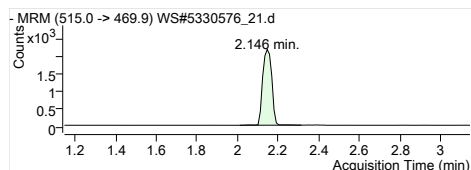
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.979 (2.002)
1 µg/L
Sample



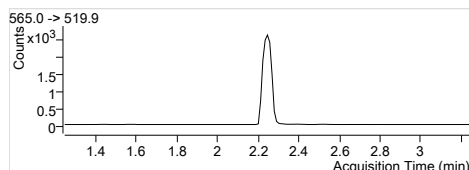
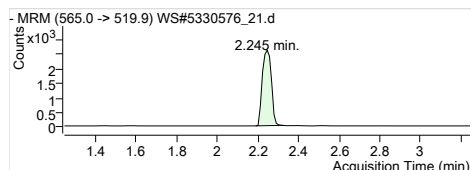
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.036 (2.036)
1 µg/L
Sample



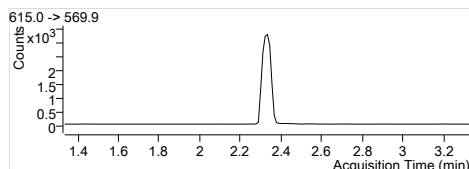
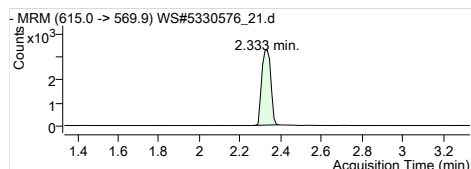
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



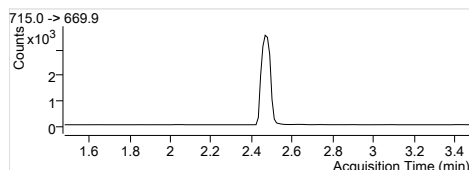
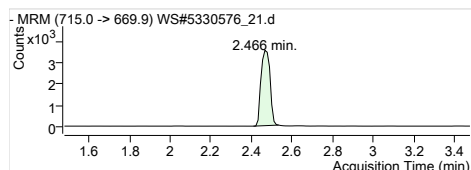
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



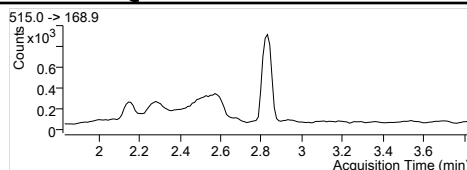
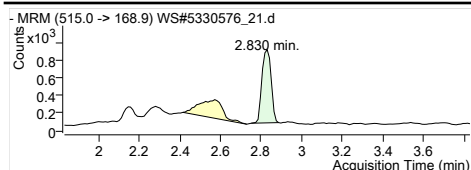
MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.333 (2.333)
1 µg/L
Sample

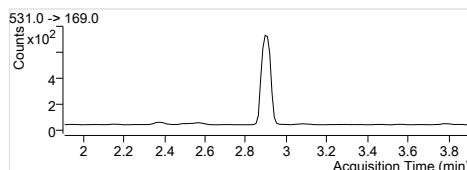
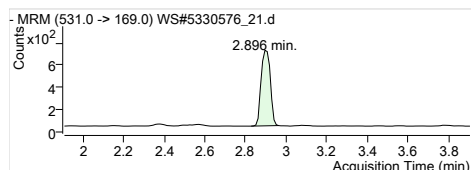


MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample

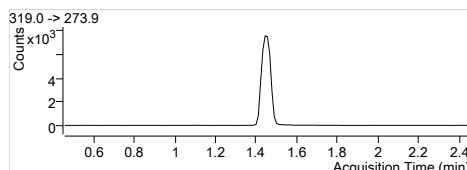
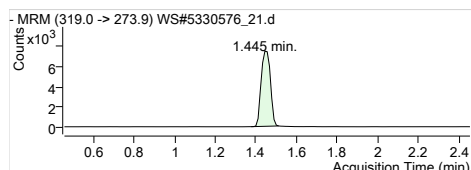
Internal Standard
2.466 (2.478)
1 µg/L
Sample



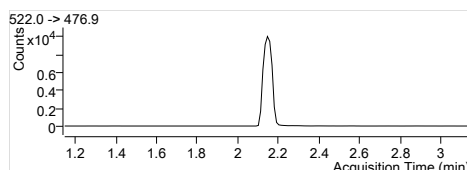
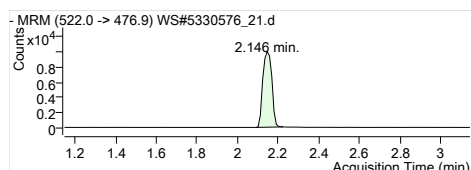
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



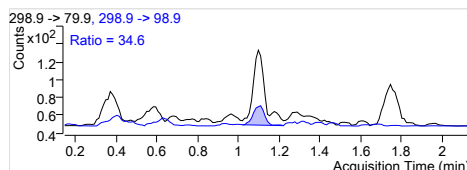
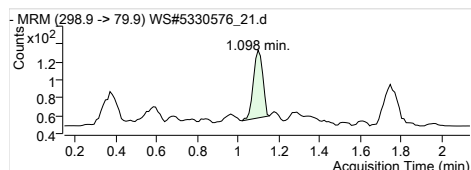
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



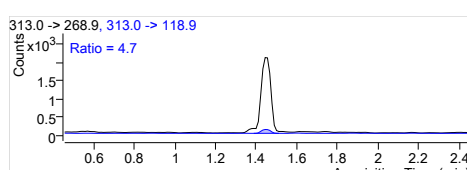
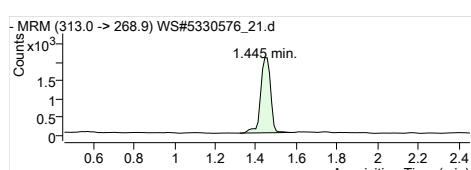
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



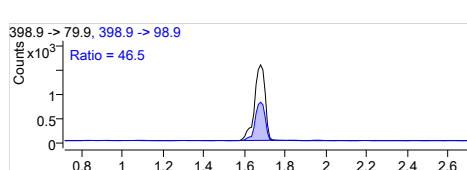
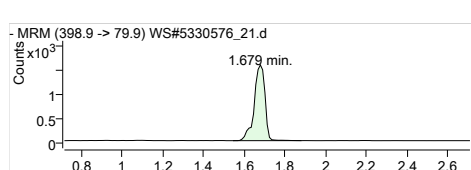
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



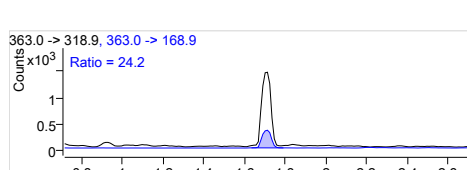
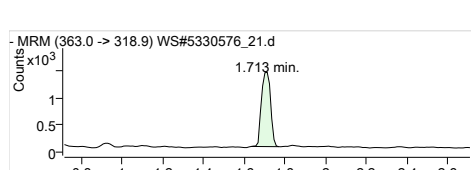
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.098 (1.143)
 Calc. conc. 0.07 µg/L
 Area ratio: 0.15511
 Sample type: Sample



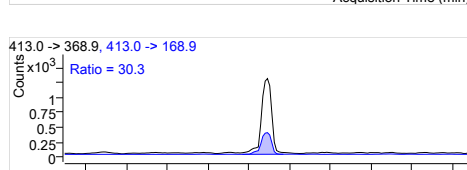
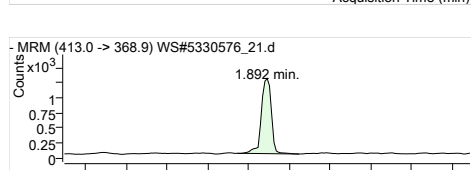
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.445 (1.456)
 Calc. conc. 0.62 µg/L
 Area ratio: 1.09668
 Sample type: Sample



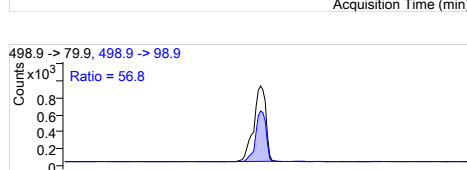
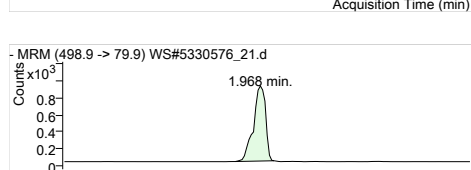
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.713)
 Calc. conc. 1.80 µg/L
 Area ratio: 3.59016
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 0.30 µg/L
 Area ratio: 0.55111
 Sample type: Sample

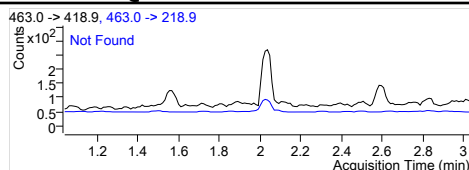
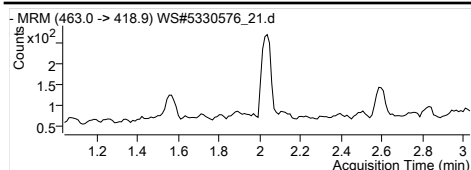


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 0.27 µg/L
 Area ratio: 0.48337
 Sample type: Sample

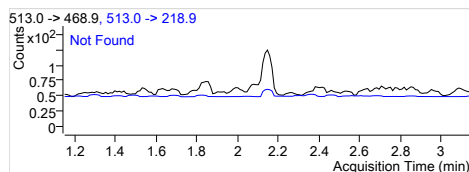
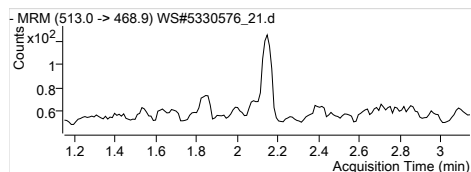


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (2.002)
 Calc. conc. 1.21 µg/L
 Area ratio: 2.03550
 Sample type: Sample

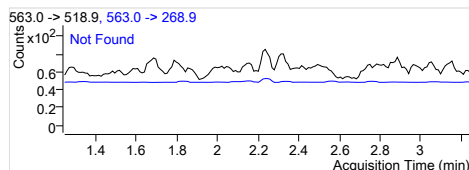
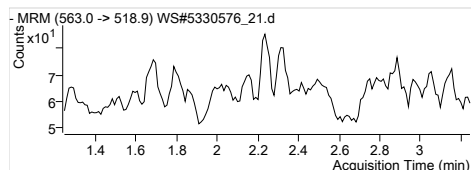
Quantitation Results



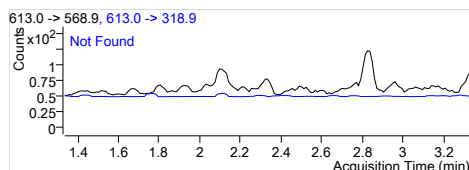
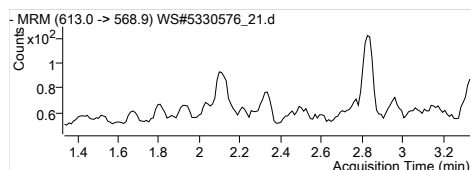
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



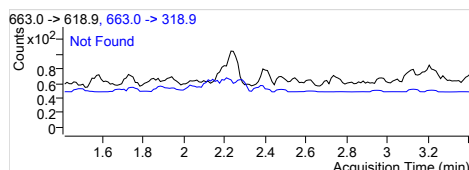
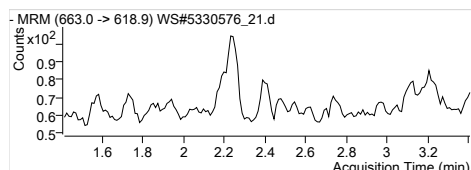
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



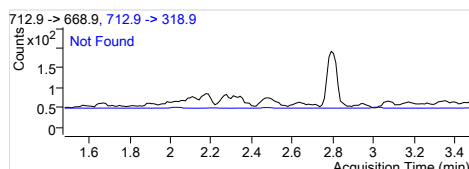
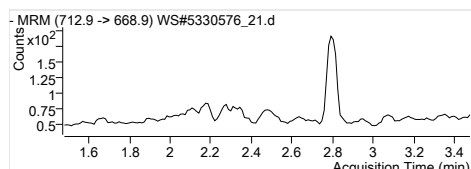
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



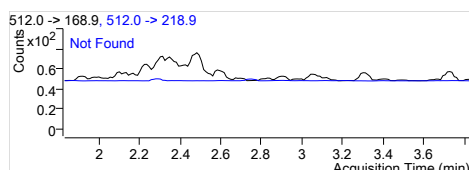
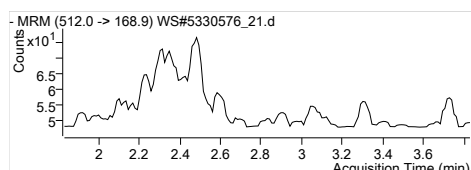
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



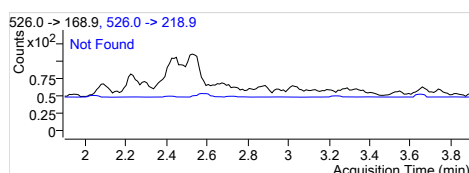
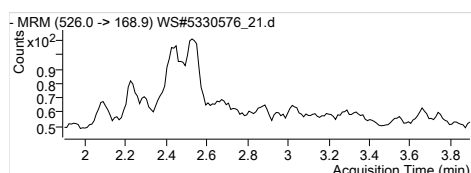
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



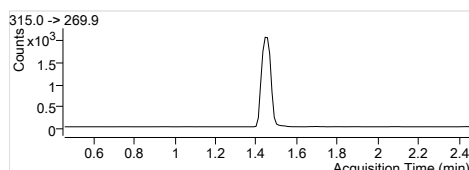
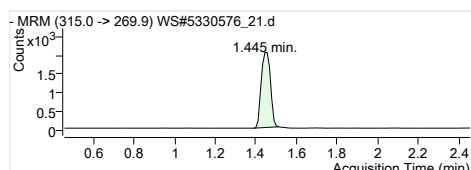
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

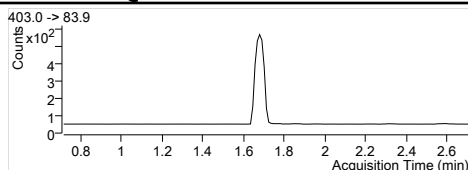
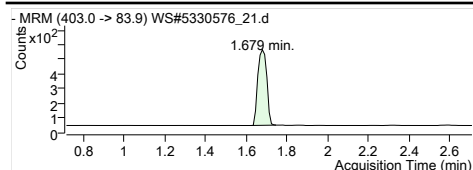


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

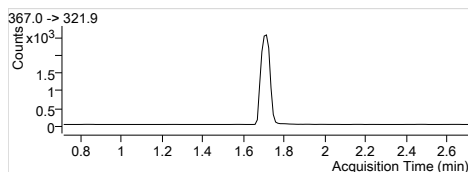
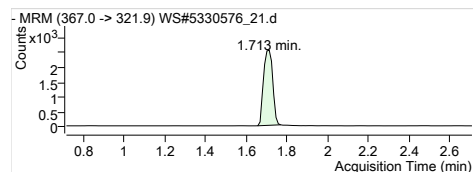


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.456)
 Area ratio: 107.53 µg/L
 Sample type: 0.26956
 Sample

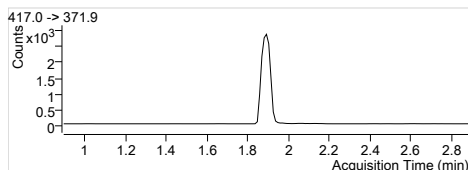
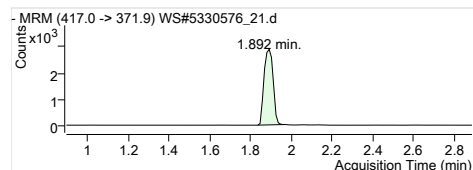
Quantitation Results



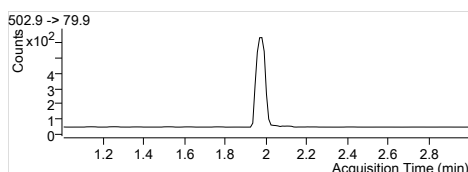
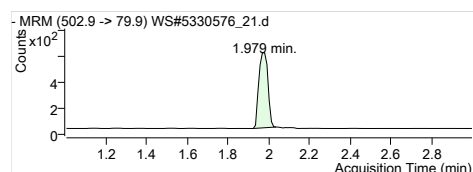
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 115.74 µg/L
Sample type: 0.06688
Sample



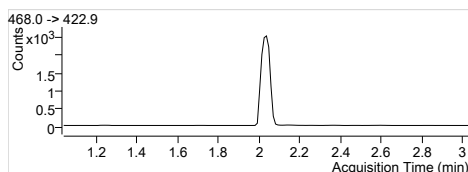
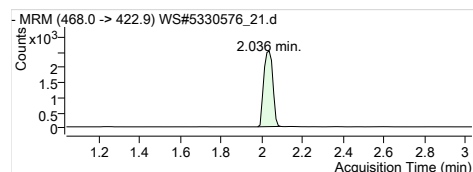
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 104.79 µg/L
Sample type: 0.33294
Sample



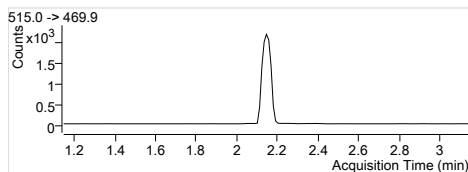
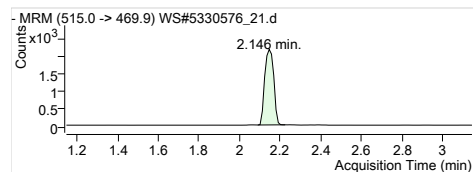
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 113.81 µg/L
Sample type: 0.37288
Sample



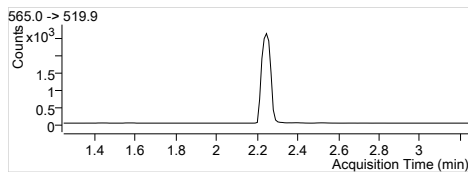
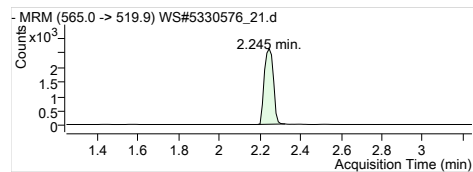
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (2.002)
Area ratio: 106.89 µg/L
Sample type: 0.07603
Sample



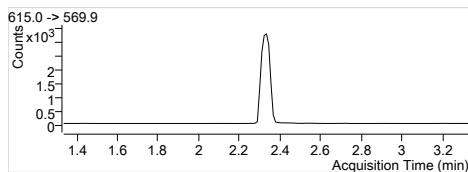
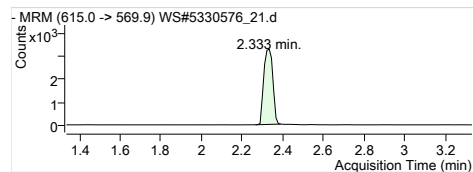
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 101.57 µg/L
Sample type: 0.32548
Sample



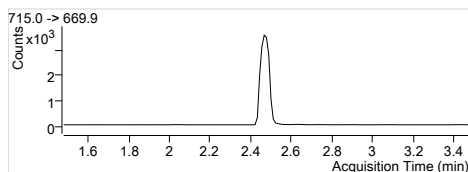
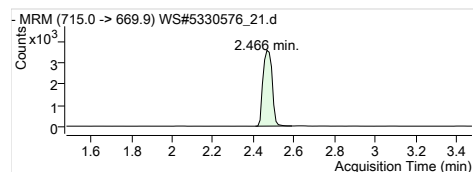
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 97.54 µg/L
Sample type: 0.21490
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 93.18 µg/L
Sample type: 0.26096
Sample

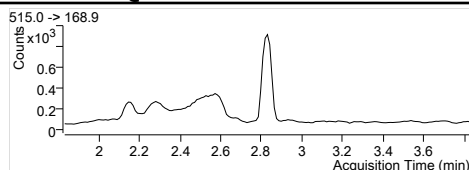
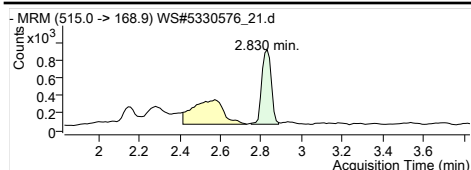


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 92.12 µg/L
Sample type: 0.32576
Sample

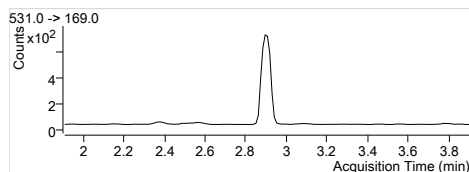
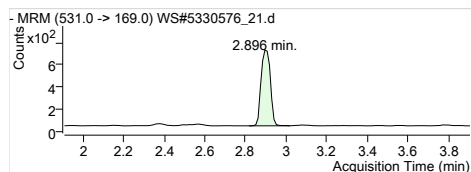


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 90.39 µg/L
Sample type: 0.35904
Sample

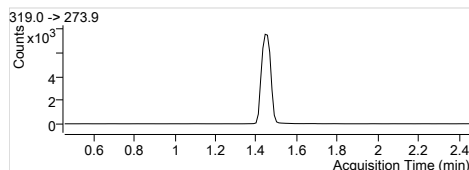
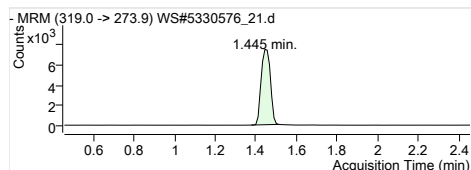
Quantitation Results



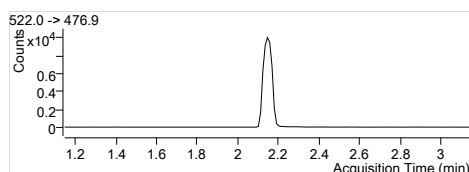
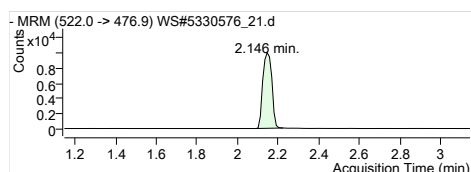
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 71.82 µg/L
Area ratio: 0.11538
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 70.36 µg/L
Area ratio: 0.09193
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.456)
Calc. conc. 26.69 µg/L
Area ratio: 0
Sample type: Sample



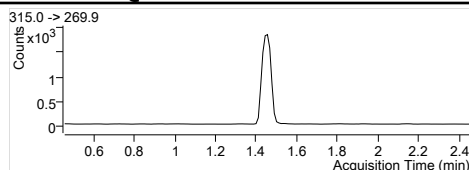
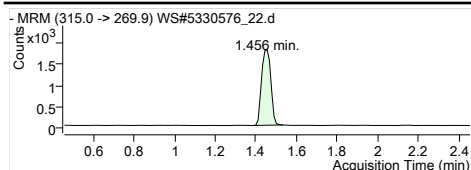
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 28.20 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

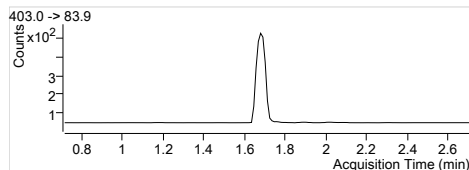
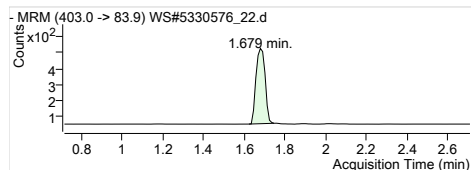
Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:FUH128-01	Instrument	LCMS04
Data File	WS#5330576_22.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-C1
Acq. Date	2018/01/13 3:31:42 AM	Injection Volume	Per Method
Sample Annotation	Reported for all except PFHxS, PFOS, PFTeDA, PFTTrDA		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	5715	1.46	1 µg/L
MPFHxS	1486	1.68	1 µg/L
MPFHpA	7646	1.71	1 µg/L
MPFOA	7684	1.89	1 µg/L
MPFOS	1596	1.97	1 µg/L
MPFNA	7488	2.04	1 µg/L
MPFDA	6412	2.15	1 µg/L
MPFUnA	7387	2.25	1 µg/L
MPFDoA	7763	2.33	1 µg/L
MPFTeDA	4678	2.48	1 µg/L
D3-MeFOSA IS	2808	2.83	1 µg/L
D5-EtFOSA IS	1963	2.90	1 µg/L
13C6-PFHxA IS	24104	1.46	1 µg/L
13C9-PFDA IS	32974	2.15	1 µg/L

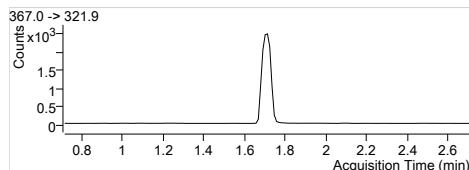
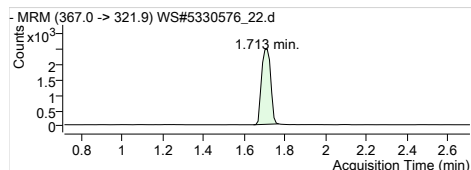
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	2015	1.11	-	0.06 µg/L	-
PFHxA 1	67576	1.46	-	0.66 µg/L	-
PFHxS 1	53298	1.68	-	1.83 µg/L	-
PFHpA 1	39534	1.71	-	0.30 µg/L	-
PFOA 1	40124	1.89	-	0.27 µg/L	-
PFOS 1	36913	1.97	-	1.33 µg/L	-
PFNA 1	6118	2.04	-	0.05 µg/L	-
PFDA 1	1544	2.15	-	0.01 µg/L	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	5715	1.46	-	94.58 µg/L	-
18O2-PFHxS	1486	1.68	-	106.69 µg/L	-
13C4-PFHpA	7646	1.71	-	99.84 µg/L	-
13C4-PFOA	7684	1.89	-	97.30 µg/L	-
13C4-PFOS	1596	1.97	-	93.08 µg/L	-
13C5-PFNA	7426	2.04	-	96.15 µg/L	-
13C2-PFDA	6396	2.15	-	88.04 µg/L	-
13C2-PFUnA	7387	2.25	-	79.99 µg/L	-
13C2-PFDoA	7763	2.33	-	66.57 µg/L	-
13C2-PFTeDA	4741	2.48	-	36.20 µg/L	-
D3-MeFOSA	2837	2.83	-	73.26 µg/L	-
D5-EtFOSA	2000	2.90	-	63.50 µg/L	-
13C6-PFHxA	24104	1.46	-	2.71 µg/L	-
13C9-PFDA	32974	2.15	-	3.02 µg/L	-



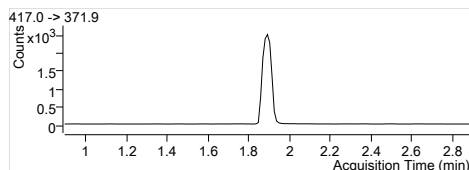
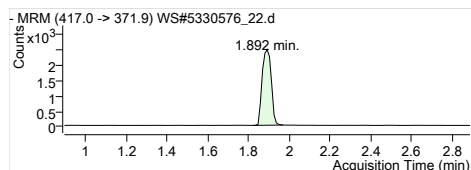
MPFHxA
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



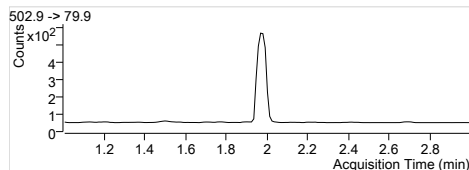
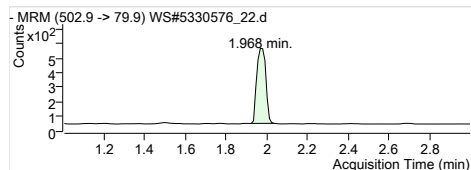
MPFHxS
 RT (Exp. RT): 1.679 (1.713)
 Concentration: 1 µg/L
 Sample type: Sample



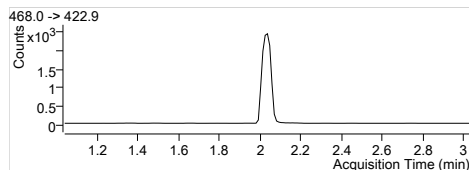
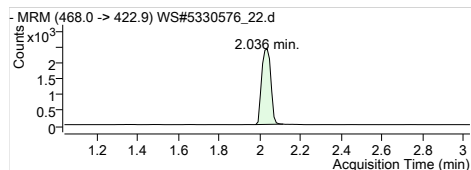
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: Sample



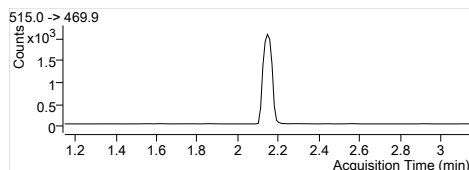
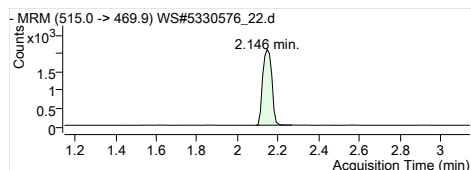
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Sample



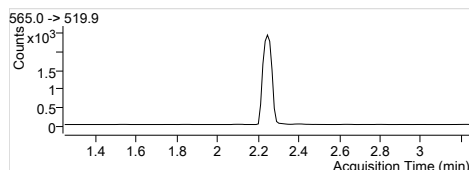
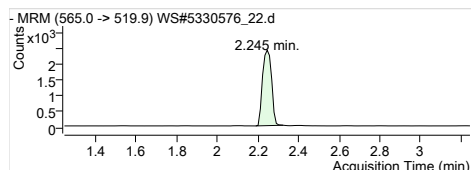
MPFOS
 RT (Exp. RT): 1.968 (2.002)
 Concentration: 1 µg/L
 Sample type: Sample



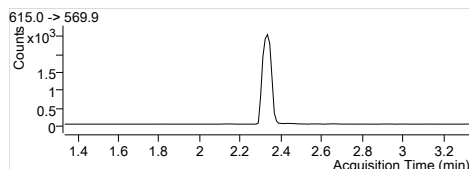
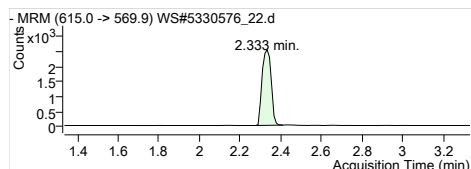
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: Sample



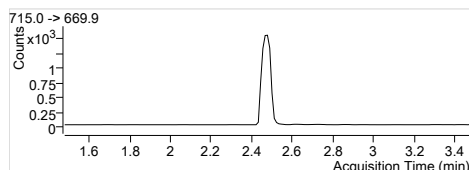
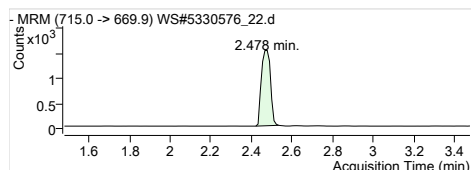
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Sample

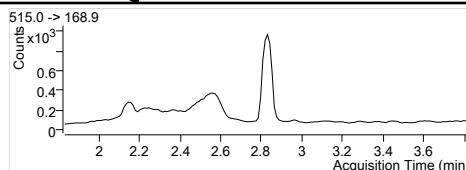
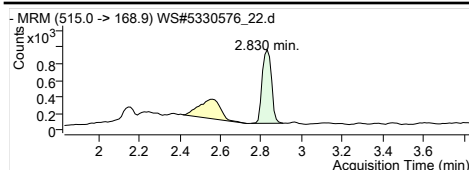


MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Sample

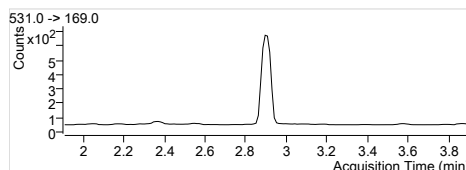
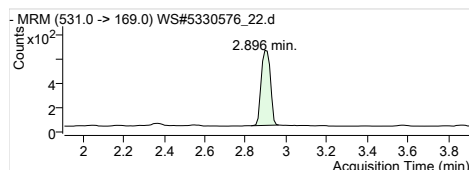


MPFTeDA
 RT (Exp. RT): 2.478 (2.478)
 Concentration: 1 µg/L
 Sample type: Sample

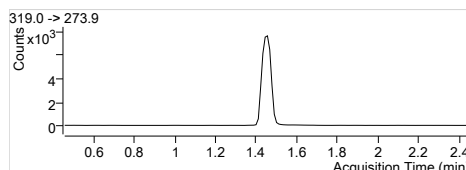
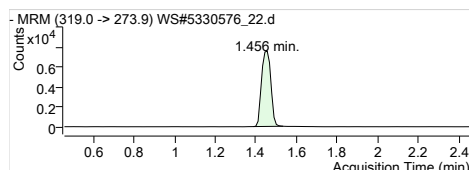
Quantitation Results



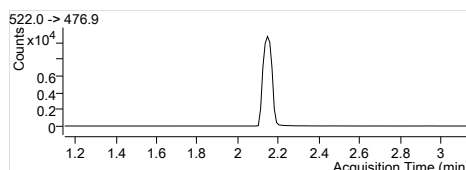
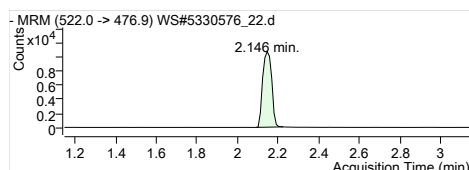
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



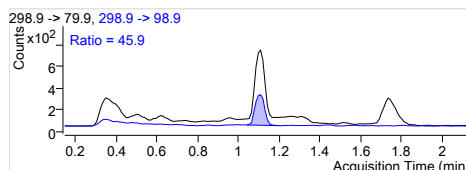
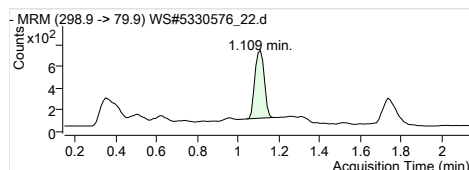
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



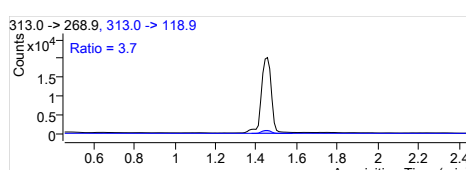
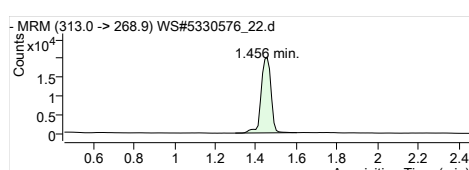
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



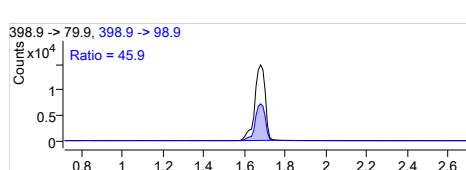
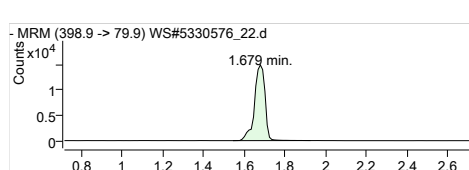
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



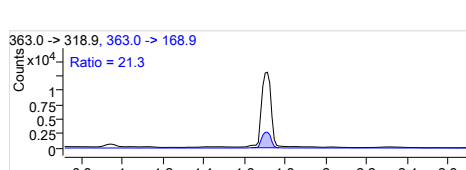
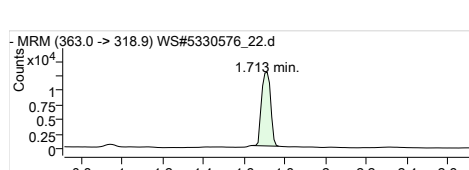
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.109 (1.143)
 Calc. conc. 0.06 µg/L
 Area ratio: 1.35599
 Sample type: Sample



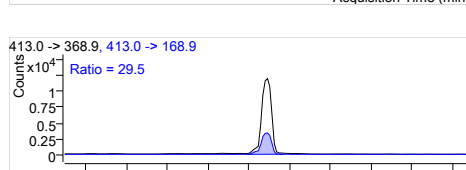
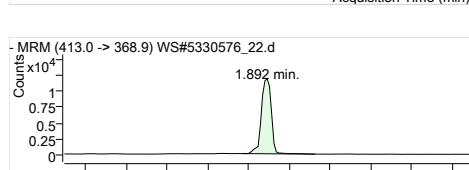
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.456 (1.456)
 Calc. conc. 0.66 µg/L
 Area ratio: 11.82432
 Sample type: Sample



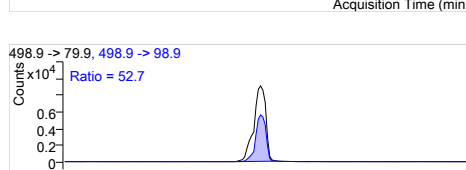
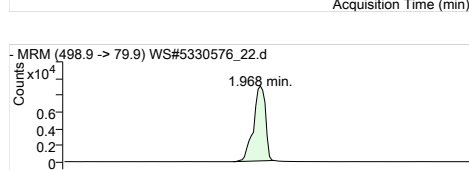
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.713)
 Calc. conc. 1.83 µg/L
 Area ratio: 35.86676
 Sample type: Sample



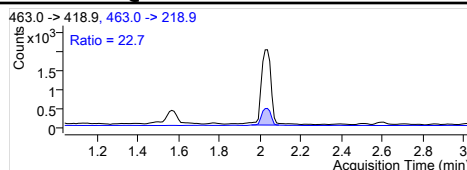
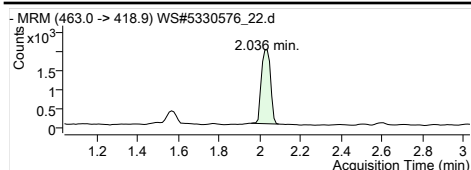
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 0.30 µg/L
 Area ratio: 5.17055
 Sample type: Sample



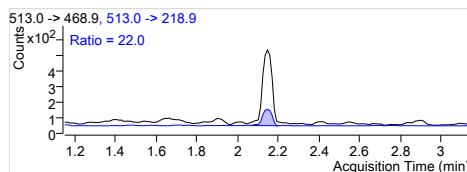
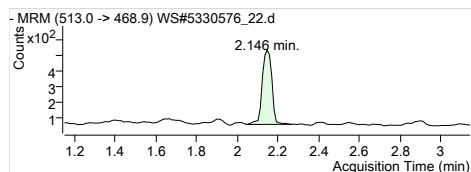
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 0.27 µg/L
 Area ratio: 5.22176
 Sample type: Sample



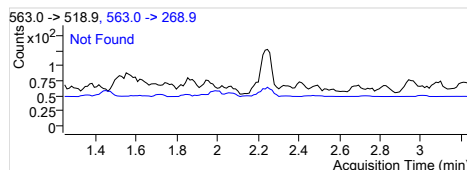
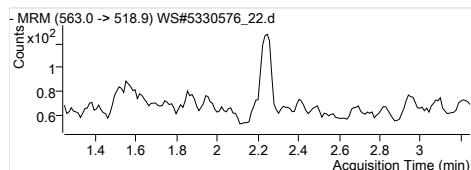
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (2.002)
 Calc. conc. 1.33 µg/L
 Area ratio: 23.12845
 Sample type: Sample



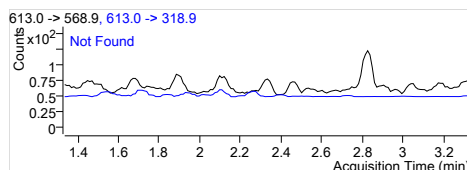
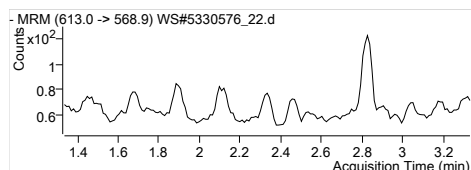
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 2.036 (2.036)
 Area ratio: 0.05 µg/L
 Sample type: 0.81704
 Sample



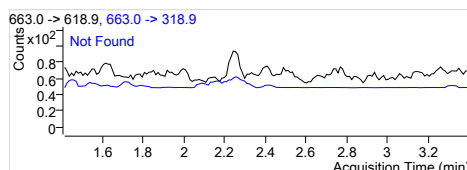
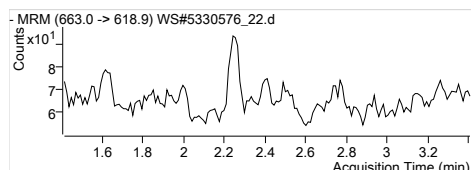
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 0.01 µg/L
 Sample type: 0.24080
 Sample



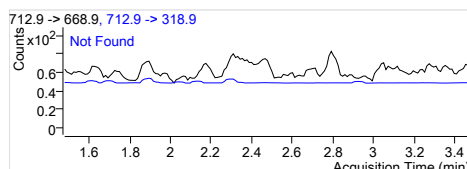
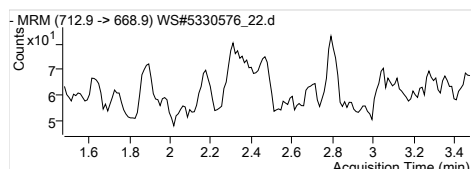
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



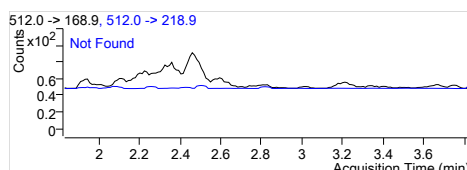
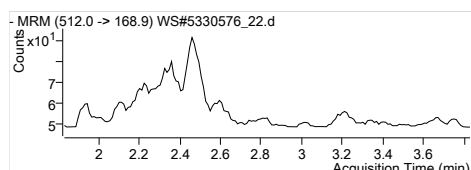
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



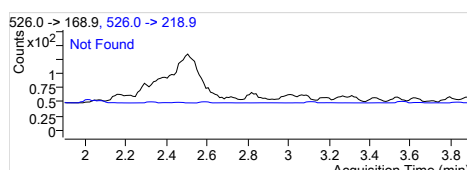
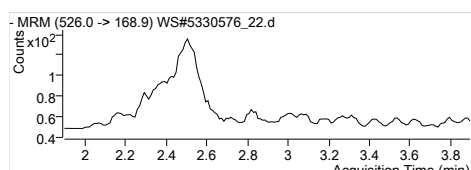
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



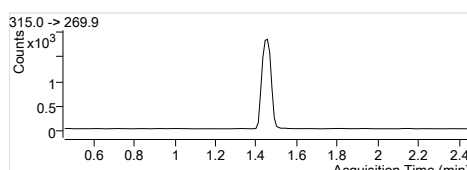
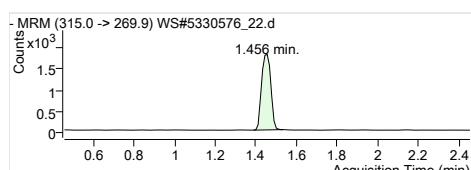
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

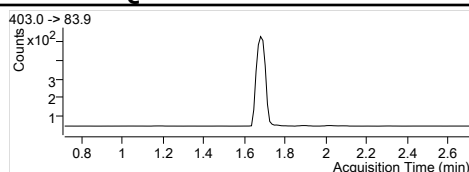
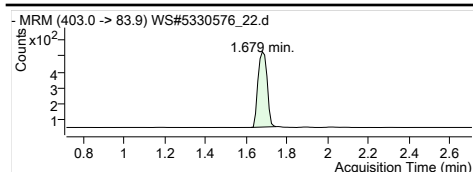


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

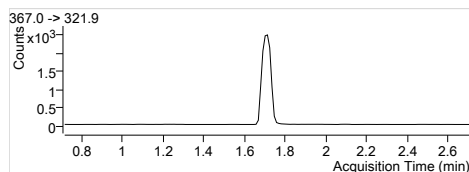
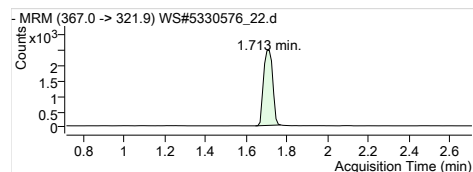


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.456 (1.456)
 Area ratio: 94.58 µg/L
 Sample type: 0.23710
 Sample

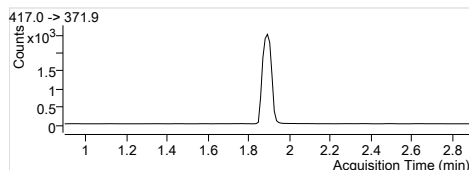
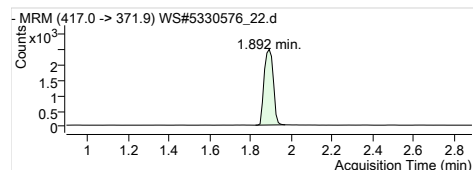
Quantitation Results



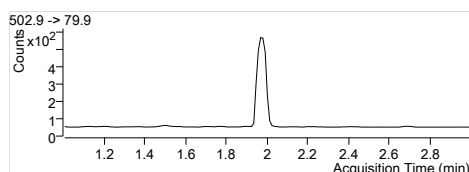
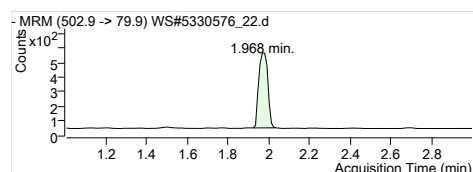
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 106.69 µg/L
Sample type: 0.06165
Sample



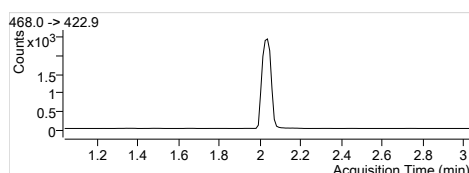
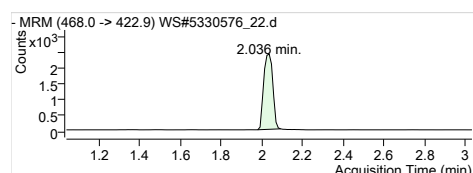
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 99.84 µg/L
Sample type: 0.31721
Sample



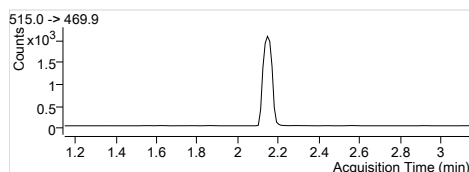
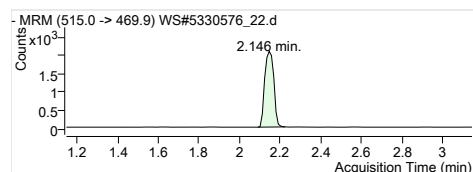
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 97.30 µg/L
Sample type: 0.31879
Sample



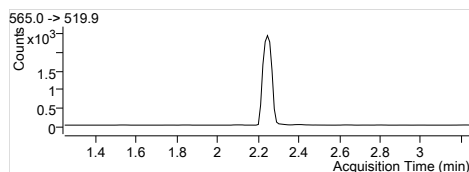
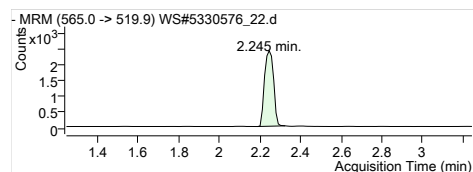
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.968 (2.002)
Area ratio: 93.08 µg/L
Sample type: 0.06621
Sample



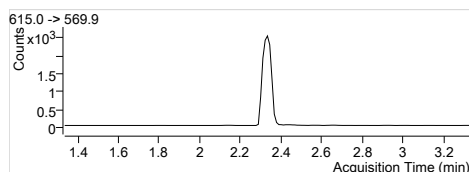
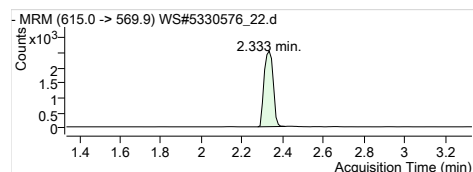
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 96.15 µg/L
Sample type: 0.30808
Sample



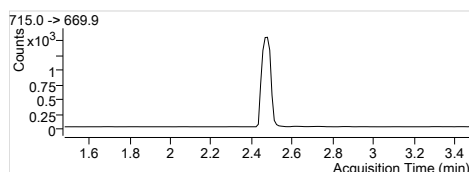
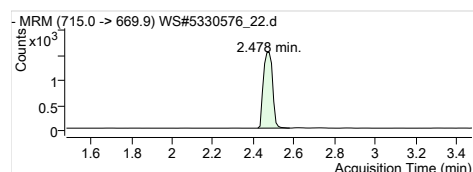
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 88.04 µg/L
Sample type: 0.19397
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 79.99 µg/L
Sample type: 0.22402
Sample

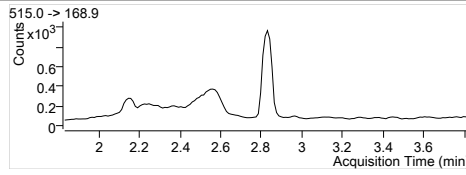
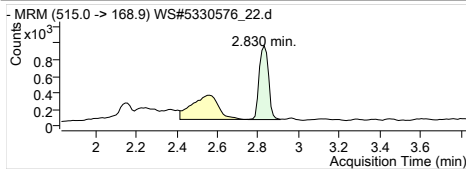


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 66.57 µg/L
Sample type: 0.23543
Sample

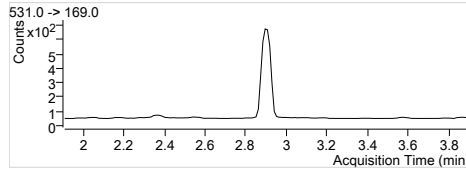
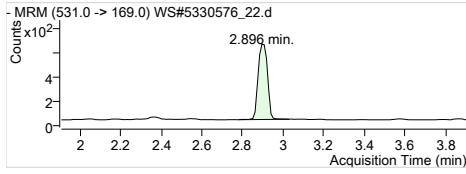


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.478 (2.478)
Area ratio: 36.20 µg/L
Sample type: 0.14378
Sample

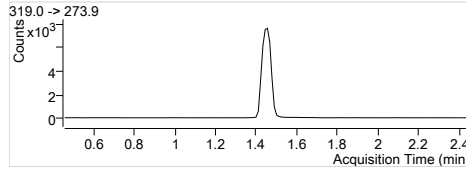
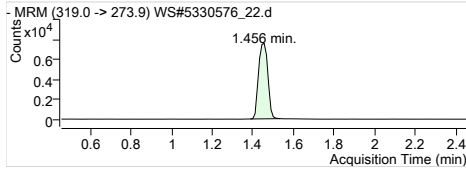
Quantitation Results



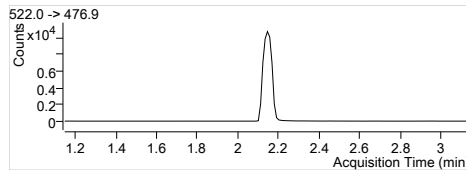
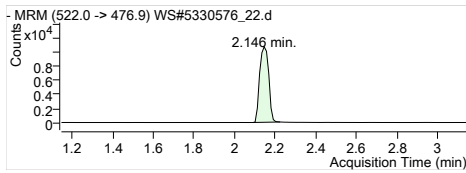
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 73.26 µg/L
Area ratio: 0.11770
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 63.50 µg/L
Area ratio: 0.08297
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.456 (1.456)
Calc. conc. 2.71 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 3.02 µg/L
Area ratio: 0
Sample type: Sample

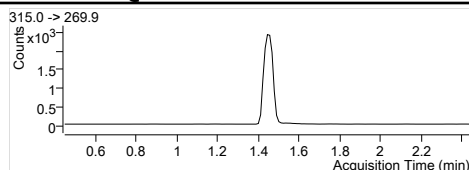
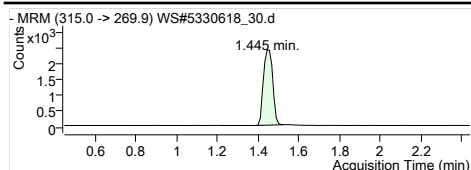
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH129-01:50x	Instrument	LCMS04
Data File	WS#5330618_30.d	Operator	
Sample Type	Sample	Dilution	1.2
Acq. Method	PFC_Water_Low.m	Position	P4-A3
Acq. Date	2018/01/13 7:39:11 AM	Injection Volume	Per Method
Sample Annotation	Reported for PFHxS, PFOS		

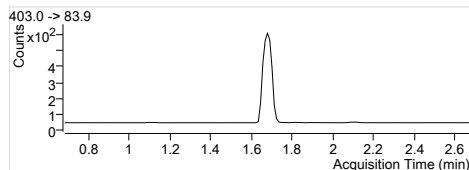
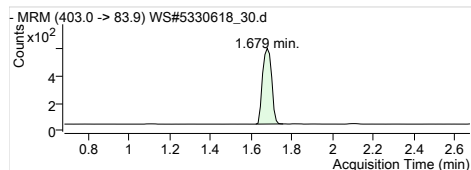
ISTD Compounds	Response	RT	Target conc.
MPFHxA	7585	1.44	1 µg/L
MPFHxS	1733	1.68	1 µg/L
MPFHpA	9286	1.70	1 µg/L
MPFOA	10022	1.89	1 µg/L
MPFOS	2240	1.97	1 µg/L
MPFNA	9559	2.04	1 µg/L
MPFDA	7846	2.15	1 µg/L
MPFUnA	9583	2.25	1 µg/L
MPFDoA	11822	2.33	1 µg/L
MPFTrDA	12430	2.47	1 µg/L
D3-MeFOSA IS	3563	2.83	1 µg/L
D5-EtFOSA IS	2875	2.90	1 µg/L
13C6-PFHxA IS	36937	1.44	1 µg/L
13C9-PFDA IS	48854	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	6440	1.44	-	2.43 µg/L	-
PFHxS 1	4487	1.68	-	7.02 µg/L	-
PFHpA 1	3060	1.70	-	1.08 µg/L	-
PFOA 1	5071	1.89	-	1.41 µg/L	-
PFOS 1	14092	1.97	-	18.98 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7585	1.44	-	92.73 µg/L	-
18O2-PFHxS	1733	1.68	-	88.41 µg/L	-
13C4-PFHpA	9286	1.70	-	90.62 µg/L	-
13C4-PFOA	10022	1.89	-	90.57 µg/L	-
13C4-PFOS	2240	1.97	-	93.95 µg/L	-
13C5-PFNA	9485	2.04	-	91.67 µg/L	-
13C2-PFDA	7828	2.15	-	84.13 µg/L	-
13C2-PFUnA	9583	2.25	-	83.54 µg/L	-
13C2-PFDoA	11822	2.33	-	80.86 µg/L	-
13C2-PFTrDA	12732	2.47	-	79.35 µg/L	-
D3-MeFOSA	3593	2.83	-	71.90 µg/L	-
D5-EtFOSA	2896	2.90	-	68.58 µg/L	-
13C6-PFHxA	36937	1.44	-	91.66 µg/L	-
13C9-PFDA	48854	2.15	-	94.69 µg/L	-

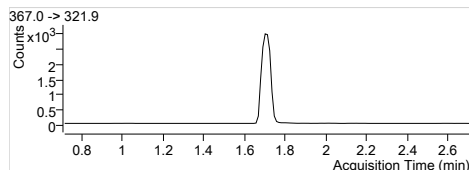
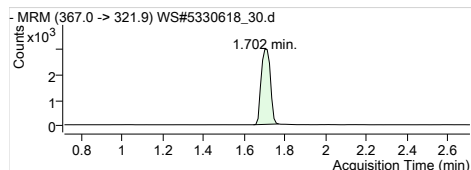
Quantitation Results



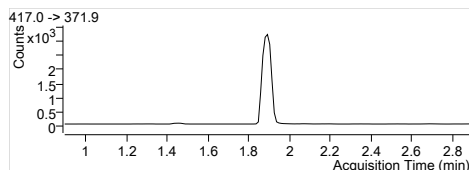
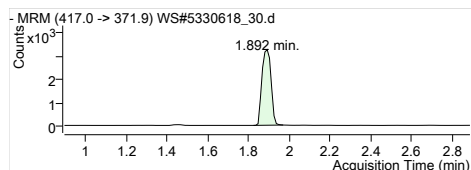
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



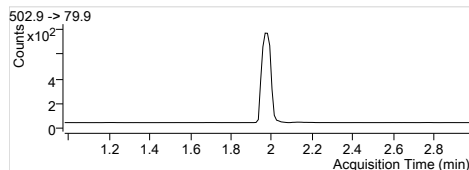
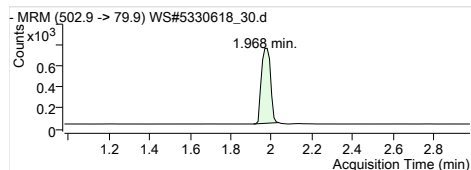
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



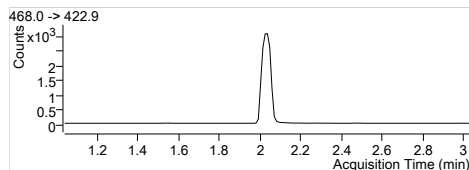
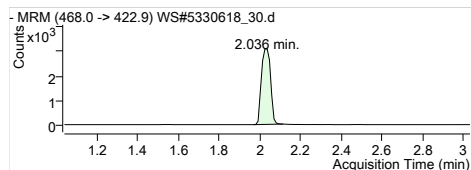
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



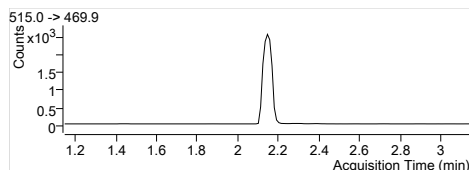
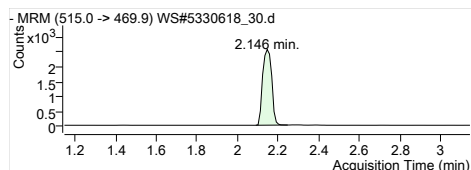
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



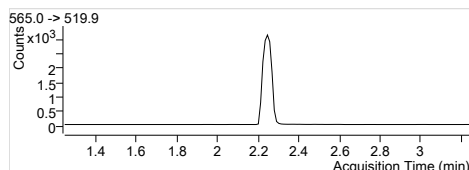
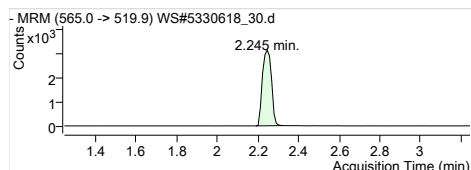
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample



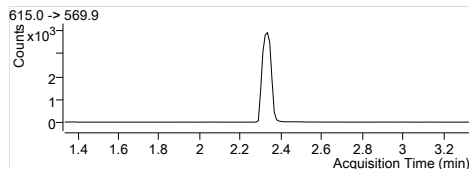
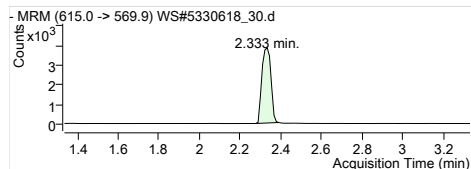
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



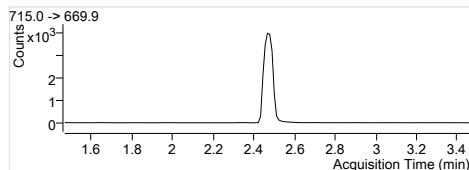
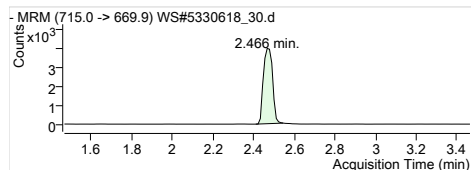
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

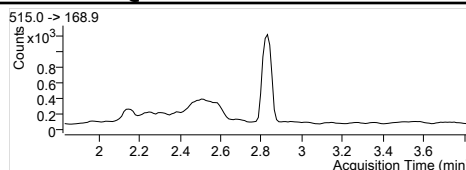
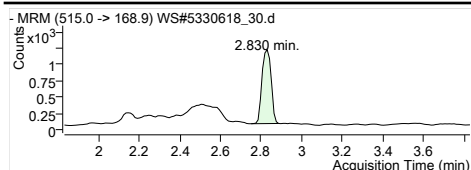


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

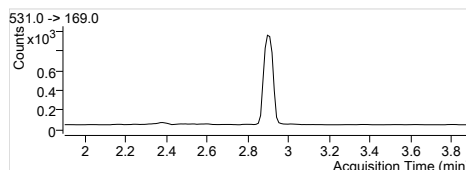
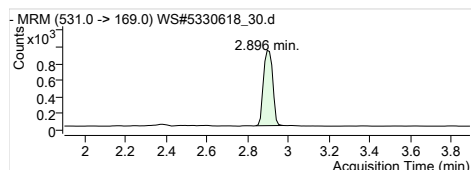


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

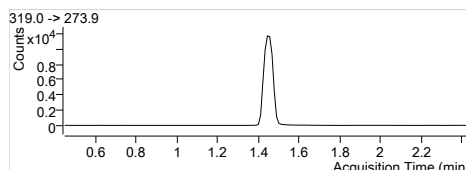
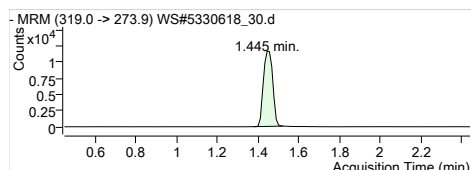
Quantitation Results



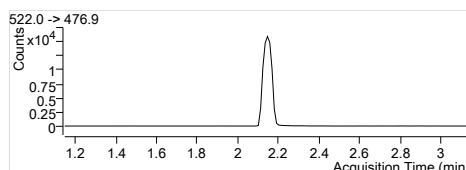
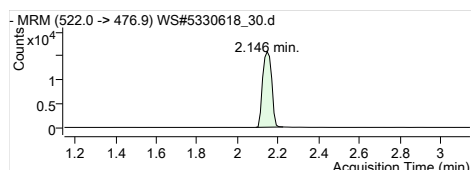
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



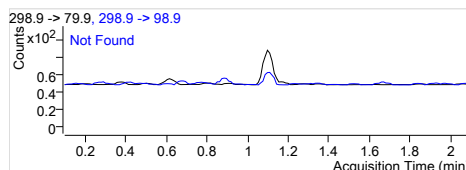
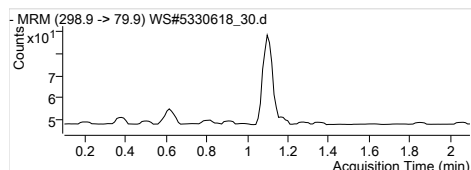
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



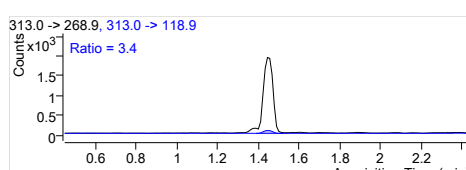
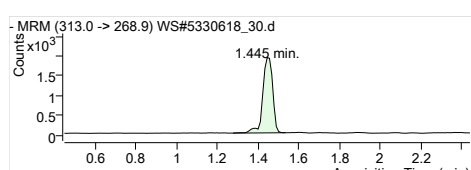
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



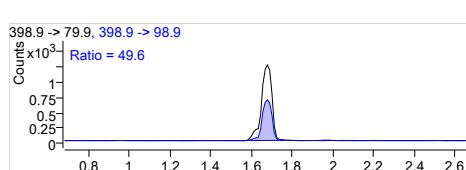
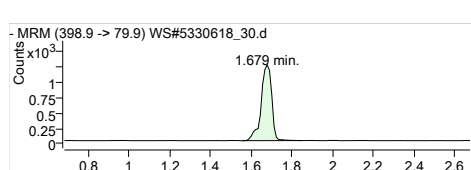
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



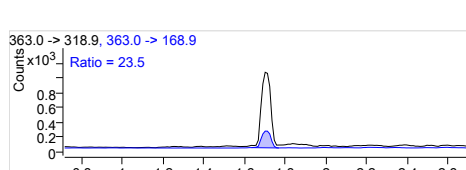
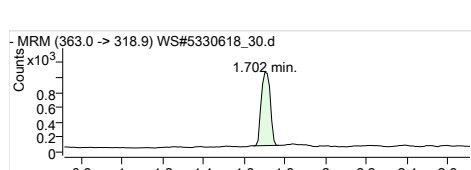
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: N.D.
 0
 Sample type: Sample



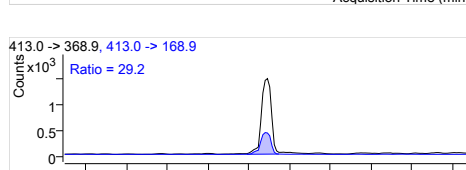
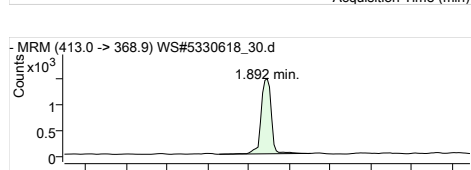
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 2.43 µg/L
 0.84904
 Sample type: Sample



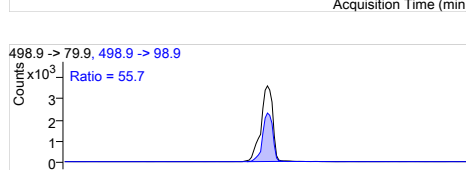
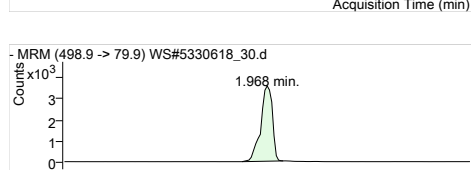
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 7.02 µg/L
 2.58915
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 1.08 µg/L
 0.32953
 Sample type: Sample

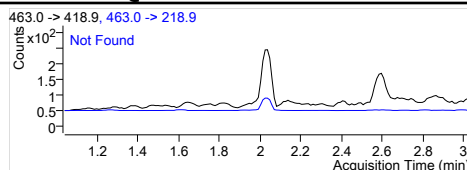
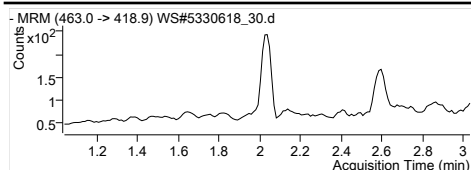


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 1.41 µg/L
 0.50599
 Sample type: Sample

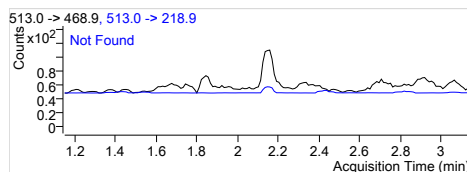
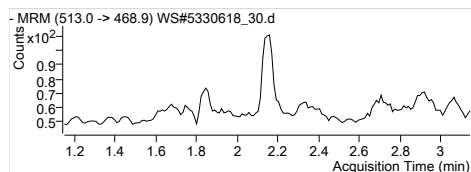


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 18.98 µg/L
 6.29107
 Sample type: Sample

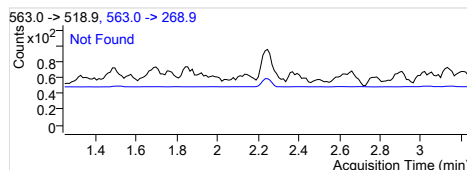
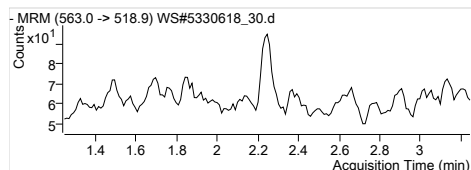
Quantitation Results



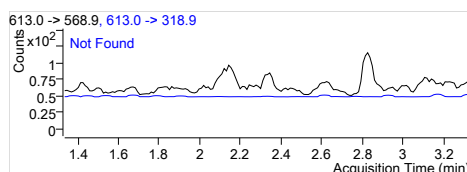
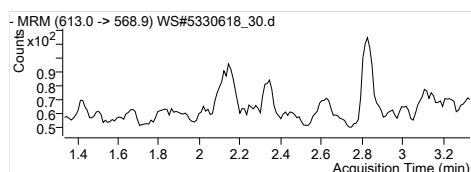
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



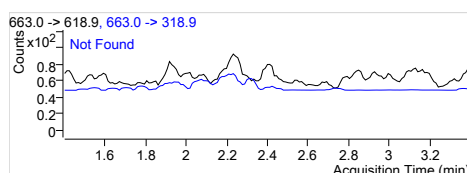
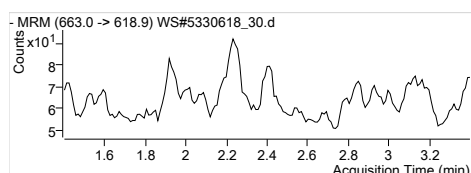
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



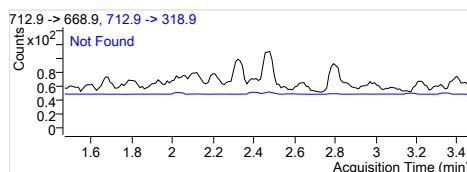
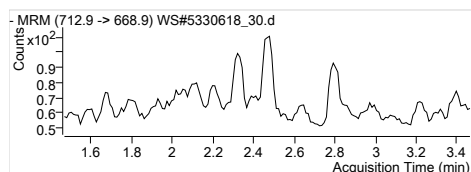
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



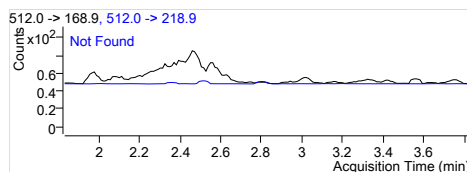
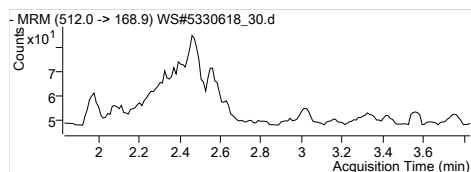
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



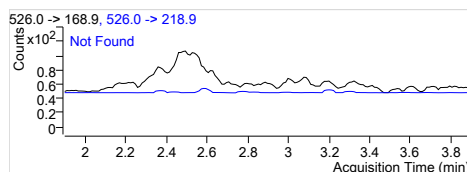
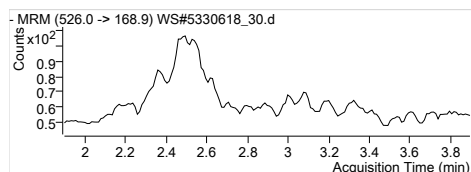
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



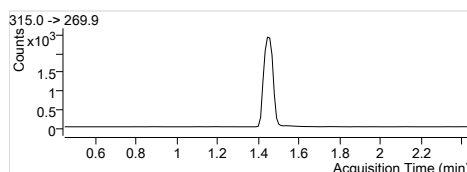
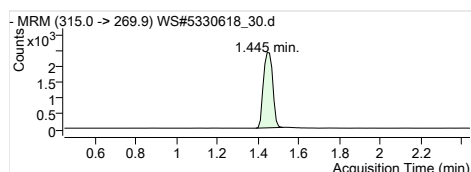
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

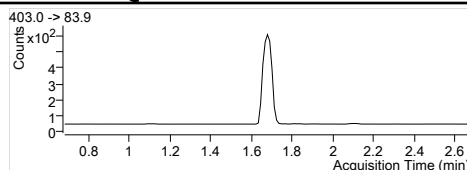
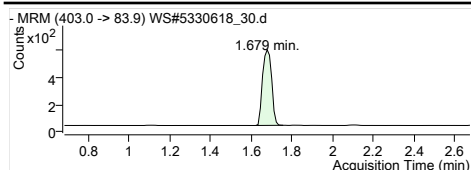


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

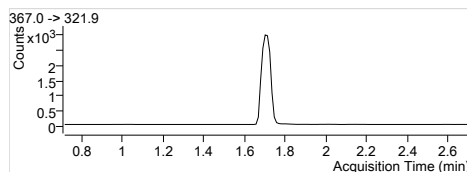
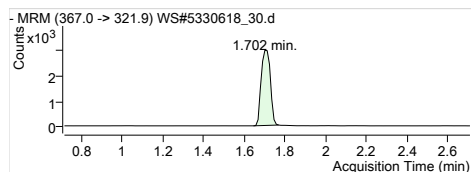


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 92.73 µg/L
 Sample type: 0.20535
 Sample

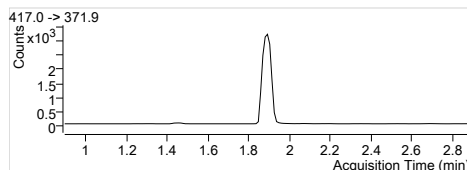
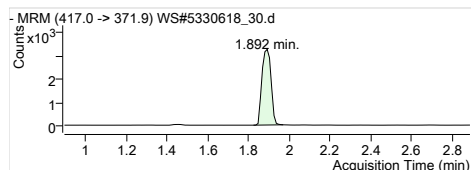
Quantitation Results



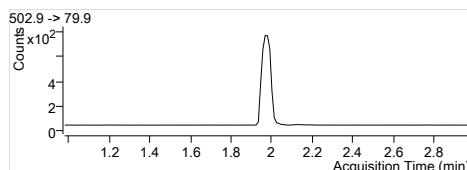
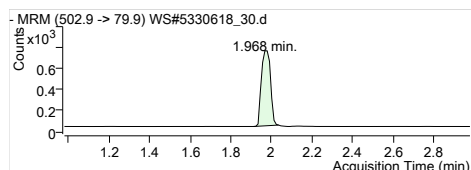
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 88.41 µg/L
 Sample type: 0.04692
 Sample



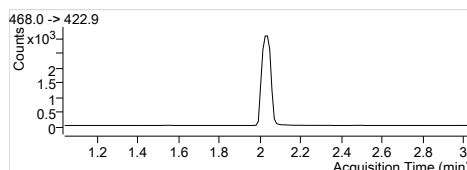
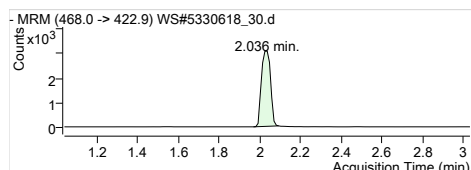
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 90.62 µg/L
 Sample type: 0.25140
 Sample



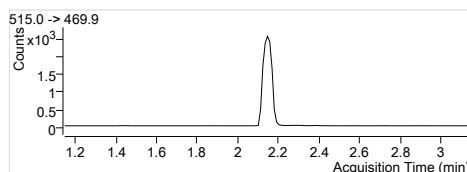
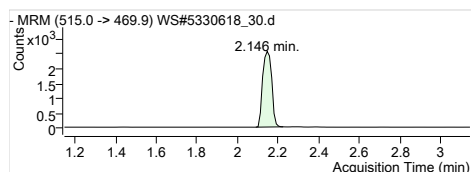
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 90.57 µg/L
 Sample type: 0.27133
 Sample



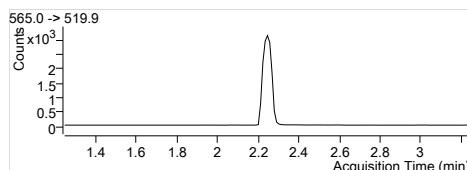
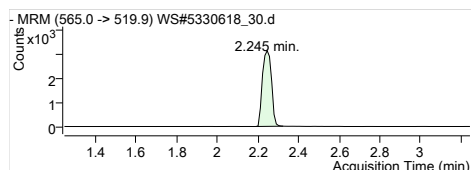
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 93.95 µg/L
 Sample type: 0.06064
 Sample



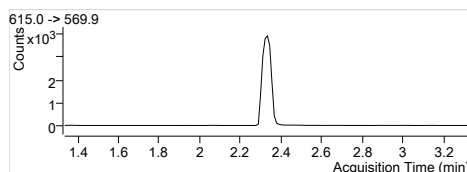
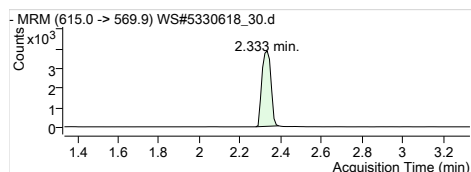
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 91.67 µg/L
 Sample type: 0.25679
 Sample



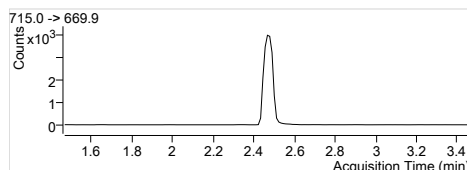
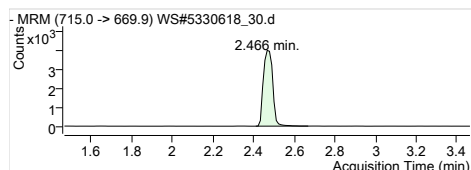
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 84.13 µg/L
 Sample type: 0.16023
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 83.54 µg/L
 Sample type: 0.19616
 Sample

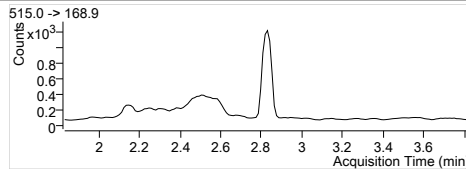
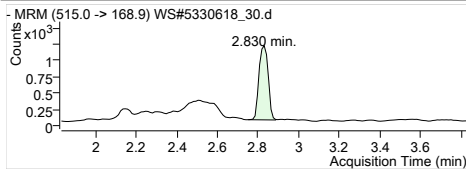


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 80.86 µg/L
 Sample type: 0.24199
 Sample

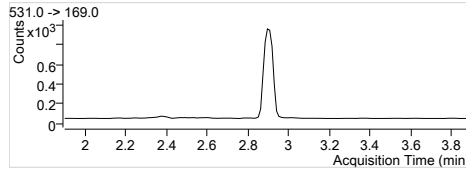
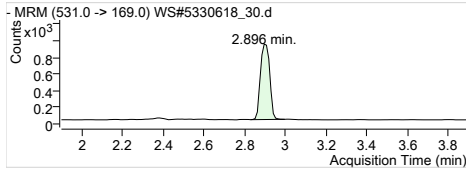


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 79.35 µg/L
 Sample type: 0.26061
 Sample

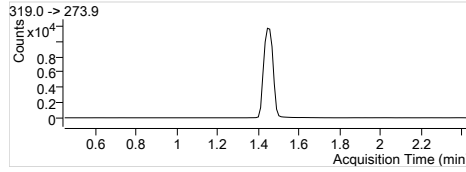
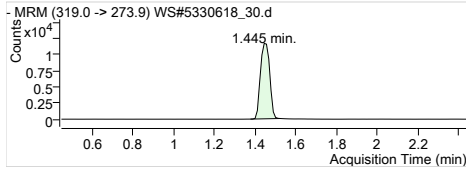
Quantitation Results



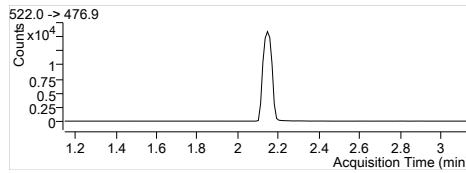
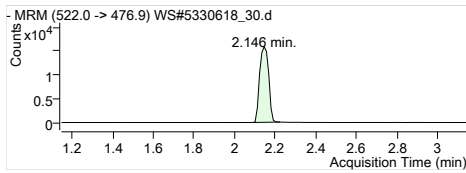
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 71.90 µg/L
Sample type: 0.09727
Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 68.58 µg/L
Sample type: 0.07840
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 91.66 µg/L
Sample type: 0
Sample



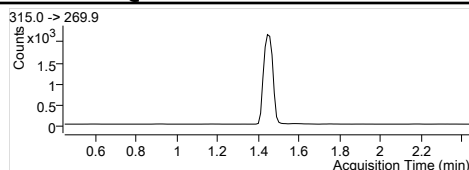
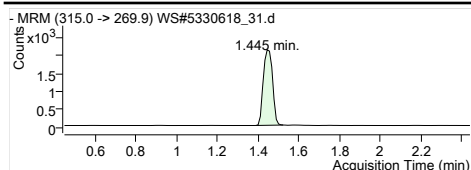
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 94.69 µg/L
Sample type: 0
Sample

Quantitation Results

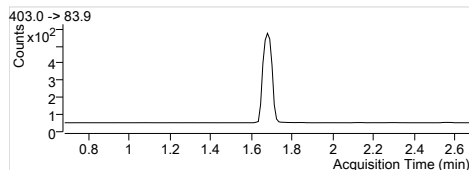
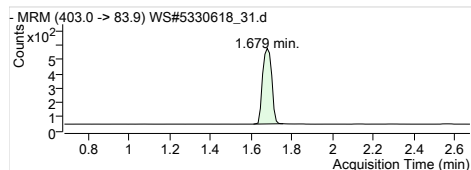
Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH129-01:5x	Instrument	LCMS04
Data File	WS#5330618_31.d	Operator	
Sample Type	Sample	Dilution	0.12
Acq. Method	PFC_Water_Low.m	Position	P4-A4
Acq. Date	2018/01/13 7:44:06 AM	Injection Volume	Per Method
Sample Annotation	Reported for all except PFHxS, PFOS		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	6700	1.44	1 µg/L
MPFHxS	1644	1.68	1 µg/L
MPFHpA	8474	1.70	1 µg/L
MPFOA	8603	1.89	1 µg/L
MPFOS	1886	1.97	1 µg/L
MPFNA	8617	2.04	1 µg/L
MPFDA	7376	2.15	1 µg/L
MPFUnA	9125	2.25	1 µg/L
MPFDoA	11254	2.33	1 µg/L
MPFTeDA	11846	2.47	1 µg/L
D3-MeFOSA IS	2777	2.83	1 µg/L
D5-EtFOSA IS	2148	2.90	1 µg/L
13C6-PFHxA IS	34491	1.44	1 µg/L
13C9-PFDA IS	44036	2.15	1 µg/L

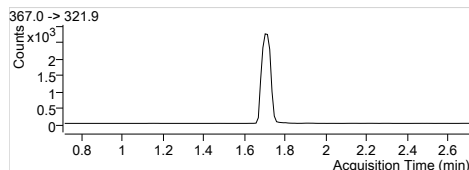
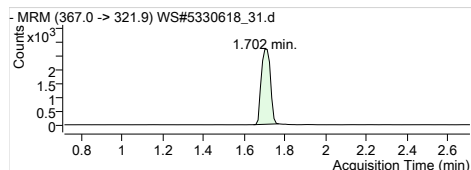
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	898	1.10	-	0.13 µg/L	-
PFHxA 1	52859	1.44	-	2.23 µg/L	-
PFHxS 1	38726	1.68	-	6.49 µg/L	-
PFHpA 1	26962	1.70	-	0.89 µg/L	-
PFOA 1	38664	1.89	-	1.22 µg/L	-
PFOS 1	110178	1.97	-	17.52 µg/L	-
PFNA 1	3153	2.04	-	0.11 µg/L	-
PFDA 1	768	2.15	-	0.03 µg/L	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6700	1.44	-	87.72 µg/L	-
18O2-PFHxS	1644	1.68	-	89.82 µg/L	-
13C4-PFHpA	8474	1.70	-	88.56 µg/L	-
13C4-PFOA	8603	1.89	-	83.26 µg/L	-
13C4-PFOS	1886	1.97	-	84.71 µg/L	-
13C5-PFNA	8554	2.04	-	88.53 µg/L	-
13C2-PFDA	7328	2.15	-	87.38 µg/L	-
13C2-PFUnA	9125	2.25	-	88.25 µg/L	-
13C2-PFDoA	11254	2.33	-	85.40 µg/L	-
13C2-PFTeDA	11964	2.47	-	82.72 µg/L	-
D3-MeFOSA	2838	2.83	-	60.82 µg/L	-
D5-EtFOSA	2179	2.90	-	55.26 µg/L	-
13C6-PFHxA	34491	1.44	-	8.56 µg/L	-
13C9-PFDA	44036	2.15	-	8.54 µg/L	-



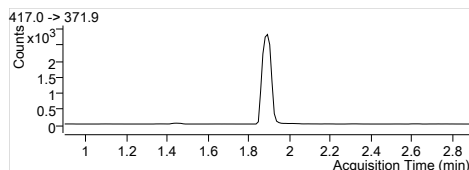
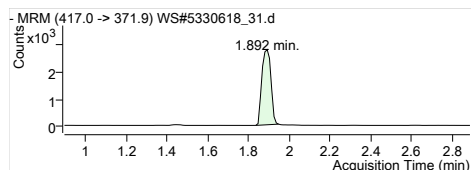
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



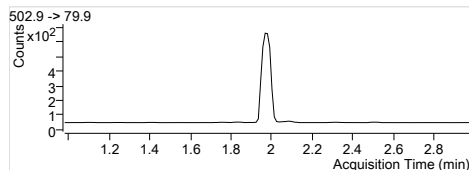
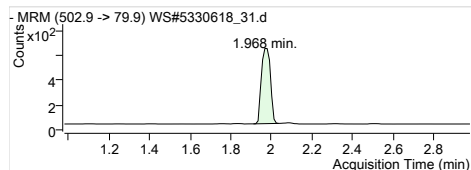
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



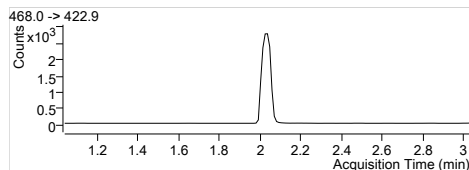
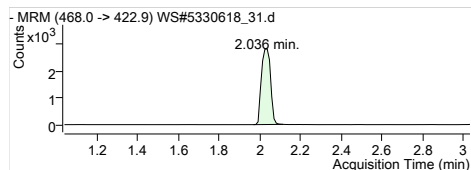
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



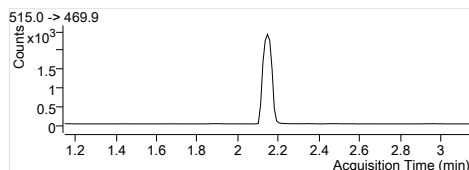
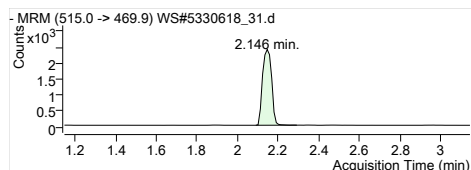
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



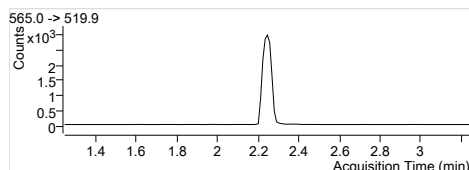
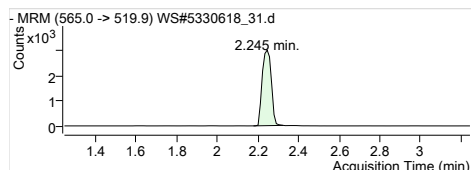
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample



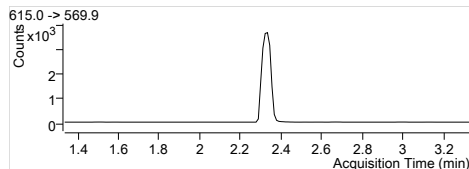
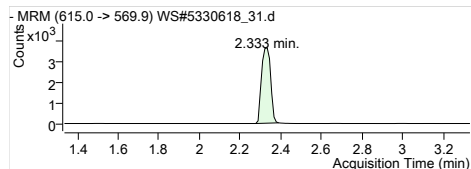
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



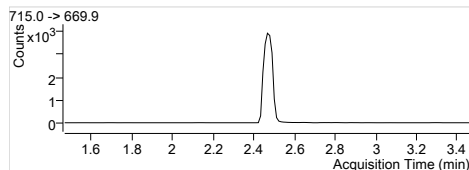
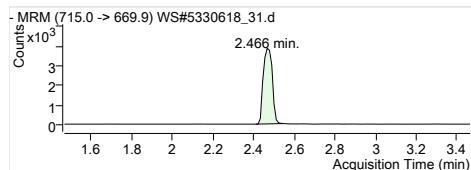
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

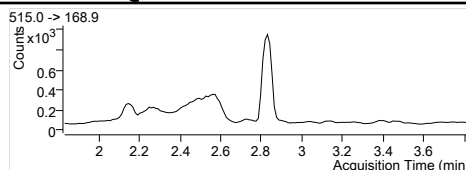
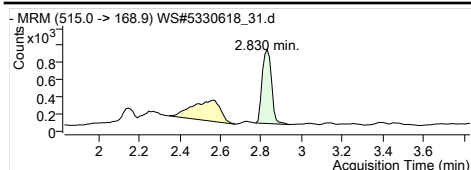


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

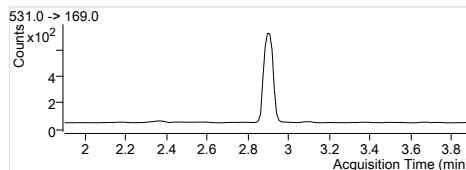
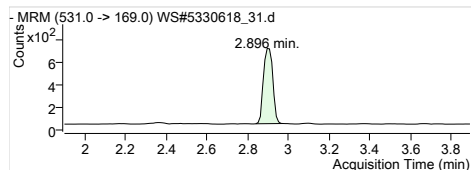


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

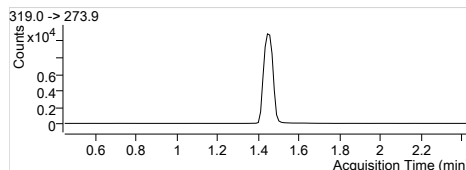
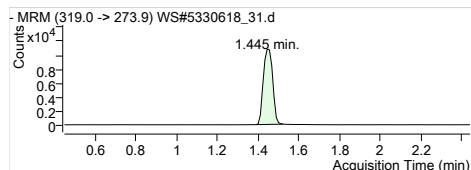
Quantitation Results



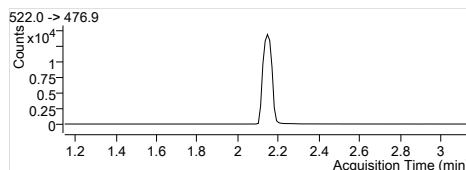
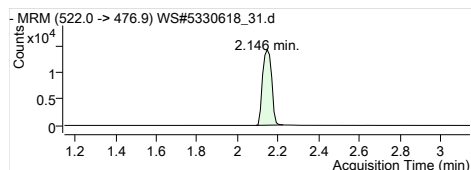
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



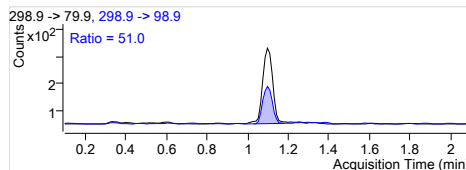
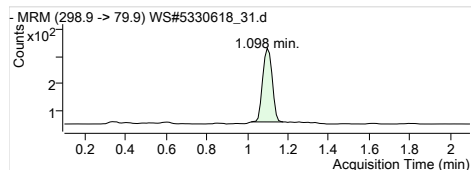
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



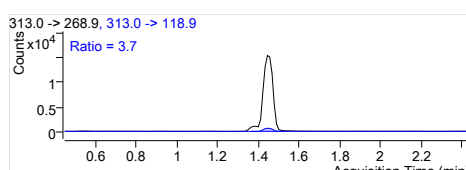
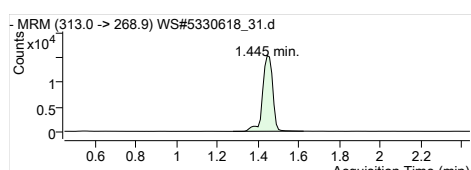
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



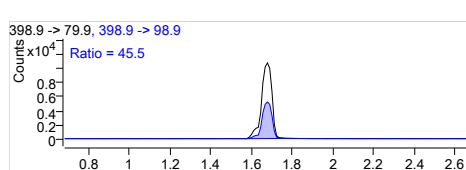
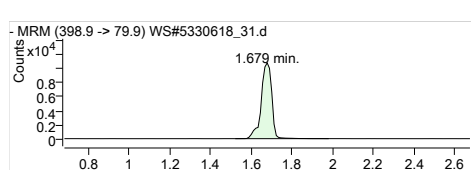
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



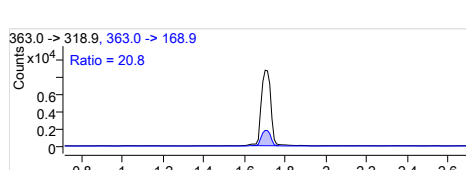
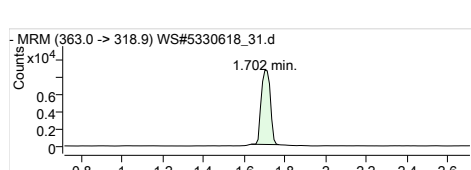
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.13 µg/L
 Sample type: 0.54623
 Sample



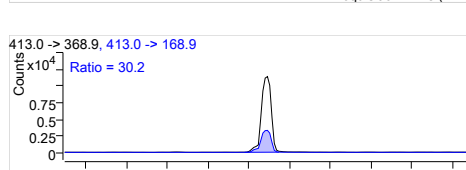
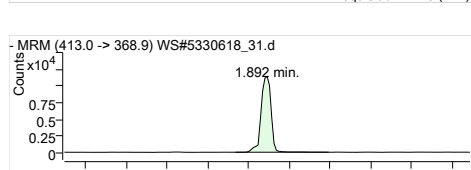
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 2.23 µg/L
 Sample type: 7.88940
 Sample



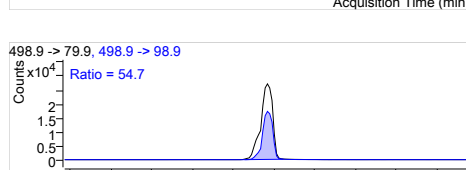
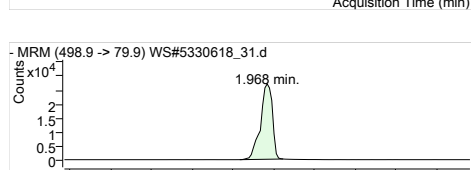
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 6.49 µg/L
 Sample type: 23.55596
 Sample



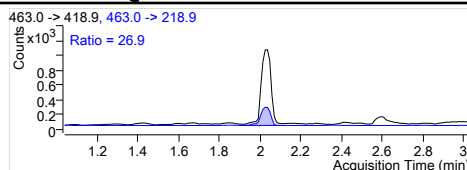
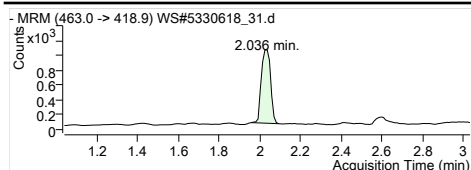
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.89 µg/L
 Sample type: 3.18173
 Sample



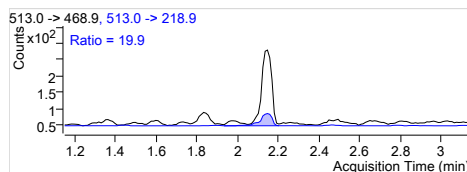
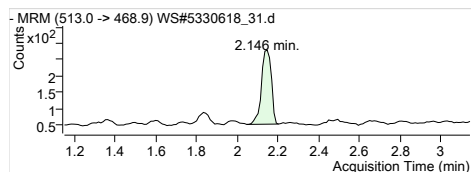
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 1.22 µg/L
 Sample type: 4.49425
 Sample



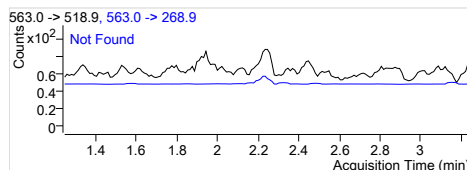
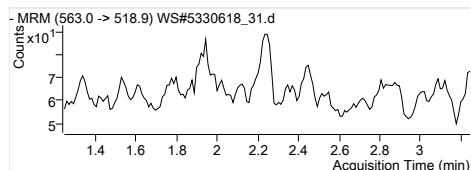
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 17.52 µg/L
 Sample type: 58.41888
 Sample



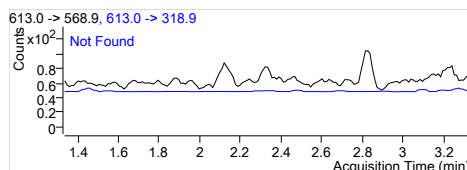
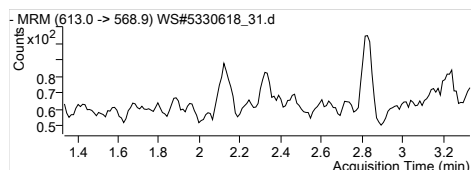
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 2.036 (2.036)
 Area ratio: 0.11 µg/L
 Sample type: 0.36590
 Sample



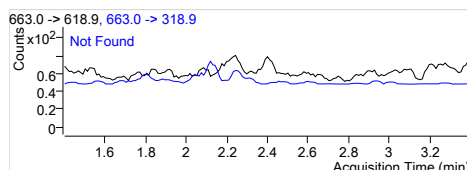
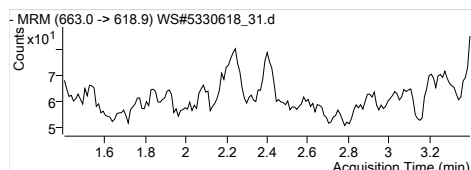
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 0.03 µg/L
 Sample type: 0.10412
 Sample



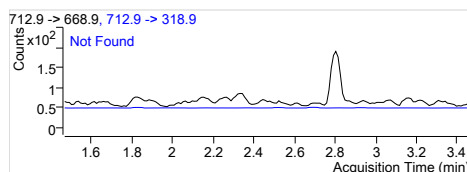
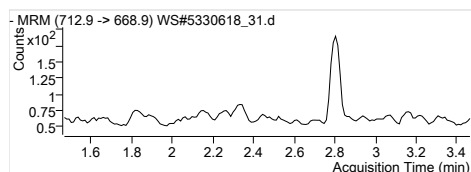
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



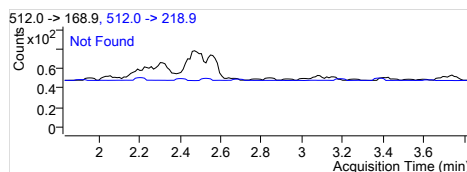
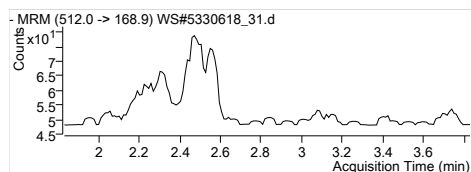
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



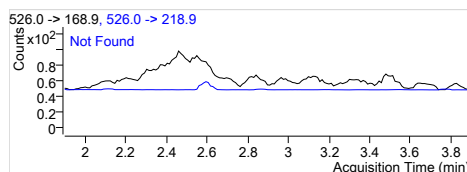
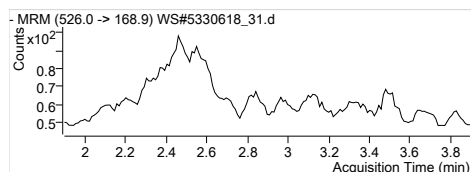
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



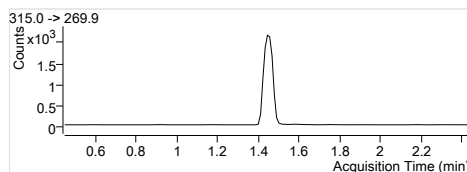
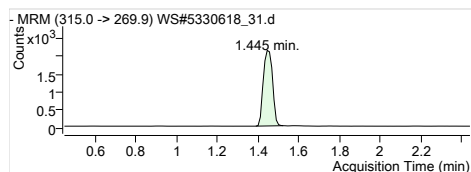
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



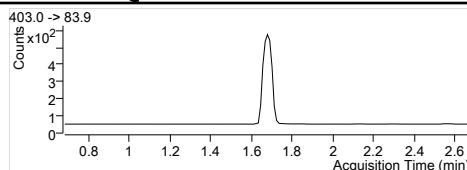
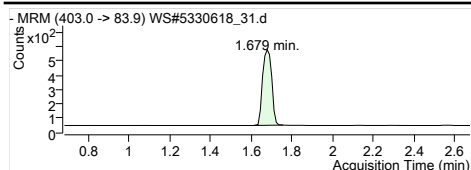
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample



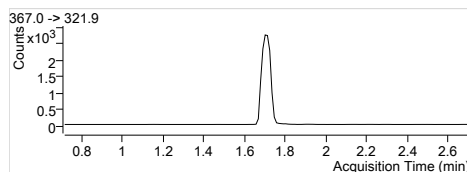
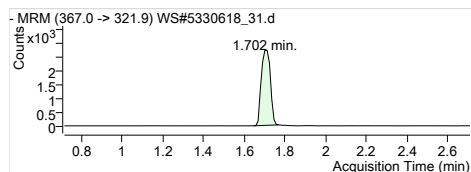
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample



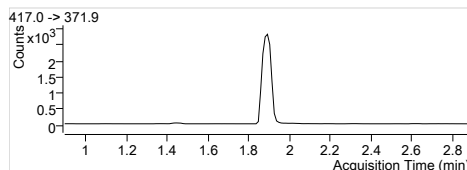
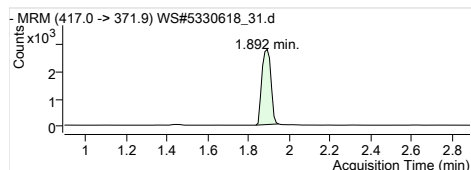
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 87.72 µg/L
 Sample type: 0.19425
 Sample



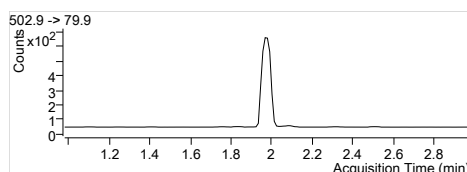
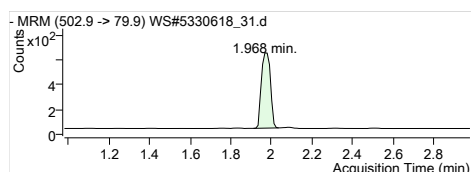
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 89.82 µg/L
 Sample type: 0.04766
 Sample



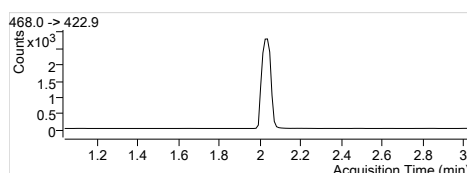
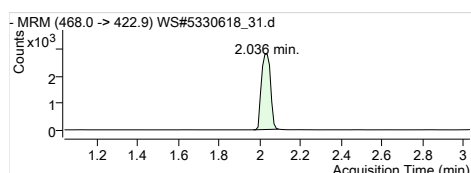
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 88.56 µg/L
 Sample type: 0.24569
 Sample



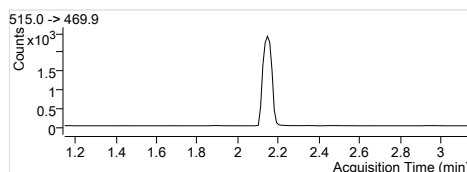
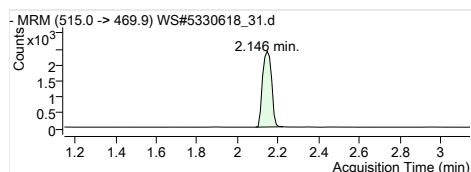
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 83.26 µg/L
 Sample type: 0.24943
 Sample



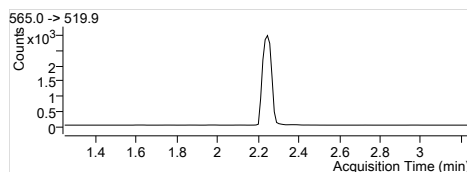
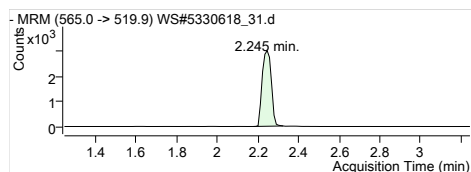
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 84.71 µg/L
 Sample type: 0.05468
 Sample



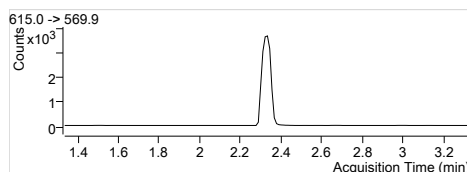
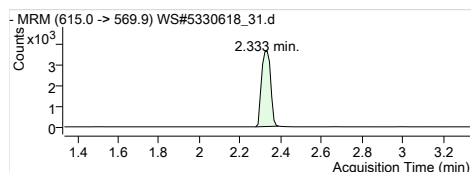
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 88.53 µg/L
 Sample type: 0.24801
 Sample



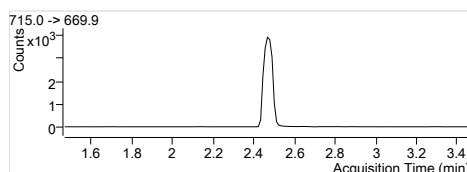
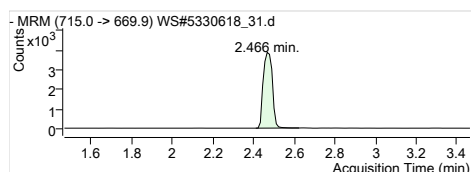
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 87.38 µg/L
 Sample type: 0.16641
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 88.25 µg/L
 Sample type: 0.20722
 Sample

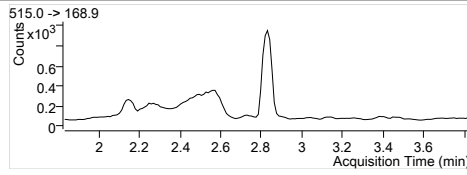
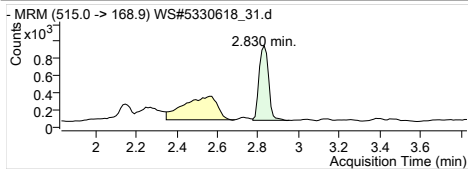


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 85.40 µg/L
 Sample type: 0.25556
 Sample

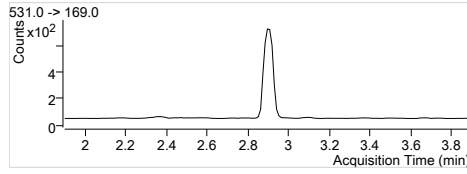
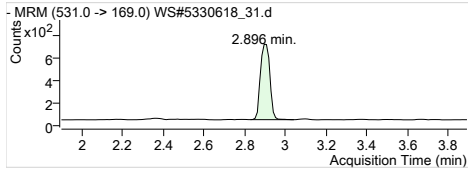


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 82.72 µg/L
 Sample type: 0.27169
 Sample

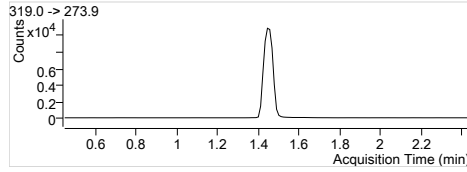
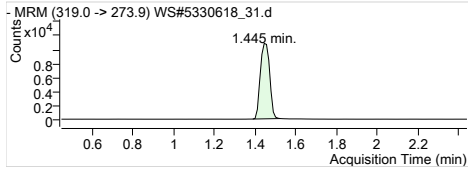
Quantitation Results



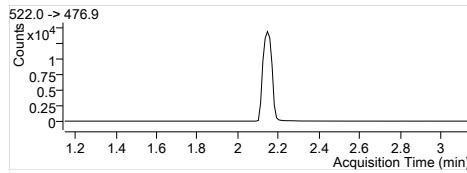
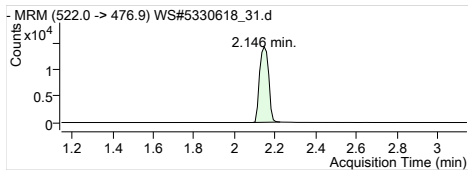
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 60.82 µg/L
Sample type: 0.08228
Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 55.26 µg/L
Sample type: 0.06318
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 8.56 µg/L
Sample type: 0
Sample



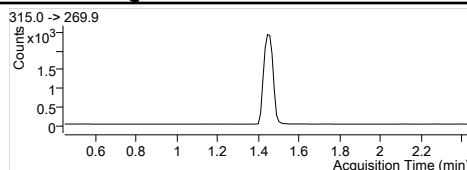
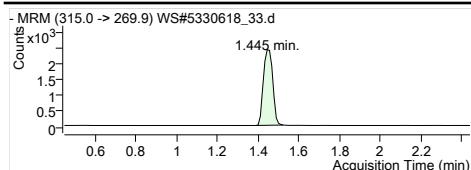
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 8.54 µg/L
Sample type: 0
Sample

Quantitation Results

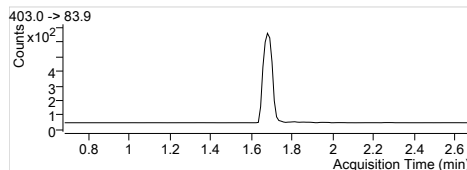
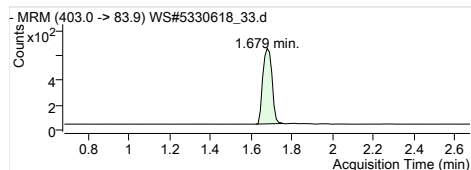
Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH130-01:50x	Instrument	LCMS04
Data File	WS#5330618_33.d	Operator	
Sample Type	Sample	Dilution	1.2
Acq. Method	PFC_Water_Low.m	Position	P4-A5
Acq. Date	2018/01/13 7:54:31 AM	Injection Volume	Per Method
Sample Annotation	Reported for PFHxS, PFOS		

ISTD Compounds	Response	RT	Target conc.	
MPFHxA	7632	1.44	1 µg/L	
MPFHxS	1906	1.68	1 µg/L	
MPFHpA	9750	1.71	1 µg/L	
MPFOA	10345	1.89	1 µg/L	
MPFOS	2429	1.98	1 µg/L	
MPFNA	10186	2.02	1 µg/L	
MPFDA	8304	2.15	1 µg/L	
MPFUnA	10517	2.25	1 µg/L	
MPFDoA	12248	2.33	1 µg/L	
MPFTrDA	12555	2.47	1 µg/L	
D3-MeFOSA IS	3149	2.83	1 µg/L	
D5-EtFOSA IS	2696	2.90	1 µg/L	
13C6-PFHxA IS	37957	1.44	1 µg/L	
13C9-PFDA IS	50661	2.15	1 µg/L	

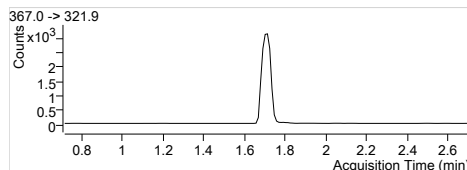
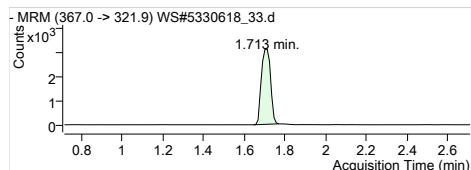
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	6339	1.44	-	2.38 µg/L	-
PFHxS 1	4663	1.68	-	6.63 µg/L	-
PFHpA 1	3358	1.70	-	1.12 µg/L	-
PFOA 1	4901	1.89	-	1.32 µg/L	-
PFOS 1	14152	1.97	-	17.59 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7632	1.44	-	90.80 µg/L	-
18O2-PFHxS	1906	1.68	-	94.62 µg/L	-
13C4-PFHpA	9750	1.71	-	92.59 µg/L	-
13C4-PFOA	10345	1.89	-	90.98 µg/L	-
13C4-PFOS	2429	1.98	-	99.14 µg/L	-
13C5-PFNA	10127	2.02	-	95.24 µg/L	-
13C2-PFDA	8220	2.15	-	85.19 µg/L	-
13C2-PFUnA	10517	2.25	-	88.41 µg/L	-
13C2-PFDoA	12248	2.33	-	80.78 µg/L	-
13C2-PFTrDA	12857	2.47	-	77.27 µg/L	-
D3-MeFOSA	3160	2.83	-	61.53 µg/L	-
D5-EtFOSA	2721	2.90	-	62.70 µg/L	-
13C6-PFHxA	37957	1.44	-	94.19 µg/L	-
13C9-PFDA	50661	2.15	-	98.19 µg/L	-



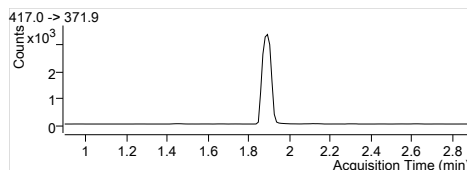
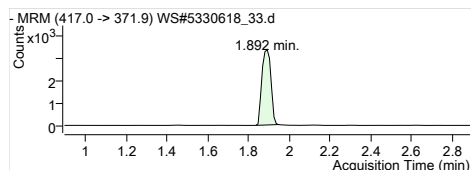
MPFHxA
Internal Standard
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



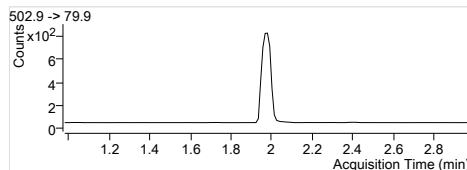
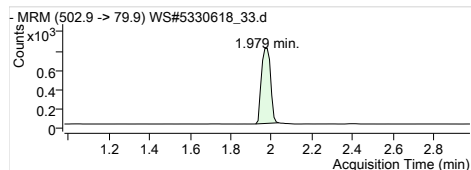
MPFHxS
Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



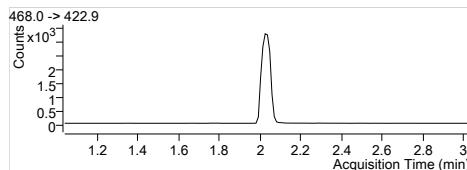
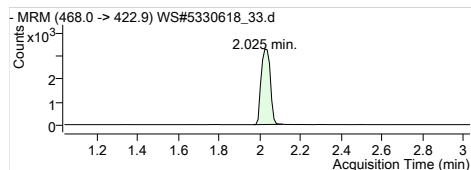
MPFHpA
Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



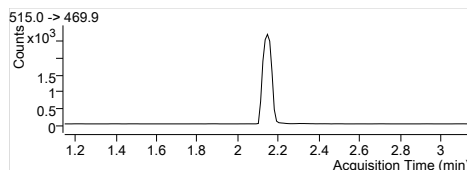
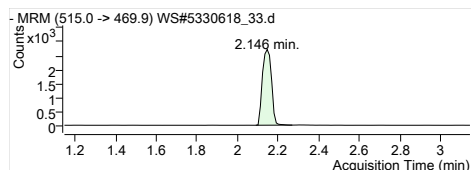
MPFOA
Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



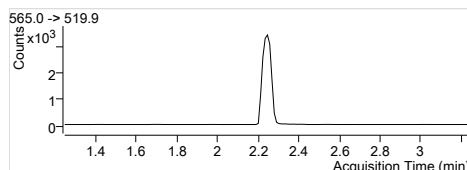
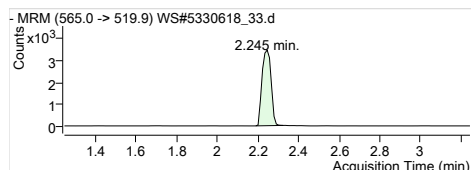
MPFOS
Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



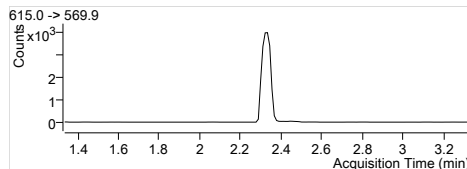
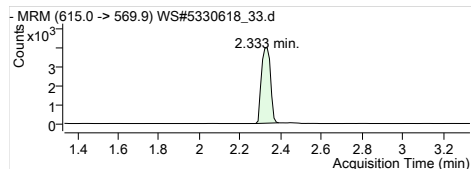
MPFNA
Internal Standard
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: Sample



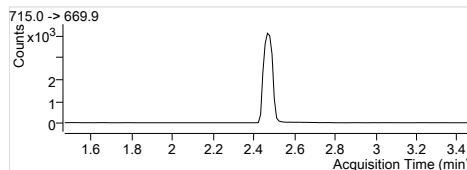
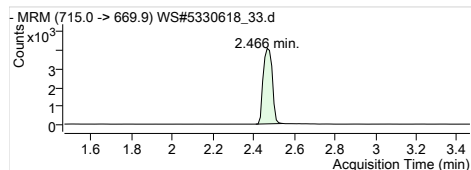
MPFDA
Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



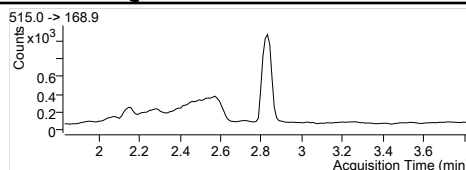
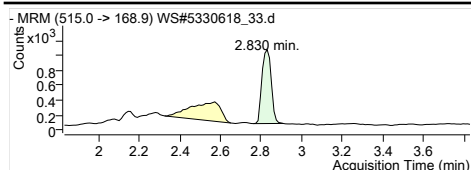
MPFUaA
Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



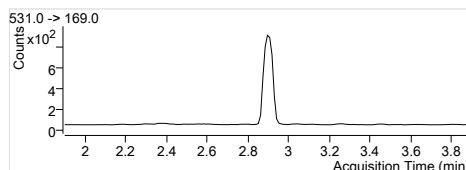
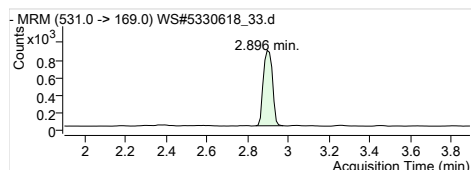
MPFDaA
Internal Standard
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample



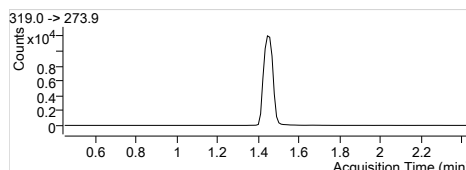
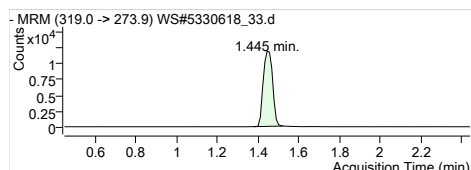
MPFTeDA
Internal Standard
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample



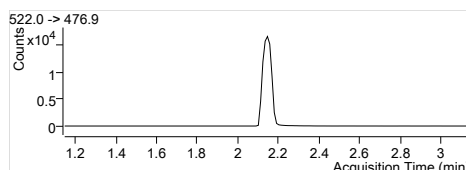
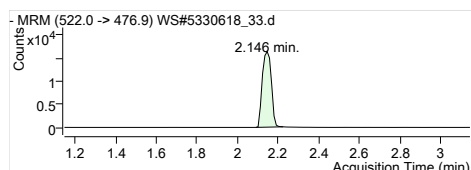
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



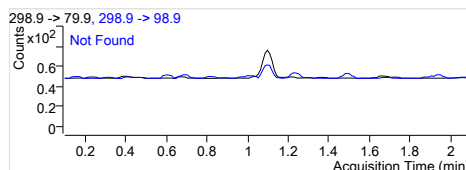
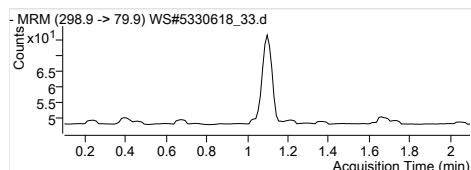
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



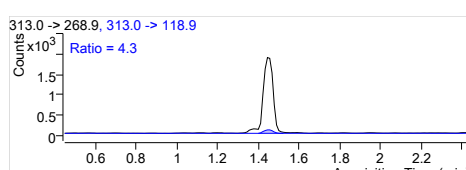
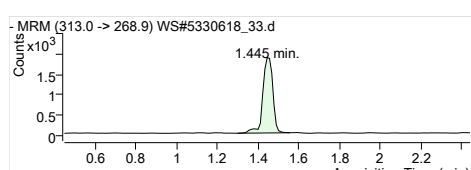
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



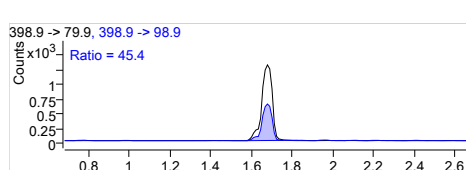
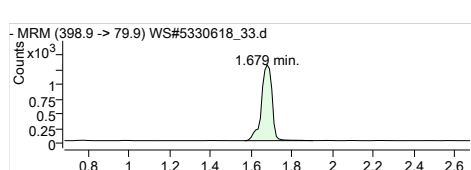
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



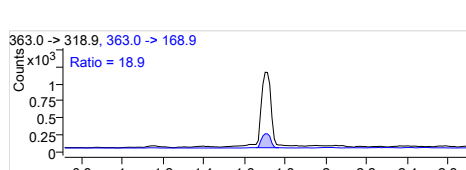
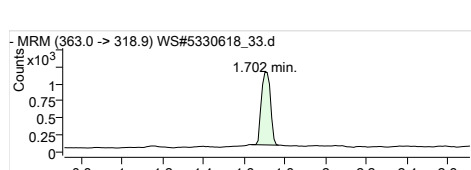
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 0.000 (1.098)
 Calc. conc. N.D.
 Area ratio: 0
 Sample type: Sample



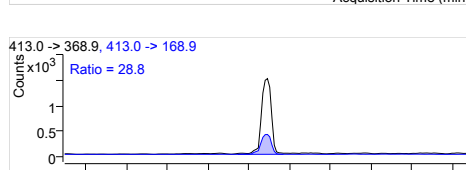
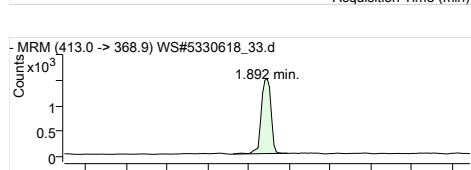
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.445 (1.445)
 Calc. conc. 2.38 µg/L
 Area ratio: 0.83058
 Sample type: Sample



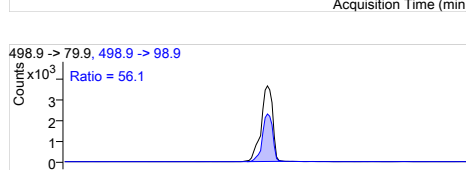
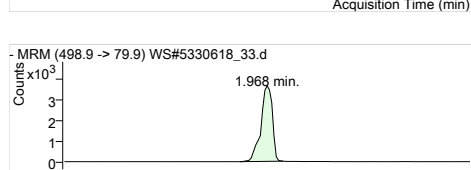
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.679)
 Calc. conc. 6.63 µg/L
 Area ratio: 2.44648
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.702 (1.713)
 Calc. conc. 1.12 µg/L
 Area ratio: 0.34441
 Sample type: Sample

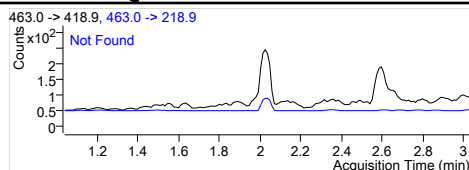
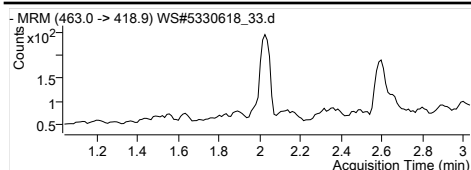


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 1.32 µg/L
 Area ratio: 0.47376
 Sample type: Sample

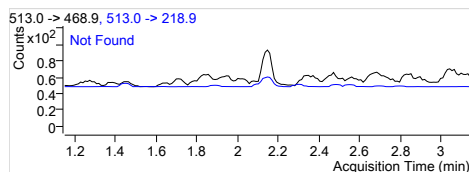
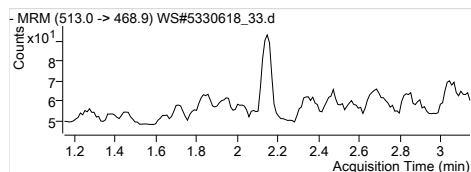


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (1.968)
 Calc. conc. 17.59 µg/L
 Area ratio: 5.82627
 Sample type: Sample

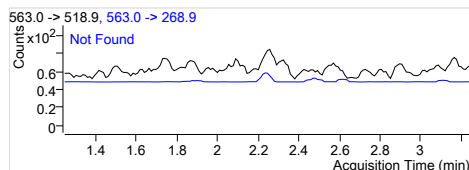
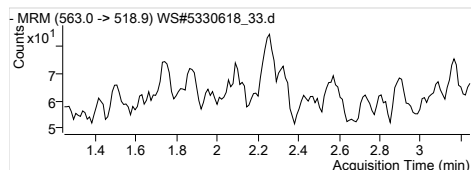
Quantitation Results



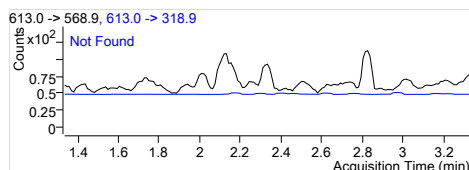
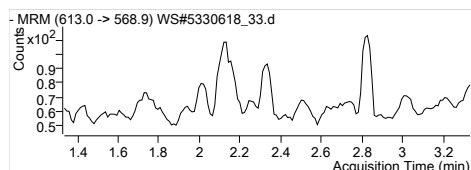
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



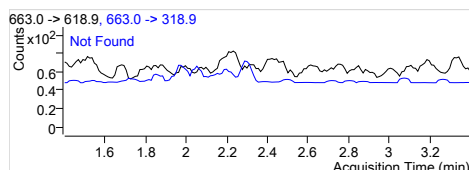
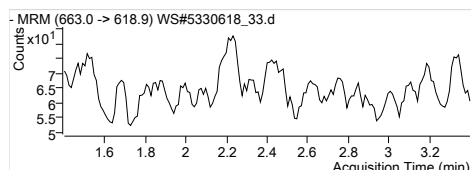
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



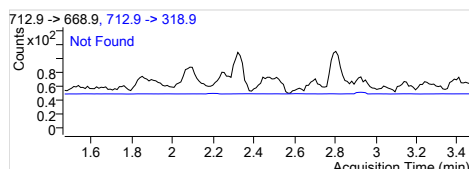
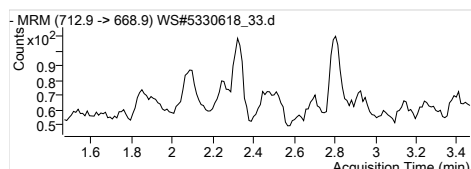
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



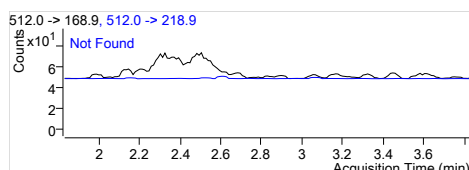
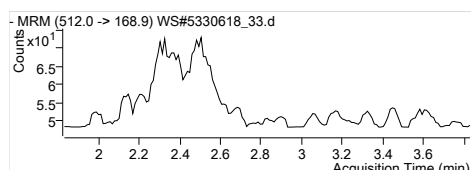
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



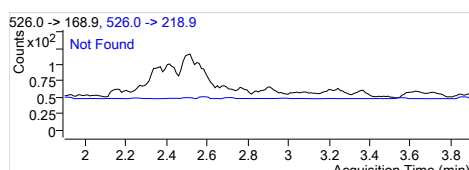
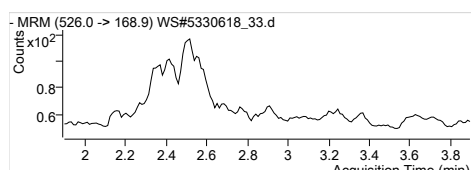
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



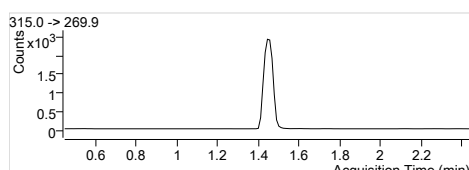
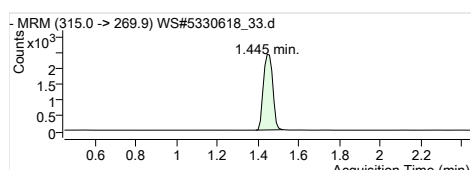
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

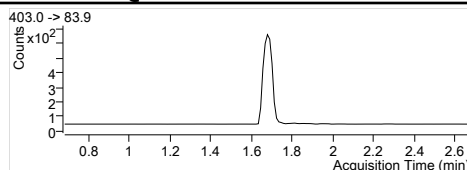
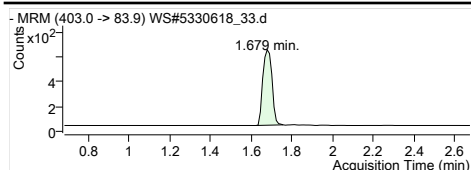


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

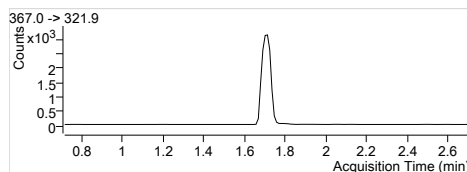
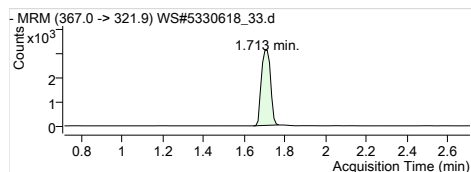


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 90.80 µg/L
 Sample type: 0.20107
 Sample

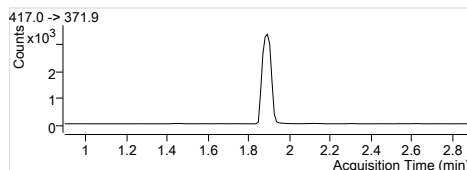
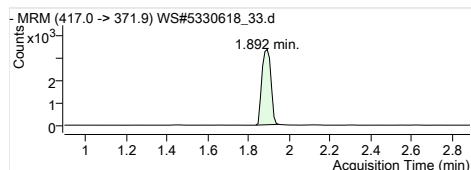
Quantitation Results



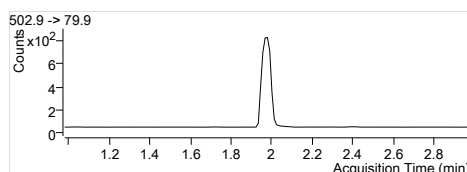
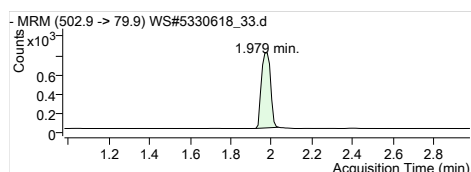
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 94.62 µg/L
 Sample type: 0.05021
 Sample



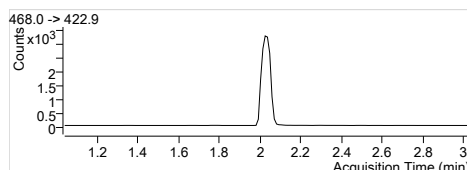
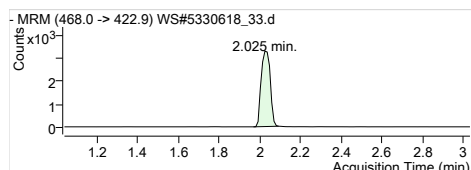
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 92.59 µg/L
 Sample type: 0.25687
 Sample



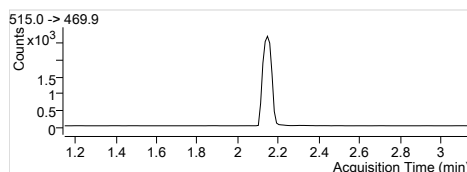
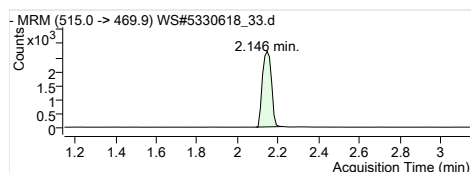
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 90.98 µg/L
 Sample type: 0.27255
 Sample



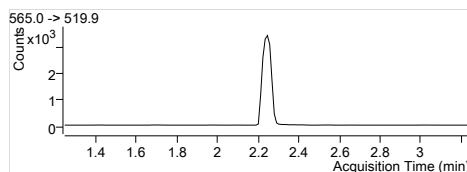
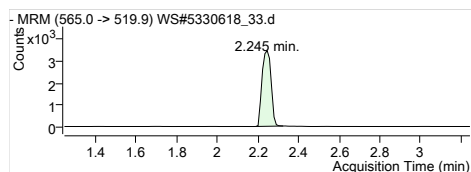
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 99.14 µg/L
 Sample type: 0.06399
 Sample



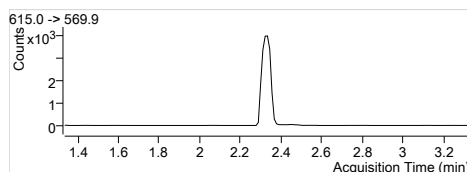
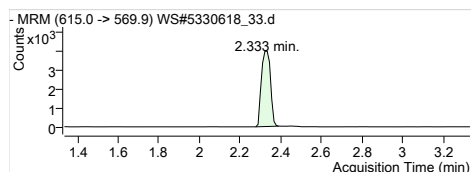
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 95.24 µg/L
 Sample type: 0.26680
 Sample



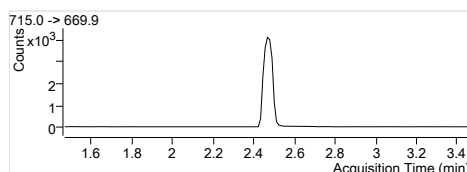
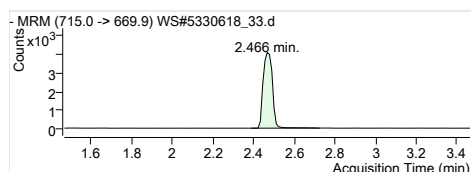
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 85.19 µg/L
 Sample type: 0.16225
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 88.41 µg/L
 Sample type: 0.20760
 Sample

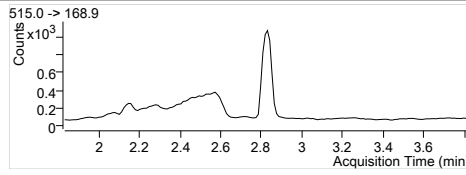
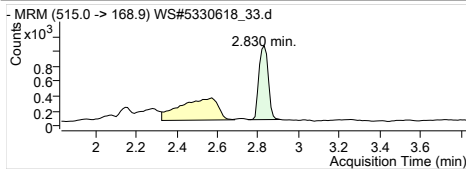


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 80.78 µg/L
 Sample type: 0.24176
 Sample

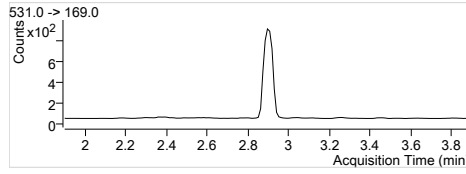
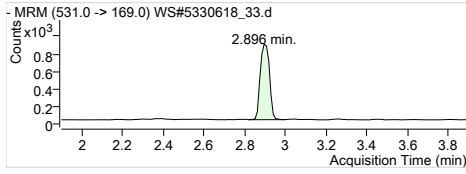


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 77.27 µg/L
 Sample type: 0.25378
 Sample

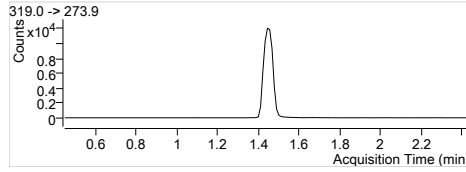
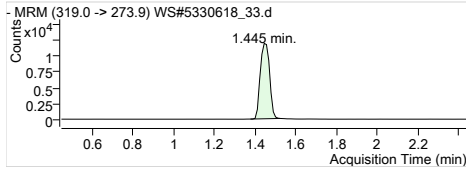
Quantitation Results



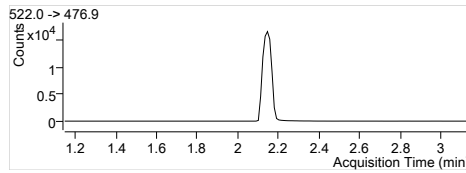
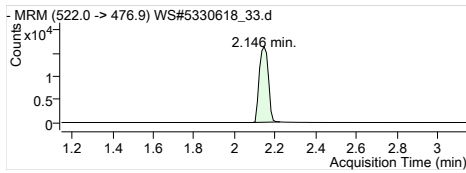
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 61.53 µg/L
Area ratio: 0.08325
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 62.70 µg/L
Area ratio: 0.07169
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 94.19 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 98.19 µg/L
Area ratio: 0
Sample type: Sample

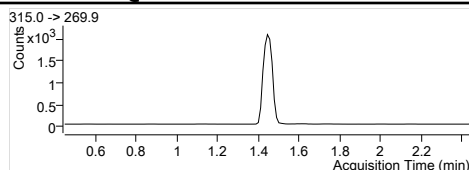
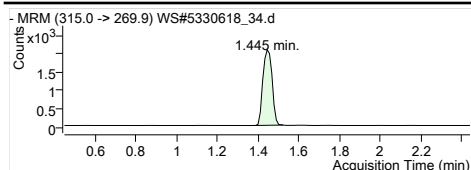
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH130-01:5x	Instrument	LCMS04
Data File	WS#5330618_34.d	Operator	
Sample Type	Sample	Dilution	0.12
Acq. Method	PFC_Water_Low.m	Position	P4-A6
Acq. Date	2018/01/13 7:59:26 AM	Injection Volume	Per Method
Sample Annotation	Reported for all except PFHxS, PFOS		

ISTD Compounds	Response	RT	Target conc.	
MPFHxA	6464	1.44	1 µg/L	
MPFHxS	1405	1.68	1 µg/L	
MPFHpA	8197	1.70	1 µg/L	
MPFOA	8465	1.89	1 µg/L	
MPFOS	1846	1.97	1 µg/L	
MPFNA	7994	2.02	1 µg/L	
MPFDA	6892	2.15	1 µg/L	
MPFUnA	8913	2.25	1 µg/L	
MPFDoA	9660	2.33	1 µg/L	
MPFTeDA	10291	2.47	1 µg/L	
D3-MeFOSA IS	2246	2.83	1 µg/L	
D5-EtFOSA IS	2006	2.90	1 µg/L	
13C6-PFHxA IS	31668	1.44	1 µg/L	
13C9-PFDA IS	42863	2.15	1 µg/L	

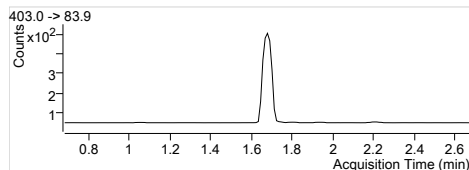
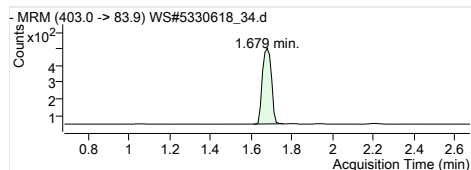
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	844	1.10	-	0.15 µg/L	-
PFHxA 1	49902	1.44	-	2.18 µg/L	-
PFHxS 1	35773	1.68	-	7.02 µg/L	-
PFHpA 1	25354	1.70	-	0.86 µg/L	-
PFOA 1	35105	1.89	-	1.12 µg/L	-
PFOS 1	105764	1.97	-	17.19 µg/L	-
PFNA 1	3084	2.02	-	0.12 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6464	1.44	-	92.18 µg/L	-
18O2-PFHxS	1405	1.68	-	83.60 µg/L	-
13C4-PFHpA	8197	1.70	-	93.30 µg/L	-
13C4-PFOA	8465	1.89	-	89.23 µg/L	-
13C4-PFOS	1846	1.97	-	90.31 µg/L	-
13C5-PFNA	7953	2.02	-	89.65 µg/L	-
13C2-PFDA	6873	2.15	-	84.19 µg/L	-
13C2-PFUnA	8913	2.25	-	88.56 µg/L	-
13C2-PFDoA	9660	2.33	-	75.31 µg/L	-
13C2-PFTeDA	10542	2.47	-	74.88 µg/L	-
D3-MeFOSA	2292	2.83	-	53.49 µg/L	-
D5-EtFOSA	2013	2.90	-	55.60 µg/L	-
13C6-PFHxA	31668	1.44	-	7.86 µg/L	-
13C9-PFDA	42863	2.15	-	8.31 µg/L	-

Quantitation Results



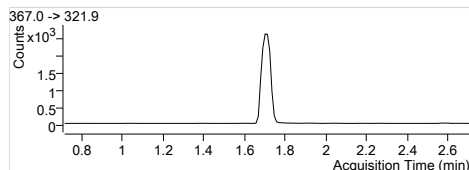
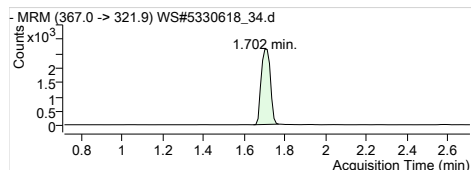
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.445)
1 µg/L
Sample



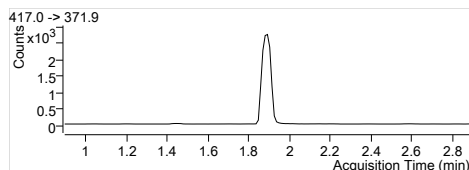
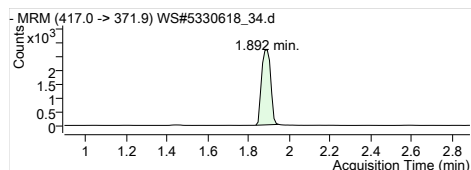
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.679)
1 µg/L
Sample



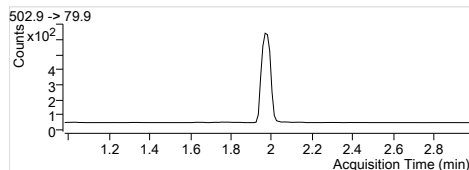
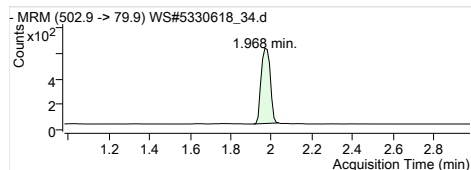
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.702 (1.713)
1 µg/L
Sample



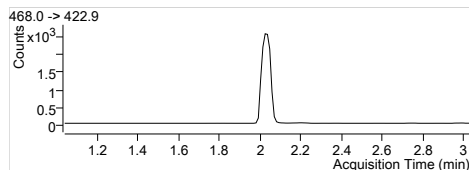
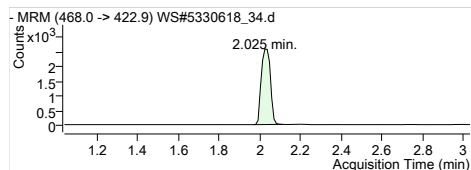
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



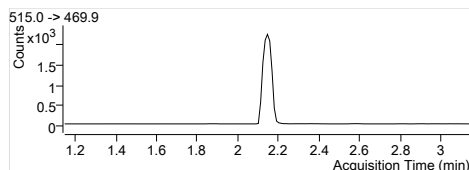
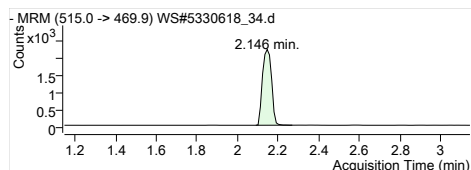
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.968 (1.979)
1 µg/L
Sample



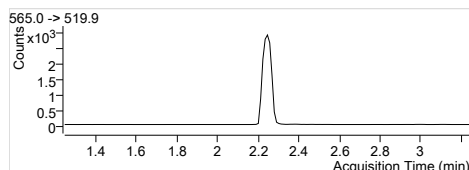
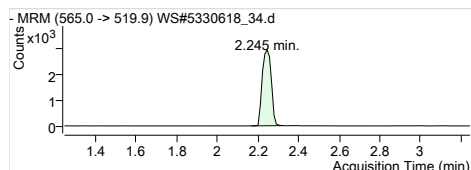
MPFNA
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.025 (2.036)
1 µg/L
Sample



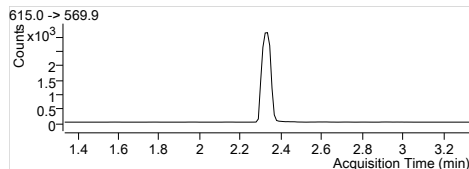
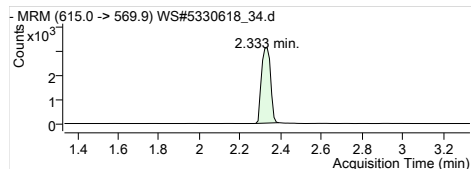
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



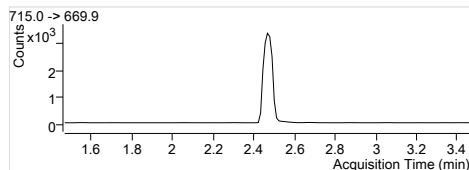
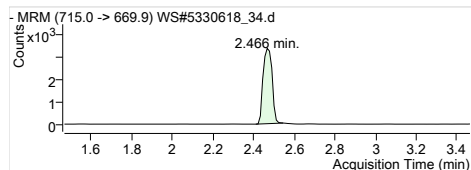
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



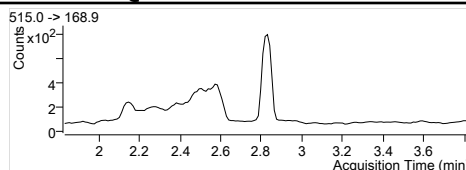
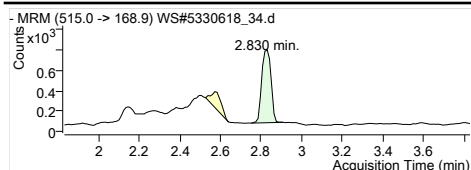
MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.333 (2.333)
1 µg/L
Sample

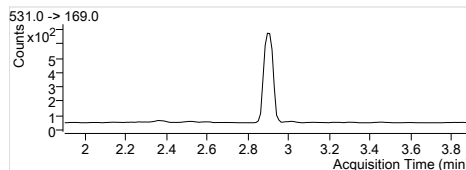
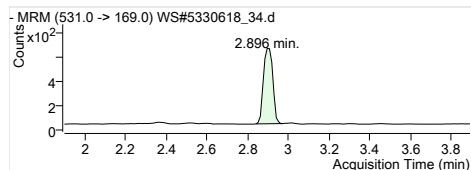


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

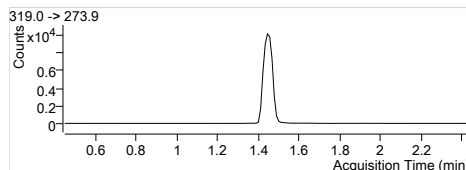
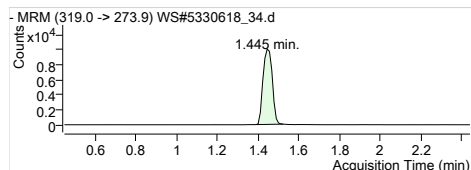
Internal Standard
2.466 (2.466)
1 µg/L
Sample



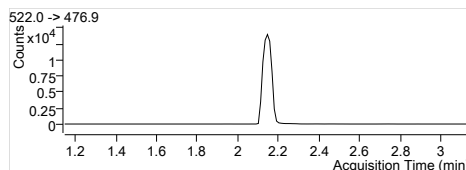
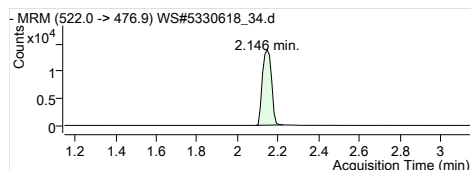
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



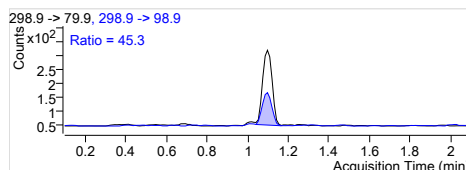
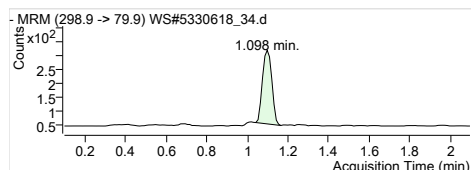
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



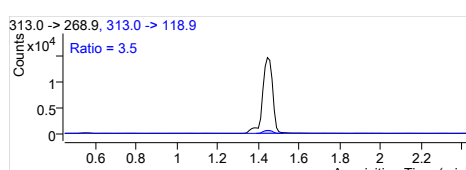
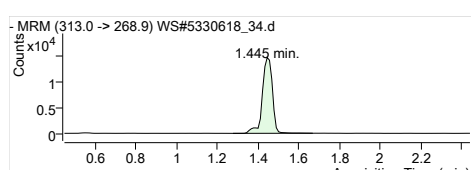
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



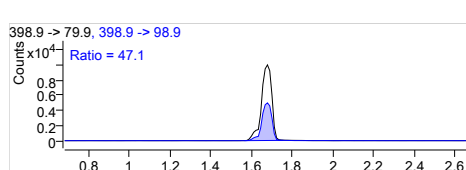
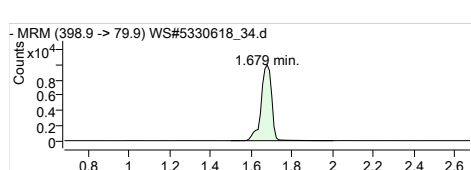
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



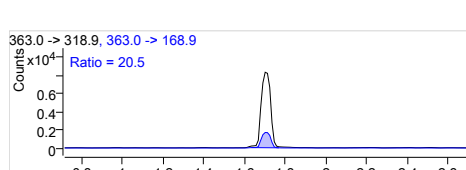
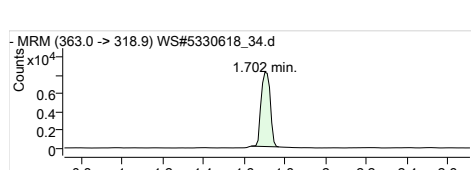
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.15 µg/L
 Sample type: 0.60071
 Sample



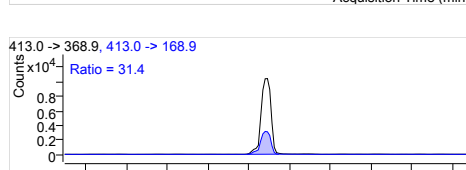
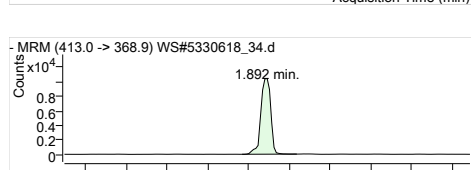
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 2.18 µg/L
 Sample type: 7.71999
 Sample



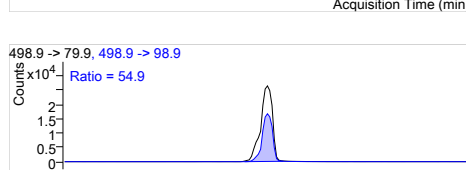
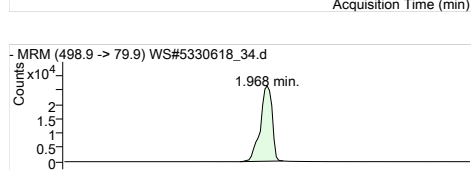
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 7.02 µg/L
 Sample type: 25.46121
 Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.86 µg/L
 Sample type: 3.09308
 Sample

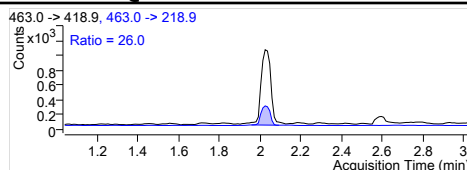
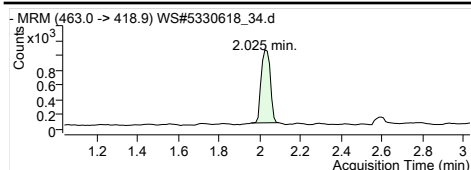


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 1.12 µg/L
 Sample type: 4.14708
 Sample

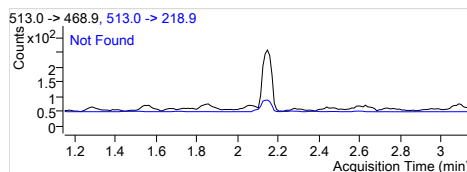
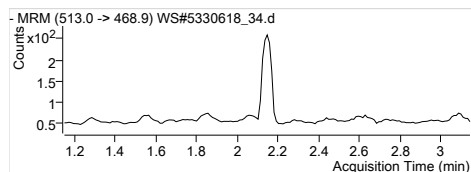


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 17.19 µg/L
 Sample type: 57.29361
 Sample

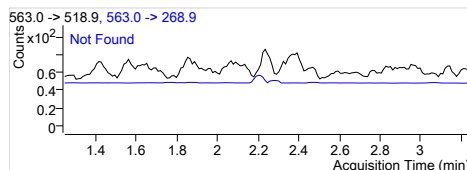
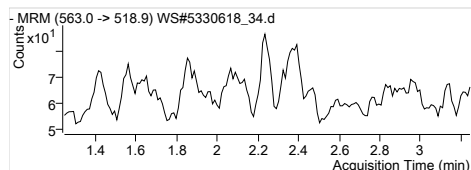
Quantitation Results



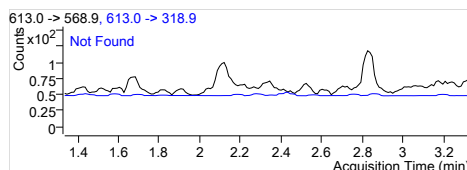
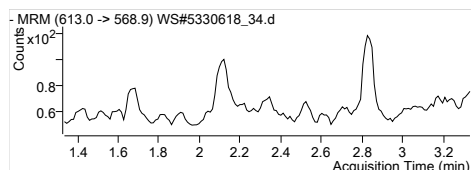
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 0.12 µg/L
 Sample type: 0.38579
 Sample



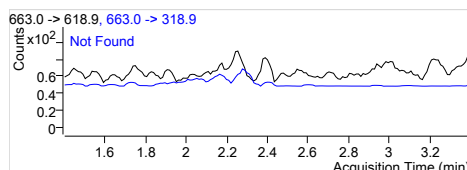
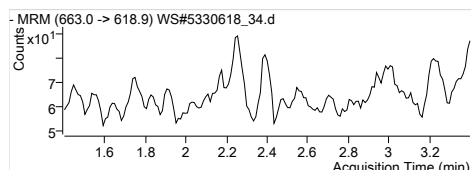
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



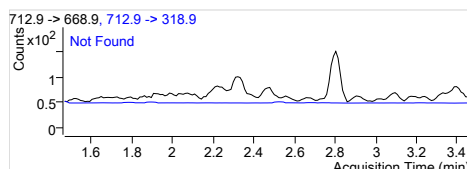
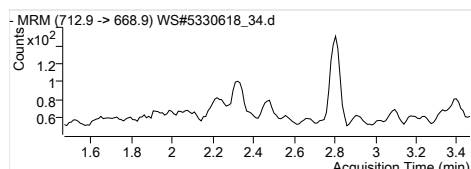
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



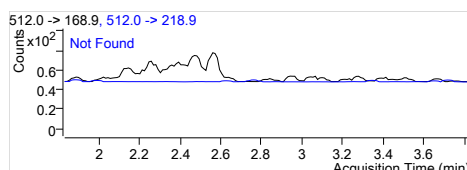
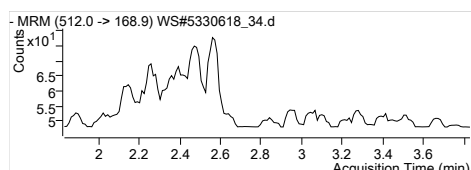
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



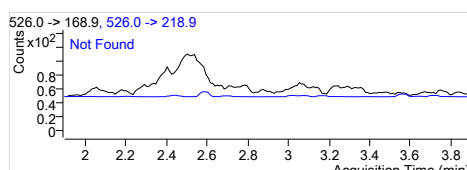
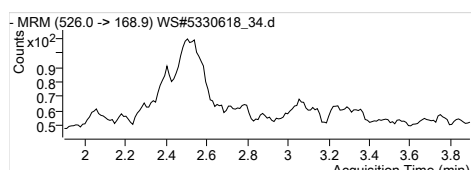
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



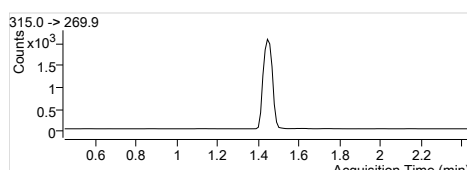
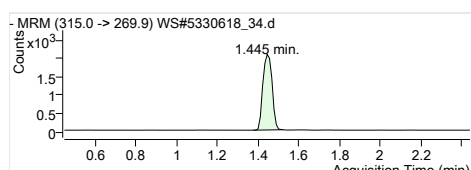
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

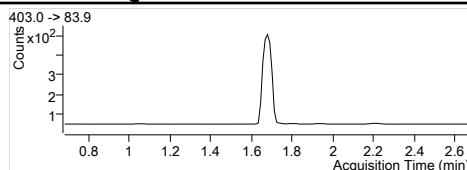
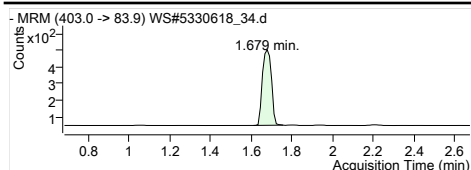


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

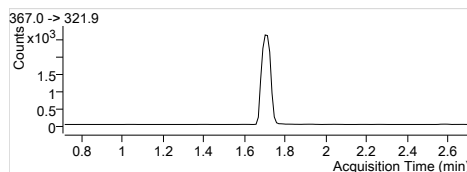
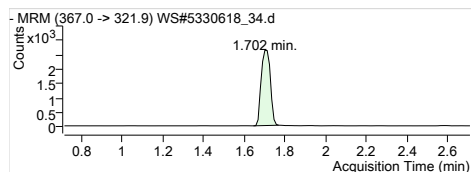


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 92.18 µg/L
 Sample type: 0.20412
 Sample

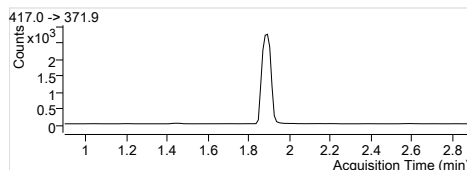
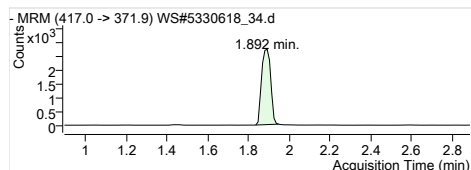
Quantitation Results



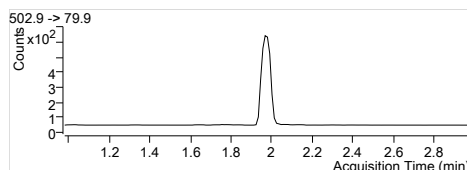
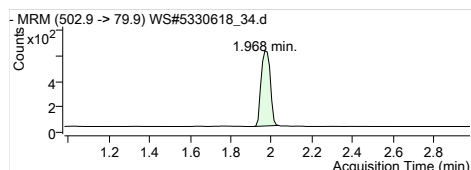
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 83.60 µg/L
 Sample type: 0.04437
 Sample



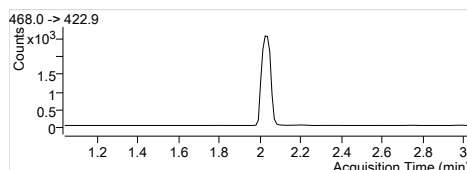
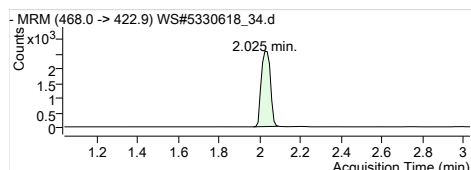
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 93.30 µg/L
 Sample type: 0.25884
 Sample



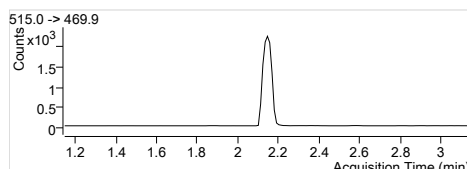
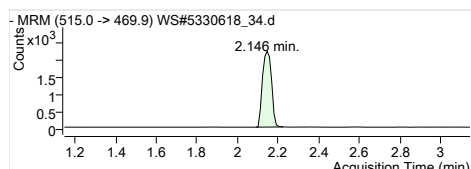
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 89.23 µg/L
 Sample type: 0.26730
 Sample



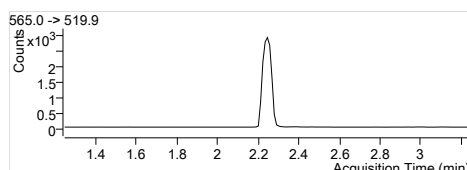
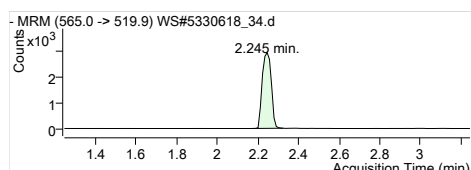
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 90.31 µg/L
 Sample type: 0.05829
 Sample



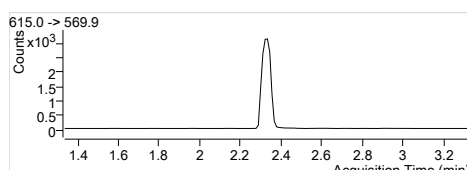
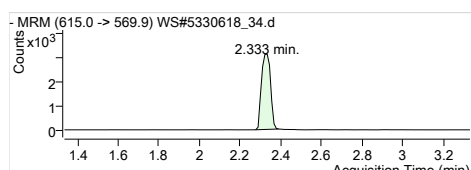
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 89.65 µg/L
 Sample type: 0.25114
 Sample



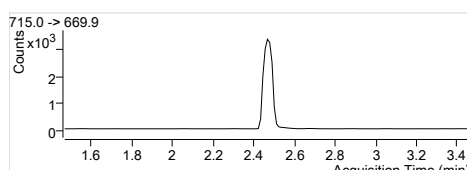
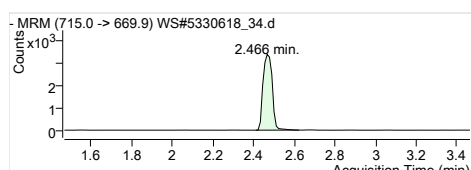
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 84.19 µg/L
 Sample type: 0.16035
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 88.56 µg/L
 Sample type: 0.20794
 Sample

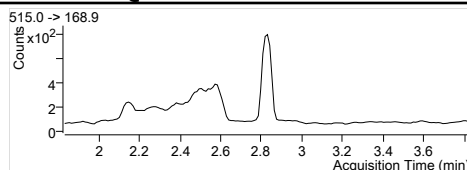
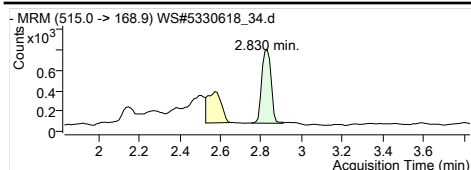


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 75.31 µg/L
 Sample type: 0.22537
 Sample

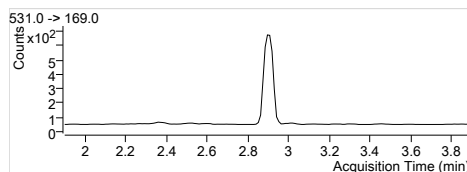
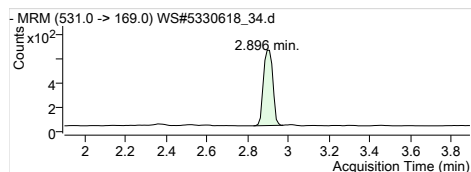


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 74.88 µg/L
 Sample type: 0.24595
 Sample

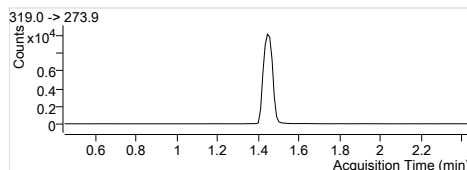
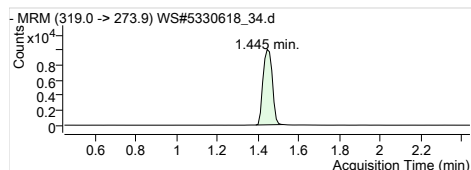
Quantitation Results



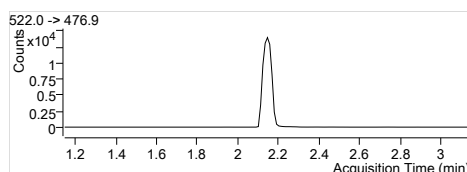
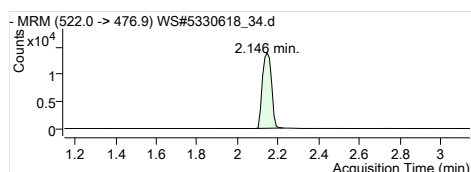
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 53.49 µg/L
Area ratio: 0.07238
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 55.60 µg/L
Area ratio: 0.06357
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 7.86 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 8.31 µg/L
Area ratio: 0
Sample type: Sample

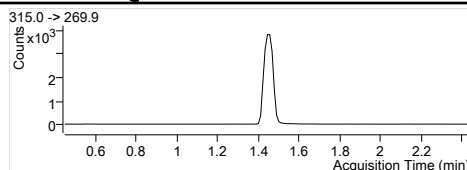
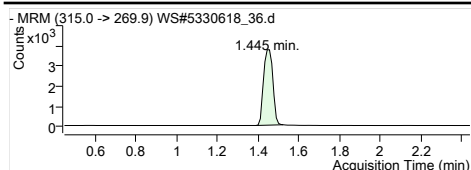
Quantitation Results

Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH131-01:10x	Instrument	LCMS04
Data File	WS#5330618_36.d	Operator	
Sample Type	Sample	Dilution	0.24
Acq. Method	PFC_Water_Low.m	Position	P4-A7
Acq. Date	2018/01/13 8:09:51 AM	Injection Volume	Per Method
Sample Annotation	Reported for PFHxA, PFHxS, PFOA, PFOS		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	11988	1.44	1 µg/L
MPFHxS	2825	1.68	1 µg/L
MPFHpA	15692	1.70	1 µg/L
MPFOA	15315	1.89	1 µg/L
MPFOS	3337	1.97	1 µg/L
MPFNA	15670	2.04	1 µg/L
MPFDA	11641	2.15	1 µg/L
MPFUnA	14822	2.25	1 µg/L
MPFDoA	17873	2.33	1 µg/L
MPFTeDA	19121	2.47	1 µg/L
D3-MeFOSA IS	4165	2.83	1 µg/L
D5-EtFOSA IS	3181	2.90	1 µg/L
13C6-PFHxA IS	55642	1.44	1 µg/L
13C9-PFDA IS	71982	2.15	1 µg/L

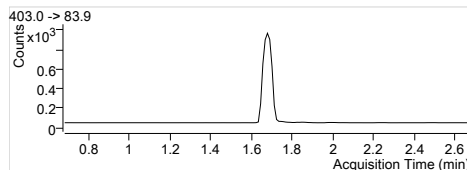
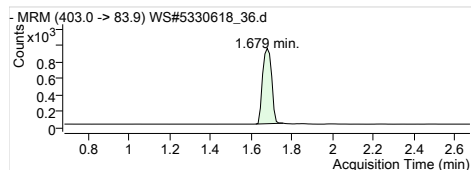
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	571	1.11	-	0.11 µg/L	-
PFHxA 1	25435	1.44	-	1.20 µg/L	-
PFHxS 1	10223	1.68	-	1.97 µg/L	-
PFHpA 1	11123	1.70	-	0.42 µg/L	-
PFOA 1	36562	1.89	-	1.30 µg/L	-
PFOS 1	33894	1.97	-	6.11 µg/L	-
PFNA 1	1067	2.02	-	0.06 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	11988	1.44	-	97.29 µg/L	-
18O2-PFHxS	2825	1.68	-	95.67 µg/L	-
13C4-PFHpA	15692	1.70	-	101.65 µg/L	-
13C4-PFOA	15315	1.89	-	91.88 µg/L	-
13C4-PFOS	3337	1.97	-	92.91 µg/L	-
13C5-PFNA	15525	2.04	-	99.60 µg/L	-
13C2-PFDA	11565	2.15	-	84.36 µg/L	-
13C2-PFUnA	14822	2.25	-	87.69 µg/L	-
13C2-PFDoA	17873	2.33	-	82.97 µg/L	-
13C2-PFTeDA	19410	2.47	-	82.10 µg/L	-
D3-MeFOSA	4172	2.83	-	55.42 µg/L	-
D5-EtFOSA	3253	2.90	-	51.13 µg/L	-
13C6-PFHxA	55642	1.44	-	27.62 µg/L	-
13C9-PFDA	71982	2.15	-	27.90 µg/L	-

Quantitation Results



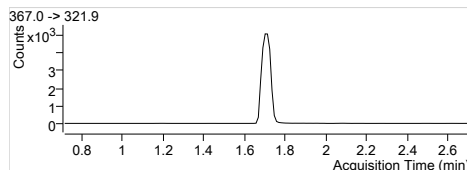
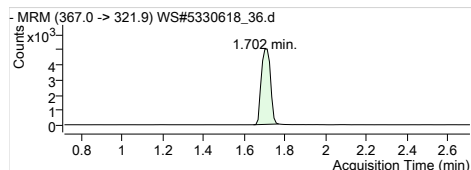
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.445)
1 µg/L
Sample



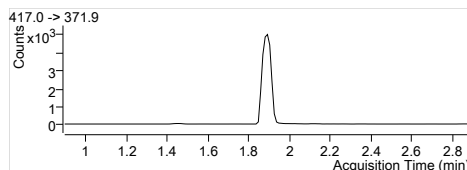
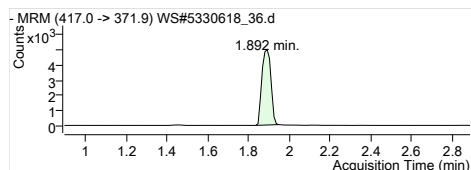
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.679)
1 µg/L
Sample



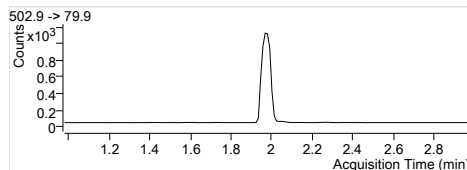
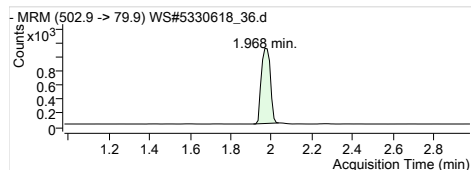
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.702 (1.713)
1 µg/L
Sample



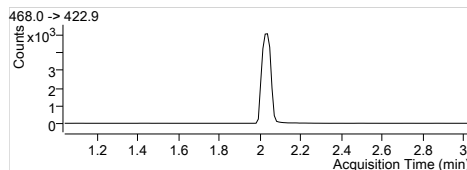
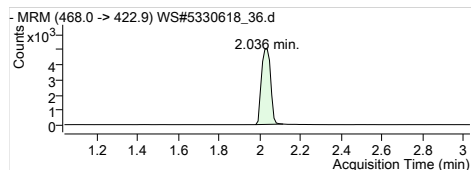
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



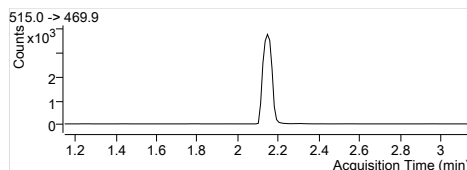
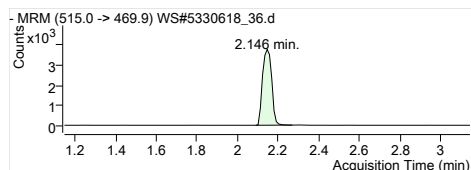
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.968 (1.979)
1 µg/L
Sample



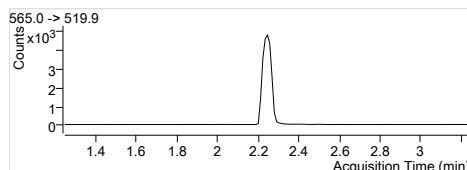
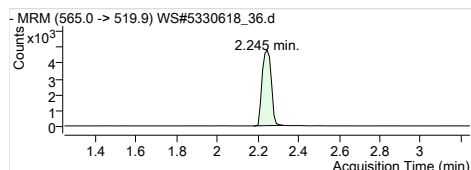
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.036 (2.036)
1 µg/L
Sample



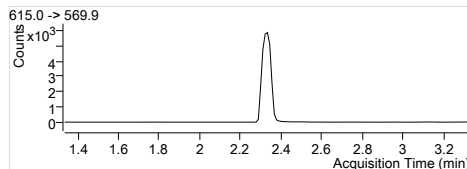
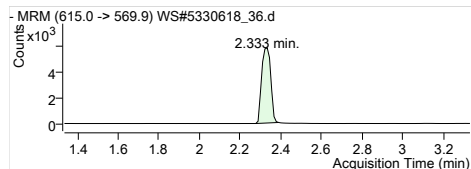
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



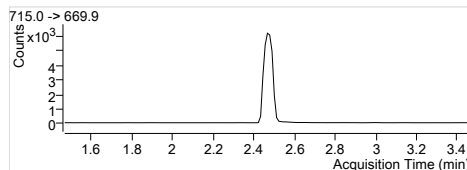
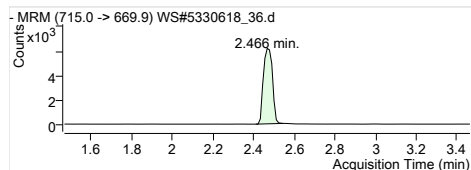
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

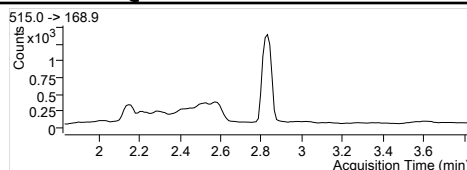
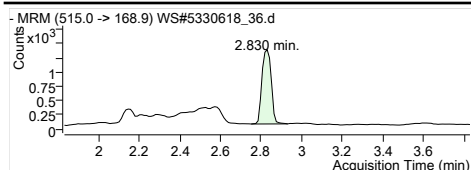
Internal Standard
2.333 (2.333)
1 µg/L
Sample



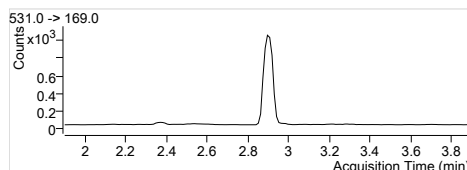
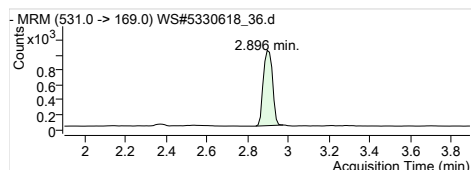
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.466)
1 µg/L
Sample

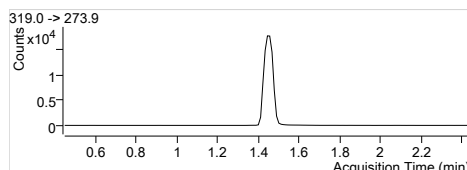
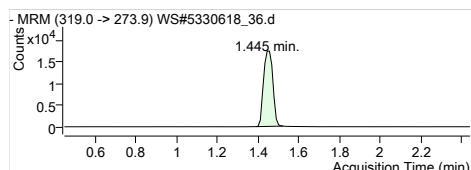
Quantitation Results



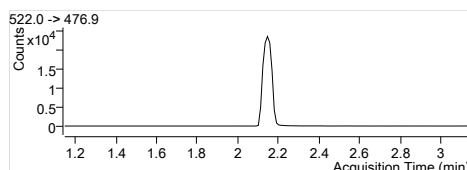
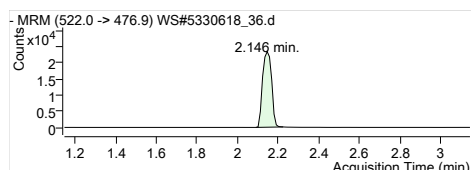
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



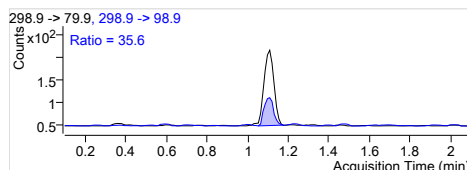
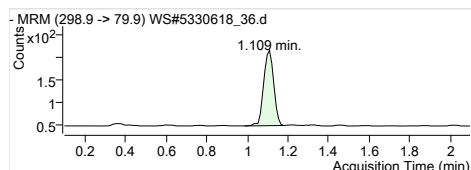
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



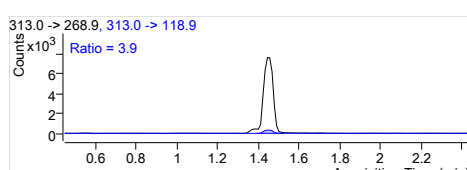
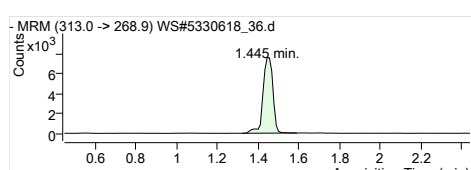
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



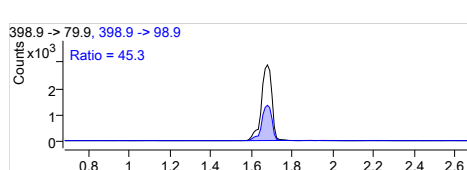
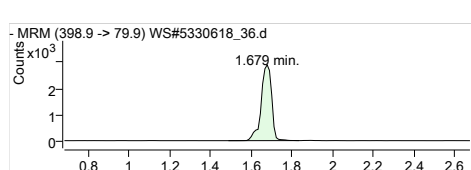
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



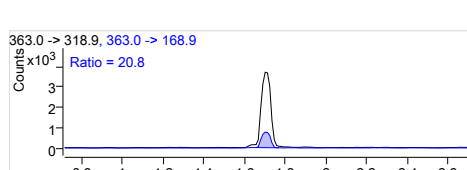
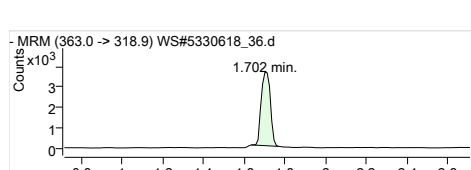
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.109 (1.098)
 Calc. conc. 0.11 µg/L
 Area ratio: 0.20212
 Sample type: Sample



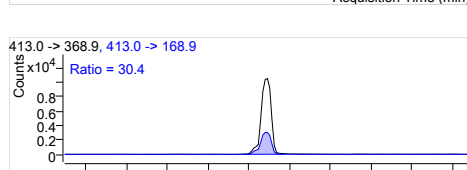
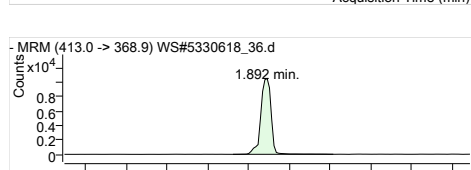
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.445 (1.445)
 Calc. conc. 1.20 µg/L
 Area ratio: 2.12171
 Sample type: Sample



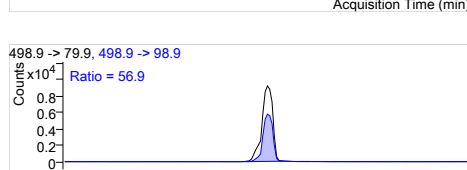
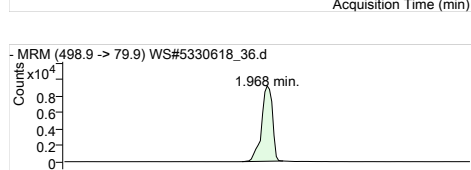
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.679)
 Calc. conc. 1.97 µg/L
 Area ratio: 3.61876
 Sample type: Sample



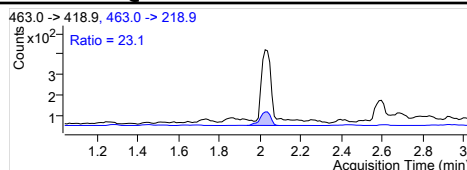
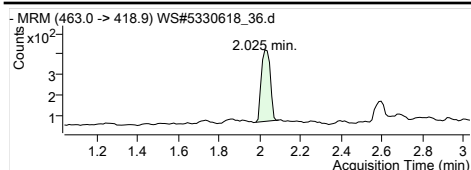
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.702 (1.713)
 Calc. conc. 0.42 µg/L
 Area ratio: 0.70883
 Sample type: Sample



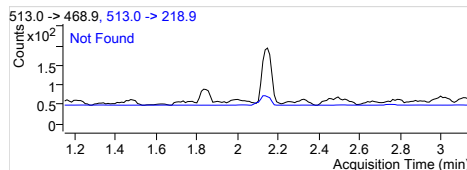
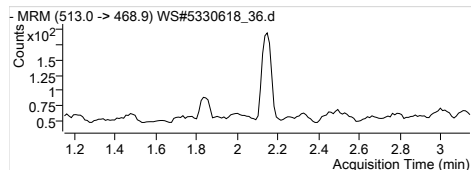
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 1.30 µg/L
 Area ratio: 2.38733
 Sample type: Sample



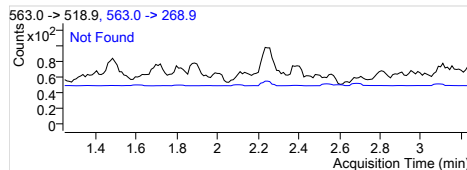
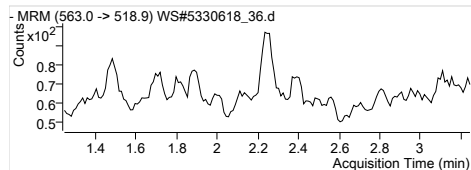
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (1.968)
 Calc. conc. 6.11 µg/L
 Area ratio: 10.15703
 Sample type: Sample



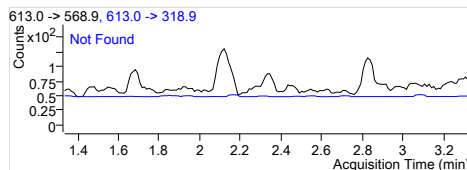
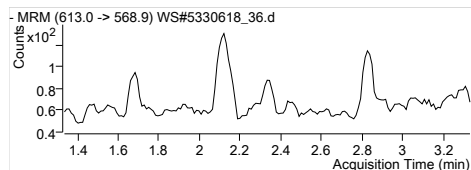
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 2.025 (2.036)
 Area ratio: 0.06 µg/L
 Sample type: 0.06809
 Sample



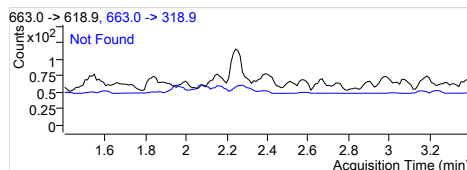
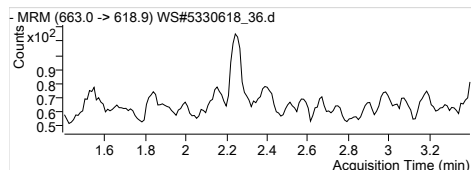
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



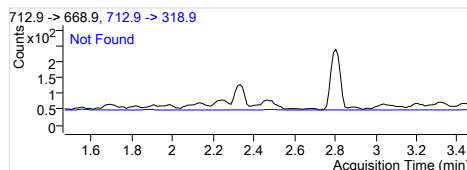
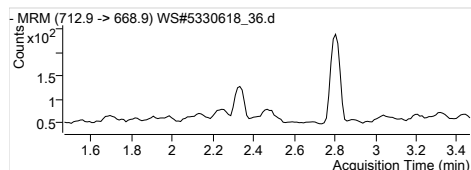
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



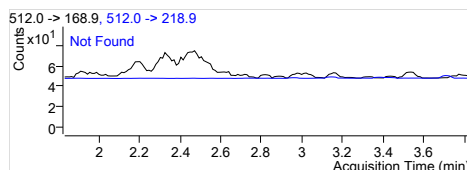
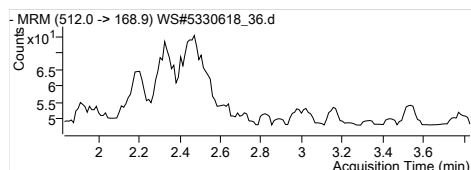
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



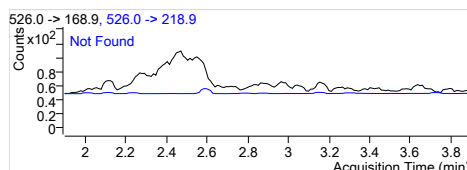
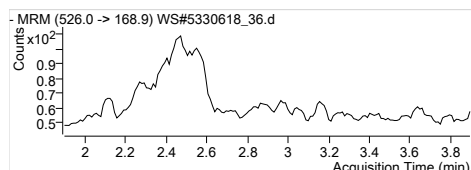
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



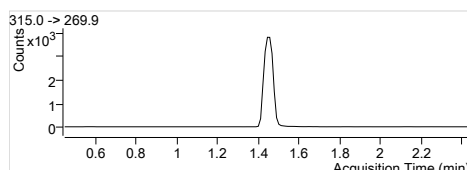
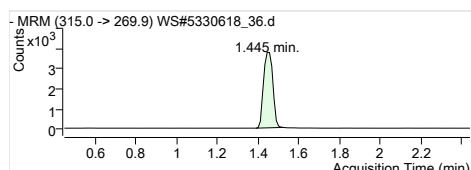
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

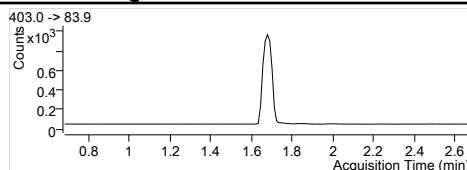
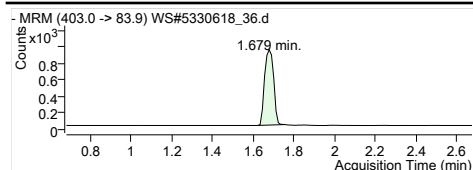


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

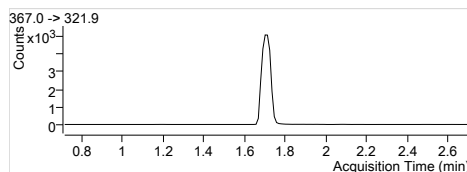
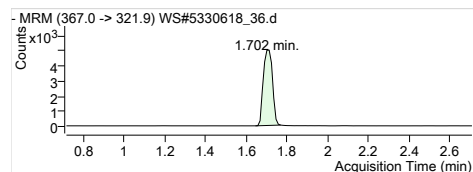


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 97.29 µg/L
 Sample type: 0.21545
 Sample

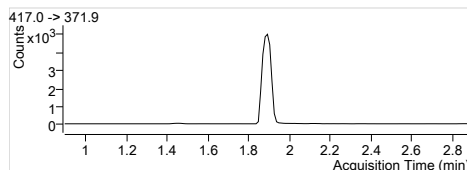
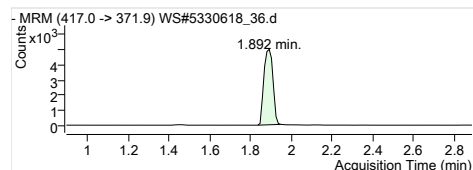
Quantitation Results



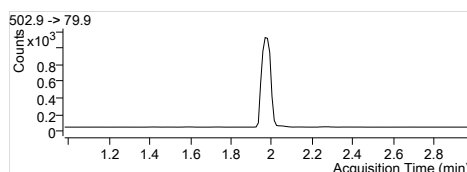
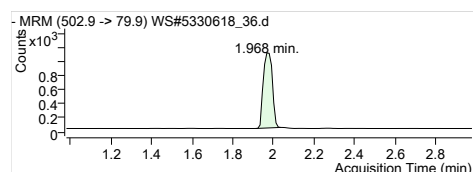
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 95.67 µg/L
 Sample type: 0.05077
 Sample



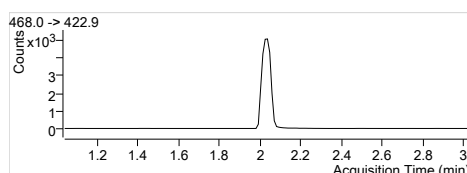
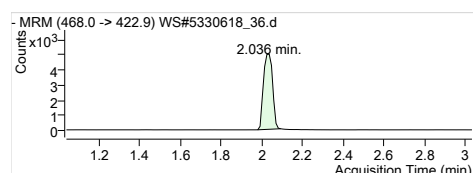
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 101.65 µg/L
 Sample type: 0.28202
 Sample



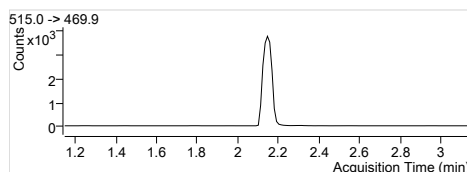
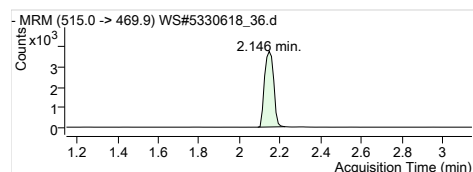
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 91.88 µg/L
 Sample type: 0.27524
 Sample



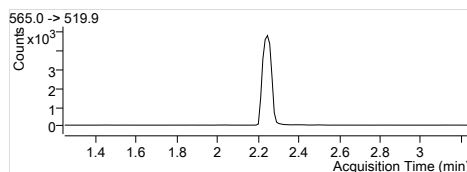
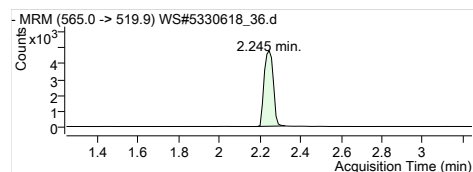
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 92.91 µg/L
 Sample type: 0.05997
 Sample



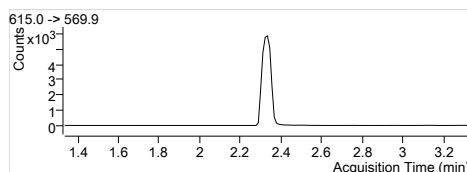
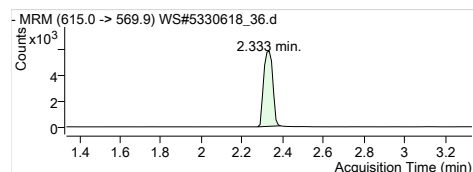
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 99.60 µg/L
 Sample type: 0.27902
 Sample



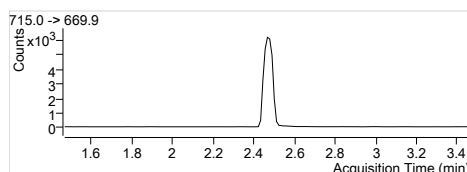
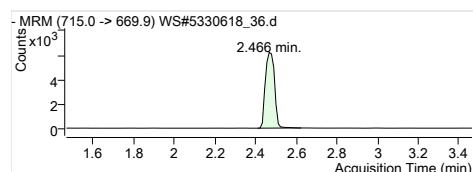
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 84.36 µg/L
 Sample type: 0.16067
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 87.69 µg/L
 Sample type: 0.20591
 Sample

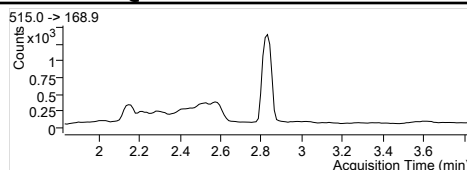
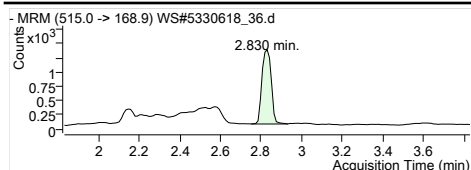


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 82.97 µg/L
 Sample type: 0.24830
 Sample

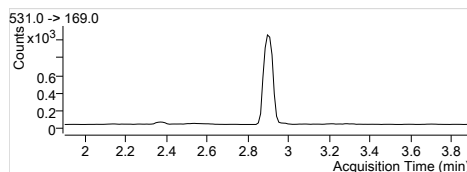
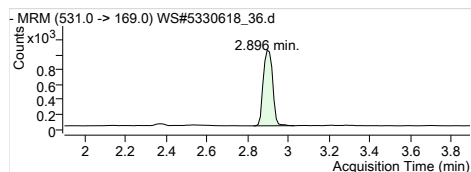


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 82.10 µg/L
 Sample type: 0.26965
 Sample

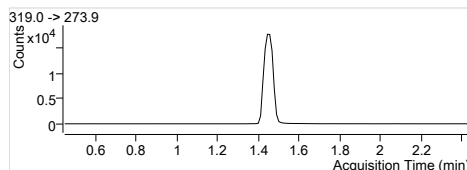
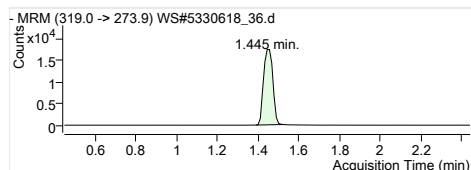
Quantitation Results



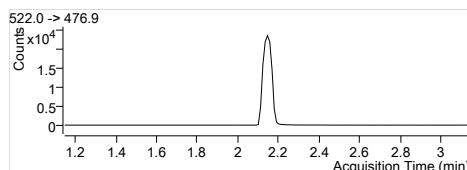
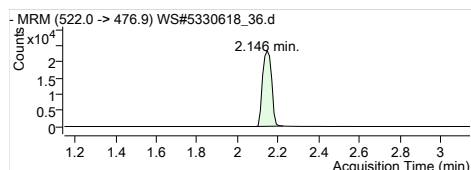
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 55.42 µg/L
Sample type: 0.07498
Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 51.13 µg/L
Sample type: 0.05846
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 27.62 µg/L
Sample type: 0
Sample



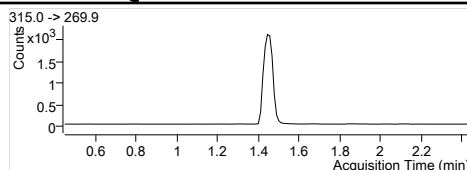
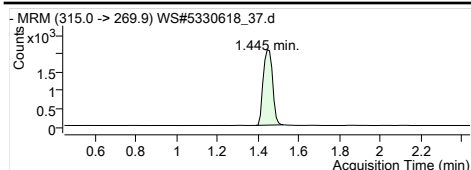
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 27.90 µg/L
Sample type: 0
Sample

Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH131-01	Instrument	LCMS04
Data File	WS#5330618_37.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P4-A8
Acq. Date	2018/01/13 8:14:47 AM	Injection Volume	Per Method
Sample Annotation	Reported for all except PFHxA, PFHxS, PFOA, PFOS		

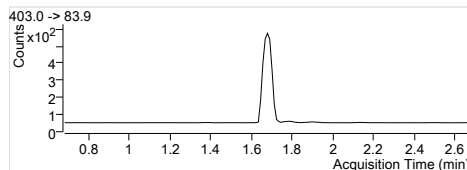
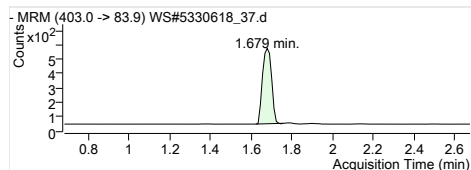
ISTD Compounds	Response	RT	Target conc.	
MPFHxA	6596	1.44	1 µg/L	
MPFHxS	1634	1.68	1 µg/L	
MPFHpA	8138	1.70	1 µg/L	
MPFOA	8447	1.89	1 µg/L	
MPFOS	1518	1.98	1 µg/L	
MPFNA	9005	2.02	1 µg/L	
MPFDA	7435	2.15	1 µg/L	
MPFUnA	9025	2.25	1 µg/L	
MPFDoA	11181	2.33	1 µg/L	
MPFTeDA	11012	2.47	1 µg/L	
D3-MeFOSA IS	3217	2.83	1 µg/L	
D5-EtFOSA IS	2817	2.90	1 µg/L	
13C6-PFHxA IS	33366	1.44	1 µg/L	
13C9-PFDA IS	45539	2.15	1 µg/L	

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	2161	1.10	-	0.06 µg/L	-
PFHxA 1	131222	1.44	-	1.12 µg/L	-
PFHxS 1	51293	1.68	-	1.73 µg/L	-
PFHpA 1	58031	1.70	-	0.39 µg/L	-
PFOA 1	197265	1.89	-	1.26 µg/L	-
PFOS 1	158618	1.97	-	6.27 µg/L	-
PFNA 1	4651	2.04	-	0.03 µg/L	-
PFDA 1	1333	2.15	-	0.01 µg/L	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6596	1.44	-	89.27 µg/L	-
18O2-PFHxS	1634	1.68	-	92.28 µg/L	-
13C4-PFHpA	8138	1.70	-	87.92 µg/L	-
13C4-PFOA	8447	1.89	-	84.51 µg/L	-
13C4-PFOS	1518	1.98	-	70.48 µg/L	-
13C5-PFNA	8947	2.02	-	95.72 µg/L	-
13C2-PFDA	7338	2.15	-	84.61 µg/L	-
13C2-PFUnA	9025	2.25	-	84.40 µg/L	-
13C2-PFDoA	11181	2.33	-	82.04 µg/L	-
13C2-PFTeDA	11059	2.47	-	73.94 µg/L	-
D3-MeFOSA	3236	2.83	-	71.68 µg/L	-
D5-EtFOSA	2826	2.90	-	74.08 µg/L	-
13C6-PFHxA	33366	1.44	-	1.66 µg/L	-
13C9-PFDA	45539	2.15	-	1.77 µg/L	-



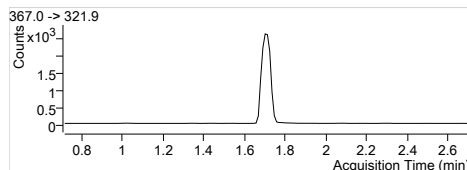
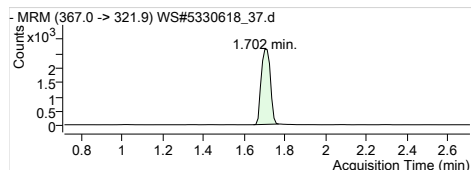
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.445)
1 µg/L
Sample



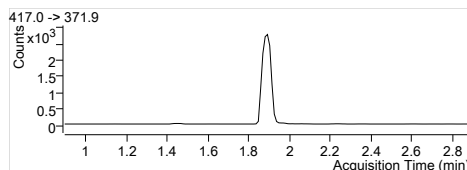
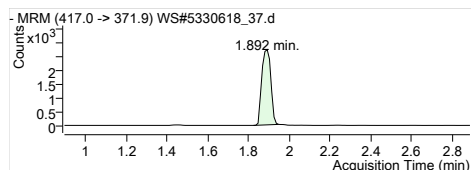
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.679)
1 µg/L
Sample



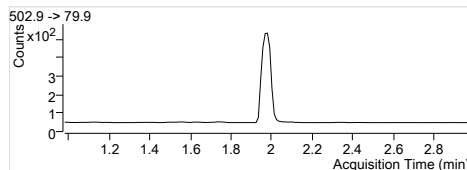
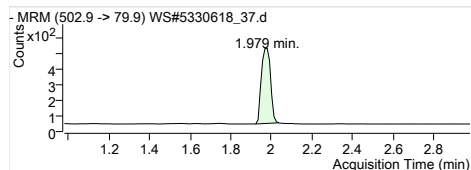
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.702 (1.713)
1 µg/L
Sample



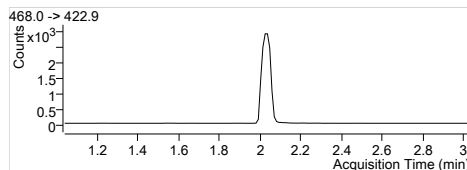
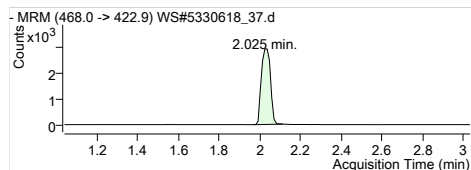
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



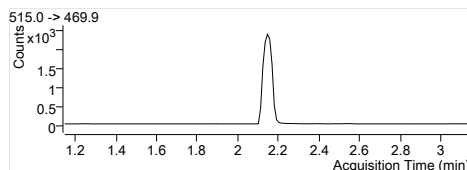
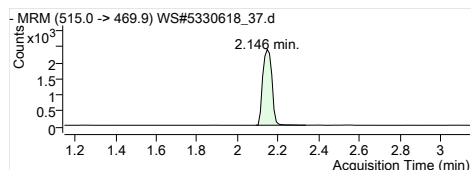
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.979 (1.979)
1 µg/L
Sample



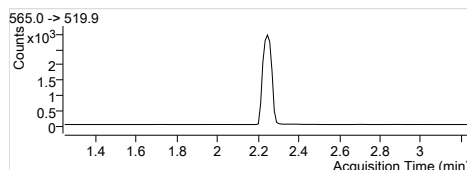
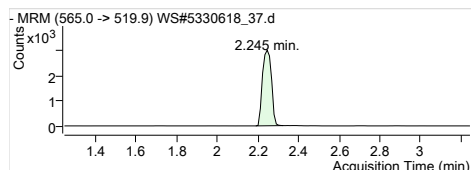
MPFNA
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.025 (2.036)
1 µg/L
Sample



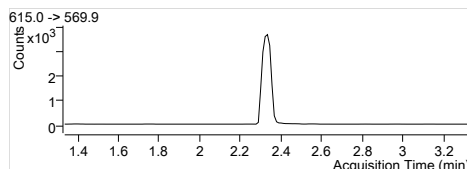
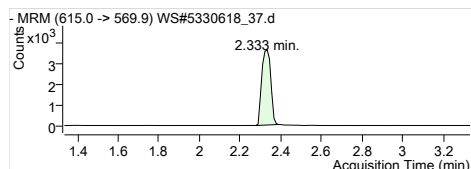
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



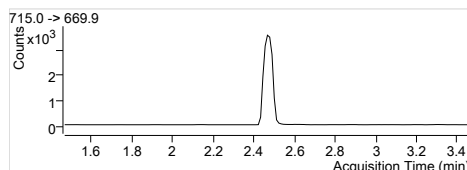
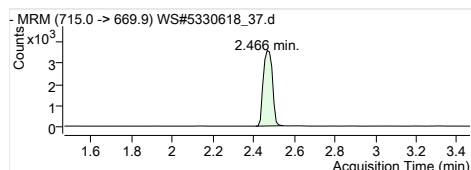
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

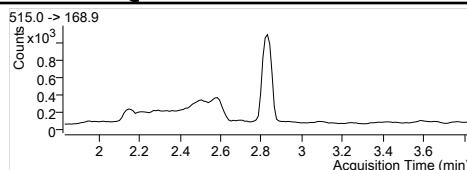
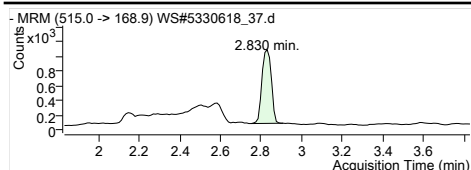
Internal Standard
2.333 (2.333)
1 µg/L
Sample



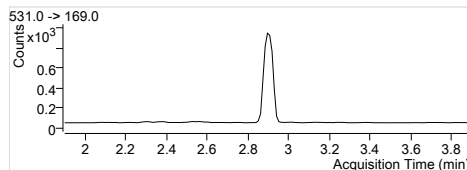
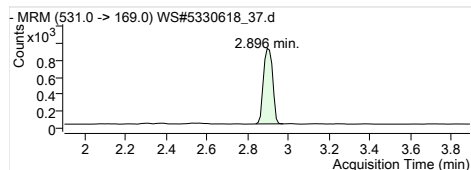
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.466)
1 µg/L
Sample

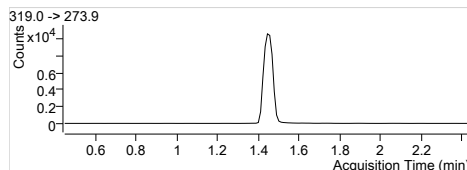
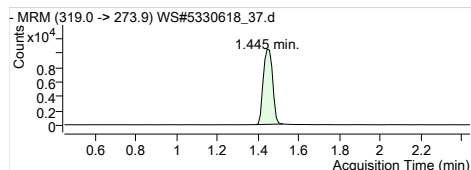
Quantitation Results



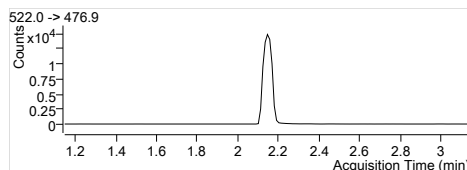
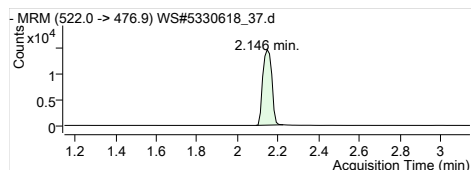
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



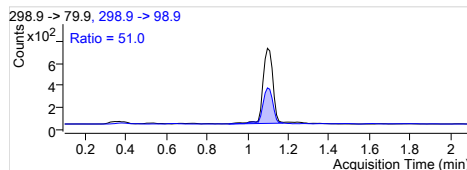
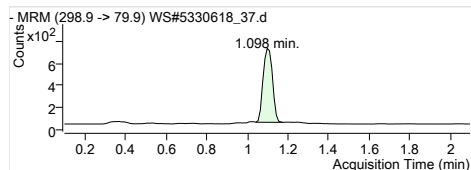
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



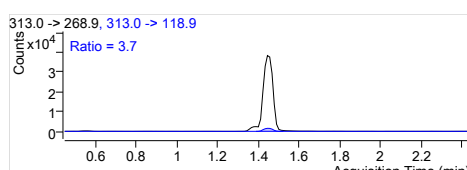
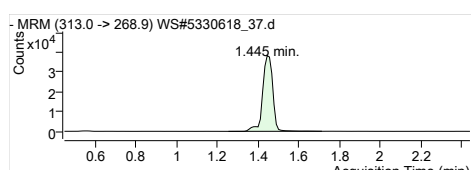
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



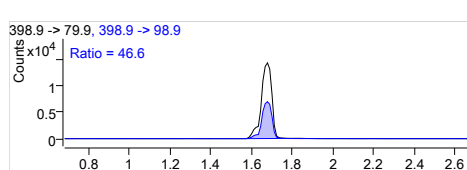
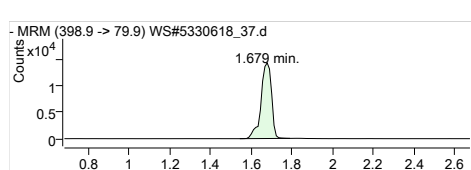
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



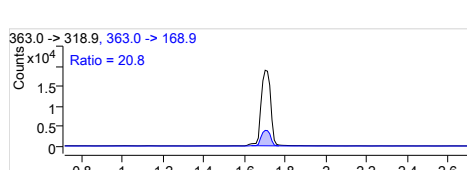
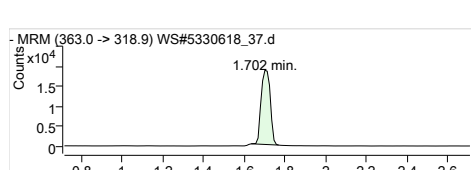
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.06 µg/L
 1.32252
 Sample type: Sample



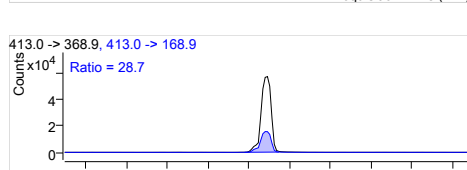
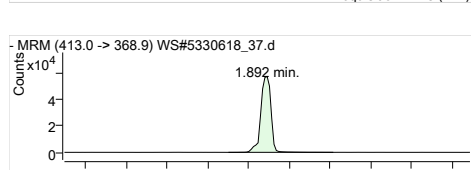
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 1.12 µg/L
 19.89418
 Sample type: Sample



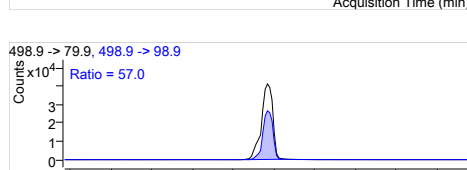
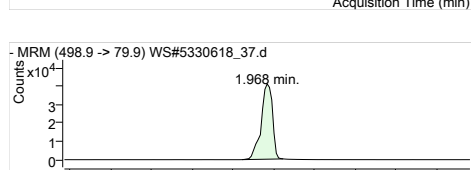
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 1.73 µg/L
 31.39106
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.39 µg/L
 7.13087
 Sample type: Sample

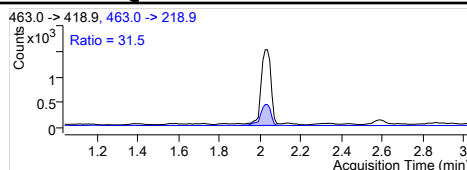
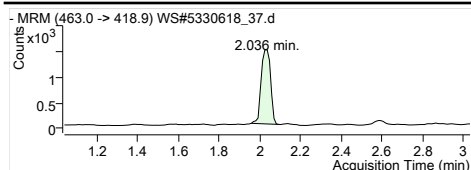


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 1.26 µg/L
 23.35326
 Sample type: Sample

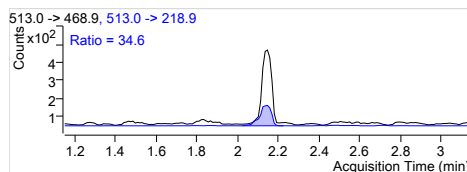
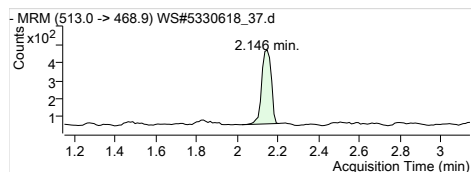


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 6.27 µg/L
 104.49144
 Sample type: Sample

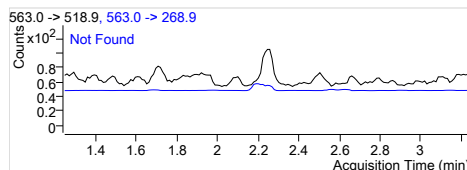
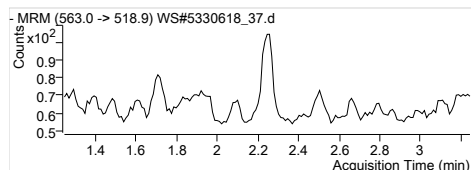
Quantitation Results



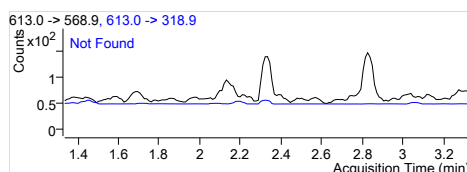
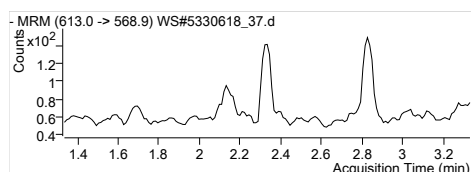
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 2.036 (2.036)
 Area ratio: 0.03 µg/L
 Sample type: 0.51649
 Sample



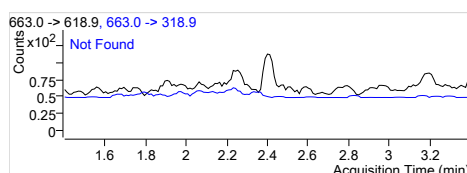
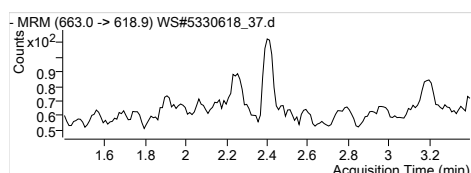
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 0.01 µg/L
 Sample type: 0.17929
 Sample



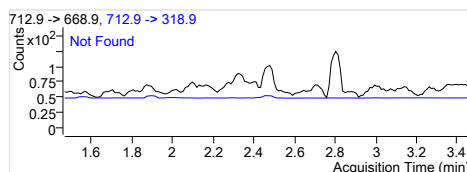
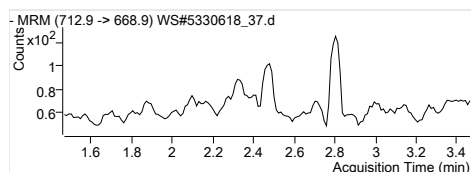
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



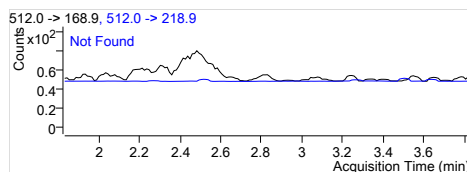
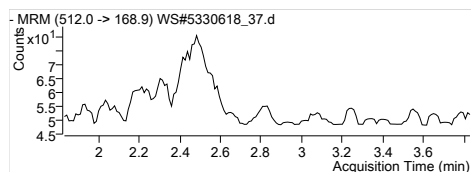
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



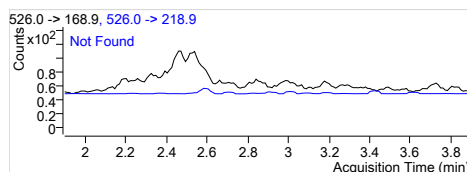
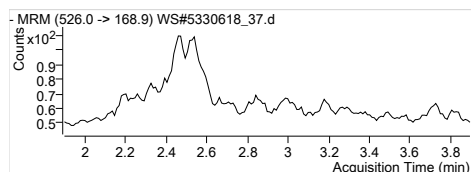
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



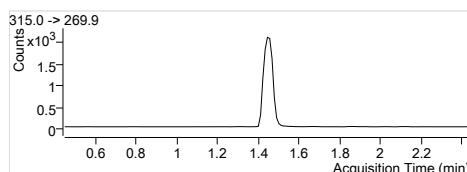
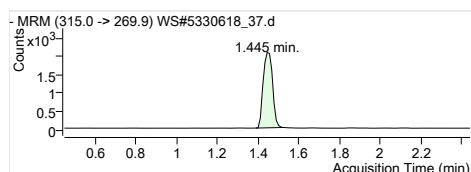
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

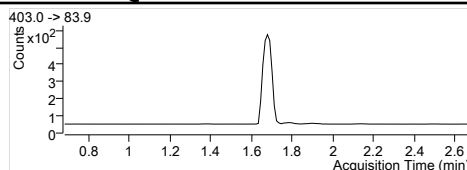
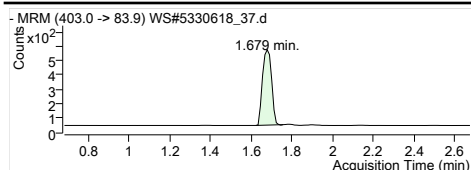


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

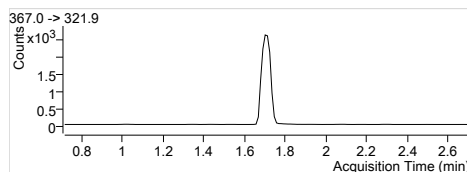
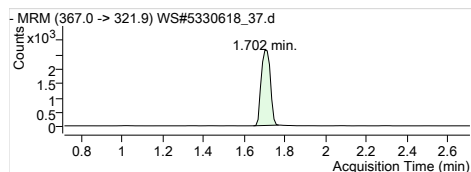


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 89.27 µg/L
 Sample type: 0.19769
 Sample

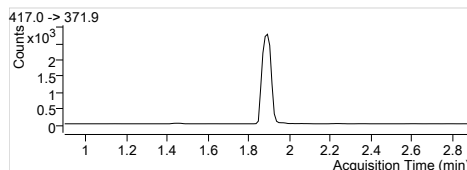
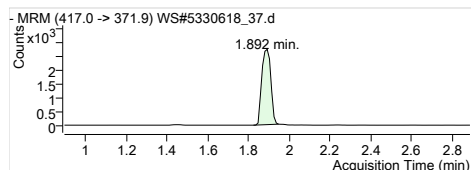
Quantitation Results



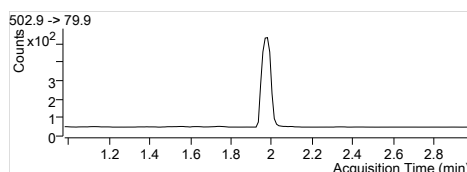
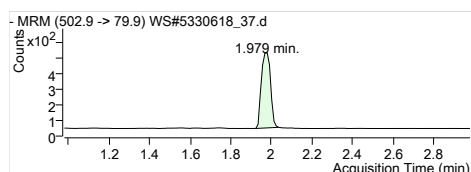
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 92.28 µg/L
 Sample type: 0.04897
 Sample



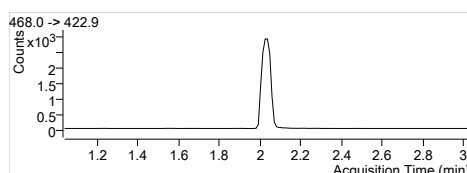
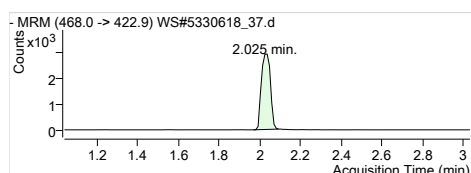
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 87.92 µg/L
 Sample type: 0.24390
 Sample



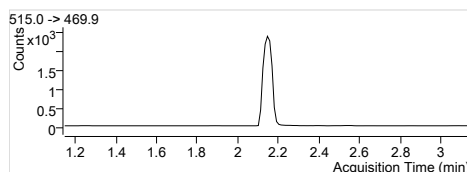
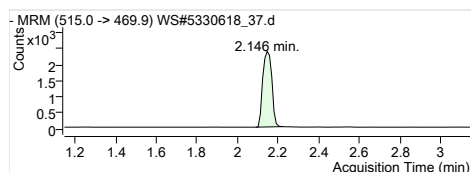
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 84.51 µg/L
 Sample type: 0.25316
 Sample



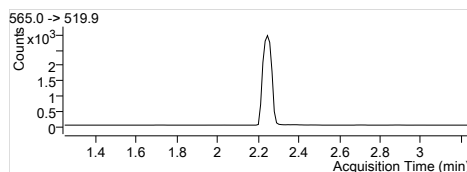
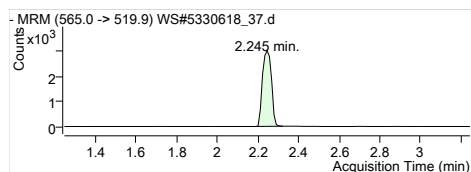
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 70.48 µg/L
 Sample type: 0.04550
 Sample



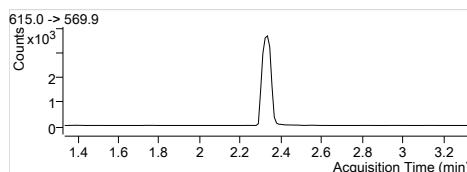
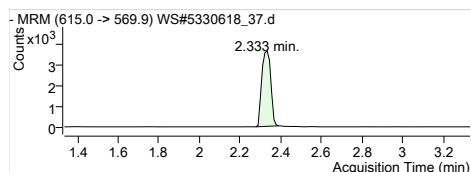
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 95.72 µg/L
 Sample type: 0.26815
 Sample



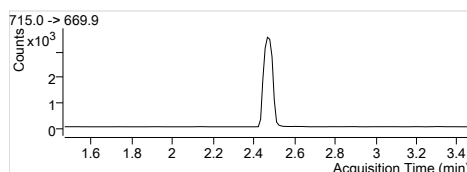
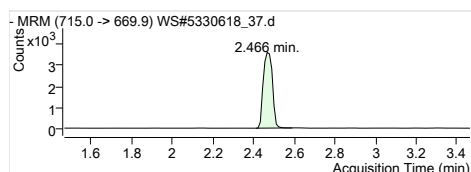
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 84.61 µg/L
 Sample type: 0.16114
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 84.40 µg/L
 Sample type: 0.19818
 Sample

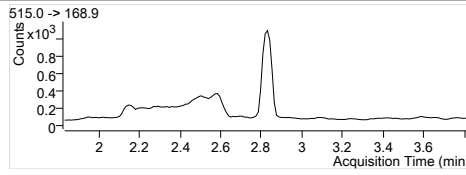
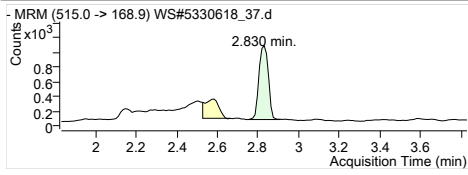


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 82.04 µg/L
 Sample type: 0.24553
 Sample

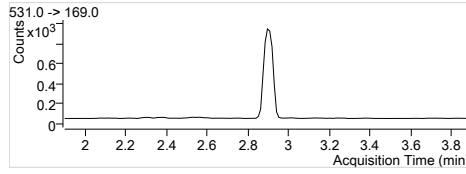
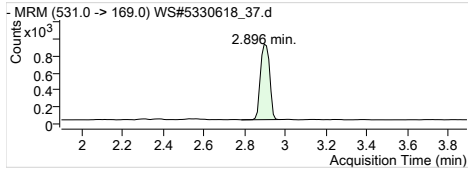


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 73.94 µg/L
 Sample type: 0.24285
 Sample

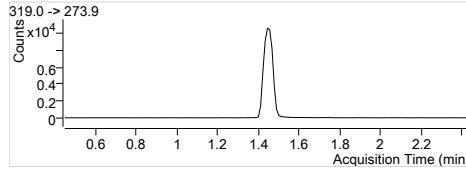
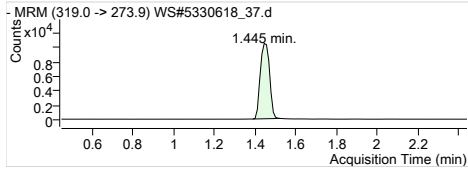
Quantitation Results



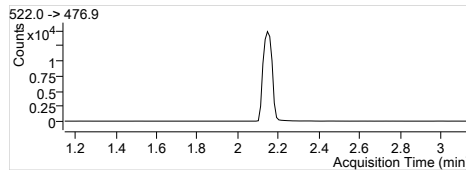
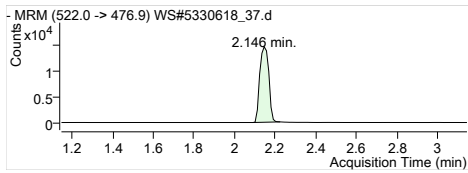
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 71.68 µg/L
Sample type: 0.09698
Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 74.08 µg/L
Sample type: 0.08470
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 1.66 µg/L
Sample type: 0
Sample



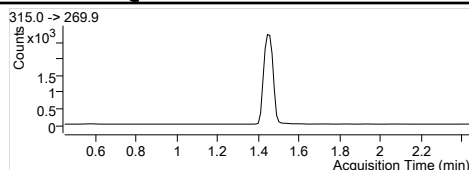
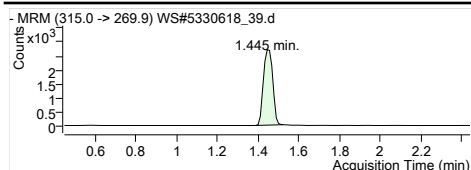
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 1.77 µg/L
Sample type: 0
Sample

Quantitation Results

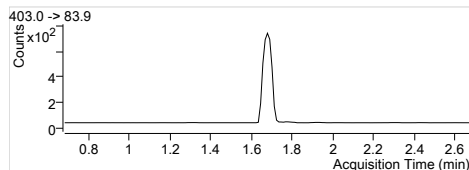
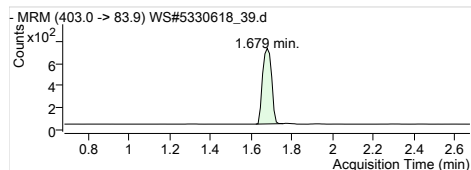
Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH132-01:10x	Instrument	LCMS04
Data File	WS#5330618_39.d	Operator	
Sample Type	Sample	Dilution	0.24
Acq. Method	PFC_Water_Low.m	Position	P4-A9
Acq. Date	2018/01/13 8:25:14 AM	Injection Volume	Per Method
Sample Annotation	Reported for PFHxS, PFOS		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	8516	1.44	1 µg/L
MPFHxS	2119	1.68	1 µg/L
MPFHpA	10964	1.70	1 µg/L
MPFOA	11709	1.89	1 µg/L
MPFOS	2616	1.98	1 µg/L
MPFNA	10677	2.04	1 µg/L
MPFDA	10357	2.15	1 µg/L
MPFUnA	11718	2.25	1 µg/L
MPFDoA	14272	2.33	1 µg/L
MPFTeDA	15713	2.47	1 µg/L
D3-MeFOSA IS	2812	2.83	1 µg/L
D5-EtFOSA IS	2642	2.90	1 µg/L
13C6-PFHxA IS	42918	1.44	1 µg/L
13C9-PFDA IS	55963	2.15	1 µg/L

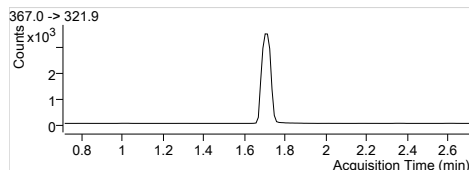
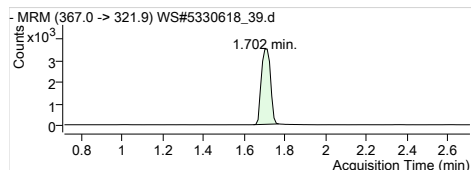
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	304	1.10	-	0.08 µg/L	-
PFHxA 1	8254	1.44	-	0.55 µg/L	-
PFHxS 1	6043	1.68	-	1.55 µg/L	-
PFHpA 1	2887	1.70	-	0.18 µg/L	-
PFOA 1	8238	1.89	-	0.39 µg/L	-
PFOS 1	13521	1.97	-	3.12 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	8516	1.44	-	89.61 µg/L	-
18O2-PFHxS	2119	1.68	-	93.04 µg/L	-
13C4-PFHpA	10964	1.70	-	92.08 µg/L	-
13C4-PFOA	11709	1.89	-	91.07 µg/L	-
13C4-PFOS	2616	1.98	-	94.43 µg/L	-
13C5-PFNA	10613	2.04	-	88.27 µg/L	-
13C2-PFDA	10180	2.15	-	95.51 µg/L	-
13C2-PFUnA	11718	2.25	-	89.18 µg/L	-
13C2-PFDoA	14272	2.33	-	85.22 µg/L	-
13C2-PFTeDA	15942	2.47	-	86.73 µg/L	-
D3-MeFOSA	2857	2.83	-	49.20 µg/L	-
D5-EtFOSA	2648	2.90	-	53.97 µg/L	-
13C6-PFHxA	42918	1.44	-	21.30 µg/L	-
13C9-PFDA	55963	2.15	-	21.69 µg/L	-



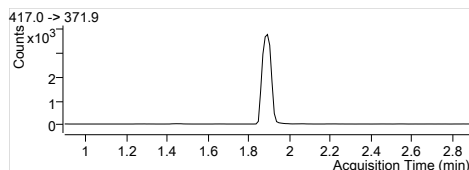
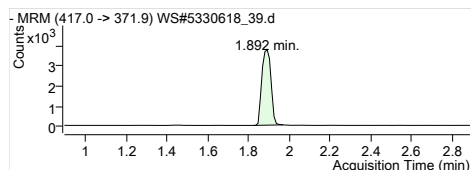
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



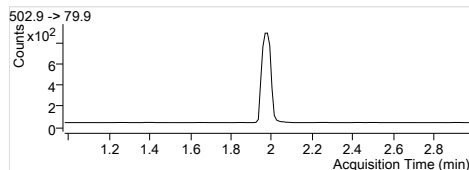
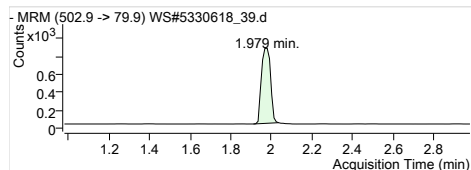
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



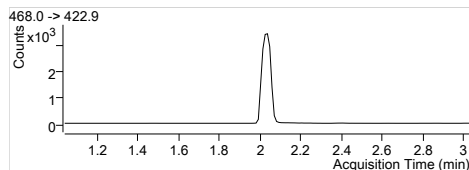
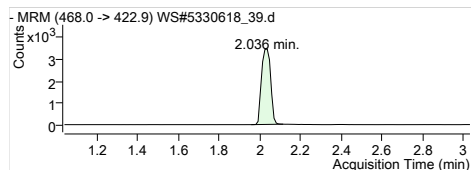
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



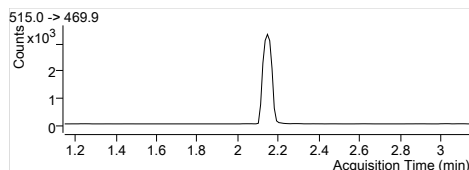
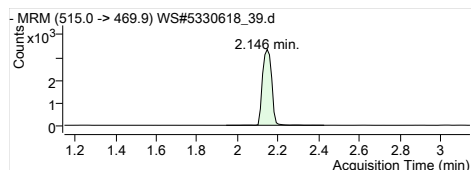
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



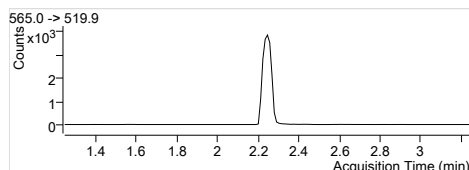
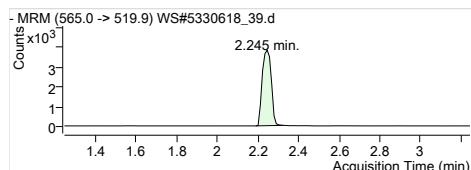
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



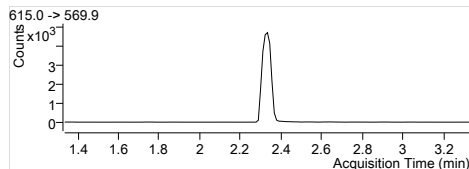
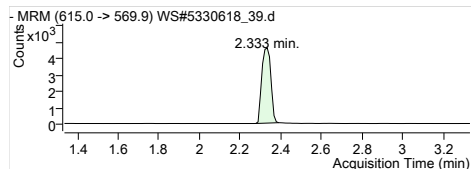
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



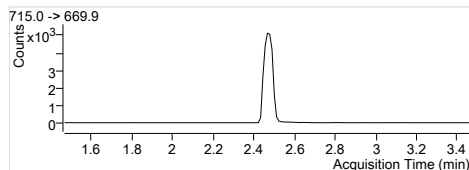
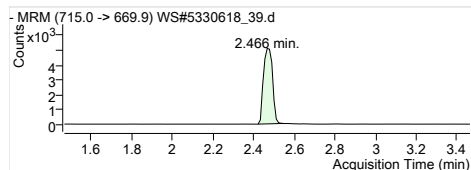
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

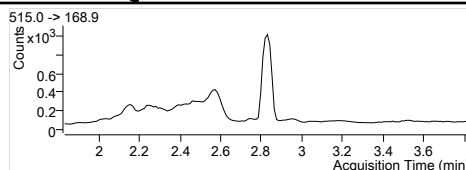
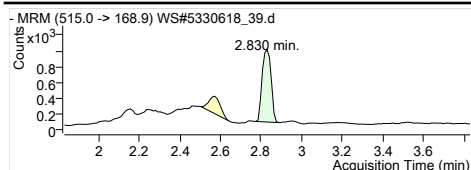


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

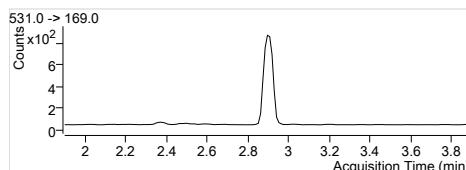
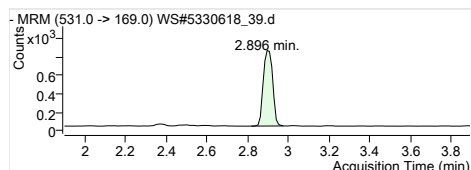


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

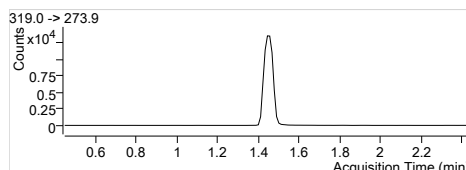
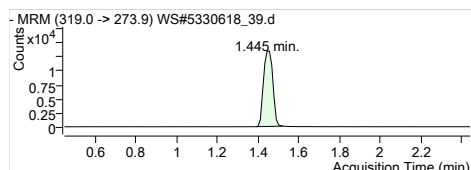
Quantitation Results



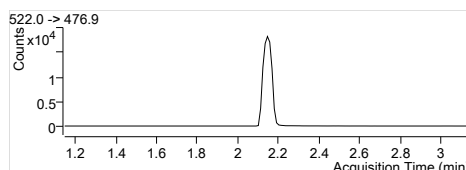
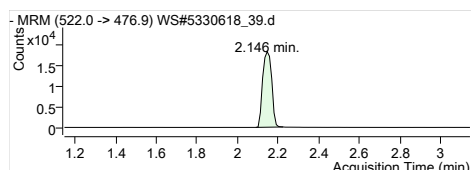
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



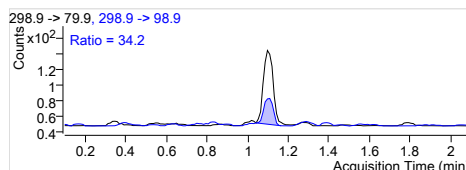
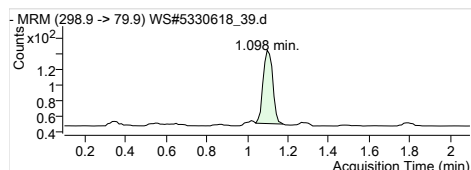
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



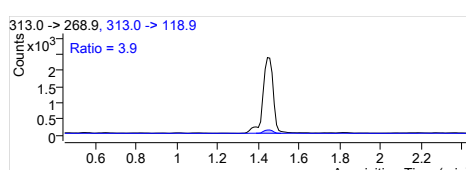
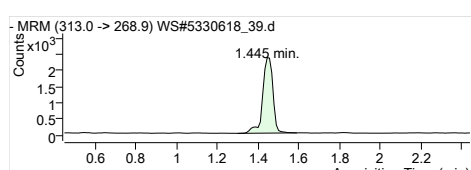
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



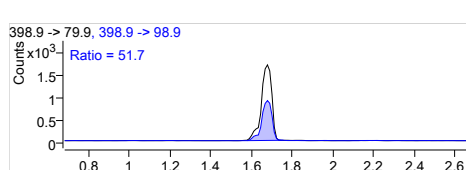
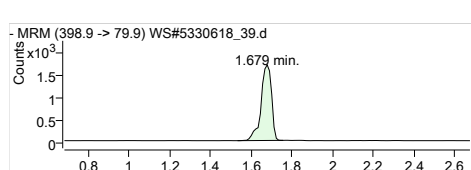
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



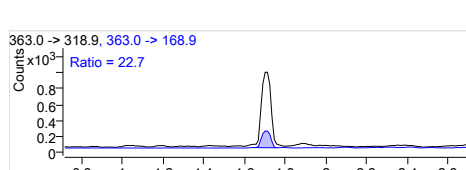
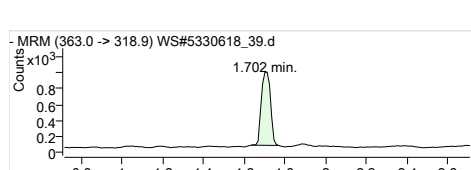
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.08 µg/L
 0.14346
 Sample type: Sample



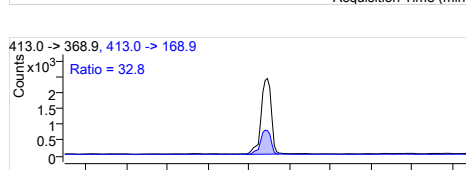
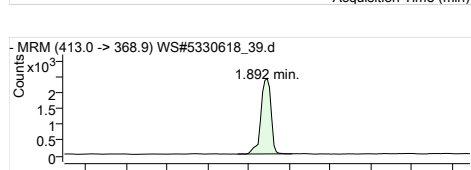
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 0.55 µg/L
 0.96923
 Sample type: Sample



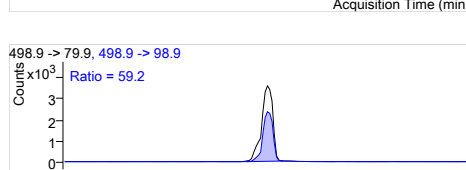
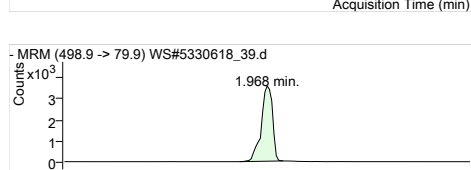
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 1.55 µg/L
 2.85182
 Sample type: Sample



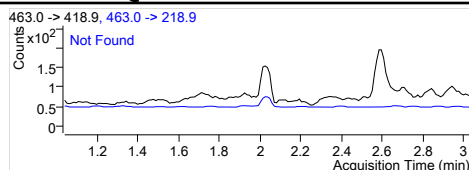
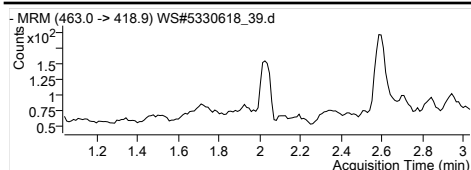
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.18 µg/L
 0.26332
 Sample type: Sample



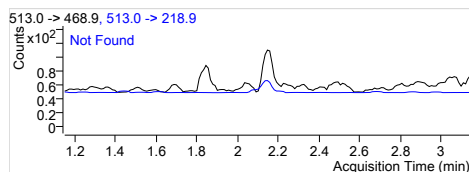
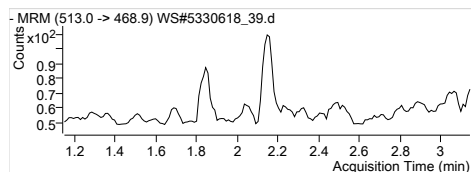
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.39 µg/L
 0.70356
 Sample type: Sample



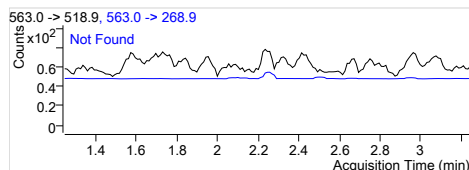
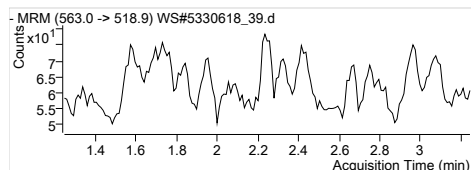
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 3.12 µg/L
 5.16858
 Sample type: Sample



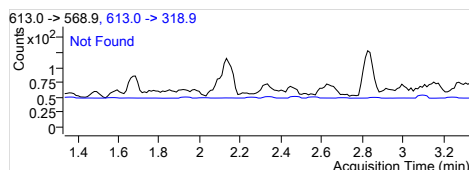
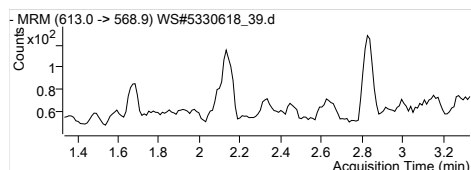
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



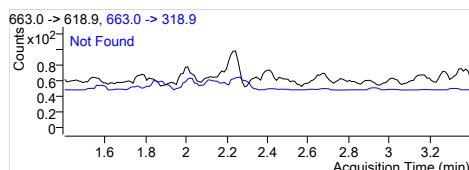
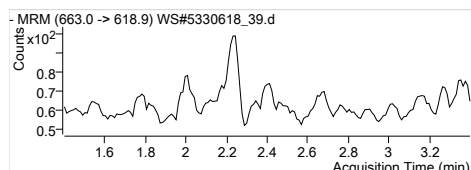
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



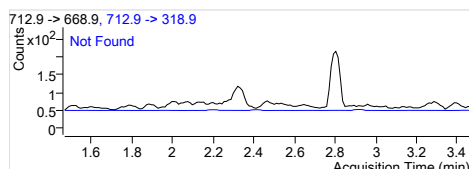
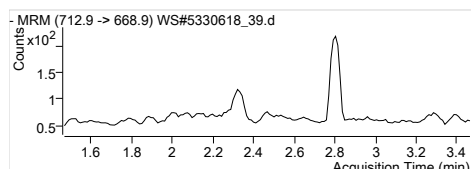
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



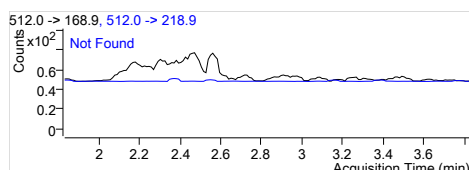
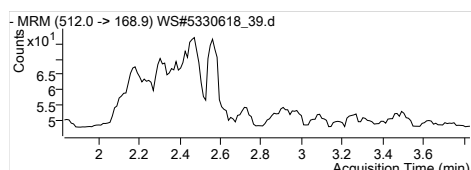
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



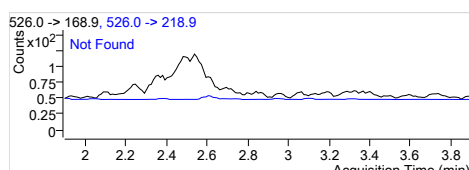
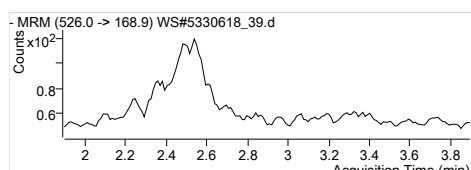
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



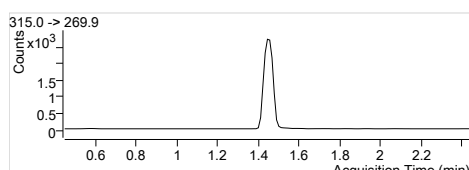
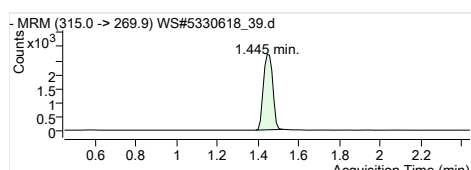
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

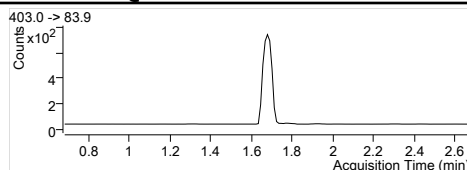
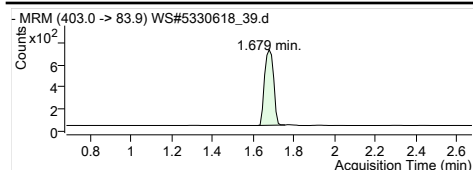


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

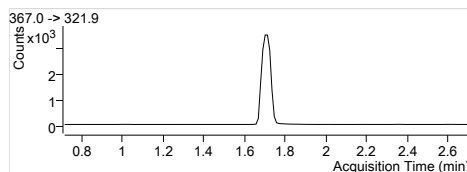
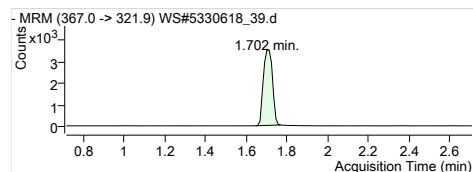


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 89.61 µg/L
 Sample type: 0.19842
 Sample

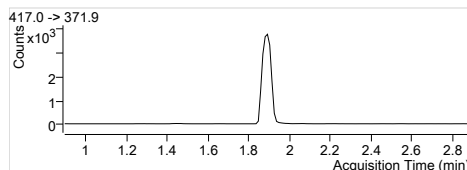
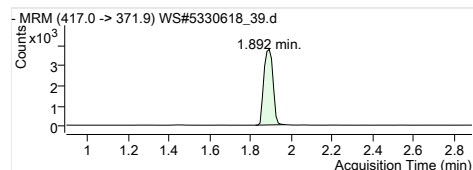
Quantitation Results



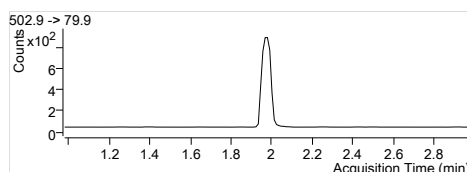
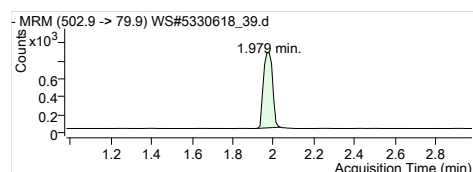
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 93.04 µg/L
 Sample type: 0.04937
 Sample



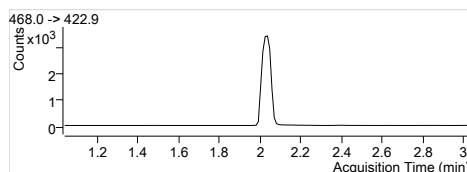
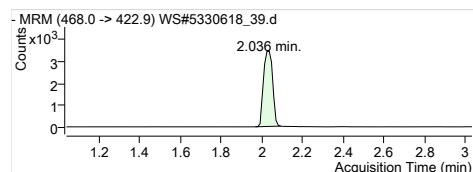
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 92.08 µg/L
 Sample type: 0.25546
 Sample



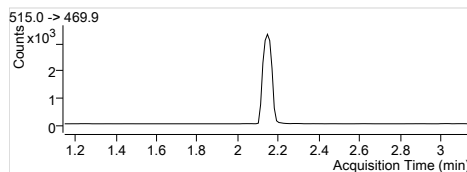
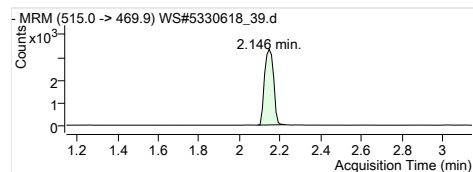
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 91.07 µg/L
 Sample type: 0.27282
 Sample



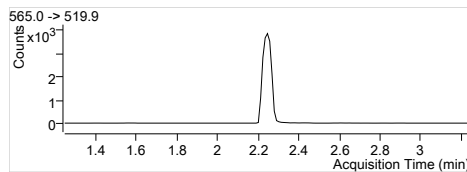
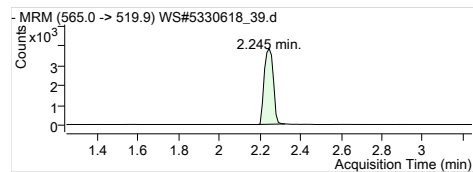
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 94.43 µg/L
 Sample type: 0.06095
 Sample



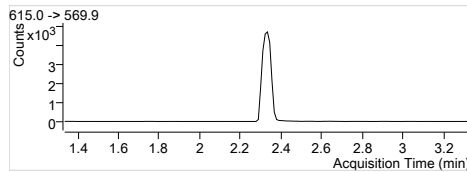
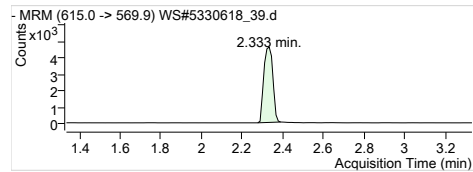
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 88.27 µg/L
 Sample type: 0.24729
 Sample



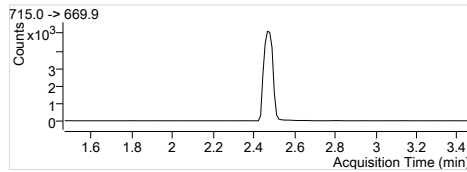
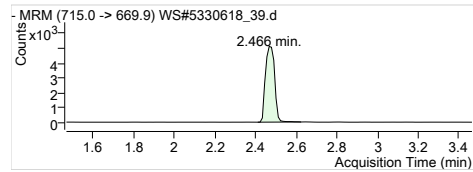
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 95.51 µg/L
 Sample type: 0.18191
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 89.18 µg/L
 Sample type: 0.20939
 Sample

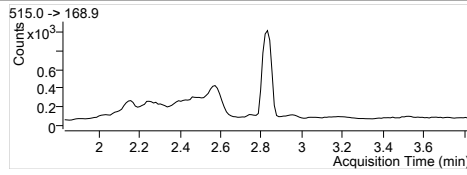
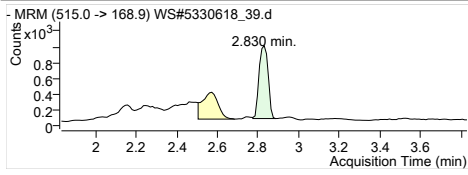


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 85.22 µg/L
 Sample type: 0.25503
 Sample

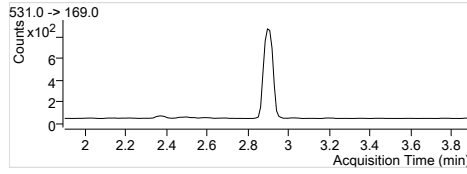
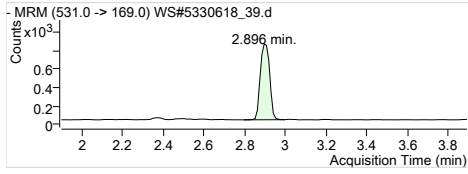


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 86.73 µg/L
 Sample type: 0.28487
 Sample

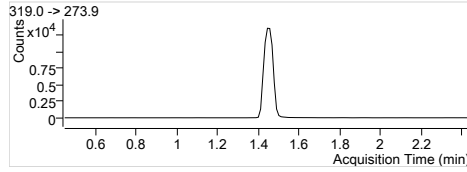
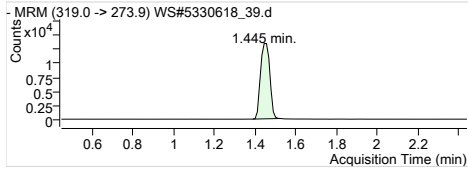
Quantitation Results



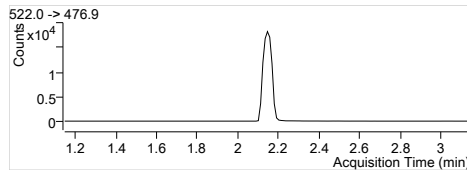
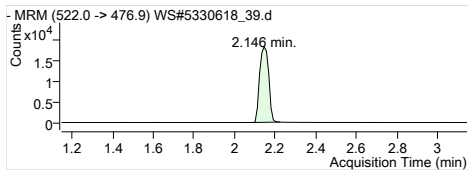
D3-MeFOSA
RT (Exp. RT): 2.830 (2.830)
Calc. conc. 49.20 µg/L
Area ratio: 0.06657
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 2.896 (2.896)
Calc. conc. 53.97 µg/L
Area ratio: 0.06170
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 1.445 (1.445)
Calc. conc. 21.30 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 21.69 µg/L
Area ratio: 0
Sample type: Sample

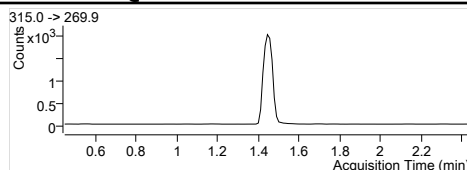
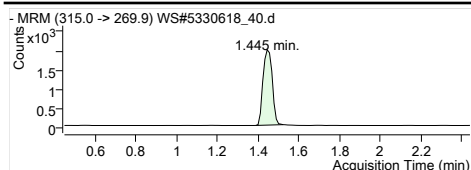
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH132-01	Instrument	LCMS04
Data File	WS#5330618_40.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P4-B1
Acq. Date	2018/01/13 8:30:11 AM	Injection Volume	Per Method
Sample Annotation	Reported for all except PFHxS, PFOS		

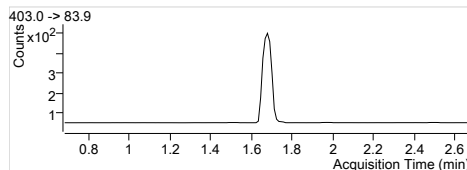
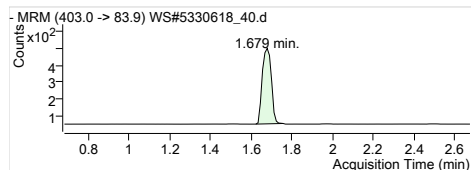
ISTD Compounds	Response	RT	Target conc.
MPFHxA	6216	1.44	1 µg/L
MPFHxS	1403	1.68	1 µg/L
MPFHpA	7627	1.70	1 µg/L
MPFOA	8021	1.89	1 µg/L
MPFOS	1512	1.97	1 µg/L
MPFNA	8447	2.04	1 µg/L
MPFDA	6729	2.15	1 µg/L
MPFUnA	8147	2.25	1 µg/L
MPFDoA	10092	2.33	1 µg/L
MPFTeDA	10339	2.47	1 µg/L
D3-MeFOSA IS	2941	2.83	1 µg/L
D5-EtFOSA IS	2311	2.90	1 µg/L
13C6-PFHxA IS	31248	1.44	1 µg/L
13C9-PFDA IS	39928	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1912	1.10	-	0.07 µg/L	-
PFHxA 1	54593	1.44	-	0.50 µg/L	-
PFHxS 1	42009	1.68	-	1.65 µg/L	-
PFHpA 1	18035	1.70	-	0.13 µg/L	-
PFOA 1	56251	1.89	-	0.38 µg/L	-
PFOS 1	87243	1.97	-	3.46 µg/L	-
PFNA 1	2208	2.02	-	0.02 µg/L	-
PFDA 1	779	2.15	-	0.01 µg/L	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1	592	2.56	-	0.04 µg/L	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6216	1.44	-	89.83 µg/L	-
18O2-PFHxS	1403	1.68	-	84.60 µg/L	-
13C4-PFHpA	7627	1.70	-	87.98 µg/L	-
13C4-PFOA	8021	1.89	-	85.68 µg/L	-
13C4-PFOS	1512	1.97	-	74.96 µg/L	-
13C5-PFNA	8415	2.04	-	96.13 µg/L	-
13C2-PFDA	6618	2.15	-	87.03 µg/L	-
13C2-PFUnA	8147	2.25	-	86.90 µg/L	-
13C2-PFDoA	10092	2.33	-	84.46 µg/L	-
13C2-PFTeDA	10510	2.47	-	80.14 µg/L	-
D3-MeFOSA	2995	2.83	-	70.84 µg/L	-
D5-EtFOSA	2364	2.90	-	66.17 µg/L	-
13C6-PFHxA	31248	1.44	-	1.55 µg/L	-
13C9-PFDA	39928	2.15	-	1.55 µg/L	-

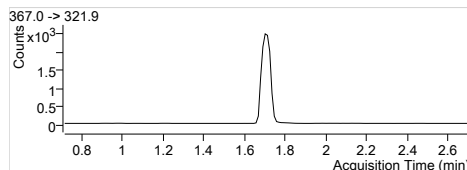
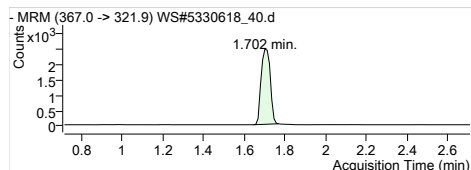
Quantitation Results



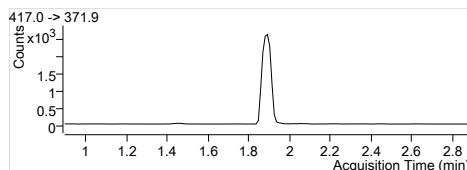
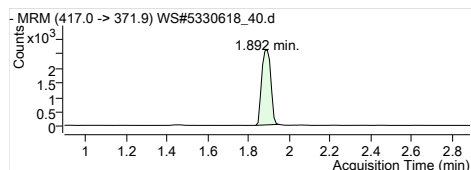
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



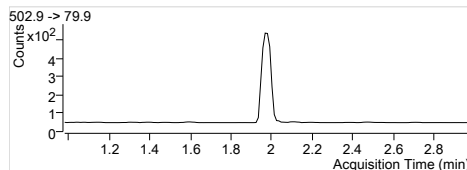
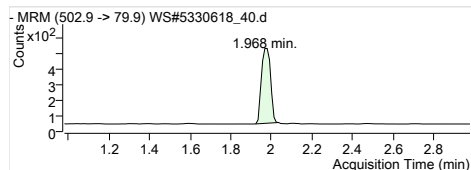
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



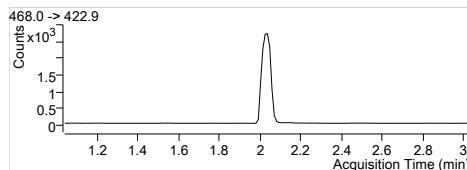
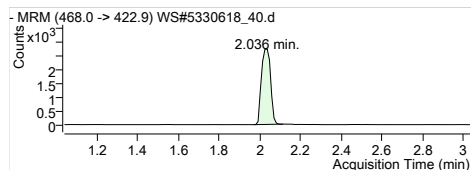
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



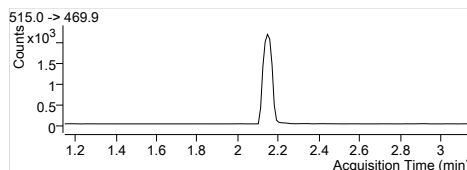
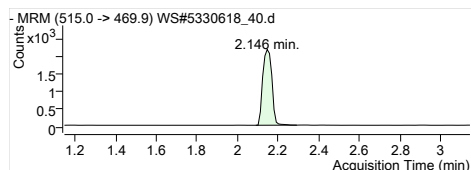
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



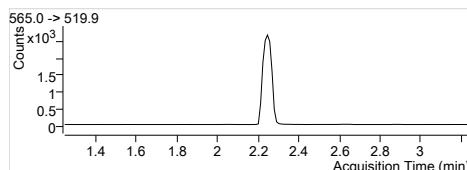
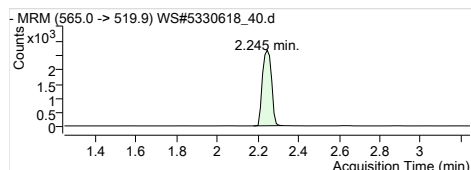
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample



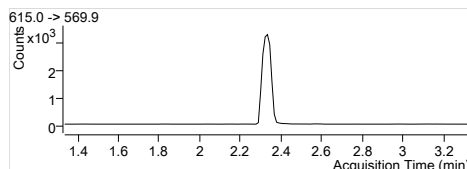
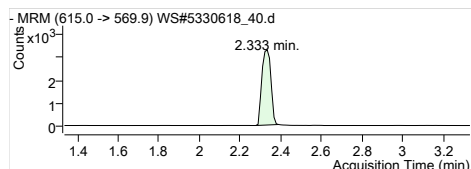
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



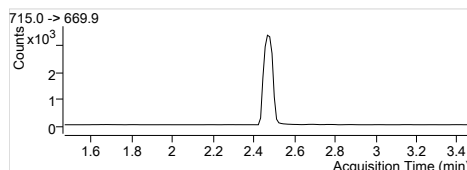
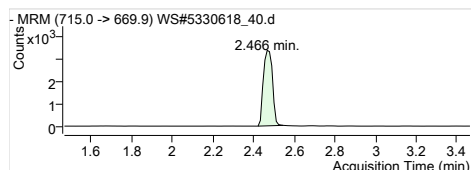
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



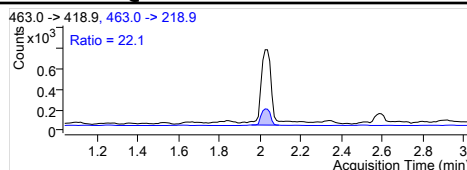
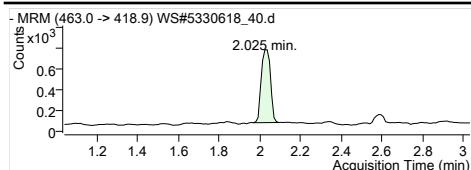
MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample



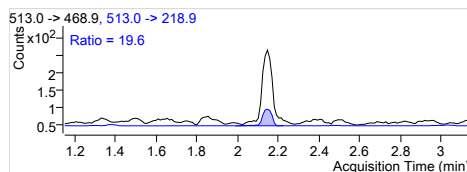
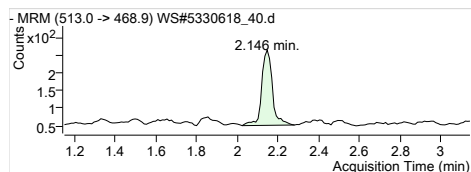
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

<p>-MRM (515.0 -> 168.9) WS#5330618_40.d Counts x10³ 2.830 min. Acquisition Time (min)</p>	<p>515.0 -> 168.9 Counts x10³ Acquisition Time (min)</p>	<p>D3-MeFOSA IS Internal Standard RT (Exp. RT): 2.830 (2.830) Concentration: 1 µg/L Sample type: Sample</p>
<p>-MRM (531.0 -> 169.0) WS#5330618_40.d Counts x10³ 2.896 min. Acquisition Time (min)</p>	<p>531.0 -> 169.0 Counts x10² Acquisition Time (min)</p>	<p>D5-EtFOSA IS Internal Standard RT (Exp. RT): 2.896 (2.896) Concentration: 1 µg/L Sample type: Sample</p>
<p>-MRM (319.0 -> 273.9) WS#5330618_40.d Counts x10⁴ 1.445 min. Acquisition Time (min)</p>	<p>319.0 -> 273.9 Counts x10⁴ Acquisition Time (min)</p>	<p>13C6-PFHxA IS Internal Standard RT (Exp. RT): 1.445 (1.445) Concentration: 1 µg/L Sample type: Sample</p>
<p>-MRM (522.0 -> 476.9) WS#5330618_40.d Counts x10⁴ 2.146 min. Acquisition Time (min)</p>	<p>522.0 -> 476.9 Counts x10⁴ Acquisition Time (min)</p>	<p>13C9-PFDA IS Internal Standard RT (Exp. RT): 2.146 (2.146) Concentration: 1 µg/L Sample type: Sample</p>
<p>-MRM (298.9 -> 79.9) WS#5330618_40.d Counts x10² 1.098 min. Acquisition Time (min)</p>	<p>298.9 -> 79.9, 298.9 -> 98.9 Ratio = 43.1 Counts x10² Acquisition Time (min)</p>	<p>PFBS 1 RT (Exp. RT): 298.9 -> 79.9 1.098 (1.098) Calc. conc. 0.07 µg/L Area ratio: 1.36279 Sample type: Sample</p>
<p>-MRM (313.0 -> 268.9) WS#5330618_40.d Counts x10⁴ 1.445 min. Acquisition Time (min)</p>	<p>313.0 -> 268.9, 313.0 -> 118.9 Ratio = 3.2 Counts x10⁴ Acquisition Time (min)</p>	<p>PFHxA 1 RT (Exp. RT): 313.0 -> 268.9 1.445 (1.445) Calc. conc. 0.50 µg/L Area ratio: 8.78266 Sample type: Sample</p>
<p>-MRM (398.9 -> 79.9) WS#5330618_40.d Counts x10⁴ 1.679 min. Acquisition Time (min)</p>	<p>398.9 -> 79.9, 398.9 -> 98.9 Ratio = 45.9 Counts x10⁴ Acquisition Time (min)</p>	<p>PFHxS 1 RT (Exp. RT): 398.9 -> 79.9 1.679 (1.679) Calc. conc. 1.65 µg/L Area ratio: 29.94227 Sample type: Sample</p>
<p>-MRM (363.0 -> 318.9) WS#5330618_40.d Counts x10³ 1.702 min. Acquisition Time (min)</p>	<p>363.0 -> 318.9, 363.0 -> 168.9 Ratio = 21.0 Counts x10³ Acquisition Time (min)</p>	<p>PFHpA 1 RT (Exp. RT): 363.0 -> 318.9 1.702 (1.713) Calc. conc. 0.13 µg/L Area ratio: 2.36463 Sample type: Sample</p>
<p>-MRM (413.0 -> 368.9) WS#5330618_40.d Counts x10⁴ 1.892 min. Acquisition Time (min)</p>	<p>413.0 -> 368.9, 413.0 -> 168.9 Ratio = 29.6 Counts x10⁴ Acquisition Time (min)</p>	<p>PFOA 1 RT (Exp. RT): 413.0 -> 368.9 1.892 (1.892) Calc. conc. 0.38 µg/L Area ratio: 7.01297 Sample type: Sample</p>
<p>-MRM (498.9 -> 79.9) WS#5330618_40.d Counts x10⁴ 1.968 min. Acquisition Time (min)</p>	<p>498.9 -> 79.9, 498.9 -> 98.9 Ratio = 55.6 Counts x10⁴ Acquisition Time (min)</p>	<p>PFOS 1 RT (Exp. RT): 498.9 -> 79.9 1.968 (1.968) Calc. conc. 3.46 µg/L Area ratio: 57.70040 Sample type: Sample</p>

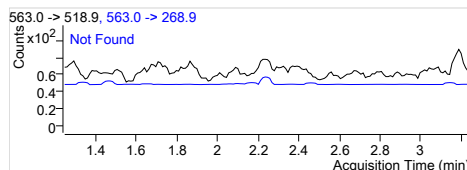
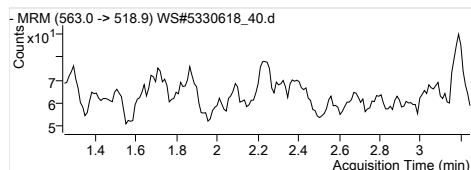
Quantitation Results



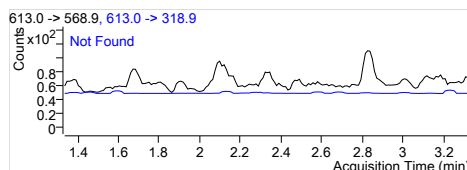
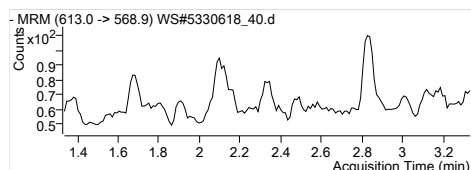
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 2.025 (2.036)
 Area ratio: 0.02 µg/L
 Sample type: 0.26139
 Sample



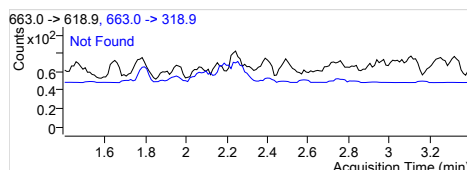
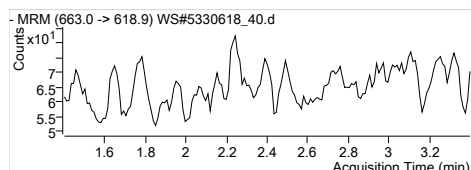
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 0.01 µg/L
 Sample type: 0.11577
 Sample



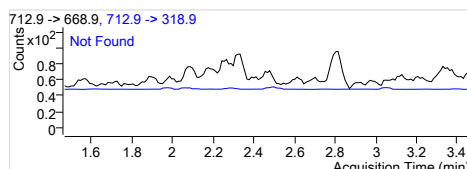
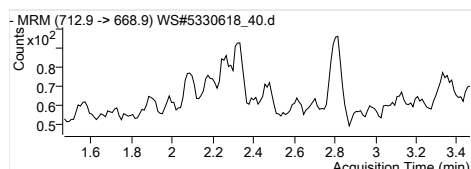
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



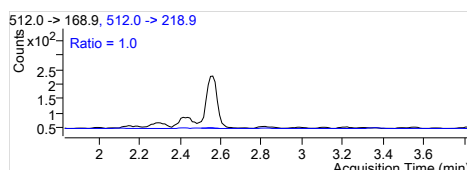
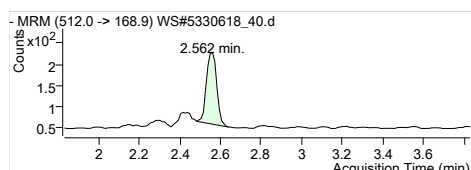
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



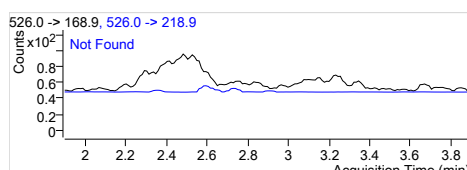
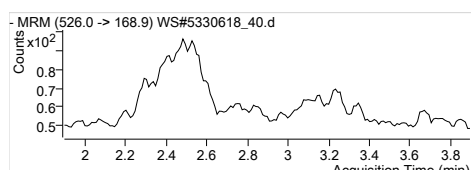
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



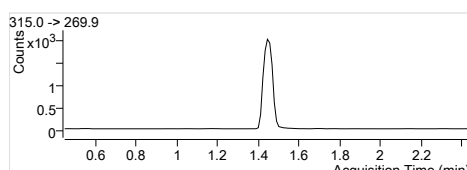
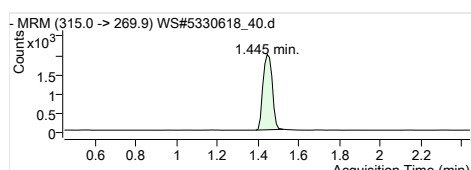
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 2.562 (2.831)
 Area ratio: 0.04 µg/L
 Sample type: 0.20129
 Sample

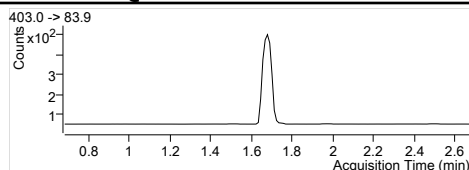
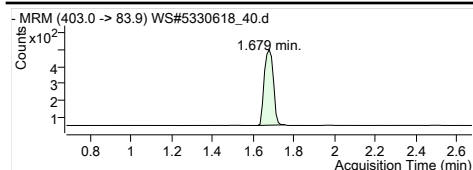


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

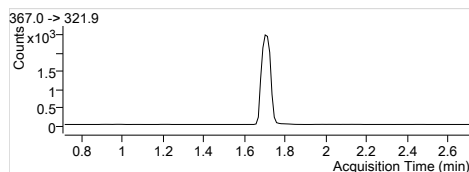
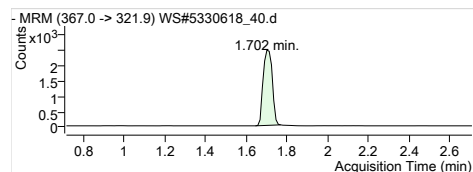


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 89.83 µg/L
 Sample type: 0.19892
 Sample

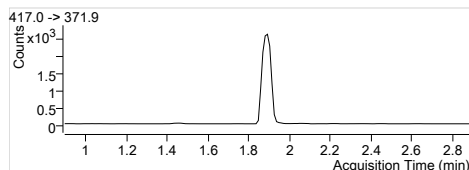
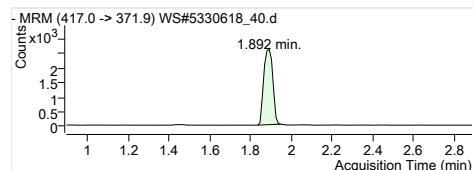
Quantitation Results



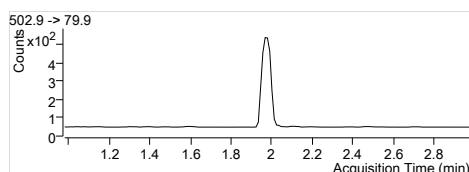
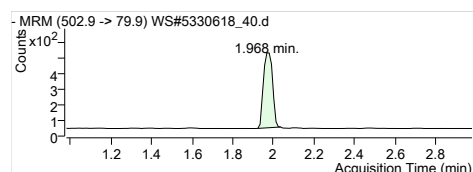
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 84.60 µg/L
Sample type: 0.04490
Sample



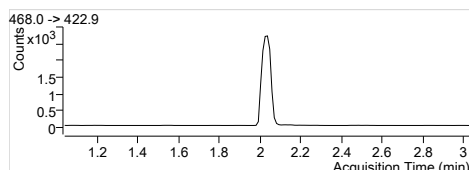
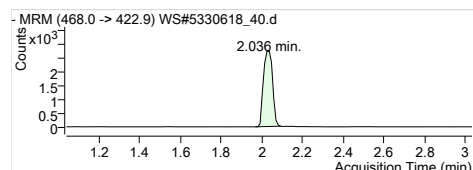
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.702 (1.713)
Area ratio: 87.98 µg/L
Sample type: 0.24408
Sample



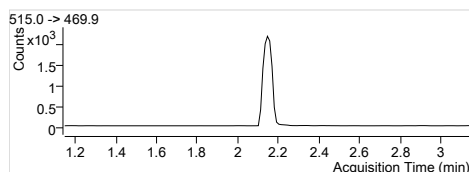
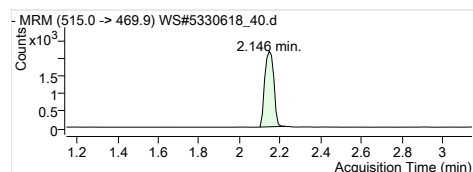
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 85.68 µg/L
Sample type: 0.25669
Sample



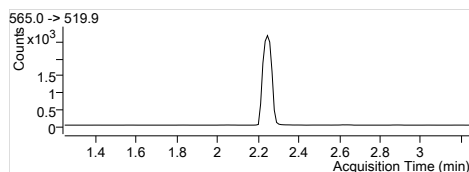
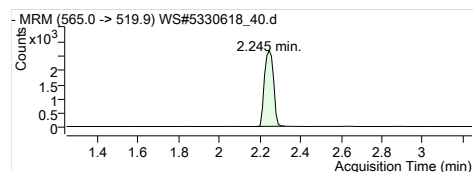
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.968 (1.979)
Area ratio: 74.96 µg/L
Sample type: 0.04839
Sample



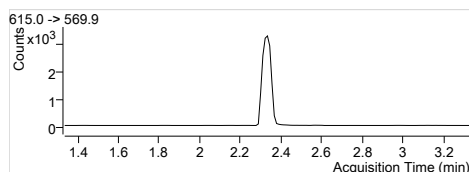
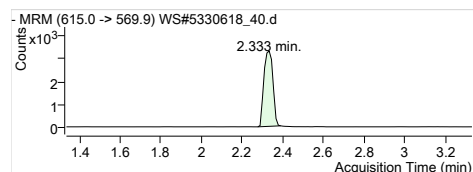
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 96.13 µg/L
Sample type: 0.26930
Sample



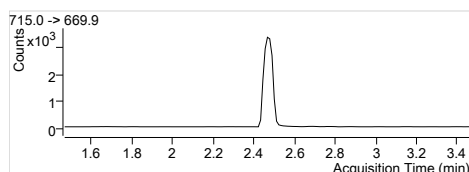
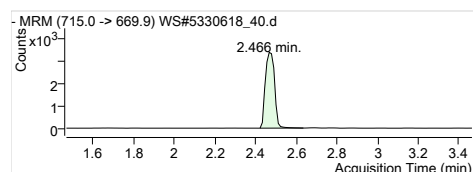
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 87.03 µg/L
Sample type: 0.16575
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 86.90 µg/L
Sample type: 0.20404
Sample

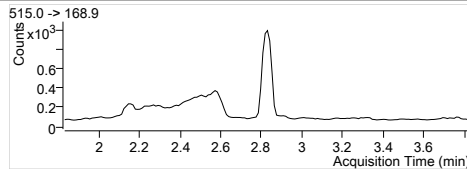
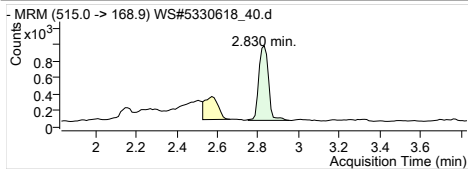


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 84.46 µg/L
Sample type: 0.25275
Sample

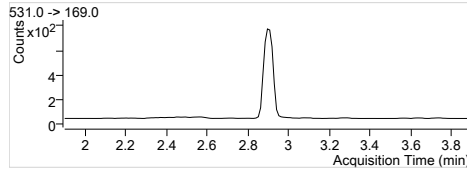
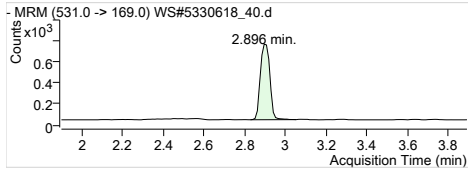


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.466)
Area ratio: 80.14 µg/L
Sample type: 0.26322
Sample

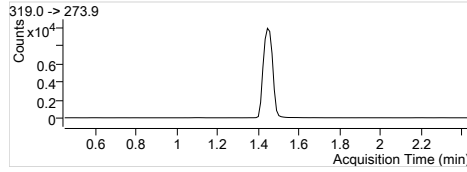
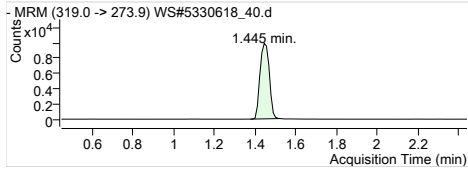
Quantitation Results



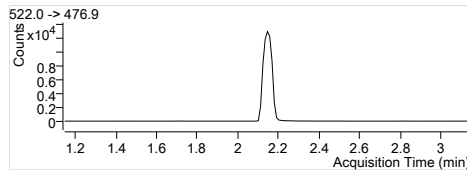
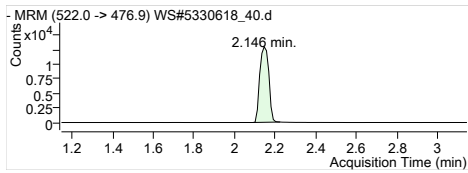
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 70.84 µg/L
Sample type: 0.09585
Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 66.17 µg/L
Sample type: 0.07565
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 1.55 µg/L
Sample type: 0
Sample



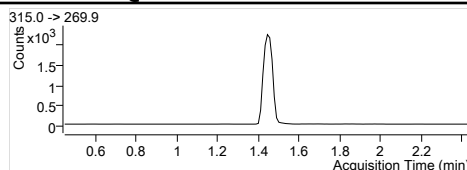
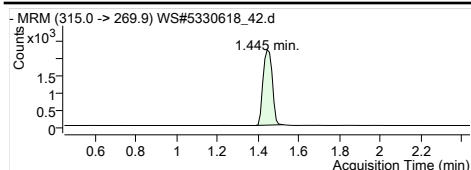
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 1.55 µg/L
Sample type: 0
Sample

Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH133-01:10x	Instrument	LCMS04
Data File	WS#5330618_42.d	Operator	
Sample Type	Sample	Dilution	0.24
Acq. Method	PFC_Water_Low.m	Position	P4-B2
Acq. Date	2018/01/13 8:40:37 AM	Injection Volume	Per Method
Sample Annotation	Reported for PFHxS, PFOS		

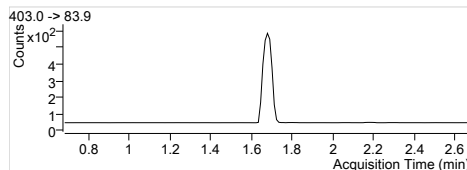
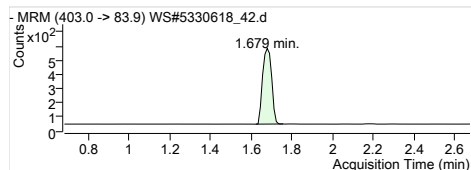
ISTD Compounds	Response	RT	Target conc.
MPFHxA	6931	1.44	1 µg/L
MPFHxS	1656	1.68	1 µg/L
MPFHpA	8012	1.70	1 µg/L
MPFOA	8925	1.89	1 µg/L
MPFOS	1841	1.98	1 µg/L
MPFNA	8485	2.04	1 µg/L
MPFDA	7218	2.15	1 µg/L
MPFUnA	8449	2.25	1 µg/L
MPFDoA	10451	2.33	1 µg/L
MPFTeDA	11333	2.47	1 µg/L
D3-MeFOSA IS	2251	2.83	1 µg/L
D5-EtFOSA IS	1963	2.90	1 µg/L
13C6-PFHxA IS	35209	1.44	1 µg/L
13C9-PFDA IS	44453	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	5504	1.44	-	0.46 µg/L	-
PFHxS 1	4503	1.68	-	1.48 µg/L	-
PFHpA 1	2694	1.70	-	0.22 µg/L	-
PFOA 1	4125	1.89	-	0.26 µg/L	-
PFOS 1	11496	1.97	-	3.77 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6931	1.44	-	88.90 µg/L	-
18O2-PFHxS	1656	1.68	-	88.63 µg/L	-
13C4-PFHpA	8012	1.70	-	82.02 µg/L	-
13C4-PFOA	8925	1.89	-	84.61 µg/L	-
13C4-PFOS	1841	1.98	-	81.00 µg/L	-
13C5-PFNA	8442	2.04	-	85.59 µg/L	-
13C2-PFDA	7158	2.15	-	84.55 µg/L	-
13C2-PFUnA	8449	2.25	-	80.95 µg/L	-
13C2-PFDoA	10451	2.33	-	78.56 µg/L	-
13C2-PFTeDA	11456	2.47	-	78.46 µg/L	-
D3-MeFOSA	2292	2.83	-	48.11 µg/L	-
D5-EtFOSA	1976	2.90	-	49.09 µg/L	-
13C6-PFHxA	35209	1.44	-	17.47 µg/L	-
13C9-PFDA	44453	2.15	-	17.23 µg/L	-



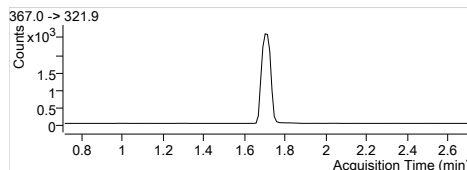
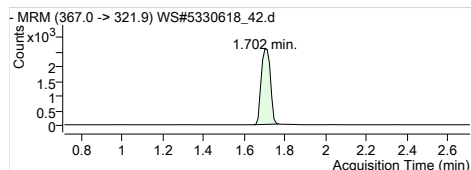
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.445)
1 µg/L
Sample



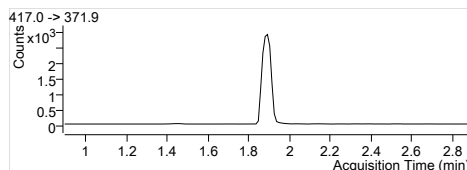
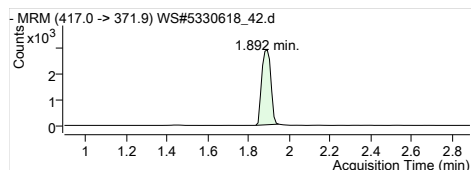
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.679)
1 µg/L
Sample



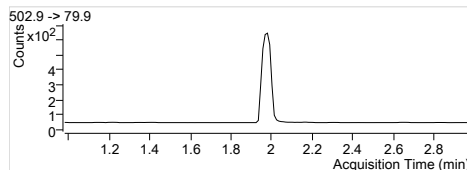
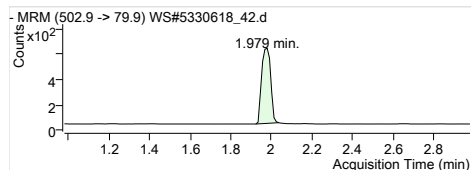
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.702 (1.713)
1 µg/L
Sample



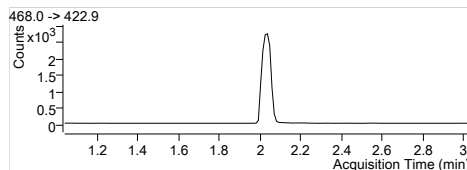
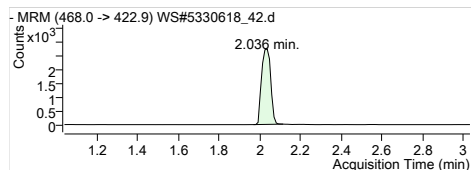
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



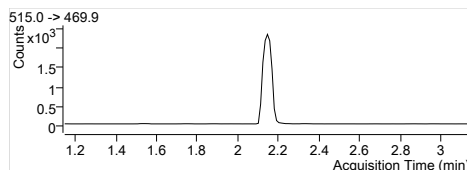
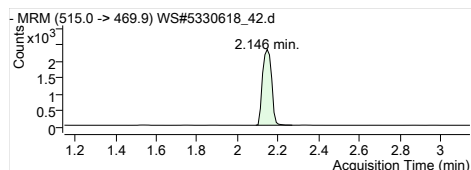
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.979 (1.979)
1 µg/L
Sample



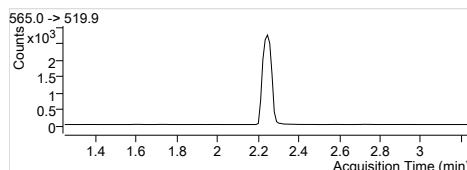
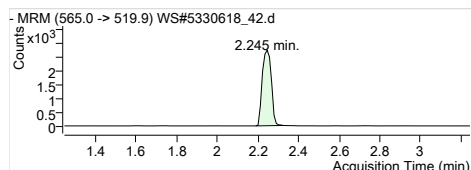
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.036 (2.036)
1 µg/L
Sample



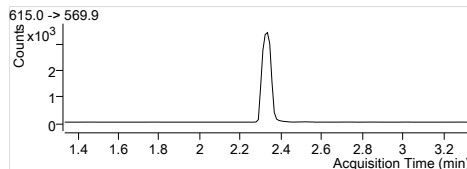
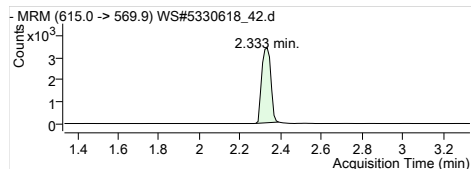
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



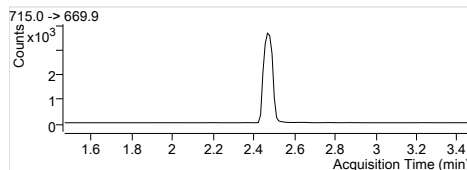
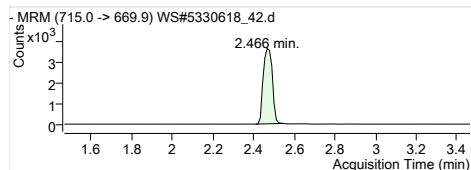
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

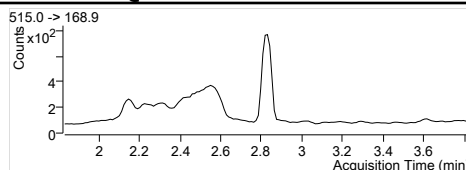
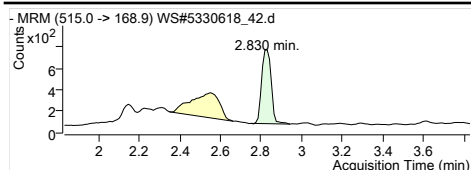
Internal Standard
2.333 (2.333)
1 µg/L
Sample



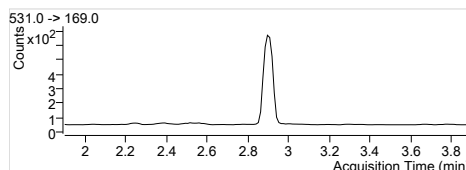
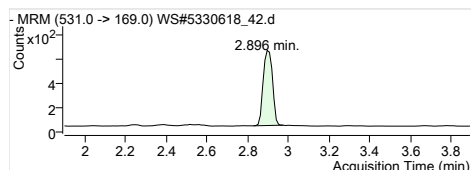
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.466)
1 µg/L
Sample

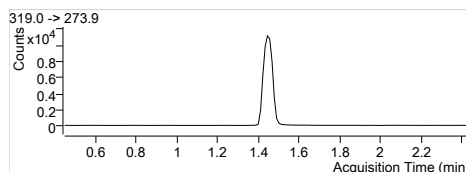
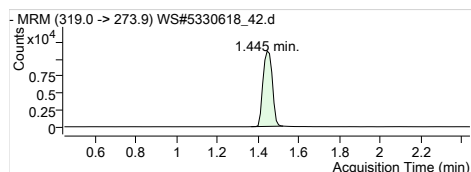
Quantitation Results



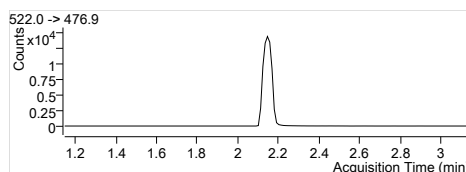
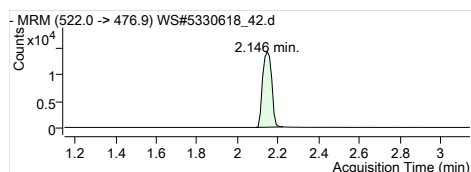
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



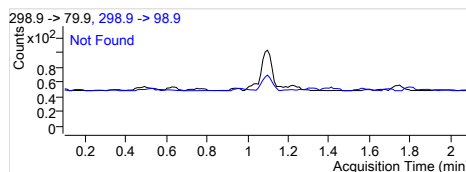
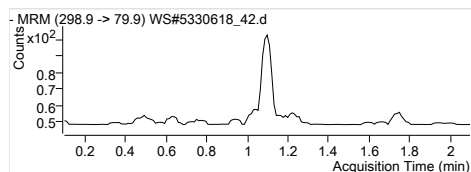
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



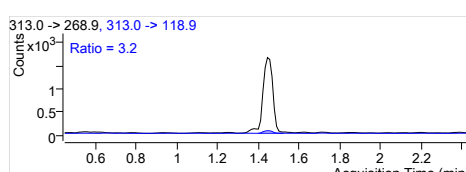
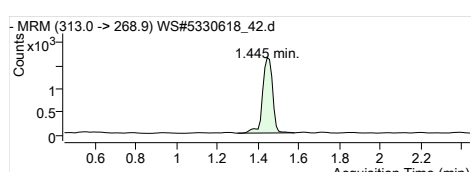
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



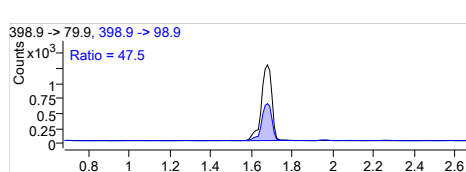
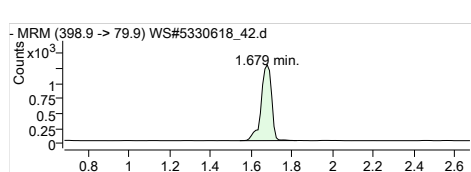
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



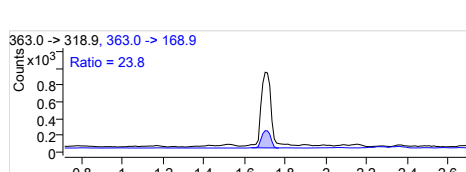
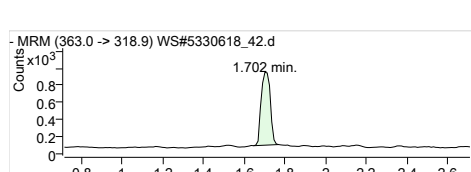
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: N.D.
 Sample type: 0
 Sample



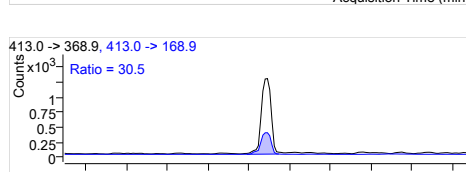
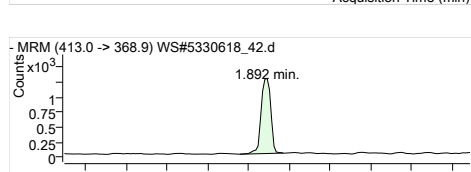
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 0.46 µg/L
 Sample type: 0.79411
 Sample



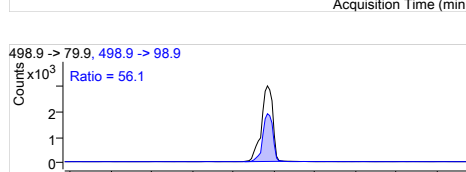
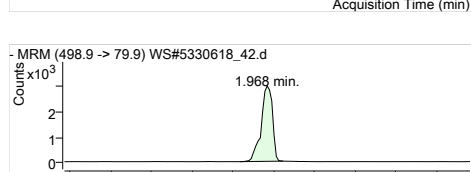
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 1.48 µg/L
 Sample type: 2.71920
 Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.22 µg/L
 Sample type: 0.33625
 Sample

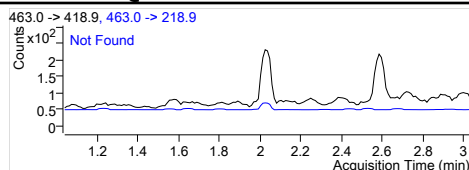
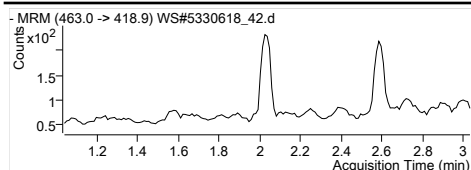


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.26 µg/L
 Sample type: 0.46218
 Sample

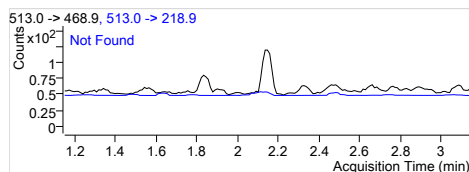
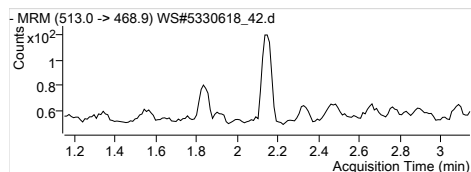


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 3.77 µg/L
 Sample type: 6.24443
 Sample

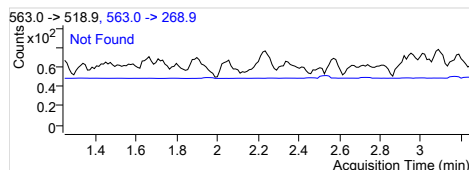
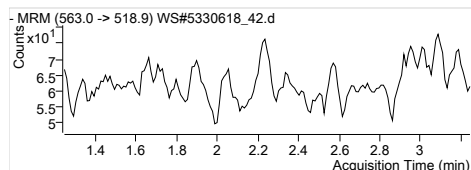
Quantitation Results



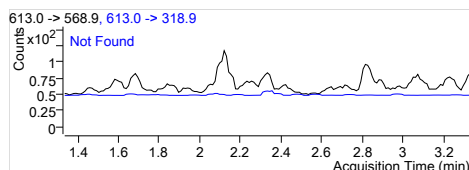
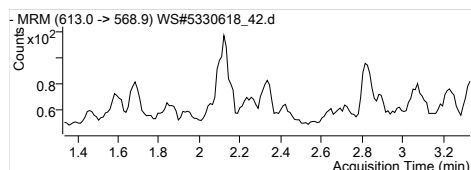
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



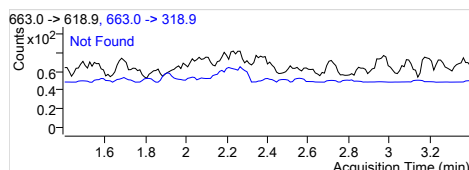
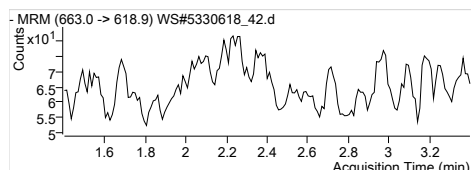
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



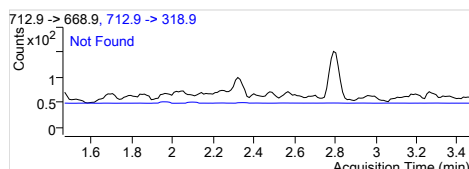
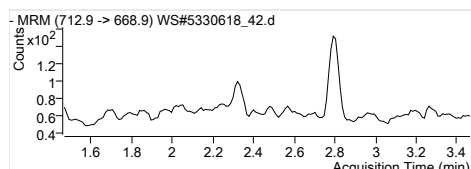
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



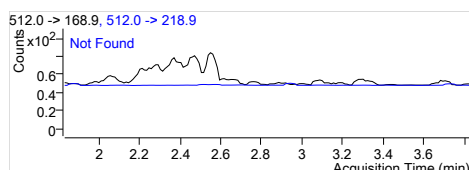
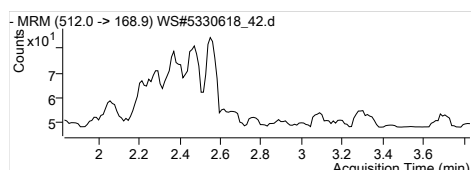
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



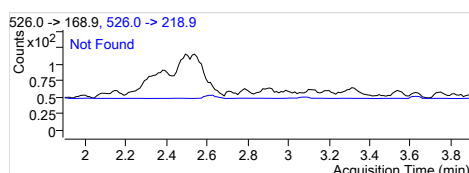
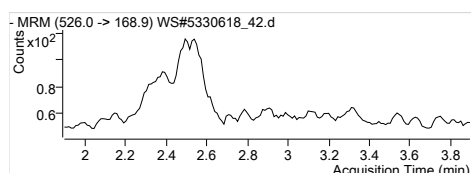
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



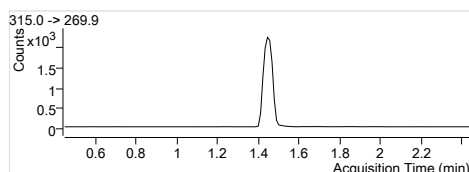
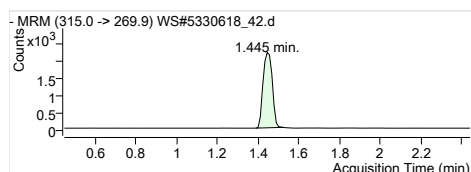
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

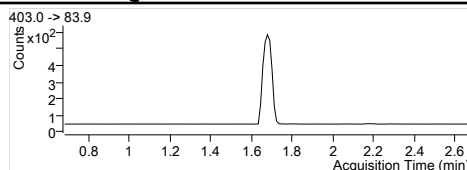
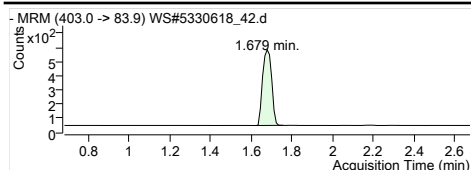


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

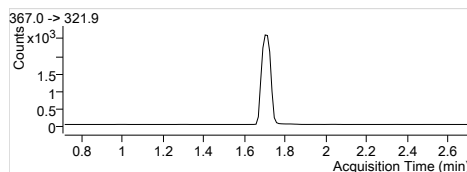
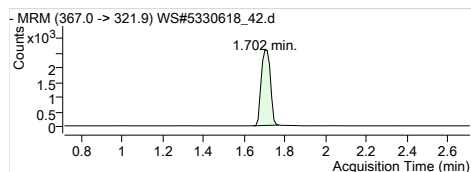


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 88.90 µg/L
 Sample type: 0.19685
 Sample

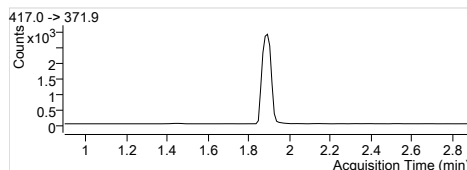
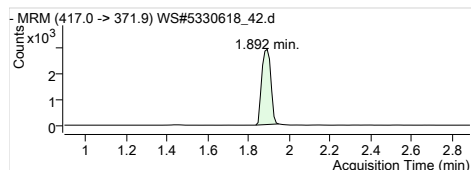
Quantitation Results



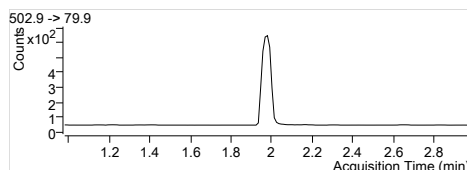
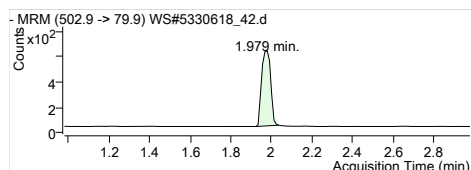
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 88.63 µg/L
 Sample type: 0.04703
 Sample



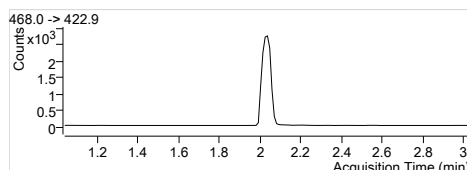
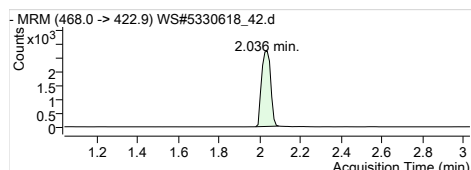
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 82.02 µg/L
 Sample type: 0.22756
 Sample



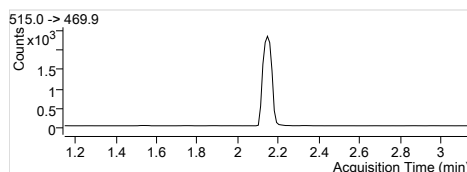
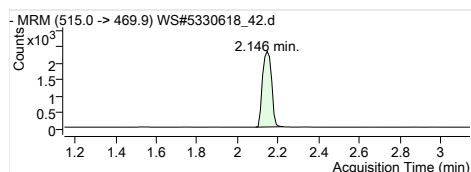
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 84.61 µg/L
 Sample type: 0.25349
 Sample



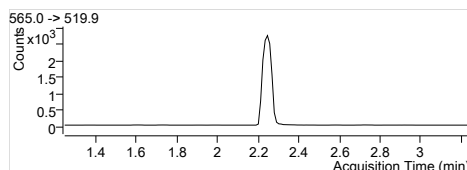
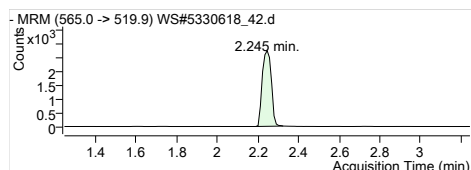
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 81.00 µg/L
 Sample type: 0.05229
 Sample



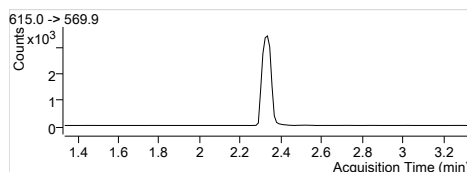
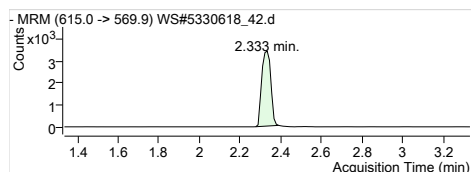
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 85.59 µg/L
 Sample type: 0.23977
 Sample



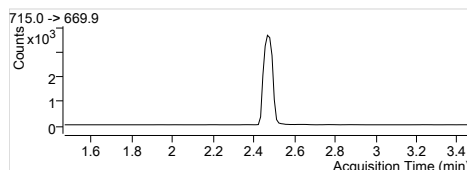
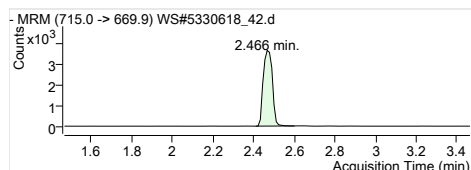
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 84.55 µg/L
 Sample type: 0.16102
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 80.95 µg/L
 Sample type: 0.19007
 Sample

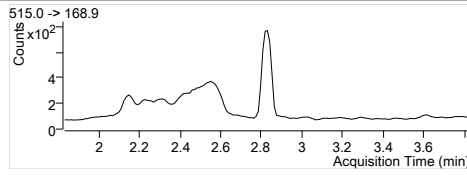
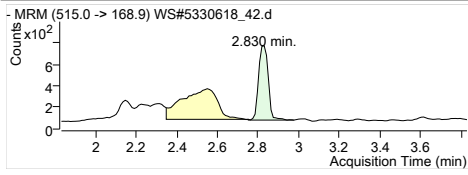


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 78.56 µg/L
 Sample type: 0.23510
 Sample

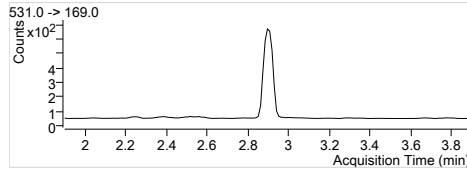
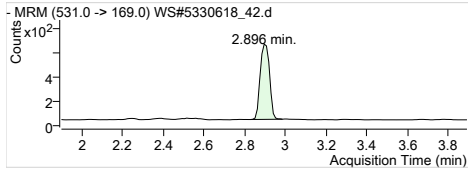


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 78.46 µg/L
 Sample type: 0.25771
 Sample

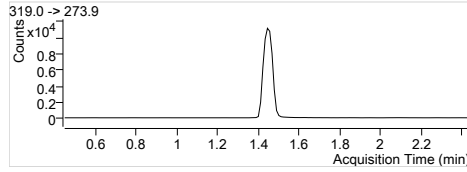
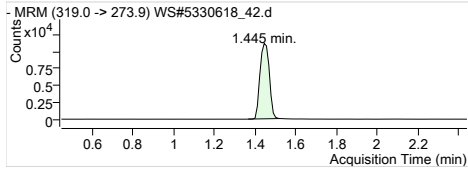
Quantitation Results



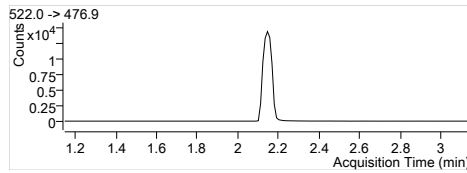
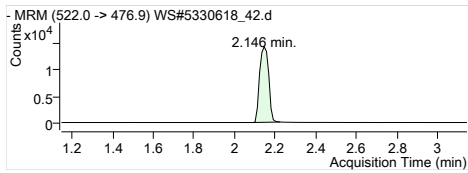
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 48.11 µg/L
Area ratio: 0.06510
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 49.09 µg/L
Area ratio: 0.05612
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 17.47 µg/L
Area ratio: 0
Sample type: Sample



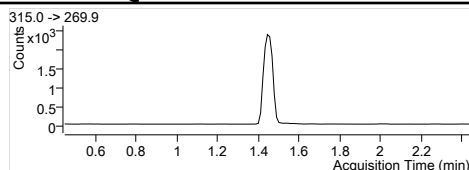
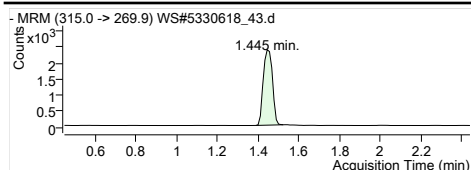
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 17.23 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH133-01	Instrument	LCMS04
Data File	WS#5330618_43.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P4-B3
Acq. Date	2018/01/13 8:45:32 AM	Injection Volume	Per Method
Sample Annotation	Reported for all except PFHxS, PFOS		

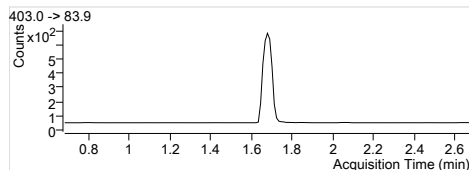
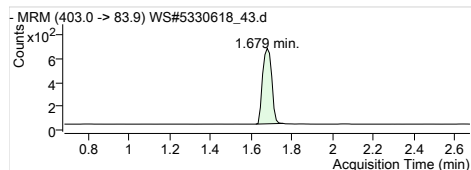
ISTD Compounds	Response	RT	Target conc.
MPFHxA	7421	1.44	1 µg/L
MPFHxS	1980	1.68	1 µg/L
MPFHpA	10091	1.70	1 µg/L
MPFOA	10921	1.89	1 µg/L
MPFOS	2075	1.97	1 µg/L
MPFNA	10679	2.02	1 µg/L
MPFDA	8489	2.15	1 µg/L
MPFUnA	9967	2.25	1 µg/L
MPFDoA	13061	2.33	1 µg/L
MPFTeDA	13024	2.47	1 µg/L
D3-MeFOSA IS	3439	2.83	1 µg/L
D5-EtFOSA IS	2736	2.90	1 µg/L
13C6-PFHxA IS	38558	1.44	1 µg/L
13C9-PFDA IS	51515	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1948	1.10	-	0.05 µg/L	-
PFHxA 1	63304	1.44	-	0.48 µg/L	-
PFHxS 1	55966	1.68	-	1.56 µg/L	-
PFHpA 1	29576	1.70	-	0.16 µg/L	-
PFOA 1	50735	1.89	-	0.25 µg/L	-
PFOS 1	129254	1.97	-	3.74 µg/L	-
PFNA 1	5143	2.02	-	0.03 µg/L	-
PFDA 1	894	2.15	-	0.01 µg/L	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1	600	2.56	-	0.03 µg/L	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7421	1.44	-	86.91 µg/L	-
18O2-PFHxS	1980	1.68	-	96.76 µg/L	-
13C4-PFHpA	10091	1.70	-	94.33 µg/L	-
13C4-PFOA	10921	1.89	-	94.55 µg/L	-
13C4-PFOS	2075	1.97	-	83.37 µg/L	-
13C5-PFNA	10587	2.02	-	98.02 µg/L	-
13C2-PFDA	8280	2.15	-	84.39 µg/L	-
13C2-PFUnA	9967	2.25	-	82.40 µg/L	-
13C2-PFDoA	13061	2.33	-	84.72 µg/L	-
13C2-PFTeDA	13117	2.47	-	77.52 µg/L	-
D3-MeFOSA	3450	2.83	-	66.13 µg/L	-
D5-EtFOSA	2804	2.90	-	63.61 µg/L	-
13C6-PFHxA	38558	1.44	-	1.91 µg/L	-
13C9-PFDA	51515	2.15	-	2.00 µg/L	-



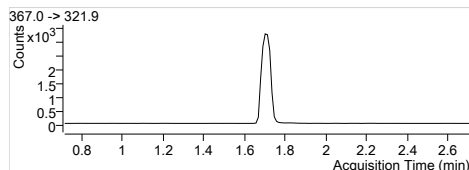
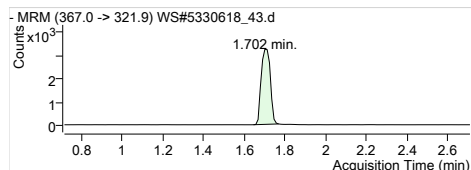
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.445)
1 µg/L
Sample



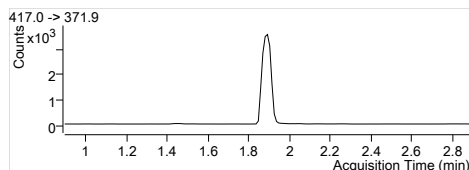
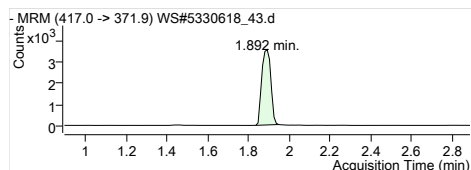
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.679)
1 µg/L
Sample



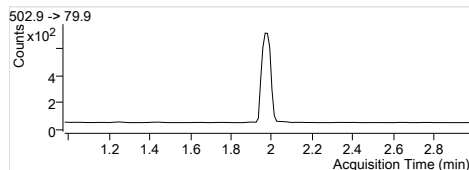
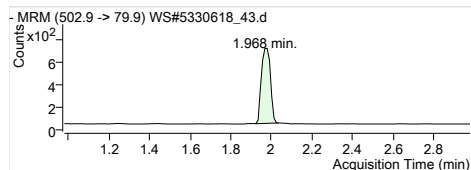
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.702 (1.713)
1 µg/L
Sample



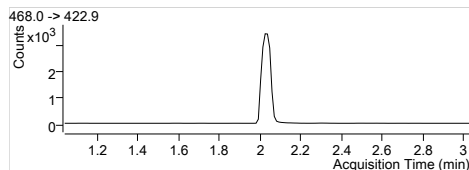
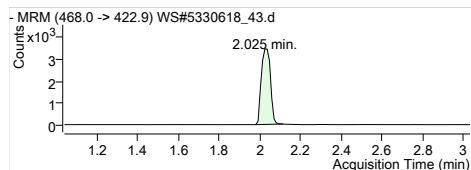
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



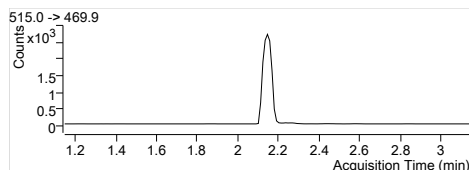
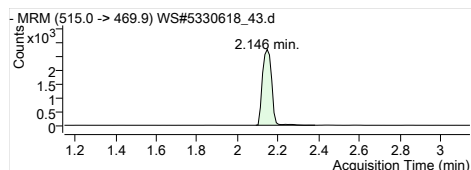
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.968 (1.979)
1 µg/L
Sample



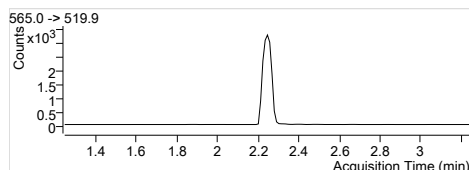
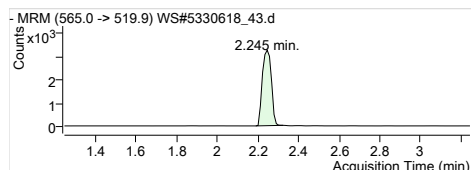
MPFNA
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.025 (2.036)
1 µg/L
Sample



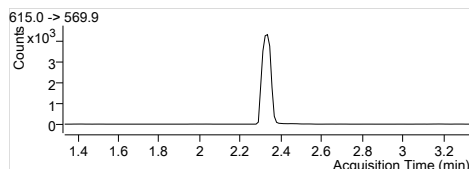
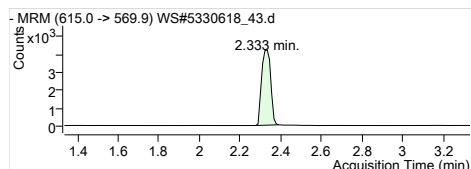
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



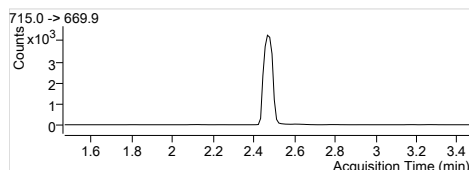
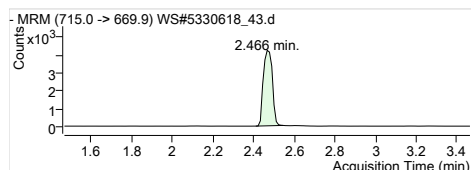
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

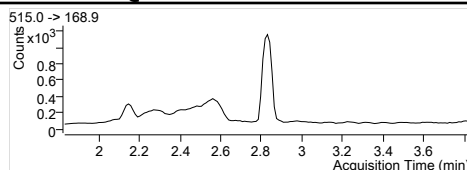
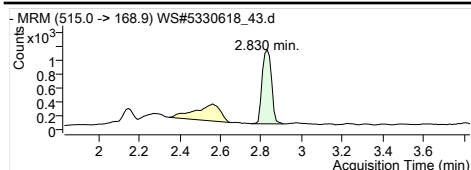
Internal Standard
2.333 (2.333)
1 µg/L
Sample



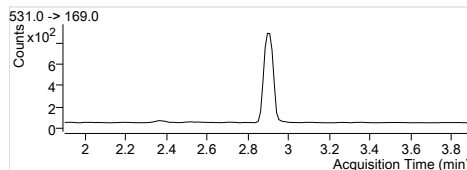
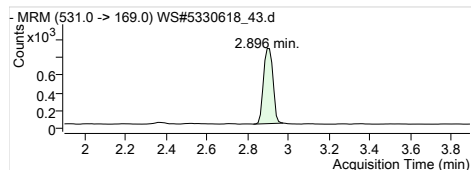
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.466)
1 µg/L
Sample

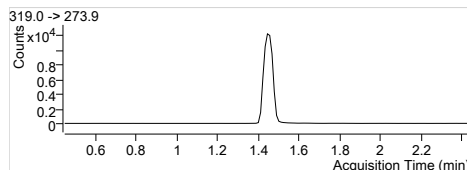
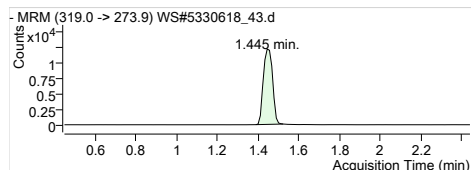
Quantitation Results



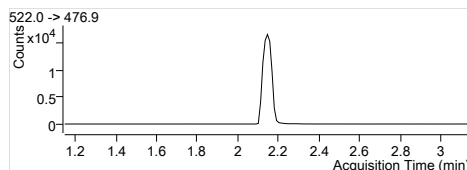
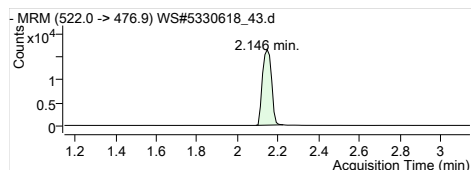
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



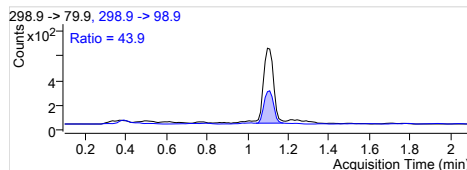
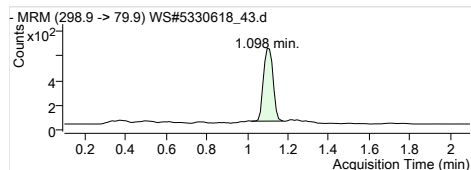
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



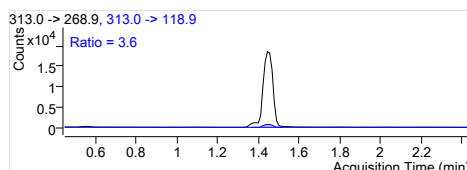
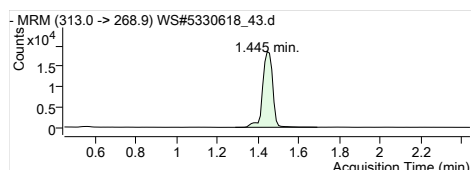
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



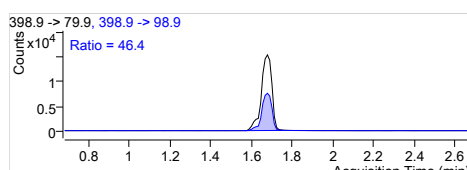
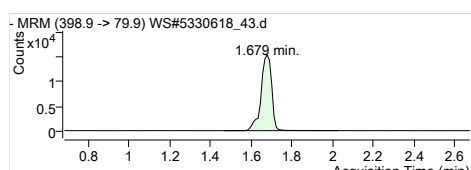
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



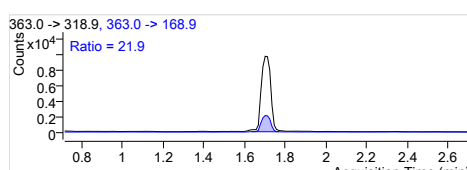
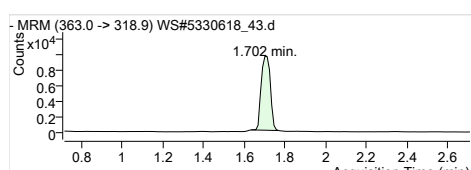
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.05 µg/L
 0.98384
 Sample type: Sample



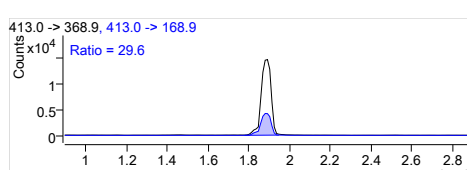
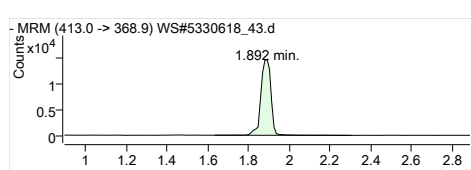
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 0.48 µg/L
 8.53039
 Sample type: Sample



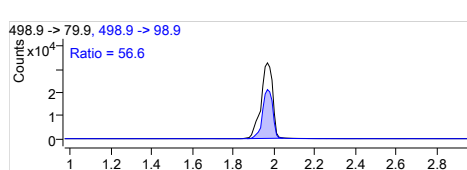
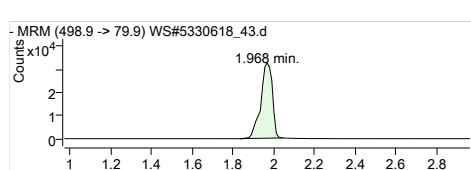
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 1.56 µg/L
 28.26566
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.16 µg/L
 2.93093
 Sample type: Sample

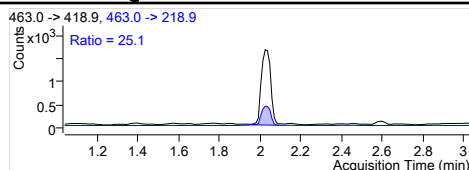
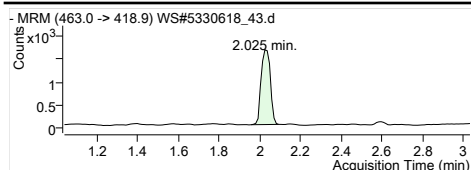


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.25 µg/L
 4.64564
 Sample type: Sample

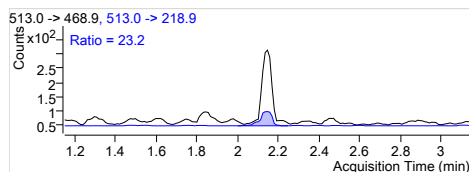
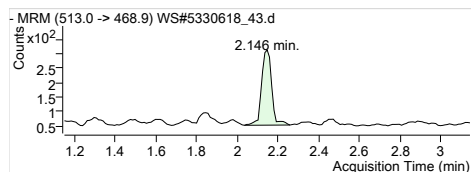


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 3.74 µg/L
 62.29108
 Sample type: Sample

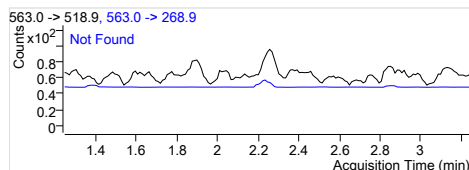
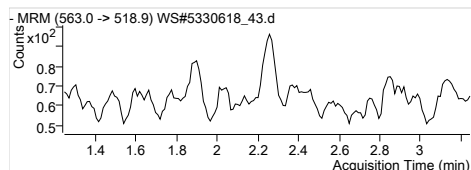
Quantitation Results



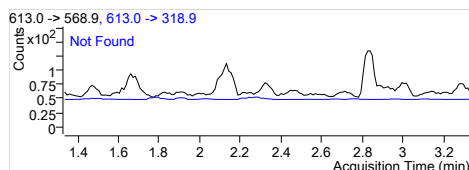
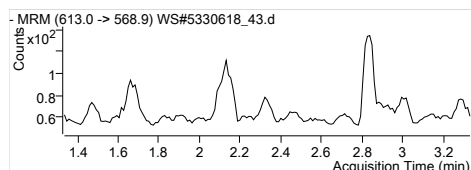
PFNA 1
RT (Exp. RT): 463.0 -> 418.9
Calc. conc: 2.025 (2.036)
Area ratio: 0.03 µg/L
Sample type: 0.48160
Sample



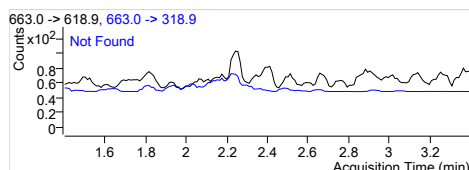
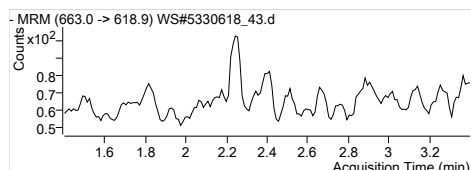
PFDA 1
RT (Exp. RT): 513.0 -> 468.9
Calc. conc: 2.146 (2.146)
Area ratio: 0.01 µg/L
Sample type: 0.10531
Sample



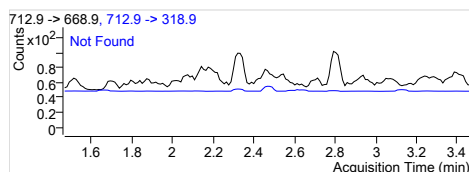
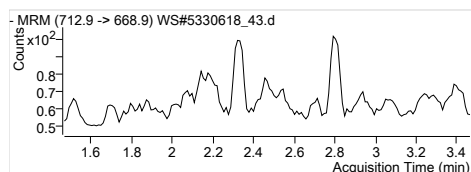
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc: 0.000 (2.245)
Area ratio: N.D.
Sample type: 0
Sample



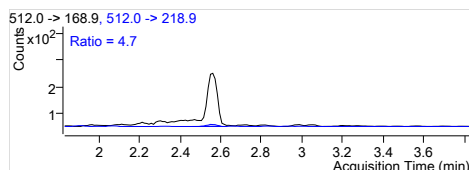
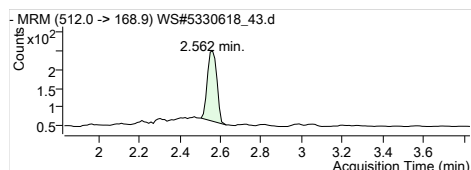
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc: 0.000 (2.334)
Area ratio: N.D.
Sample type: 0
Sample



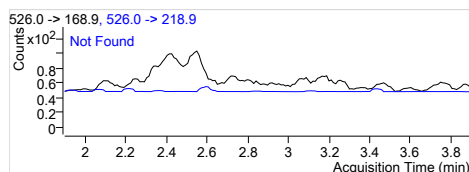
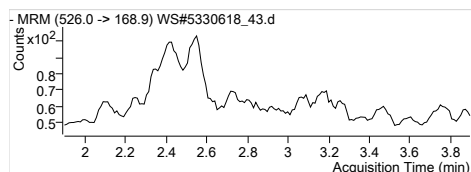
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc: 0.000 (2.400)
Area ratio: N.D.
Sample type: 0
Sample



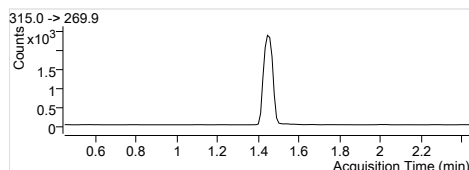
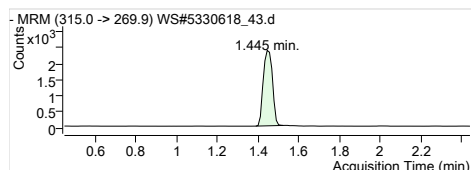
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc: 0.000 (2.467)
Area ratio: N.D.
Sample type: 0
Sample



MeFOSA 1
RT (Exp. RT): 512.0 -> 168.9
Calc. conc: 2.562 (2.831)
Area ratio: 0.03 µg/L
Sample type: 0.17447
Sample

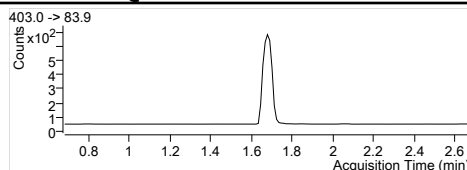
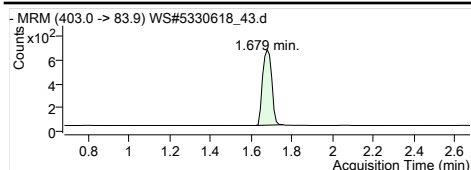


EtFOSA 1
RT (Exp. RT): 526.0 -> 168.9
Calc. conc: 0.000 (2.897)
Area ratio: N.D.
Sample type: 0
Sample

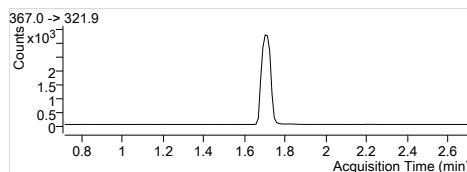
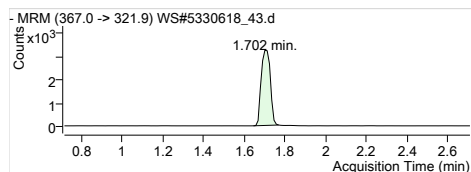


13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc: 1.445 (1.445)
Area ratio: 86.91 µg/L
Sample type: 0.19246
Sample

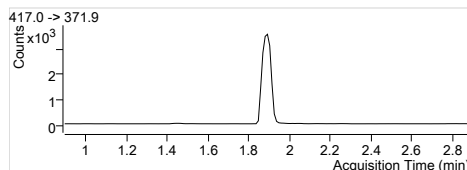
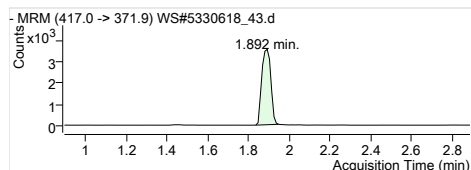
Quantitation Results



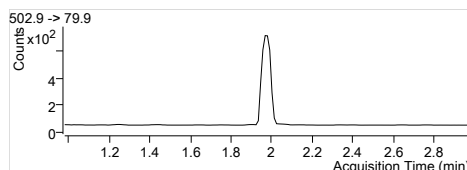
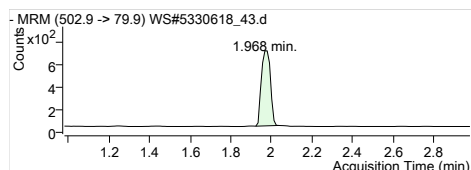
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 96.76 µg/L
 Sample type: 0.05135
 Sample



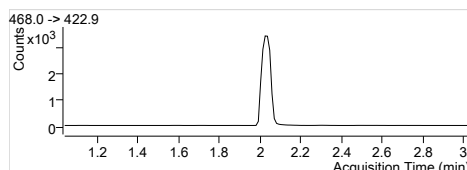
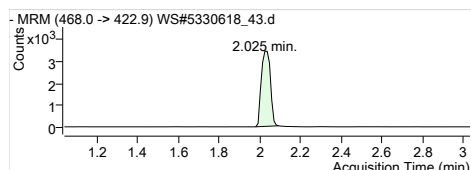
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 94.33 µg/L
 Sample type: 0.26171
 Sample



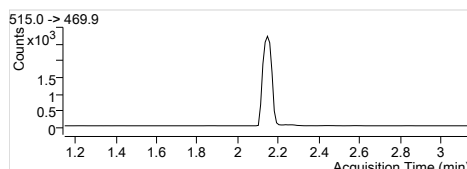
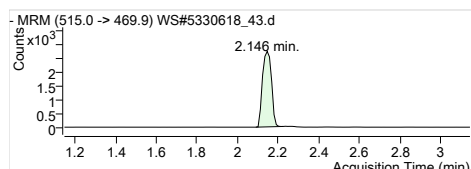
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 94.55 µg/L
 Sample type: 0.28324
 Sample



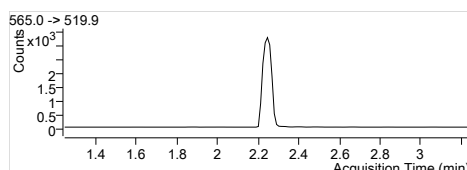
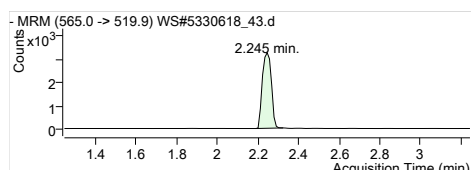
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 83.37 µg/L
 Sample type: 0.05382
 Sample



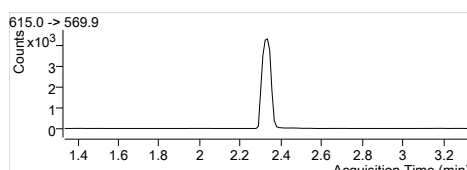
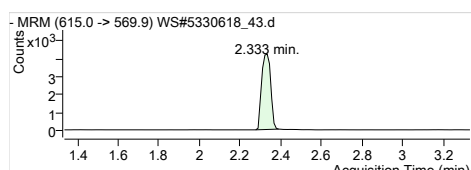
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 98.02 µg/L
 Sample type: 0.27457
 Sample



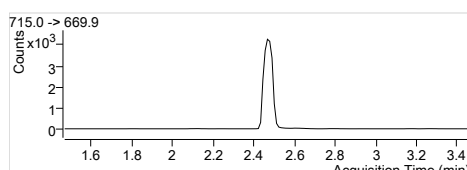
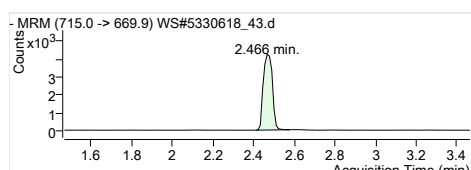
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 84.39 µg/L
 Sample type: 0.16073
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 82.40 µg/L
 Sample type: 0.19348
 Sample

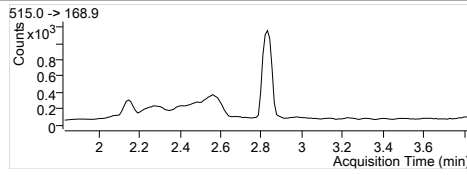
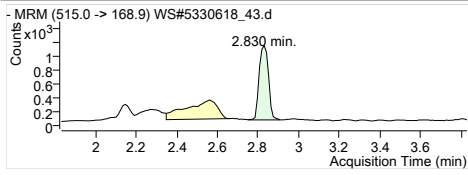


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 84.72 µg/L
 Sample type: 0.25354
 Sample

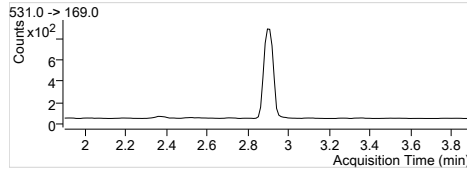
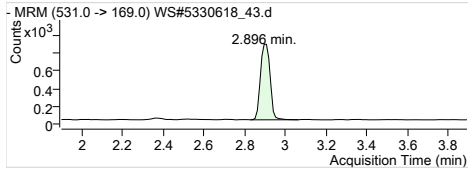


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 77.52 µg/L
 Sample type: 0.25462
 Sample

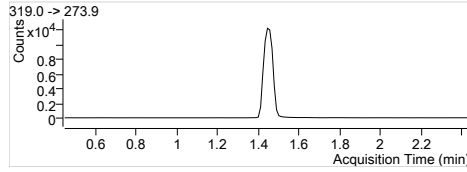
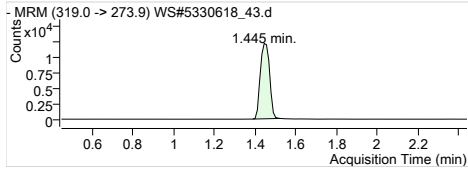
Quantitation Results



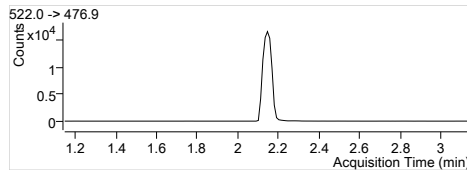
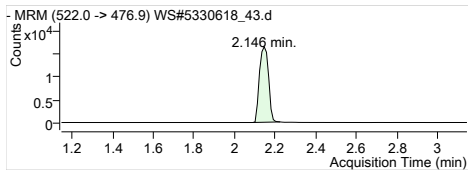
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
RT (2.830)
Calc. conc. 2.830 (2.830)
66.13 µg/L
Area ratio: 0.08948
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
RT (2.896)
Calc. conc. 2.896 (2.896)
63.61 µg/L
Area ratio: 0.07272
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
RT (1.445)
Calc. conc. 1.445 (1.445)
1.91 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
RT (2.146)
Calc. conc. 2.146 (2.146)
2.00 µg/L
Area ratio: 0
Sample type: Sample

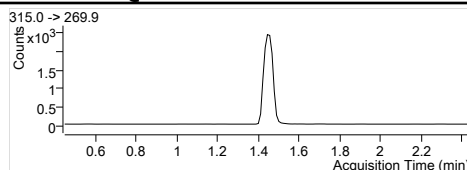
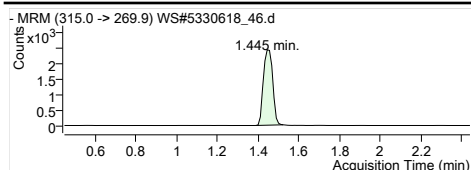
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH134-01:10x	Instrument	LCMS04
Data File	WS#5330618_46.d	Operator	
Sample Type	Sample	Dilution	0.24
Acq. Method	PFC_Water_Low.m	Position	P4-B4
Acq. Date	2018/01/13 9:00:55 AM	Injection Volume	Per Method
Sample Annotation	Reported for PFHxS, PFOS		

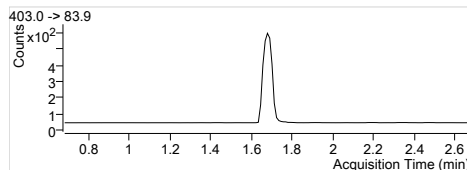
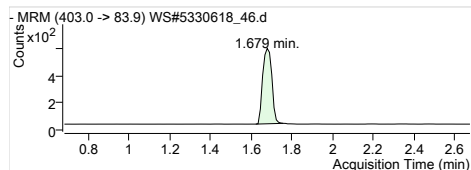
ISTD Compounds	Response	RT	Target conc.
MPFHxA	7661	1.44	1 µg/L
MPFHxS	1704	1.68	1 µg/L
MPFHpA	10482	1.70	1 µg/L
MPFOA	10617	1.89	1 µg/L
MPFOS	2281	1.97	1 µg/L
MPFNA	10247	2.02	1 µg/L
MPFDA	8547	2.15	1 µg/L
MPFUnA	9711	2.25	1 µg/L
MPFDoA	11991	2.33	1 µg/L
MPFTeDA	13050	2.47	1 µg/L
D3-MeFOSA IS	2397	2.83	1 µg/L
D5-EtFOSA IS	2121	2.90	1 µg/L
13C6-PFHxA IS	39882	1.44	1 µg/L
13C9-PFDA IS	51176	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	279	1.10	-	0.09 µg/L	-
PFHxA 1	13100	1.44	-	0.97 µg/L	-
PFHxS 1	8020	1.68	-	2.57 µg/L	-
PFHpA 1	7244	1.70	-	0.41 µg/L	-
PFOA 1	6990	1.89	-	0.36 µg/L	-
PFOS 1	5169	1.97	-	1.38 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7661	1.44	-	86.75 µg/L	-
18O2-PFHxS	1704	1.68	-	80.51 µg/L	-
13C4-PFHpA	10482	1.70	-	94.74 µg/L	-
13C4-PFOA	10617	1.89	-	88.86 µg/L	-
13C4-PFOS	2281	1.97	-	88.60 µg/L	-
13C5-PFNA	10172	2.02	-	91.05 µg/L	-
13C2-PFDA	8466	2.15	-	86.86 µg/L	-
13C2-PFUnA	9711	2.25	-	80.81 µg/L	-
13C2-PFDoA	11991	2.33	-	78.29 µg/L	-
13C2-PFTeDA	13118	2.47	-	78.04 µg/L	-
D3-MeFOSA	2433	2.83	-	45.09 µg/L	-
D5-EtFOSA	2125	2.90	-	46.60 µg/L	-
13C6-PFHxA	39882	1.44	-	19.79 µg/L	-
13C9-PFDA	51176	2.15	-	19.84 µg/L	-

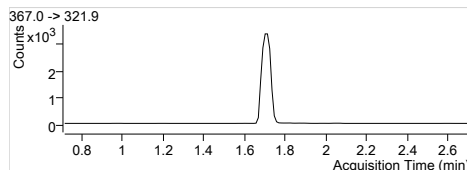
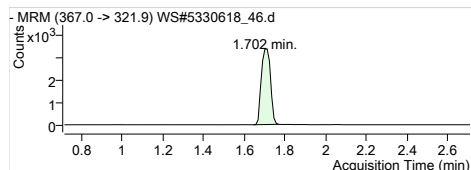
Quantitation Results



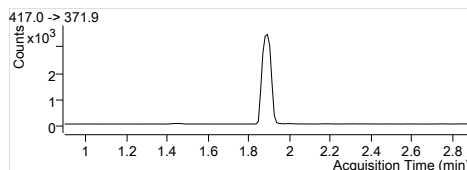
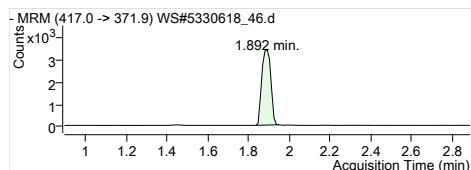
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



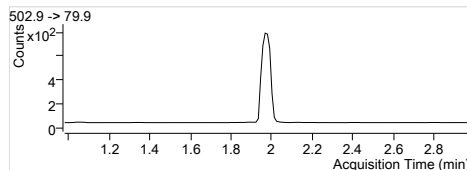
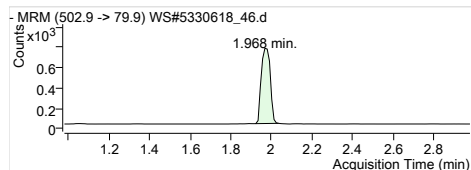
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



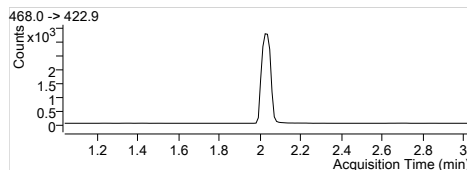
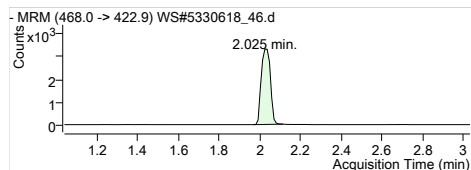
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



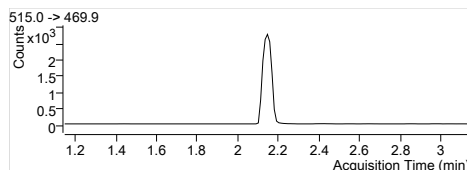
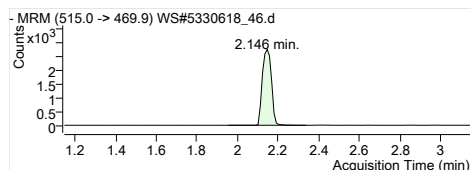
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



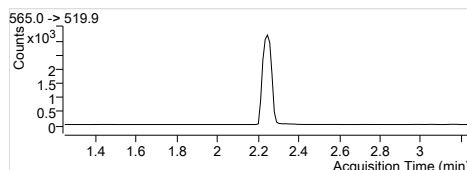
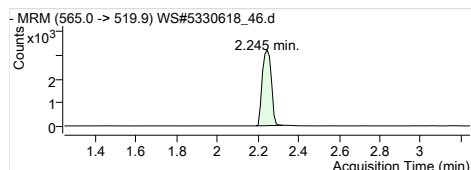
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample



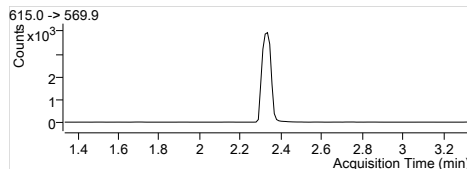
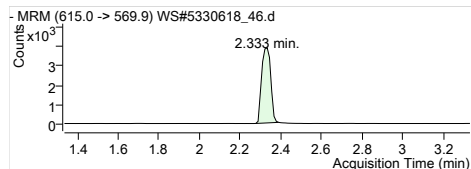
MPFNA
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: Sample



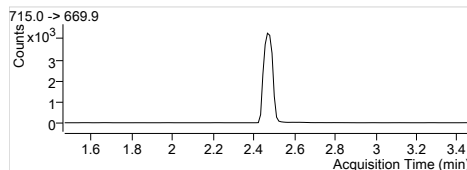
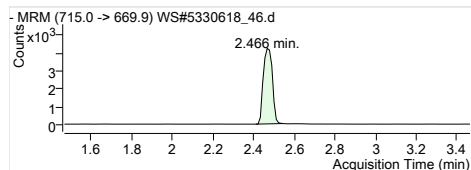
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

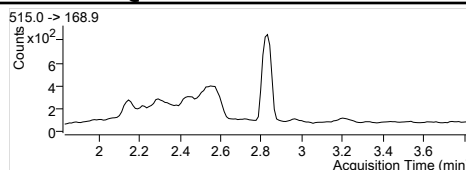
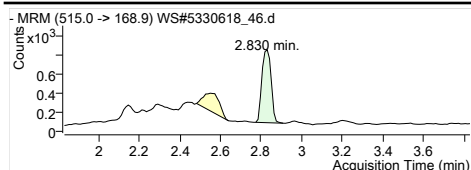


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

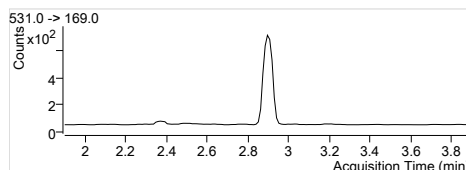
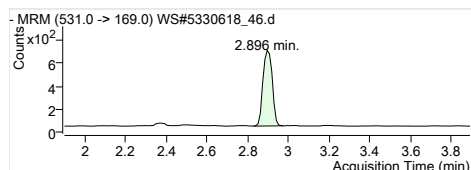


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

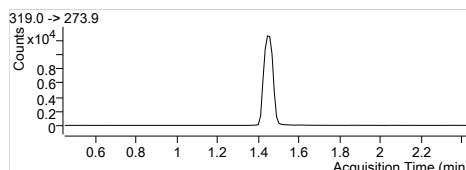
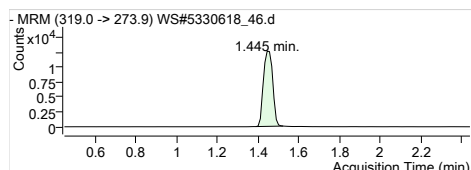
Quantitation Results



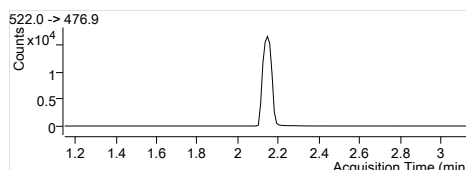
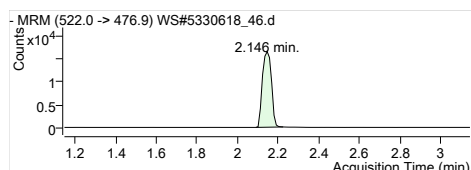
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



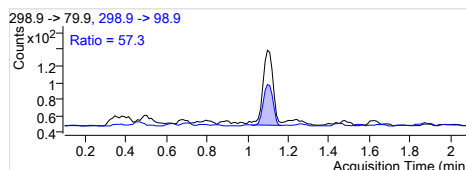
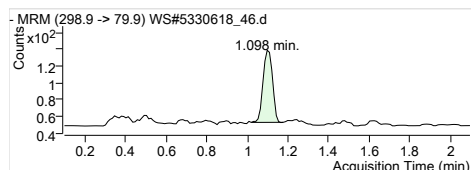
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



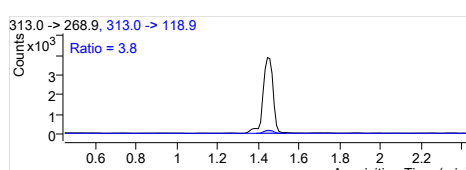
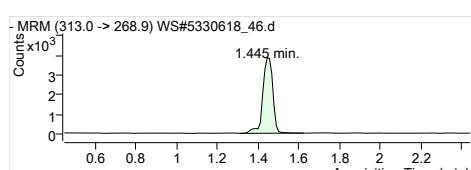
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



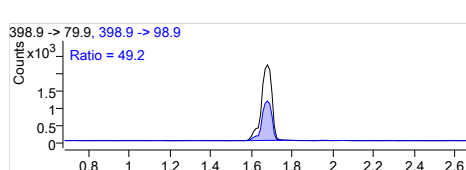
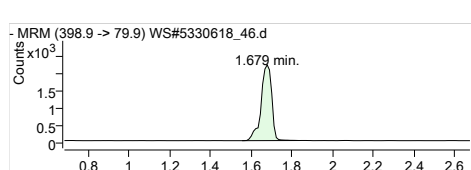
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



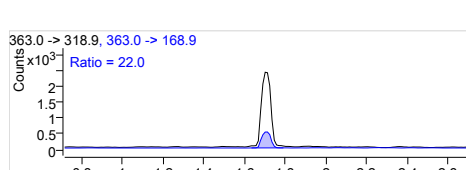
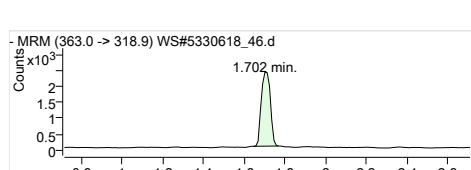
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.09 µg/L
 0.16373
 Sample type: Sample



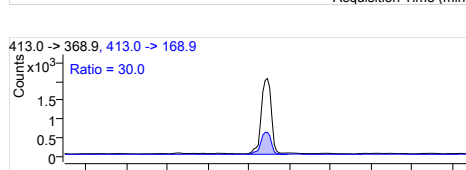
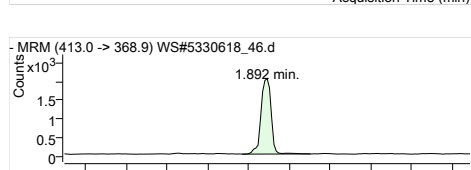
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 0.97 µg/L
 1.70996
 Sample type: Sample



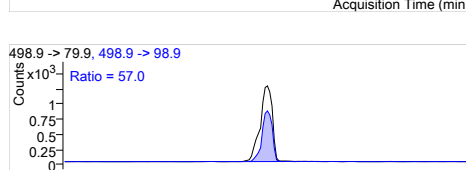
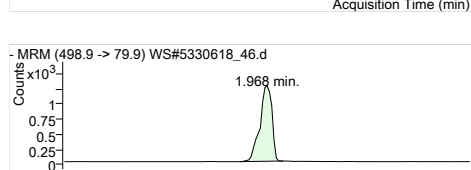
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 2.57 µg/L
 4.70657
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.41 µg/L
 0.69109
 Sample type: Sample

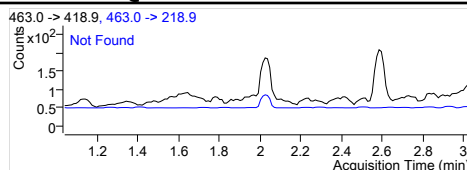
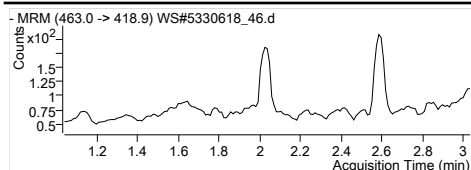


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.36 µg/L
 0.65838
 Sample type: Sample

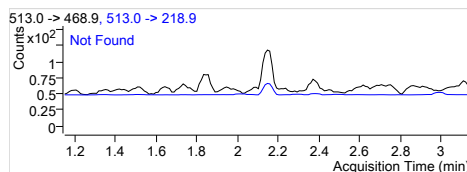
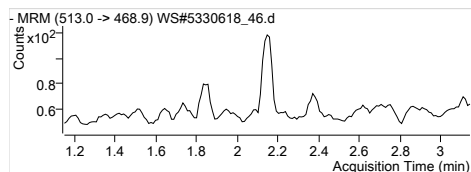


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 1.38 µg/L
 2.26611
 Sample type: Sample

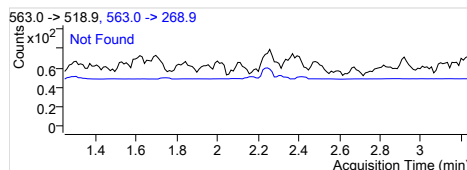
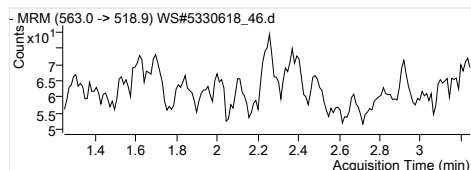
Quantitation Results



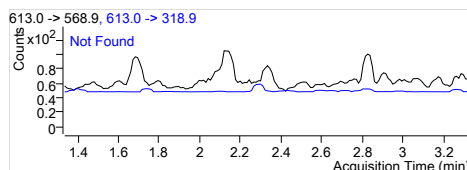
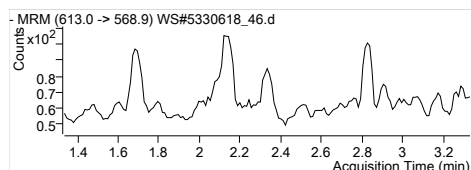
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



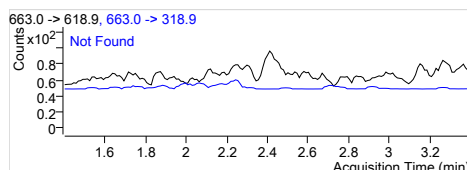
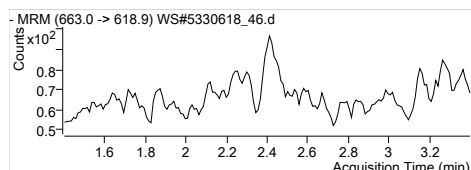
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



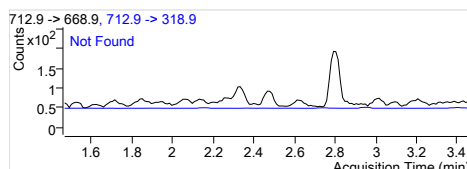
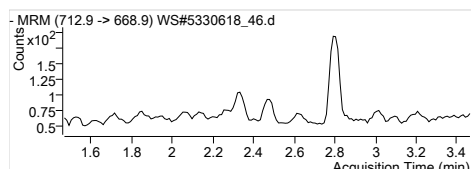
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



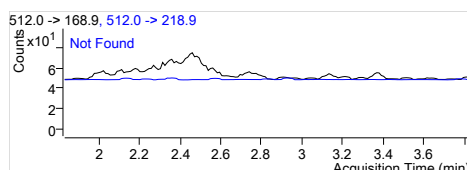
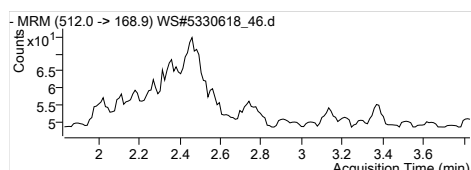
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



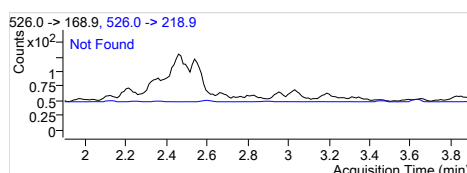
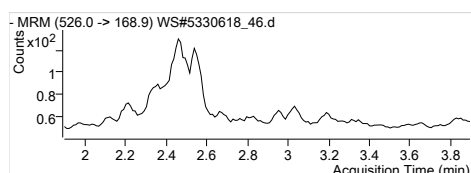
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



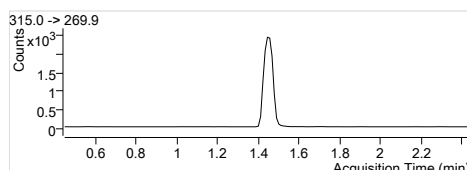
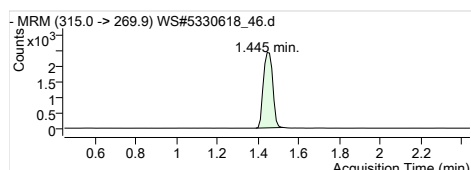
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



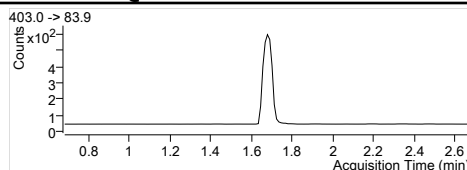
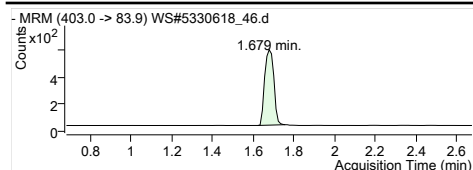
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample



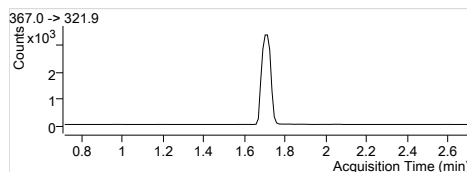
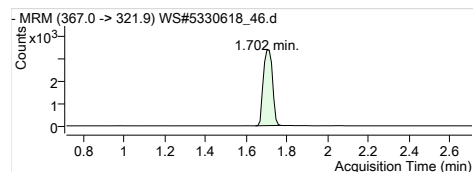
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample



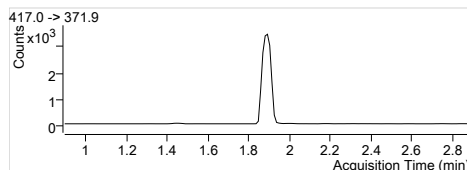
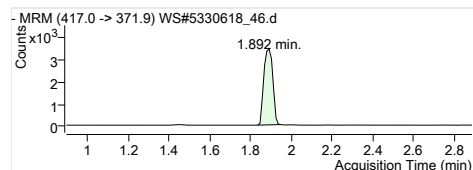
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 86.75 µg/L
 Sample type: 0.19209
 Sample



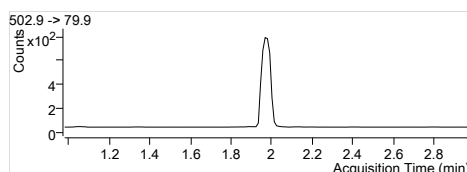
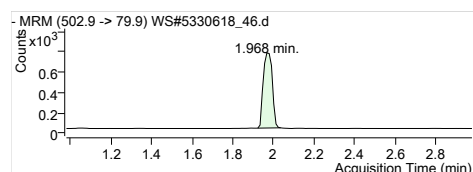
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 80.51 µg/L
 Sample type: 0.04273
 Sample



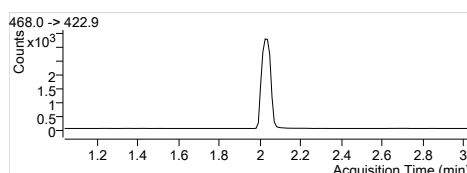
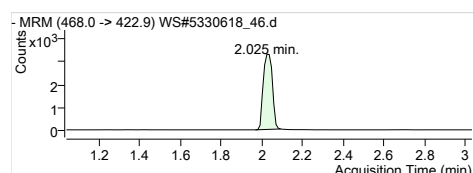
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 94.74 µg/L
 Sample type: 0.26283
 Sample



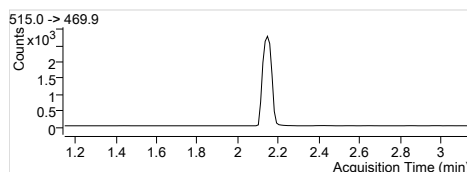
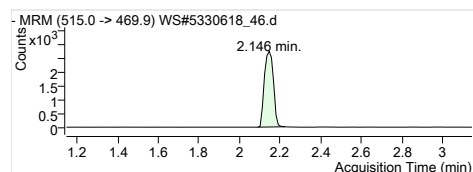
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 88.86 µg/L
 Sample type: 0.26621
 Sample



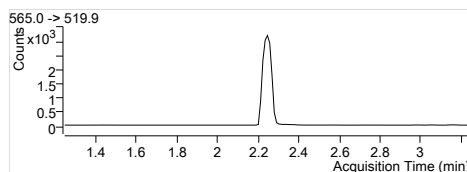
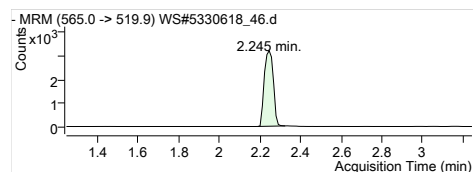
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 88.60 µg/L
 Sample type: 0.05719
 Sample



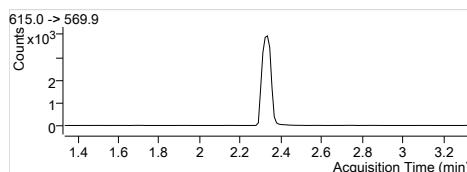
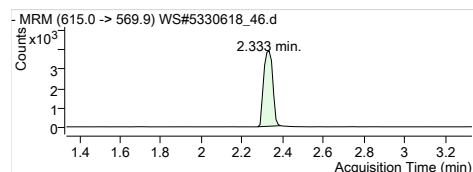
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 91.05 µg/L
 Sample type: 0.25505
 Sample



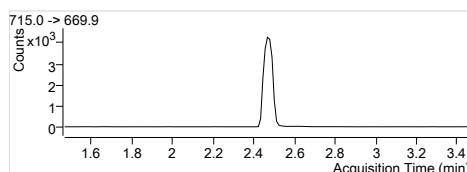
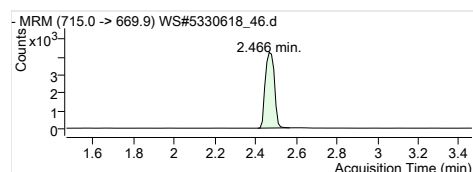
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 86.86 µg/L
 Sample type: 0.16543
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 80.81 µg/L
 Sample type: 0.18976
 Sample

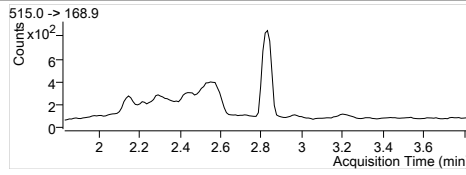
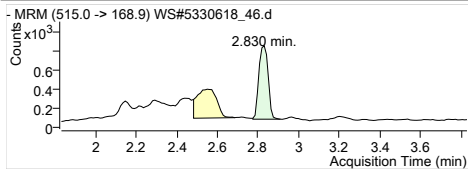


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 78.29 µg/L
 Sample type: 0.23431
 Sample

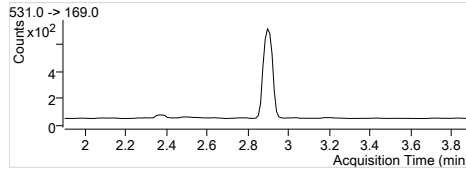
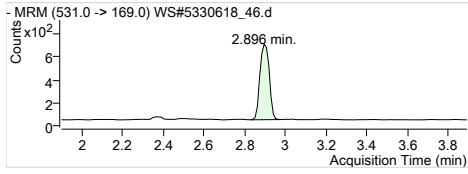


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 78.04 µg/L
 Sample type: 0.25633
 Sample

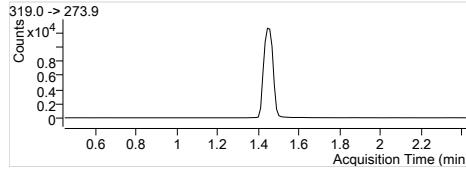
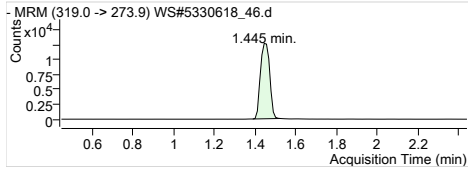
Quantitation Results



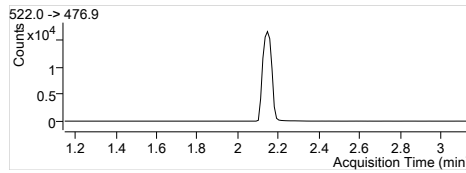
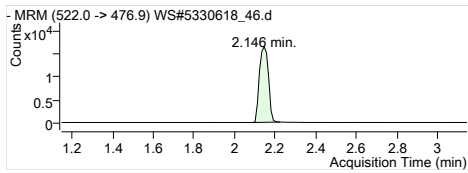
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 45.09 µg/L
Area ratio: 0.06100
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 46.60 µg/L
Area ratio: 0.05328
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 19.79 µg/L
Area ratio: 0
Sample type: Sample



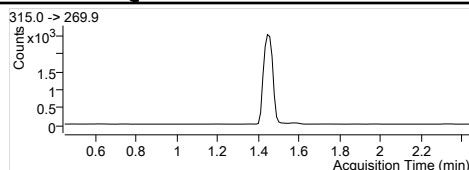
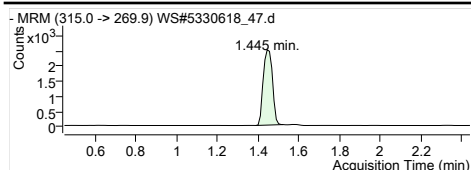
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 19.84 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:FUH134-01	Instrument	LCMS04
Data File	WS#5330618_47.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P4-B5
Acq. Date	2018/01/13 9:05:51 AM	Injection Volume	Per Method
Sample Annotation	Reported for all except PFHxS, PFOS		

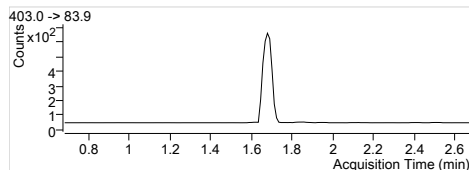
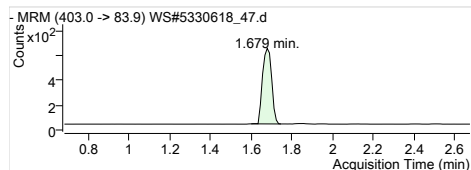
ISTD Compounds	Response	RT	Target conc.
MPFHxA	7818	1.44	1 µg/L
MPFHxS	1897	1.68	1 µg/L
MPFHpA	9373	1.70	1 µg/L
MPFOA	10638	1.89	1 µg/L
MPFOS	2369	1.98	1 µg/L
MPFNA	10612	2.02	1 µg/L
MPFDA	9226	2.15	1 µg/L
MPFUnA	11326	2.25	1 µg/L
MPFDoA	13242	2.33	1 µg/L
MPFTeDA	14150	2.47	1 µg/L
D3-MeFOSA IS	3962	2.83	1 µg/L
D5-EtFOSA IS	2934	2.90	1 µg/L
13C6-PFHxA IS	37979	1.44	1 µg/L
13C9-PFDA IS	50846	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	2994	1.10	-	0.08 µg/L	-
PFHxA 1	129287	1.44	-	0.93 µg/L	-
PFHxS 1	77863	1.68	-	2.26 µg/L	-
PFHpA 1	74190	1.70	-	0.44 µg/L	-
PFOA 1	68869	1.89	-	0.35 µg/L	-
PFOS 1	56881	1.97	-	1.44 µg/L	-
PFNA 1	4585	2.02	-	0.03 µg/L	-
PFDA 1	822	2.15	-	0.01 µg/L	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1	146	2.56	-	0.01 µg/L	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7818	1.44	-	92.96 µg/L	-
18O2-PFHxS	1897	1.68	-	94.12 µg/L	-
13C4-PFHpA	9373	1.70	-	88.96 µg/L	-
13C4-PFOA	10638	1.89	-	93.50 µg/L	-
13C4-PFOS	2369	1.98	-	96.63 µg/L	-
13C5-PFNA	10560	2.02	-	99.26 µg/L	-
13C2-PFDA	9113	2.15	-	94.11 µg/L	-
13C2-PFUnA	11326	2.25	-	94.87 µg/L	-
13C2-PFDaA	13242	2.33	-	87.02 µg/L	-
13C2-PFTeDA	14367	2.47	-	86.03 µg/L	-
D3-MeFOSA	4028	2.83	-	78.39 µg/L	-
D5-EtFOSA	2990	2.90	-	68.86 µg/L	-
13C6-PFHxA	37979	1.44	-	1.88 µg/L	-
13C9-PFDA	50846	2.15	-	1.97 µg/L	-



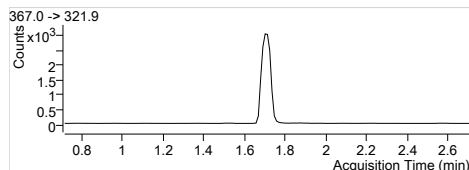
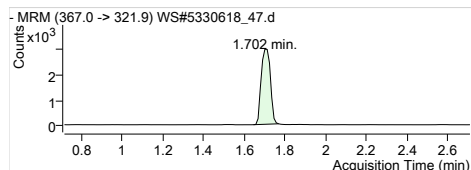
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.445)
1 µg/L
Sample



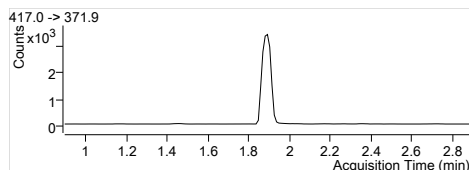
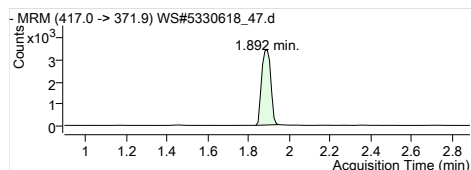
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.679)
1 µg/L
Sample



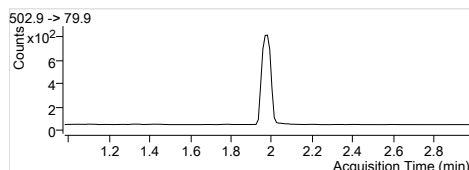
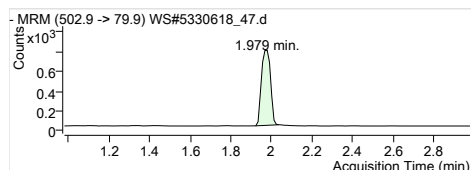
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.702 (1.713)
1 µg/L
Sample



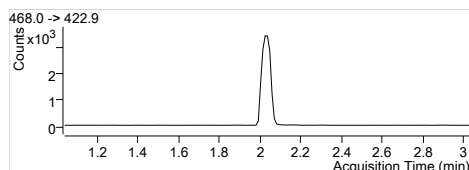
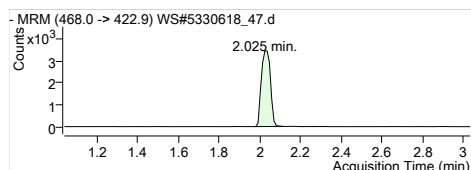
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



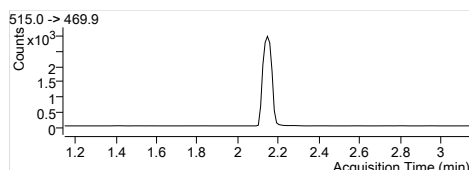
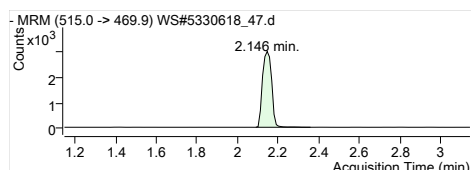
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.979 (1.979)
1 µg/L
Sample



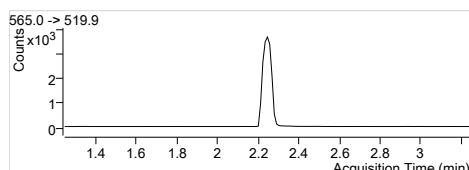
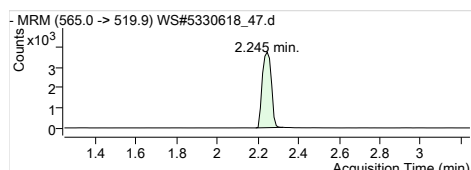
MPFNA
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.025 (2.036)
1 µg/L
Sample



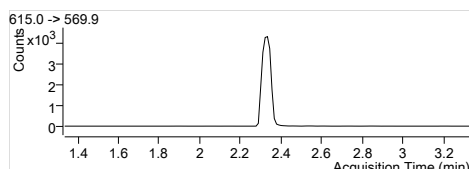
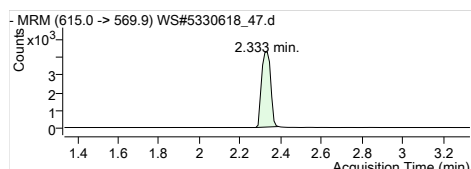
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



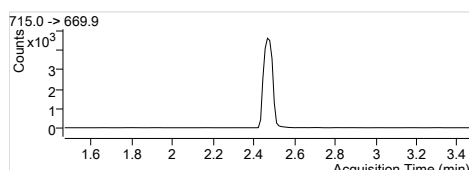
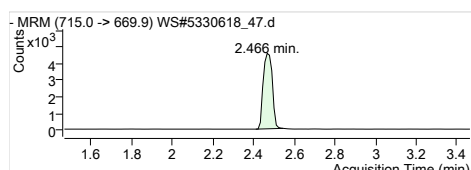
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

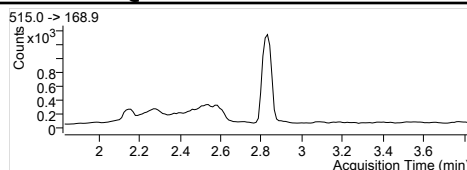
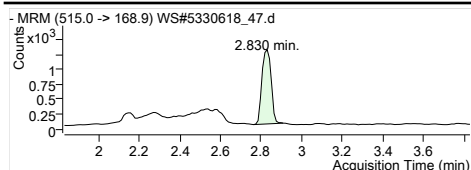
Internal Standard
2.333 (2.333)
1 µg/L
Sample



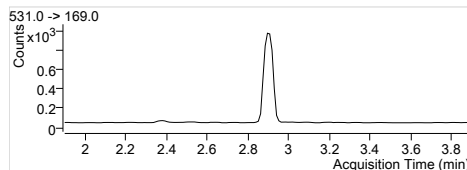
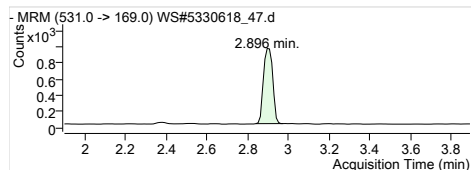
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.466)
1 µg/L
Sample

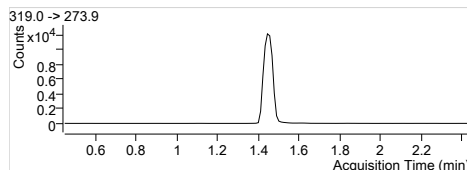
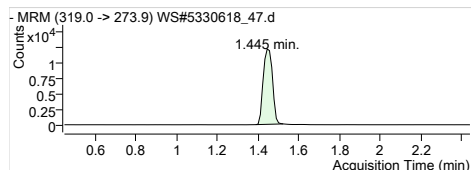
Quantitation Results



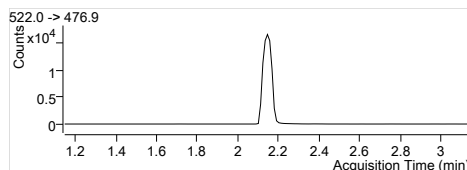
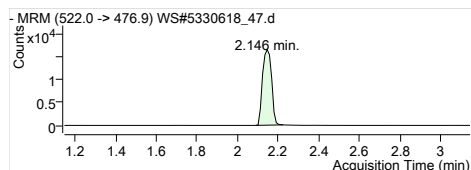
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



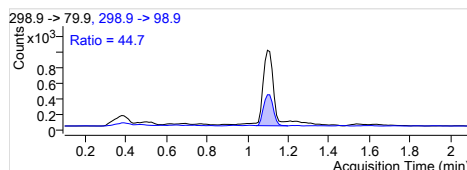
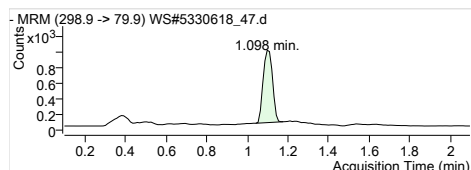
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



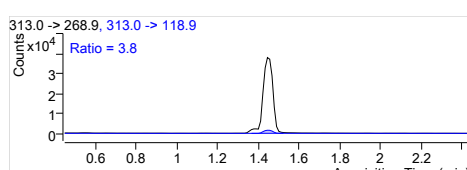
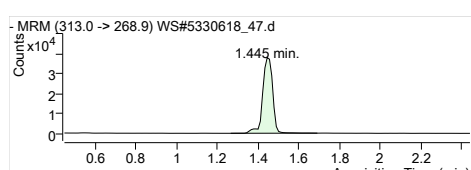
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



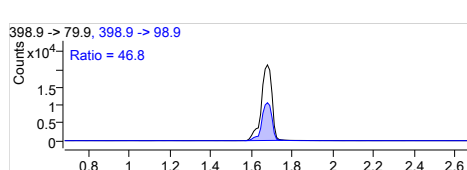
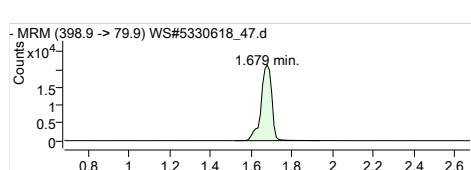
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



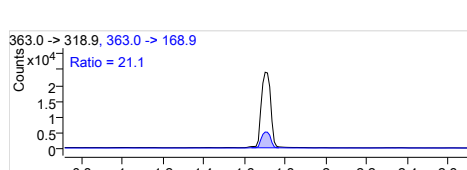
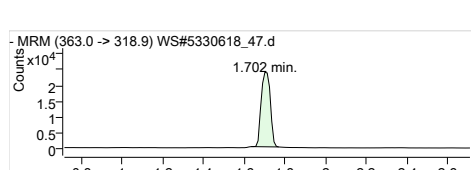
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.08 µg/L
 Sample type: 1.57828
 Sample



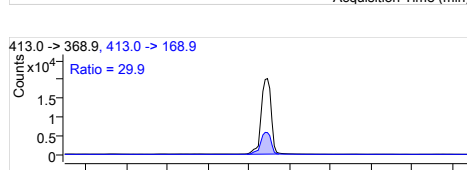
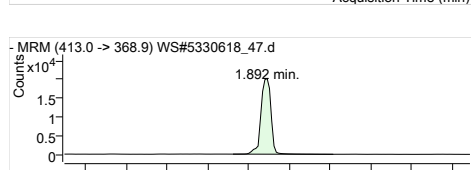
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 0.93 µg/L
 Sample type: 16.53709
 Sample



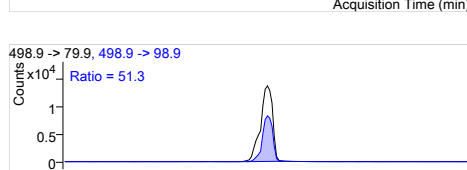
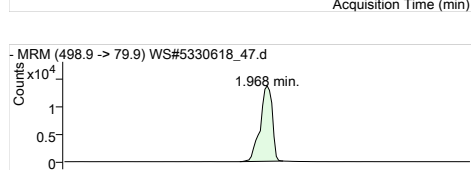
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 2.26 µg/L
 Sample type: 41.04533
 Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.44 µg/L
 Sample type: 7.91529
 Sample

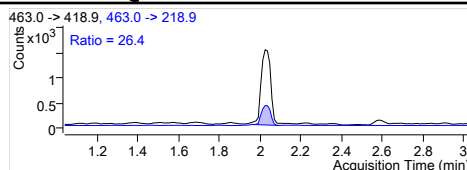
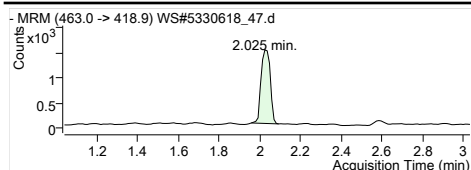


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.35 µg/L
 Sample type: 6.47387
 Sample

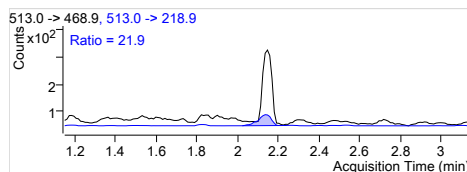
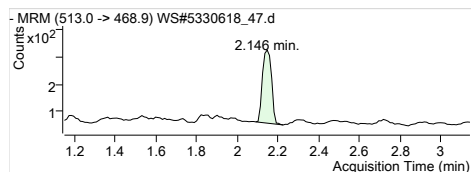


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 1.44 µg/L
 Sample type: 24.01055
 Sample

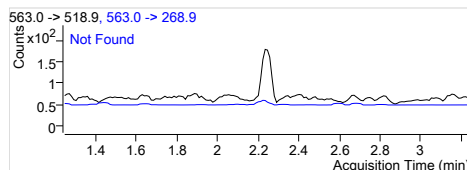
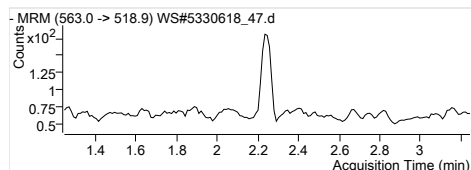
Quantitation Results



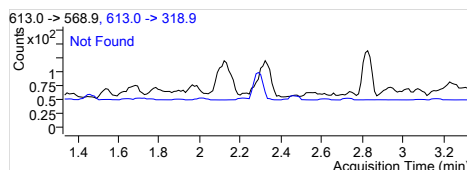
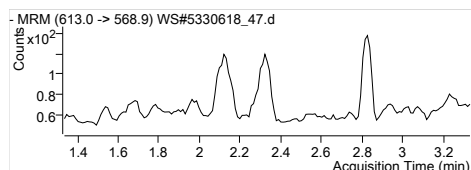
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 0.03 µg/L
 Sample type: 0.43206
 Sample



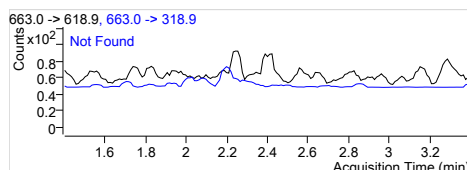
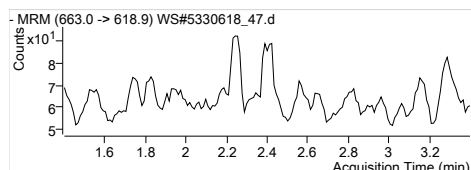
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 0.01 µg/L
 Sample type: 0.08910
 Sample



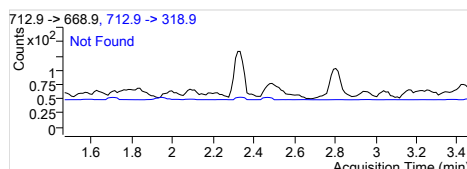
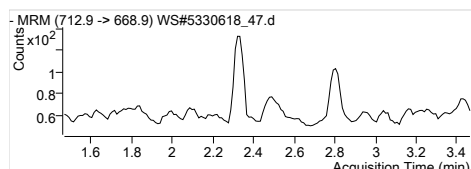
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



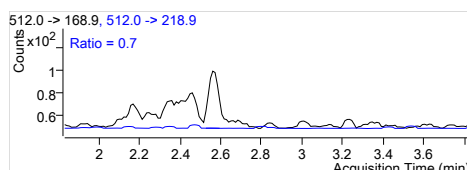
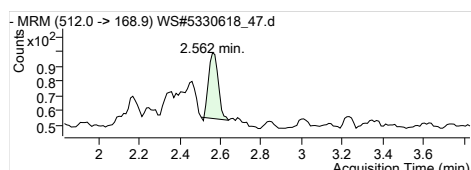
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



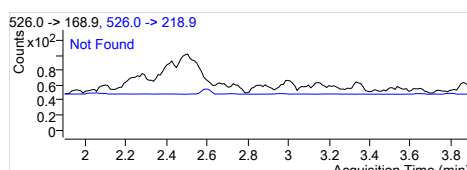
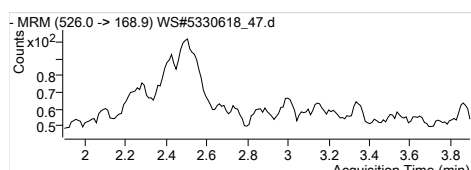
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



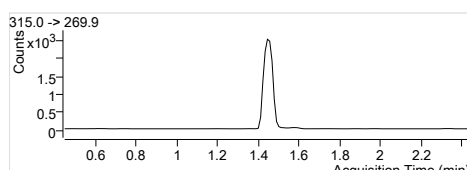
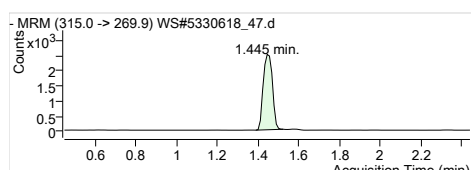
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.562 (2.831)
 Area ratio: 0.01 µg/L
 Sample type: 0.03685
 Sample



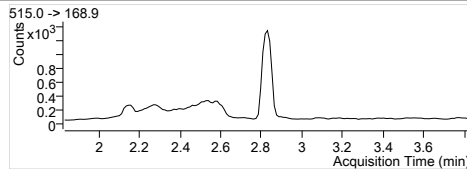
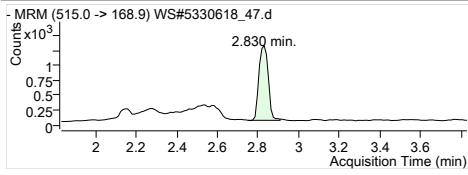
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample



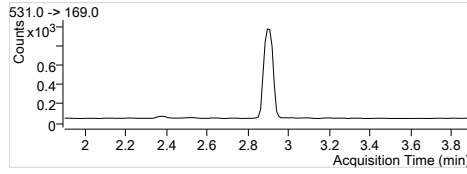
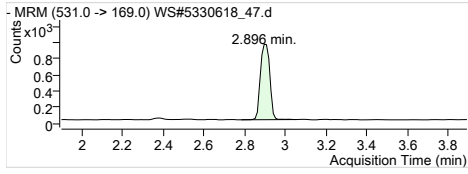
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 92.96 µg/L
 Sample type: 0.20585
 Sample

<p>MRM (403.0 -> 83.9) WS#5330618_47.d 1.679 min.</p>	<p>403.0 -> 83.9</p>	<p>1802-PFHxS RT (Exp. RT): 1.679 (1.679) Calc. conc. 94.12 µg/L Area ratio: 0.04995 Sample type: Sample</p>	<p>403.0 -> 83.9 1.679 (1.679) 94.12 µg/L 0.04995 Sample</p>
<p>MRM (367.0 -> 321.9) WS#5330618_47.d 1.702 min.</p>	<p>367.0 -> 321.9</p>	<p>13C4-PFHpA RT (Exp. RT): 1.702 (1.713) Calc. conc. 88.96 µg/L Area ratio: 0.24679 Sample type: Sample</p>	<p>367.0 -> 321.9 1.702 (1.713) 88.96 µg/L 0.24679 Sample</p>
<p>MRM (417.0 -> 371.9) WS#5330618_47.d 1.892 min.</p>	<p>417.0 -> 371.9</p>	<p>13C4-PFOA RT (Exp. RT): 1.892 (1.892) Calc. conc. 93.50 µg/L Area ratio: 0.28010 Sample type: Sample</p>	<p>417.0 -> 371.9 1.892 (1.892) 93.50 µg/L 0.28010 Sample</p>
<p>MRM (502.9 -> 79.9) WS#5330618_47.d 1.979 min.</p>	<p>502.9 -> 79.9</p>	<p>13C4-PFOS RT (Exp. RT): 1.979 (1.979) Calc. conc. 96.63 µg/L Area ratio: 0.06238 Sample type: Sample</p>	<p>502.9 -> 79.9 1.979 (1.979) 96.63 µg/L 0.06238 Sample</p>
<p>MRM (468.0 -> 422.9) WS#5330618_47.d 2.025 min.</p>	<p>468.0 -> 422.9</p>	<p>13C5-PFNA RT (Exp. RT): 2.025 (2.036) Calc. conc. 99.26 µg/L Area ratio: 0.27805 Sample type: Sample</p>	<p>468.0 -> 422.9 2.025 (2.036) 99.26 µg/L 0.27805 Sample</p>
<p>MRM (515.0 -> 469.9) WS#5330618_47.d 2.146 min.</p>	<p>515.0 -> 469.9</p>	<p>13C2-PFDA RT (Exp. RT): 2.146 (2.146) Calc. conc. 94.11 µg/L Area ratio: 0.17923 Sample type: Sample</p>	<p>515.0 -> 469.9 2.146 (2.146) 94.11 µg/L 0.17923 Sample</p>
<p>MRM (565.0 -> 519.9) WS#5330618_47.d 2.245 min.</p>	<p>565.0 -> 519.9</p>	<p>13C2-PFUnA RT (Exp. RT): 2.245 (2.245) Calc. conc. 94.87 µg/L Area ratio: 0.22275 Sample type: Sample</p>	<p>565.0 -> 519.9 2.245 (2.245) 94.87 µg/L 0.22275 Sample</p>
<p>MRM (615.0 -> 569.9) WS#5330618_47.d 2.333 min.</p>	<p>615.0 -> 569.9</p>	<p>13C2-PFDoA RT (Exp. RT): 2.333 (2.333) Calc. conc. 87.02 µg/L Area ratio: 0.26043 Sample type: Sample</p>	<p>615.0 -> 569.9 2.333 (2.333) 87.02 µg/L 0.26043 Sample</p>
<p>MRM (715.0 -> 669.9) WS#5330618_47.d 2.466 min.</p>	<p>715.0 -> 669.9</p>	<p>13C2-PFTeDA RT (Exp. RT): 2.466 (2.466) Calc. conc. 86.03 µg/L Area ratio: 0.28256 Sample type: Sample</p>	<p>715.0 -> 669.9 2.466 (2.466) 86.03 µg/L 0.28256 Sample</p>

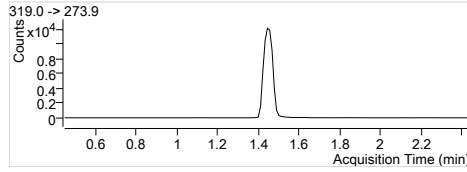
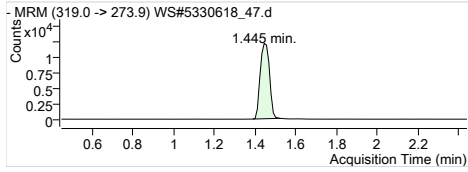
Quantitation Results



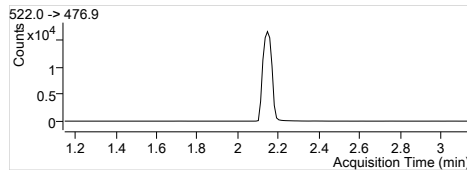
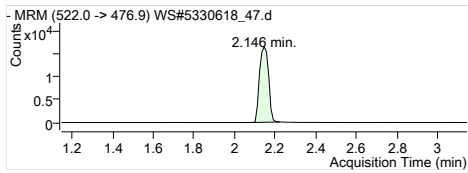
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 78.39 µg/L
Area ratio: 0.10606
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 68.86 µg/L
Area ratio: 0.07873
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.88 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.97 µg/L
Area ratio: 0
Sample type: Sample



4. QA/QC Data

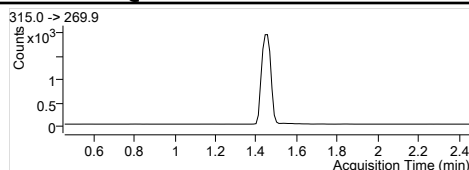
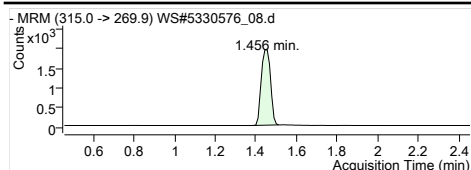
Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Quantitation Results

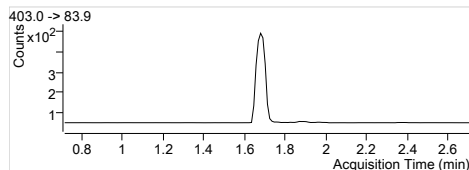
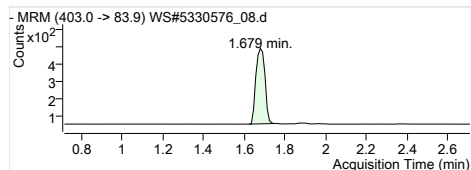
Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330576_08.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-A8
Acq. Date	2018/01/13 2:22:38 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	6083	1.46	1 µg/L
MPFHxS	1375	1.68	1 µg/L
MPFHpA	7345	1.71	1 µg/L
MPFOA	7275	1.89	1 µg/L
MPFOS	1772	1.97	1 µg/L
MPFNA	7595	2.04	1 µg/L
MPFDA	6162	2.15	1 µg/L
MPFUnA	7923	2.25	1 µg/L
MPFDoA	9856	2.33	1 µg/L
MPFTrDA	10715	2.47	1 µg/L
D3-MeFOSA IS	3517	2.83	1 µg/L
D5-EtFOSA IS	2728	2.90	1 µg/L
13C6-PFHxA IS	21803	1.46	1 µg/L
13C9-PFDA IS	29013	2.15	1 µg/L

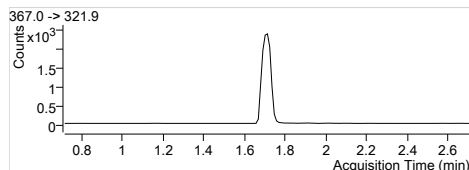
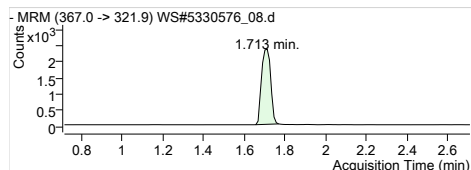
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6083	1.46	-	111.30 µg/L	-
18O2-PFHxS	1375	1.68	-	109.14 µg/L	-
13C4-PFHpA	7345	1.71	-	106.03 µg/L	-
13C4-PFOA	7275	1.89	-	101.84 µg/L	-
13C4-PFOS	1772	1.97	-	114.25 µg/L	-
13C5-PFNA	7507	2.04	-	107.45 µg/L	-
13C2-PFDA	6136	2.15	-	96.00 µg/L	-
13C2-PFUnA	7923	2.25	-	97.51 µg/L	-
13C2-PFDoA	9856	2.33	-	96.06 µg/L	-
13C2-PFTrDA	10890	2.47	-	94.50 µg/L	-
D3-MeFOSA	3575	2.83	-	102.06 µg/L	-
D5-EtFOSA	2789	2.90	-	97.90 µg/L	-
13C6-PFHxA	21803	1.46	-	2.45 µg/L	-
13C9-PFDA	29013	2.15	-	2.66 µg/L	-



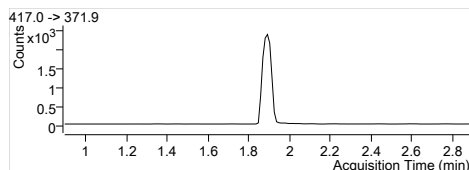
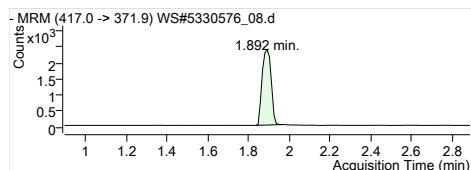
MPFHxA Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



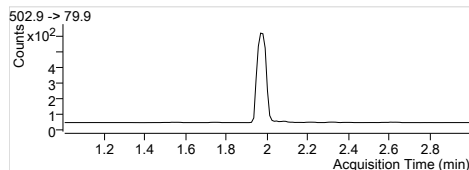
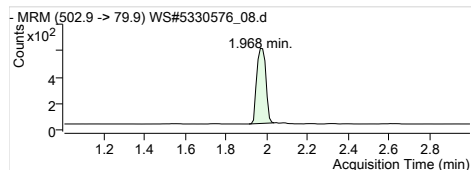
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample



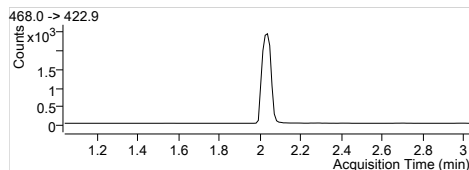
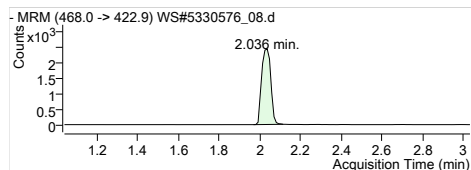
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



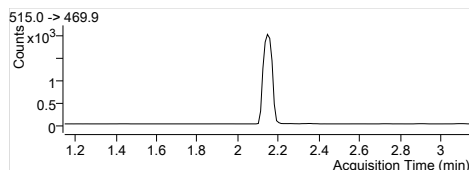
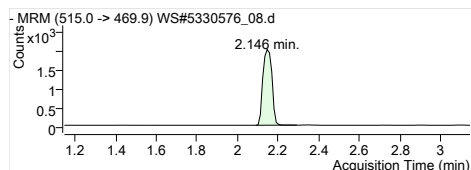
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



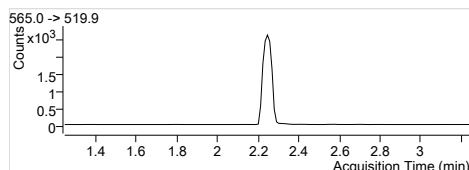
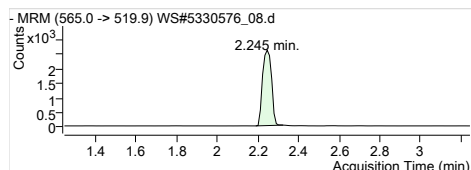
MPFOS Internal Standard
RT (Exp. RT): 1.968 (2.002)
Concentration: 1 µg/L
Sample type: Sample



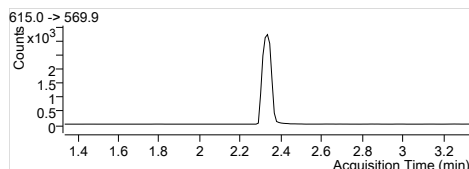
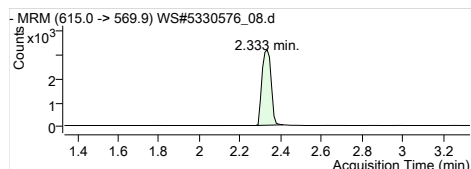
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



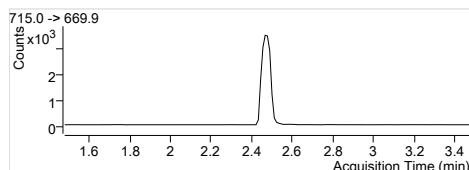
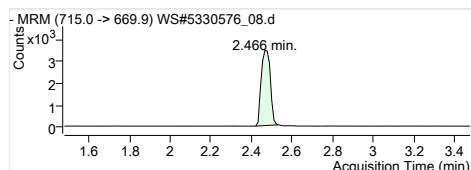
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

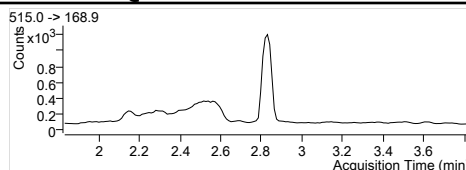
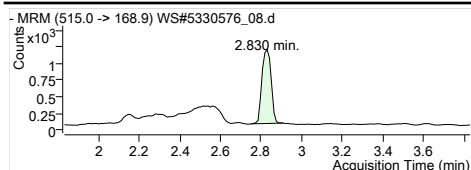


MPFDaA Internal Standard
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

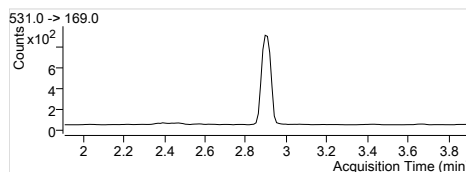
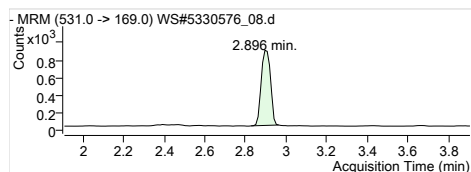


MPFTeDA Internal Standard
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample

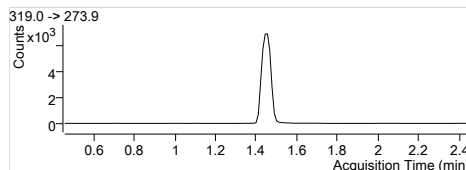
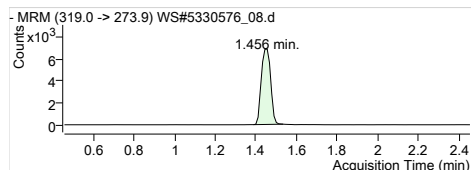
Quantitation Results



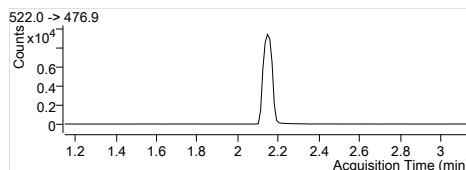
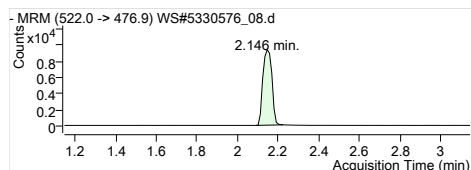
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



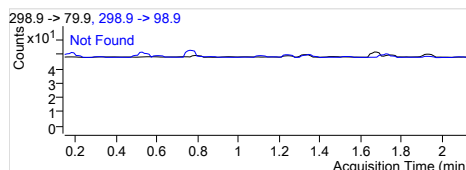
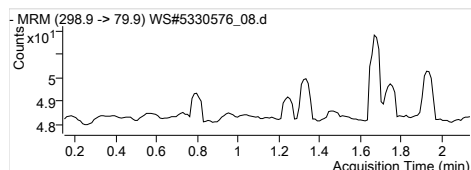
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



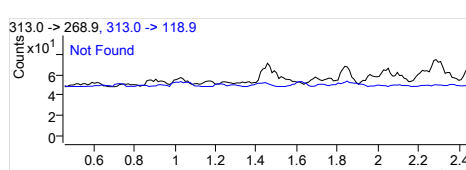
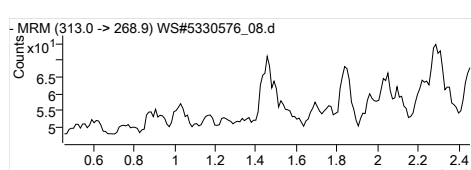
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



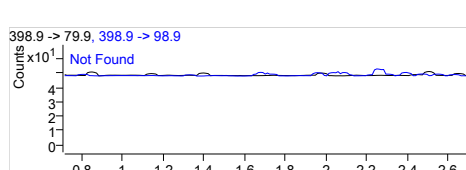
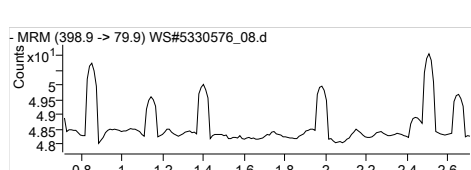
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



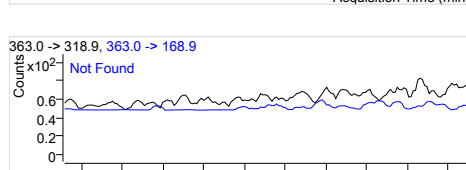
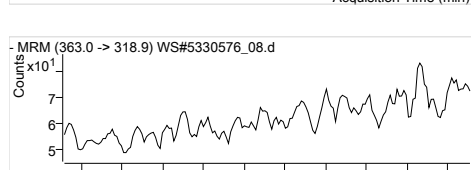
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.143)
 Area ratio: 0
 Sample type: Sample



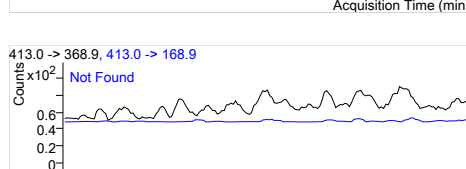
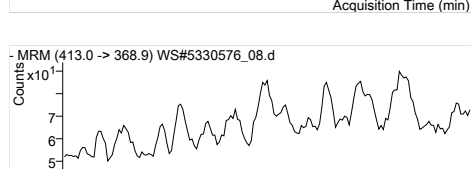
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.456)
 Area ratio: 0
 Sample type: Sample



PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample

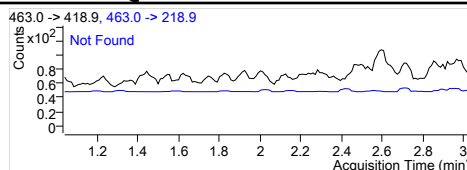
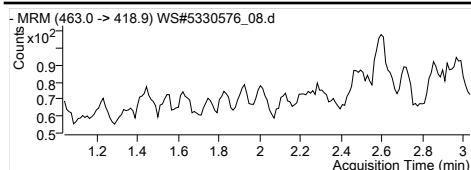


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample

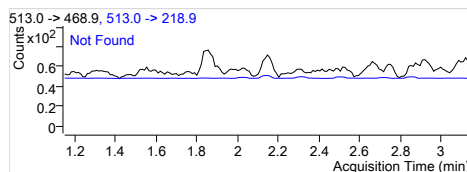
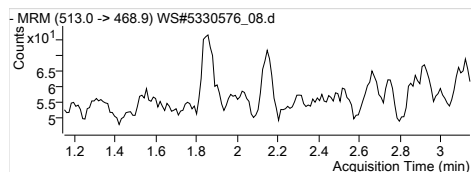


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (2.002)
 Area ratio: 0
 Sample type: Sample

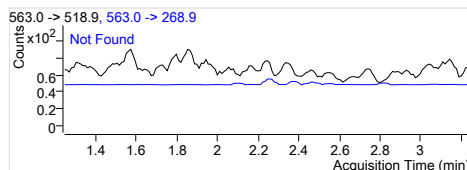
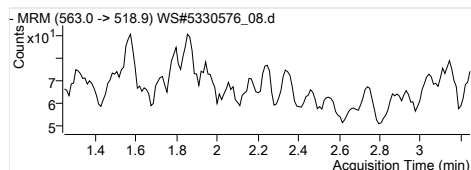
Quantitation Results



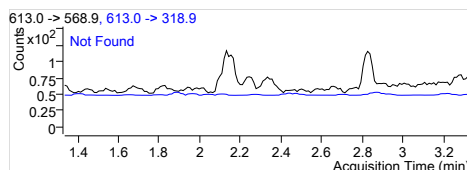
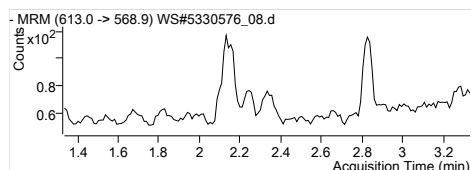
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



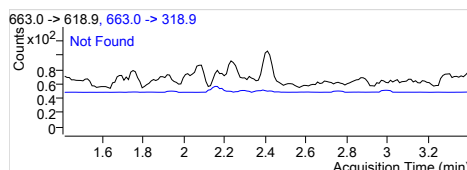
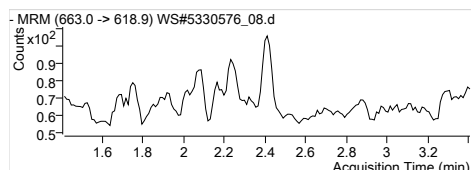
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



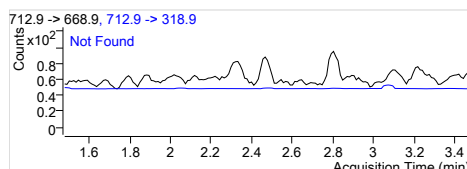
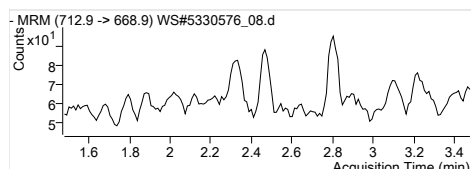
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



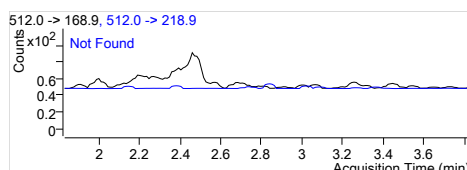
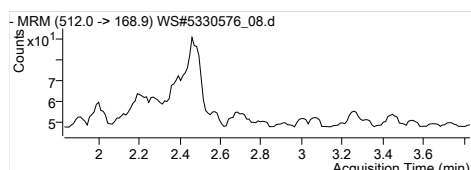
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



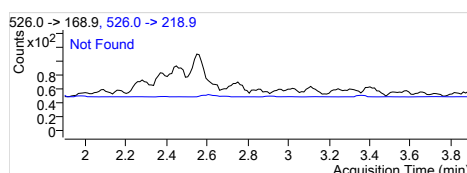
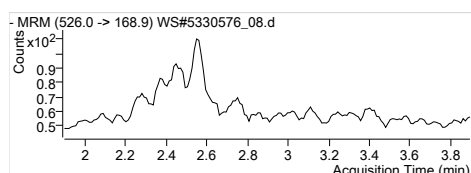
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



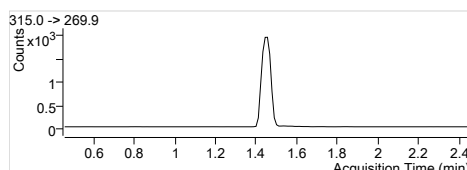
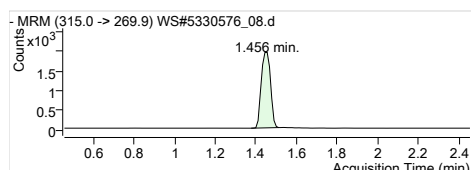
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



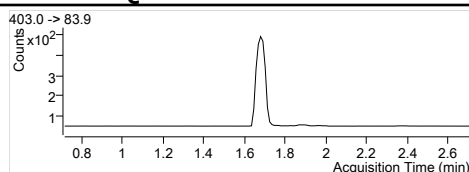
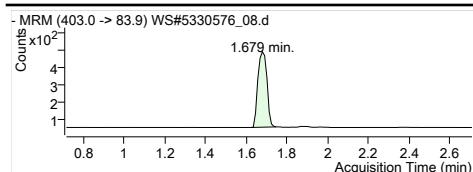
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample



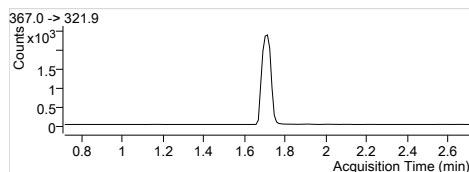
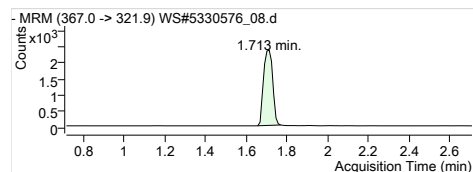
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample



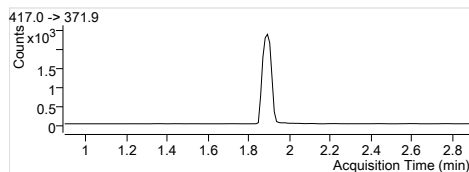
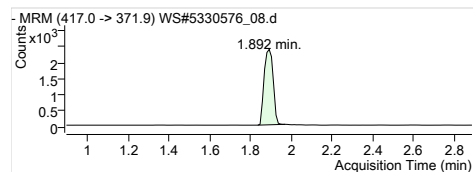
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 111.30 µg/L
 Sample type: 0.27900
 Sample



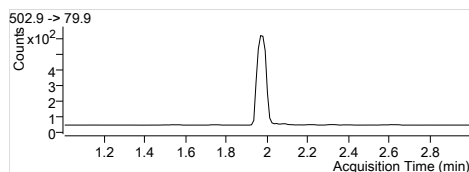
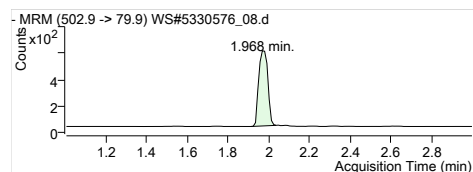
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 109.14 µg/L
 Sample type: 0.06306
 Sample



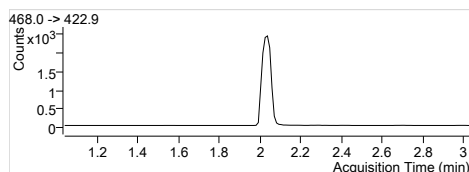
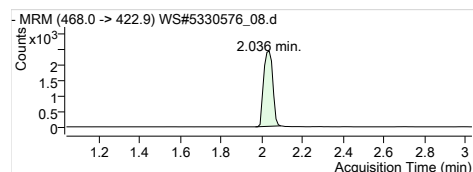
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 106.03 µg/L
 Sample type: 0.33688
 Sample



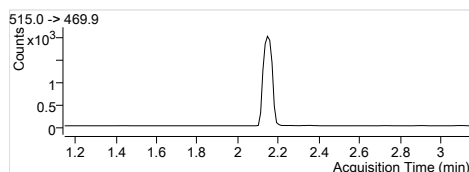
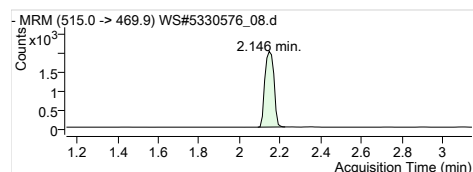
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 101.84 µg/L
 Sample type: 0.33367
 Sample



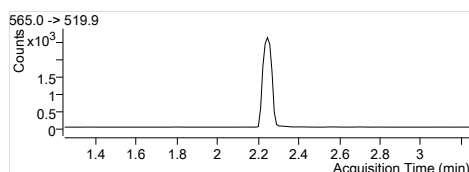
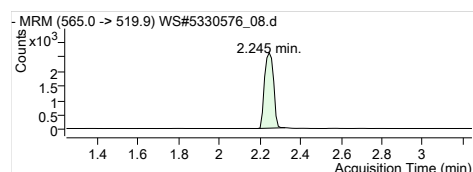
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 114.25 µg/L
 Sample type: 0.08127
 Sample



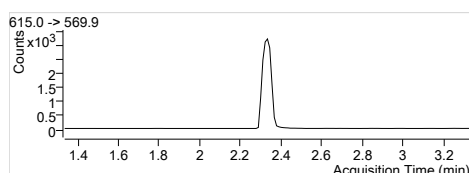
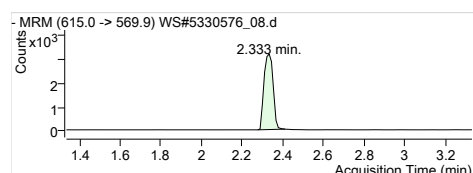
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 107.45 µg/L
 Sample type: 0.34431
 Sample



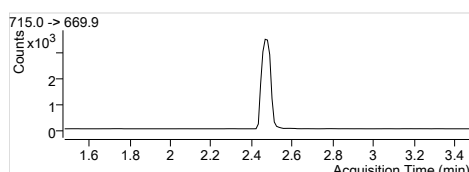
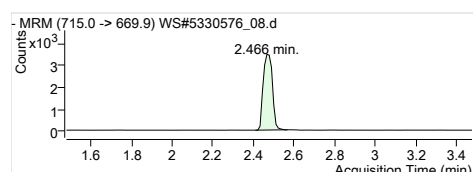
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 96.00 µg/L
 Sample type: 0.21149
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 97.51 µg/L
 Sample type: 0.27308
 Sample

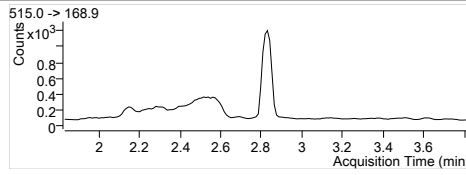
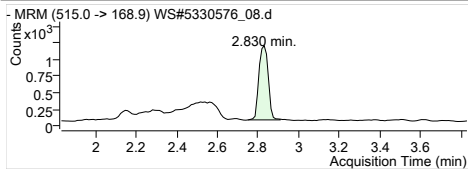


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 96.06 µg/L
 Sample type: 0.33971
 Sample

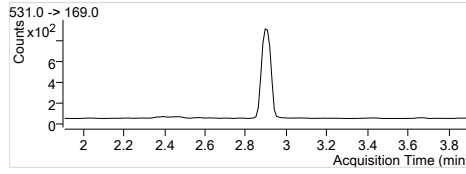
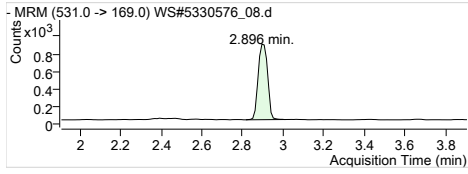


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.478)
 Area ratio: 94.50 µg/L
 Sample type: 0.37535
 Sample

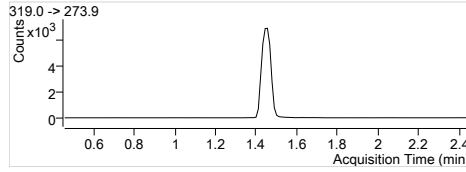
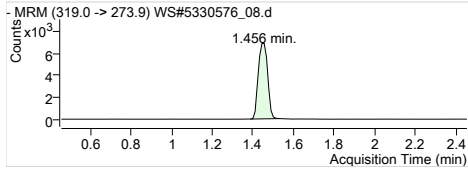
Quantitation Results



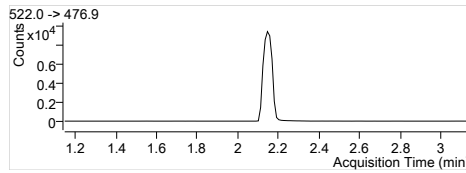
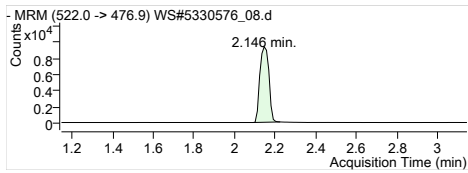
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 102.06 µg/L
Area ratio: 0.16397
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 97.90 µg/L
Area ratio: 0.12792
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.456 (1.456)
Calc. conc. 2.45 µg/L
Area ratio: 0
Sample type: Sample



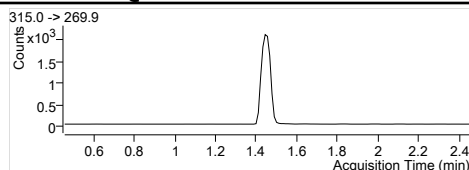
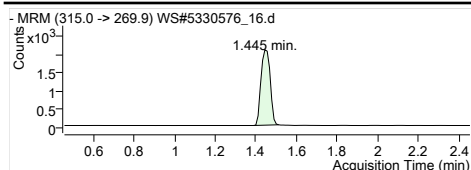
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 2.66 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

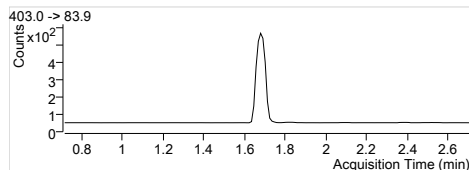
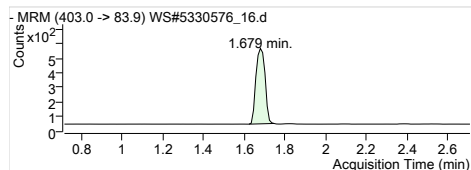
Batch Path	T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330576_16.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-A8
Acq. Date	2018/01/13 3:02:06 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6532	1.44	1 µg/L		
MPFHxS	1617	1.68	1 µg/L		
MPFHpA	8128	1.71	1 µg/L		
MPFOA	8628	1.89	1 µg/L		
MPFOS	1977	1.97	1 µg/L		
MPFNA	7994	2.04	1 µg/L		
MPFDA	6919	2.15	1 µg/L		
MPFUnA	8928	2.25	1 µg/L		
MPFDoA	11507	2.33	1 µg/L		
MPFTeDA	12234	2.47	1 µg/L		
D3-MeFOSA IS	3509	2.83	1 µg/L		
D5-EtFOSA IS	3030	2.90	1 µg/L		
13C6-PFHxA IS	24389	1.44	1 µg/L		
13C9-PFDA IS	31315	2.15	1 µg/L		

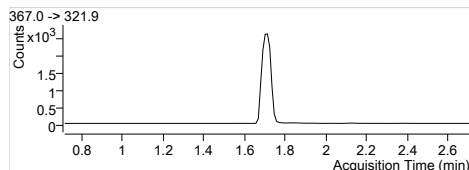
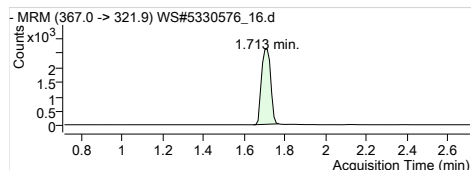
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1	842	2.15	-	0.01 µg/L	-
PFUnA 1	919	2.25	-	0.01 µg/L	-
PFDaA 1	1350	2.33	-	0.01 µg/L	-
PFTrDA 1	1338	2.41	-	0.01 µg/L	-
PFTeDA 1	1071	2.47	-	0.01 µg/L	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6532	1.44	-	106.84 µg/L	-
18O2-PFHxS	1617	1.68	-	114.73 µg/L	-
13C4-PFHpA	8128	1.71	-	104.90 µg/L	-
13C4-PFOA	8628	1.89	-	107.98 µg/L	-
13C4-PFOS	1977	1.97	-	113.95 µg/L	-
13C5-PFNA	7928	2.04	-	101.45 µg/L	-
13C2-PFDA	6878	2.15	-	99.69 µg/L	-
13C2-PFUnA	8928	2.25	-	101.80 µg/L	-
13C2-PFDoA	11507	2.33	-	103.91 µg/L	-
13C2-PFTeDA	12503	2.47	-	100.52 µg/L	-
D3-MeFOSA	3517	2.83	-	89.76 µg/L	-
D5-EtFOSA	3030	2.90	-	95.08 µg/L	-
13C6-PFHxA	24389	1.44	-	2.75 µg/L	-
13C9-PFDA	31315	2.15	-	2.87 µg/L	-



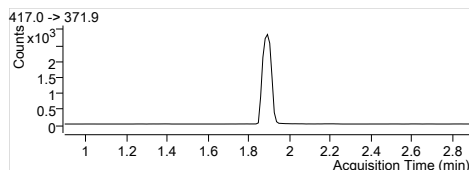
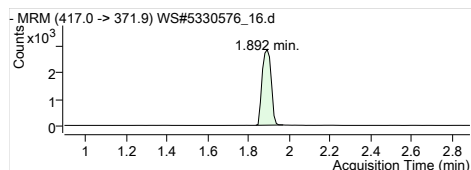
MPFHxA
Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Sample



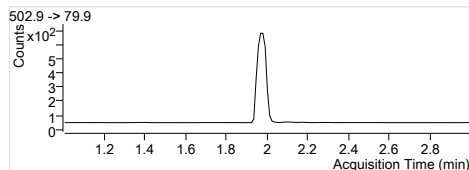
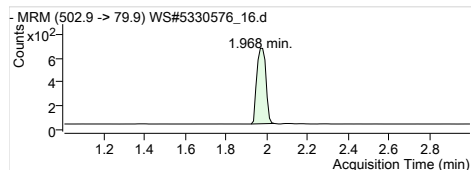
MPFHxS
Internal Standard
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample



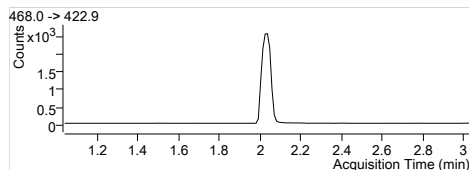
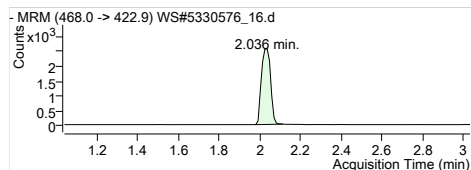
MPFHpA
Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



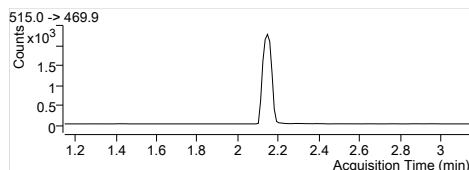
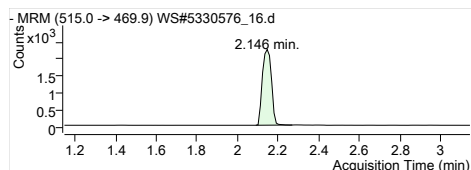
MPFOA
Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



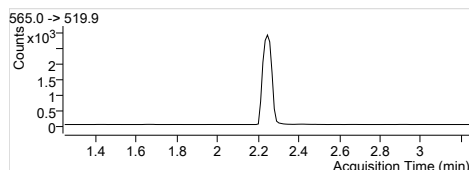
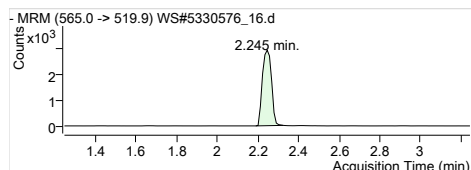
MPFOS
Internal Standard
RT (Exp. RT): 1.968 (2.002)
Concentration: 1 µg/L
Sample type: Sample



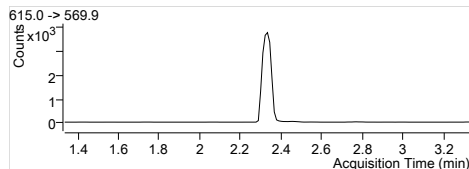
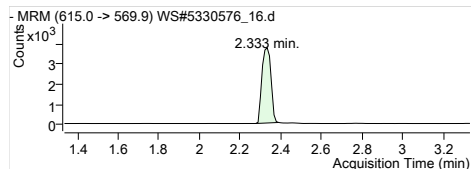
MPFNA
Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



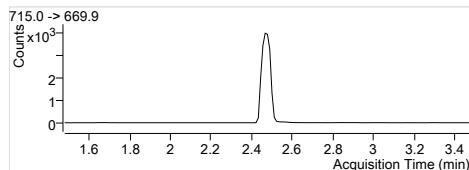
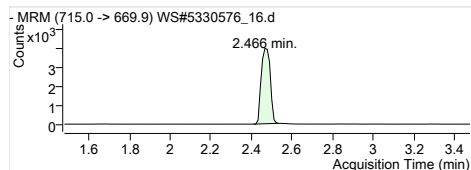
MPFDA
Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

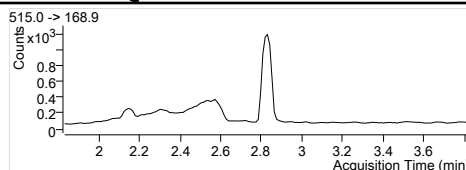
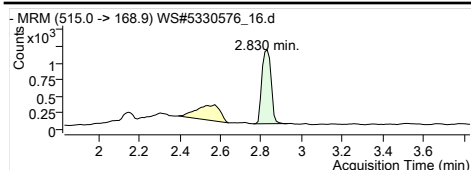


MPFDaA
Internal Standard
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

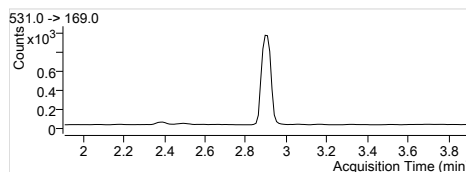
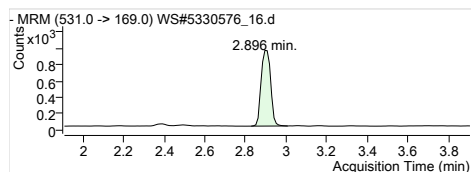


MPFTeDA
Internal Standard
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample

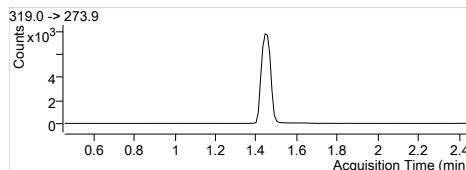
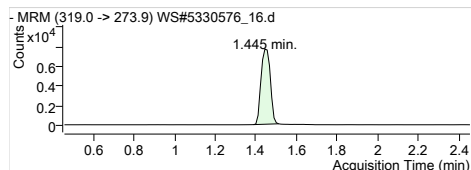
Quantitation Results



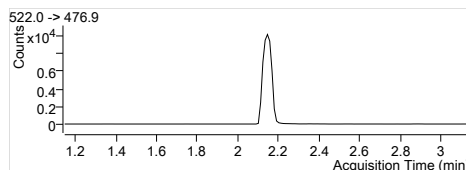
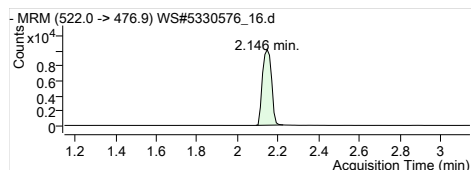
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



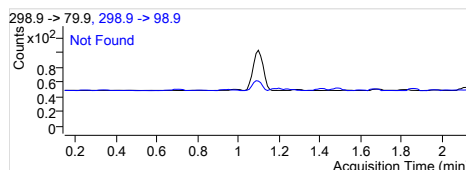
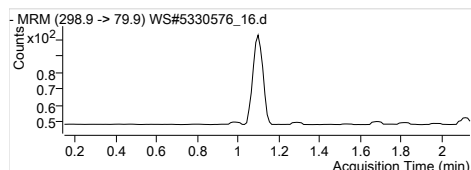
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



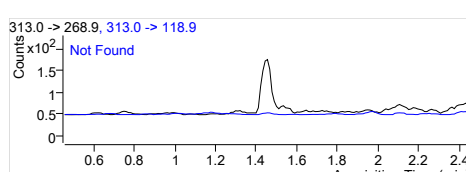
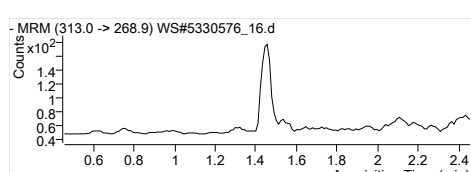
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



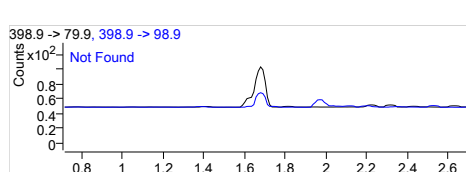
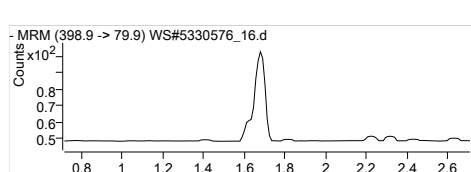
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



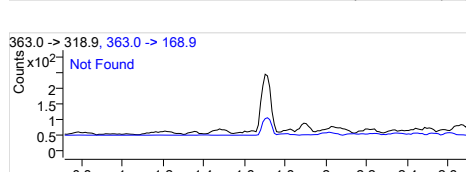
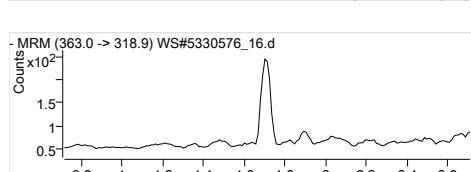
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.143)
 Area ratio: N.D.
 Sample type: 0
 Sample



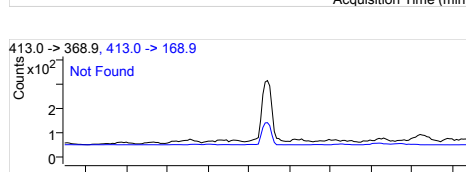
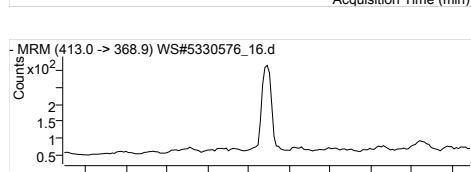
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.456)
 Area ratio: N.D.
 Sample type: 0
 Sample



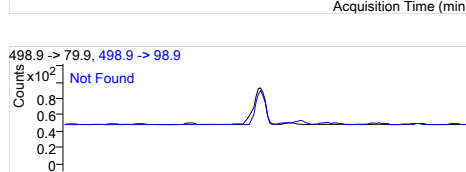
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.713)
 Area ratio: N.D.
 Sample type: 0
 Sample



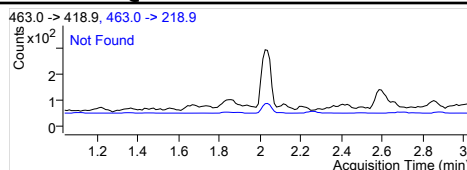
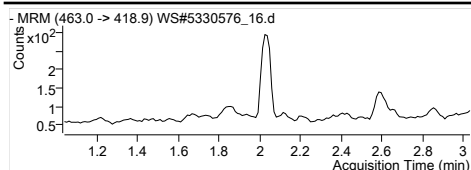
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: N.D.
 Sample type: 0
 Sample



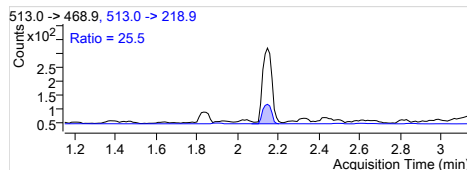
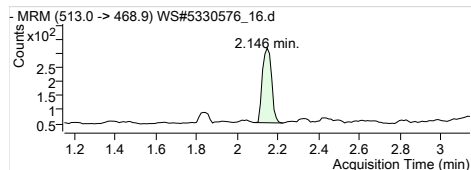
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: N.D.
 Sample type: 0
 Sample



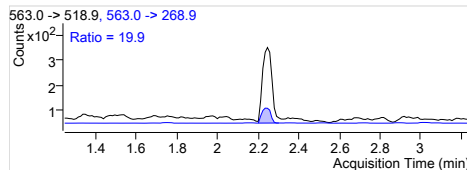
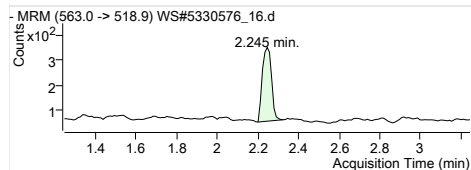
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (2.002)
 Area ratio: N.D.
 Sample type: 0
 Sample



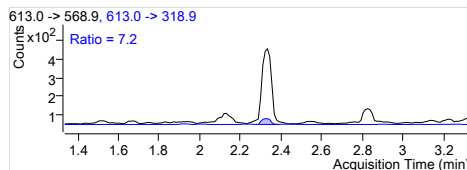
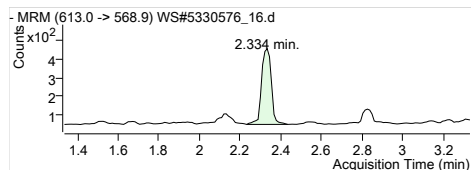
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



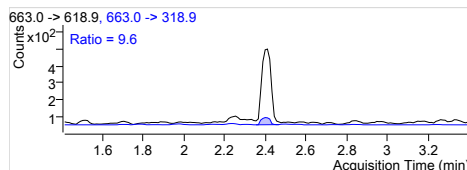
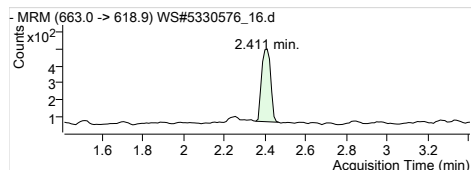
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 0.01 µg/L
 Sample type: 0.12169
 Sample



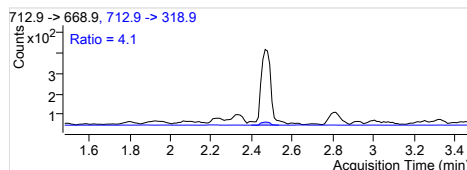
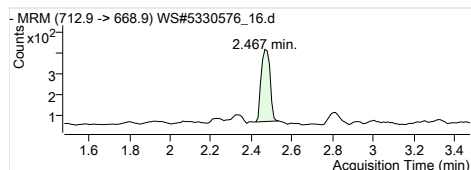
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 0.01 µg/L
 Sample type: 0.10293
 Sample



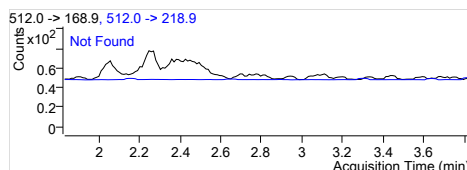
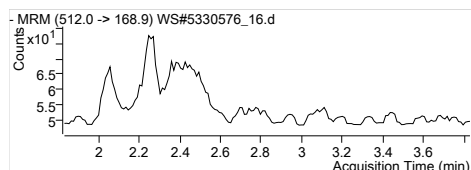
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 0.01 µg/L
 Sample type: 0.11732
 Sample



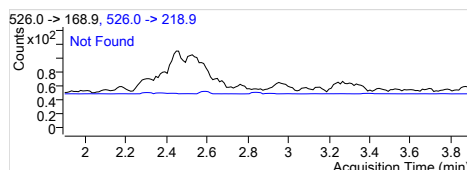
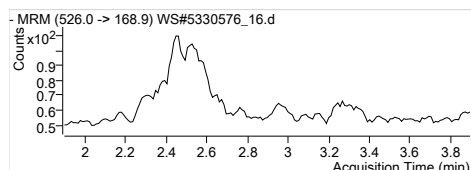
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.411 (2.411)
 Area ratio: 0.01 µg/L
 Sample type: 0.10937
 Sample



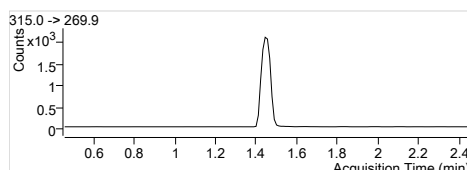
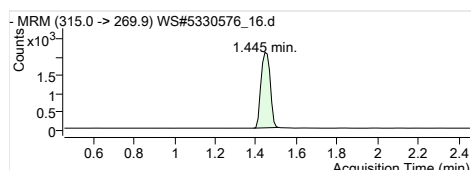
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.478)
 Area ratio: 0.01 µg/L
 Sample type: 0.08754
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

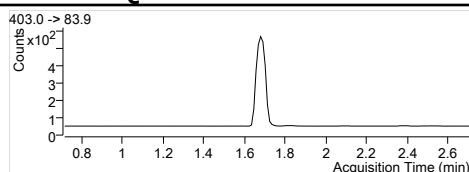
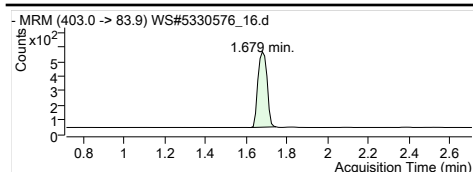


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

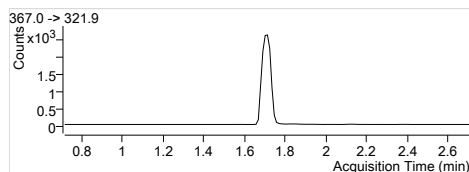
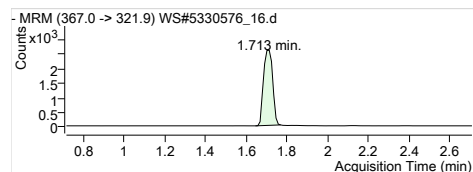


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 106.84 µg/L
 Sample type: 0.26783
 Sample

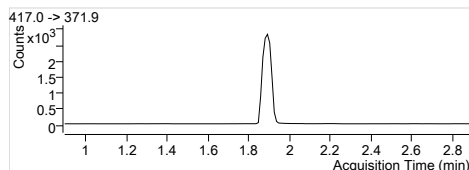
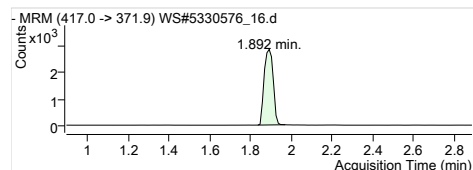
Quantitation Results



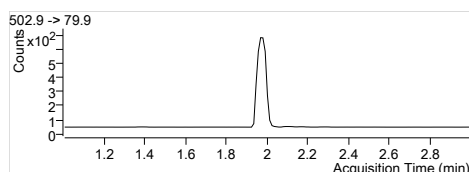
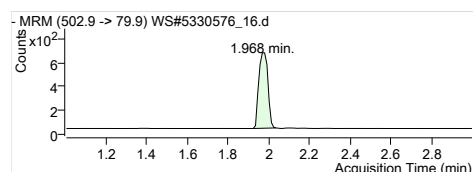
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 114.73 µg/L
Sample type: 0.06630
Sample



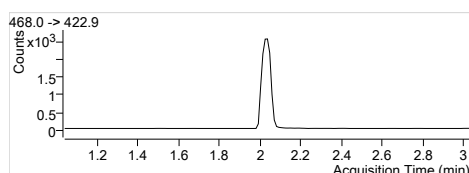
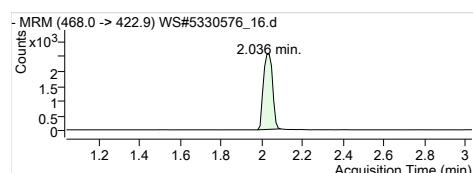
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 104.90 µg/L
Sample type: 0.33326
Sample



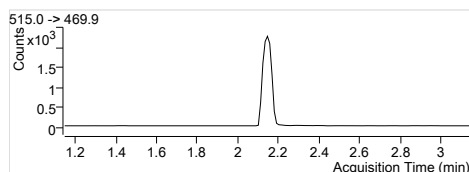
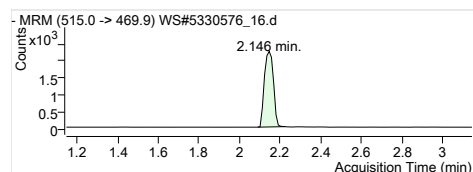
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 107.98 µg/L
Sample type: 0.35377
Sample



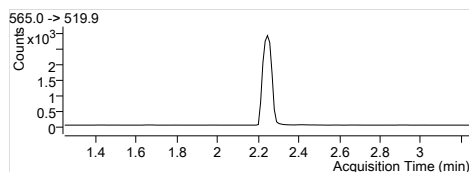
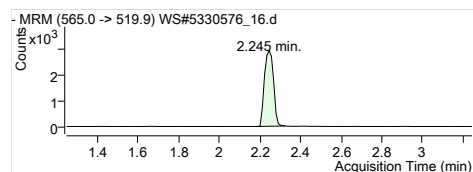
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.968 (2.002)
Area ratio: 113.95 µg/L
Sample type: 0.08106
Sample



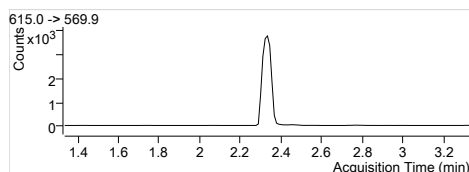
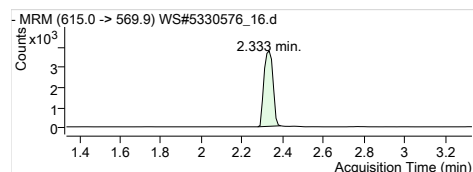
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 101.45 µg/L
Sample type: 0.32506
Sample



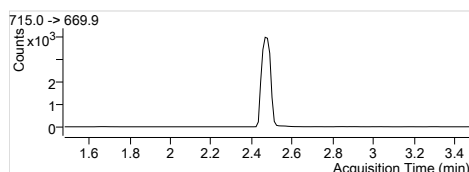
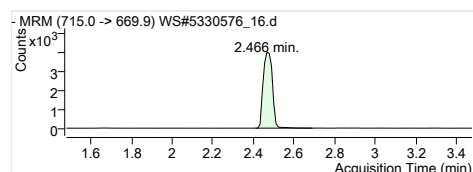
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 99.69 µg/L
Sample type: 0.21964
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 101.80 µg/L
Sample type: 0.28510
Sample

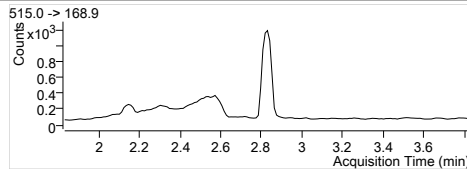
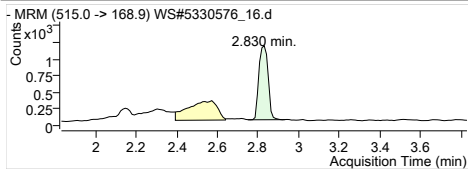


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 103.91 µg/L
Sample type: 0.36746
Sample

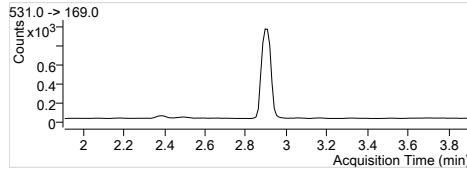
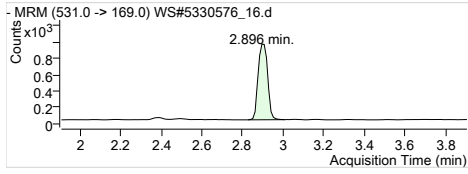


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 100.52 µg/L
Sample type: 0.39927
Sample

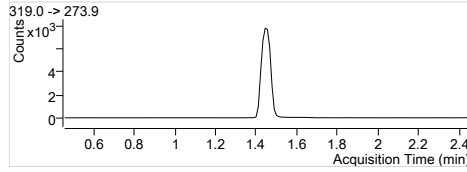
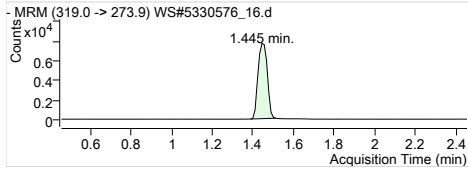
Quantitation Results



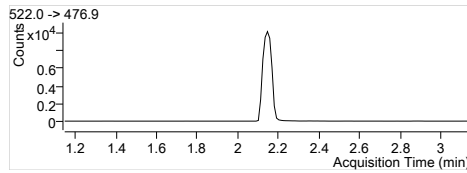
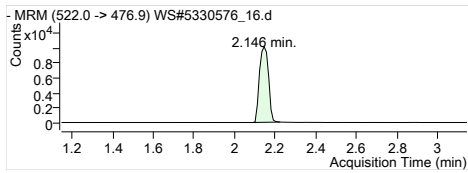
D3-MeFOSA
 RT (Exp. RT): 515.0 -> 168.9
 Calc. conc: 2.830 (2.830)
 Area ratio: 89.76 µg/L
 Sample type: 0.14420
 Sample



D5-EtFOSA
 RT (Exp. RT): 531.0 -> 169.0
 Calc. conc: 2.896 (2.907)
 Area ratio: 95.08 µg/L
 Sample type: 0.12424
 Sample



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc: 1.445 (1.456)
 Area ratio: 2.75 µg/L
 Sample type: 0
 Sample



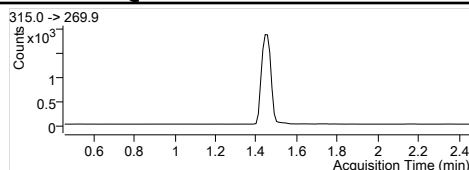
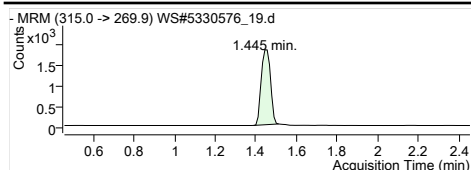
13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 2.87 µg/L
 Sample type: 0
 Sample

Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330576_19.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-A8
Acq. Date	2018/01/13 3:16:54 AM	Injection Volume	Per Method
Sample Annotation	-		

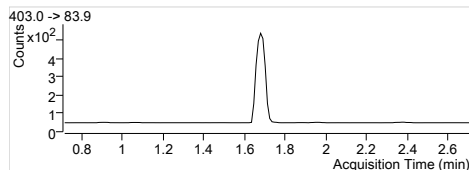
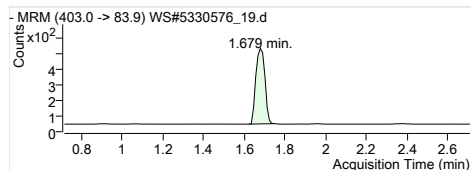
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5770	1.44	1 µg/L		
MPFHxS	1509	1.68	1 µg/L		
MPFHpA	7541	1.71	1 µg/L		
MPFOA	7776	1.89	1 µg/L		
MPFOS	1720	1.97	1 µg/L		
MPFNA	7291	2.04	1 µg/L		
MPFDA	6640	2.15	1 µg/L		
MPFUnA	8132	2.25	1 µg/L		
MPFDoA	10172	2.33	1 µg/L		
MPFTeDA	10672	2.47	1 µg/L		
D3-MeFOSA IS	3534	2.83	1 µg/L		
D5-EtFOSA IS	2902	2.90	1 µg/L		
13C6-PFHxA IS	22682	1.44	1 µg/L		
13C9-PFDA IS	29985	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	5770	1.44	-	101.48 µg/L	-
18O2-PFHxS	1509	1.68	-	115.13 µg/L	-
13C4-PFHpA	7541	1.71	-	104.64 µg/L	-
13C4-PFOA	7776	1.89	-	104.64 µg/L	-
13C4-PFOS	1720	1.97	-	106.60 µg/L	-
13C5-PFNA	7258	2.04	-	99.86 µg/L	-
13C2-PFDA	6534	2.15	-	98.91 µg/L	-
13C2-PFUnA	8132	2.25	-	96.84 µg/L	-
13C2-PFDoA	10172	2.33	-	95.92 µg/L	-
13C2-PFTeDA	10952	2.47	-	91.95 µg/L	-
D3-MeFOSA	3600	2.83	-	98.79 µg/L	-
D5-EtFOSA	2959	2.90	-	99.84 µg/L	-
13C6-PFHxA	22682	1.44	-	2.55 µg/L	-
13C9-PFDA	29985	2.15	-	2.75 µg/L	-



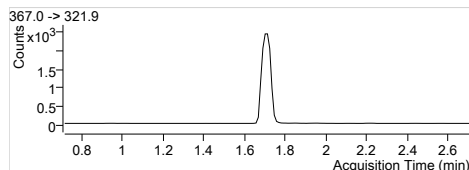
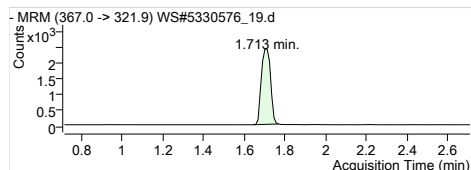
MPFHxA
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.456)
1 µg/L
Sample



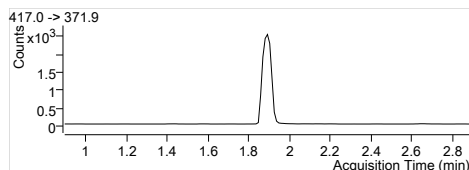
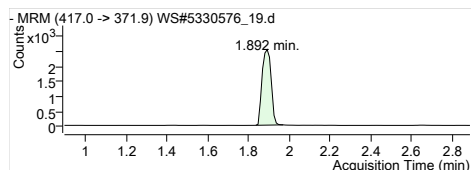
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.713)
1 µg/L
Sample



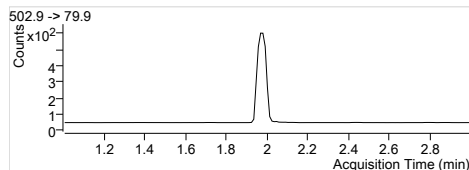
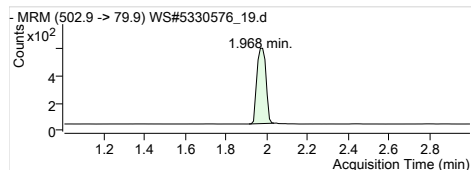
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.713 (1.713)
1 µg/L
Sample



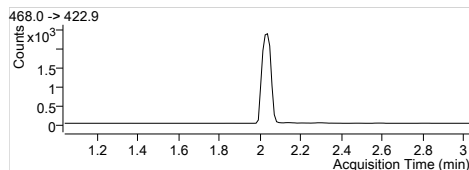
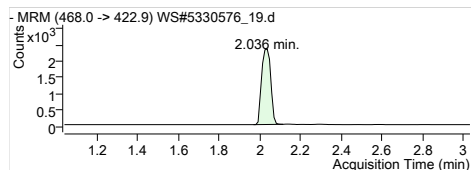
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



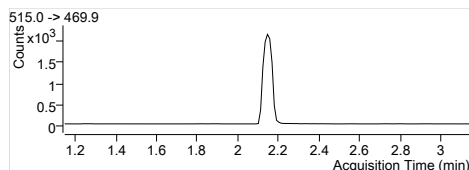
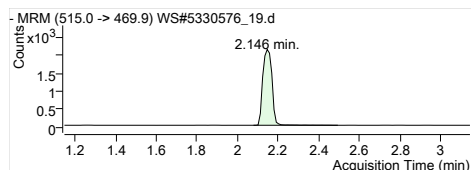
MPFOS
RT (Exp. RT): 1.968 (2.002)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.968 (2.002)
1 µg/L
Sample



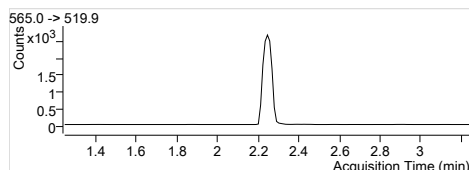
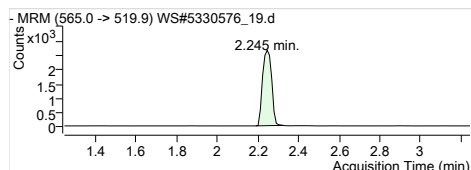
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.036 (2.036)
1 µg/L
Sample



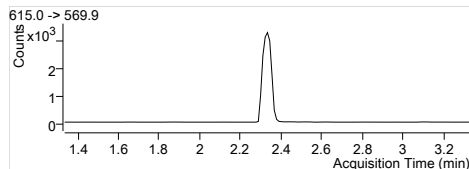
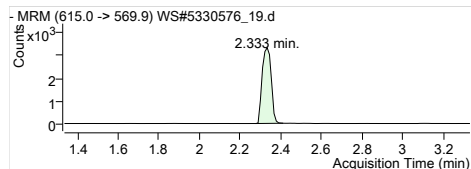
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



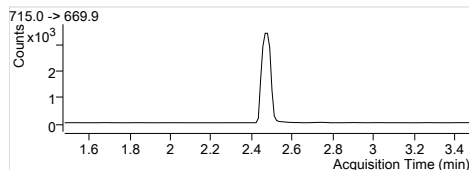
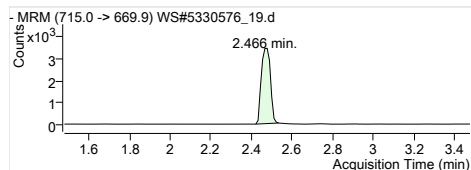
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



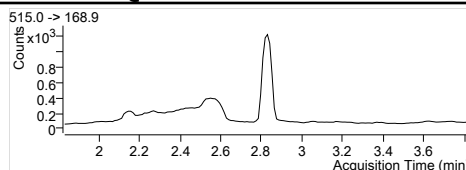
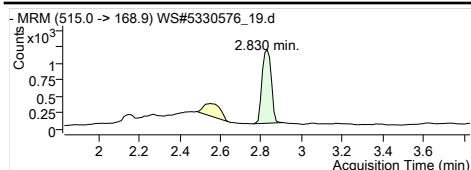
MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.333 (2.333)
1 µg/L
Sample

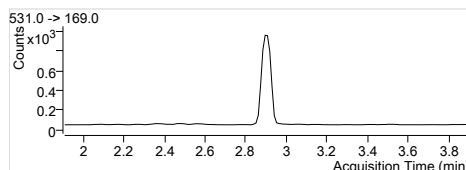
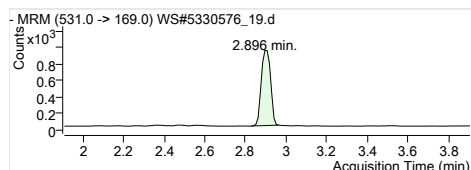


MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample

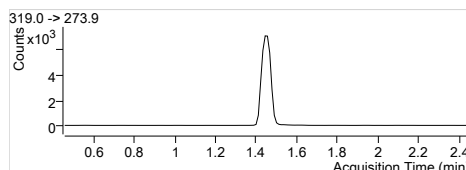
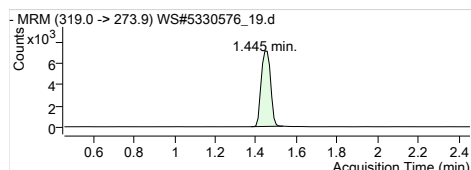
Internal Standard
2.466 (2.478)
1 µg/L
Sample



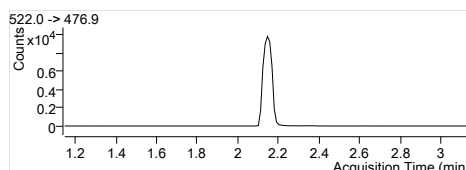
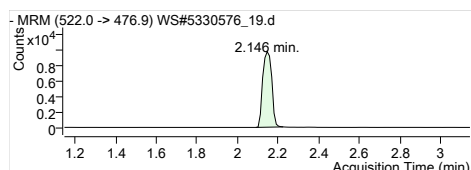
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



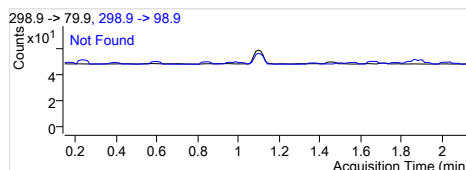
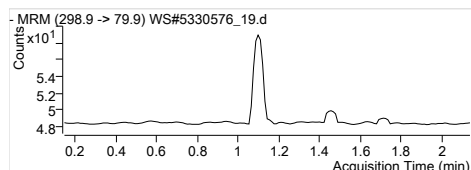
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



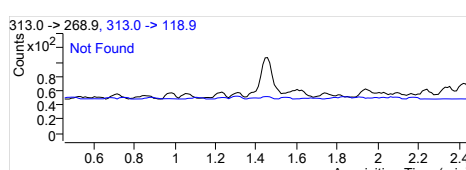
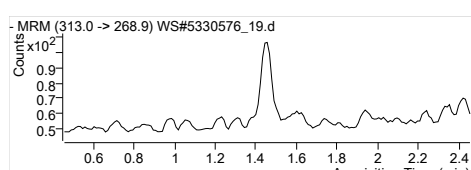
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



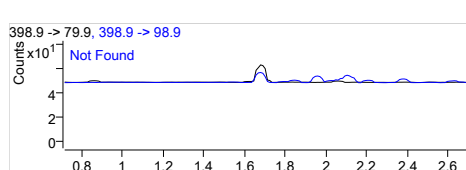
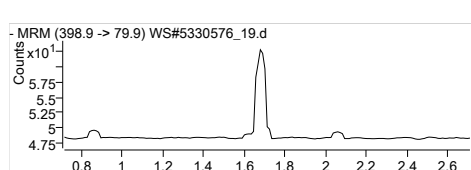
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



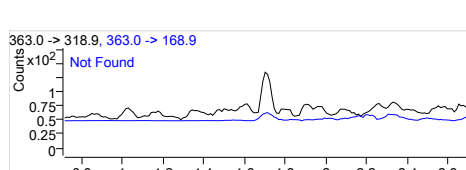
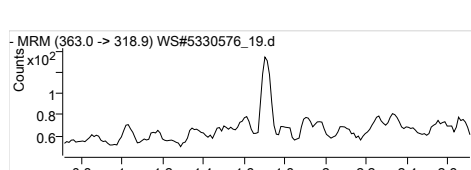
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.143)
 Area ratio: 0
 Sample type: Sample



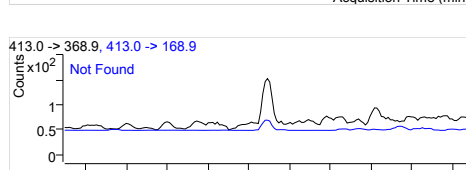
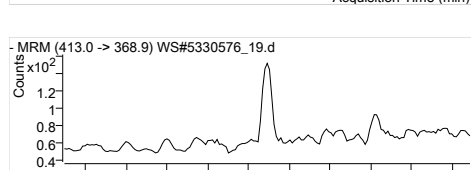
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.456)
 Area ratio: 0
 Sample type: Sample



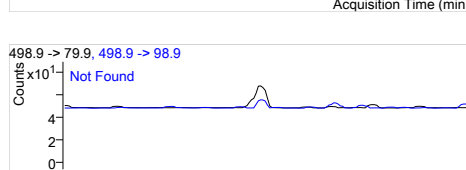
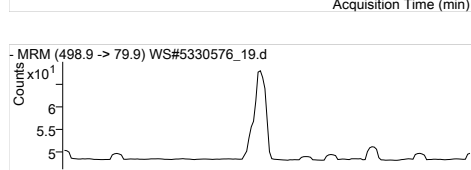
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample

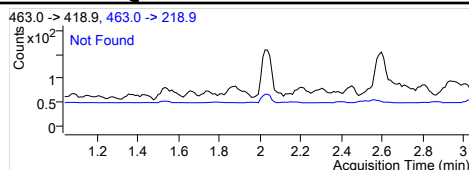
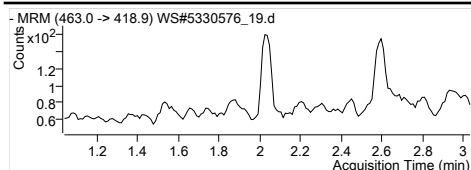


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample

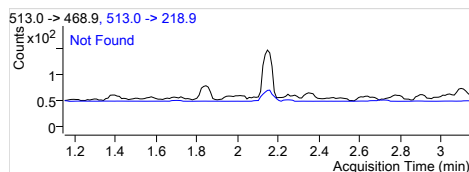
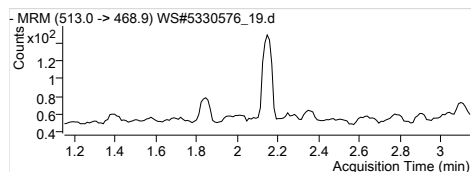


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (2.002)
 Area ratio: 0
 Sample type: Sample

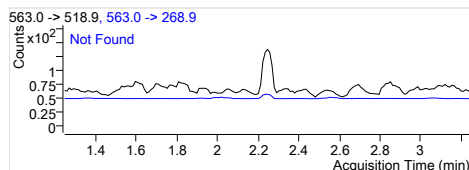
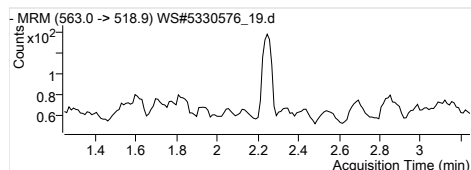
Quantitation Results



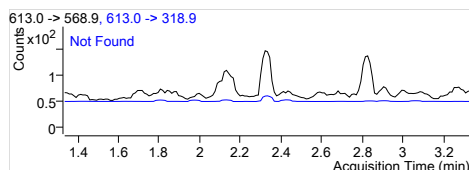
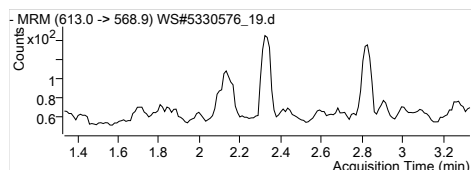
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



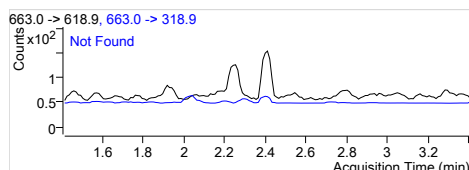
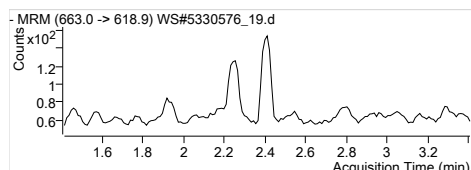
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



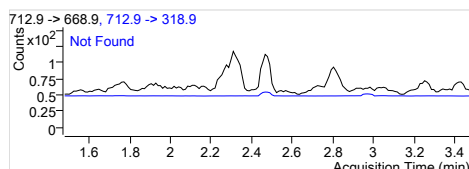
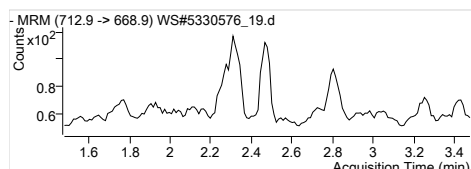
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



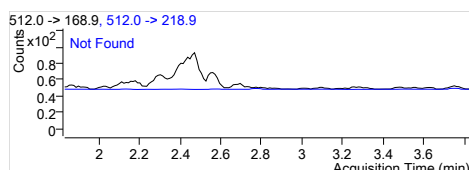
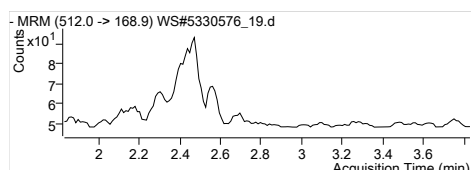
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



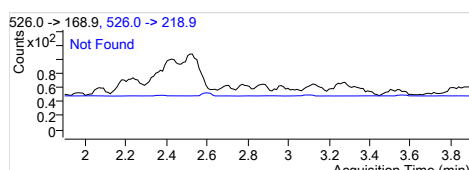
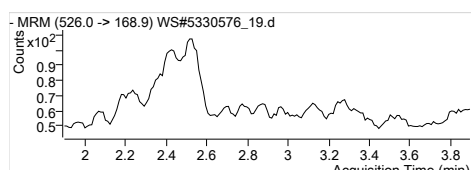
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



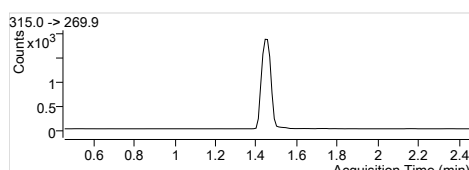
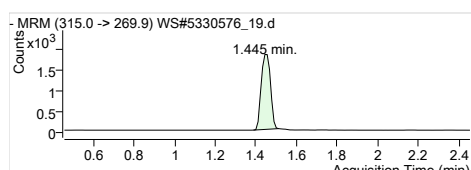
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

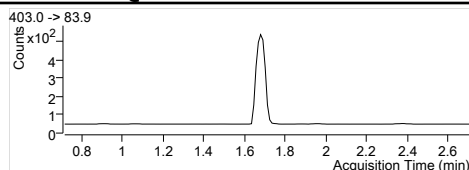
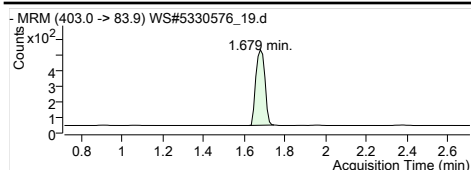


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

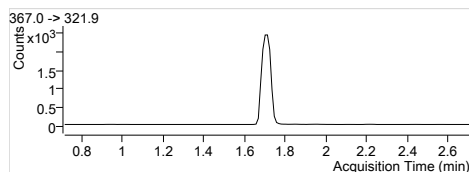
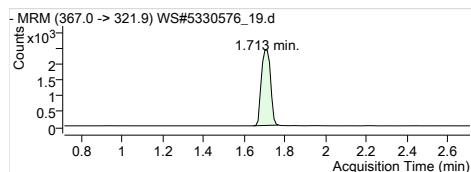


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 101.48 µg/L
 Sample type: 0.25439
 Sample

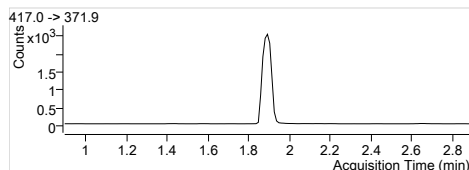
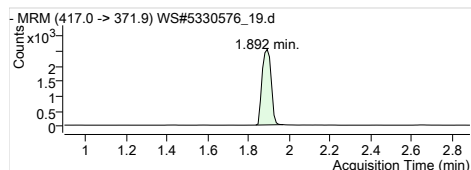
Quantitation Results



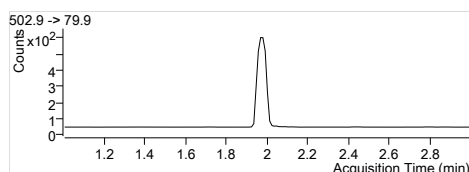
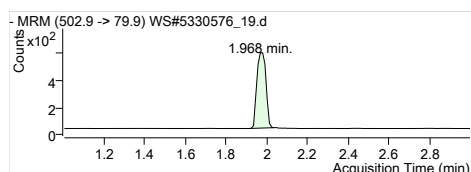
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 115.13 µg/L
Sample type: 0.06653
Sample



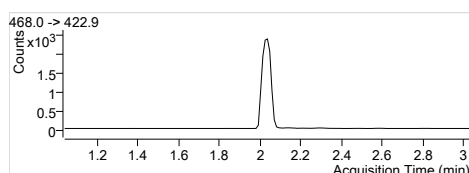
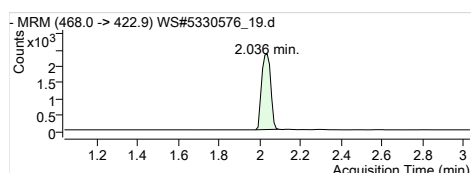
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 104.64 µg/L
Sample type: 0.33247
Sample



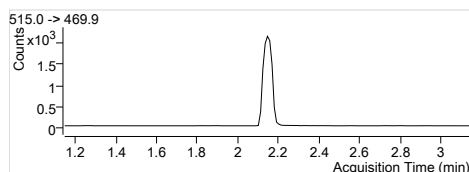
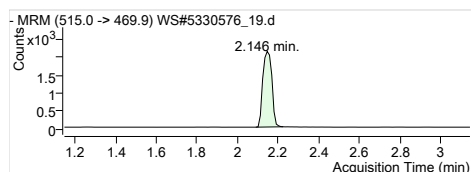
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 104.64 µg/L
Sample type: 0.34283
Sample



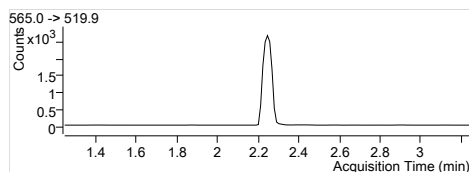
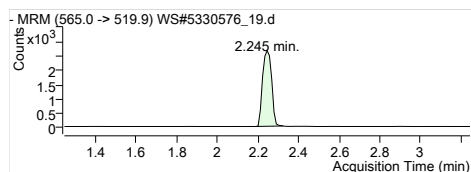
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.968 (2.002)
Area ratio: 106.60 µg/L
Sample type: 0.07583
Sample



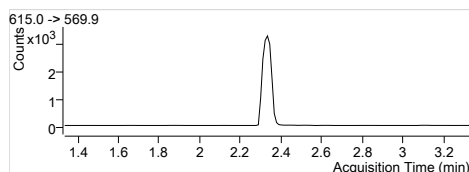
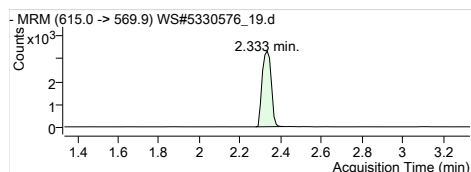
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 99.86 µg/L
Sample type: 0.31999
Sample



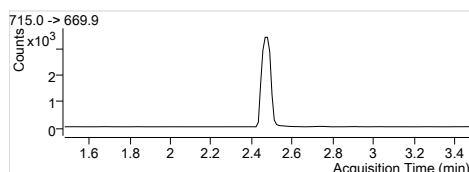
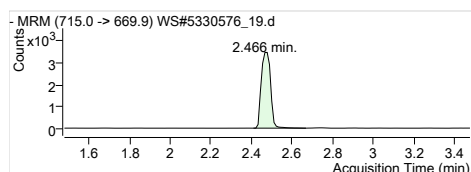
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 98.91 µg/L
Sample type: 0.21791
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 96.84 µg/L
Sample type: 0.27120
Sample

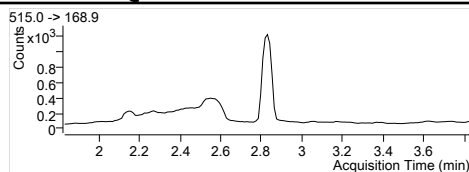
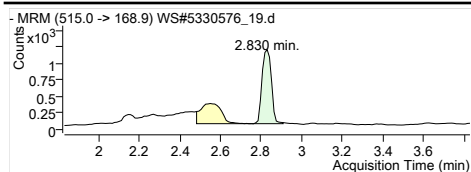


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 95.92 µg/L
Sample type: 0.33924
Sample

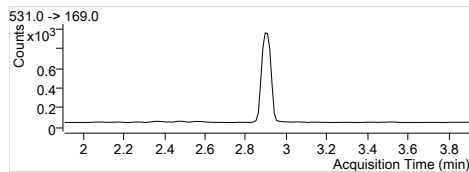
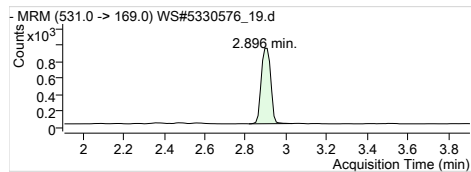


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 91.95 µg/L
Sample type: 0.36525
Sample

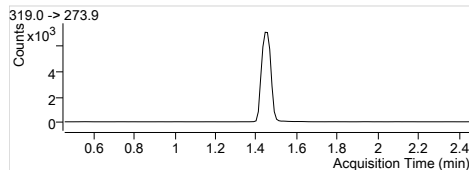
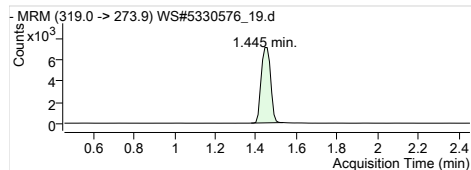
Quantitation Results



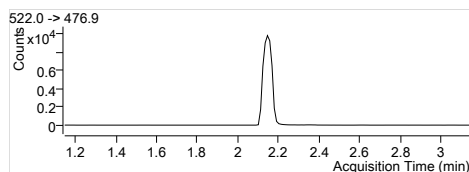
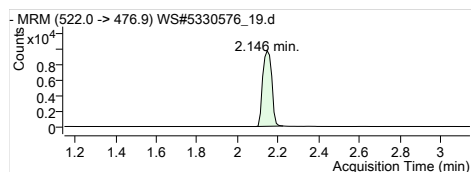
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 98.79 µg/L
Area ratio: 0.15872
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 99.84 µg/L
Area ratio: 0.13046
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.456)
Calc. conc. 2.55 µg/L
Area ratio: 0
Sample type: Sample



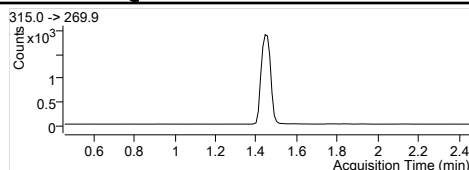
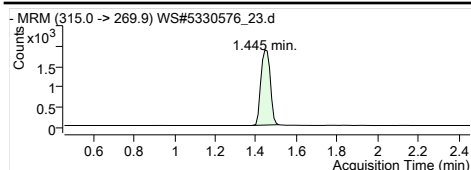
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 2.75 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

Batch Path	T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330576_23.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-A8
Acq. Date	2018/01/13 3:36:38 AM	Injection Volume	Per Method
Sample Annotation	-		

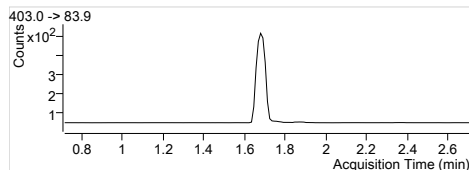
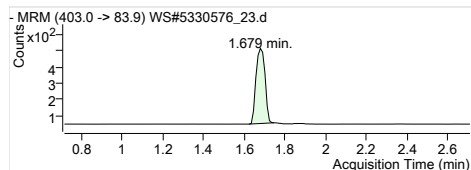
ISTD Compounds	Response	RT	Target conc.	
MPFHxA	5949	1.44	1 µg/L	
MPFHxS	1436	1.68	1 µg/L	
MPFHpA	7609	1.71	1 µg/L	
MPFOA	7585	1.89	1 µg/L	
MPFOS	1802	1.98	1 µg/L	
MPFNA	7811	2.04	1 µg/L	
MPFDA	6697	2.15	1 µg/L	
MPFUnA	7899	2.25	1 µg/L	
MPFDoA	9966	2.33	1 µg/L	
MPFTeDA	11271	2.47	1 µg/L	
D3-MeFOSA IS	3623	2.83	1 µg/L	
D5-EtFOSA IS	2789	2.90	1 µg/L	
13C6-PFHxA IS	21853	1.44	1 µg/L	
13C9-PFDA IS	28644	2.15	1 µg/L	

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	5949	1.44	-	108.60 µg/L	-
18O2-PFHxS	1436	1.68	-	113.72 µg/L	-
13C4-PFHpA	7609	1.71	-	109.59 µg/L	-
13C4-PFOA	7585	1.89	-	105.94 µg/L	-
13C4-PFOS	1802	1.98	-	115.92 µg/L	-
13C5-PFNA	7761	2.04	-	110.83 µg/L	-
13C2-PFDA	6605	2.15	-	104.66 µg/L	-
13C2-PFUnA	7899	2.25	-	98.47 µg/L	-
13C2-PFDaA	9966	2.33	-	98.38 µg/L	-
13C2-PFTeDA	11379	2.47	-	100.01 µg/L	-
D3-MeFOSA	3683	2.83	-	104.90 µg/L	-
D5-EtFOSA	2872	2.90	-	100.58 µg/L	-
13C6-PFHxA	21853	1.44	-	2.46 µg/L	-
13C9-PFDA	28644	2.15	-	2.63 µg/L	-



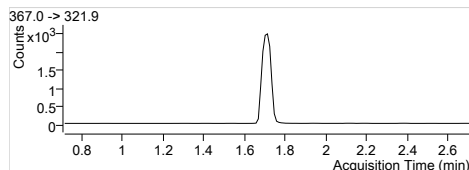
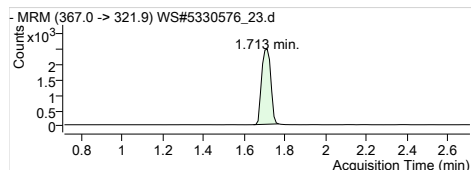
MPFHxA
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.456)
1 µg/L
Sample



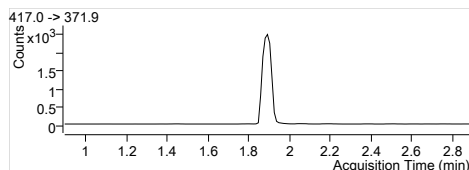
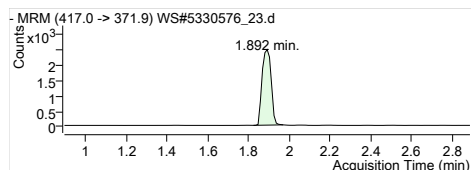
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.713)
1 µg/L
Sample



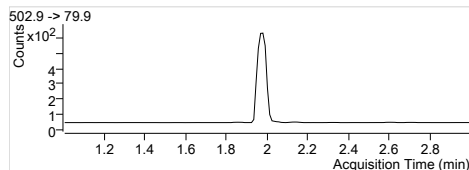
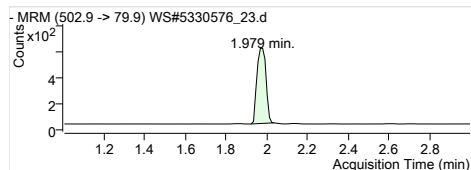
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.713 (1.713)
1 µg/L
Sample



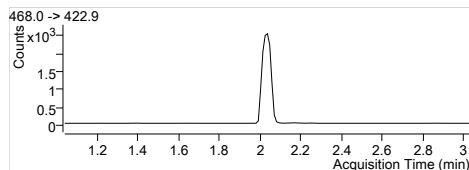
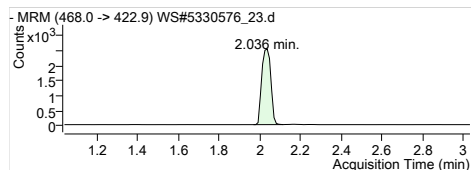
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



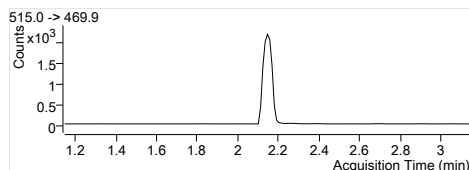
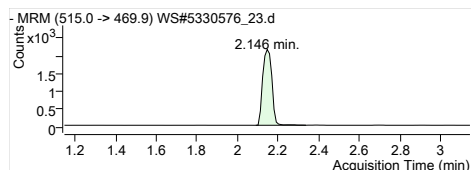
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.979 (2.002)
1 µg/L
Sample



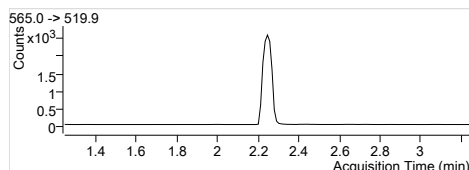
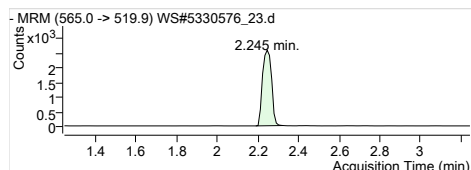
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.036 (2.036)
1 µg/L
Sample



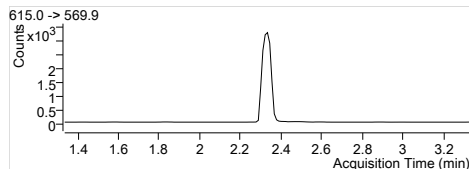
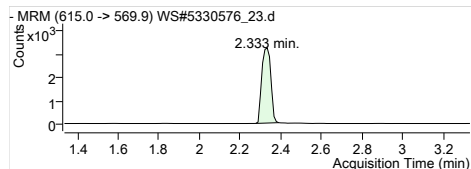
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



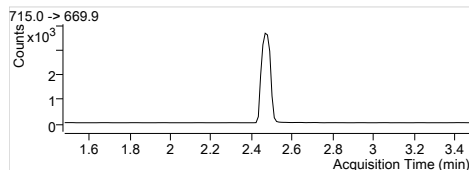
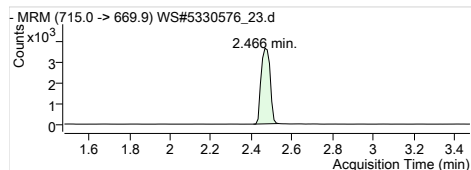
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

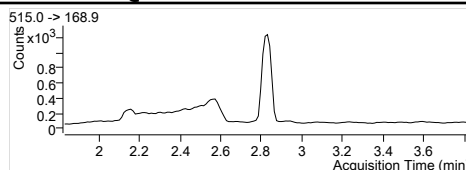
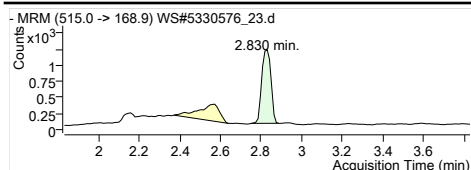
Internal Standard
2.333 (2.333)
1 µg/L
Sample



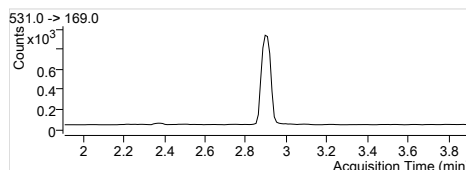
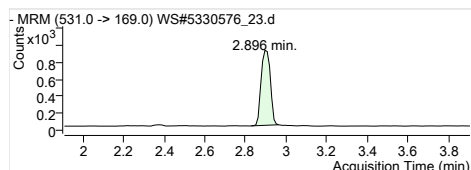
MPFTEA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.478)
1 µg/L
Sample

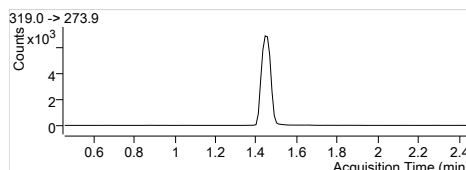
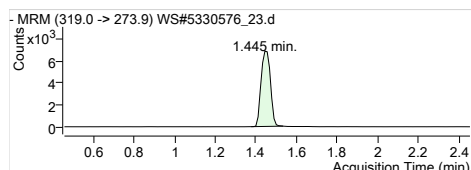
Quantitation Results



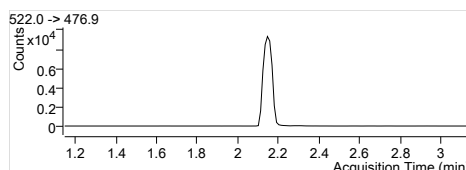
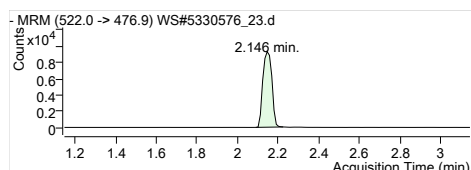
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



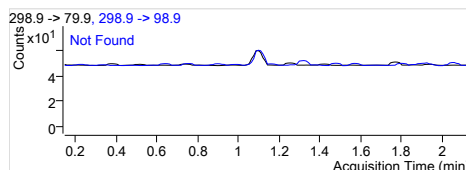
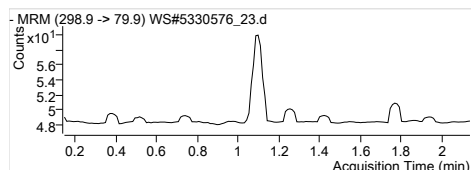
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



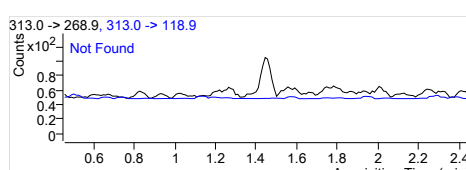
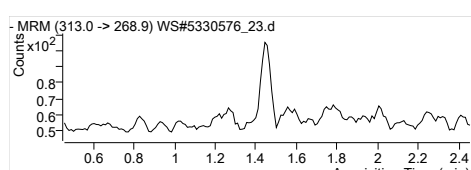
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



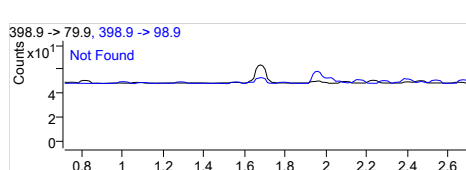
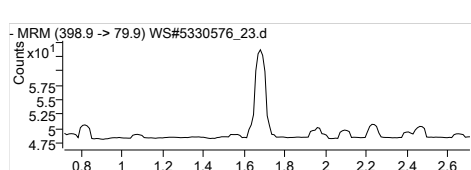
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



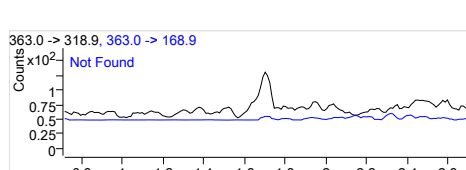
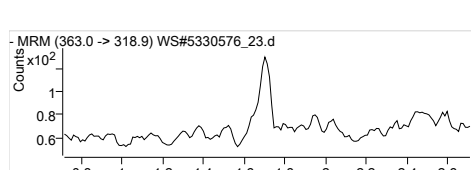
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.143)
 Area ratio: 0
 Sample type: Sample



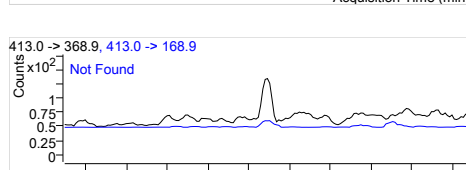
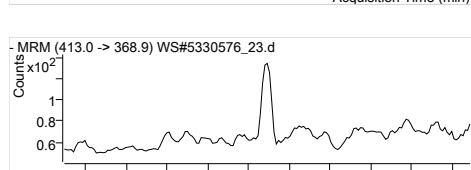
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.456)
 Area ratio: 0
 Sample type: Sample



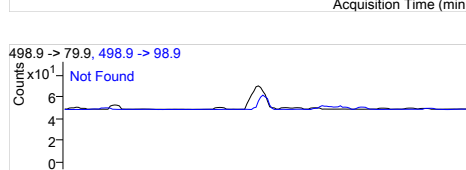
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample



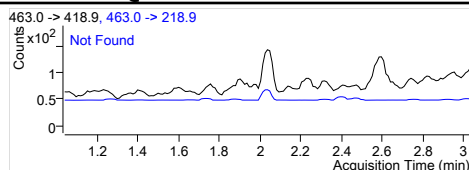
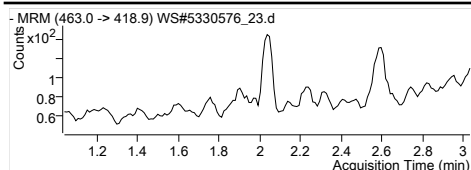
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample



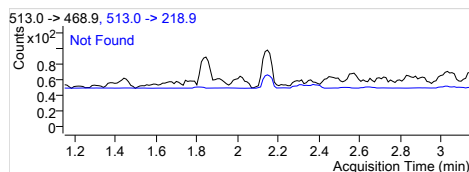
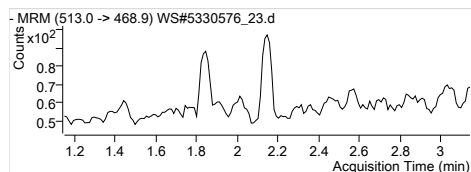
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample



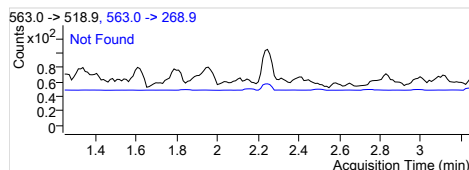
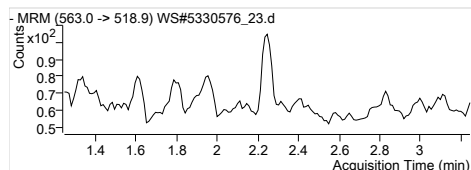
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (2.002)
 Area ratio: 0
 Sample type: Sample



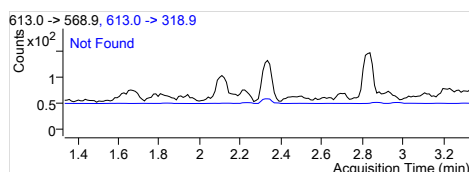
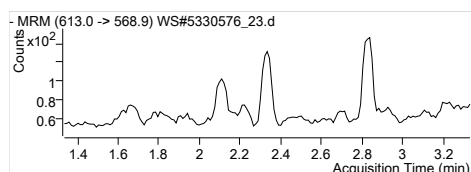
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



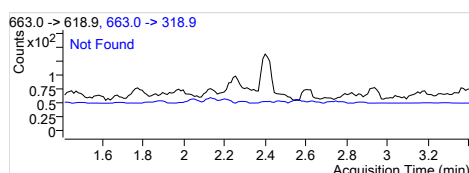
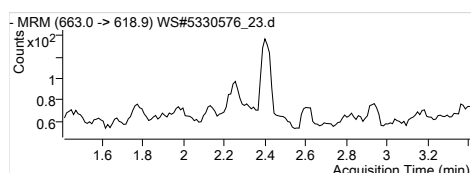
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



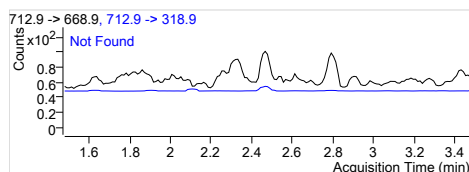
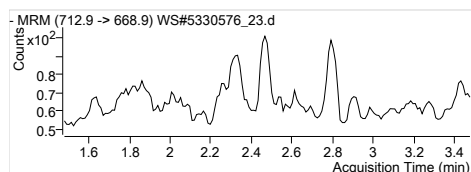
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



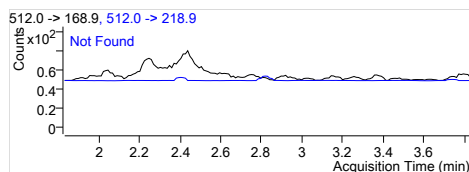
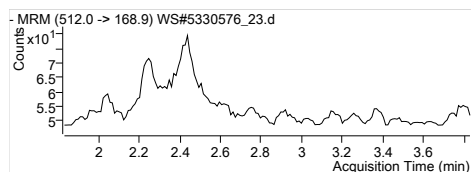
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



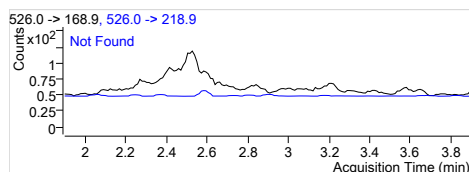
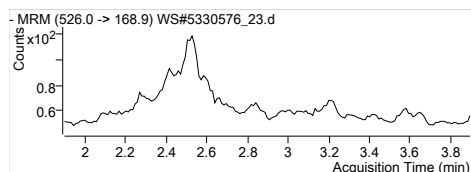
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



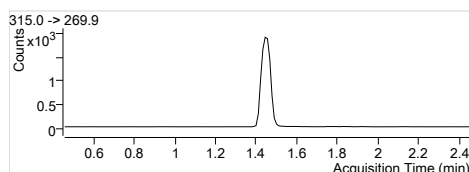
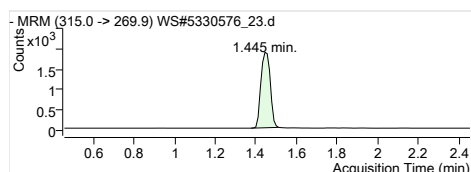
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

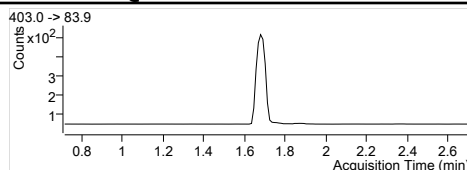
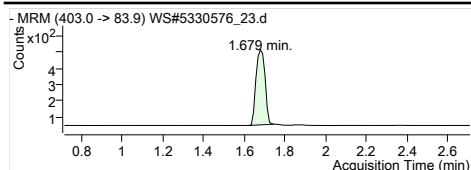


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

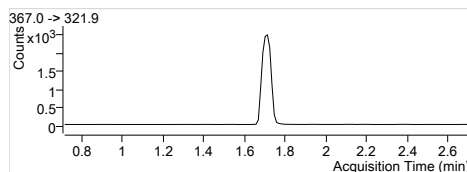
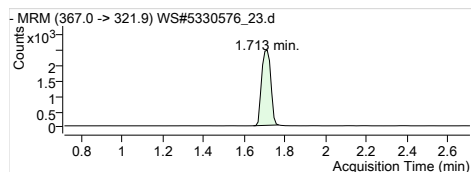


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 108.60 µg/L
 Sample type: 0.27223
 Sample

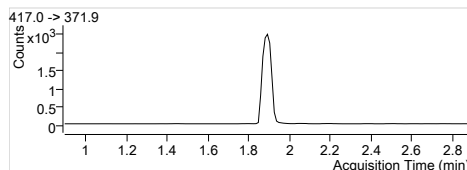
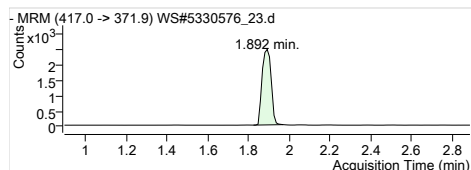
Quantitation Results



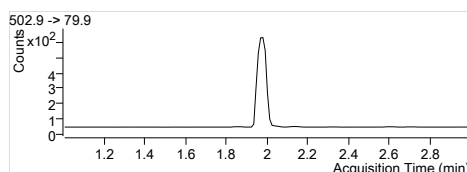
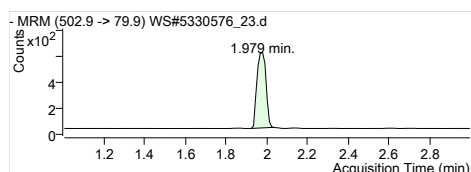
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 113.72 µg/L
Sample type: 0.06571
Sample



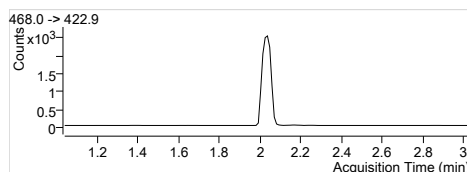
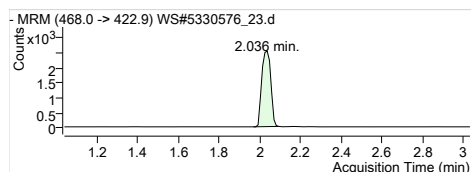
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 109.59 µg/L
Sample type: 0.34819
Sample



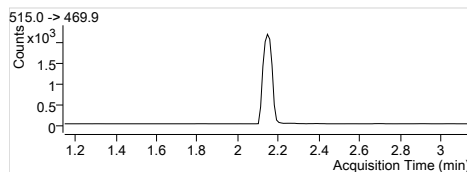
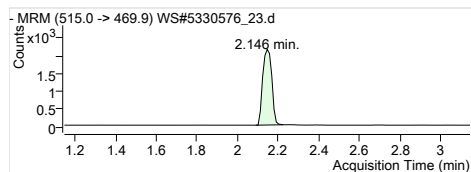
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 105.94 µg/L
Sample type: 0.34709
Sample



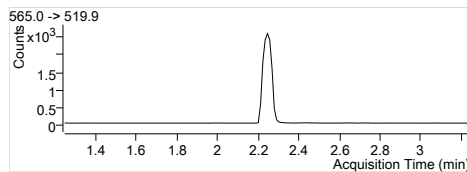
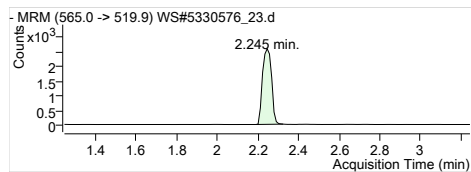
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (2.002)
Area ratio: 115.92 µg/L
Sample type: 0.08246
Sample



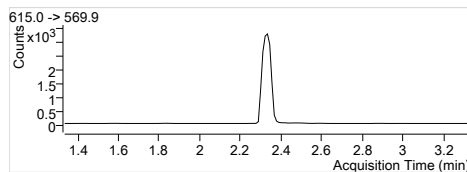
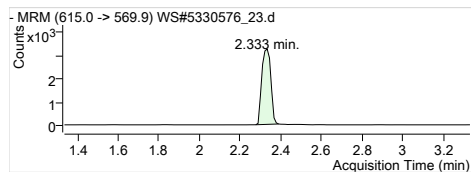
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 110.83 µg/L
Sample type: 0.35515
Sample



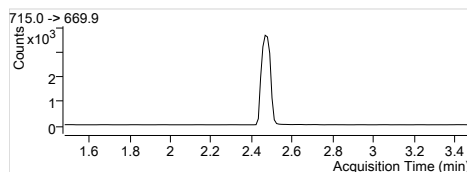
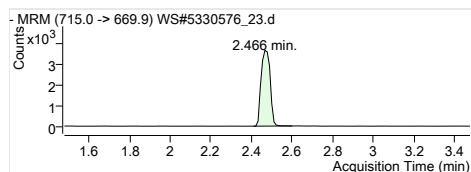
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 104.66 µg/L
Sample type: 0.23059
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 98.47 µg/L
Sample type: 0.27576
Sample

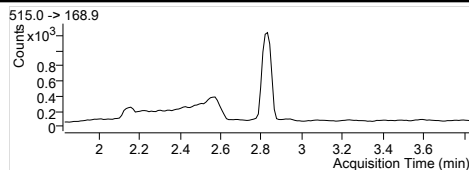
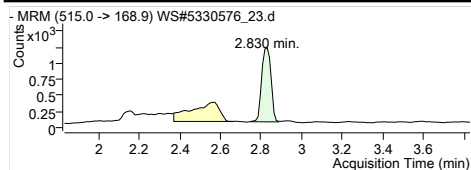


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 98.38 µg/L
Sample type: 0.34793
Sample

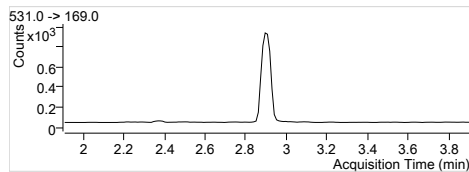
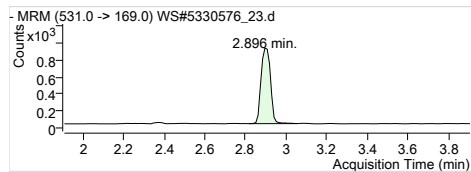


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 100.01 µg/L
Sample type: 0.39726
Sample

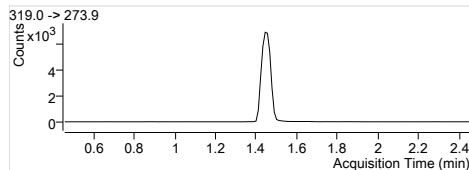
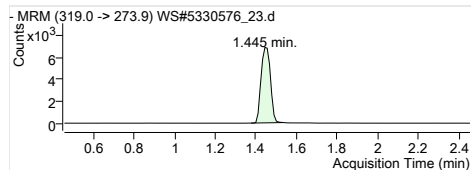
Quantitation Results



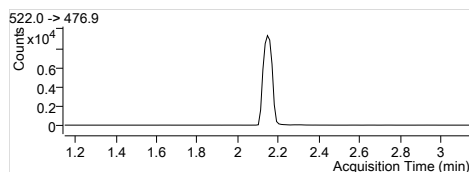
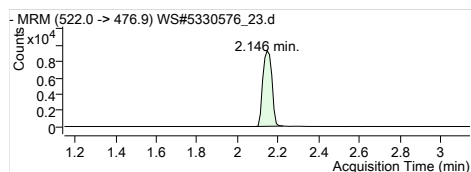
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 104.90 µg/L
Area ratio: 0.16854
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 100.58 µg/L
Area ratio: 0.13142
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.456)
Calc. conc. 2.46 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 2.63 µg/L
Area ratio: 0
Sample type: Sample

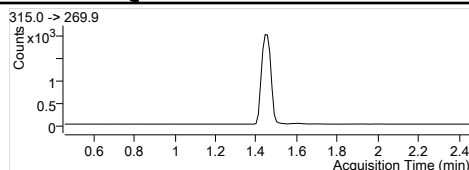
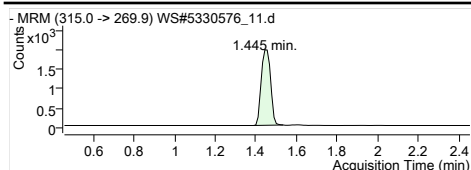
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:BLANK	Instrument	LCMS04
Data File	WS#5330576_11.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-B1
Acq. Date	2018/01/13 2:37:26 AM	Injection Volume	Per Method
Sample Annotation	-		

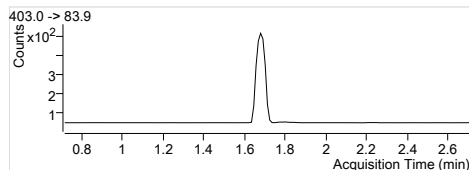
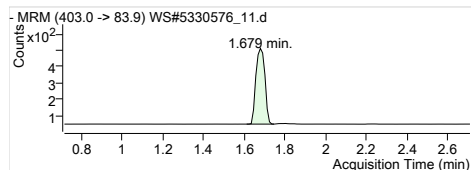
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6293	1.44	1 µg/L		
MPFHxS	1426	1.68	1 µg/L		
MPFHpA	7359	1.71	1 µg/L		
MPFOA	7792	1.89	1 µg/L		
MPFOS	1758	1.98	1 µg/L		
MPFNA	7952	2.04	1 µg/L		
MPFDA	6521	2.15	1 µg/L		
MPFUnA	7842	2.25	1 µg/L		
MPFDoA	9532	2.33	1 µg/L		
MPFTeDA	10342	2.47	1 µg/L		
D3-MeFOSA IS	2756	2.83	1 µg/L		
D5-EtFOSA IS	2196	2.90	1 µg/L		
13C6-PFHxA IS	23363	1.44	1 µg/L		
13C9-PFDA IS	29630	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6293	1.44	-	107.45 µg/L	-
18O2-PFHxS	1426	1.68	-	105.63 µg/L	-
13C4-PFHpA	7359	1.71	-	99.14 µg/L	-
13C4-PFOA	7792	1.89	-	101.80 µg/L	-
13C4-PFOS	1758	1.98	-	105.78 µg/L	-
13C5-PFNA	7872	2.04	-	105.15 µg/L	-
13C2-PFDA	6452	2.15	-	98.84 µg/L	-
13C2-PFUnA	7842	2.25	-	94.50 µg/L	-
13C2-PFDoA	9532	2.33	-	90.97 µg/L	-
13C2-PFTeDA	10558	2.47	-	89.71 µg/L	-
D3-MeFOSA	2776	2.83	-	73.96 µg/L	-
D5-EtFOSA	2228	2.90	-	72.99 µg/L	-
13C6-PFHxA	23363	1.44	-	2.63 µg/L	-
13C9-PFDA	29630	2.15	-	2.72 µg/L	-

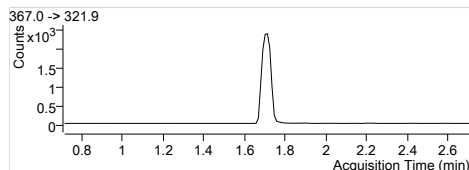
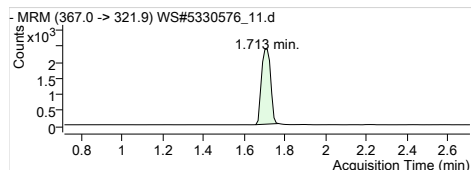
Quantitation Results



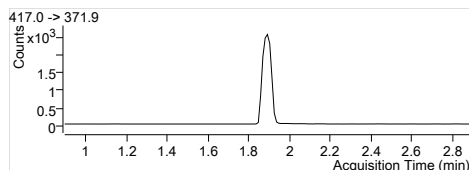
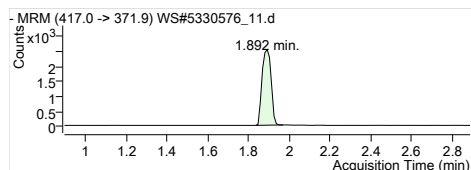
MPFHxA
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



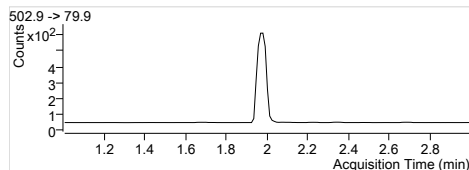
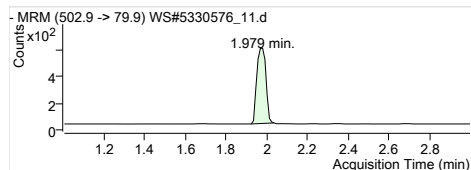
MPFHxS
 RT (Exp. RT): 1.679 (1.713)
 Concentration: 1 µg/L
 Sample type: Sample



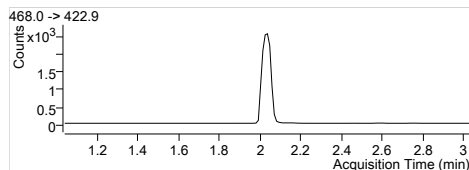
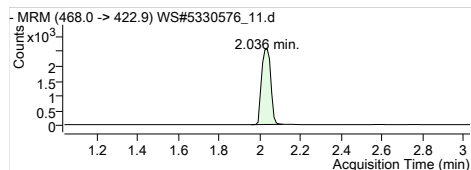
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: Sample



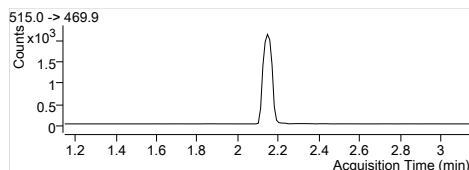
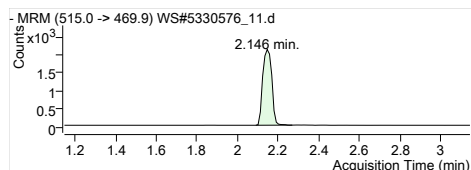
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Sample



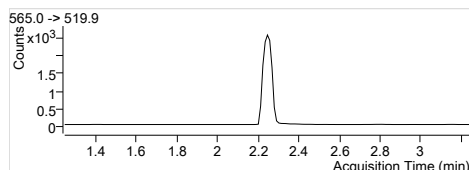
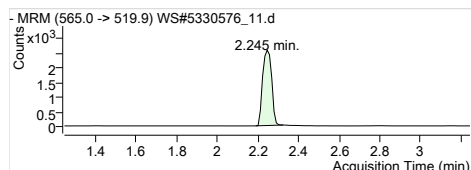
MPFOS
 RT (Exp. RT): 1.979 (2.002)
 Concentration: 1 µg/L
 Sample type: Sample



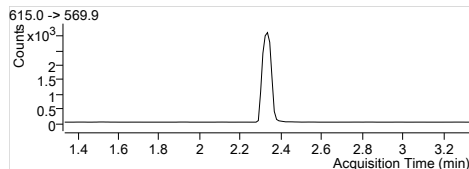
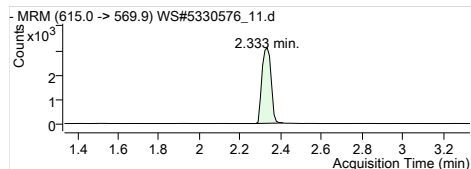
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: Sample



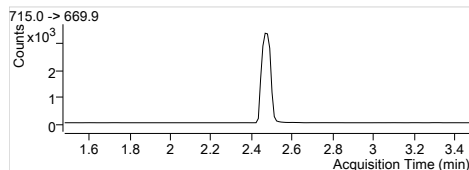
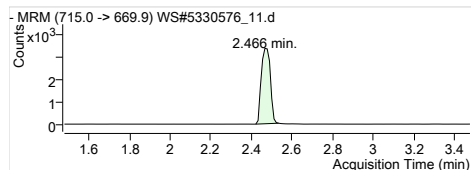
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Sample

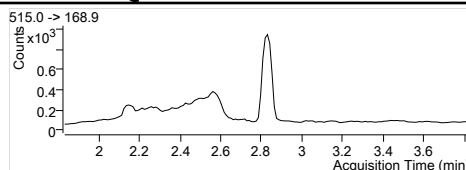
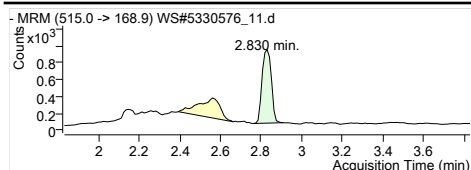


MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Sample

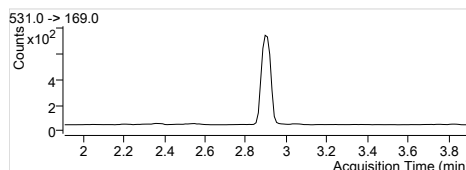
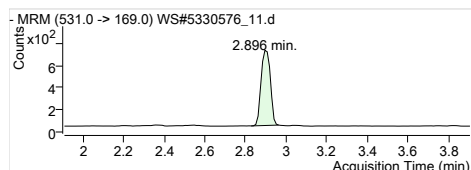


MPFTxDA
 RT (Exp. RT): 2.466 (2.478)
 Concentration: 1 µg/L
 Sample type: Sample

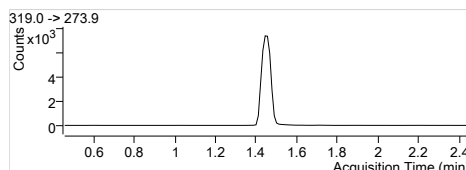
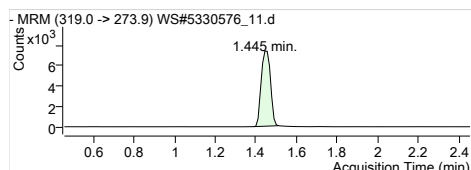
Quantitation Results



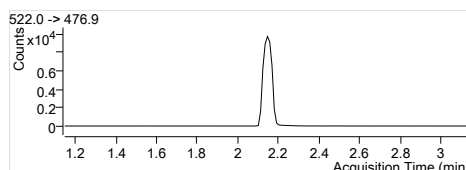
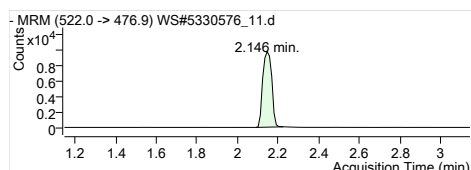
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



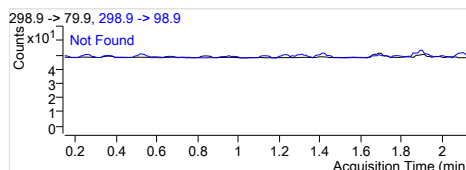
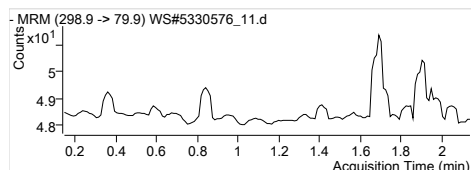
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Sample



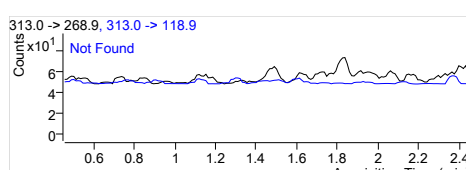
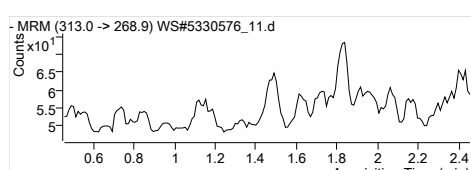
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Sample



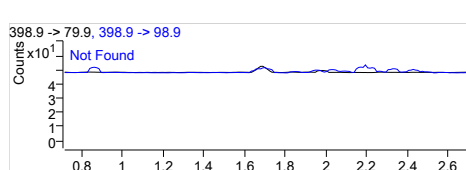
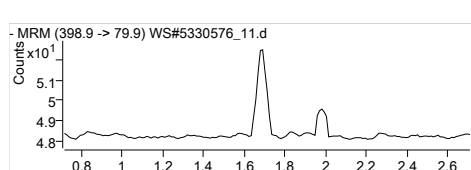
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



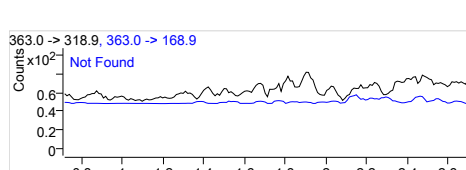
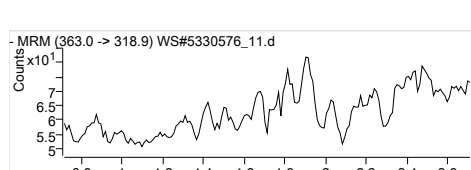
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.143)
 Area ratio: 0
 Sample type: Sample



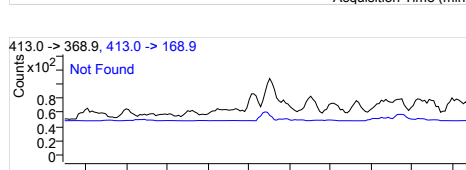
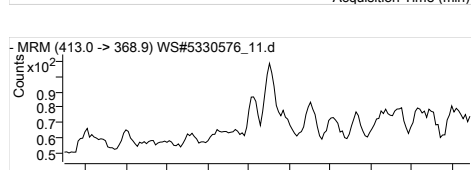
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.456)
 Area ratio: 0
 Sample type: Sample



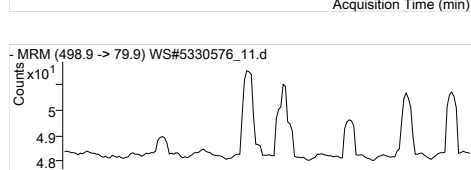
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample

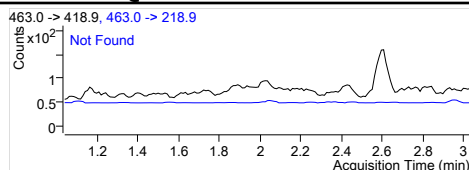
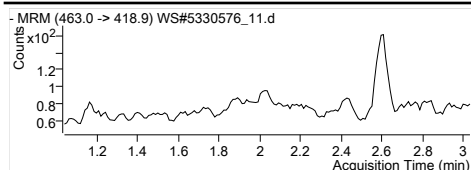


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample

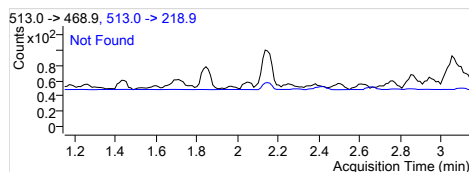
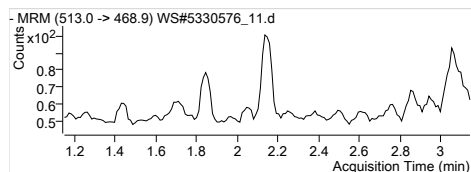


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (2.002)
 Area ratio: 0
 Sample type: Sample

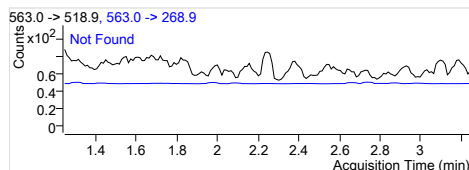
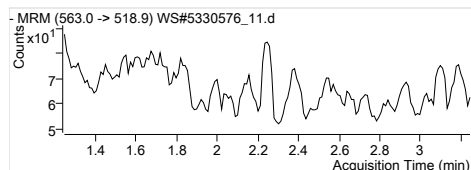
Quantitation Results



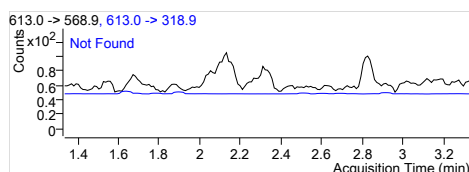
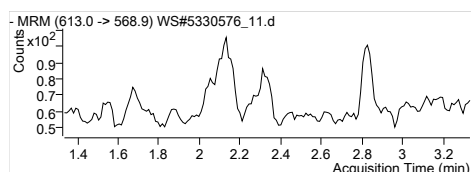
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



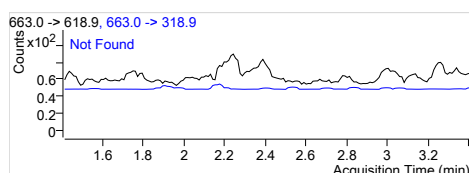
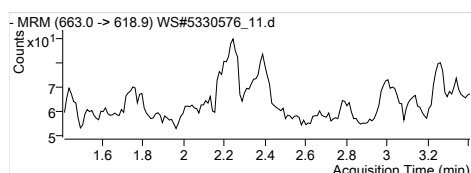
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



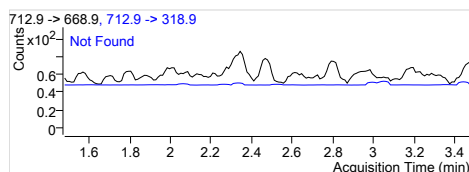
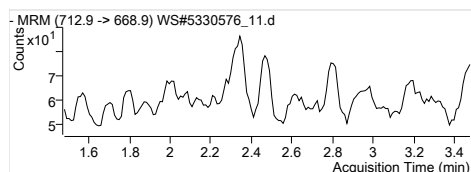
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



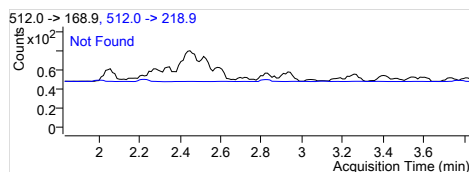
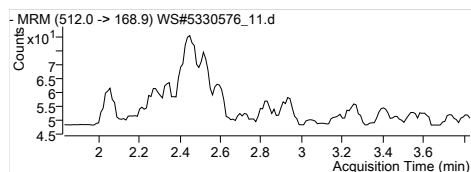
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



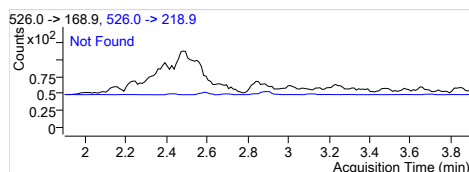
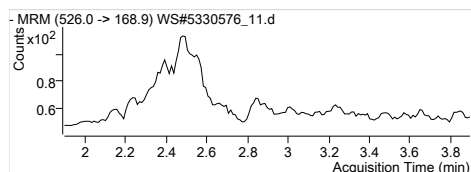
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.411)
 Area ratio: N.D.
 Sample type: 0
 Sample



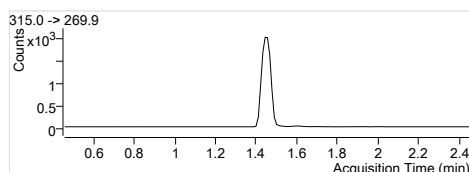
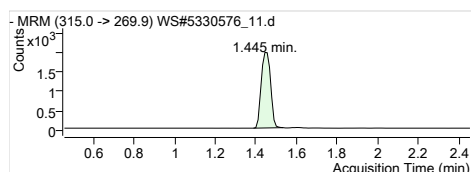
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.478)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

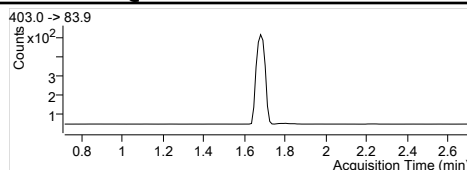
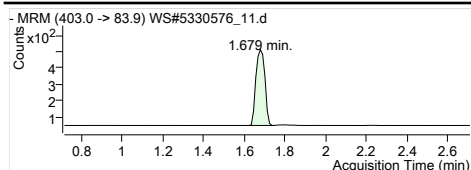


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

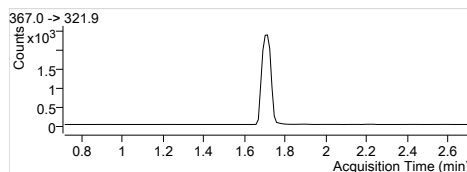
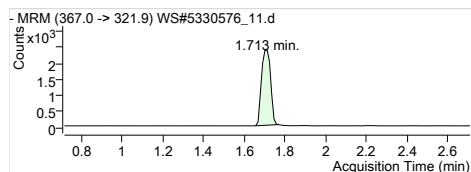


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 107.45 µg/L
 Sample type: 0.26936
 Sample

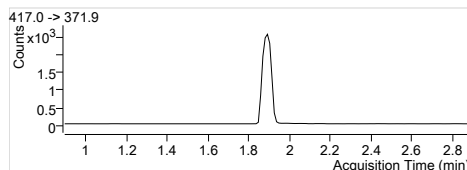
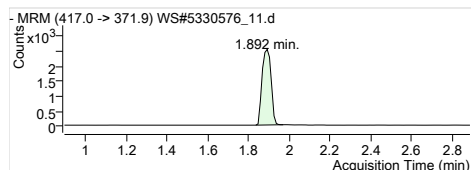
Quantitation Results



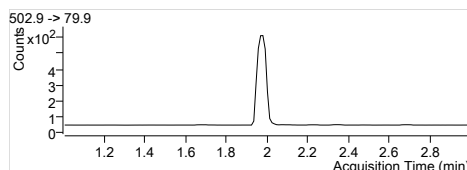
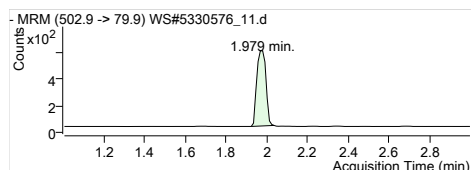
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 105.63 µg/L
Sample type: 0.06104
Sample



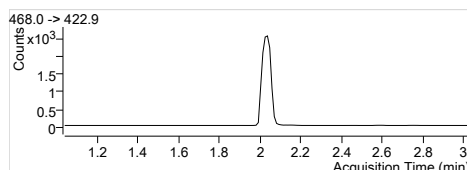
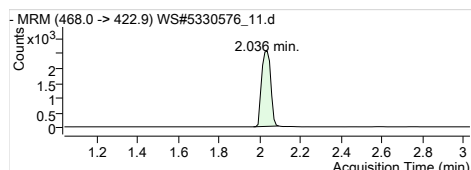
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 99.14 µg/L
Sample type: 0.31499
Sample



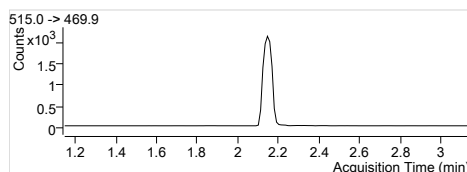
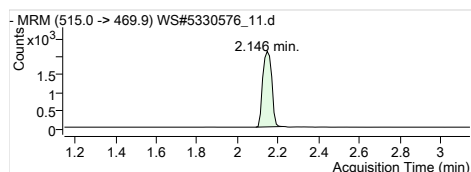
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 101.80 µg/L
Sample type: 0.33352
Sample



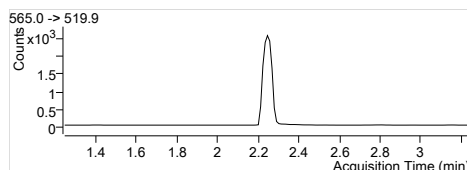
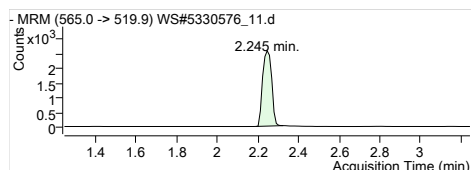
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (2.002)
Area ratio: 105.78 µg/L
Sample type: 0.07525
Sample



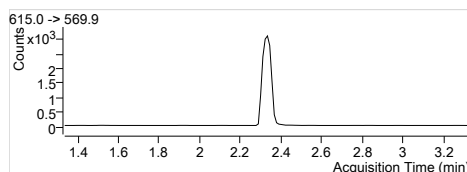
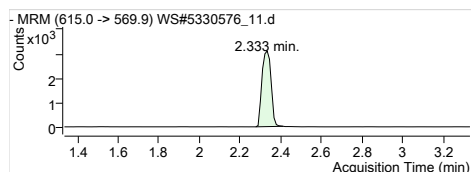
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 105.15 µg/L
Sample type: 0.33694
Sample



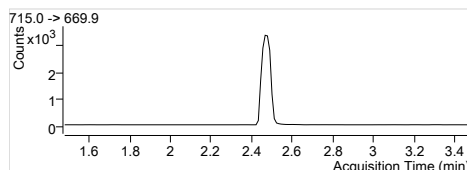
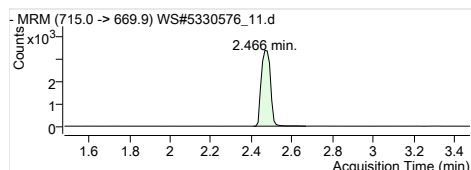
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 98.84 µg/L
Sample type: 0.21775
Sample



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 94.50 µg/L
Sample type: 0.26466
Sample

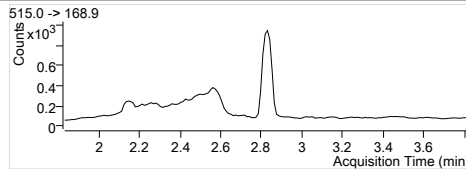
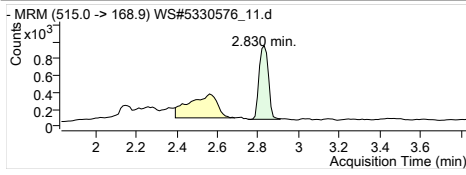


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 90.97 µg/L
Sample type: 0.32170
Sample

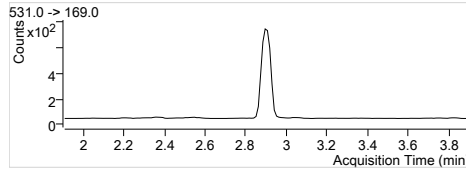
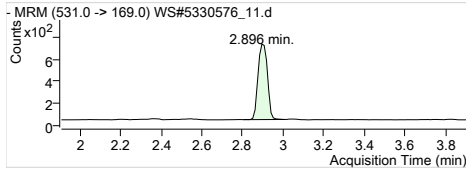


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 89.71 µg/L
Sample type: 0.35633
Sample

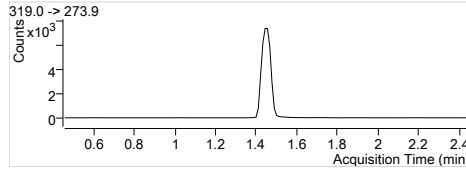
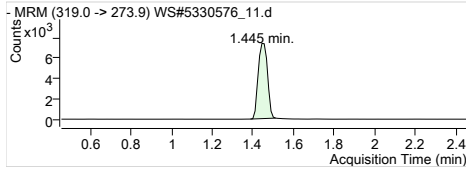
Quantitation Results



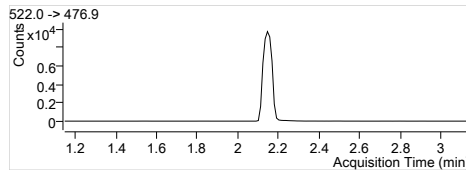
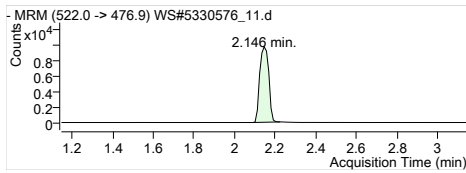
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 73.96 µg/L
Area ratio: 0.11882
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 72.99 µg/L
Area ratio: 0.09536
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.456)
Calc. conc. 2.63 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 2.72 µg/L
Area ratio: 0
Sample type: Sample

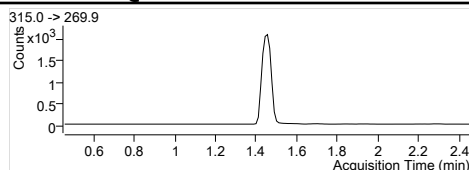
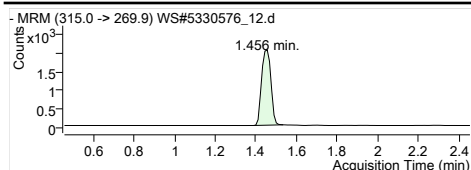
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:SPIKE	Instrument	LCMS04
Data File	WS#5330576_12.d	Operator	
Sample Type	QC	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-B2
Acq. Date	2018/01/13 2:42:22 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6513	1.46	1 µg/L		
MPFHxS	1689	1.68	1 µg/L		
MPFHpA	8197	1.71	1 µg/L		
MPFOA	8648	1.89	1 µg/L		
MPFOS	1962	1.98	1 µg/L		
MPFNA	8407	2.04	1 µg/L		
MPFDA	7313	2.15	1 µg/L		
MPFUnA	9049	2.25	1 µg/L		
MPFDoA	10963	2.33	1 µg/L		
MPFTeDA	10339	2.47	1 µg/L		
D3-MeFOSA IS	2759	2.83	1 µg/L		
D5-EtFOSA IS	2258	2.90	1 µg/L		
13C6-PFHxA IS	28954	1.46	1 µg/L		
13C9-PFDA IS	35867	2.15	1 µg/L		

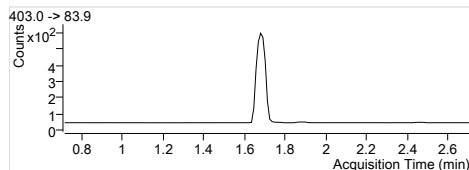
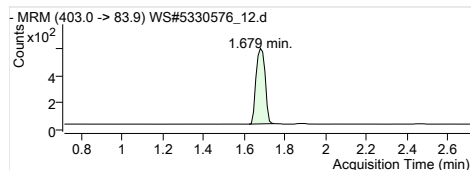
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	19995	1.11	20.80	0.53 µg/L	105.61
PFHxA 1	70616	1.46	20.80	0.60 µg/L	121.17
PFHxS 1	17858	1.68	20.80	0.54 µg/L	107.74
PFHpA 1	88929	1.71	20.80	0.62 µg/L	125.02
PFOA 1	100229	1.89	20.80	0.60 µg/L	120.06
PFOS 1	17470	1.97	20.80	0.51 µg/L	102.89
PFNA 1	85820	2.04	20.80	0.58 µg/L	116.92
PFDA 1	91557	2.15	20.80	0.56 µg/L	111.77
PFUnA 1	95715	2.25	20.80	0.54 µg/L	108.35
PFDaA 1	108132	2.33	20.80	0.53 µg/L	105.45
PFTTrDA 1	119033	2.41	20.80	0.59 µg/L	119.11
PFTeDA 1	97224	2.47	20.80	0.61 µg/L	123.17
MeFOSA 1	8727	2.82	20.80	0.63 µg/L	126.40
EtFOSA 1	8487	2.90	20.80	0.57 µg/L	114.09
13C2-PFHxA	6513	1.46	100.00	89.74 µg/L	89.74
18O2-PFHxS	1689	1.68	100.00	100.95 µg/L	100.95
13C4-PFHpA	8197	1.71	100.00	89.11 µg/L	89.11
13C4-PFOA	8648	1.89	100.00	91.16 µg/L	91.16
13C4-PFOS	1962	1.98	100.00	95.26 µg/L	95.26
13C5-PFNA	8366	2.04	100.00	90.17 µg/L	90.17
13C2-PFDA	7196	2.15	100.00	91.07 µg/L	91.07
13C2-PFUnA	9049	2.25	100.00	90.09 µg/L	90.09
13C2-PFDoA	10963	2.33	100.00	86.43 µg/L	86.43
13C2-PFTeDA	10491	2.47	100.00	73.64 µg/L	73.64
D3-MeFOSA	2784	2.83	100.00	59.85 µg/L	59.85
D5-EtFOSA	2360	2.90	100.00	62.38 µg/L	62.38
13C6-PFHxA	28954	1.46	100.00	3.26 µg/L	135.78
13C9-PFDA	35867	2.15	100.00	3.29 µg/L	137.09

Quantitation Results



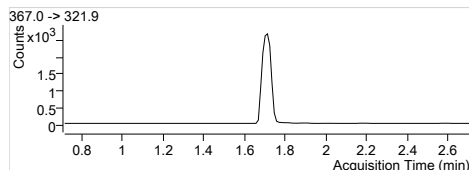
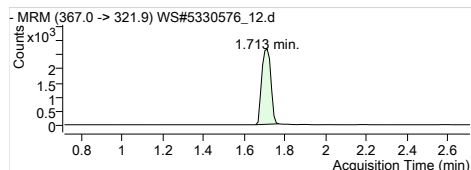
MPFHxA
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: QC

Internal Standard
1.456 (1.456)
1 µg/L
QC



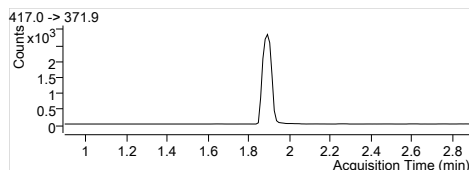
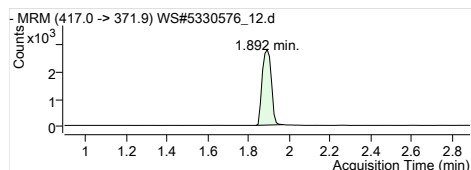
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: QC

Internal Standard
1.679 (1.713)
1 µg/L
QC



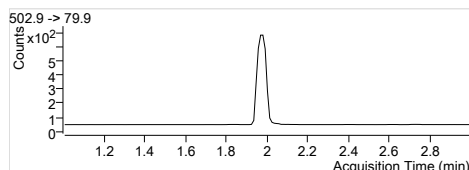
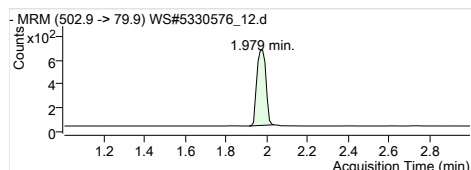
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: QC

Internal Standard
1.713 (1.713)
1 µg/L
QC



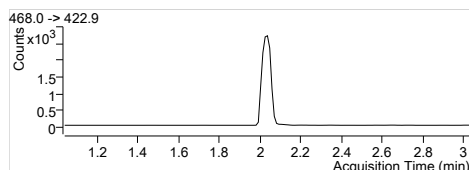
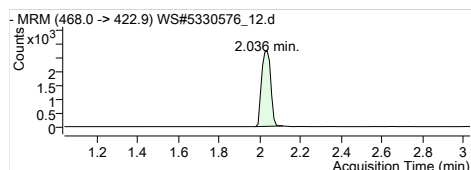
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC

Internal Standard
1.892 (1.892)
1 µg/L
QC



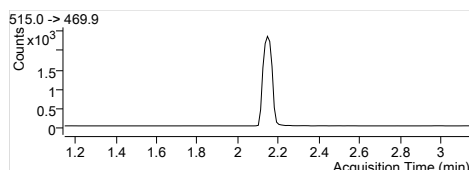
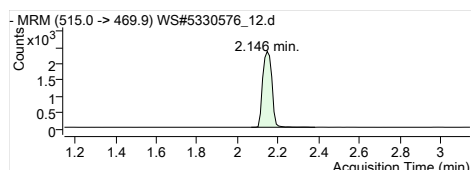
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: QC

Internal Standard
1.979 (2.002)
1 µg/L
QC



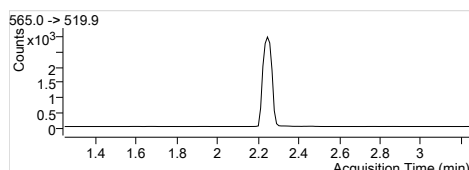
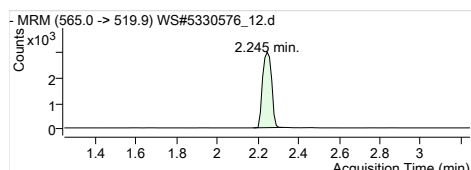
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC

Internal Standard
2.036 (2.036)
1 µg/L
QC



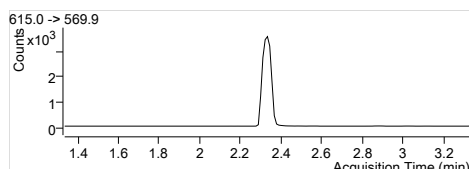
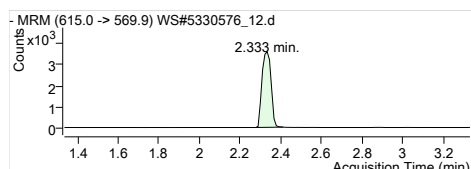
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC

Internal Standard
2.146 (2.146)
1 µg/L
QC



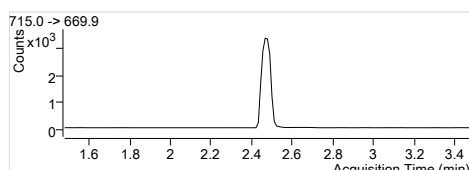
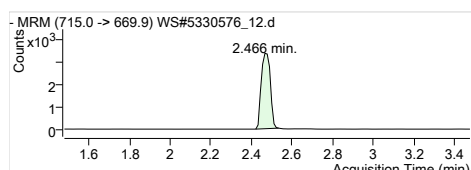
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC

Internal Standard
2.245 (2.245)
1 µg/L
QC



MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: QC

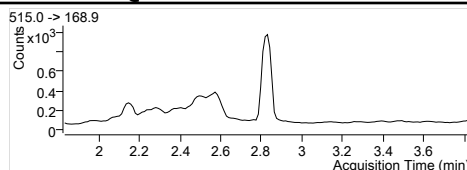
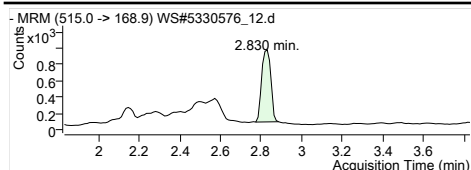
Internal Standard
2.333 (2.333)
1 µg/L
QC



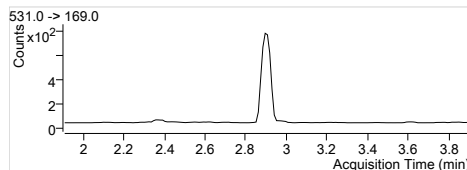
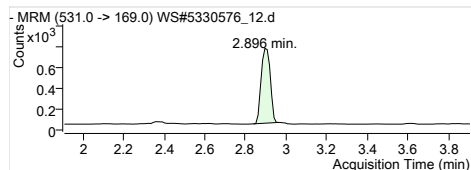
MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: QC

Internal Standard
2.466 (2.478)
1 µg/L
QC

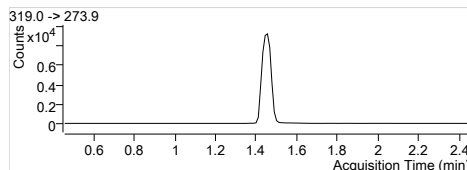
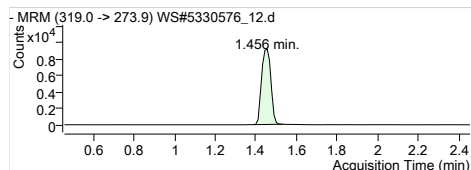
Quantitation Results



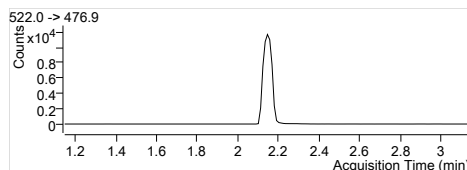
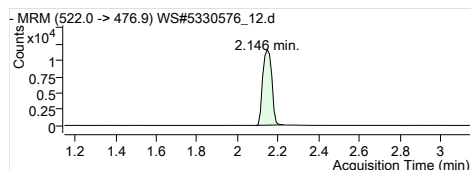
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: QC



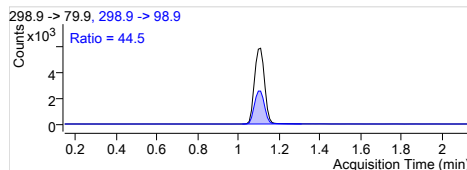
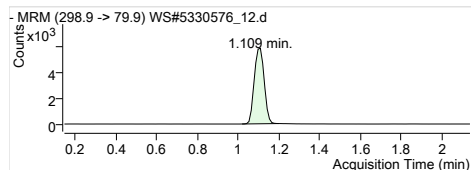
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: QC



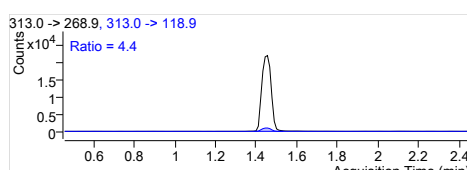
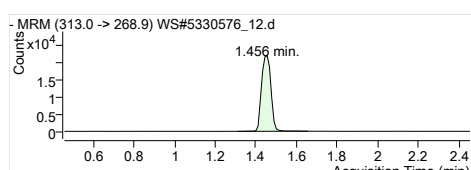
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: QC



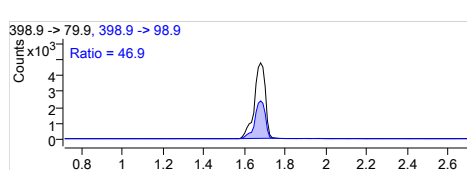
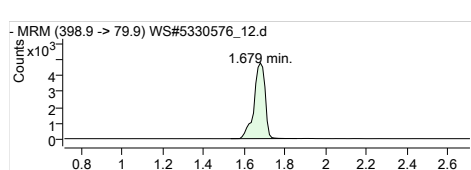
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: QC



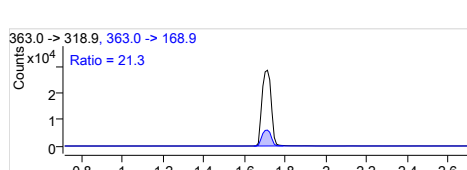
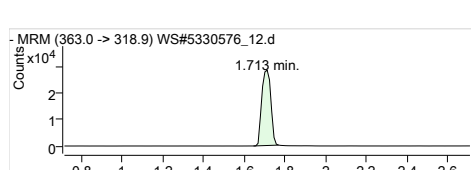
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.109 (1.143)
 Area ratio: 0.53 µg/L
 Sample type: 11.83837
 QC



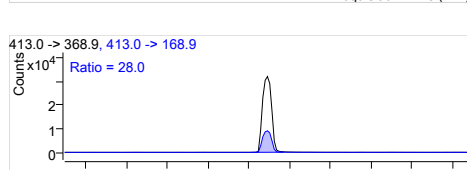
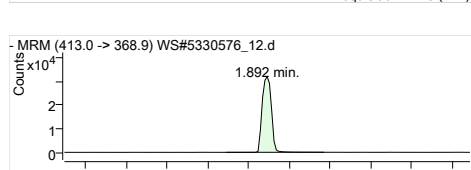
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 0.60 µg/L
 Sample type: 10.84232
 QC



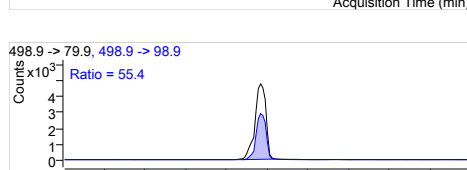
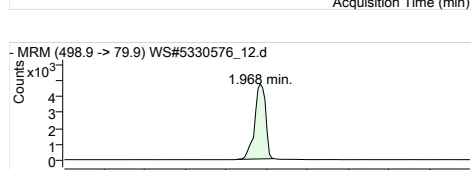
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 0.54 µg/L
 Sample type: 10.57312
 QC



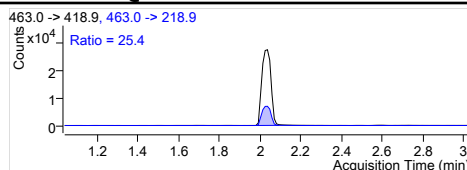
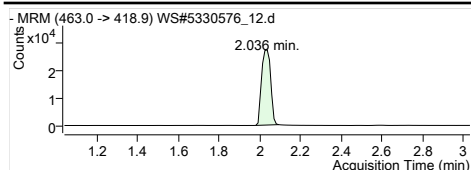
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 0.62 µg/L
 Sample type: 10.84897
 QC



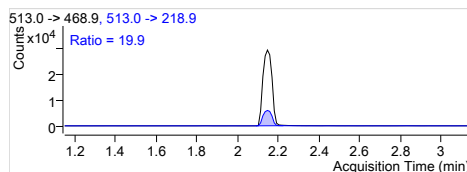
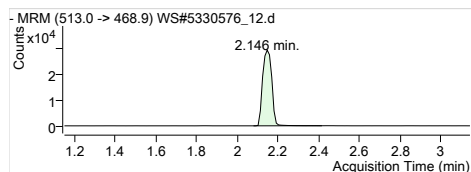
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.60 µg/L
 Sample type: 11.58985
 QC



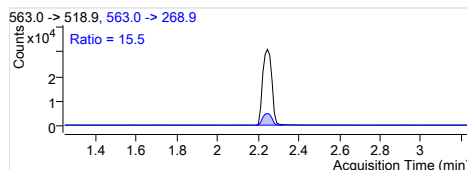
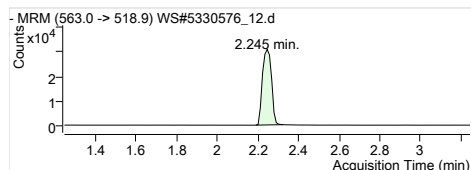
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 0.51 µg/L
 Sample type: 8.90418
 QC



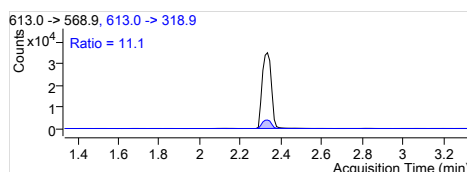
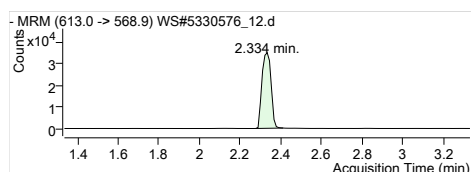
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 0.58 µg/L
 Sample type: 10.20816
 QC



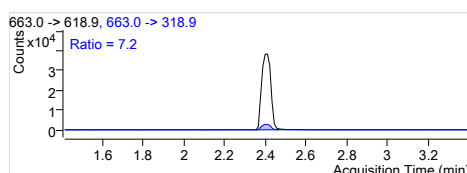
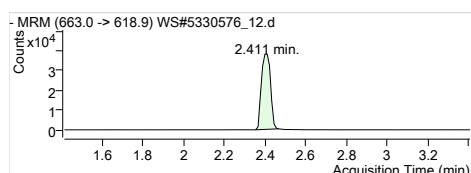
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 0.56 µg/L
 Sample type: 12.51976
 QC



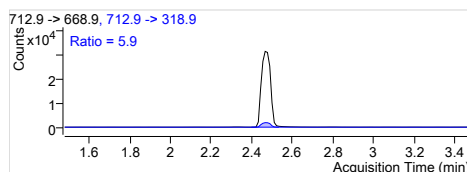
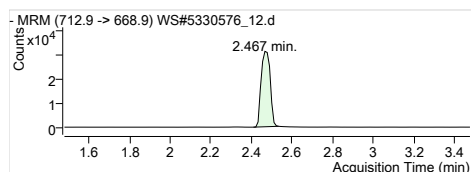
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 0.54 µg/L
 Sample type: 10.57741
 QC



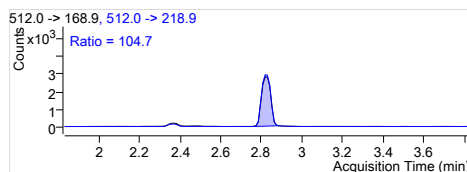
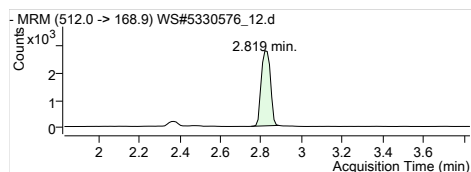
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 0.53 µg/L
 Sample type: 9.86336
 QC



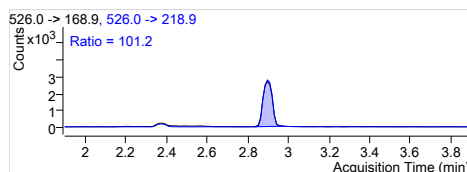
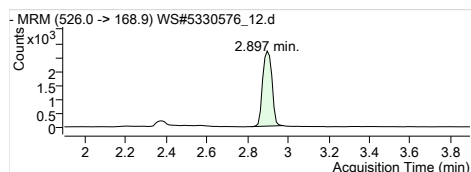
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.411 (2.411)
 Area ratio: 0.59 µg/L
 Sample type: 11.51301
 QC



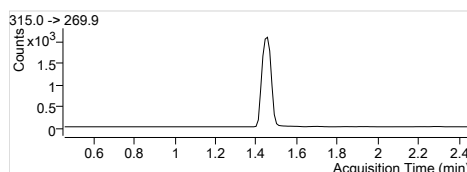
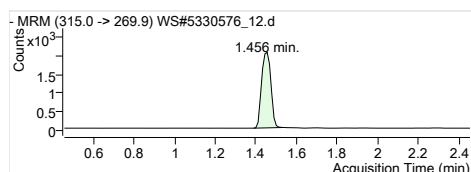
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.478)
 Area ratio: 0.61 µg/L
 Sample type: 9.40362
 QC



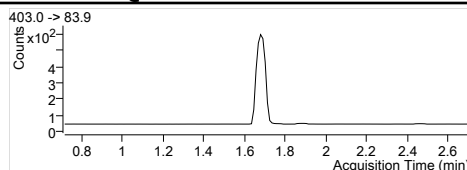
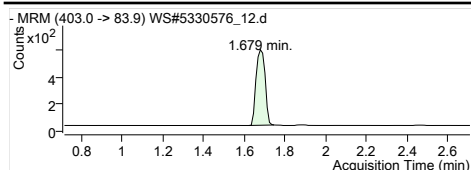
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 0.63 µg/L
 Sample type: 3.16310
 QC



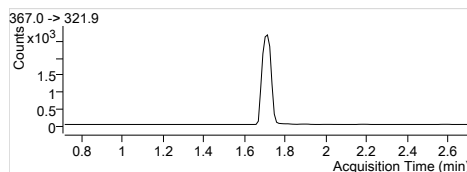
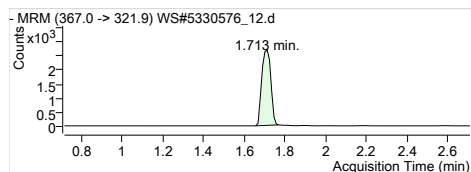
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 0.57 µg/L
 Sample type: 3.75864
 QC



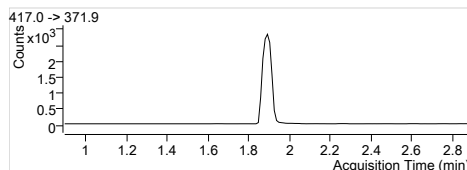
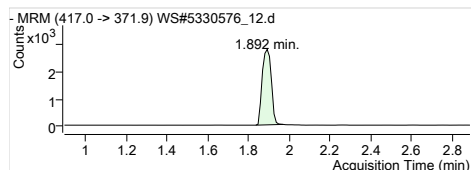
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 89.74 µg/L
 Sample type: 0.22494
 QC



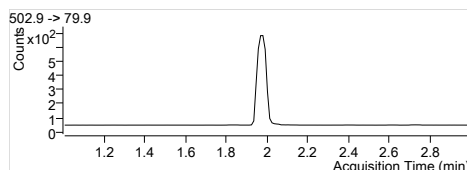
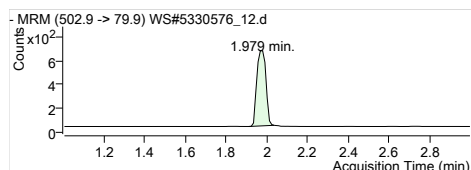
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 100.95 µg/L
 Sample type: 0.05833
 QC



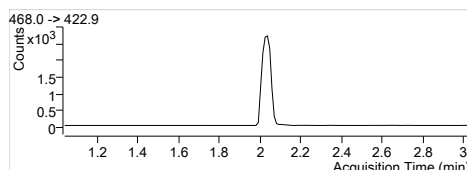
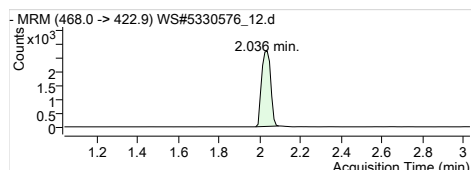
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 89.11 µg/L
 Sample type: 0.28310
 QC



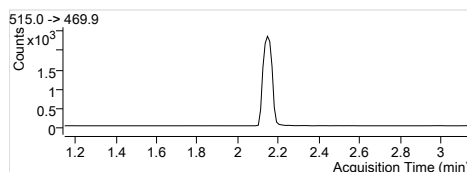
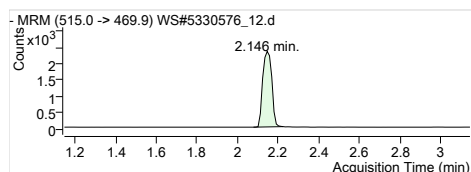
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 91.16 µg/L
 Sample type: 0.29868
 QC



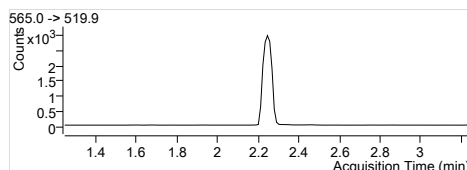
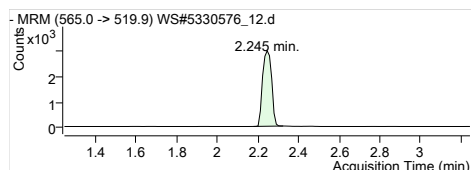
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (2.002)
 Area ratio: 95.26 µg/L
 Sample type: 0.06776
 QC



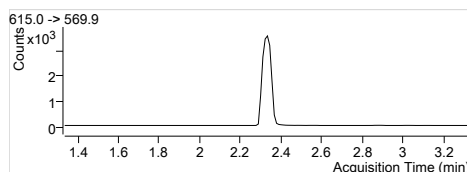
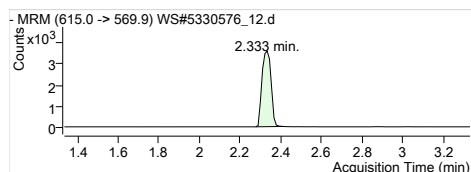
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 90.17 µg/L
 Sample type: 0.28894
 QC



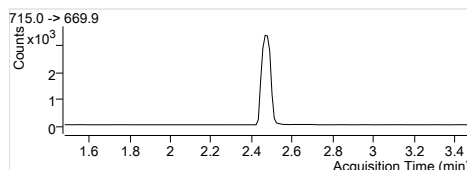
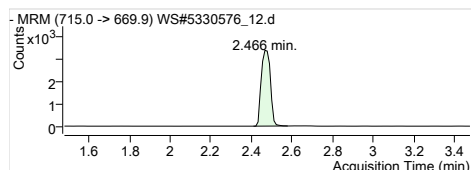
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 91.07 µg/L
 Sample type: 0.20063
 QC



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 90.09 µg/L
 Sample type: 0.25229
 QC

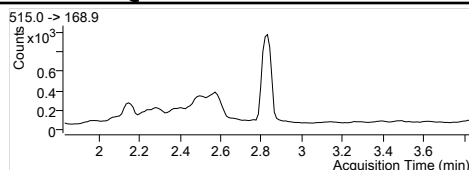
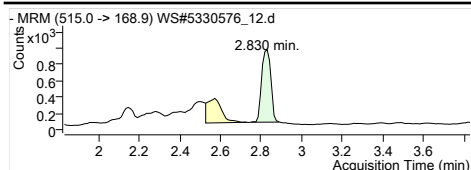


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 86.43 µg/L
 Sample type: 0.30566
 QC

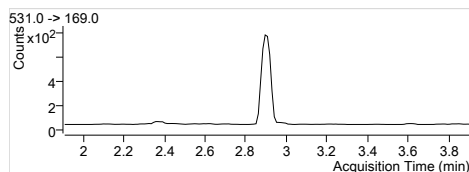
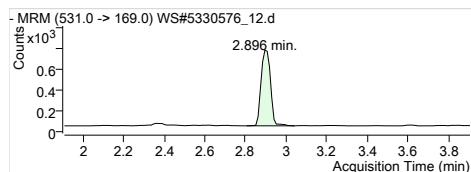


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.478)
 Area ratio: 73.64 µg/L
 Sample type: 0.29250
 QC

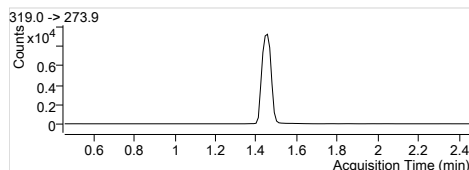
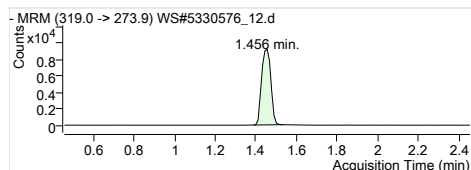
Quantitation Results



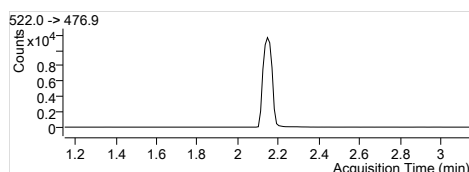
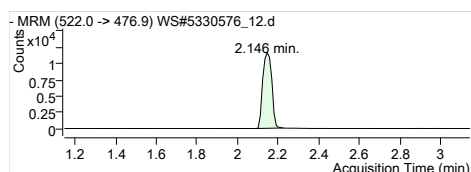
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 59.85 µg/L
Sample type: 0.09615
QC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.907)
Area ratio: 62.38 µg/L
Sample type: 0.08151
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.456 (1.456)
Area ratio: 3.26 µg/L
Sample type: 0
QC



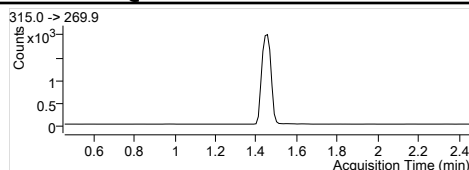
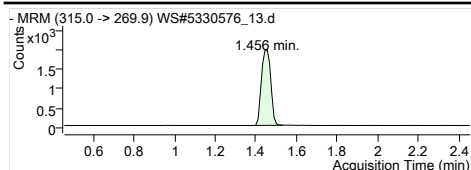
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 3.29 µg/L
Sample type: 0
QC

Quantitation Results

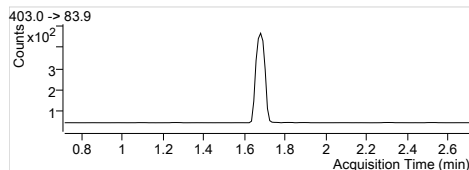
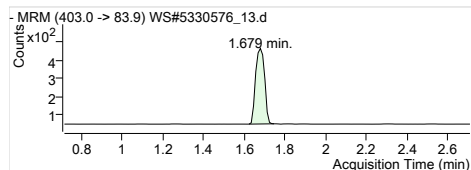
Batch Path	T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	5330576:SPIKE:D1	Instrument	LCMS04
Data File	WS#5330576_13.d	Operator	
Sample Type	QC	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-B3
Acq. Date	2018/01/13 2:47:18 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	6217	1.46	1 µg/L
MPFHxS	1284	1.68	1 µg/L
MPFHpA	7505	1.71	1 µg/L
MPFOA	8028	1.89	1 µg/L
MPFOS	1752	1.98	1 µg/L
MPFNA	7319	2.04	1 µg/L
MPFDA	6317	2.15	1 µg/L
MPFUnA	7713	2.25	1 µg/L
MPFDoA	8840	2.33	1 µg/L
MPFTeDA	9161	2.47	1 µg/L
D3-MeFOSA IS	2318	2.83	1 µg/L
D5-EtFOSA IS	1887	2.90	1 µg/L
13C6-PFHxA IS	24235	1.46	1 µg/L
13C9-PFDA IS	28966	2.15	1 µg/L

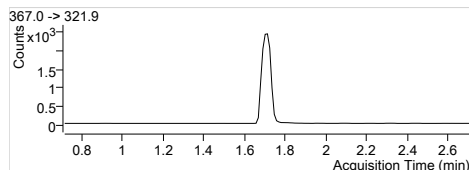
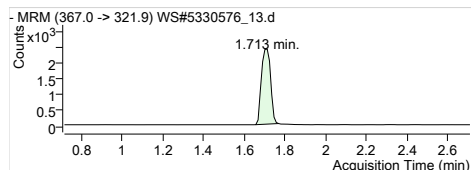
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	17130	1.11	20.80	0.59 µg/L	119.01
PFHxA 1	61201	1.46	20.80	0.55 µg/L	110.02
PFHxS 1	16018	1.68	20.80	0.64 µg/L	127.24
PFHpA 1	78228	1.71	20.80	0.60 µg/L	120.10
PFOA 1	86711	1.89	20.80	0.56 µg/L	111.91
PFOS 1	15119	1.97	20.80	0.50 µg/L	99.74
PFNA 1	73828	2.04	20.80	0.58 µg/L	115.54
PFDA 1	81265	2.15	20.80	0.57 µg/L	114.83
PFUnA 1	82719	2.25	20.80	0.55 µg/L	109.86
PFDoA 1	95513	2.33	20.80	0.58 µg/L	115.48
PFTeDA 1	100657	2.40	20.80	0.57 µg/L	113.70
PFTeDA 1	83990	2.47	20.80	0.60 µg/L	120.09
MeFOSA 1	7066	2.82	20.80	0.61 µg/L	121.82
EtFOSA 1	7611	2.90	20.80	0.61 µg/L	122.42
13C2-PFHxA	6217	1.46	100.00	102.34 µg/L	102.34
18O2-PFHxS	1284	1.68	100.00	91.69 µg/L	91.69
13C4-PFHpA	7505	1.71	100.00	97.47 µg/L	97.47
13C4-PFOA	8028	1.89	100.00	101.10 µg/L	101.10
13C4-PFOS	1752	1.98	100.00	101.63 µg/L	101.63
13C5-PFNA	7260	2.04	100.00	93.49 µg/L	93.49
13C2-PFDA	6278	2.15	100.00	98.38 µg/L	98.38
13C2-PFUnA	7713	2.25	100.00	95.08 µg/L	95.08
13C2-PFDoA	8840	2.33	100.00	86.30 µg/L	86.30
13C2-PFTeDA	9384	2.47	100.00	81.56 µg/L	81.56
D3-MeFOSA	2397	2.83	100.00	61.56 µg/L	61.56
D5-EtFOSA	1951	2.90	100.00	61.61 µg/L	61.61
13C6-PFHxA	24235	1.46	100.00	2.73 µg/L	113.65
13C9-PFDA	28966	2.15	100.00	2.66 µg/L	110.72



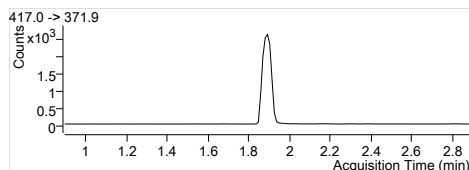
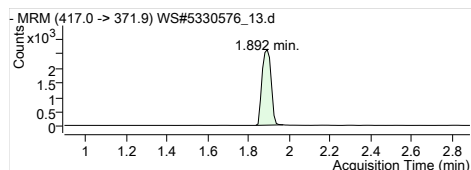
MPFHxA
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: QC



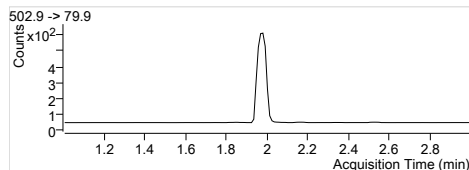
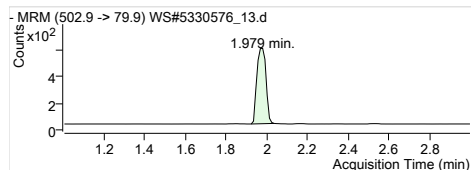
MPFHxS
 RT (Exp. RT): 1.679 (1.713)
 Concentration: 1 µg/L
 Sample type: QC



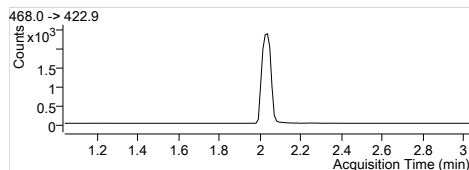
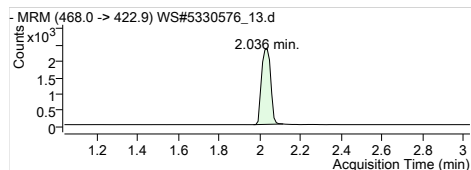
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: QC



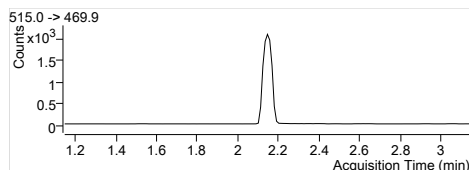
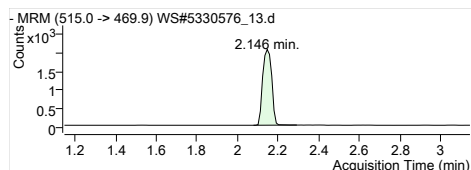
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: QC



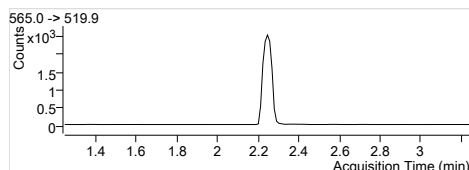
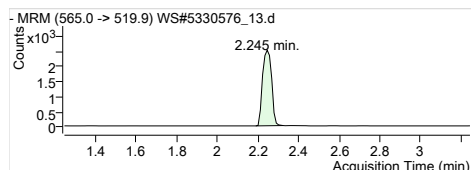
MPFOS
 RT (Exp. RT): 1.979 (2.002)
 Concentration: 1 µg/L
 Sample type: QC



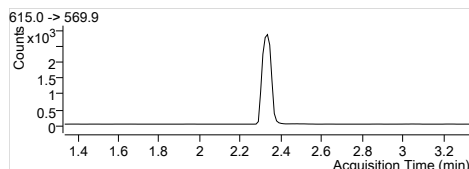
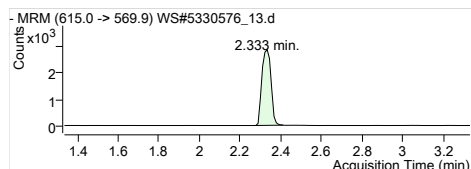
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: QC



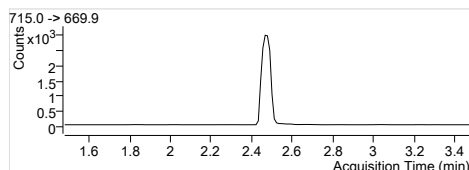
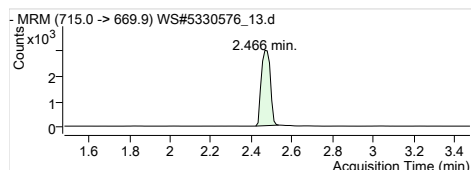
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: QC



MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: QC

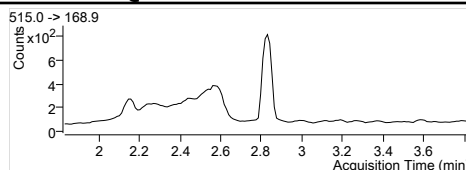
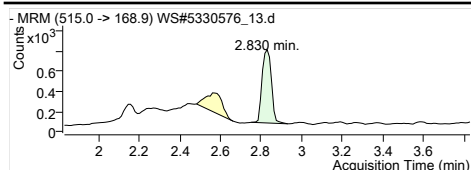


MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: QC

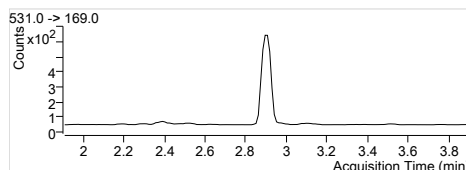
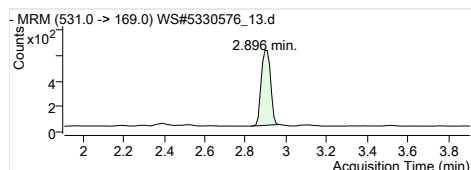


MPFTeDA
 RT (Exp. RT): 2.466 (2.478)
 Concentration: 1 µg/L
 Sample type: QC

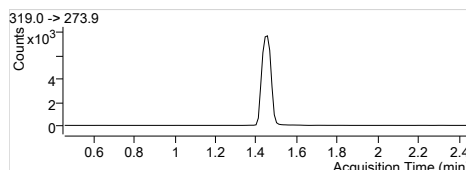
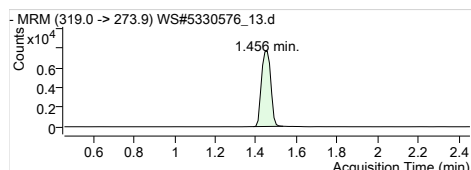
Quantitation Results



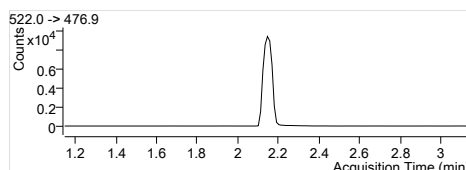
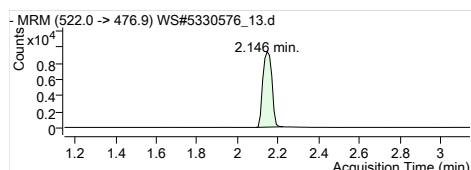
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: QC



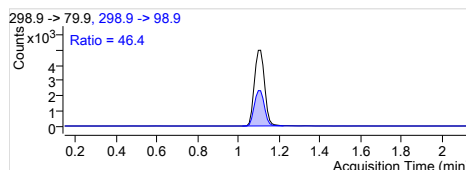
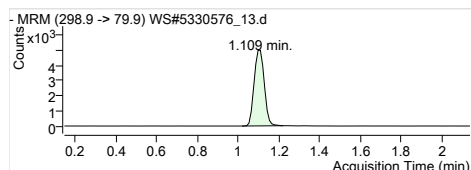
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: QC



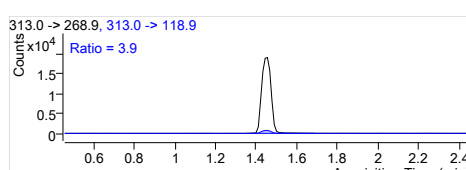
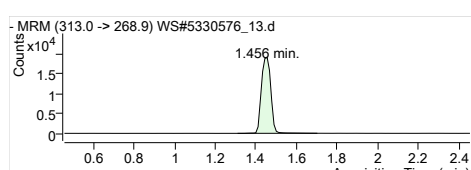
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: QC



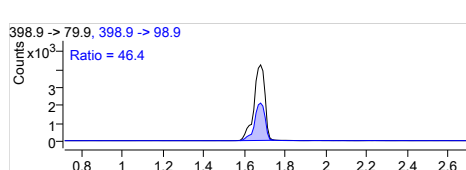
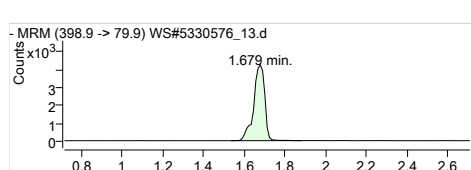
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: QC



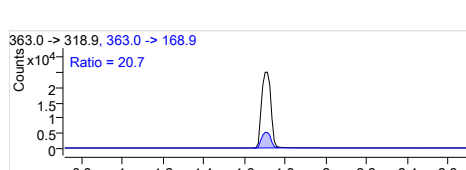
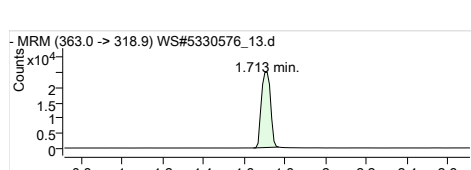
PFBS 1
 298.9 -> 79.9
 RT (Exp. RT): 1.109 (1.143)
 Calc. conc. 0.59 µg/L
 Area ratio: 13.34112
 Sample type: QC



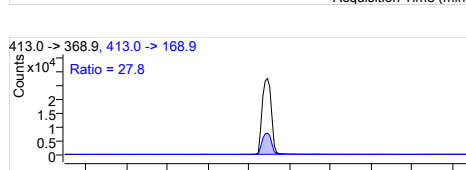
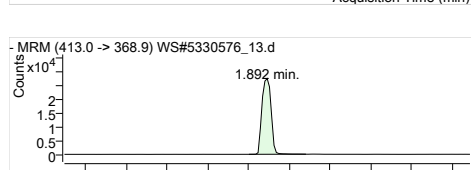
PFHxA 1
 313.0 -> 268.9
 RT (Exp. RT): 1.456 (1.456)
 Calc. conc. 0.55 µg/L
 Area ratio: 9.84414
 Sample type: QC



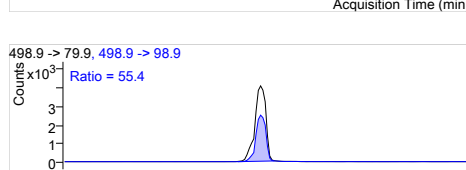
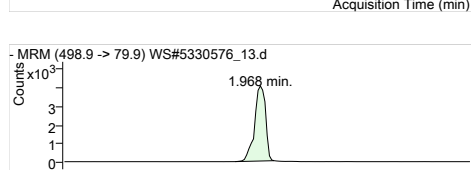
PFHxS 1
 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.713)
 Calc. conc. 0.64 µg/L
 Area ratio: 12.47508
 Sample type: QC



PFHpA 1
 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 0.60 µg/L
 Area ratio: 10.42345
 Sample type: QC

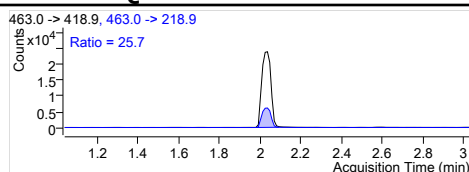
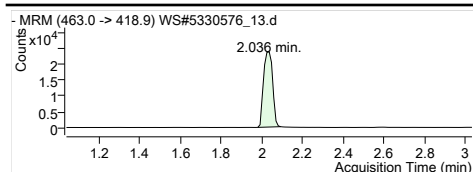


PFOA 1
 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 0.56 µg/L
 Area ratio: 10.80107
 Sample type: QC

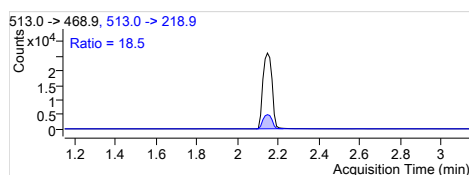
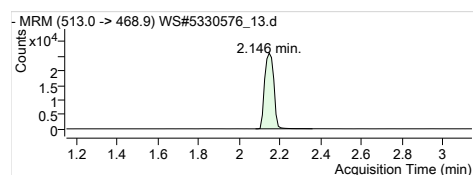


PFOS 1
 498.9 -> 79.9
 RT (Exp. RT): 1.968 (2.002)
 Calc. conc. 0.50 µg/L
 Area ratio: 8.62957
 Sample type: QC

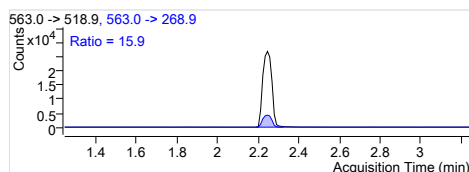
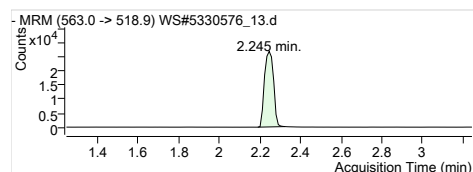
Quantitation Results



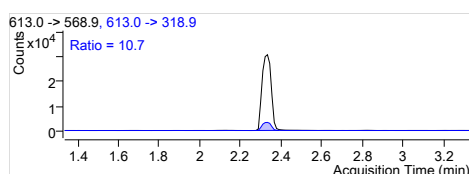
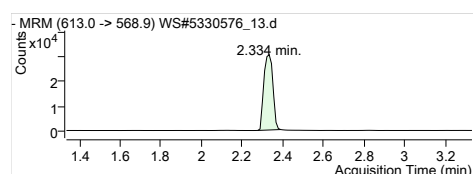
PFNA 1
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.58 µg/L
Area ratio: 10.08717
Sample type: QC



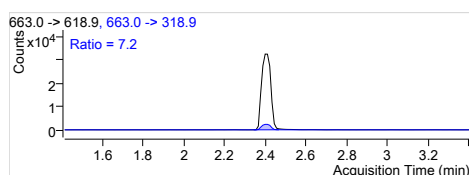
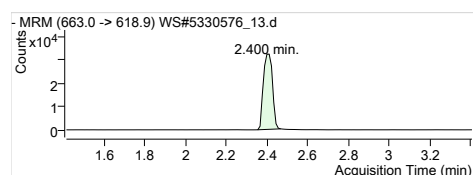
PFDA 1
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 0.57 µg/L
Area ratio: 12.86449
Sample type: QC



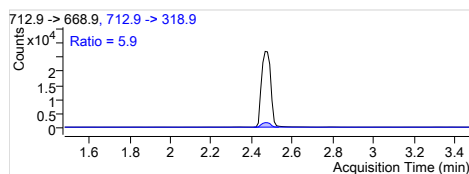
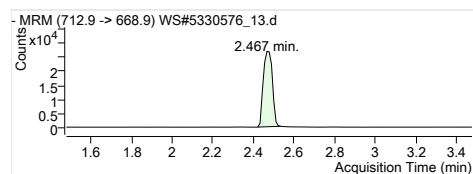
PFUnA 1
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 0.55 µg/L
Area ratio: 10.72462
Sample type: QC



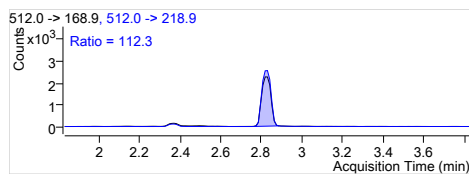
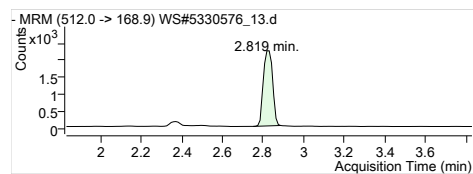
PFDoA 1
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 0.58 µg/L
Area ratio: 10.80464
Sample type: QC



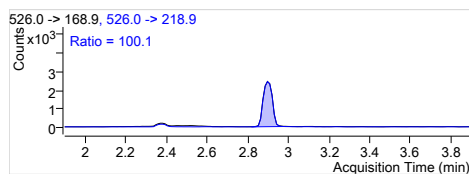
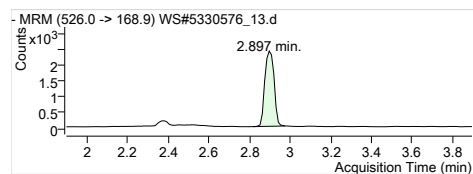
PFTrDA 1
RT (Exp. RT): 2.400 (2.411)
Calc. conc. 0.57 µg/L
Area ratio: 10.98756
Sample type: QC



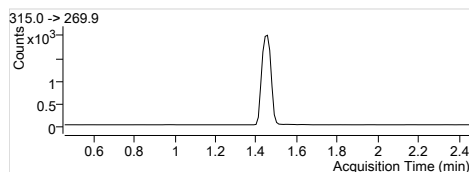
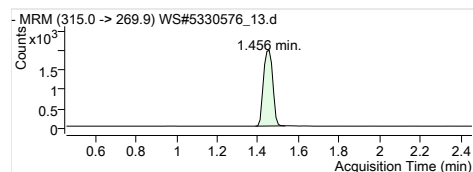
PFTeDA 1
RT (Exp. RT): 2.467 (2.478)
Calc. conc. 0.60 µg/L
Area ratio: 9.16821
Sample type: QC



MeFOSA 1
RT (Exp. RT): 2.819 (2.831)
Calc. conc. 0.61 µg/L
Area ratio: 3.04832
Sample type: QC



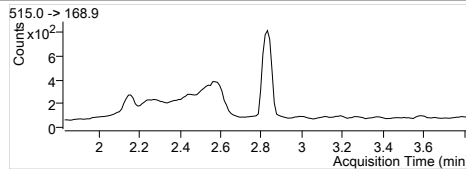
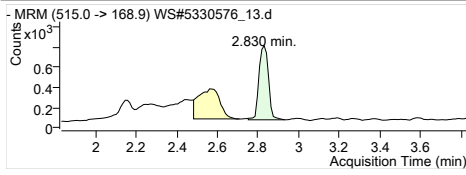
EtFOSA 1
RT (Exp. RT): 2.897 (2.897)
Calc. conc. 0.61 µg/L
Area ratio: 4.03339
Sample type: QC



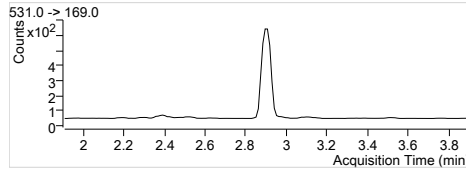
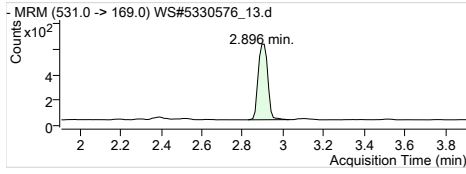
13C2-PFHxA
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 102.34 µg/L
Area ratio: 0.25653
Sample type: QC

<p>-MRM (403.0 -> 83.9) WS#5330576_13.d 1.679 min.</p>	<p>403.0 -> 83.9 Counts x10²</p>	<p>1802-PFHxS RT (Exp. RT): 1.679 (1.713) Calc. conc. 91.69 µg/L Area ratio: 0.05298 Sample type: QC</p>	<p>403.0 -> 83.9 1.679 (1.713) 91.69 µg/L 0.05298 QC</p>
<p>-MRM (367.0 -> 321.9) WS#5330576_13.d 1.713 min.</p>	<p>367.0 -> 321.9 Counts x10³</p>	<p>13C4-PFHpA RT (Exp. RT): 1.713 (1.713) Calc. conc. 97.47 µg/L Area ratio: 0.30968 Sample type: QC</p>	<p>367.0 -> 321.9 1.713 (1.713) 97.47 µg/L 0.30968 QC</p>
<p>-MRM (417.0 -> 371.9) WS#5330576_13.d 1.892 min.</p>	<p>417.0 -> 371.9 Counts x10³</p>	<p>13C4-PFOA RT (Exp. RT): 1.892 (1.892) Calc. conc. 101.10 µg/L Area ratio: 0.33126 Sample type: QC</p>	<p>417.0 -> 371.9 1.892 (1.892) 101.10 µg/L 0.33126 QC</p>
<p>-MRM (502.9 -> 79.9) WS#5330576_13.d 1.979 min.</p>	<p>502.9 -> 79.9 Counts x10²</p>	<p>13C4-PFOS RT (Exp. RT): 1.979 (2.002) Calc. conc. 101.63 µg/L Area ratio: 0.07229 Sample type: QC</p>	<p>502.9 -> 79.9 1.979 (2.002) 101.63 µg/L 0.07229 QC</p>
<p>-MRM (468.0 -> 422.9) WS#5330576_13.d 2.036 min.</p>	<p>468.0 -> 422.9 Counts x10³</p>	<p>13C5-PFNA RT (Exp. RT): 2.036 (2.036) Calc. conc. 93.49 µg/L Area ratio: 0.29957 Sample type: QC</p>	<p>468.0 -> 422.9 2.036 (2.036) 93.49 µg/L 0.29957 QC</p>
<p>-MRM (515.0 -> 469.9) WS#5330576_13.d 2.146 min.</p>	<p>515.0 -> 469.9 Counts x10³</p>	<p>13C2-PFDA RT (Exp. RT): 2.146 (2.146) Calc. conc. 98.38 µg/L Area ratio: 0.21674 Sample type: QC</p>	<p>515.0 -> 469.9 2.146 (2.146) 98.38 µg/L 0.21674 QC</p>
<p>-MRM (565.0 -> 519.9) WS#5330576_13.d 2.245 min.</p>	<p>565.0 -> 519.9 Counts x10³</p>	<p>13C2-PFUnA RT (Exp. RT): 2.245 (2.245) Calc. conc. 95.08 µg/L Area ratio: 0.26628 Sample type: QC</p>	<p>565.0 -> 519.9 2.245 (2.245) 95.08 µg/L 0.26628 QC</p>
<p>-MRM (615.0 -> 569.9) WS#5330576_13.d 2.333 min.</p>	<p>615.0 -> 569.9 Counts x10³</p>	<p>13C2-PFDoA RT (Exp. RT): 2.333 (2.333) Calc. conc. 86.30 µg/L Area ratio: 0.30519 Sample type: QC</p>	<p>615.0 -> 569.9 2.333 (2.333) 86.30 µg/L 0.30519 QC</p>
<p>-MRM (715.0 -> 669.9) WS#5330576_13.d 2.466 min.</p>	<p>715.0 -> 669.9 Counts x10³</p>	<p>13C2-PFTeDA RT (Exp. RT): 2.466 (2.478) Calc. conc. 81.56 µg/L Area ratio: 0.32397 Sample type: QC</p>	<p>715.0 -> 669.9 2.466 (2.478) 81.56 µg/L 0.32397 QC</p>

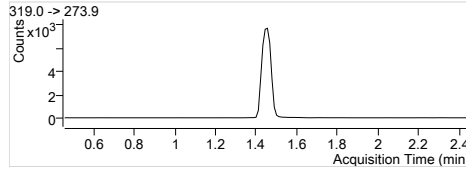
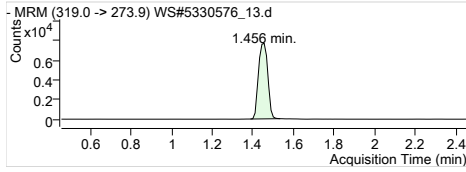
Quantitation Results



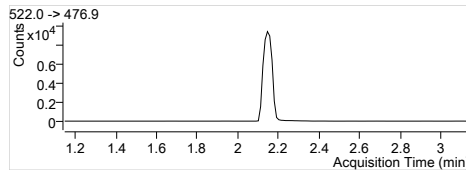
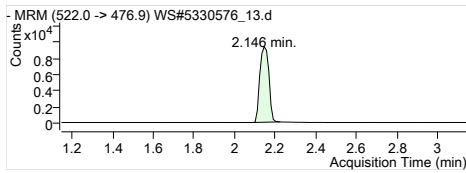
D3-MeFOSA
 RT (Exp. RT): 515.0 -> 168.9
 Calc. conc: 2.830 (2.830)
 Area ratio: 61.56 µg/L
 Sample type: 0.09891
 QC



D5-EtFOSA
 RT (Exp. RT): 531.0 -> 169.0
 Calc. conc: 2.896 (2.907)
 Area ratio: 61.61 µg/L
 Sample type: 0.08050
 QC



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc: 1.456 (1.456)
 Area ratio: 2.73 µg/L
 Sample type: 0
 QC



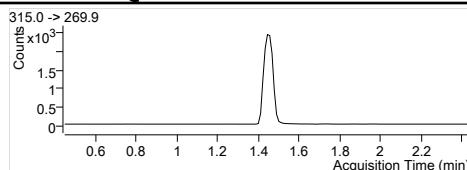
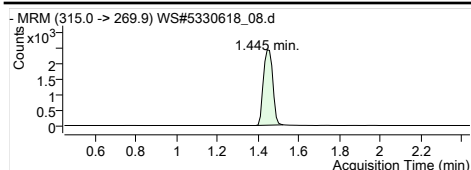
13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 2.66 µg/L
 Sample type: 0
 QC

Quantitation Results

Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_08.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 5:49:51 AM	Injection Volume	Per Method
Sample Annotation	-		

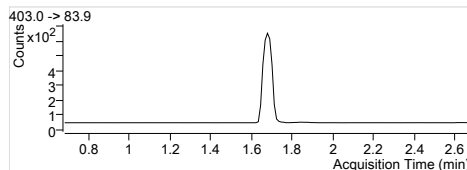
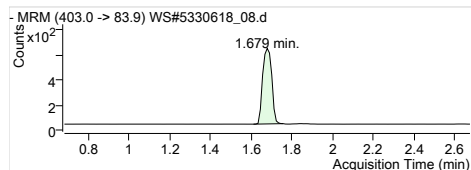
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7647	1.44	1 µg/L		
MPFHxS	1879	1.68	1 µg/L		
MPFHpA	9737	1.71	1 µg/L		
MPFOA	10392	1.89	1 µg/L		
MPFOS	2171	1.97	1 µg/L		
MPFNA	9679	2.04	1 µg/L		
MPFDA	7786	2.15	1 µg/L		
MPFUnA	10182	2.25	1 µg/L		
MPFDoA	12957	2.33	1 µg/L		
MPFTeDA	15091	2.47	1 µg/L		
D3-MeFOSA IS	4497	2.83	1 µg/L		
D5-EtFOSA IS	3973	2.90	1 µg/L		
13C6-PFHxA IS	30078	1.44	1 µg/L		
13C9-PFDA IS	37808	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7647	1.44	-	114.81 µg/L	-
18O2-PFHxS	1879	1.68	-	117.72 µg/L	-
13C4-PFHpA	9737	1.71	-	116.69 µg/L	-
13C4-PFOA	10392	1.89	-	115.33 µg/L	-
13C4-PFOS	2171	1.97	-	111.82 µg/L	-
13C5-PFNA	9606	2.04	-	114.01 µg/L	-
13C2-PFDA	7736	2.15	-	107.43 µg/L	-
13C2-PFUnA	10182	2.25	-	114.69 µg/L	-
13C2-PFDoA	12957	2.33	-	114.51 µg/L	-
13C2-PFTeDA	15456	2.47	-	124.46 µg/L	-
D3-MeFOSA	4522	2.83	-	111.12 µg/L	-
D5-EtFOSA	4057	2.90	-	117.98 µg/L	-
13C6-PFHxA	30078	1.44	-	1.49 µg/L	-
13C9-PFDA	37808	2.15	-	1.47 µg/L	-



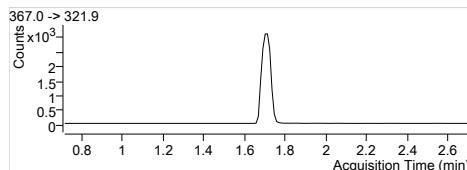
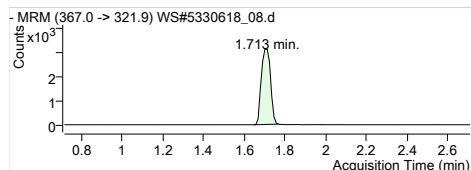
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.445)
1 µg/L
Sample



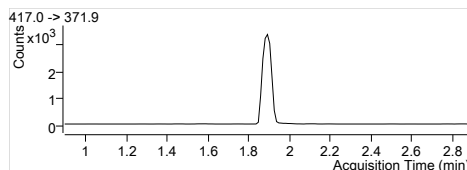
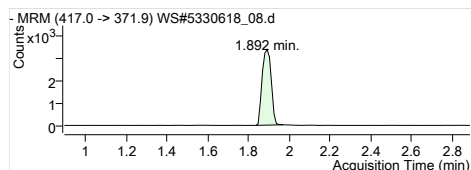
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.679)
1 µg/L
Sample



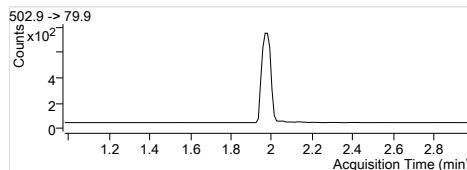
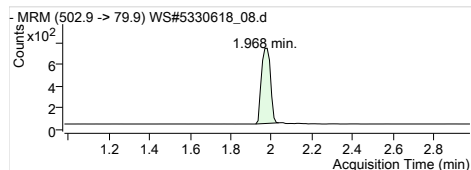
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.713 (1.713)
1 µg/L
Sample



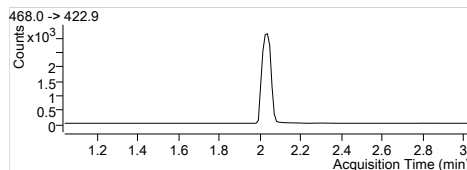
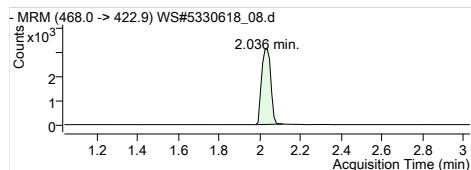
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



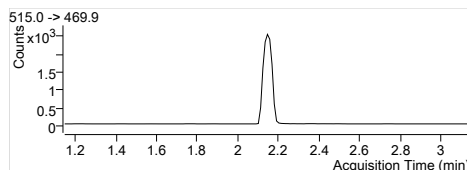
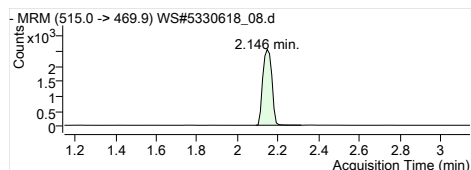
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.968 (1.979)
1 µg/L
Sample



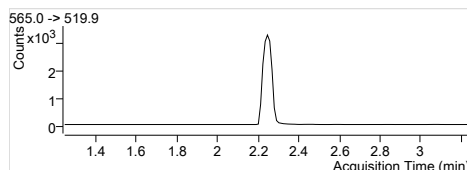
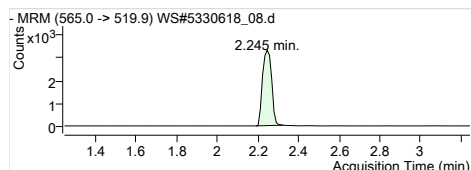
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.036 (2.036)
1 µg/L
Sample



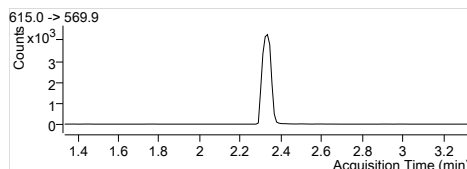
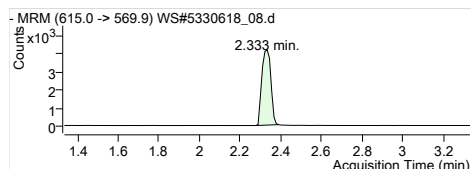
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



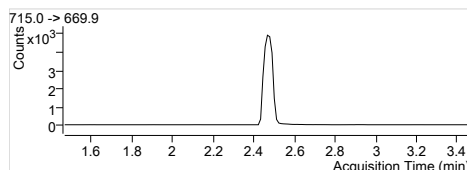
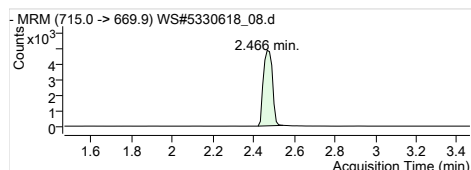
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

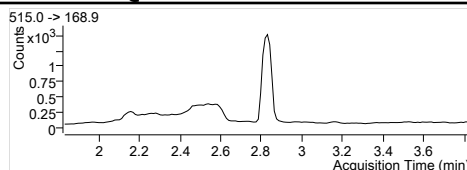
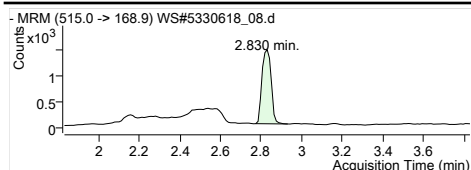
Internal Standard
2.333 (2.333)
1 µg/L
Sample



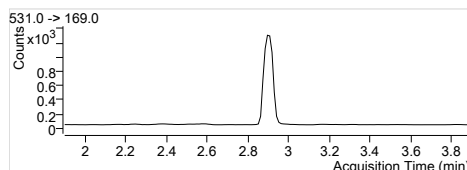
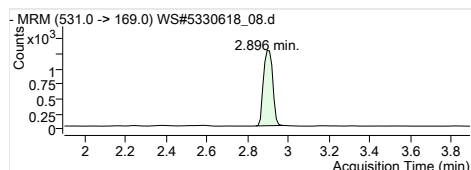
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.466)
1 µg/L
Sample

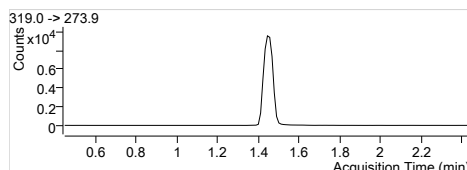
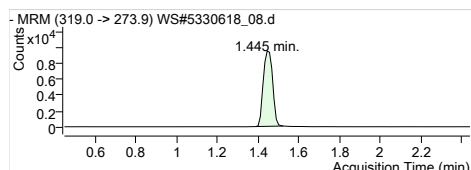
Quantitation Results



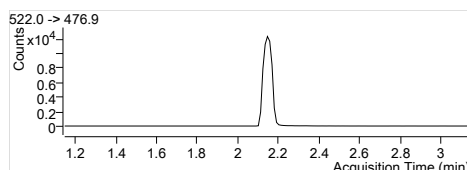
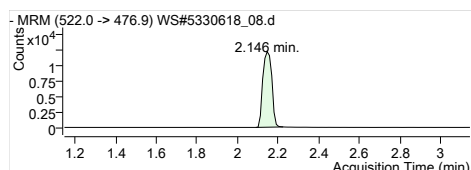
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



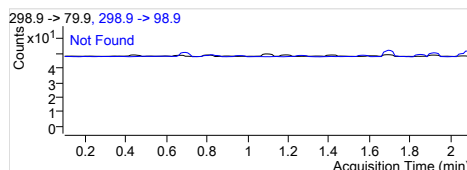
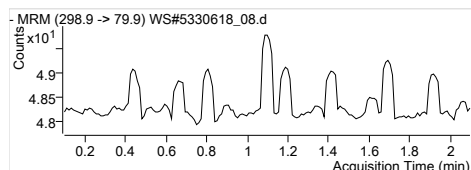
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



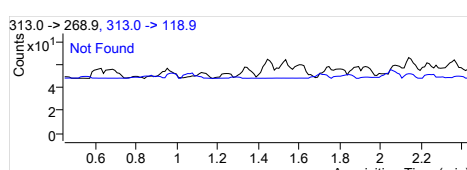
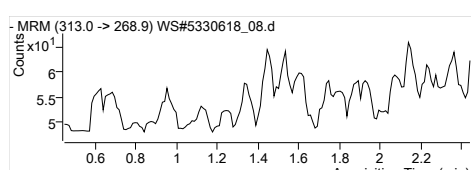
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



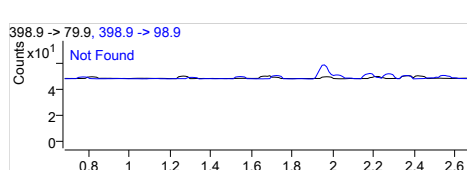
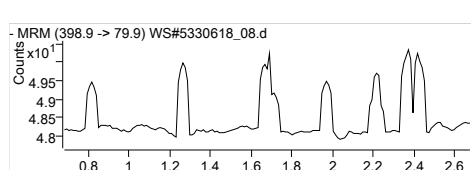
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



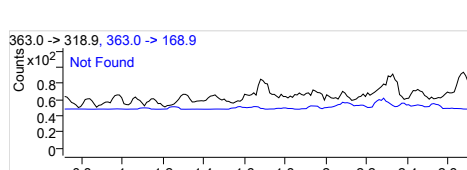
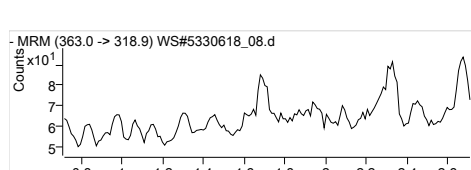
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: 0
 Sample type: Sample



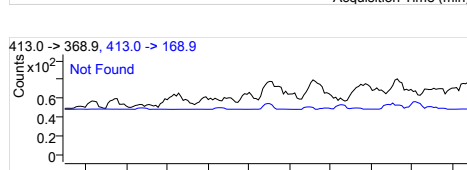
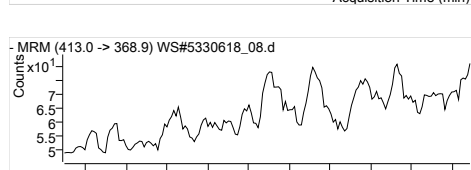
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: 0
 Sample type: Sample



PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: 0
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample

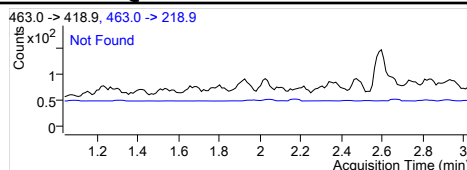
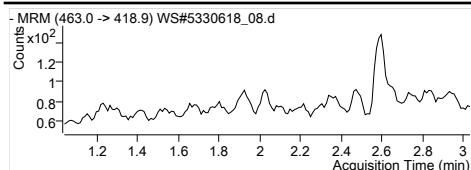


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample

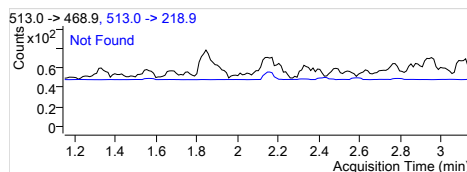
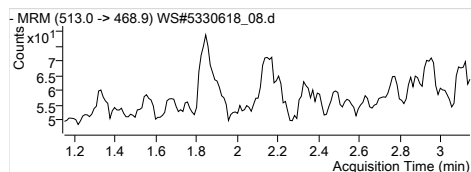


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: 0
 Sample type: Sample

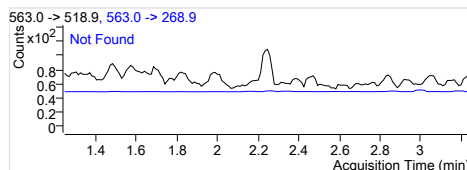
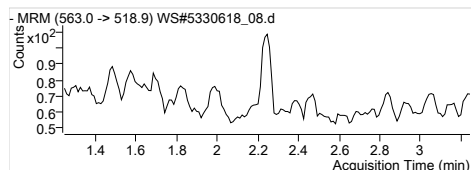
Quantitation Results



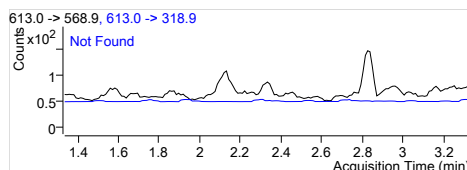
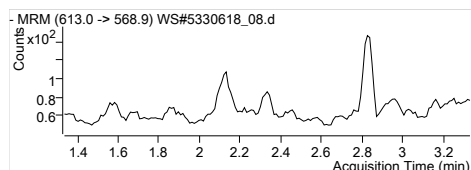
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



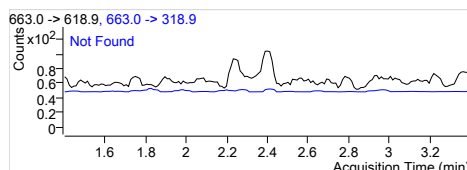
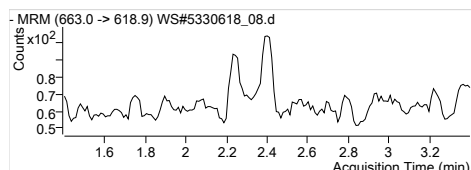
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



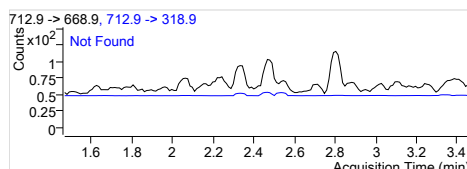
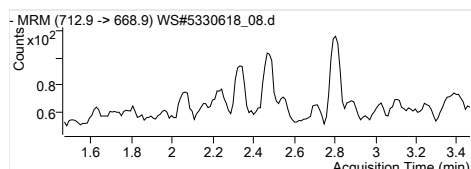
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



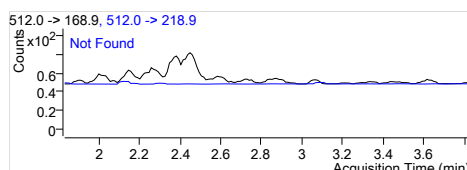
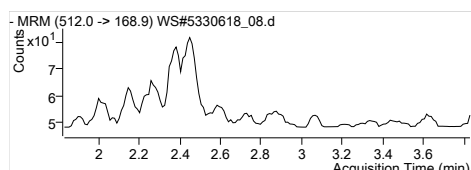
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



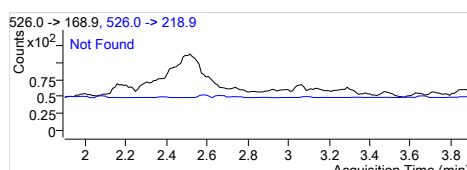
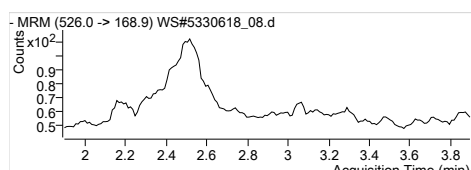
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



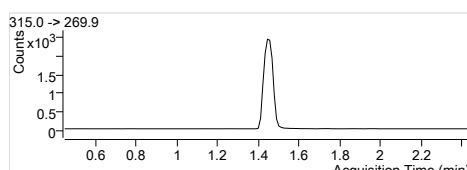
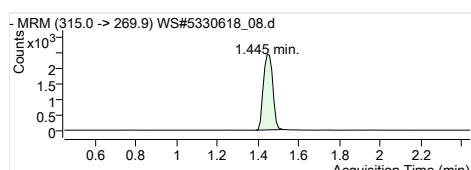
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

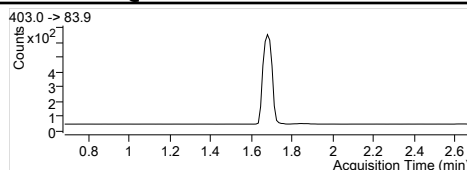
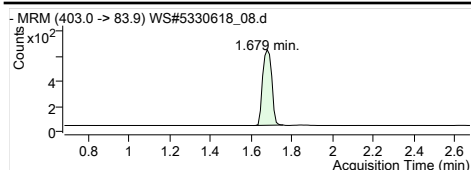


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

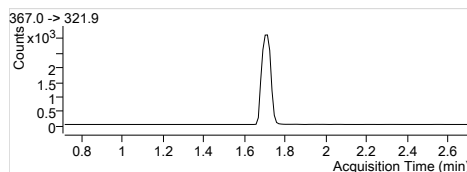
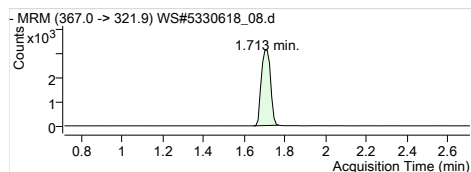


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 114.81 µg/L
 Sample type: 0.25424
 Sample

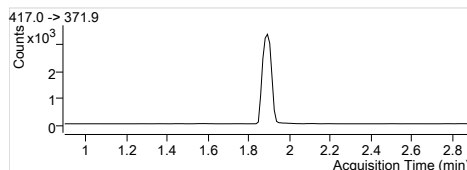
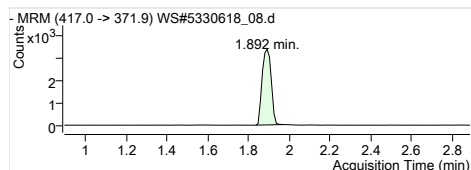
Quantitation Results



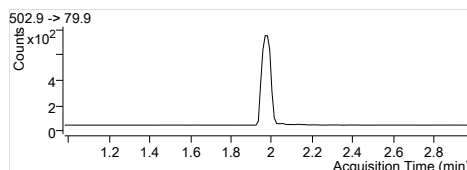
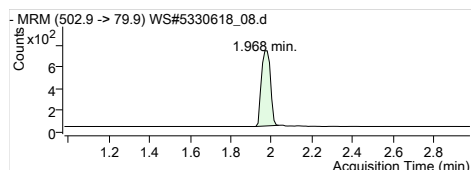
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 117.72 µg/L
 Sample type: 0.06247
 Sample



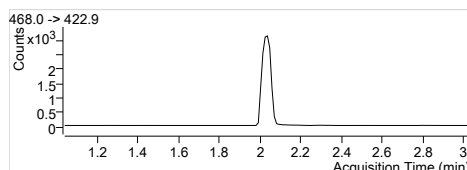
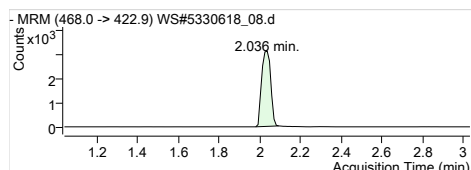
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 116.69 µg/L
 Sample type: 0.32372
 Sample



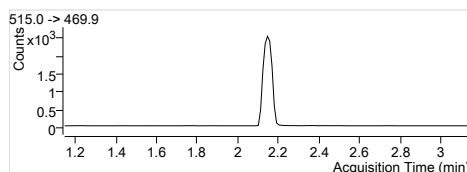
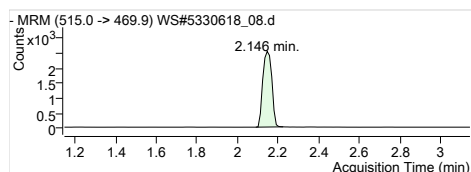
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 115.33 µg/L
 Sample type: 0.34550
 Sample



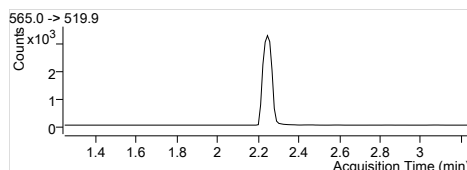
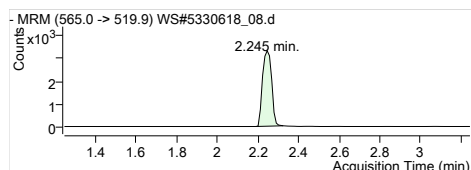
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 111.82 µg/L
 Sample type: 0.07218
 Sample



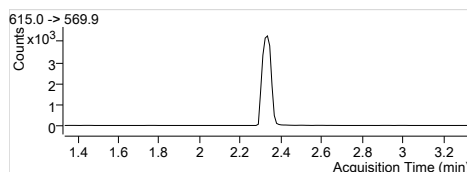
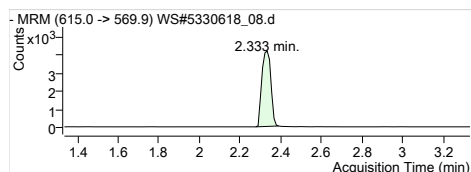
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 114.01 µg/L
 Sample type: 0.31937
 Sample



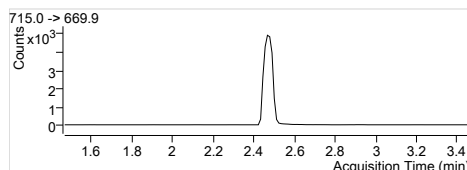
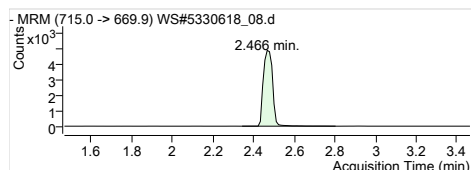
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 107.43 µg/L
 Sample type: 0.20461
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 114.69 µg/L
 Sample type: 0.26931
 Sample

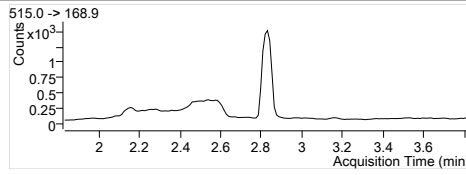
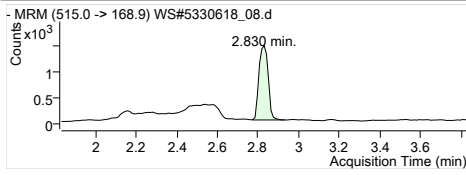


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 114.51 µg/L
 Sample type: 0.34271
 Sample

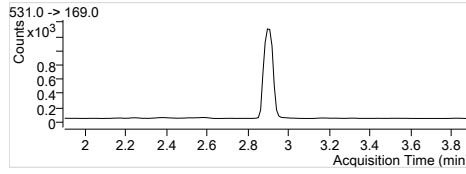
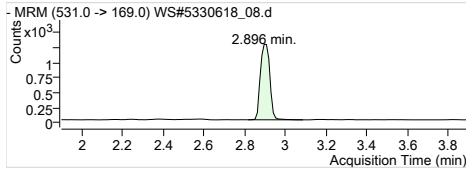


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 124.46 µg/L
 Sample type: 0.40880
 Sample

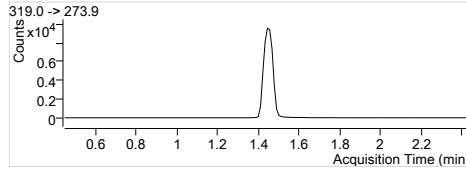
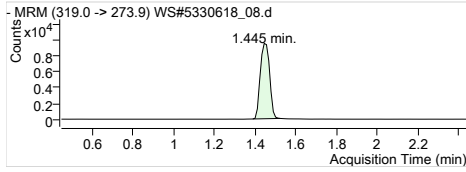
Quantitation Results



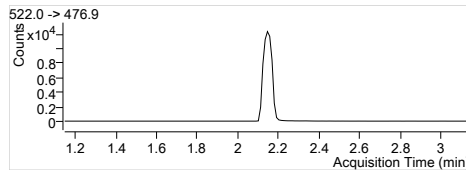
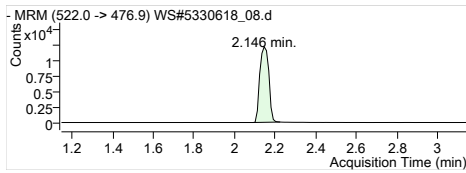
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 111.12 µg/L
Area ratio: 0.15034
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 117.98 µg/L
Area ratio: 0.13488
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.49 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.47 µg/L
Area ratio: 0
Sample type: Sample

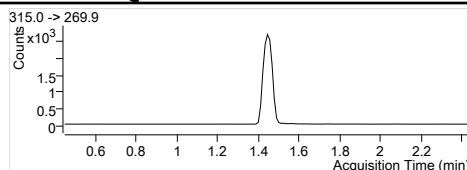
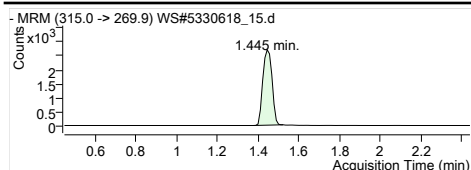
Quantitation Results

Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_15.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 6:24:22 AM	Injection Volume	Per Method
Sample Annotation	-		

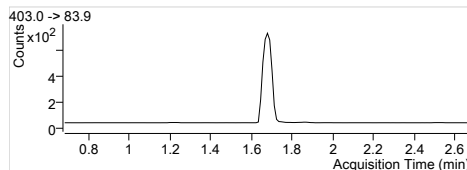
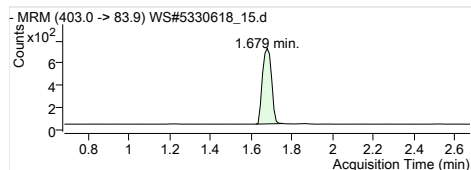
ISTD Compounds	Response	RT	Target conc.
MPFHxA	8374	1.44	1 µg/L
MPFHxS	2115	1.68	1 µg/L
MPFHpA	9785	1.70	1 µg/L
MPFOA	9819	1.89	1 µg/L
MPFOS	2252	1.97	1 µg/L
MPFNA	10113	2.02	1 µg/L
MPFDA	8573	2.15	1 µg/L
MPFUnA	10811	2.25	1 µg/L
MPFDoA	13599	2.33	1 µg/L
MPFTeDA	14090	2.47	1 µg/L
D3-MeFOSA IS	4790	2.83	1 µg/L
D5-EtFOSA IS	4043	2.90	1 µg/L
13C6-PFHxA IS	31063	1.44	1 µg/L
13C9-PFDA IS	38525	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1	99	2.49	-	0.00 µg/L	-
EtFOSA 1			-	ND	-
13C2-PFHxA	8374	1.44	-	121.74 µg/L	-
18O2-PFHxS	2115	1.68	-	128.30 µg/L	-
13C4-PFHpA	9785	1.70	-	113.54 µg/L	-
13C4-PFOA	9819	1.89	-	105.52 µg/L	-
13C4-PFOS	2252	1.97	-	112.31 µg/L	-
13C5-PFNA	10035	2.02	-	115.32 µg/L	-
13C2-PFDA	8432	2.15	-	114.92 µg/L	-
13C2-PFUnA	10811	2.25	-	119.51 µg/L	-
13C2-PFDoA	13599	2.33	-	117.95 µg/L	-
13C2-PFTeDA	14488	2.47	-	114.50 µg/L	-
D3-MeFOSA	4854	2.83	-	115.50 µg/L	-
D5-EtFOSA	4101	2.90	-	115.47 µg/L	-
13C6-PFHxA	31063	1.44	-	1.54 µg/L	-
13C9-PFDA	38525	2.15	-	1.49 µg/L	-

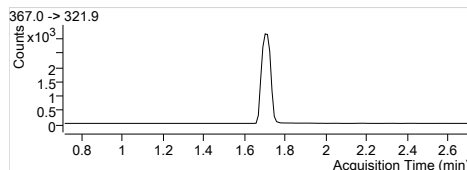
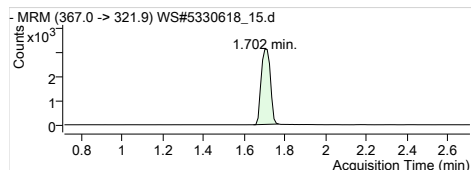
Quantitation Results



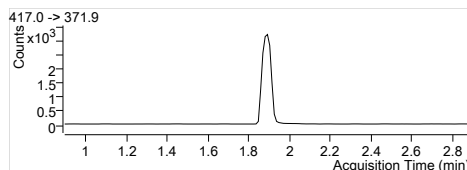
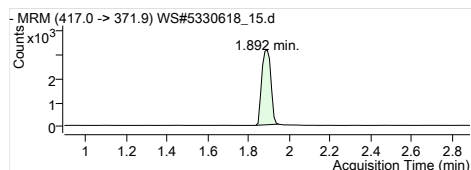
MPFHxA
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



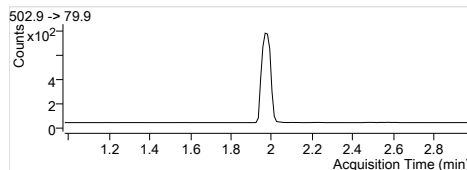
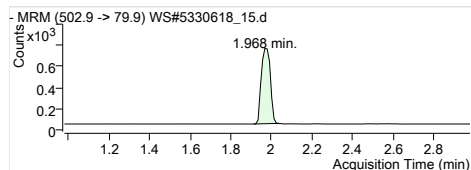
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: Sample



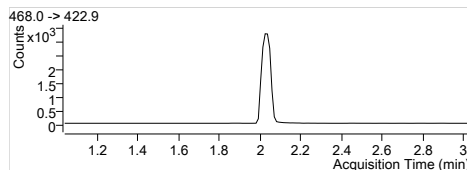
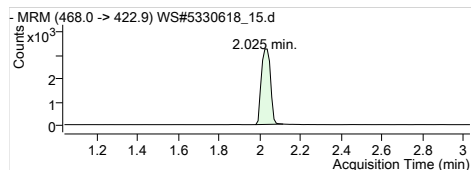
MPFHpA
 RT (Exp. RT): 1.702 (1.713)
 Concentration: 1 µg/L
 Sample type: Sample



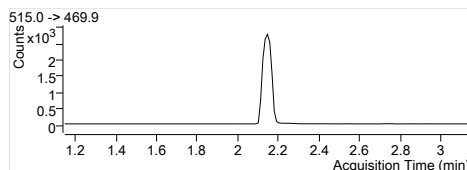
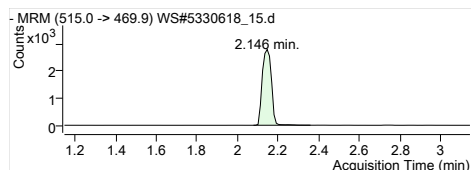
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Sample



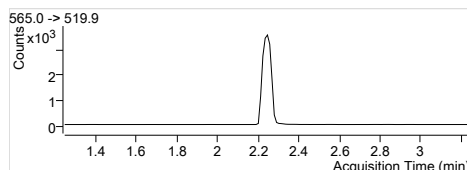
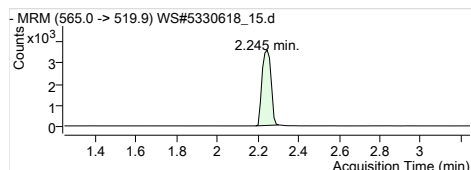
MPFOS
 RT (Exp. RT): 1.968 (1.979)
 Concentration: 1 µg/L
 Sample type: Sample



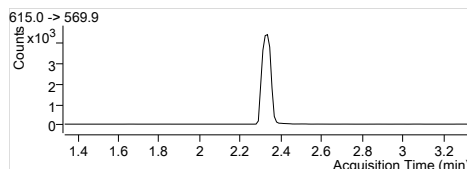
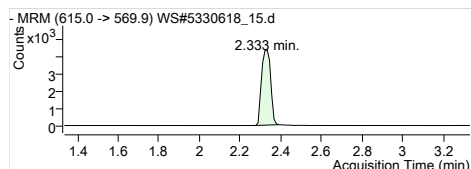
MPFNA
 RT (Exp. RT): 2.025 (2.036)
 Concentration: 1 µg/L
 Sample type: Sample



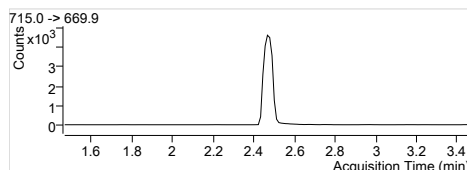
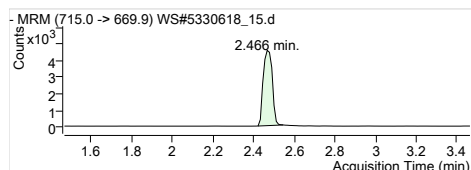
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



MPFUaA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Sample

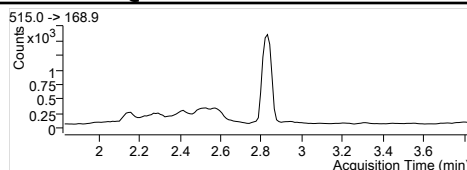
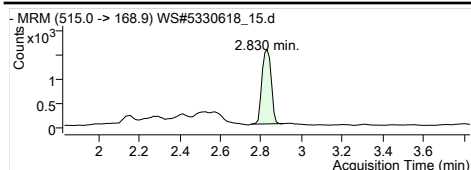


MPFDaA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Sample

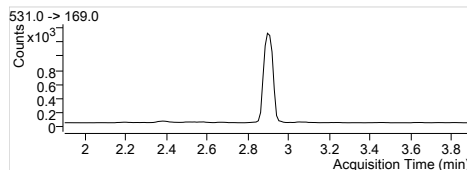
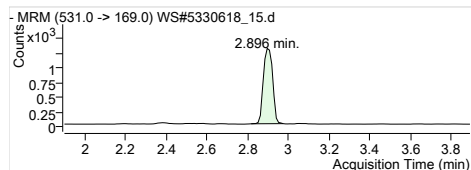


MPFTeDA
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: Sample

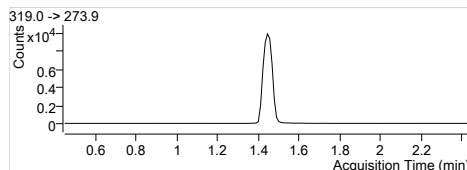
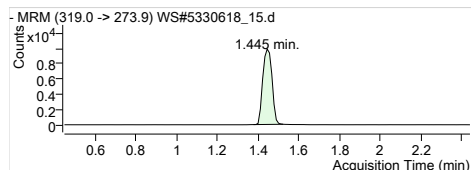
Quantitation Results



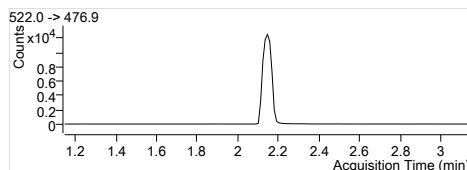
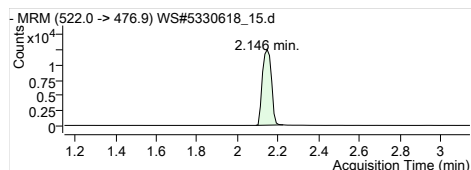
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



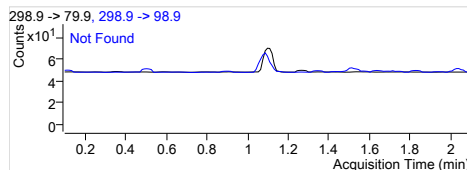
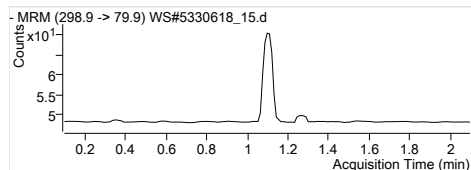
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



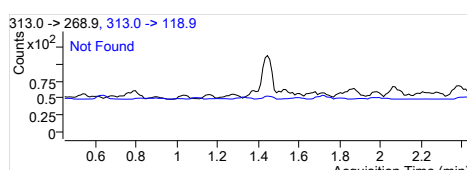
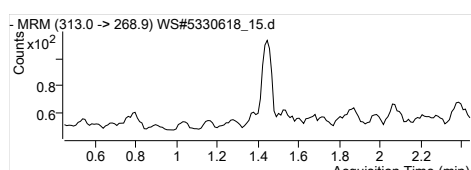
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



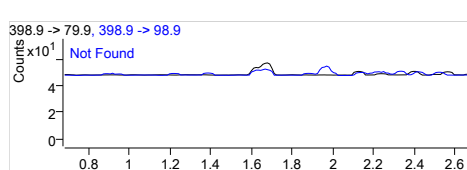
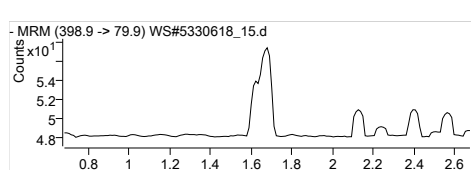
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



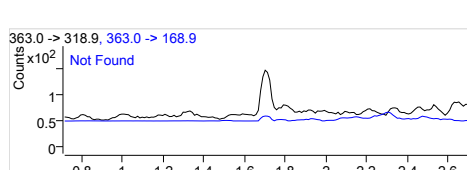
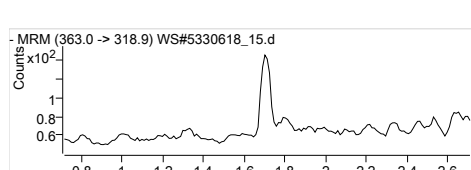
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: N.D.
 Sample type: 0



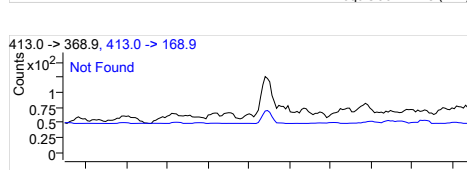
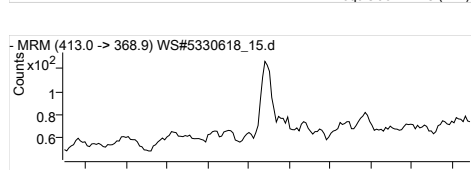
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: N.D.
 Sample type: 0



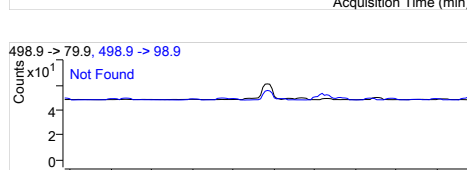
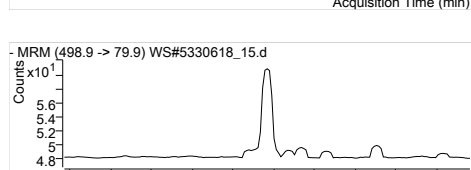
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: N.D.
 Sample type: 0



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: N.D.
 Sample type: 0

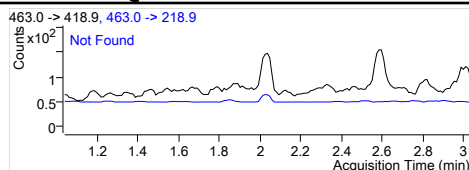
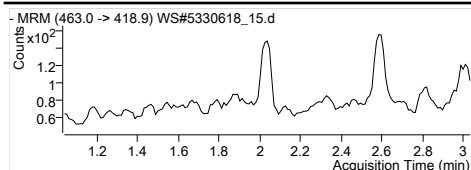


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: N.D.
 Sample type: 0

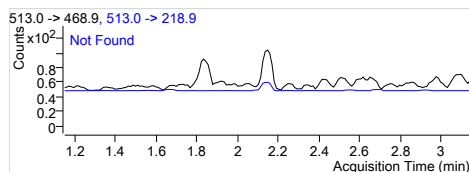
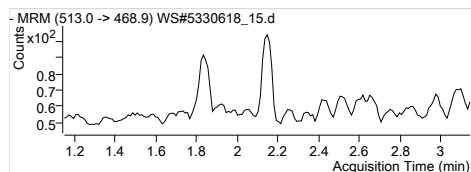


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: N.D.
 Sample type: 0

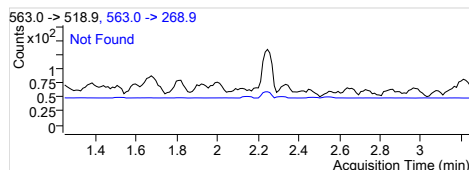
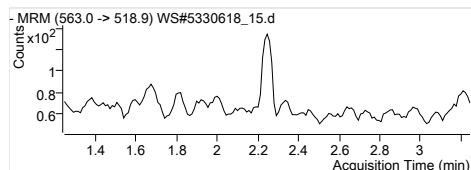
Quantitation Results



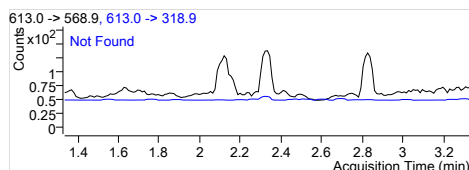
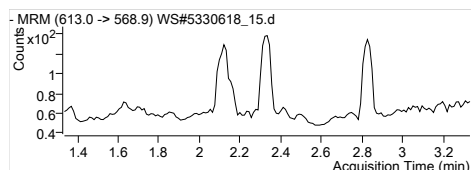
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



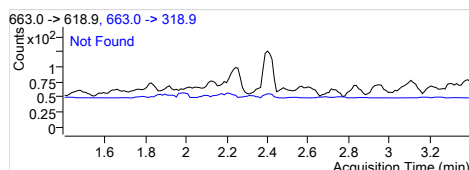
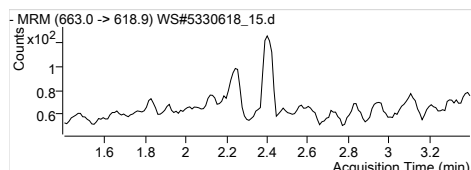
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



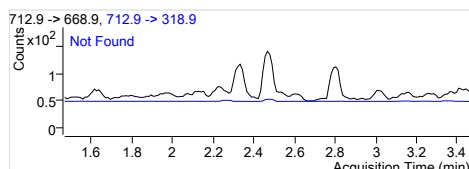
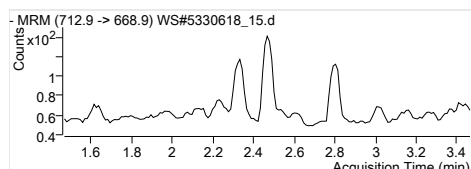
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



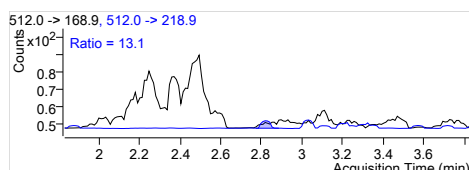
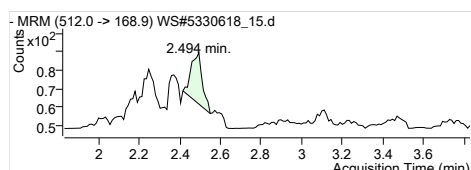
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



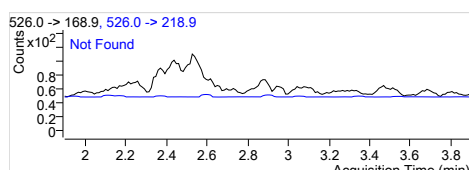
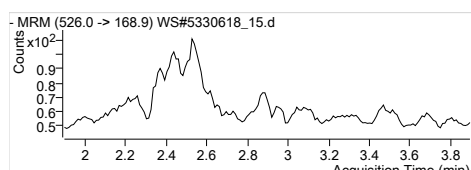
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



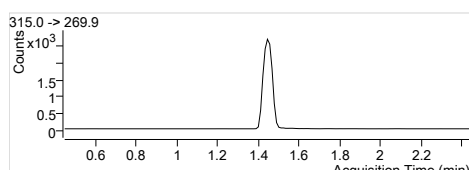
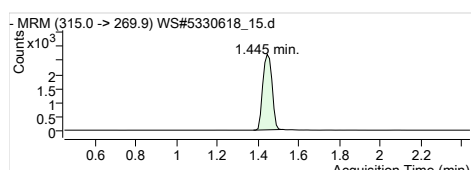
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



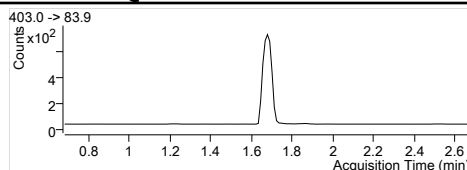
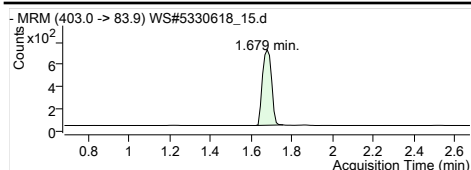
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 2.494 (2.831)
 Area ratio: 0.00 µg/L
 Sample type: 0.02067
 Sample



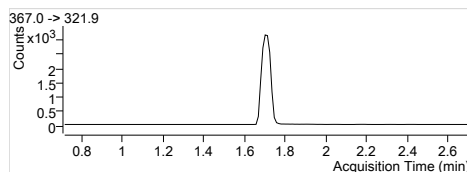
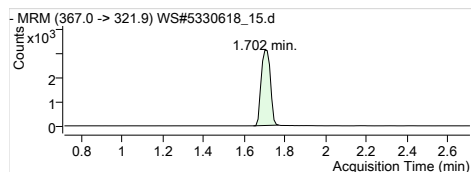
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample



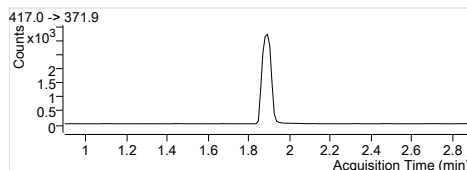
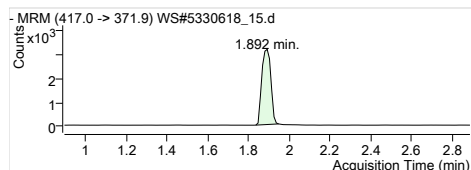
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 121.74 µg/L
 Sample type: 0.26958
 Sample



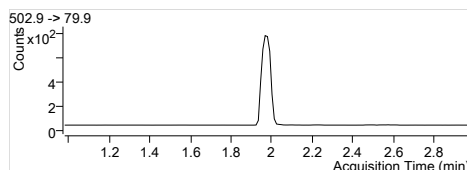
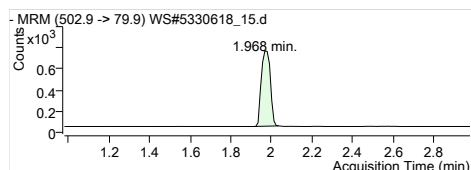
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 128.30 µg/L
 Sample type: 0.06809
 Sample



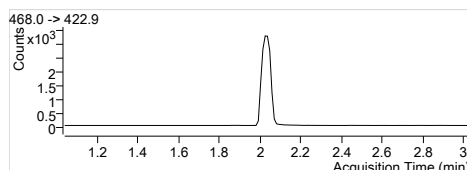
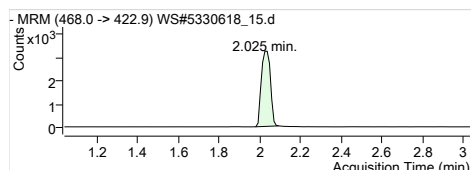
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 113.54 µg/L
 Sample type: 0.31500
 Sample



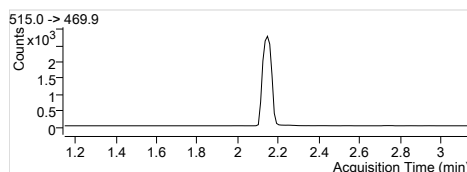
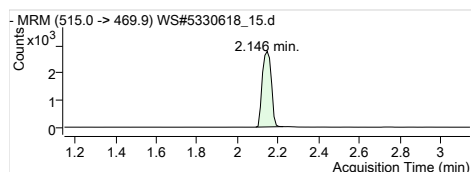
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 105.52 µg/L
 Sample type: 0.31610
 Sample



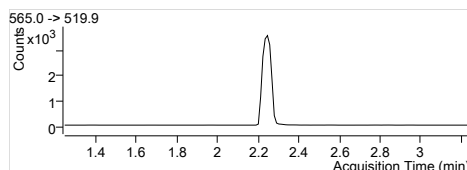
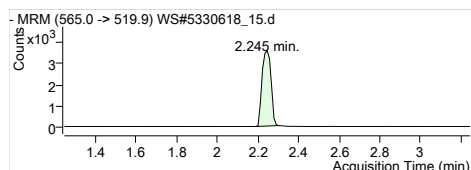
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 112.31 µg/L
 Sample type: 0.07250
 Sample



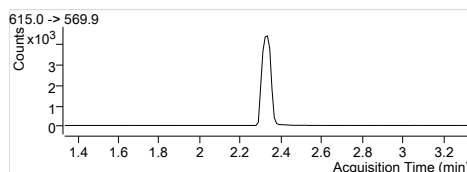
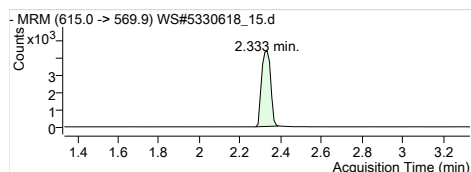
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 115.32 µg/L
 Sample type: 0.32305
 Sample



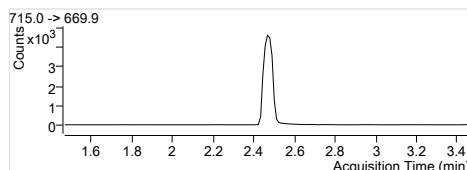
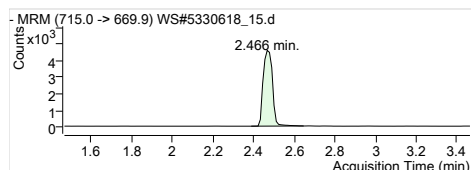
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 114.92 µg/L
 Sample type: 0.21887
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 119.51 µg/L
 Sample type: 0.28062
 Sample

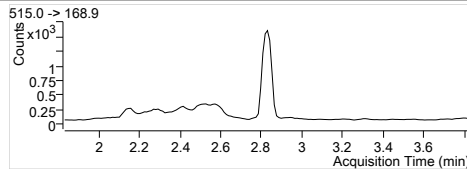
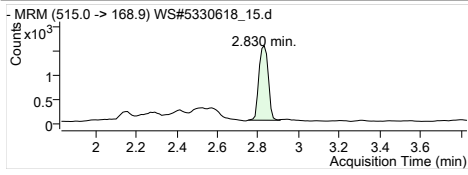


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 117.95 µg/L
 Sample type: 0.35299
 Sample

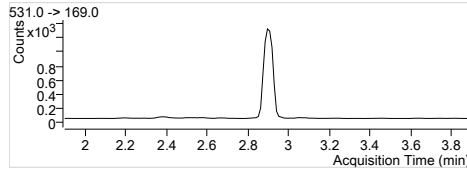
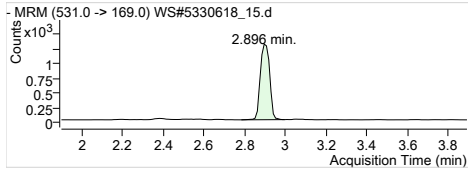


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 114.50 µg/L
 Sample type: 0.37607
 Sample

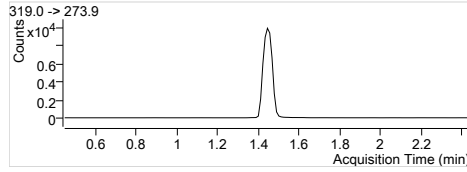
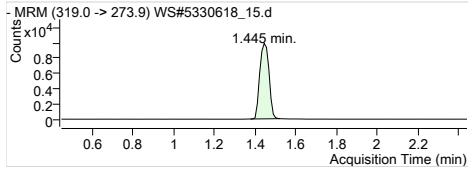
Quantitation Results



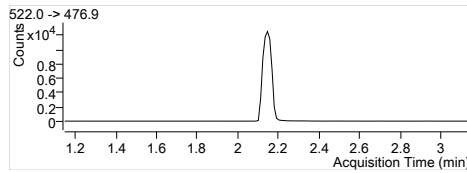
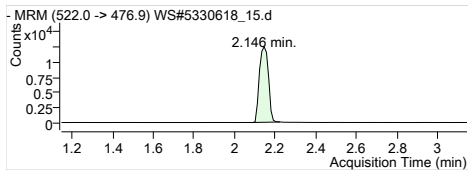
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 115.50 µg/L
Area ratio: 0.15626
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 115.47 µg/L
Area ratio: 0.13202
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.54 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.49 µg/L
Area ratio: 0
Sample type: Sample

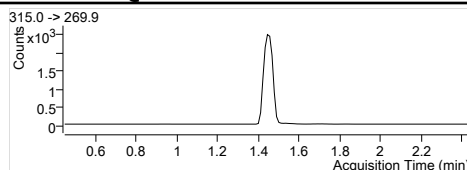
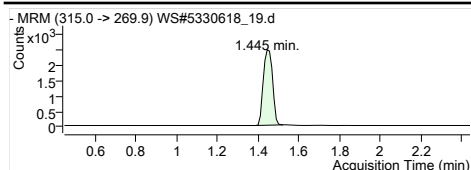
Quantitation Results

Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_19.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 6:44:06 AM	Injection Volume	Per Method
Sample Annotation	-		

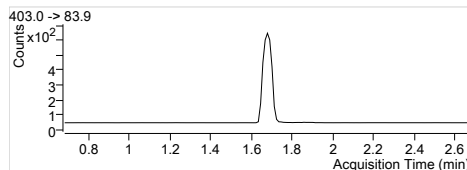
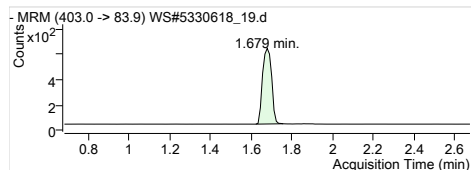
ISTD Compounds	Response	RT	Target conc.
MPFHxA	7692	1.44	1 µg/L
MPFHxS	1852	1.68	1 µg/L
MPFHpA	9757	1.71	1 µg/L
MPFOA	10178	1.89	1 µg/L
MPFOS	2264	1.97	1 µg/L
MPFNA	10293	2.02	1 µg/L
MPFDA	8446	2.15	1 µg/L
MPFUnA	10535	2.25	1 µg/L
MPFDoA	13268	2.33	1 µg/L
MPFTeDA	13818	2.47	1 µg/L
D3-MeFOSA IS	4755	2.83	1 µg/L
D5-EtFOSA IS	4120	2.90	1 µg/L
13C6-PFHxA IS	30940	1.44	1 µg/L
13C9-PFDA IS	39187	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7692	1.44	-	112.27 µg/L	-
18O2-PFHxS	1852	1.68	-	112.79 µg/L	-
13C4-PFHpA	9757	1.71	-	113.67 µg/L	-
13C4-PFOA	10178	1.89	-	109.81 µg/L	-
13C4-PFOS	2264	1.97	-	113.36 µg/L	-
13C5-PFNA	10242	2.02	-	118.17 µg/L	-
13C2-PFDA	8370	2.15	-	112.15 µg/L	-
13C2-PFUnA	10535	2.25	-	114.49 µg/L	-
13C2-PFDaA	13268	2.33	-	113.14 µg/L	-
13C2-PFTeDA	13982	2.47	-	108.63 µg/L	-
D3-MeFOSA	4771	2.83	-	113.97 µg/L	-
D5-EtFOSA	4215	2.90	-	119.16 µg/L	-
13C6-PFHxA	30940	1.44	-	1.54 µg/L	-
13C9-PFDA	39187	2.15	-	1.52 µg/L	-

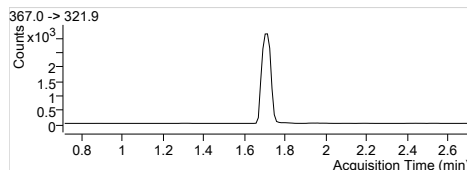
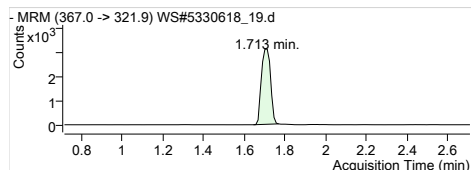
Quantitation Results



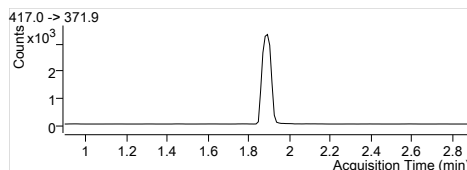
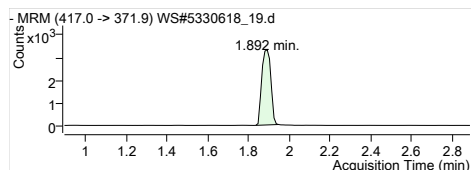
MPFHxA
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



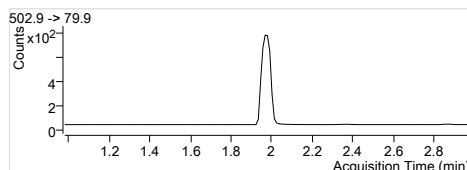
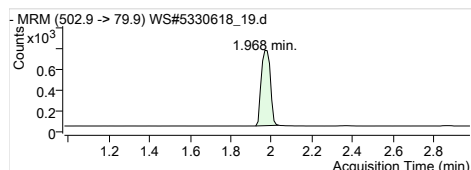
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: Sample



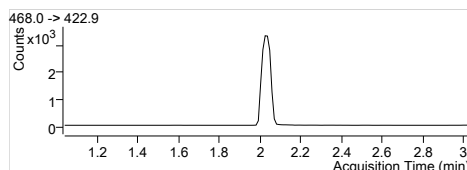
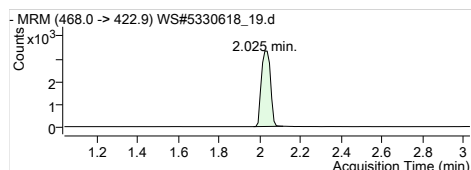
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: Sample



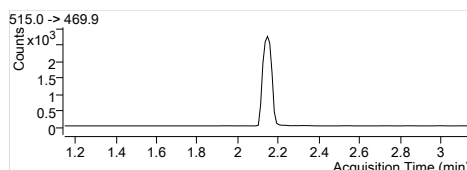
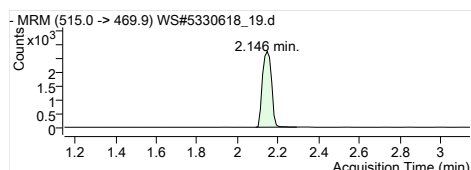
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Sample



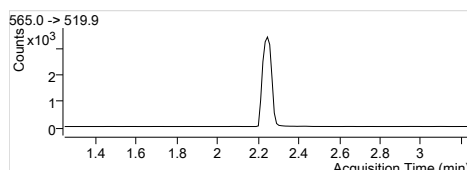
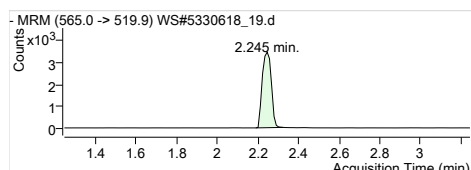
MPFOS
 RT (Exp. RT): 1.968 (1.979)
 Concentration: 1 µg/L
 Sample type: Sample



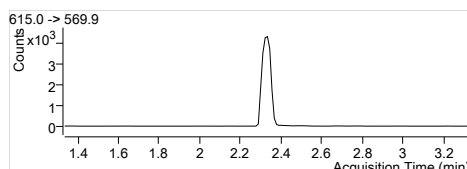
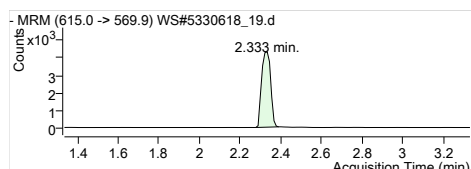
MPFNA
 RT (Exp. RT): 2.025 (2.036)
 Concentration: 1 µg/L
 Sample type: Sample



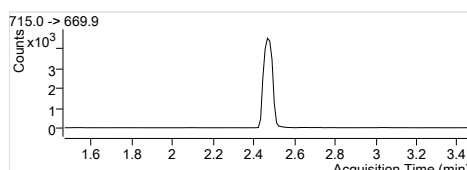
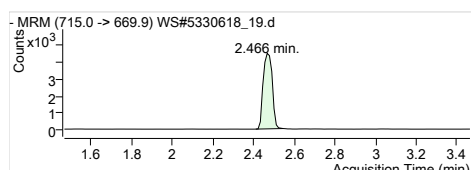
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Sample

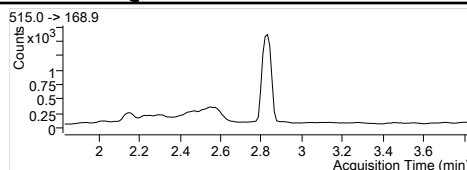
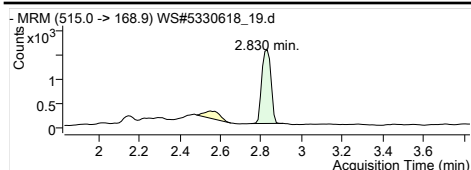


MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Sample

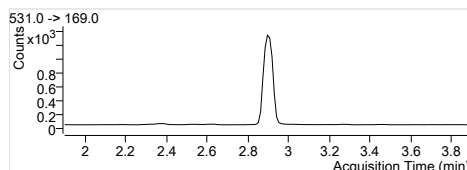
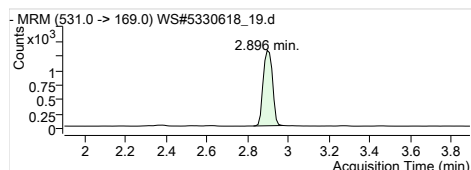


MPFTeDA
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: Sample

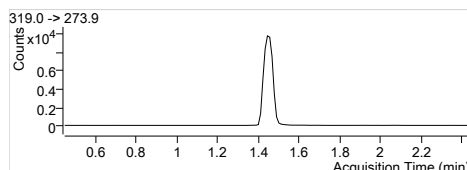
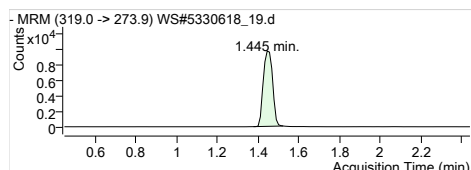
Quantitation Results



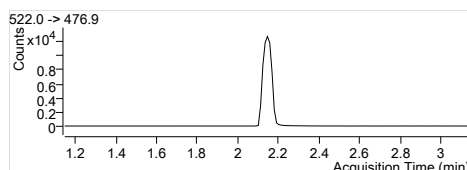
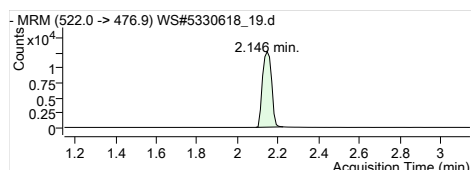
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



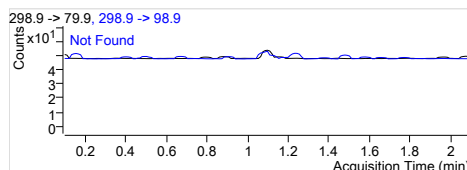
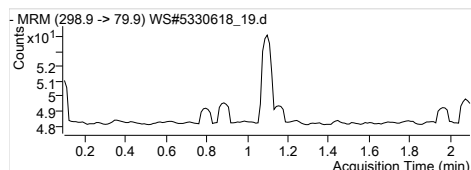
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



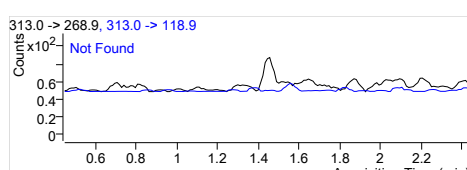
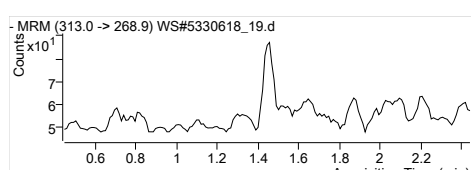
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



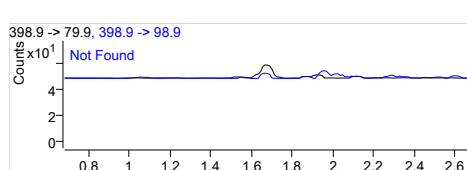
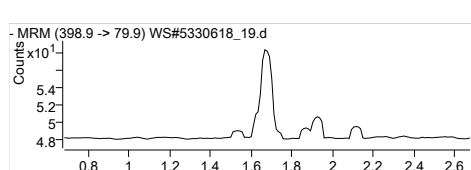
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



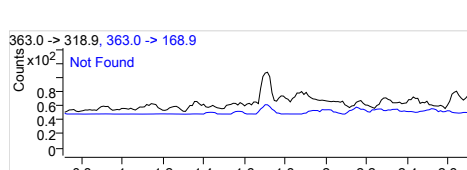
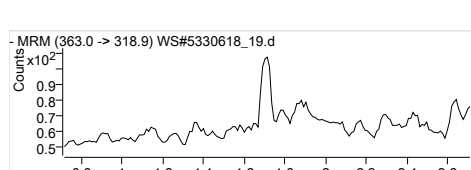
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: N.D.
 Sample type: 0



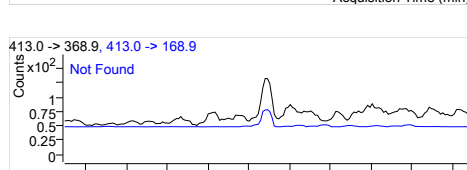
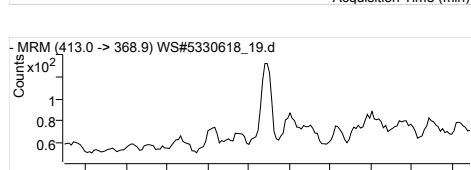
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: N.D.
 Sample type: 0



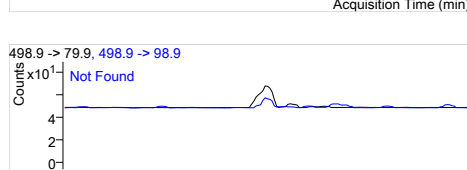
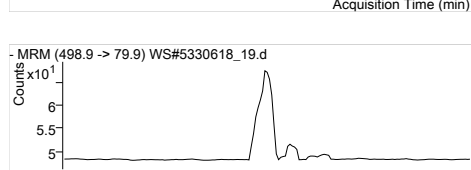
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: N.D.
 Sample type: 0



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: N.D.
 Sample type: 0

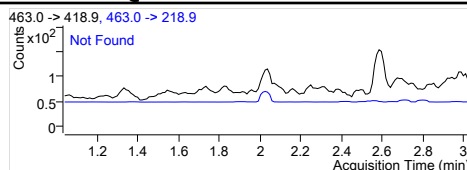
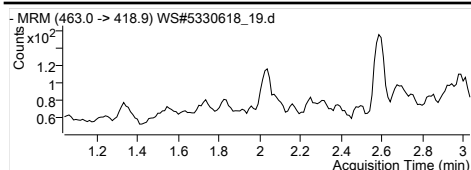


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: N.D.
 Sample type: 0

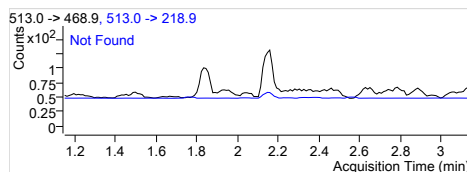
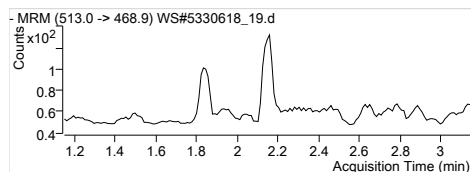


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: N.D.
 Sample type: 0

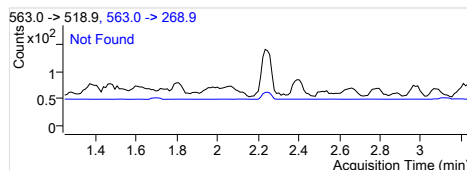
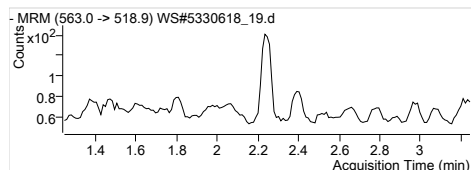
Quantitation Results



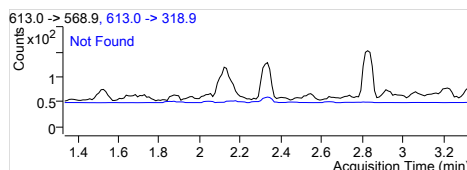
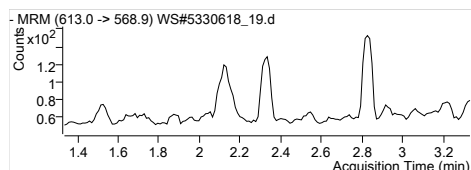
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



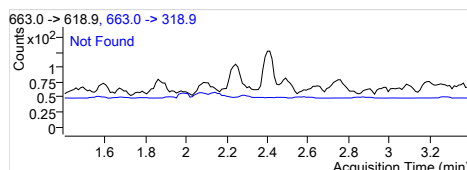
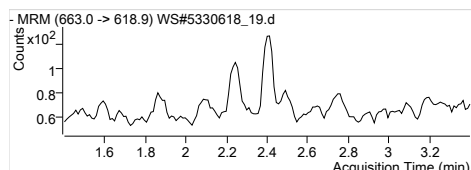
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



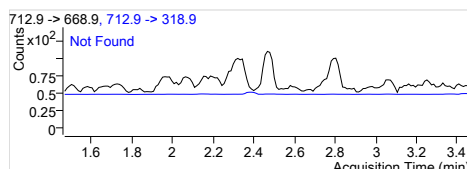
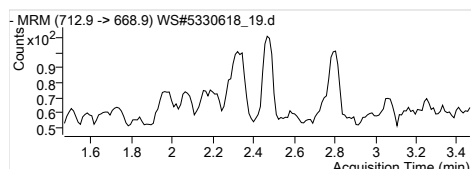
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



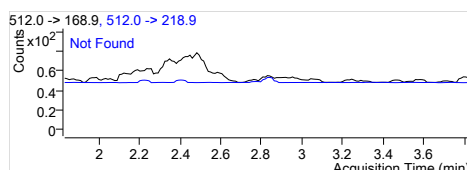
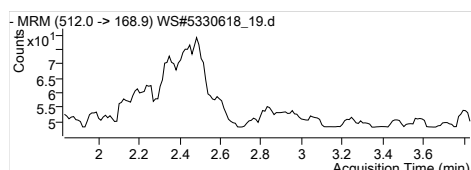
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



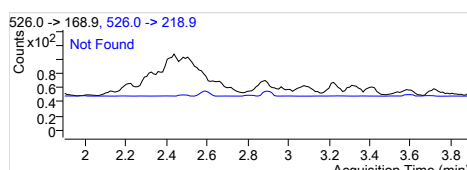
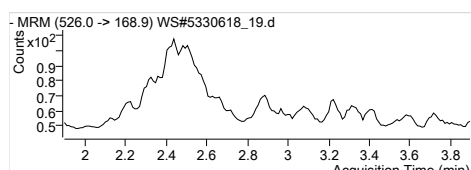
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



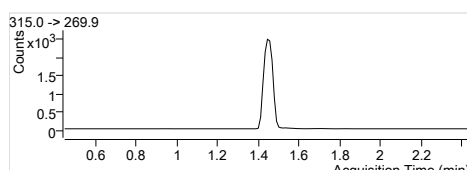
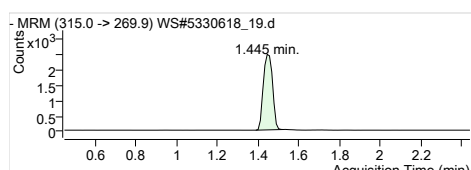
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

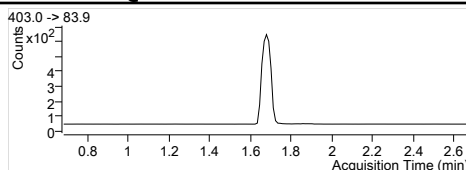
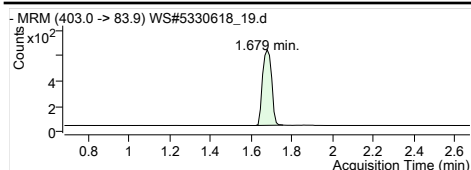


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

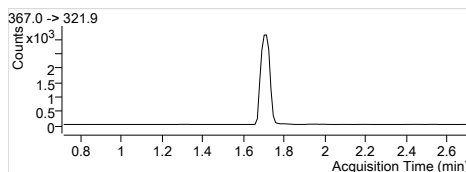
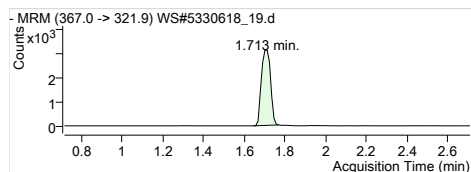


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 112.27 µg/L
 Sample type: 0.24861
 Sample

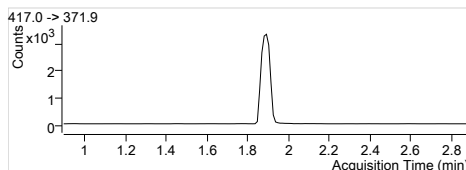
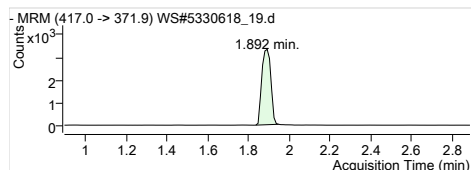
Quantitation Results



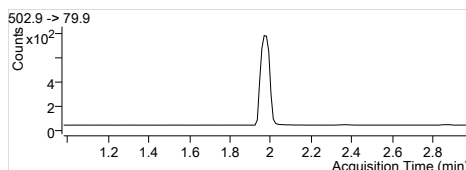
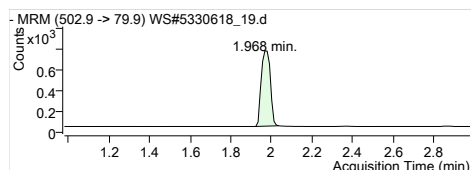
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 112.79 µg/L
 Sample type: 0.05986
 Sample



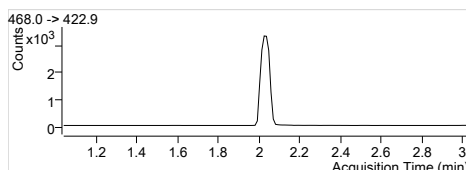
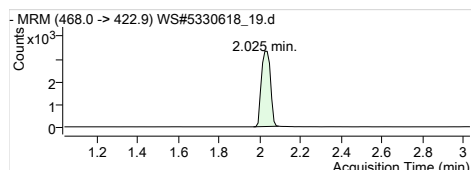
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 113.67 µg/L
 Sample type: 0.31535
 Sample



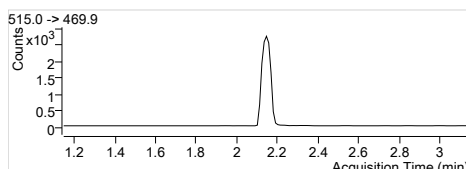
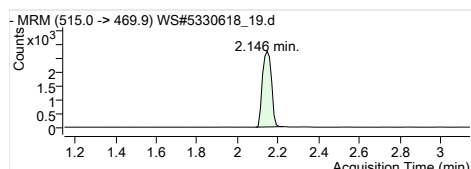
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 109.81 µg/L
 Sample type: 0.32896
 Sample



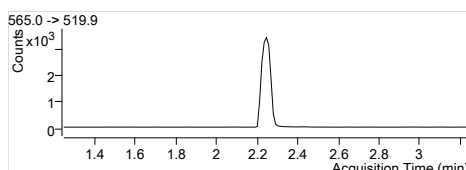
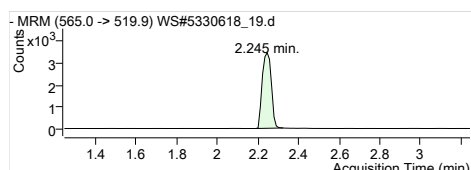
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 113.36 µg/L
 Sample type: 0.07317
 Sample



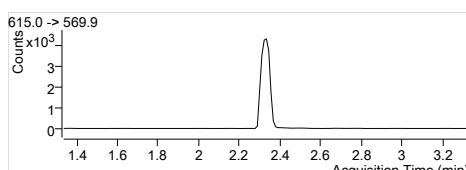
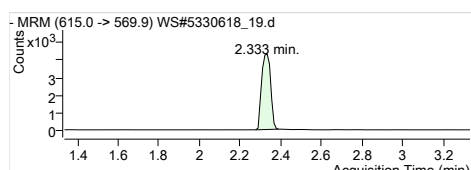
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 118.17 µg/L
 Sample type: 0.33103
 Sample



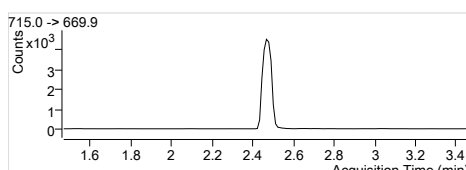
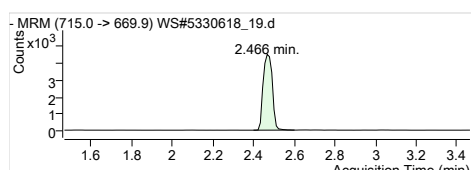
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 112.15 µg/L
 Sample type: 0.21359
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 114.49 µg/L
 Sample type: 0.26884
 Sample

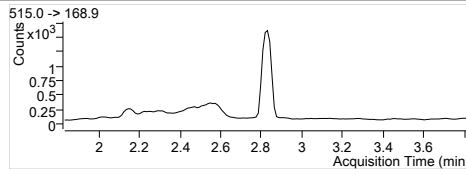
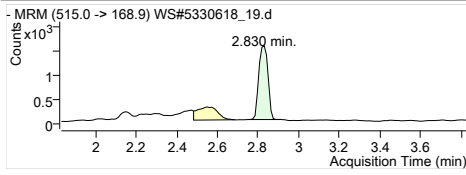


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 113.14 µg/L
 Sample type: 0.33858
 Sample

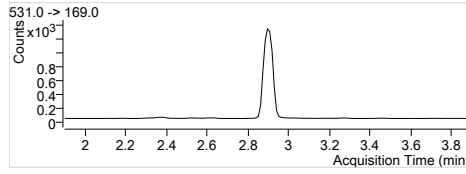
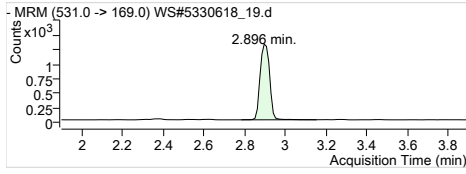


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 108.63 µg/L
 Sample type: 0.35680
 Sample

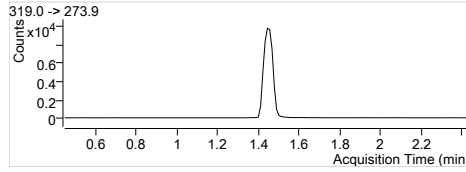
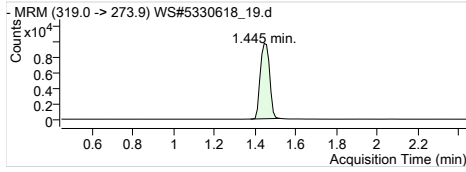
Quantitation Results



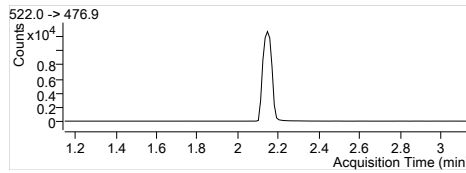
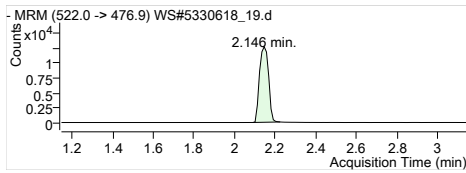
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 113.97 µg/L
Sample type: 0.15420
Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 119.16 µg/L
Sample type: 0.13623
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 1.54 µg/L
Sample type: 0
Sample



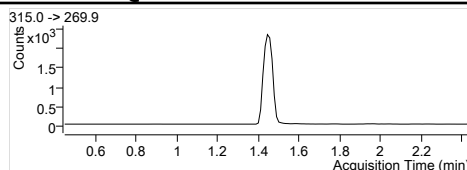
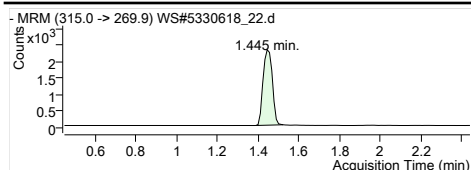
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 1.52 µg/L
Sample type: 0
Sample

Quantitation Results

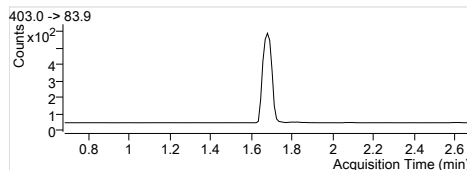
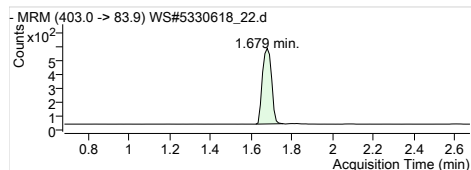
Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_22.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 6:58:54 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	7287	1.44	1 µg/L
MPFHxS	1696	1.68	1 µg/L
MPFHpA	10091	1.70	1 µg/L
MPFOA	9972	1.89	1 µg/L
MPFOS	2329	1.98	1 µg/L
MPFNA	10033	2.04	1 µg/L
MPFDA	8768	2.15	1 µg/L
MPFUnA	10683	2.25	1 µg/L
MPFDoA	14012	2.33	1 µg/L
MPFTrDA	14584	2.47	1 µg/L
D3-MeFOSA IS	4802	2.83	1 µg/L
D5-EtFOSA IS	3817	2.90	1 µg/L
13C6-PFHxA IS	32615	1.44	1 µg/L
13C9-PFDA IS	39822	2.15	1 µg/L

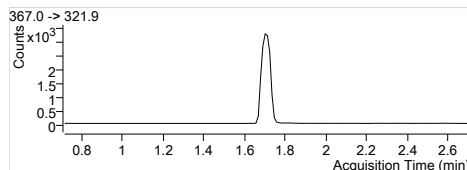
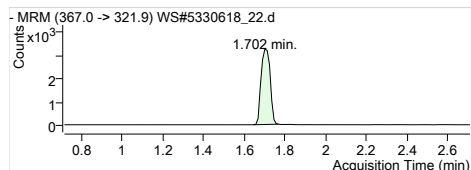
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7287	1.44	-	100.90 µg/L	-
18O2-PFHxS	1696	1.68	-	97.99 µg/L	-
13C4-PFHpA	10091	1.70	-	111.52 µg/L	-
13C4-PFOA	9972	1.89	-	102.06 µg/L	-
13C4-PFOS	2329	1.98	-	110.63 µg/L	-
13C5-PFNA	9928	2.04	-	108.66 µg/L	-
13C2-PFDA	8611	2.15	-	113.54 µg/L	-
13C2-PFUnA	10683	2.25	-	114.25 µg/L	-
13C2-PFDaA	14012	2.33	-	117.57 µg/L	-
13C2-PFTeDA	14770	2.47	-	112.92 µg/L	-
D3-MeFOSA	4906	2.83	-	111.18 µg/L	-
D5-EtFOSA	3893	2.90	-	104.40 µg/L	-
13C6-PFHxA	32615	1.44	-	1.62 µg/L	-
13C9-PFDA	39822	2.15	-	1.54 µg/L	-



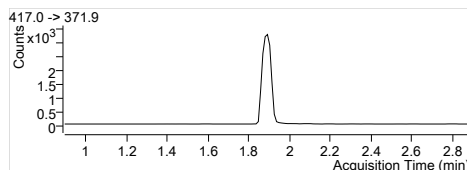
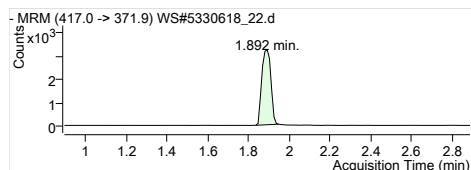
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



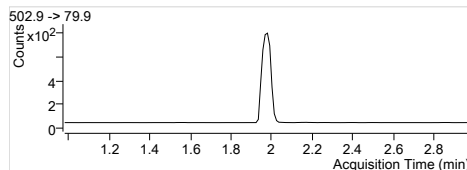
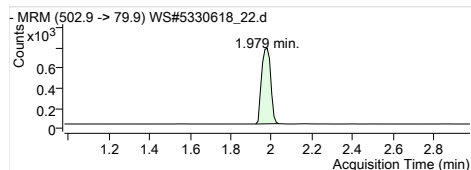
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



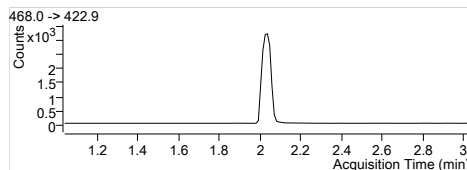
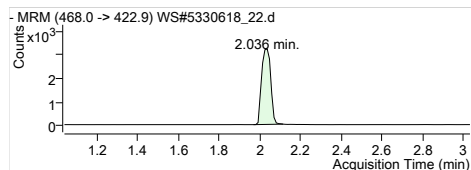
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



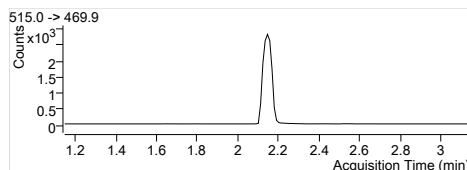
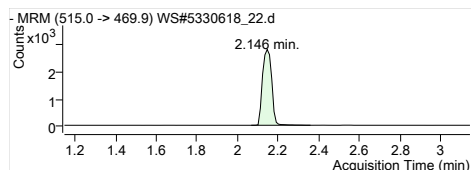
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



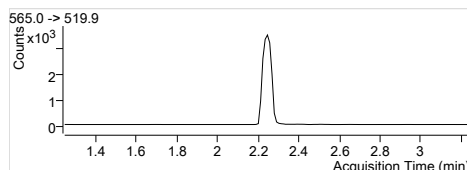
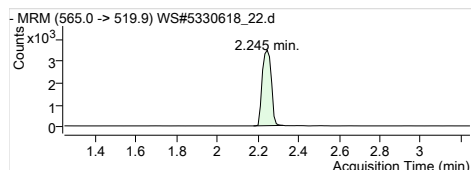
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



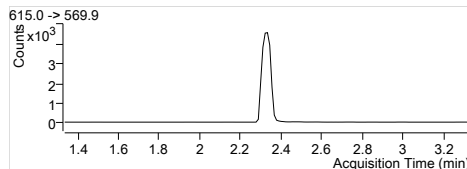
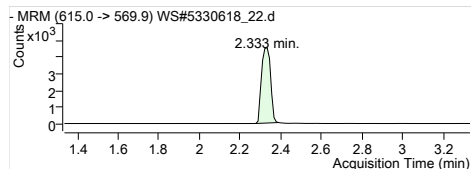
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



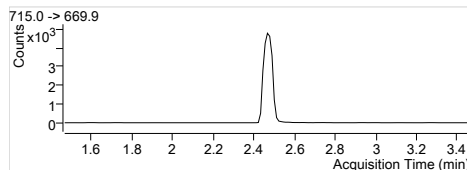
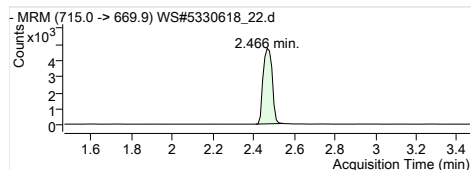
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

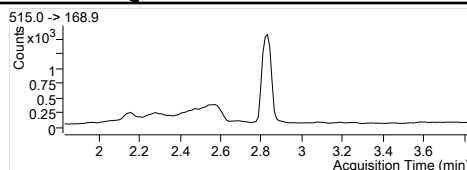
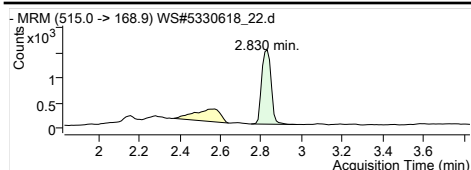


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

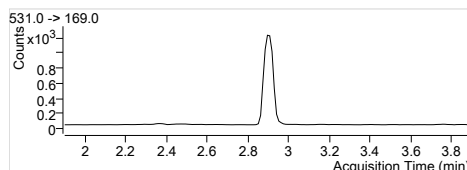
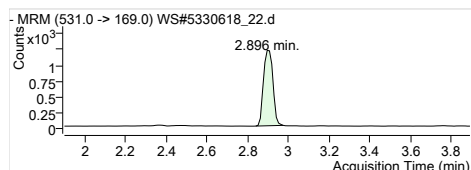


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

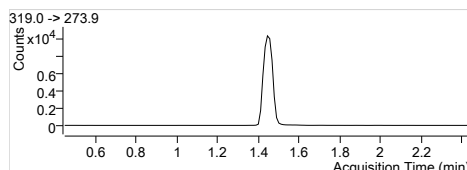
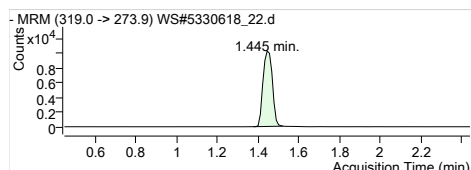
Quantitation Results



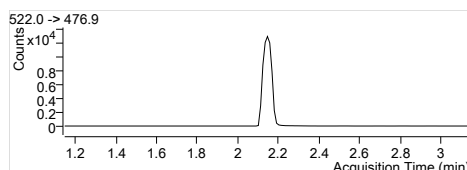
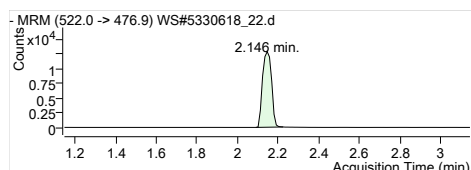
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



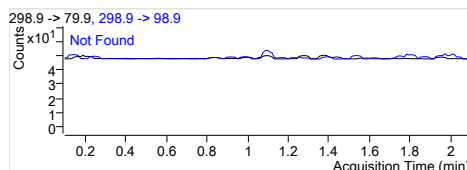
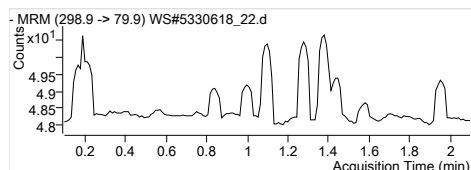
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



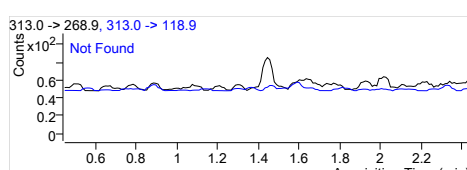
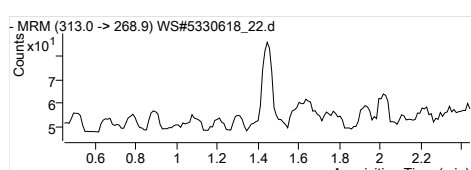
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



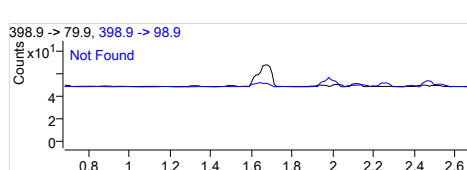
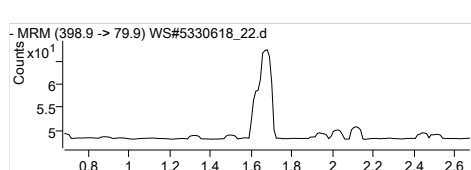
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



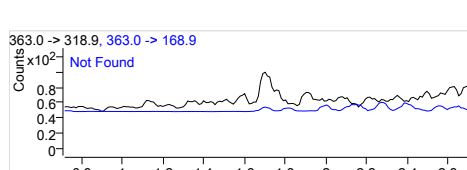
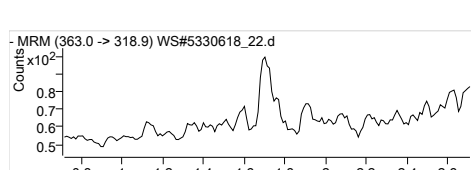
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: 0
 Sample type: Sample



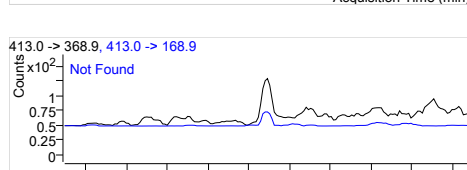
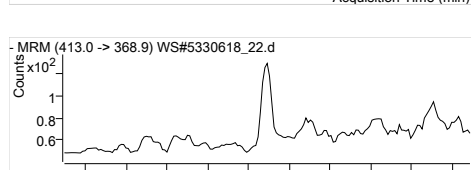
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: 0
 Sample type: Sample



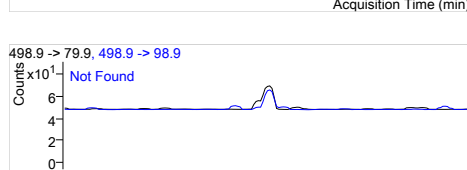
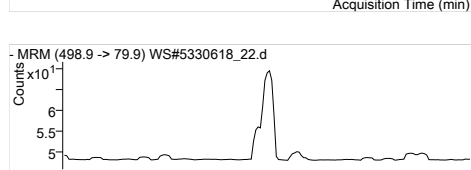
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: 0
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample

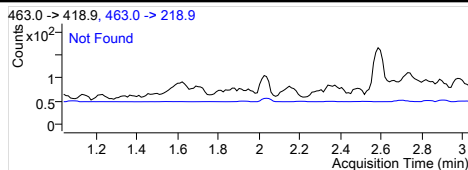
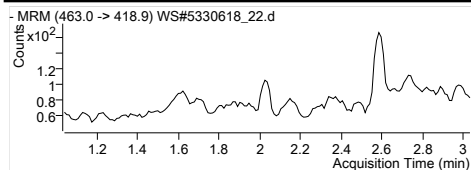


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample

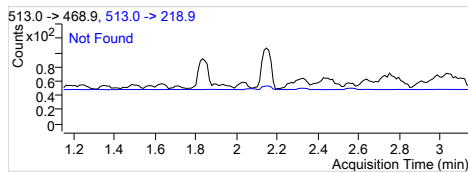
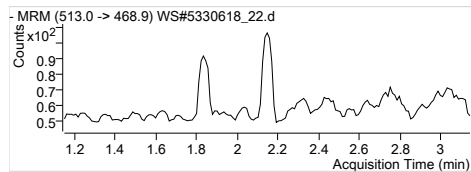


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: 0
 Sample type: Sample

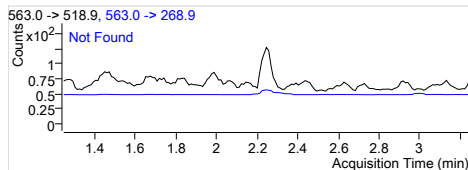
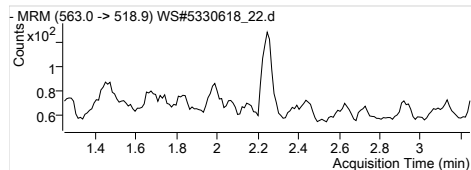
Quantitation Results



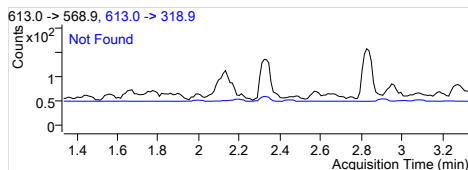
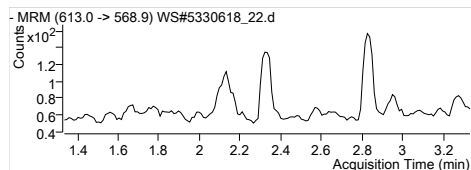
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



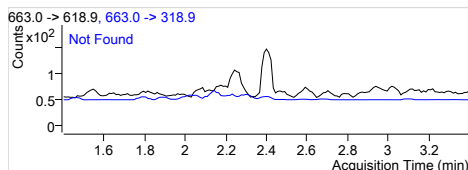
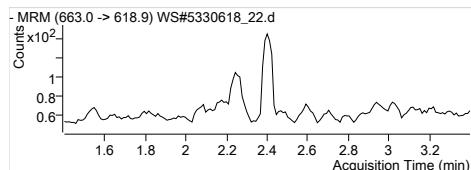
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



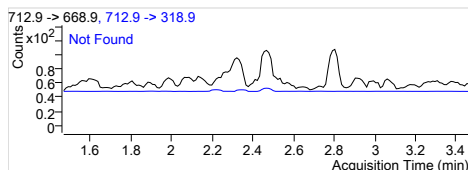
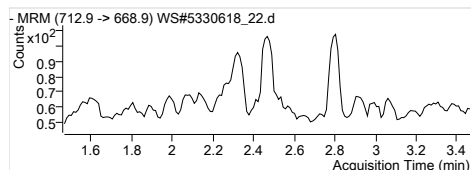
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



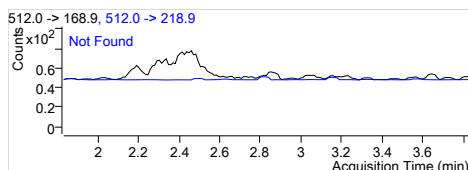
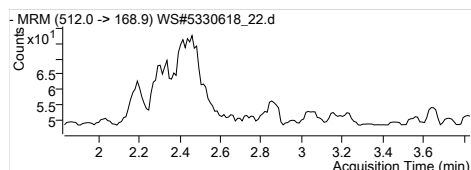
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



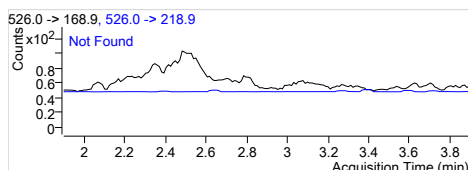
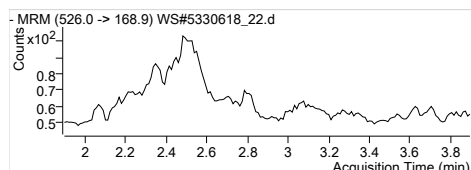
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



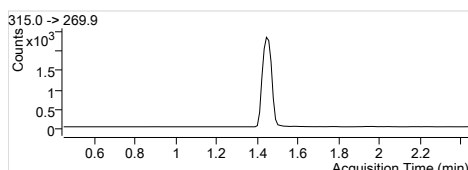
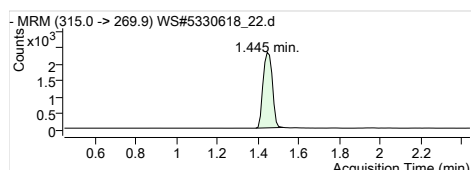
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

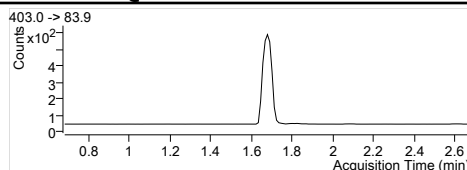
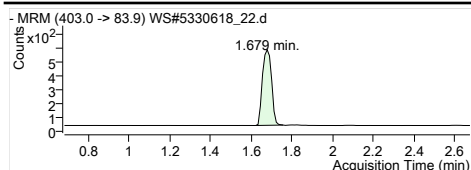


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

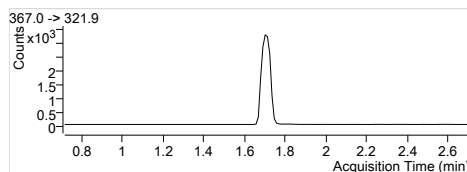
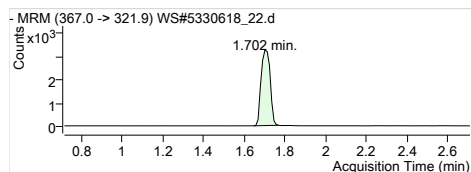


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 100.90 µg/L
 Sample type: 0.22342
 Sample

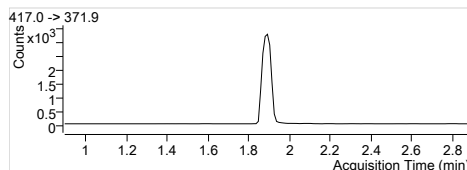
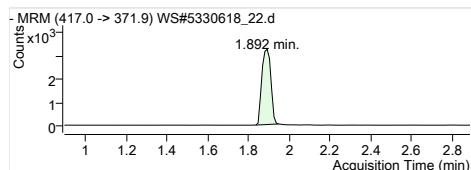
Quantitation Results



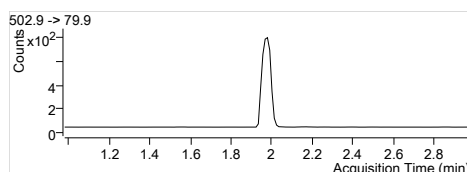
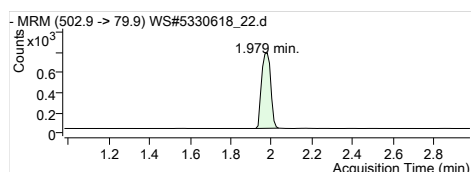
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 97.99 µg/L
 Sample type: 0.05200
 Sample



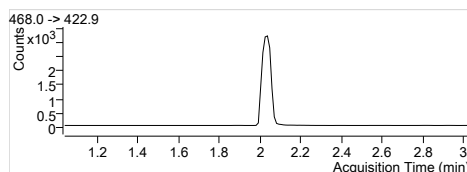
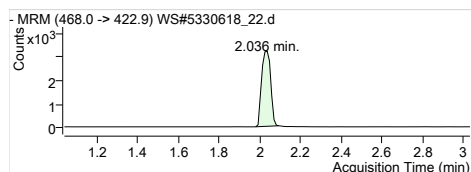
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 111.52 µg/L
 Sample type: 0.30940
 Sample



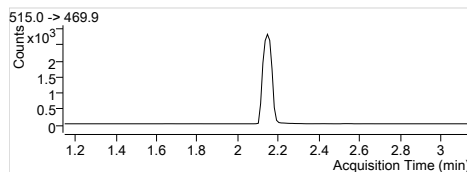
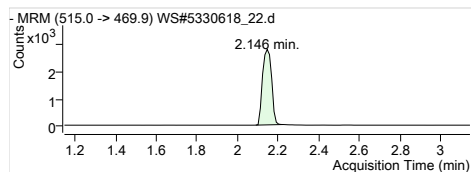
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 102.06 µg/L
 Sample type: 0.30575
 Sample



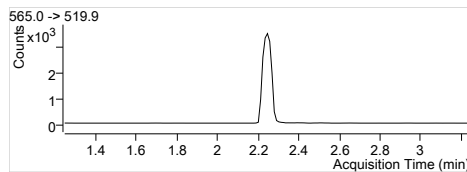
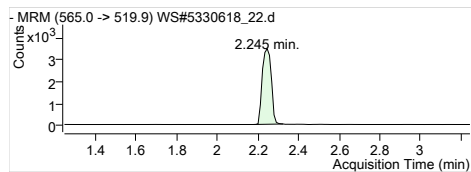
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 110.63 µg/L
 Sample type: 0.07141
 Sample



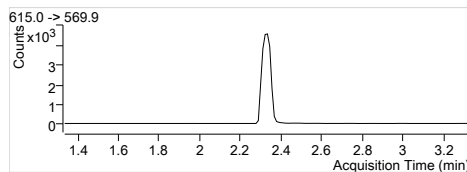
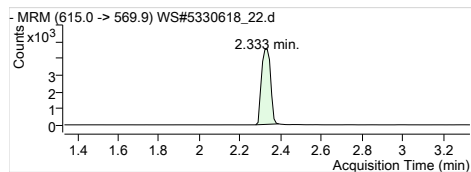
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 108.66 µg/L
 Sample type: 0.30440
 Sample



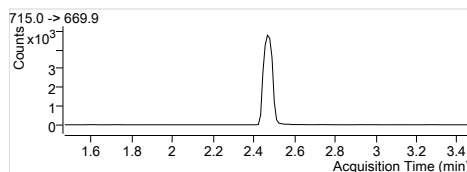
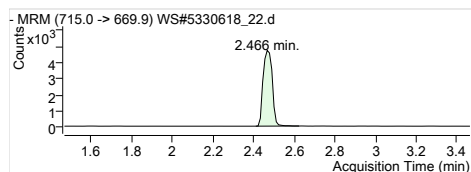
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 113.54 µg/L
 Sample type: 0.21624
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 114.25 µg/L
 Sample type: 0.26827
 Sample

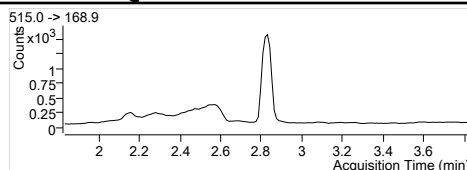
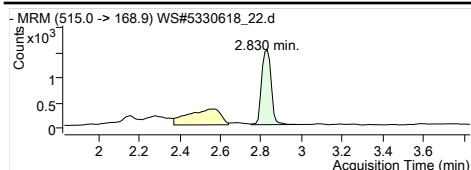


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 117.57 µg/L
 Sample type: 0.35187
 Sample

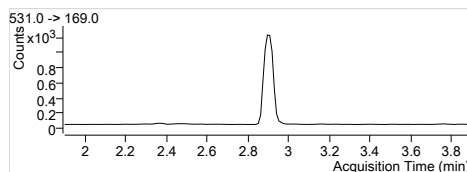
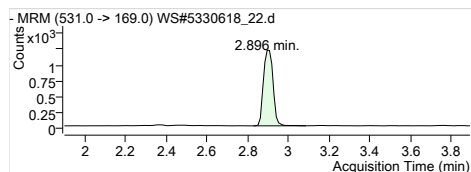


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 112.92 µg/L
 Sample type: 0.37090
 Sample

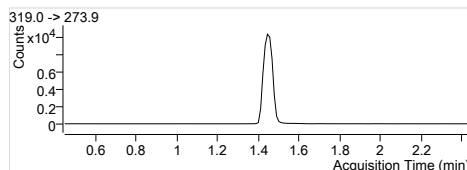
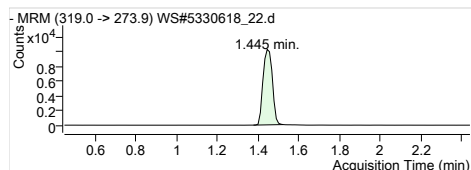
Quantitation Results



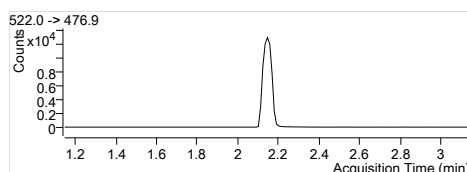
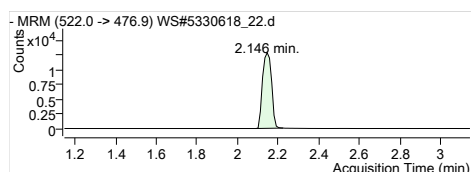
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 111.18 µg/L
Area ratio: 0.15042
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 104.40 µg/L
Area ratio: 0.11936
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.62 µg/L
Area ratio: 0
Sample type: Sample



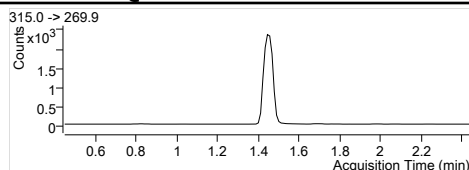
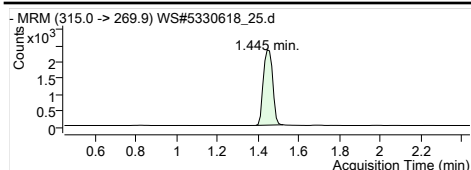
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.54 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

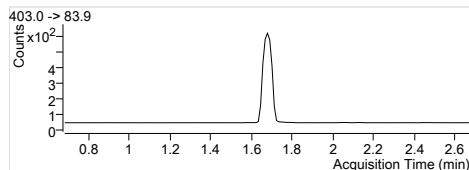
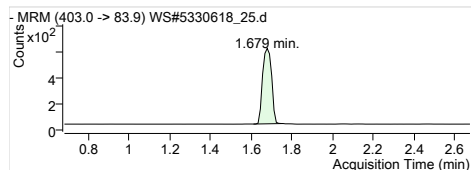
Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_25.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 7:13:42 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	7402	1.44	1 µg/L
MPFHxS	1763	1.68	1 µg/L
MPFHpA	9081	1.70	1 µg/L
MPFOA	9446	1.89	1 µg/L
MPFOS	2187	1.97	1 µg/L
MPFNA	9332	2.04	1 µg/L
MPFDA	7865	2.15	1 µg/L
MPFUnA	10408	2.25	1 µg/L
MPFDoA	12784	2.33	1 µg/L
MPFTrDA	14058	2.47	1 µg/L
D3-MeFOSA IS	4519	2.83	1 µg/L
D5-EtFOSA IS	3785	2.90	1 µg/L
13C6-PFHxA IS	30353	1.44	1 µg/L
13C9-PFDA IS	38193	2.15	1 µg/L

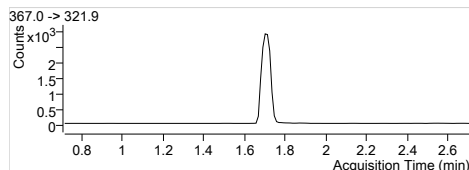
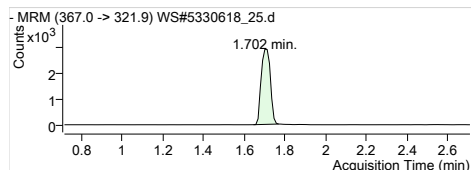
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7402	1.44	-	110.13 µg/L	-
18O2-PFHxS	1763	1.68	-	109.45 µg/L	-
13C4-PFHpA	9081	1.70	-	107.84 µg/L	-
13C4-PFOA	9446	1.89	-	103.88 µg/L	-
13C4-PFOS	2187	1.97	-	111.62 µg/L	-
13C5-PFNA	9252	2.04	-	108.81 µg/L	-
13C2-PFDA	7782	2.15	-	106.98 µg/L	-
13C2-PFUnA	10408	2.25	-	116.06 µg/L	-
13C2-PFDoA	12784	2.33	-	111.85 µg/L	-
13C2-PFTeDA	14245	2.47	-	113.55 µg/L	-
D3-MeFOSA	4587	2.83	-	111.70 µg/L	-
D5-EtFOSA	3853	2.90	-	111.03 µg/L	-
13C6-PFHxA	30353	1.44	-	1.51 µg/L	-
13C9-PFDA	38193	2.15	-	1.48 µg/L	-



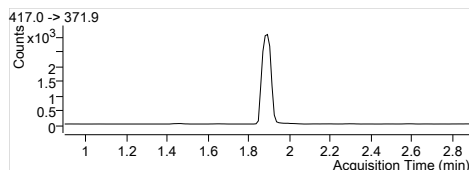
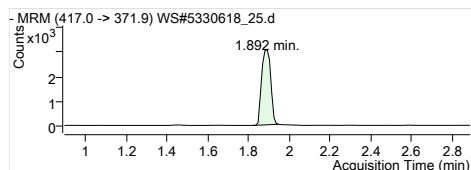
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



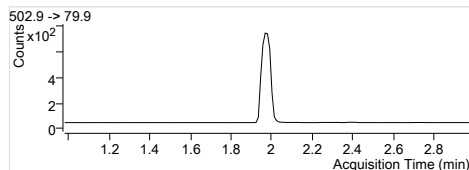
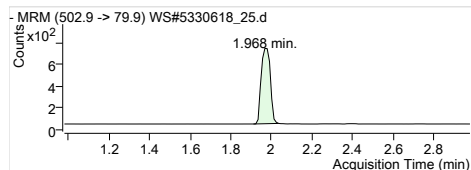
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



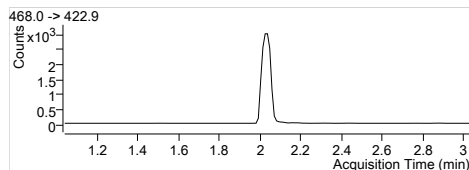
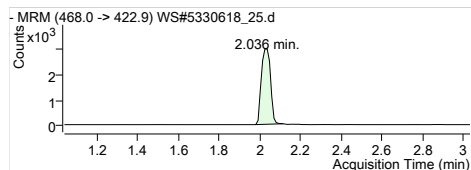
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



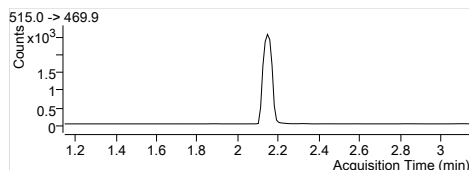
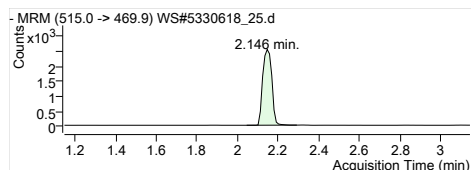
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



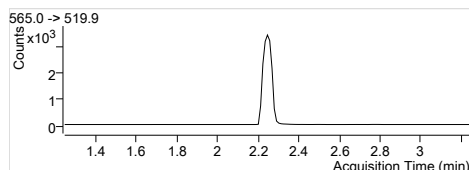
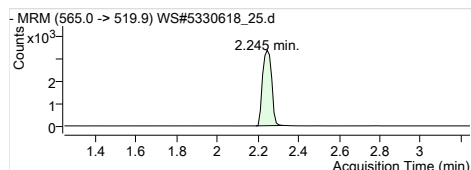
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample



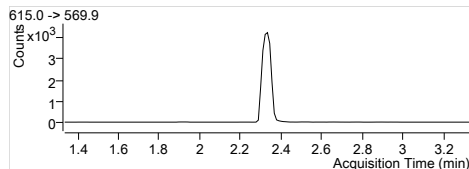
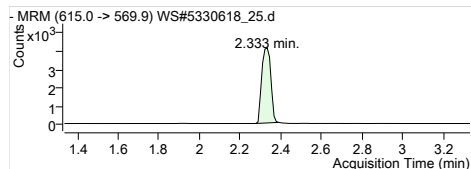
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



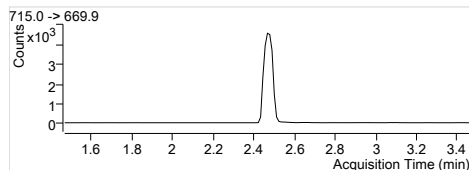
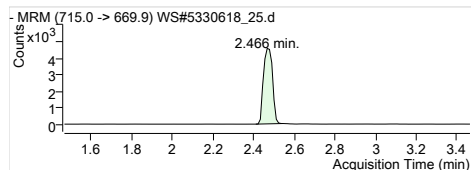
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

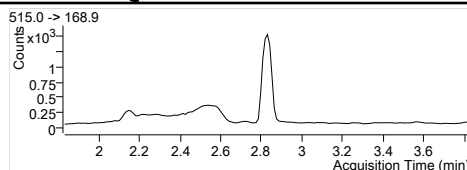
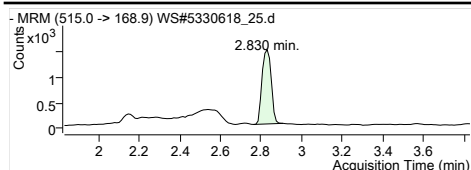


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

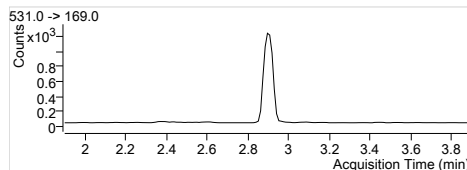
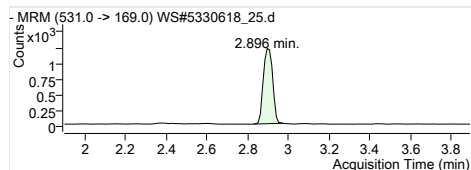


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

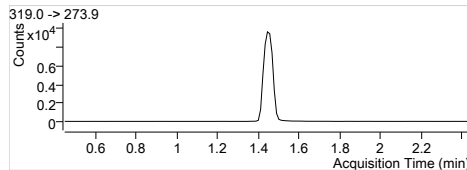
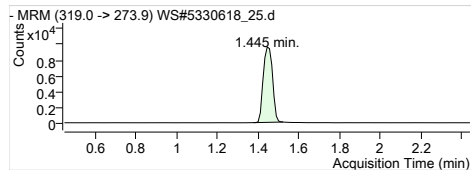
Quantitation Results



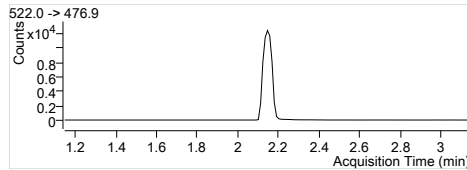
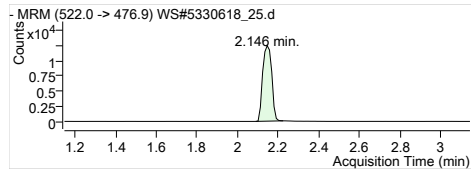
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



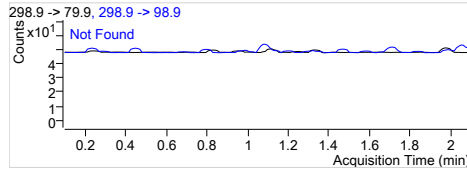
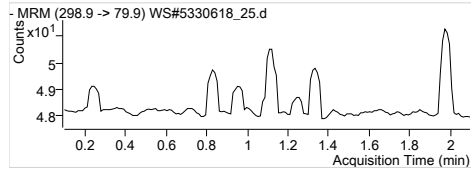
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



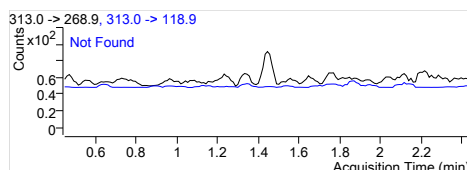
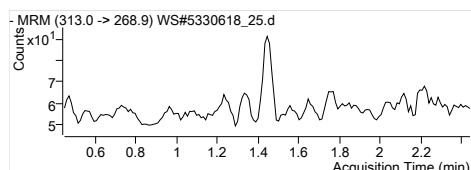
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



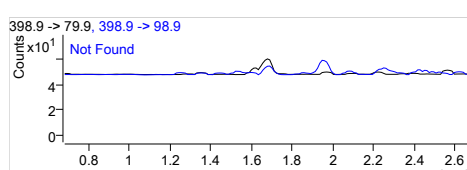
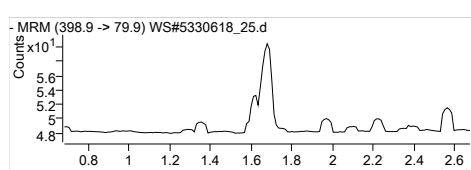
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



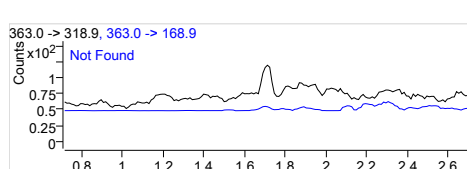
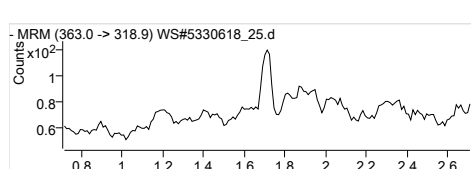
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: 0
 Sample type: Sample



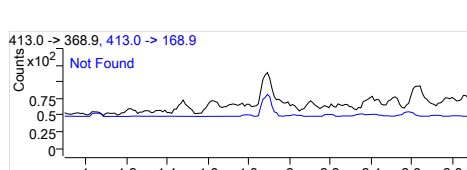
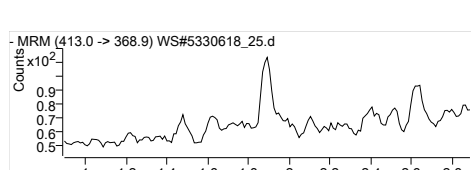
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: 0
 Sample type: Sample



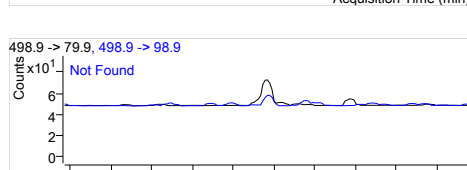
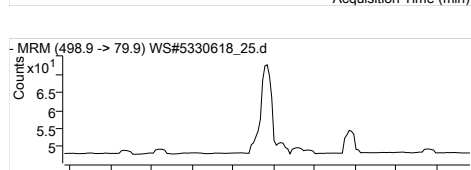
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: 0
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample

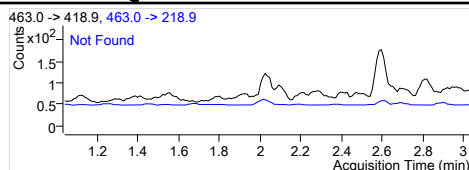
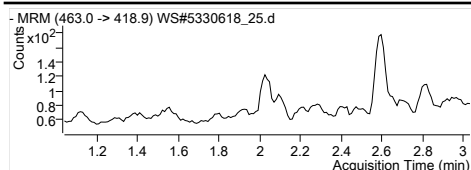


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample

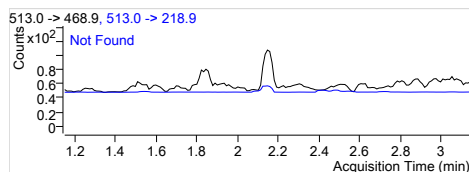
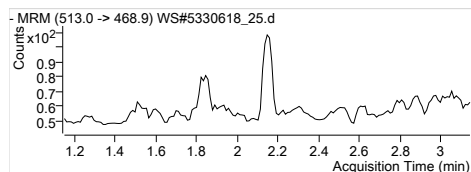


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: 0
 Sample type: Sample

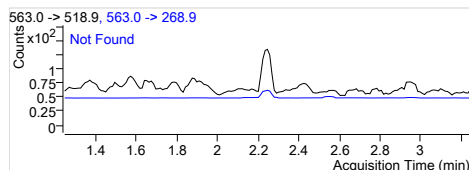
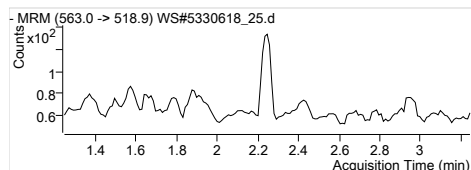
Quantitation Results



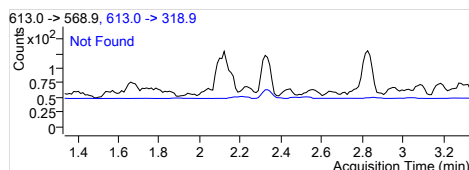
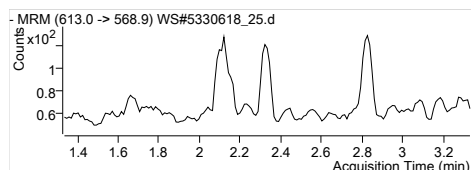
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



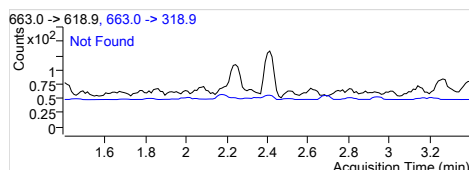
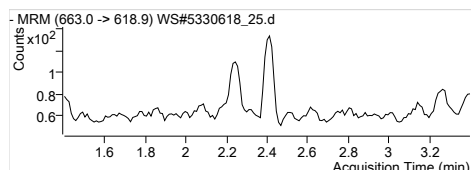
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



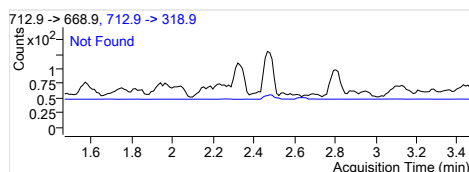
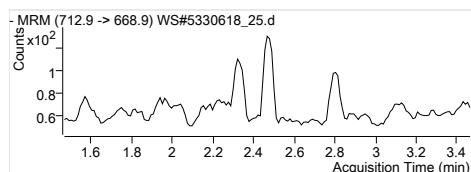
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



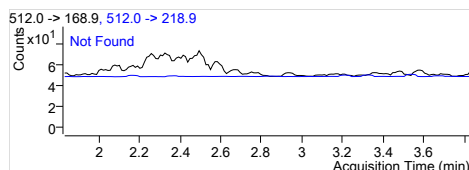
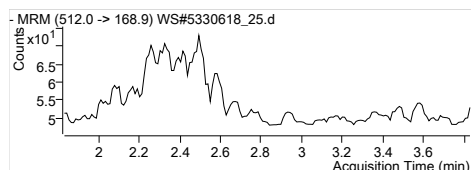
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



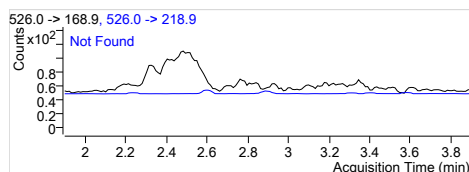
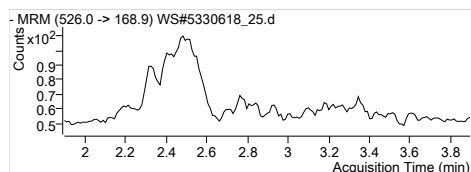
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



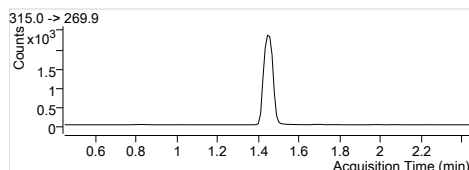
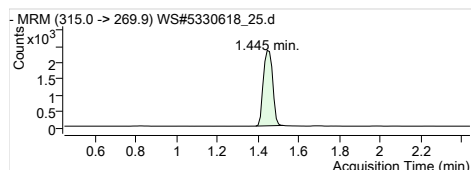
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

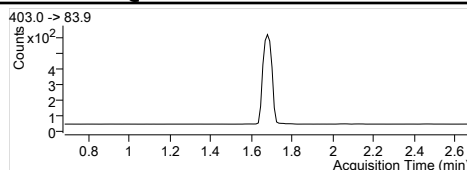
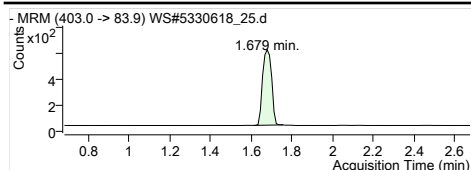


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

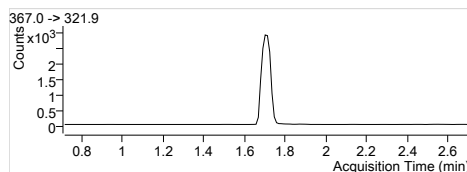
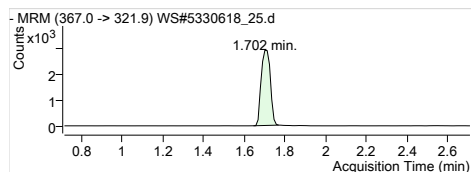


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 110.13 µg/L
 Sample type: 0.24386
 Sample

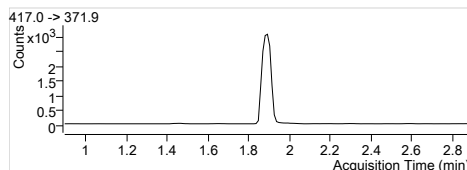
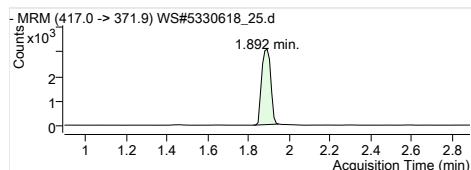
Quantitation Results



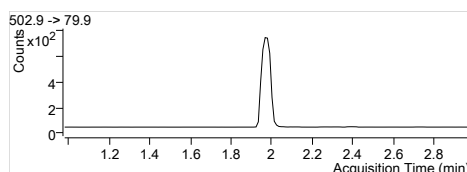
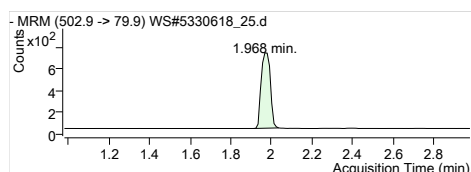
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 109.45 µg/L
 Sample type: 0.05808
 Sample



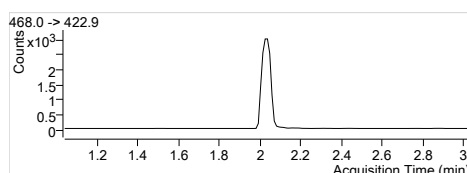
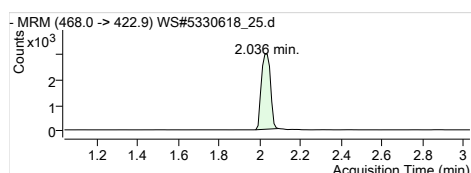
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 107.84 µg/L
 Sample type: 0.29918
 Sample



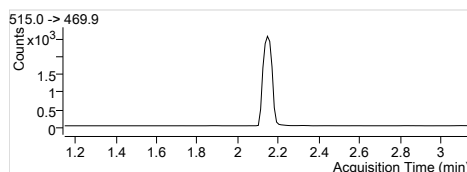
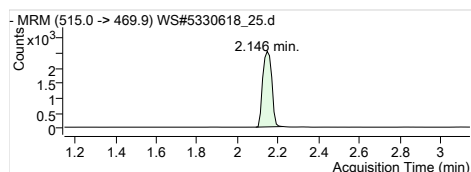
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 103.88 µg/L
 Sample type: 0.31120
 Sample



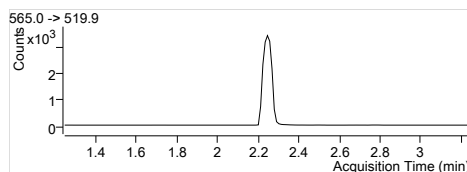
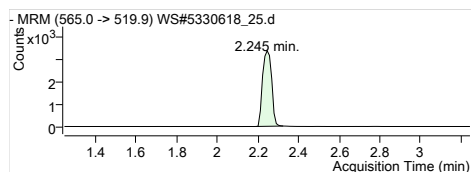
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 111.62 µg/L
 Sample type: 0.07205
 Sample



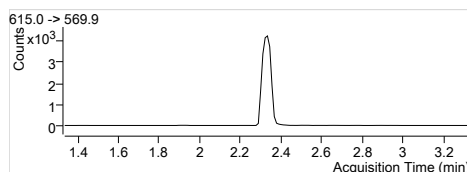
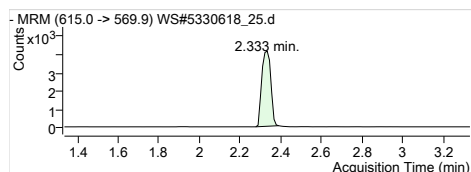
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 108.81 µg/L
 Sample type: 0.30481
 Sample



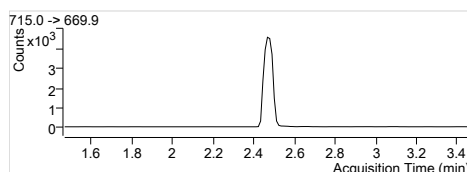
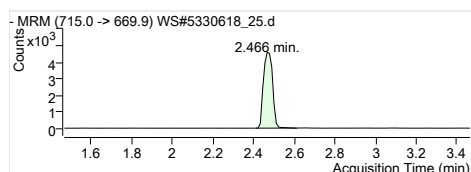
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 106.98 µg/L
 Sample type: 0.20375
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 116.06 µg/L
 Sample type: 0.27251
 Sample

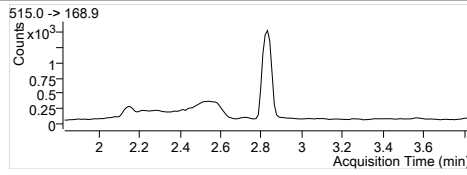
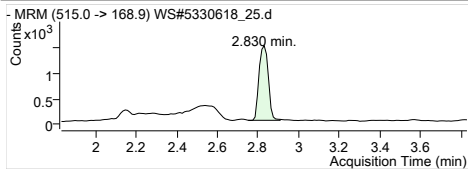


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 111.85 µg/L
 Sample type: 0.33472
 Sample

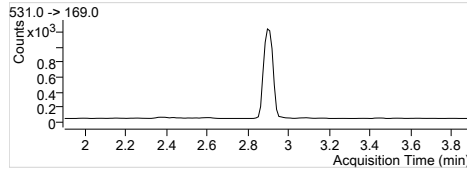
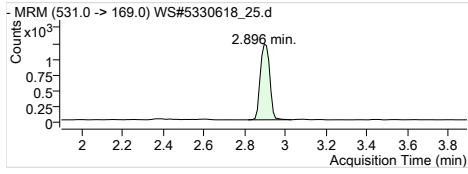


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 113.55 µg/L
 Sample type: 0.37297
 Sample

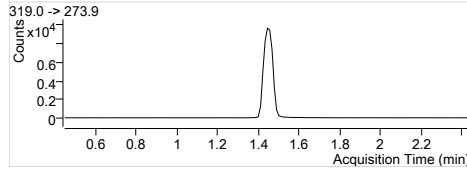
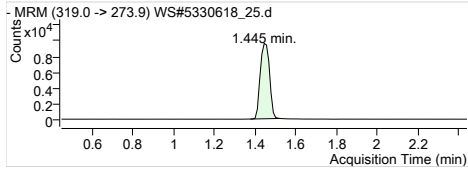
Quantitation Results



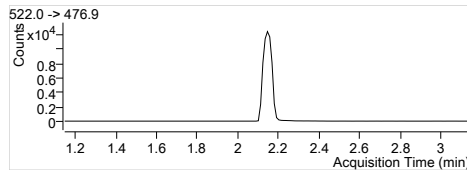
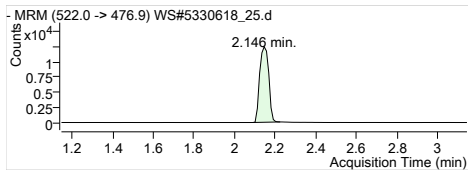
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 111.70 µg/L
Area ratio: 0.15112
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 111.03 µg/L
Area ratio: 0.12694
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.51 µg/L
Area ratio: 0
Sample type: Sample



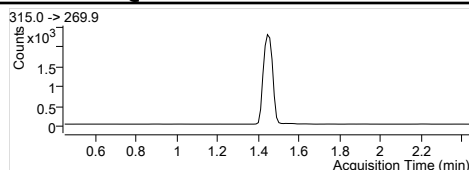
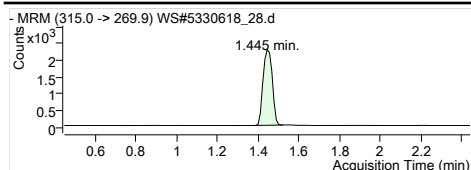
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.48 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

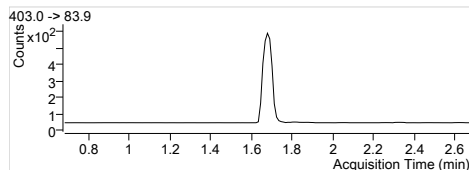
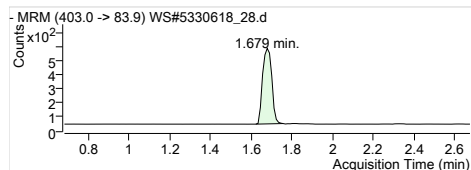
Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_28.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 7:29:03 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7153	1.44	1 µg/L		
MPFHxS	1691	1.68	1 µg/L		
MPFHpA	8718	1.70	1 µg/L		
MPFOA	10084	1.89	1 µg/L		
MPFOS	2200	1.98	1 µg/L		
MPFNA	9810	2.02	1 µg/L		
MPFDA	8168	2.15	1 µg/L		
MPFUnA	9973	2.25	1 µg/L		
MPFDoA	12972	2.33	1 µg/L		
MPFTeDA	13629	2.47	1 µg/L		
D3-MeFOSA IS	4456	2.83	1 µg/L		
D5-EtFOSA IS	3774	2.91	1 µg/L		
13C6-PFHxA IS	29483	1.44	1 µg/L		
13C9-PFDA IS	37235	2.15	1 µg/L		

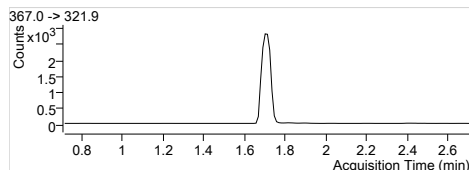
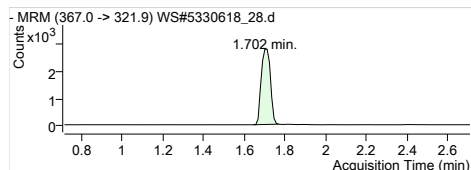
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7153	1.44	-	109.56 µg/L	-
18O2-PFHxS	1691	1.68	-	108.08 µg/L	-
13C4-PFHpA	8718	1.70	-	106.58 µg/L	-
13C4-PFOA	10084	1.89	-	114.17 µg/L	-
13C4-PFOS	2200	1.98	-	115.60 µg/L	-
13C5-PFNA	9714	2.02	-	117.61 µg/L	-
13C2-PFDA	8090	2.15	-	114.08 µg/L	-
13C2-PFUnA	9973	2.25	-	114.07 µg/L	-
13C2-PFDoA	12972	2.33	-	116.41 µg/L	-
13C2-PFTeDA	13919	2.47	-	113.81 µg/L	-
D3-MeFOSA	4676	2.83	-	117.23 µg/L	-
D5-EtFOSA	3867	2.91	-	114.72 µg/L	-
13C6-PFHxA	29483	1.44	-	1.46 µg/L	-
13C9-PFDA	37235	2.15	-	1.44 µg/L	-



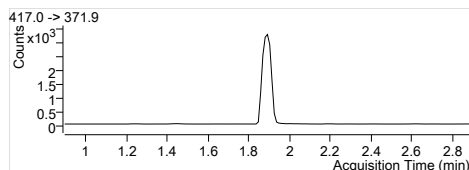
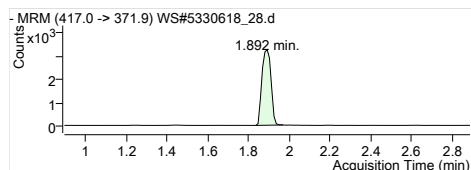
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



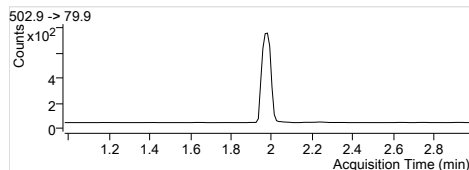
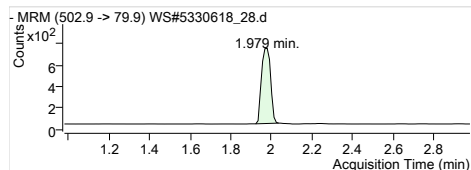
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



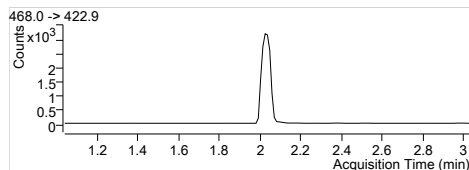
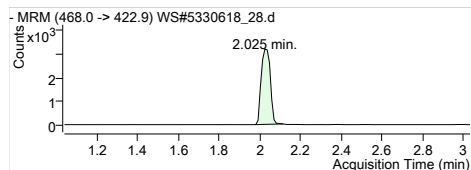
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



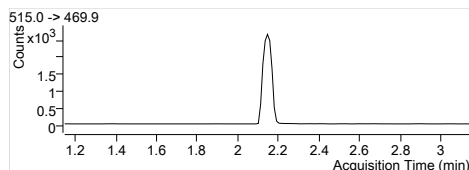
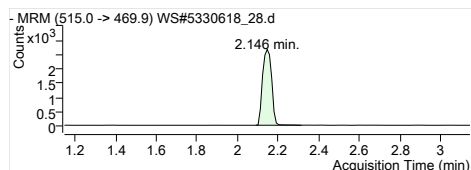
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



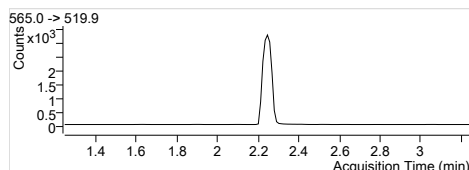
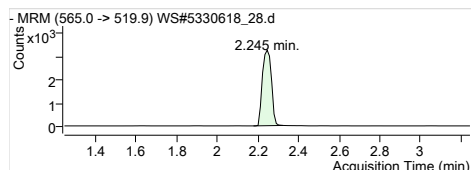
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



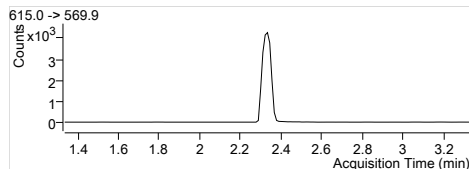
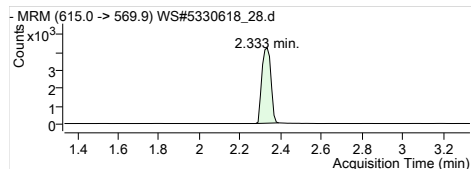
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: Sample



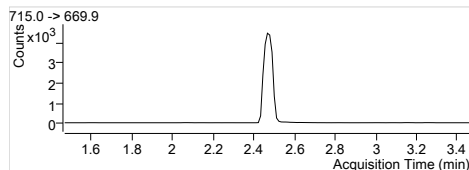
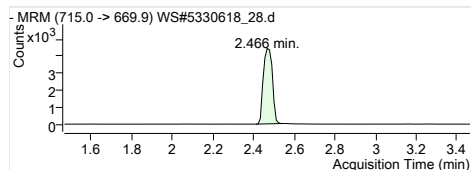
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



MPFDaA Internal Standard
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

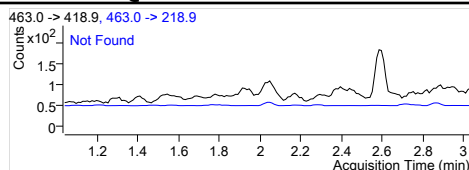
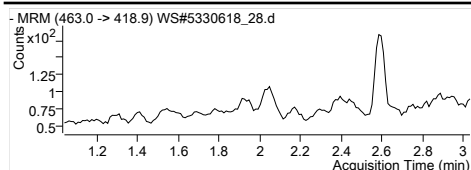


MPFTeDA Internal Standard
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

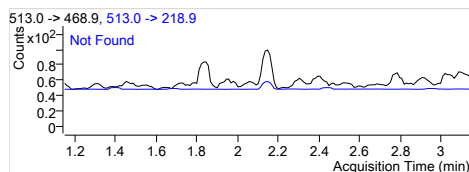
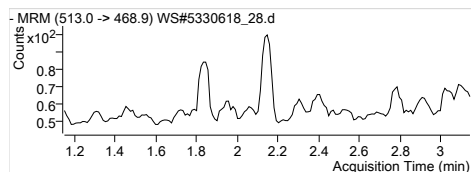
Quantitation Results

<p>-MRM (515.0 -> 168.9) WS#5330618_28.d 2.830 min.</p>	<p>515.0 -> 168.9</p>	<p>D3-MeFOSA IS RT (Exp. RT): 2.830 (2.830) Concentration: 1 µg/L Sample type: Sample</p>	<p>Internal Standard 2.830 (2.830) 1 µg/L Sample</p>
<p>-MRM (531.0 -> 169.0) WS#5330618_28.d 2.907 min.</p>	<p>531.0 -> 169.0</p>	<p>D5-EtFOSA IS RT (Exp. RT): 2.907 (2.896) Concentration: 1 µg/L Sample type: Sample</p>	<p>Internal Standard 2.907 (2.896) 1 µg/L Sample</p>
<p>-MRM (319.0 -> 273.9) WS#5330618_28.d 1.445 min.</p>	<p>319.0 -> 273.9</p>	<p>13C6-PFHxA IS RT (Exp. RT): 1.445 (1.445) Concentration: 1 µg/L Sample type: Sample</p>	<p>Internal Standard 1.445 (1.445) 1 µg/L Sample</p>
<p>-MRM (522.0 -> 476.9) WS#5330618_28.d 2.146 min.</p>	<p>522.0 -> 476.9</p>	<p>13C9-PFDA IS RT (Exp. RT): 2.146 (2.146) Concentration: 1 µg/L Sample type: Sample</p>	<p>Internal Standard 2.146 (2.146) 1 µg/L Sample</p>
<p>-MRM (298.9 -> 79.9) WS#5330618_28.d</p>	<p>298.9 -> 79.9, 298.9 -> 98.9 Not Found</p>	<p>PFBS 1 RT (Exp. RT): 298.9 -> 79.9 Calc. conc. 0.000 (1.098) Area ratio: N.D. Sample type: 0 Sample</p>	<p>298.9 -> 79.9 0.000 (1.098) N.D. 0 Sample</p>
<p>-MRM (313.0 -> 268.9) WS#5330618_28.d</p>	<p>313.0 -> 268.9, 313.0 -> 118.9 Not Found</p>	<p>PFHxA 1 RT (Exp. RT): 313.0 -> 268.9 Calc. conc. 0.000 (1.445) Area ratio: N.D. Sample type: 0 Sample</p>	<p>313.0 -> 268.9 0.000 (1.445) N.D. 0 Sample</p>
<p>-MRM (398.9 -> 79.9) WS#5330618_28.d</p>	<p>398.9 -> 79.9, 398.9 -> 98.9 Not Found</p>	<p>PFHxS 1 RT (Exp. RT): 398.9 -> 79.9 Calc. conc. 0.000 (1.679) Area ratio: N.D. Sample type: 0 Sample</p>	<p>398.9 -> 79.9 0.000 (1.679) N.D. 0 Sample</p>
<p>-MRM (363.0 -> 318.9) WS#5330618_28.d</p>	<p>363.0 -> 318.9, 363.0 -> 168.9 Not Found</p>	<p>PFHpA 1 RT (Exp. RT): 363.0 -> 318.9 Calc. conc. 0.000 (1.713) Area ratio: N.D. Sample type: 0 Sample</p>	<p>363.0 -> 318.9 0.000 (1.713) N.D. 0 Sample</p>
<p>-MRM (413.0 -> 368.9) WS#5330618_28.d</p>	<p>413.0 -> 368.9, 413.0 -> 168.9 Not Found</p>	<p>PFOA 1 RT (Exp. RT): 413.0 -> 368.9 Calc. conc. 0.000 (1.892) Area ratio: N.D. Sample type: 0 Sample</p>	<p>413.0 -> 368.9 0.000 (1.892) N.D. 0 Sample</p>
<p>-MRM (498.9 -> 79.9) WS#5330618_28.d</p>	<p>498.9 -> 79.9, 498.9 -> 98.9 Not Found</p>	<p>PFOS 1 RT (Exp. RT): 498.9 -> 79.9 Calc. conc. 0.000 (1.968) Area ratio: N.D. Sample type: 0 Sample</p>	<p>498.9 -> 79.9 0.000 (1.968) N.D. 0 Sample</p>

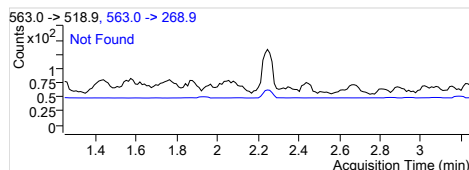
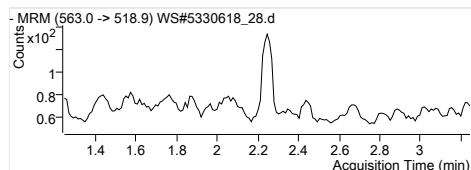
Quantitation Results



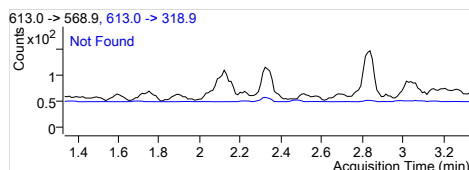
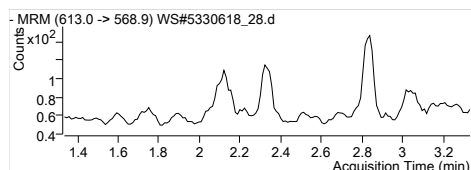
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



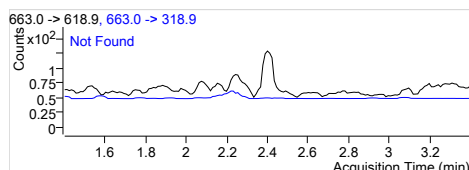
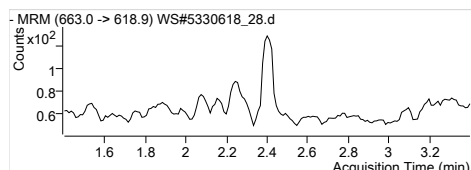
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



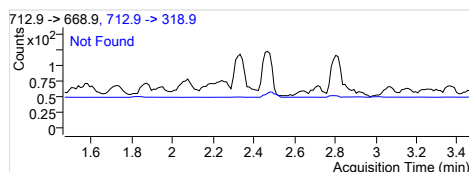
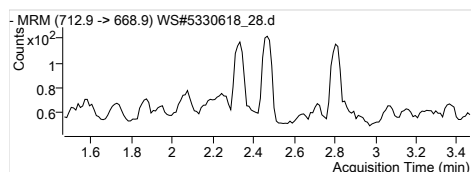
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



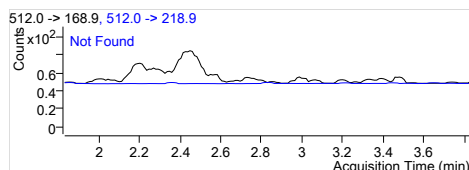
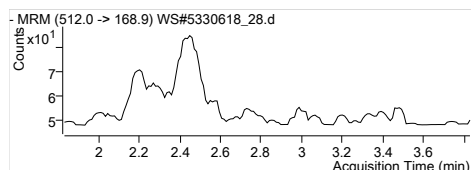
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



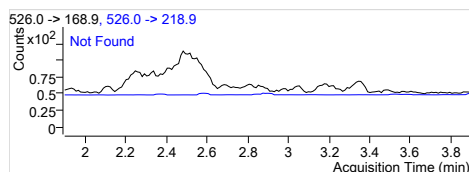
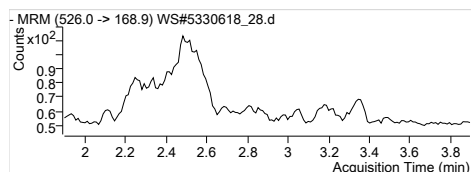
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



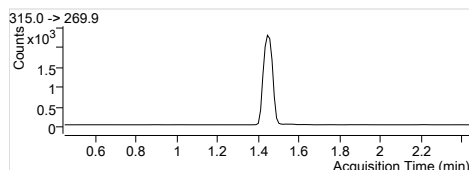
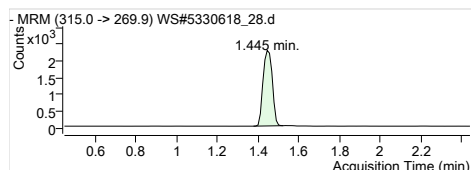
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

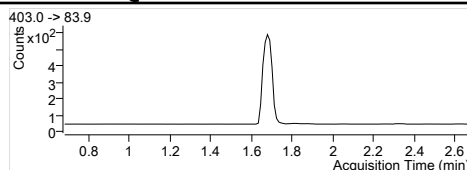
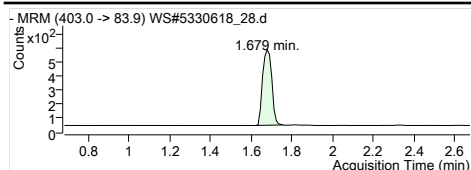


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

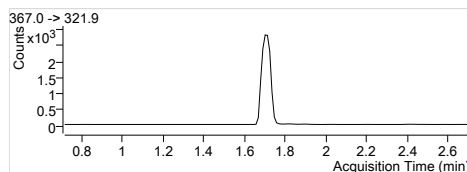
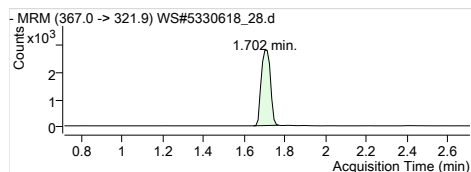


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 109.56 µg/L
 Sample type: 0.24261
 Sample

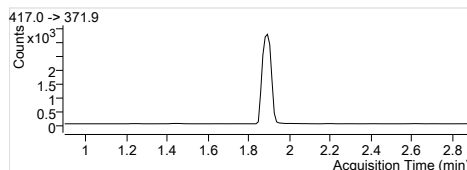
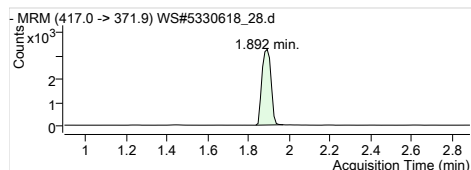
Quantitation Results



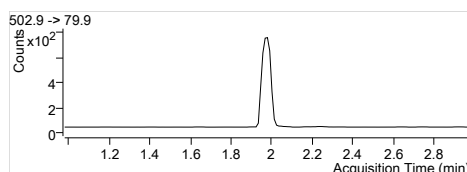
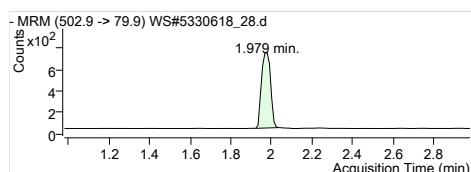
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 108.08 µg/L
 Sample type: 0.05736
 Sample



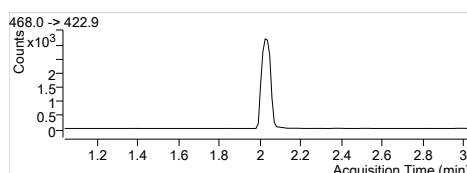
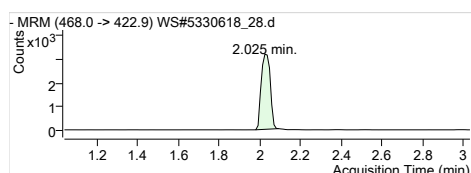
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 106.58 µg/L
 Sample type: 0.29570
 Sample



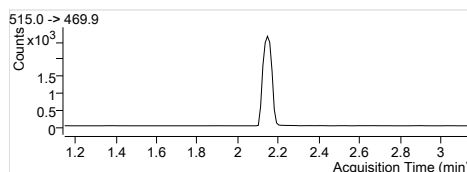
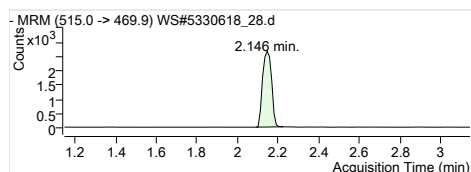
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 114.17 µg/L
 Sample type: 0.34203
 Sample



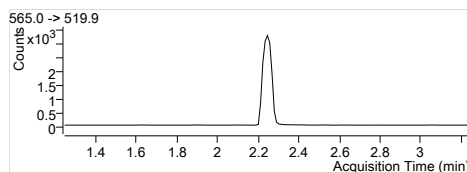
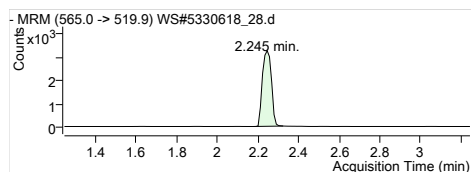
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 115.60 µg/L
 Sample type: 0.07462
 Sample



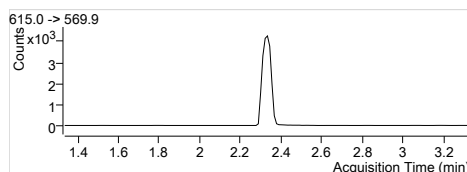
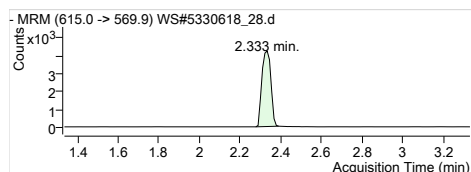
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 117.61 µg/L
 Sample type: 0.32948
 Sample



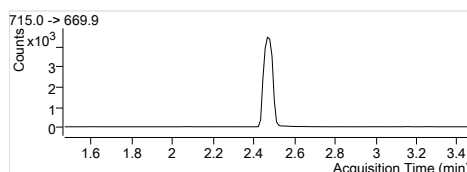
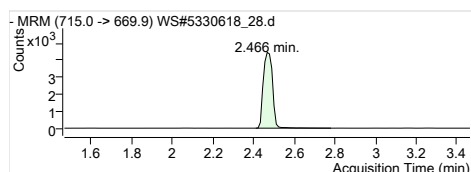
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 114.08 µg/L
 Sample type: 0.21727
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 114.07 µg/L
 Sample type: 0.26784
 Sample

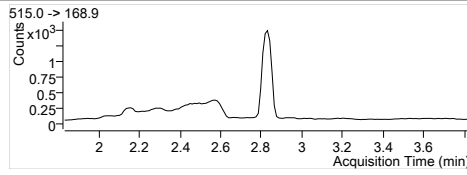
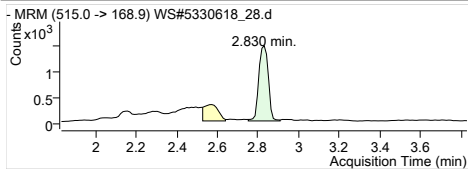


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 116.41 µg/L
 Sample type: 0.34838
 Sample

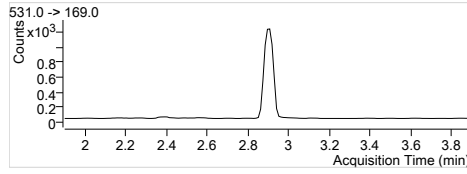
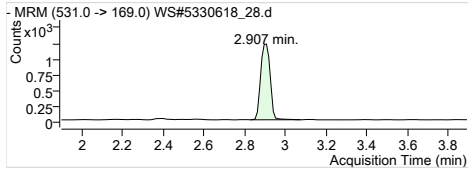


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 113.81 µg/L
 Sample type: 0.37381
 Sample

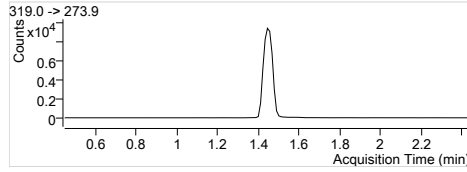
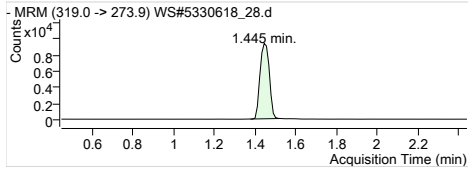
Quantitation Results



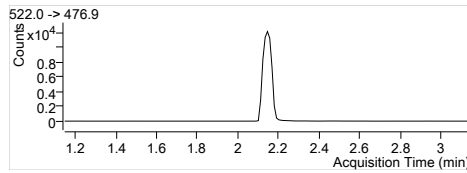
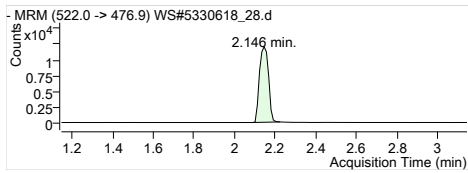
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 117.23 µg/L
Area ratio: 0.15860
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.907 (2.896)
Calc. conc. 114.72 µg/L
Area ratio: 0.13116
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.46 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.44 µg/L
Area ratio: 0
Sample type: Sample

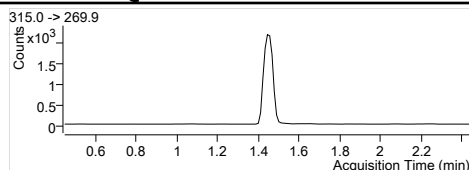
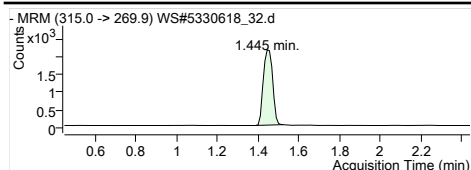
Quantitation Results

Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_32.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 7:49:19 AM	Injection Volume	Per Method
Sample Annotation	-		

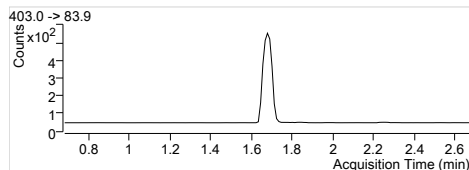
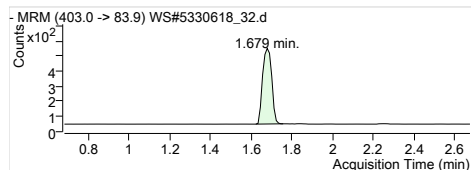
ISTD Compounds	Response	RT	Target conc.
MPFHxA	6878	1.44	1 µg/L
MPFHxS	1573	1.68	1 µg/L
MPFHpA	8923	1.70	1 µg/L
MPFOA	9803	1.89	1 µg/L
MPFOS	2328	1.97	1 µg/L
MPFNA	9928	2.04	1 µg/L
MPFDA	8093	2.15	1 µg/L
MPFUnA	9920	2.25	1 µg/L
MPFDoA	12899	2.33	1 µg/L
MPFTeDA	13962	2.47	1 µg/L
D3-MeFOSA IS	4818	2.83	1 µg/L
D5-EtFOSA IS	3772	2.90	1 µg/L
13C6-PFHxA IS	30579	1.44	1 µg/L
13C9-PFDA IS	39191	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	6878	1.44	-	101.57 µg/L	-
18O2-PFHxS	1573	1.68	-	96.93 µg/L	-
13C4-PFHpA	8923	1.70	-	105.18 µg/L	-
13C4-PFOA	9803	1.89	-	107.01 µg/L	-
13C4-PFOS	2328	1.97	-	117.94 µg/L	-
13C5-PFNA	9845	2.04	-	114.93 µg/L	-
13C2-PFDA	7998	2.15	-	107.15 µg/L	-
13C2-PFUnA	9920	2.25	-	107.80 µg/L	-
13C2-PFDoA	12899	2.33	-	109.98 µg/L	-
13C2-PFTeDA	14103	2.47	-	109.56 µg/L	-
D3-MeFOSA	4845	2.83	-	117.11 µg/L	-
D5-EtFOSA	3797	2.90	-	108.61 µg/L	-
13C6-PFHxA	30579	1.44	-	1.52 µg/L	-
13C9-PFDA	39191	2.15	-	1.52 µg/L	-

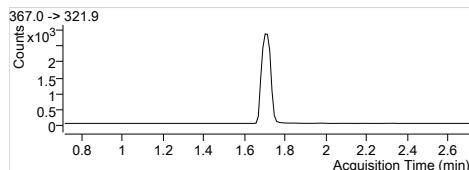
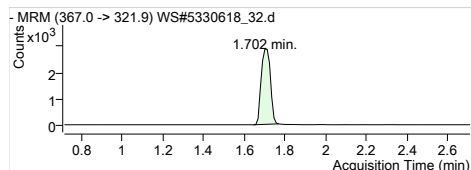
Quantitation Results



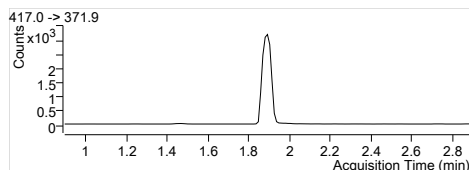
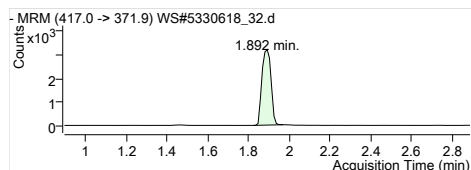
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



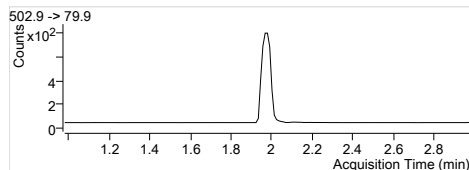
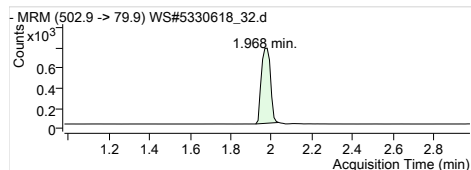
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



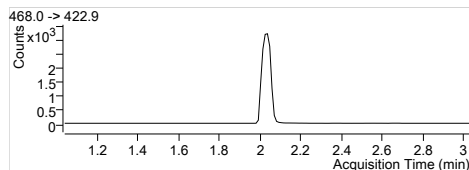
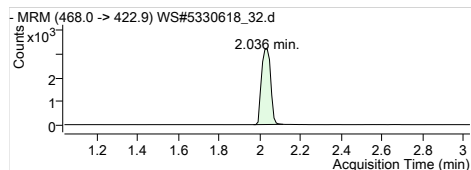
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



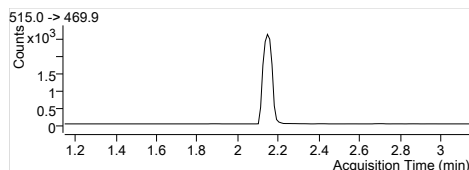
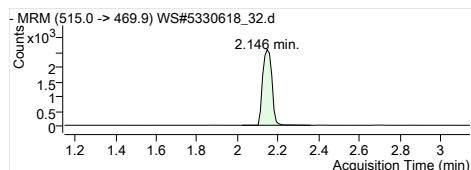
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



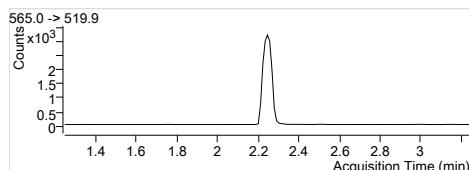
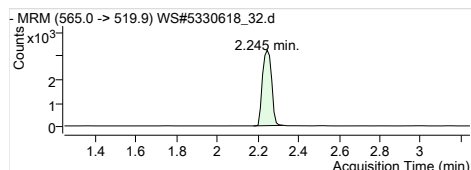
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample



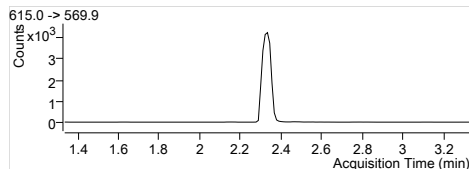
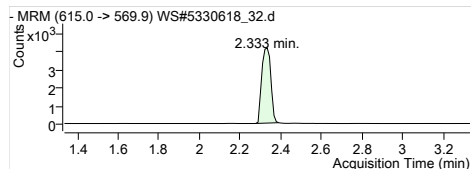
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



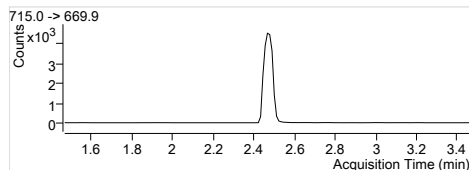
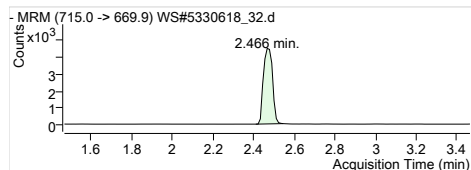
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

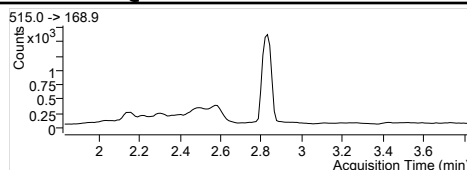
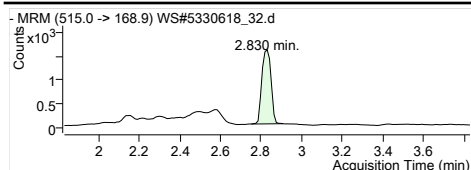


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

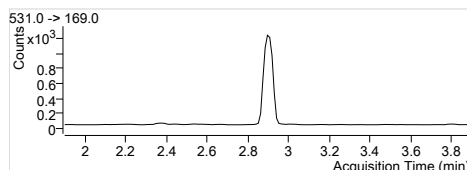
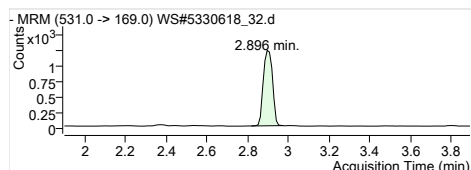


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

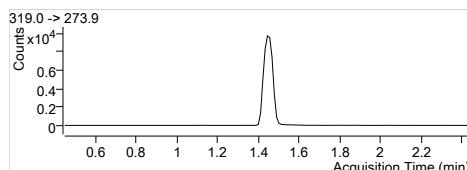
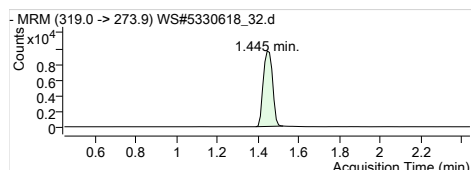
Quantitation Results



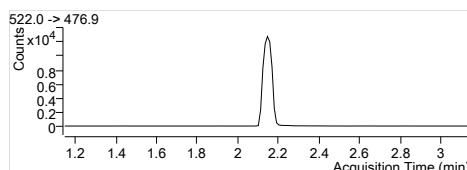
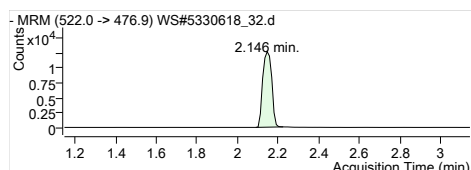
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



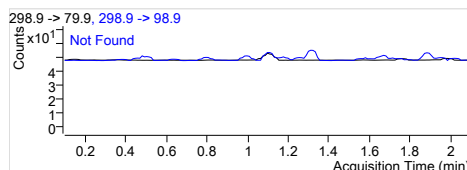
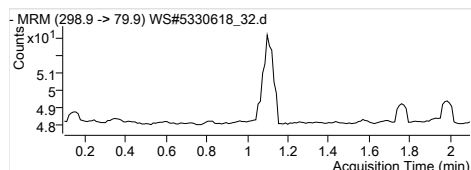
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



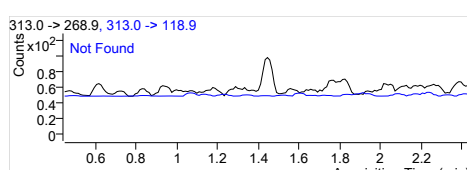
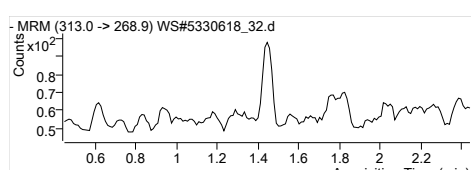
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



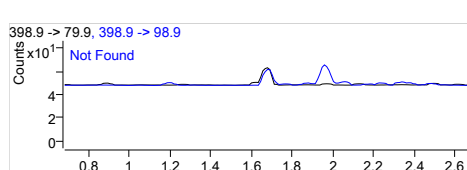
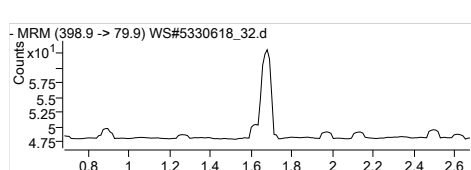
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



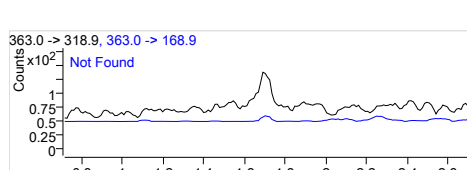
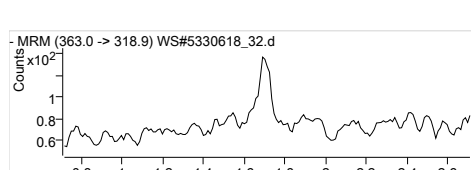
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: 0
 Sample type: Sample



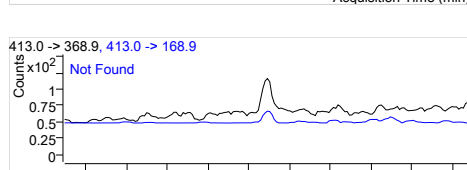
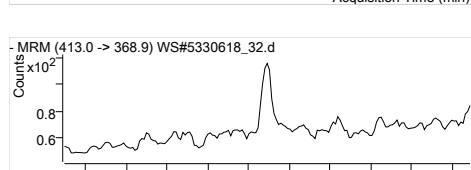
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: 0
 Sample type: Sample



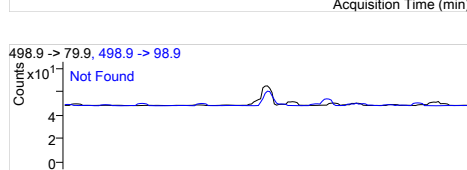
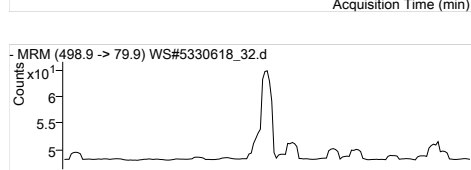
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: 0
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample

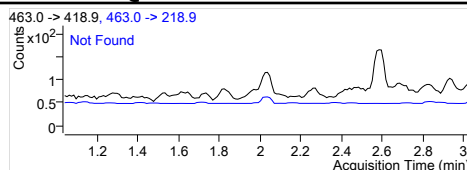
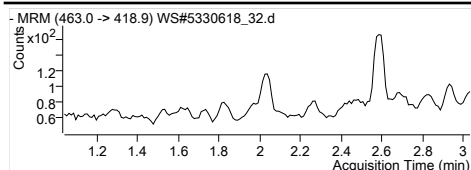


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample

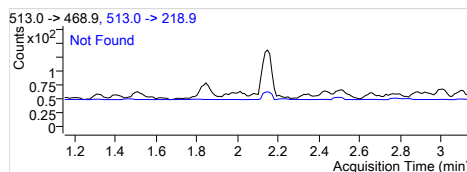
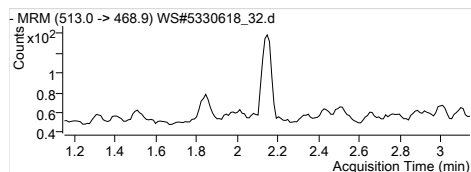


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: 0
 Sample type: Sample

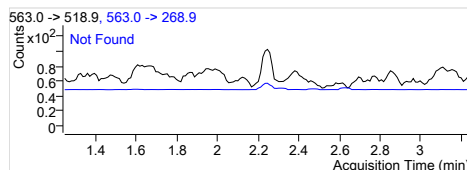
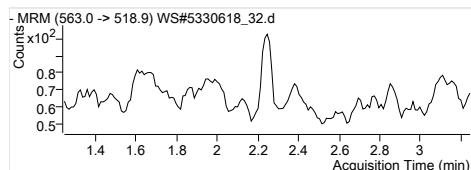
Quantitation Results



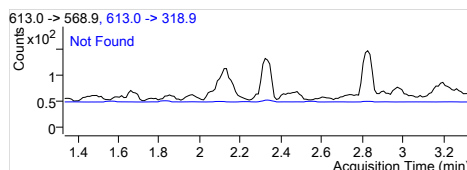
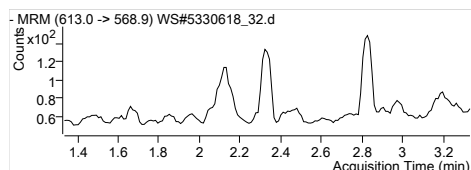
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



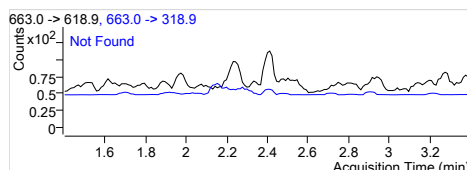
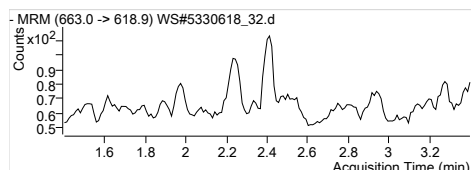
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



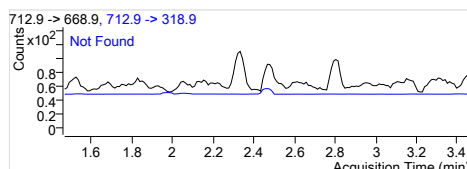
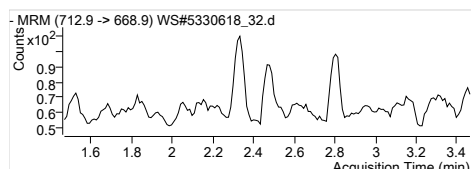
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



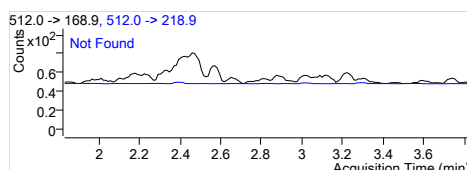
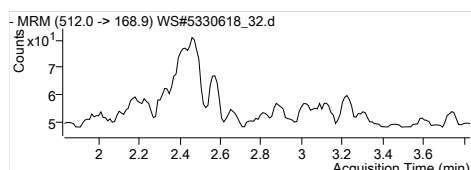
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



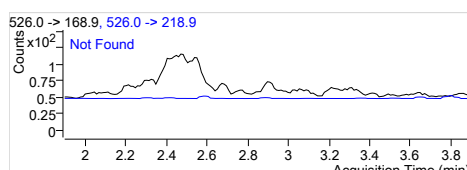
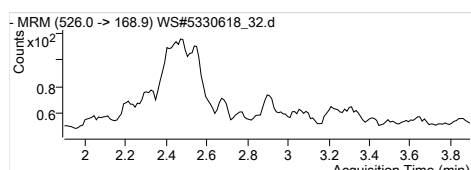
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



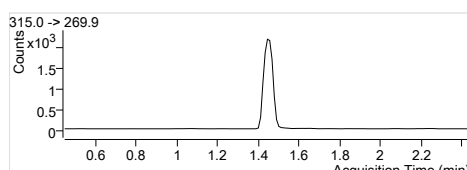
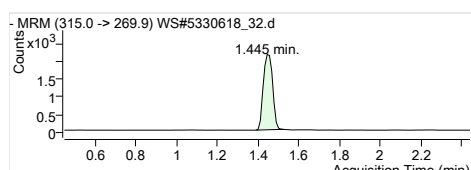
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



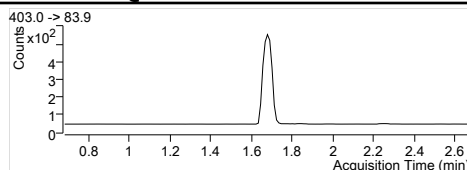
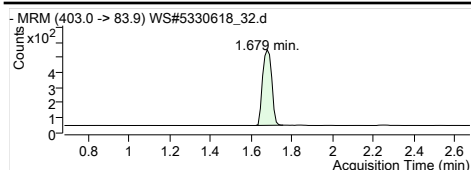
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample



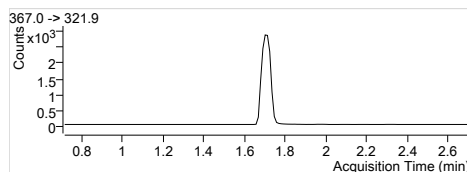
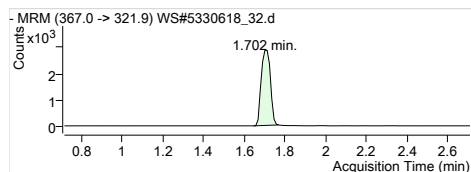
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample



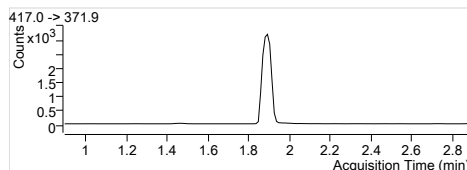
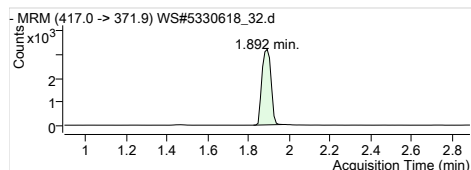
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 101.57 µg/L
 Sample type: 0.22493
 Sample



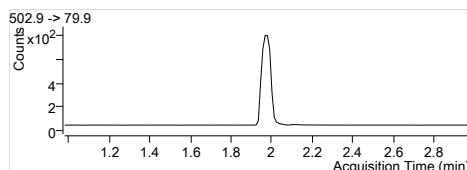
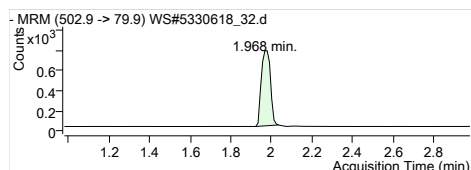
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 96.93 µg/L
 Sample type: 0.05144
 Sample



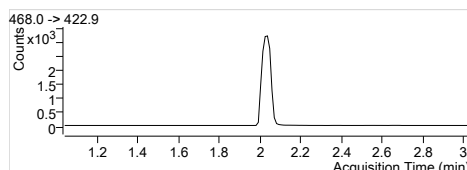
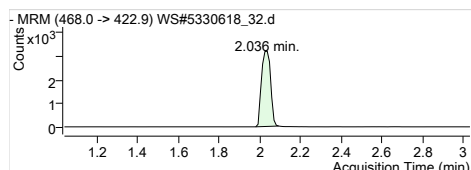
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 105.18 µg/L
 Sample type: 0.29180
 Sample



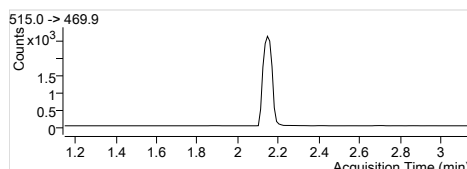
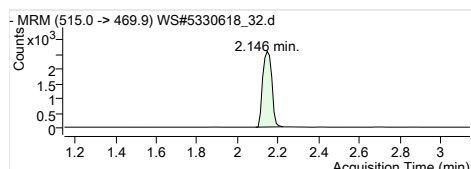
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 107.01 µg/L
 Sample type: 0.32058
 Sample



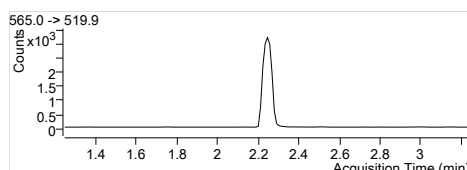
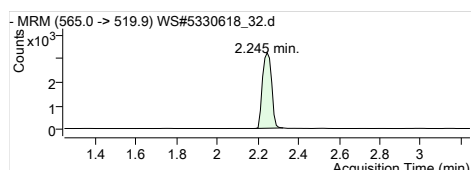
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 117.94 µg/L
 Sample type: 0.07613
 Sample



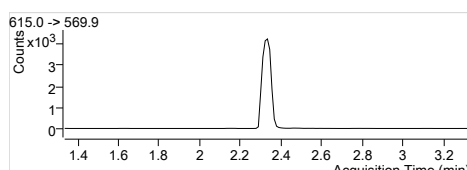
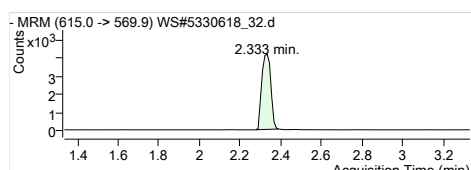
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 114.93 µg/L
 Sample type: 0.32195
 Sample



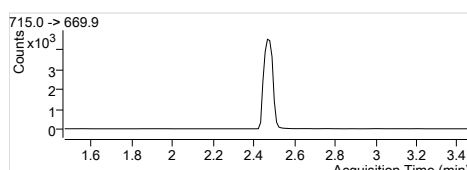
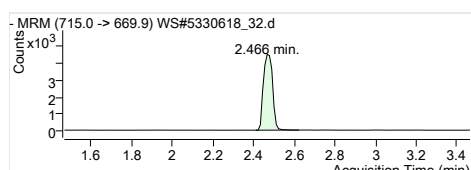
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 107.15 µg/L
 Sample type: 0.20408
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 107.80 µg/L
 Sample type: 0.25312
 Sample

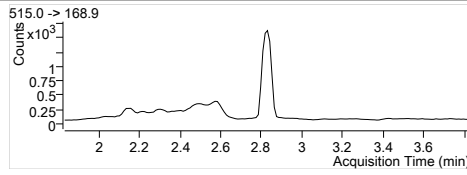
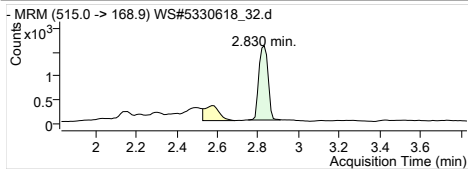


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 109.98 µg/L
 Sample type: 0.32913
 Sample

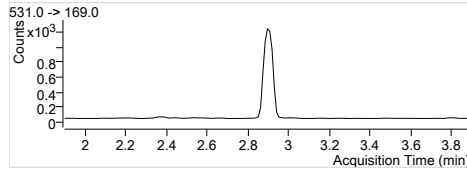
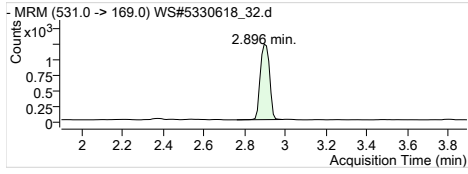


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 109.56 µg/L
 Sample type: 0.35985
 Sample

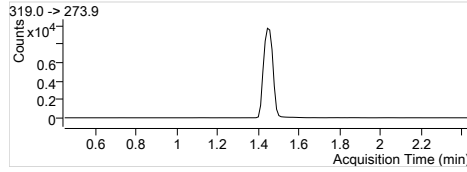
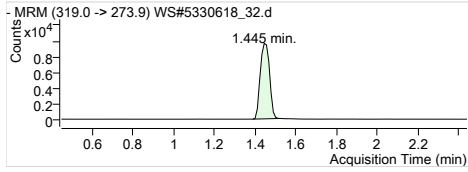
Quantitation Results



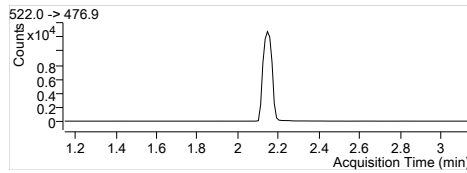
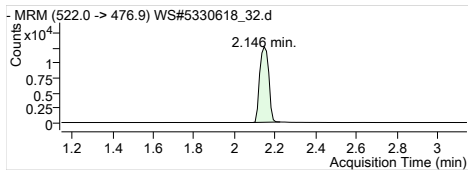
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 117.11 µg/L
Area ratio: 0.15844
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 108.61 µg/L
Area ratio: 0.12417
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.52 µg/L
Area ratio: 0
Sample type: Sample



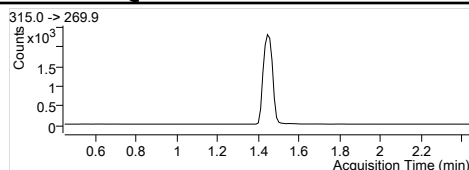
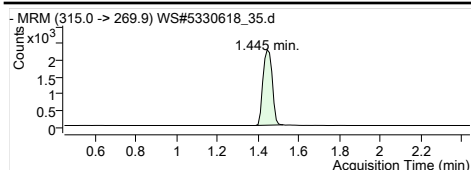
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.52 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

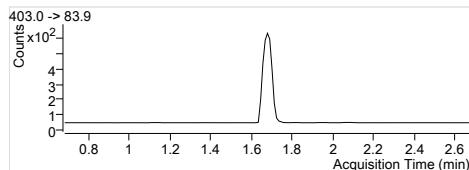
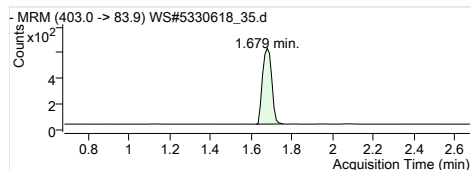
Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_35.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 8:04:39 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	7101	1.44	1 µg/L
MPFHxS	1845	1.68	1 µg/L
MPFHpA	9251	1.70	1 µg/L
MPFOA	9344	1.89	1 µg/L
MPFOS	2332	1.98	1 µg/L
MPFNA	9502	2.02	1 µg/L
MPFDA	8192	2.15	1 µg/L
MPFUnA	10653	2.25	1 µg/L
MPFDoA	12598	2.33	1 µg/L
MPFTrDA	13550	2.47	1 µg/L
D3-MeFOSA IS	4505	2.83	1 µg/L
D5-EtFOSA IS	4016	2.90	1 µg/L
13C6-PFHxA IS	31086	1.44	1 µg/L
13C9-PFDA IS	38756	2.15	1 µg/L

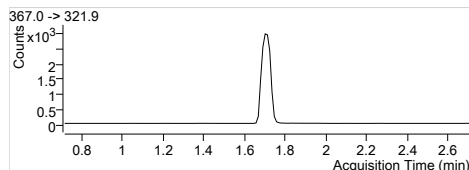
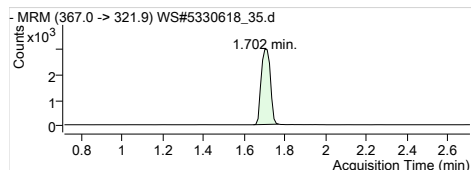
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7101	1.44	-	103.16 µg/L	-
18O2-PFHxS	1845	1.68	-	111.84 µg/L	-
13C4-PFHpA	9251	1.70	-	107.27 µg/L	-
13C4-PFOA	9344	1.89	-	100.34 µg/L	-
13C4-PFOS	2332	1.98	-	116.22 µg/L	-
13C5-PFNA	9424	2.02	-	108.22 µg/L	-
13C2-PFDA	8044	2.15	-	108.98 µg/L	-
13C2-PFUnA	10653	2.25	-	117.06 µg/L	-
13C2-PFDoA	12598	2.33	-	108.62 µg/L	-
13C2-PFTeDA	13938	2.47	-	109.49 µg/L	-
D3-MeFOSA	4599	2.83	-	109.35 µg/L	-
D5-EtFOSA	4056	2.90	-	114.12 µg/L	-
13C6-PFHxA	31086	1.44	-	1.54 µg/L	-
13C9-PFDA	38756	2.15	-	1.50 µg/L	-



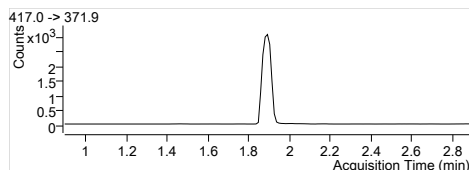
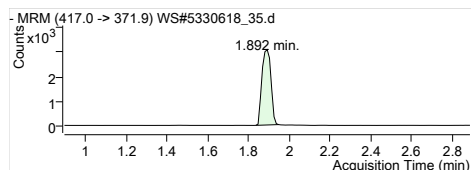
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



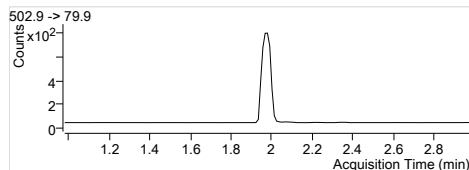
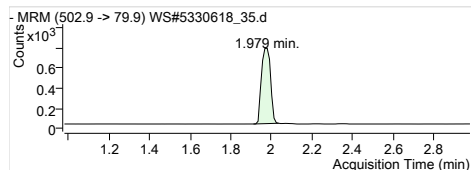
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



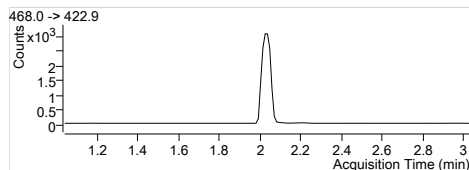
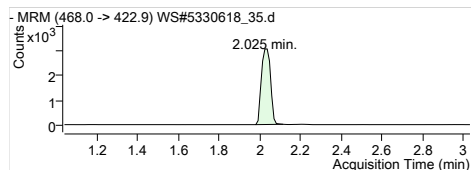
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



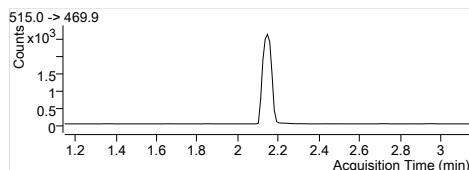
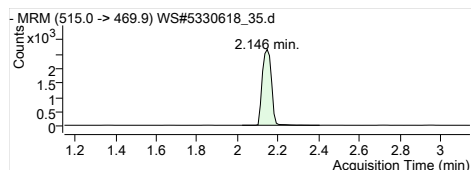
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



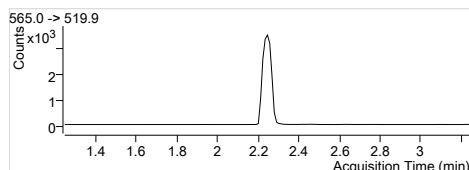
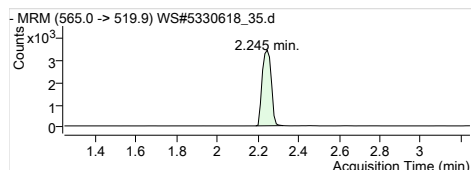
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



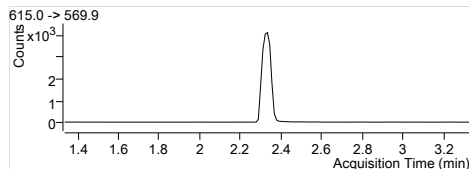
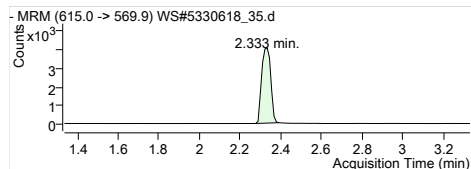
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: Sample



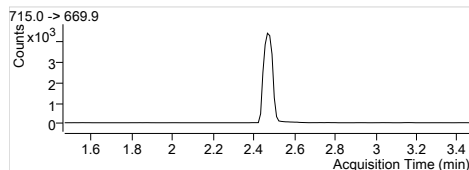
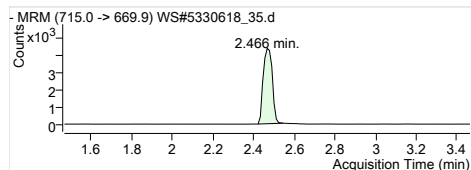
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUxA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

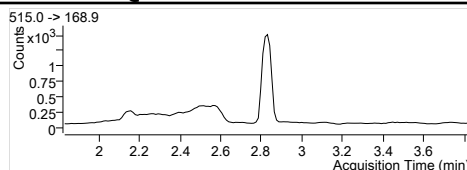
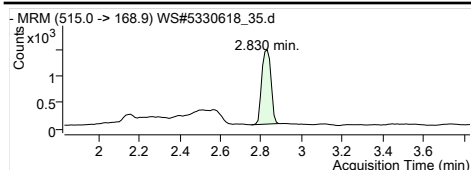


MPFDxA Internal Standard
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

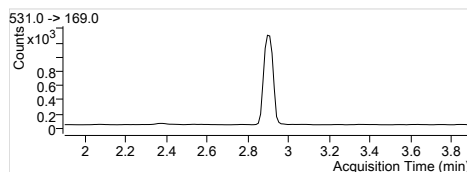
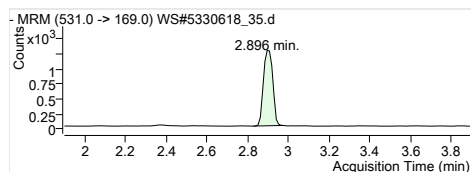


MPFTeDA Internal Standard
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

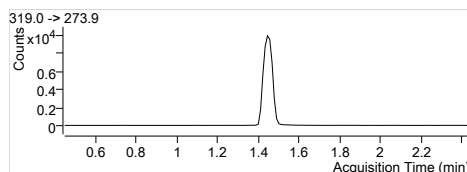
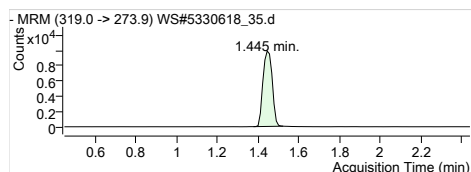
Quantitation Results



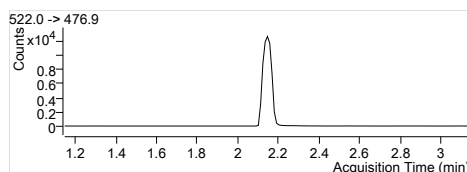
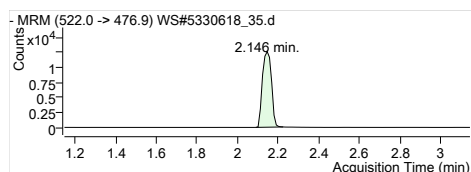
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



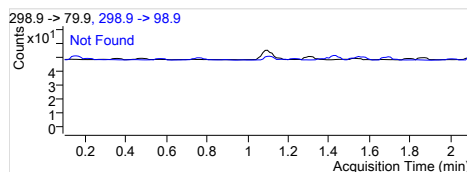
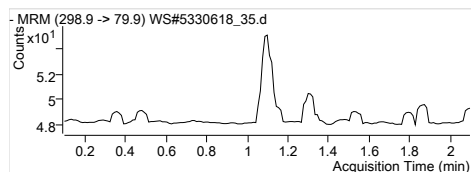
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



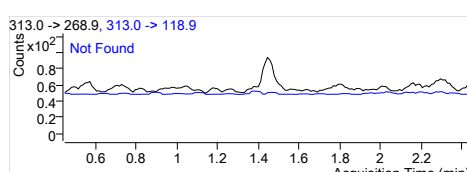
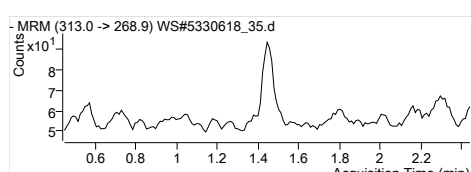
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



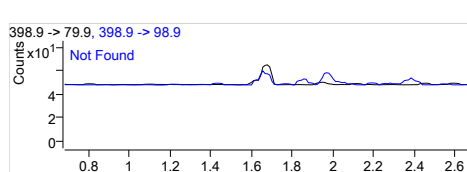
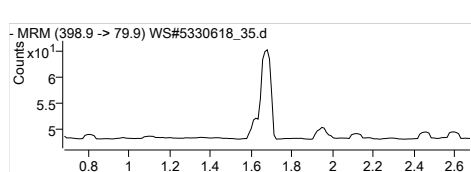
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



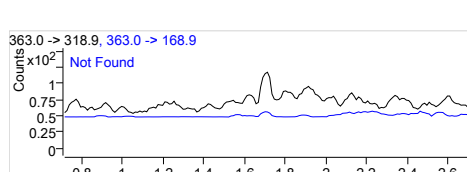
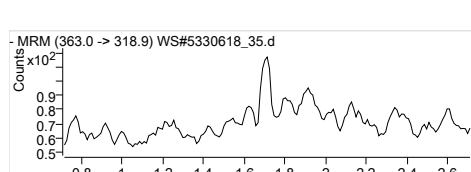
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: N.D.
 Sample type: 0
 Sample



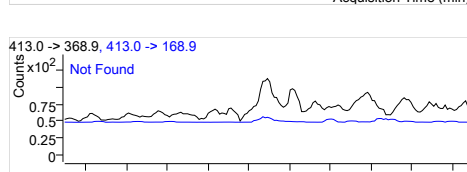
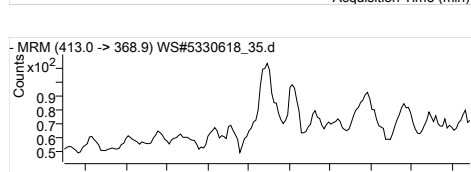
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: N.D.
 Sample type: 0
 Sample



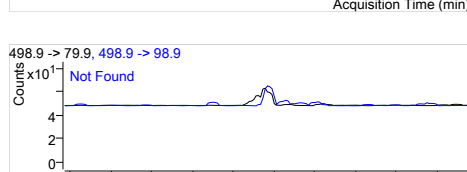
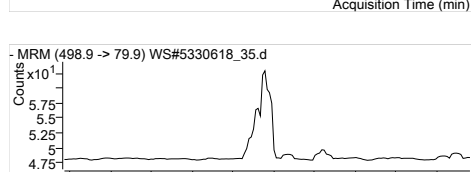
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: N.D.
 Sample type: 0
 Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: N.D.
 Sample type: 0
 Sample

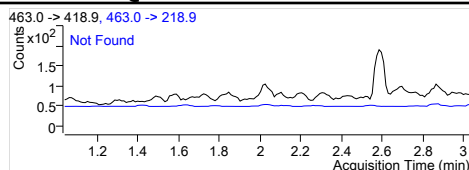
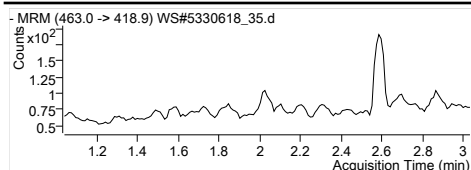


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: N.D.
 Sample type: 0
 Sample

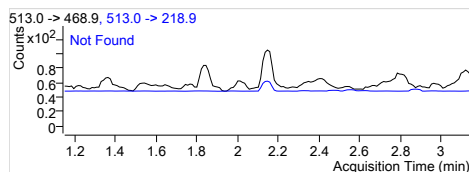
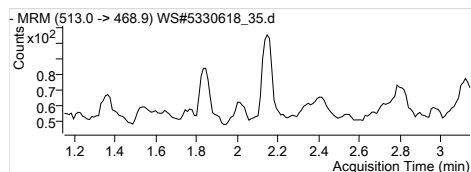


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: N.D.
 Sample type: 0
 Sample

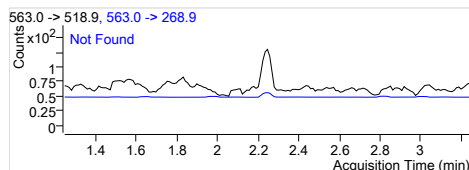
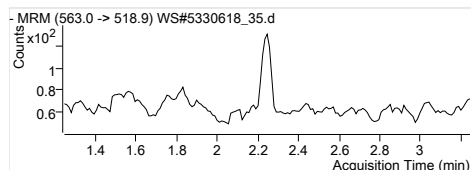
Quantitation Results



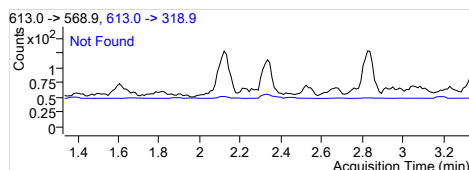
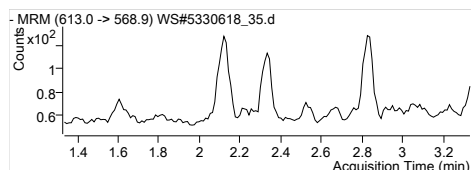
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



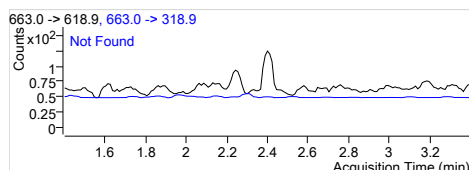
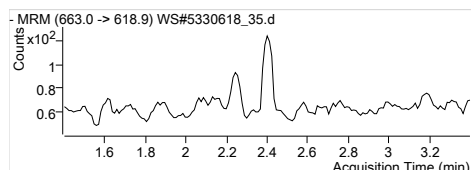
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



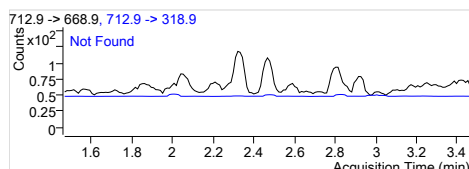
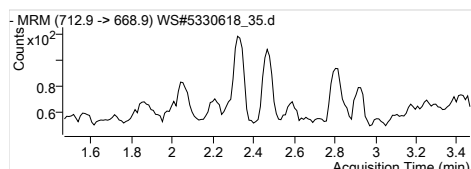
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



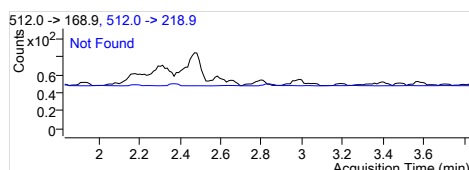
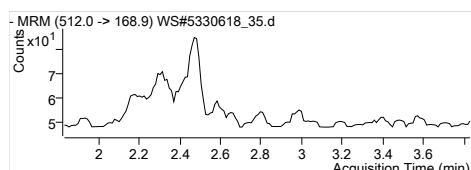
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



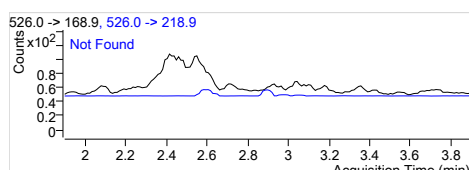
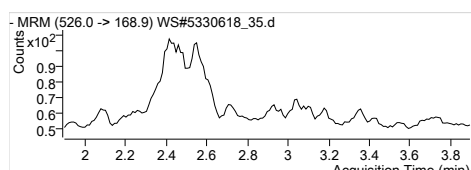
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



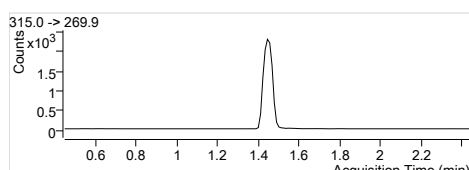
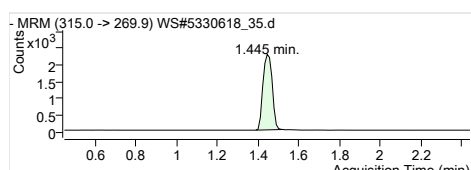
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

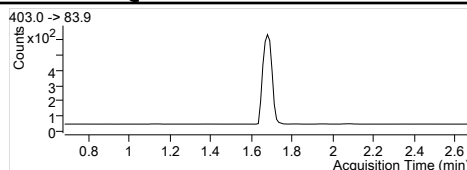
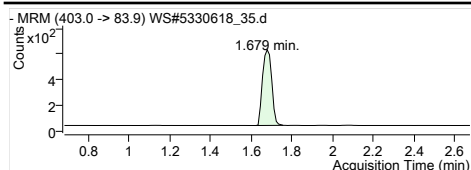


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

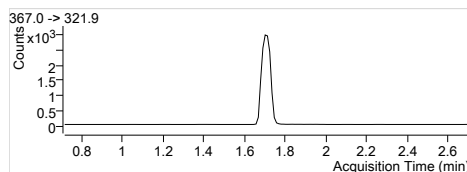
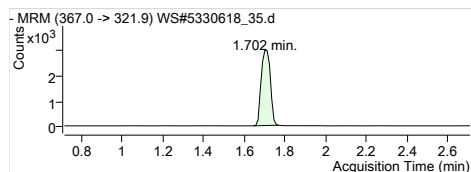


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 103.16 µg/L
 Sample type: 0.22843
 Sample

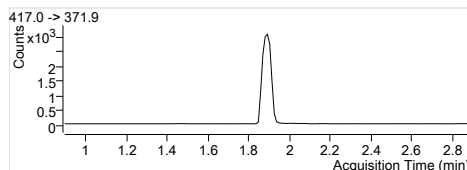
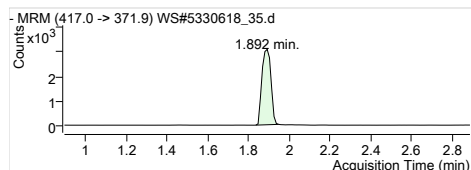
Quantitation Results



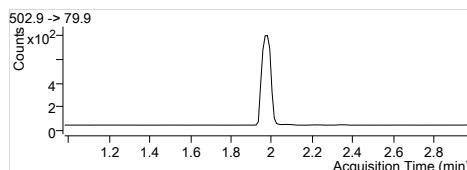
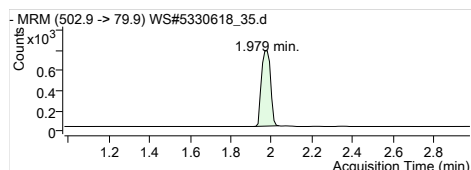
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 111.84 µg/L
 Sample type: 0.05935
 Sample



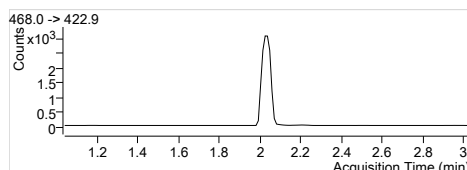
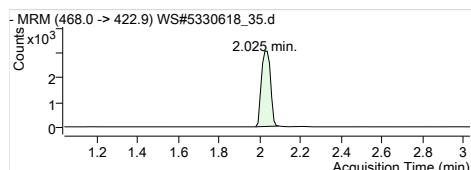
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 107.27 µg/L
 Sample type: 0.29759
 Sample



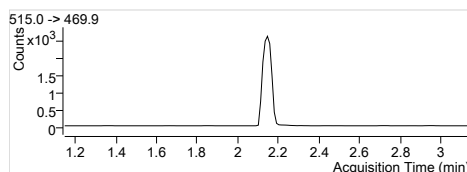
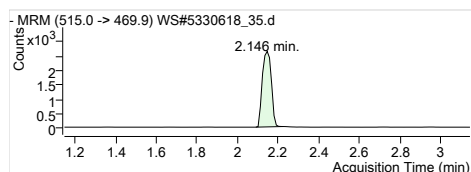
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 100.34 µg/L
 Sample type: 0.30059
 Sample



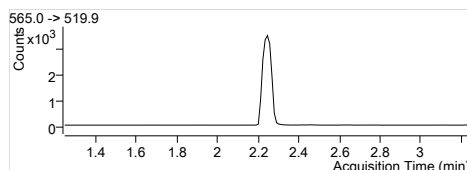
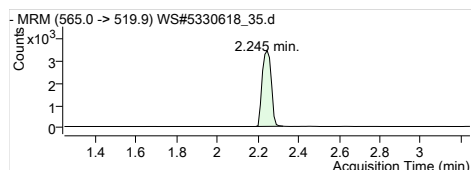
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 116.22 µg/L
 Sample type: 0.07502
 Sample



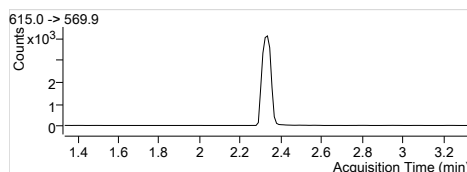
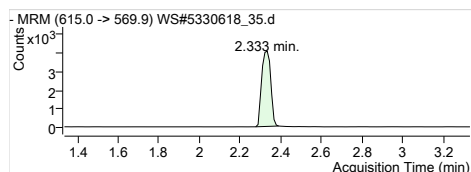
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 108.22 µg/L
 Sample type: 0.30316
 Sample



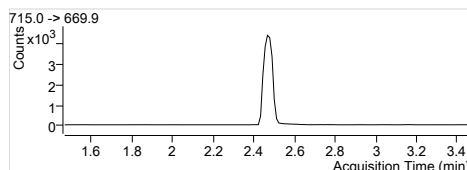
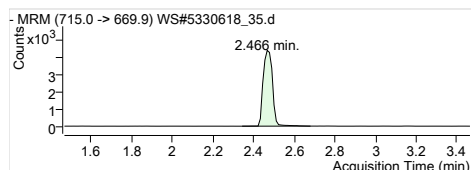
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 108.98 µg/L
 Sample type: 0.20755
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 117.06 µg/L
 Sample type: 0.27487
 Sample

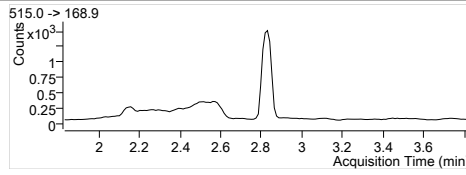
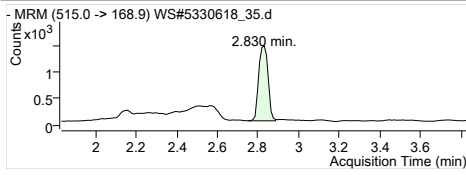


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 108.62 µg/L
 Sample type: 0.32506
 Sample

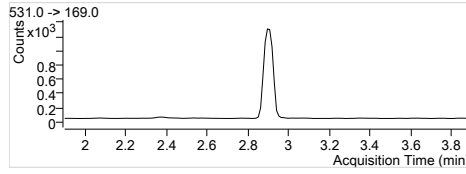
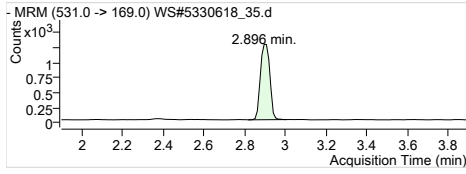


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 109.49 µg/L
 Sample type: 0.35963
 Sample

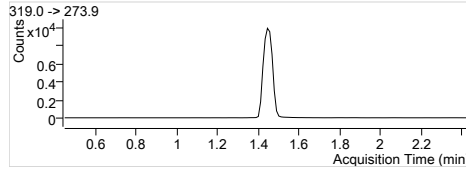
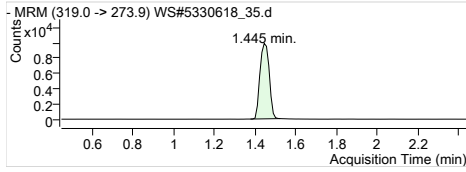
Quantitation Results



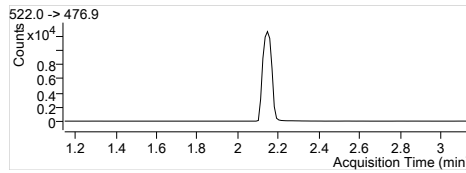
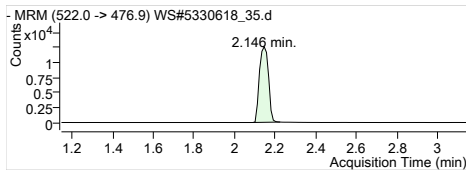
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 109.35 µg/L
Area ratio: 0.14794
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 114.12 µg/L
Area ratio: 0.13048
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.54 µg/L
Area ratio: 0
Sample type: Sample



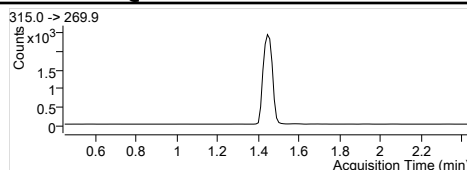
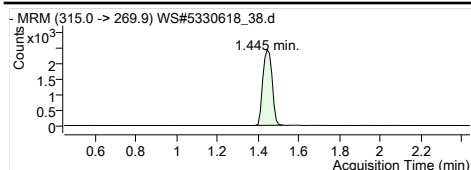
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.50 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

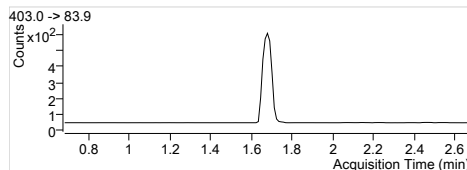
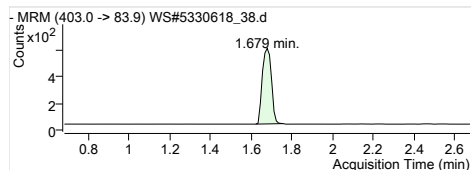
Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_38.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 8:19:59 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	7613	1.44	1 µg/L
MPFHxS	1742	1.68	1 µg/L
MPFHpA	9565	1.70	1 µg/L
MPFOA	9420	1.89	1 µg/L
MPFOS	2302	1.97	1 µg/L
MPFNA	9927	2.02	1 µg/L
MPFDA	8270	2.15	1 µg/L
MPFUnA	10052	2.25	1 µg/L
MPFDoA	13499	2.33	1 µg/L
MPFTrDA	14670	2.47	1 µg/L
D3-MeFOSA IS	4274	2.83	1 µg/L
D5-EtFOSA IS	3604	2.90	1 µg/L
13C6-PFHxA IS	30546	1.44	1 µg/L
13C9-PFDA IS	38912	2.15	1 µg/L

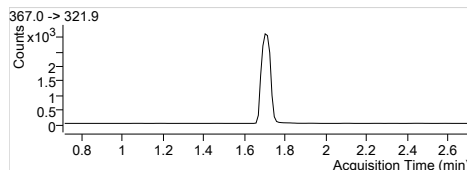
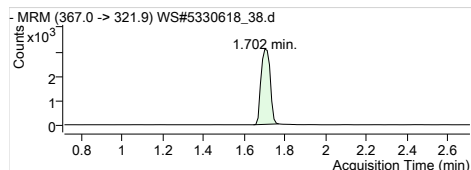
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7613	1.44	-	112.55 µg/L	-
18O2-PFHxS	1742	1.68	-	107.46 µg/L	-
13C4-PFHpA	9565	1.70	-	112.87 µg/L	-
13C4-PFOA	9420	1.89	-	102.94 µg/L	-
13C4-PFOS	2302	1.97	-	116.75 µg/L	-
13C5-PFNA	9835	2.02	-	114.94 µg/L	-
13C2-PFDA	8160	2.15	-	110.11 µg/L	-
13C2-PFUnA	10052	2.25	-	110.02 µg/L	-
13C2-PFDaA	13499	2.33	-	115.92 µg/L	-
13C2-PFTrDA	14750	2.47	-	115.41 µg/L	-
D3-MeFOSA	4338	2.83	-	104.97 µg/L	-
D5-EtFOSA	3671	2.90	-	105.12 µg/L	-
13C6-PFHxA	30546	1.44	-	1.52 µg/L	-
13C9-PFDA	38912	2.15	-	1.51 µg/L	-



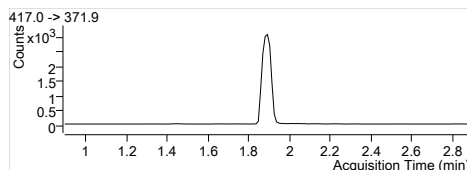
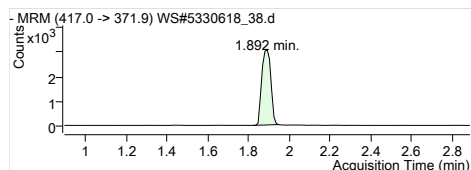
MPFHxA
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



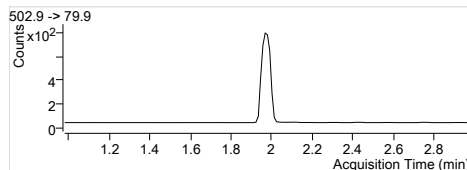
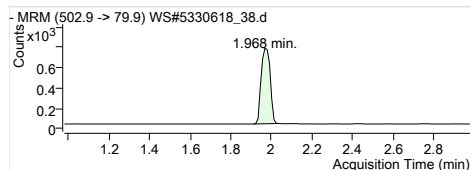
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: Sample



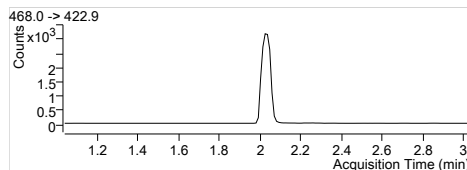
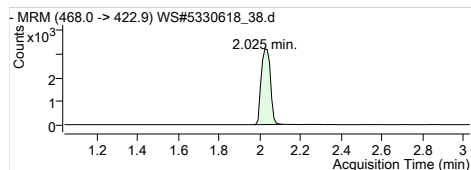
MPFHpA
 RT (Exp. RT): 1.702 (1.713)
 Concentration: 1 µg/L
 Sample type: Sample



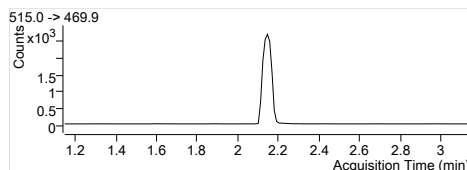
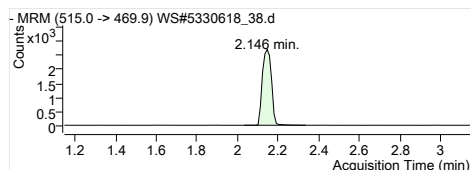
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Sample



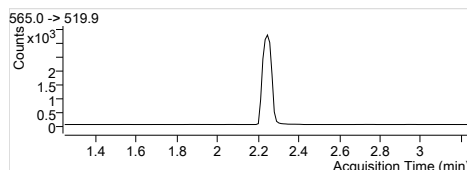
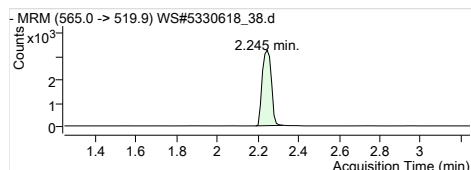
MPFOS
 RT (Exp. RT): 1.968 (1.979)
 Concentration: 1 µg/L
 Sample type: Sample



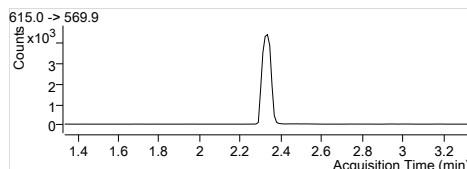
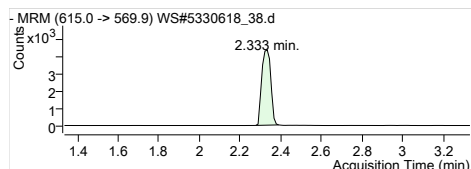
MPFNA
 RT (Exp. RT): 2.025 (2.036)
 Concentration: 1 µg/L
 Sample type: Sample



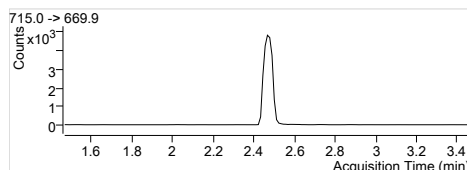
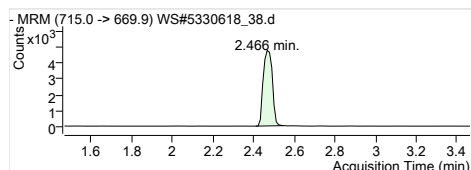
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Sample

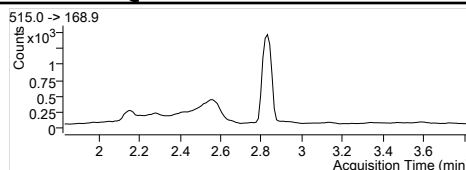
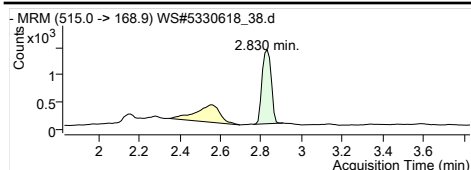


MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Sample

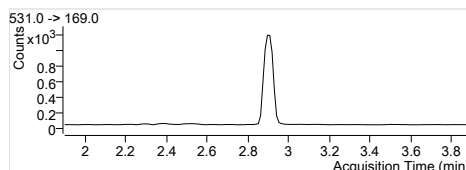
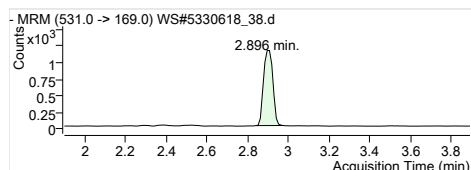


MPFTEA
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: Sample

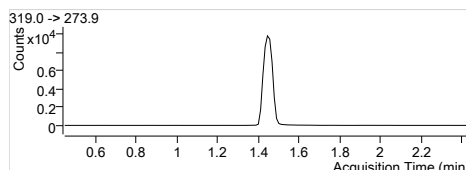
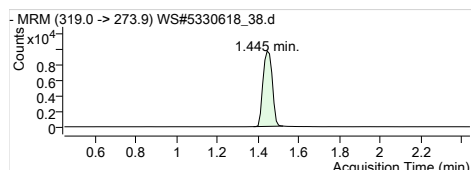
Quantitation Results



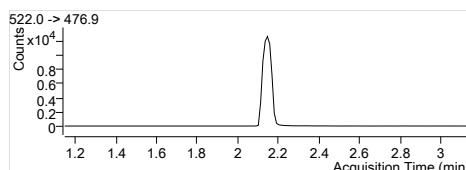
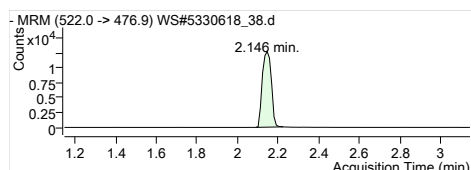
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



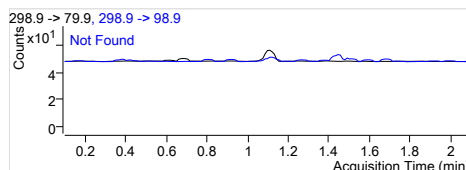
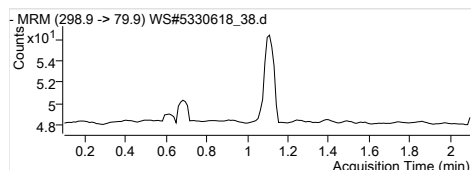
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



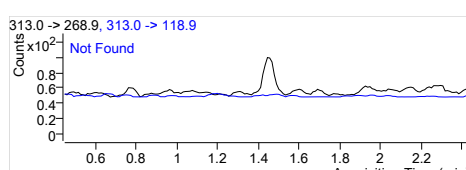
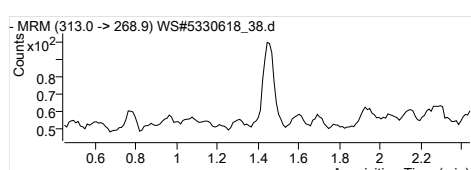
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



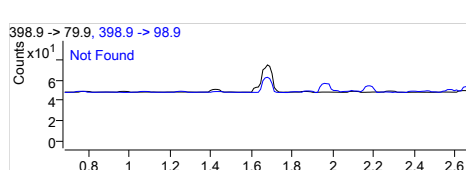
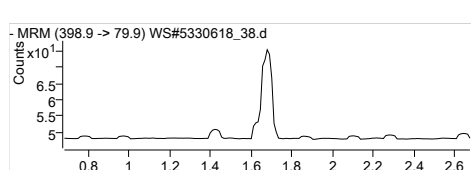
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



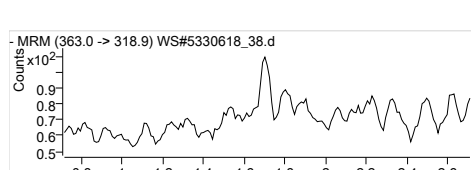
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: N.D.
 Sample type: 0
 Sample



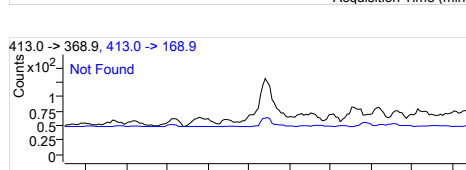
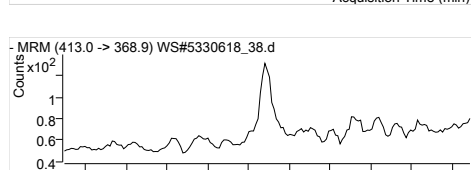
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: N.D.
 Sample type: 0
 Sample



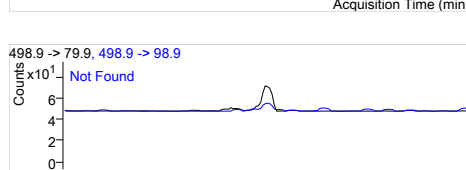
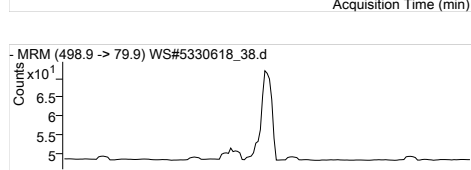
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: N.D.
 Sample type: 0
 Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: N.D.
 Sample type: 0
 Sample

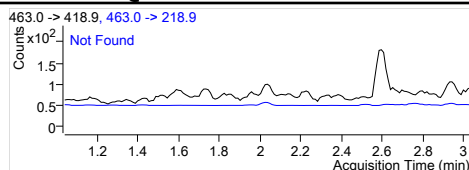
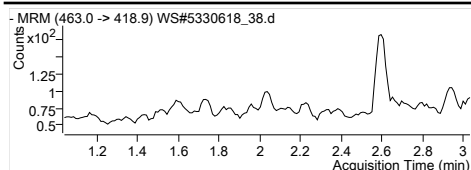


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: N.D.
 Sample type: 0
 Sample

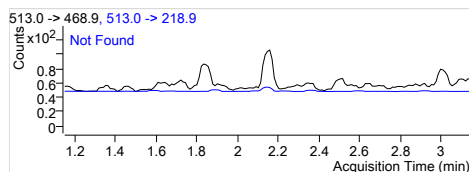
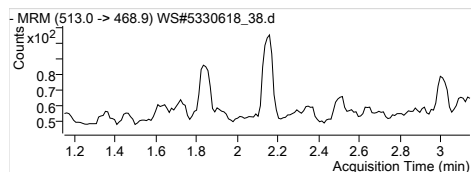


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: N.D.
 Sample type: 0
 Sample

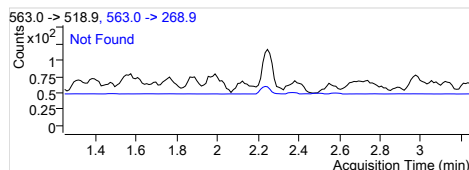
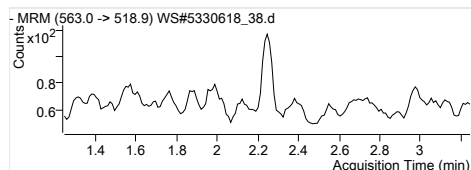
Quantitation Results



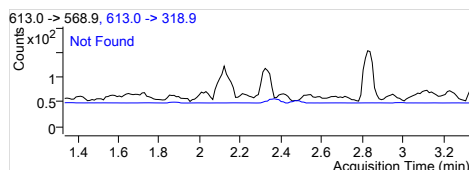
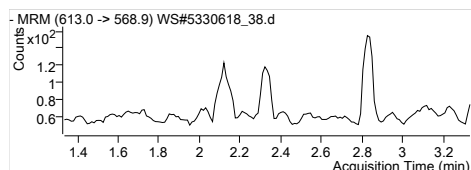
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



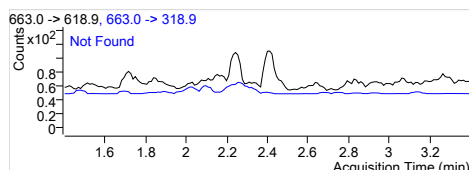
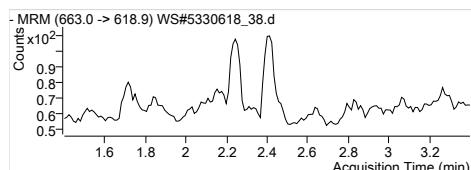
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



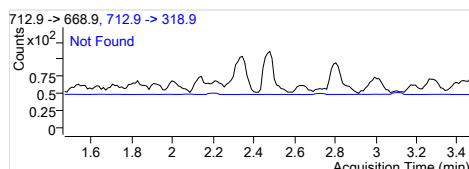
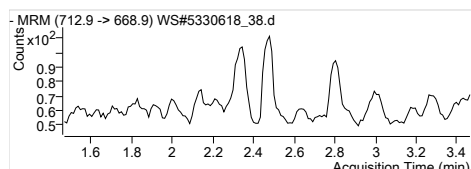
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



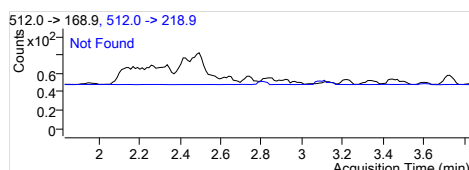
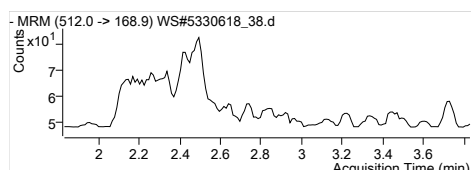
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



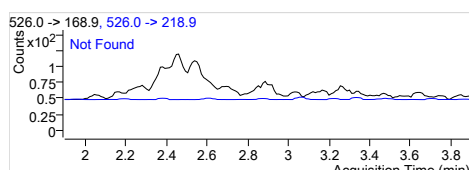
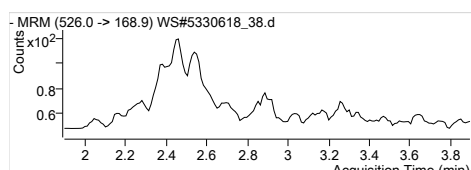
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



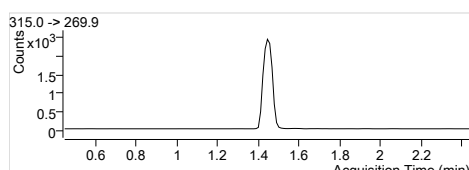
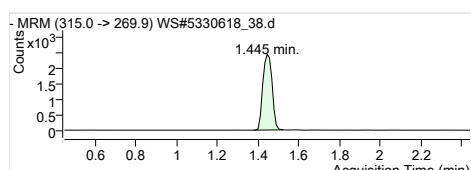
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



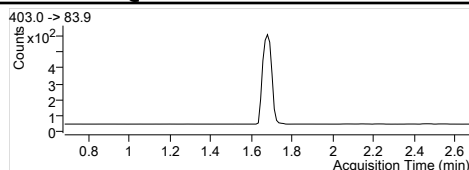
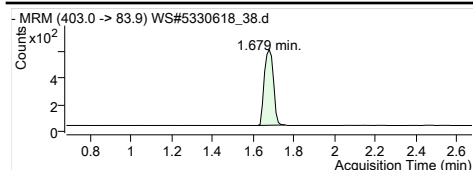
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample



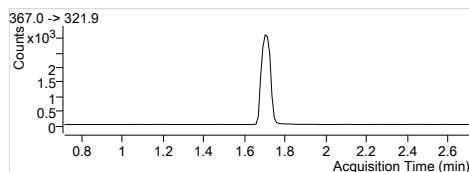
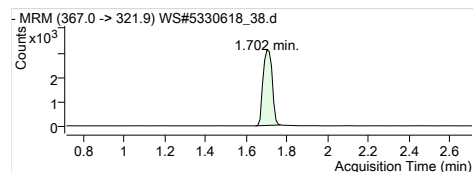
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample



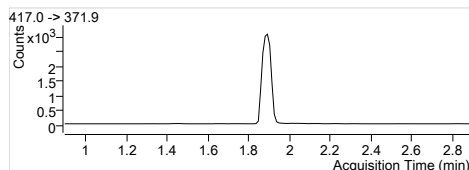
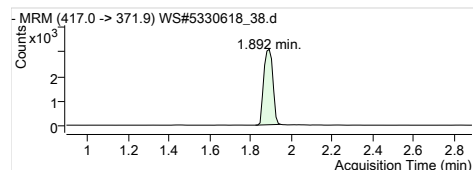
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 112.55 µg/L
 Sample type: 0.24923
 Sample



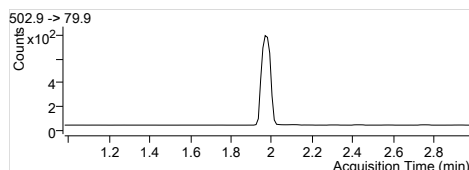
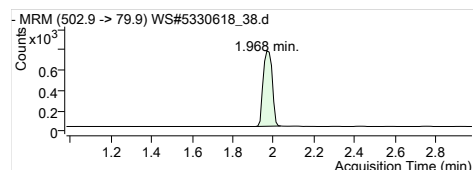
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 107.46 µg/L
 Sample type: 0.05703
 Sample



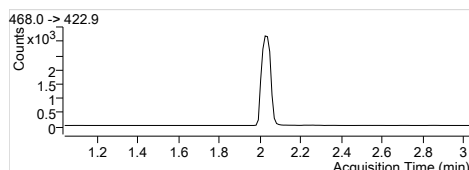
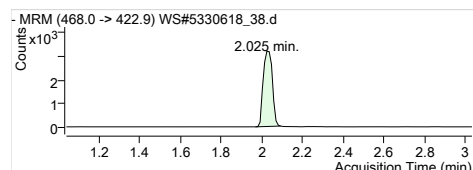
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 112.87 µg/L
 Sample type: 0.31313
 Sample



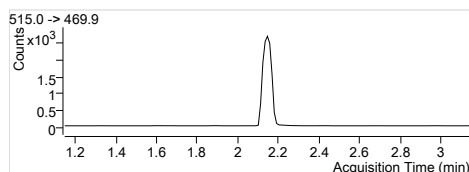
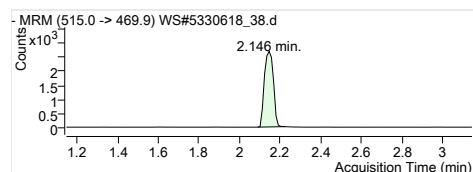
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 102.94 µg/L
 Sample type: 0.30839
 Sample



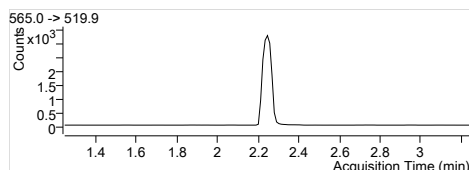
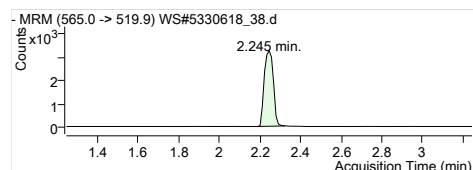
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 116.75 µg/L
 Sample type: 0.07536
 Sample



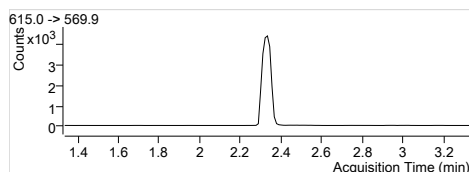
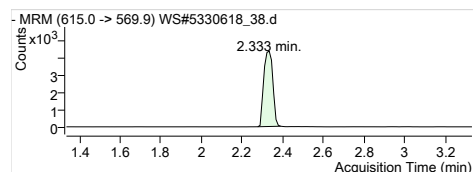
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 114.94 µg/L
 Sample type: 0.32197
 Sample



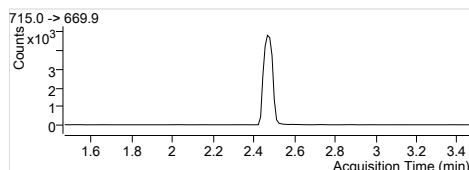
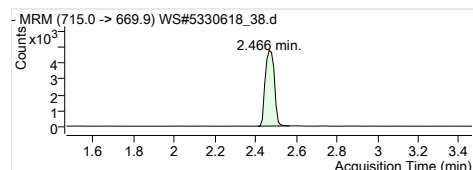
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 110.11 µg/L
 Sample type: 0.20970
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 110.02 µg/L
 Sample type: 0.25833
 Sample

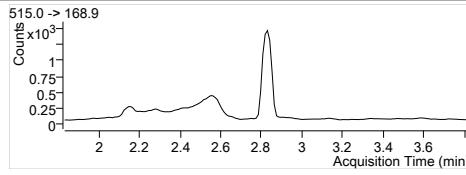
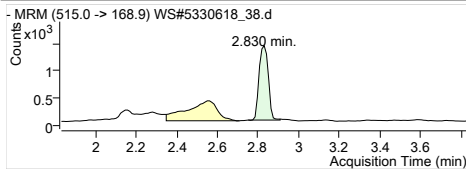


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 115.92 µg/L
 Sample type: 0.34691
 Sample

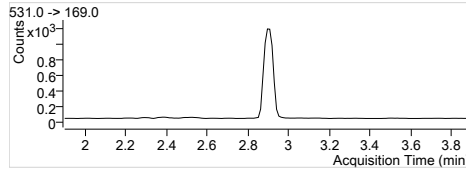
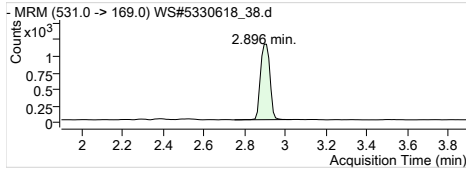


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 115.41 µg/L
 Sample type: 0.37906
 Sample

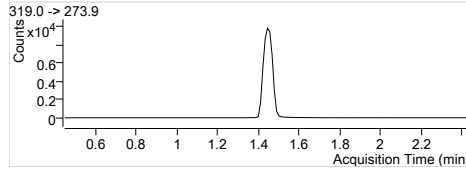
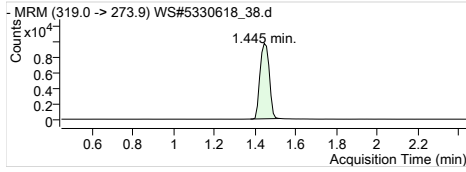
Quantitation Results



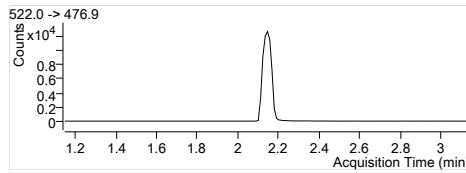
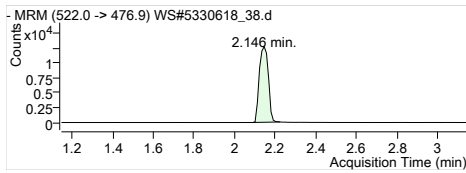
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 104.97 µg/L
Sample type: 0.14202
Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 105.12 µg/L
Sample type: 0.12018
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 1.52 µg/L
Sample type: 0
Sample



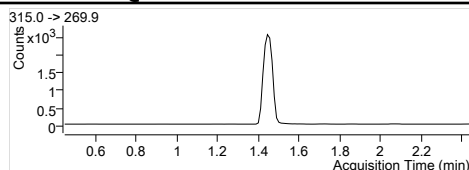
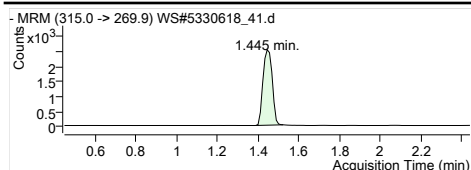
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 1.51 µg/L
Sample type: 0
Sample

Quantitation Results

Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_41.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 8:35:24 AM	Injection Volume	Per Method
Sample Annotation	-		

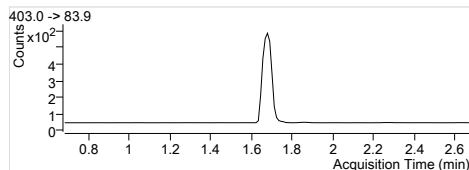
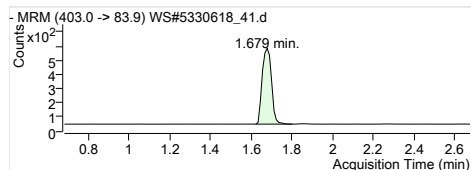
ISTD Compounds	Response	RT	Target conc.
MPFHxA	7917	1.44	1 µg/L
MPFHxS	1705	1.68	1 µg/L
MPFHpA	8771	1.70	1 µg/L
MPFOA	10069	1.89	1 µg/L
MPFOS	2344	1.97	1 µg/L
MPFNA	9574	2.02	1 µg/L
MPFDA	8598	2.15	1 µg/L
MPFUnA	10474	2.25	1 µg/L
MPFDoA	13137	2.33	1 µg/L
MPFTrDA	14296	2.47	1 µg/L
D3-MeFOSA IS	4529	2.83	1 µg/L
D5-EtFOSA IS	3806	2.90	1 µg/L
13C6-PFHxA IS	30042	1.44	1 µg/L
13C9-PFDA IS	40421	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7917	1.44	-	119.01 µg/L	-
18O2-PFHxS	1705	1.68	-	106.94 µg/L	-
13C4-PFHpA	8771	1.70	-	105.24 µg/L	-
13C4-PFOA	10069	1.89	-	111.88 µg/L	-
13C4-PFOS	2344	1.97	-	120.87 µg/L	-
13C5-PFNA	9521	2.02	-	113.13 µg/L	-
13C2-PFDA	8557	2.15	-	111.15 µg/L	-
13C2-PFUnA	10474	2.25	-	110.36 µg/L	-
13C2-PFDoA	13137	2.33	-	108.60 µg/L	-
13C2-PFTrDA	14429	2.47	-	108.68 µg/L	-
D3-MeFOSA	4662	2.83	-	114.70 µg/L	-
D5-EtFOSA	3843	2.90	-	111.89 µg/L	-
13C6-PFHxA	30042	1.44	-	1.49 µg/L	-
13C9-PFDA	40421	2.15	-	1.57 µg/L	-



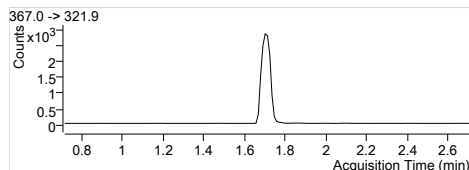
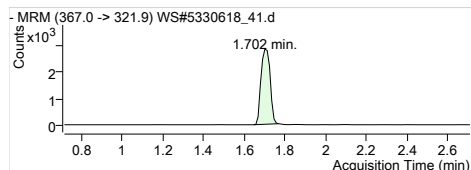
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.445 (1.445)
1 µg/L
Sample



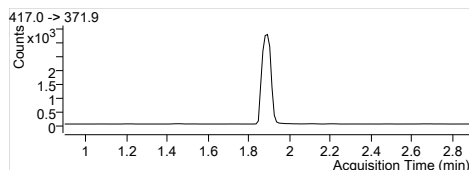
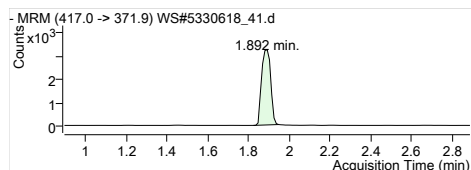
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.679 (1.679)
1 µg/L
Sample



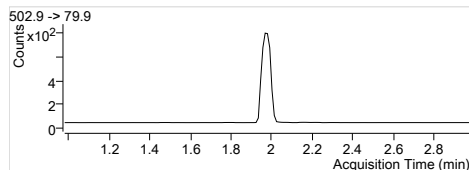
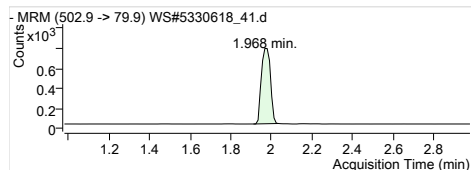
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.702 (1.713)
1 µg/L
Sample



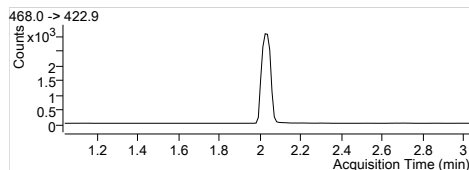
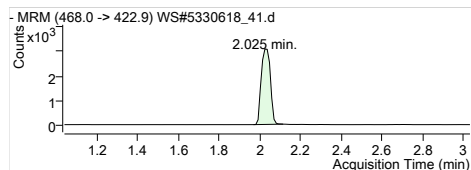
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.892 (1.892)
1 µg/L
Sample



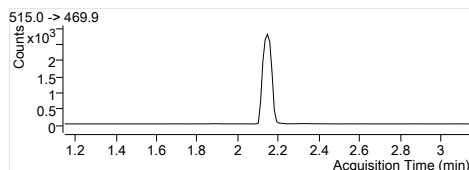
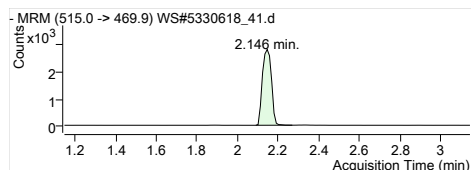
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
1.968 (1.979)
1 µg/L
Sample



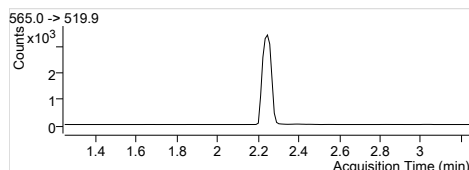
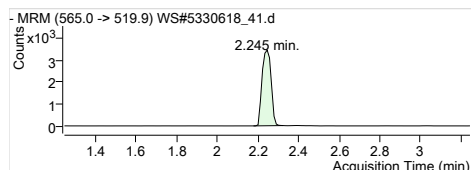
MPFNA
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.025 (2.036)
1 µg/L
Sample



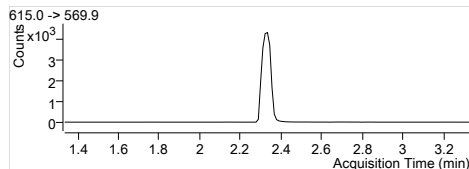
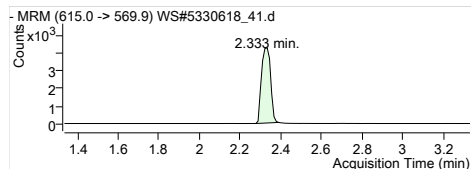
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.146 (2.146)
1 µg/L
Sample



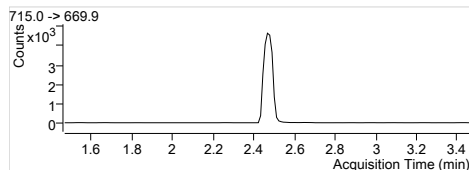
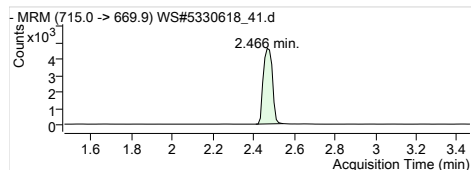
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.245 (2.245)
1 µg/L
Sample



MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

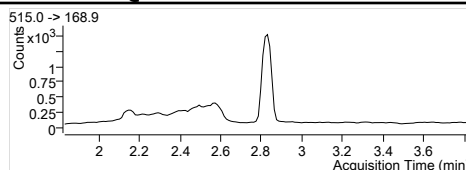
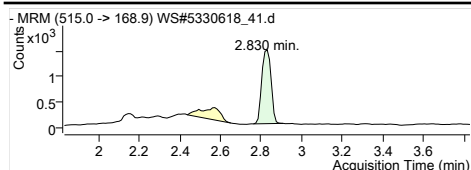
Internal Standard
2.333 (2.333)
1 µg/L
Sample



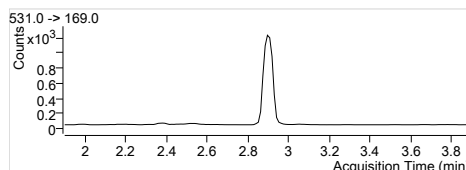
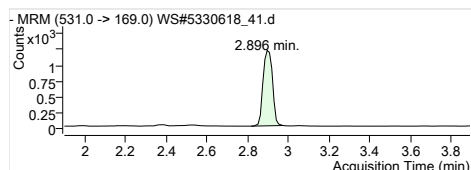
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

Internal Standard
2.466 (2.466)
1 µg/L
Sample

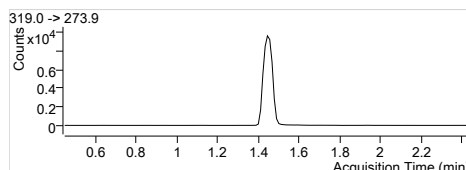
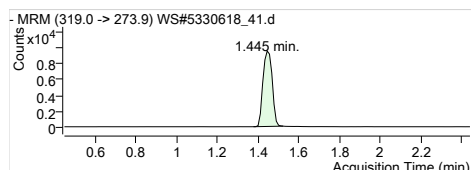
Quantitation Results



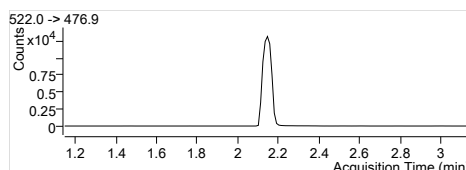
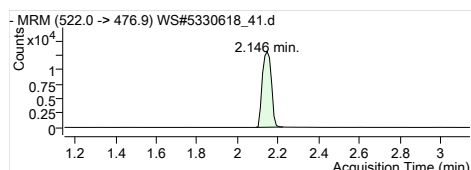
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



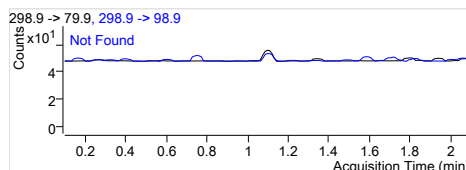
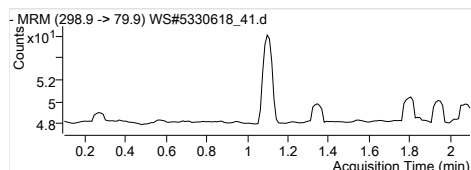
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



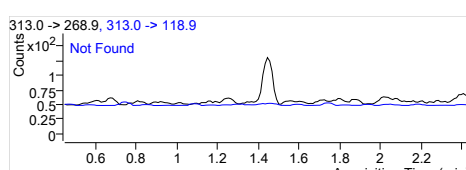
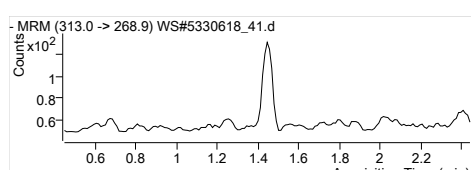
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



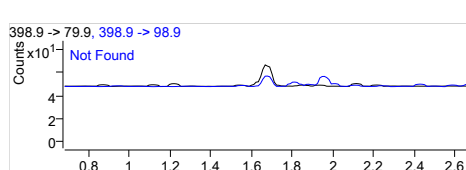
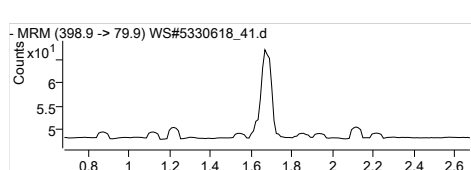
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



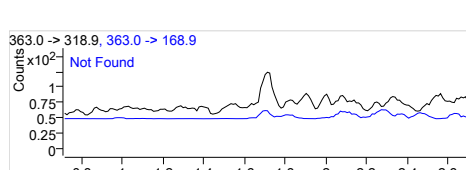
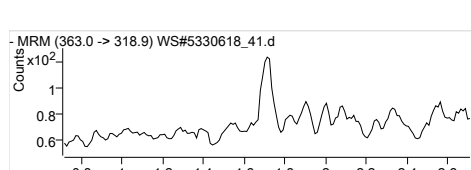
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: 0
 Sample type: Sample



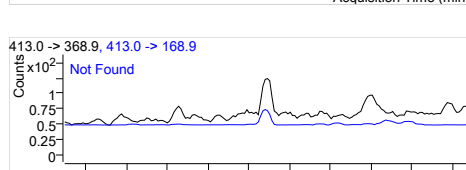
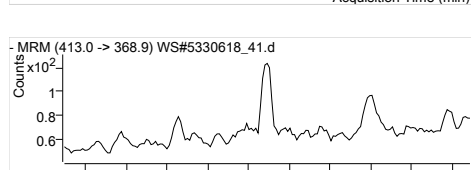
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: 0
 Sample type: Sample



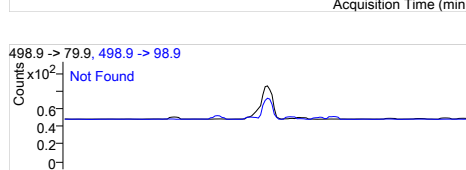
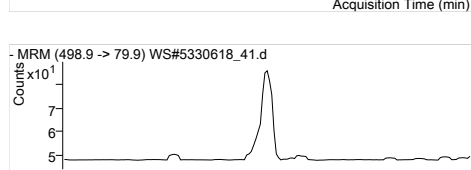
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: 0
 Sample type: Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample

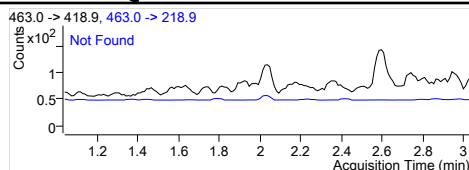
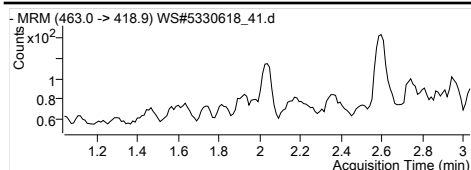


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample

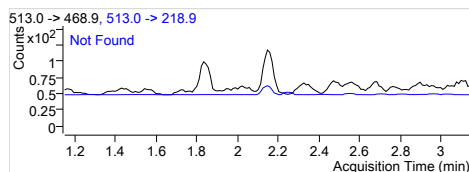
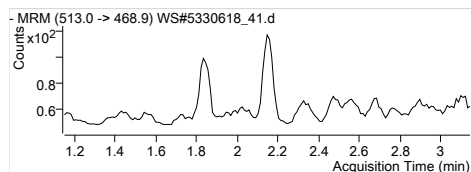


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: 0
 Sample type: Sample

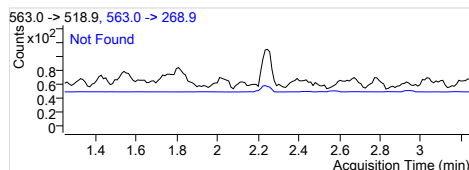
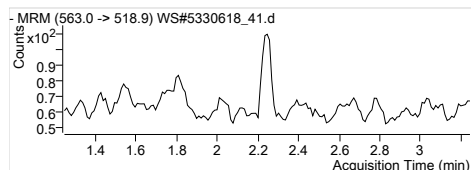
Quantitation Results



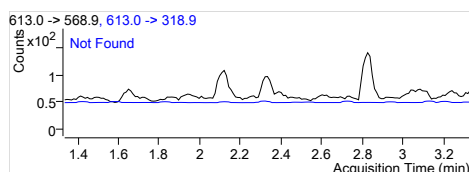
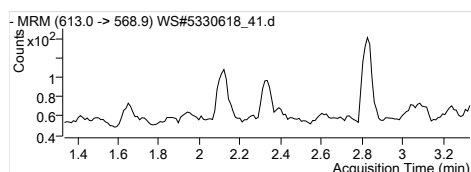
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



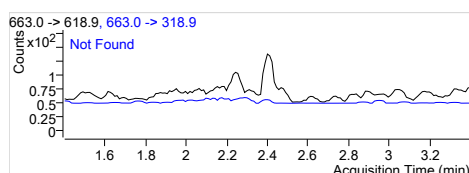
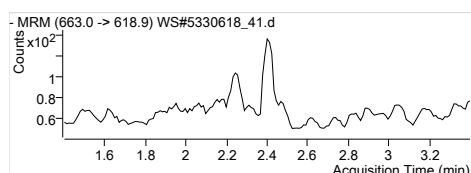
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



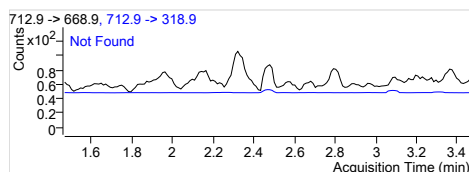
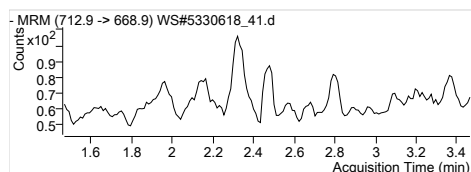
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



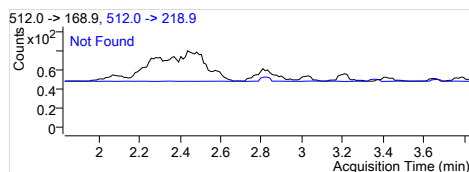
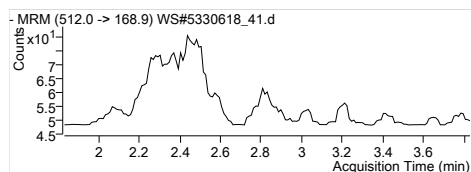
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



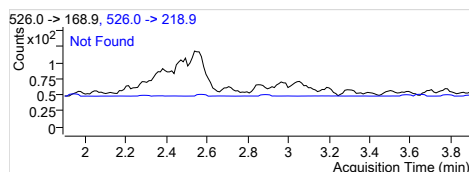
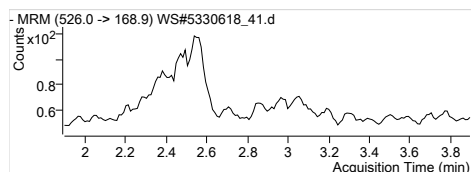
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



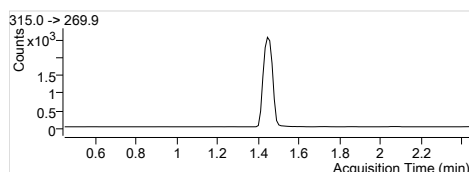
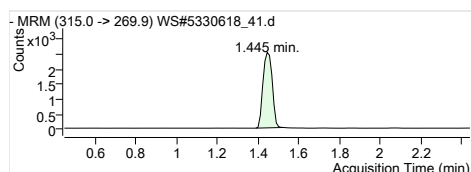
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

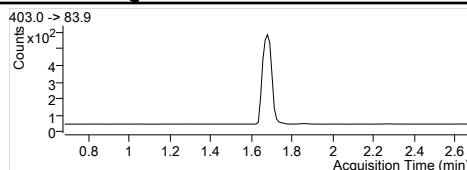
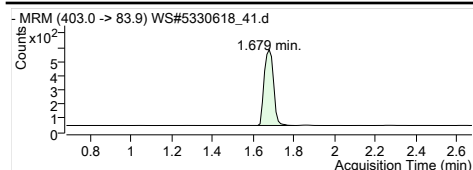


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

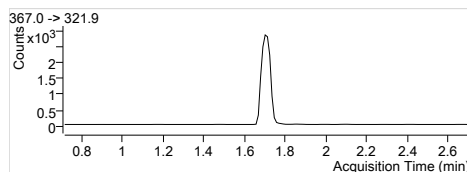
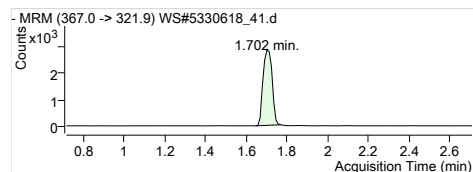


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 119.01 µg/L
 Sample type: 0.26353
 Sample

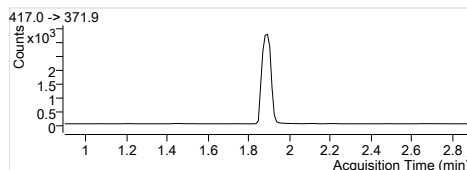
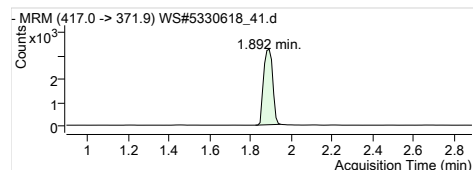
Quantitation Results



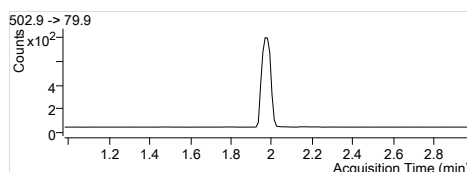
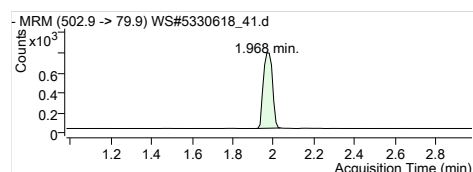
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 106.94 µg/L
 Sample type: 0.05675
 Sample



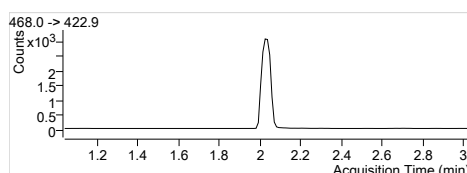
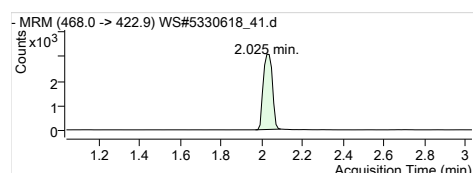
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 105.24 µg/L
 Sample type: 0.29196
 Sample



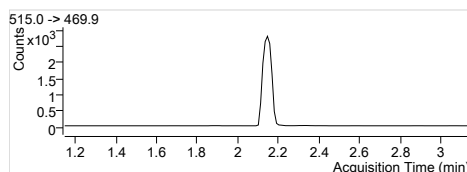
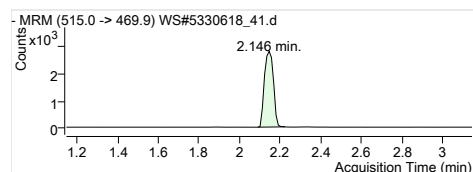
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 111.88 µg/L
 Sample type: 0.33516
 Sample



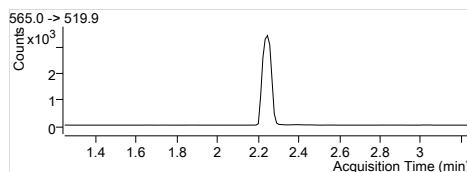
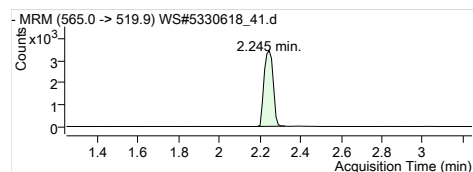
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 120.87 µg/L
 Sample type: 0.07802
 Sample



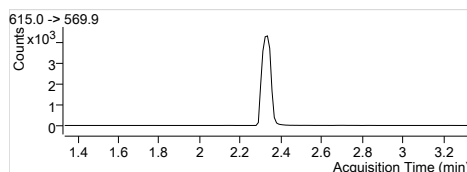
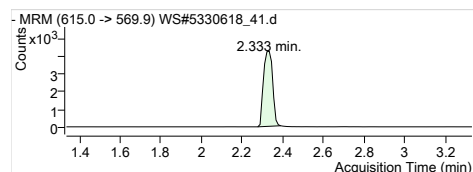
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 113.13 µg/L
 Sample type: 0.31692
 Sample



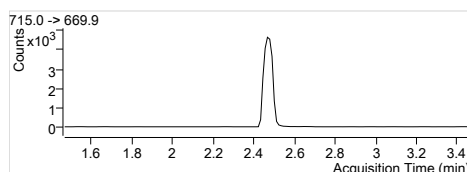
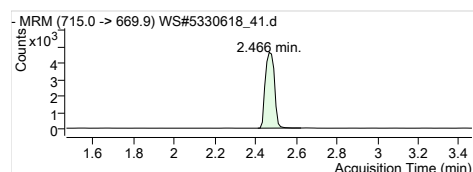
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 111.15 µg/L
 Sample type: 0.21170
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 110.36 µg/L
 Sample type: 0.25912
 Sample

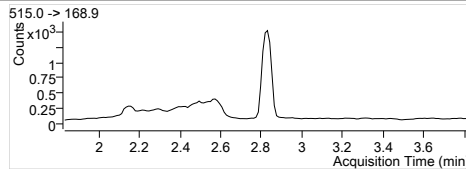
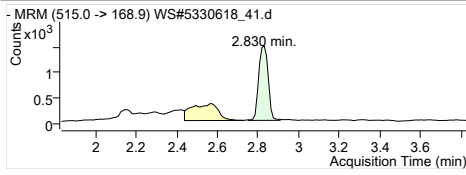


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 108.60 µg/L
 Sample type: 0.32500
 Sample

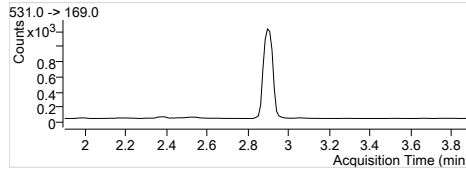
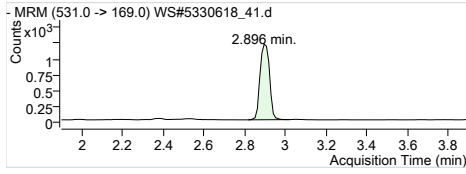


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 108.68 µg/L
 Sample type: 0.35697
 Sample

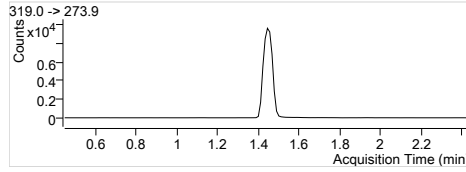
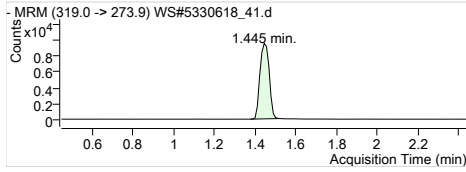
Quantitation Results



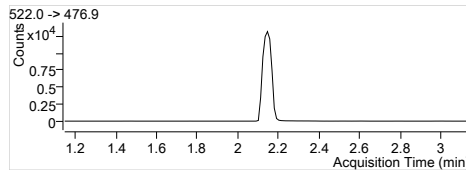
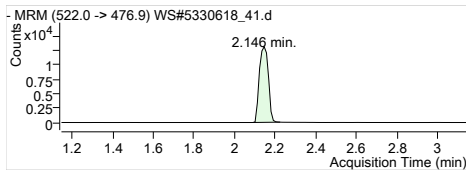
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 114.70 µg/L
Sample type: 0.15518
Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 111.89 µg/L
Sample type: 0.12792
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 1.49 µg/L
Sample type: 0
Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 1.57 µg/L
Sample type: 0
Sample

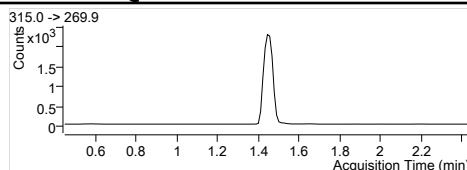
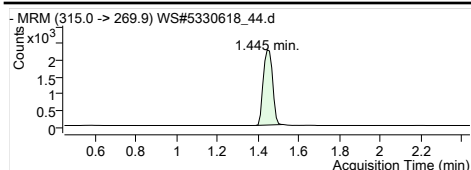
Quantitation Results

Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_44.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 8:50:46 AM	Injection Volume	Per Method
Sample Annotation	-		

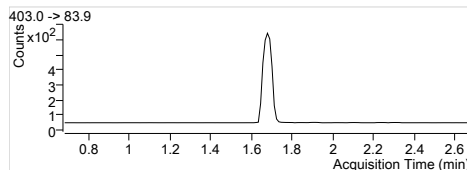
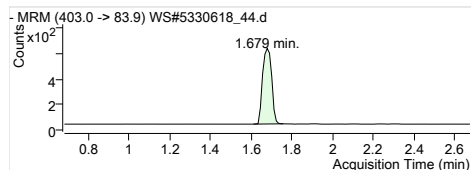
ISTD Compounds	Response	RT	Target conc.
MPFHxA	7150	1.44	1 µg/L
MPFHxS	1842	1.68	1 µg/L
MPFHpA	9370	1.70	1 µg/L
MPFOA	9372	1.89	1 µg/L
MPFOS	2214	1.97	1 µg/L
MPFNA	9999	2.02	1 µg/L
MPFDA	8603	2.15	1 µg/L
MPFUnA	10770	2.25	1 µg/L
MPFDoA	13512	2.33	1 µg/L
MPFTrDA	14311	2.47	1 µg/L
D3-MeFOSA IS	4222	2.83	1 µg/L
D5-EtFOSA IS	3689	2.90	1 µg/L
13C6-PFHxA IS	29647	1.44	1 µg/L
13C9-PFDA IS	39805	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7150	1.44	-	108.91 µg/L	-
18O2-PFHxS	1842	1.68	-	117.08 µg/L	-
13C4-PFHpA	9370	1.70	-	113.92 µg/L	-
13C4-PFOA	9372	1.89	-	105.52 µg/L	-
13C4-PFOS	2214	1.97	-	115.69 µg/L	-
13C5-PFNA	9920	2.02	-	119.44 µg/L	-
13C2-PFDA	8480	2.15	-	111.86 µg/L	-
13C2-PFUnA	10770	2.25	-	115.23 µg/L	-
13C2-PFDaA	13512	2.33	-	113.43 µg/L	-
13C2-PFTeDA	14521	2.47	-	111.07 µg/L	-
D3-MeFOSA	4256	2.83	-	106.11 µg/L	-
D5-EtFOSA	3754	2.90	-	110.75 µg/L	-
13C6-PFHxA	29647	1.44	-	1.47 µg/L	-
13C9-PFDA	39805	2.15	-	1.54 µg/L	-

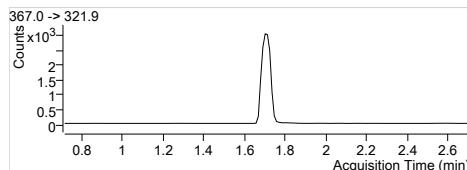
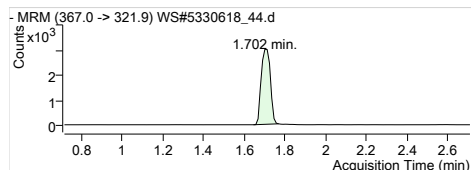
Quantitation Results



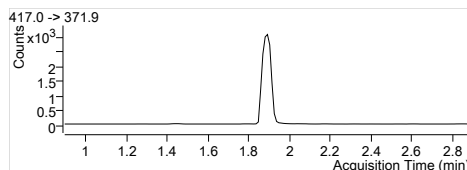
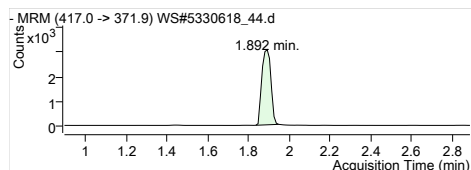
MPFHxA
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



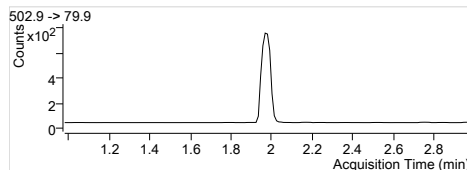
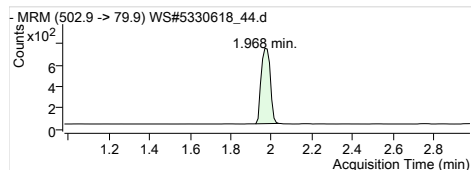
MPFHxS
 Internal Standard
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: Sample



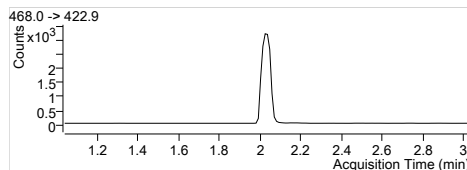
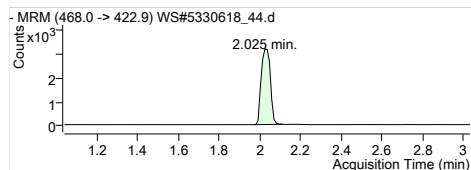
MPFHpA
 Internal Standard
 RT (Exp. RT): 1.702 (1.713)
 Concentration: 1 µg/L
 Sample type: Sample



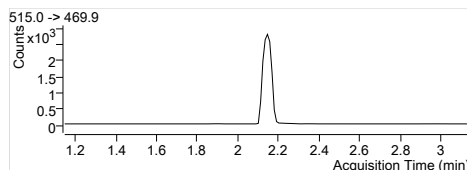
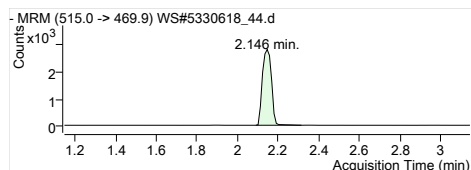
MPFOA
 Internal Standard
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Sample



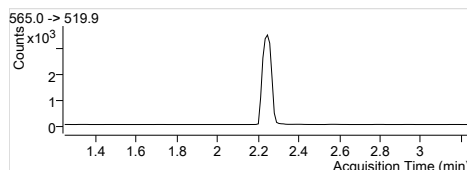
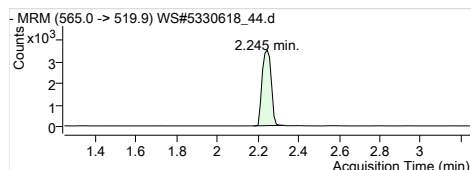
MPFOS
 Internal Standard
 RT (Exp. RT): 1.968 (1.979)
 Concentration: 1 µg/L
 Sample type: Sample



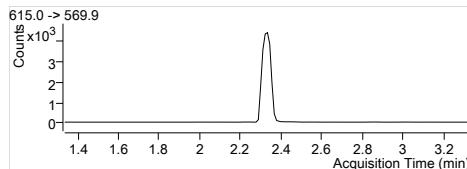
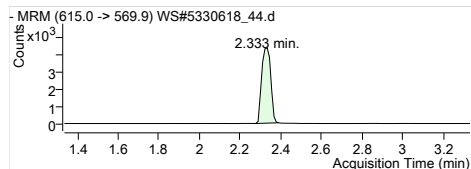
MPFNA
 Internal Standard
 RT (Exp. RT): 2.025 (2.036)
 Concentration: 1 µg/L
 Sample type: Sample



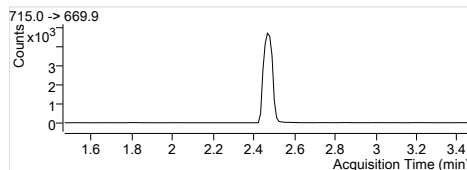
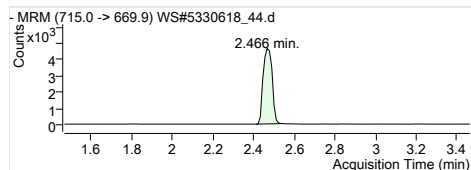
MPFDA
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



MPFUaA
 Internal Standard
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Sample

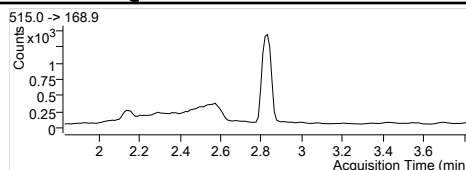
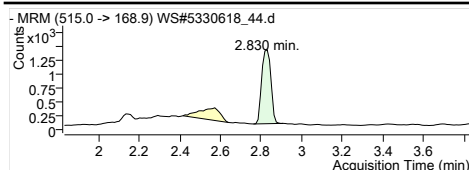


MPFDaA
 Internal Standard
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Sample

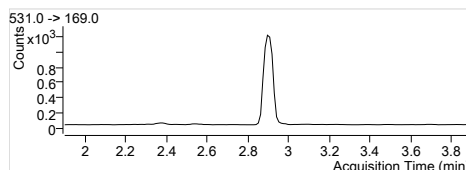
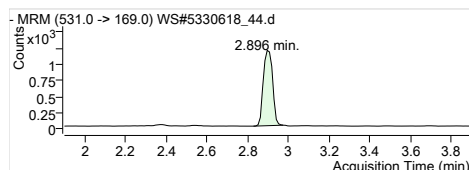


MPFTeDA
 Internal Standard
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: Sample

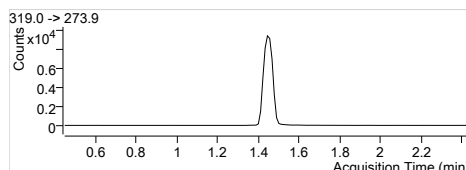
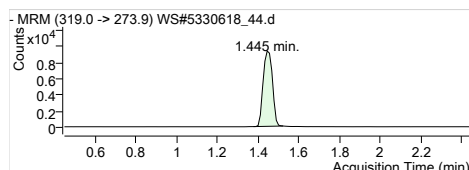
Quantitation Results



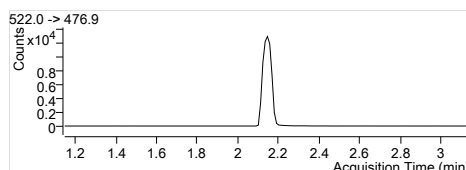
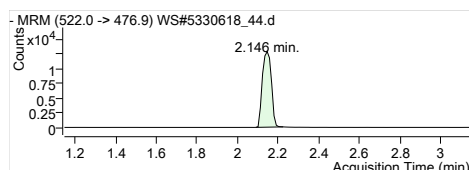
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



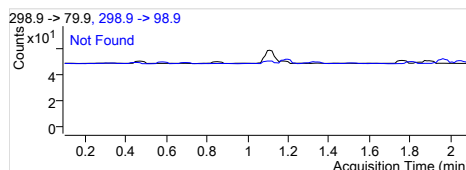
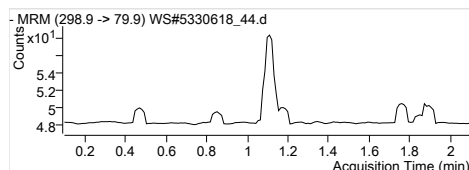
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



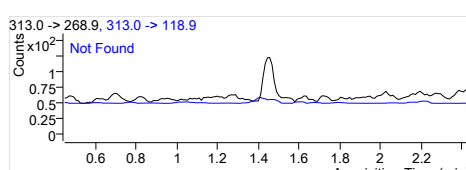
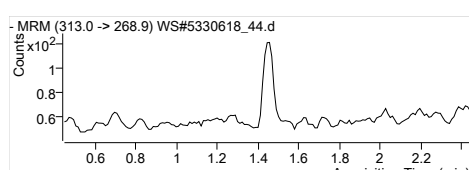
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



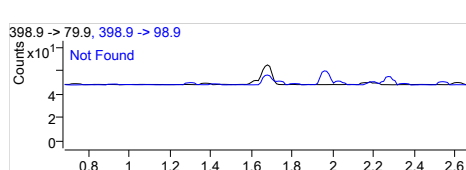
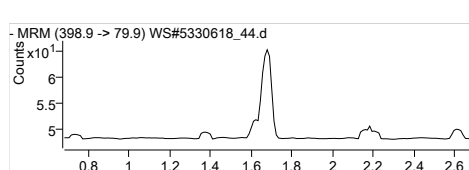
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



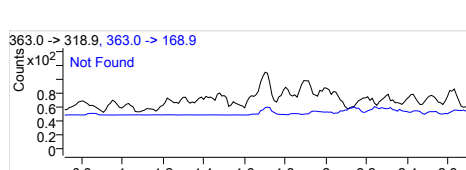
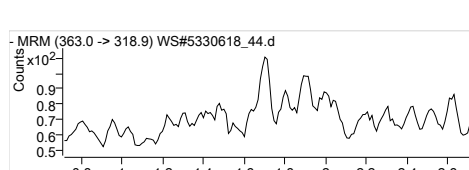
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: N.D.
 Sample type: 0
 Sample



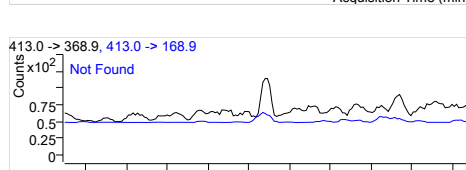
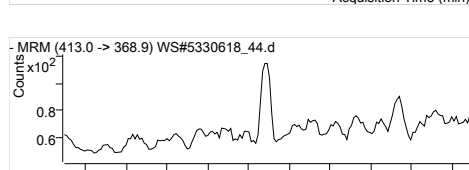
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: N.D.
 Sample type: 0
 Sample



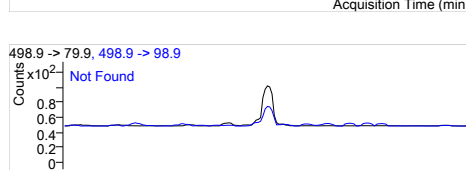
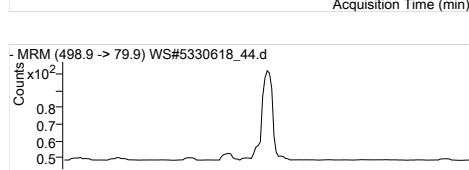
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: N.D.
 Sample type: 0
 Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: N.D.
 Sample type: 0
 Sample

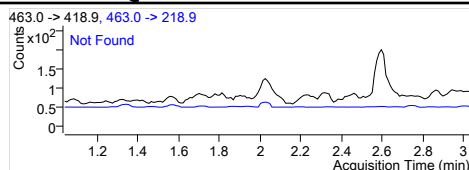
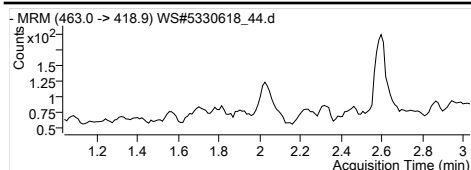


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: N.D.
 Sample type: 0
 Sample

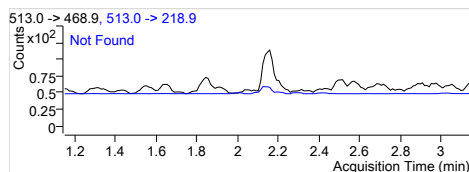
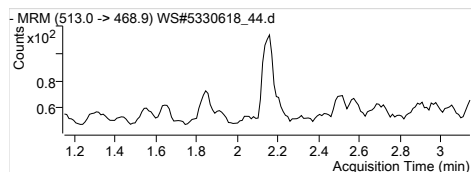


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: N.D.
 Sample type: 0
 Sample

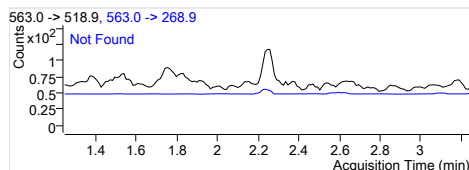
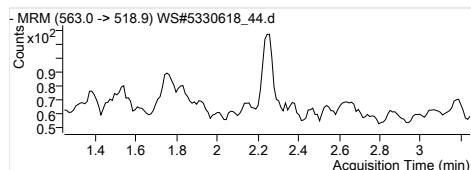
Quantitation Results



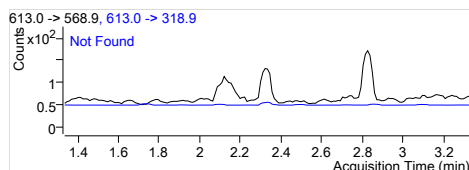
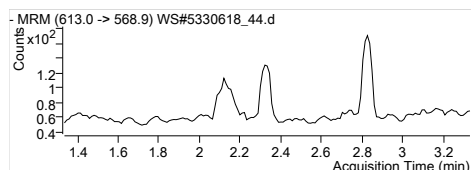
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



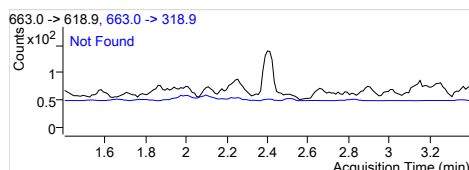
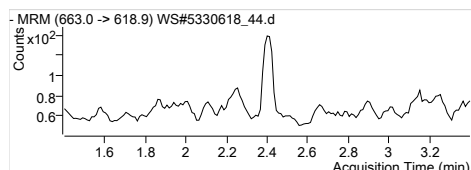
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



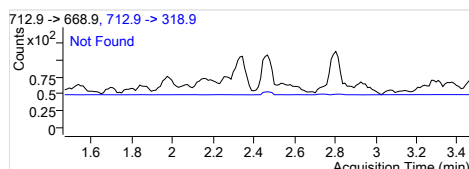
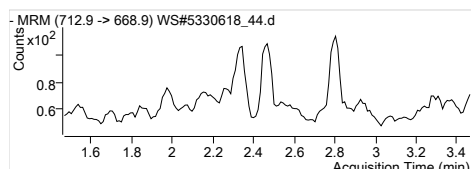
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



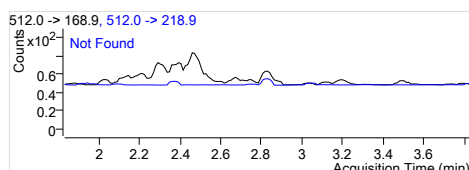
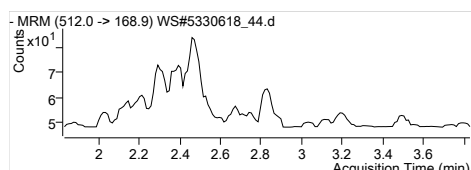
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



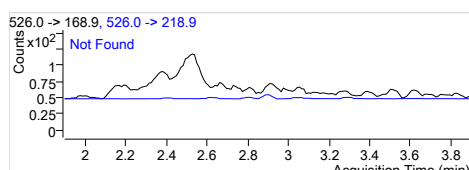
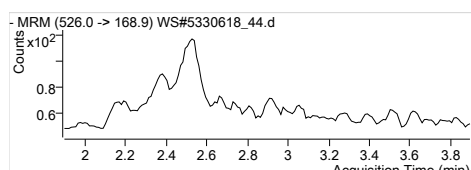
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



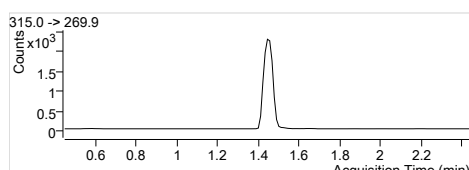
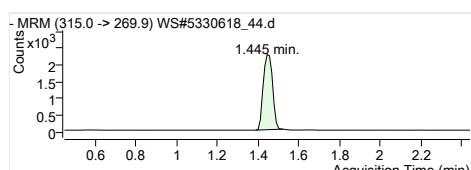
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

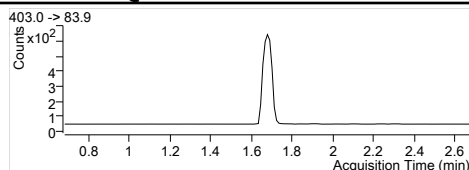
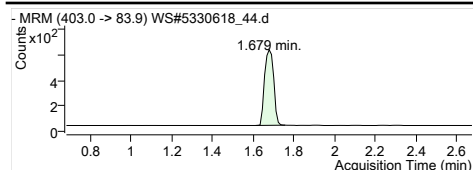


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

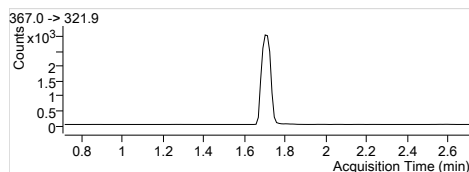
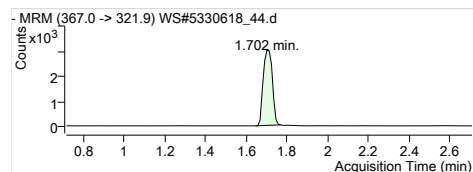


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 108.91 µg/L
 Sample type: 0.24117
 Sample

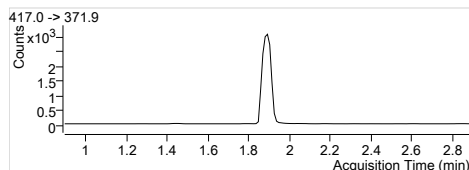
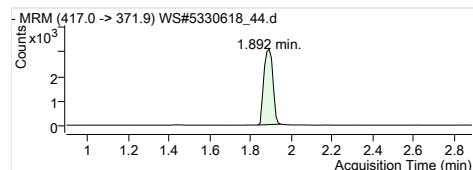
Quantitation Results



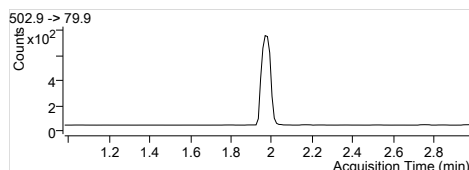
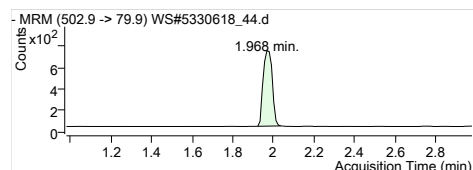
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 117.08 µg/L
 Sample type: 0.06213
 Sample



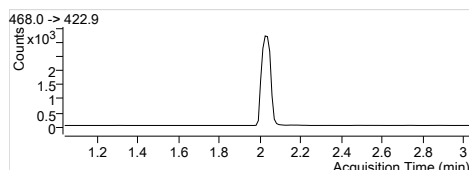
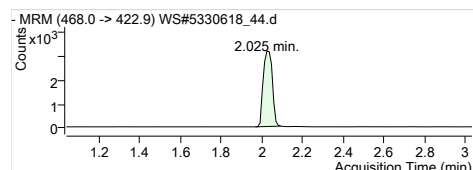
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 113.92 µg/L
 Sample type: 0.31605
 Sample



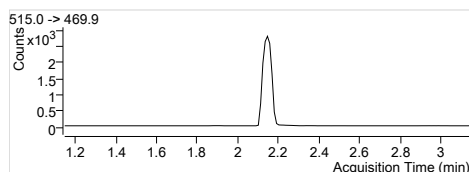
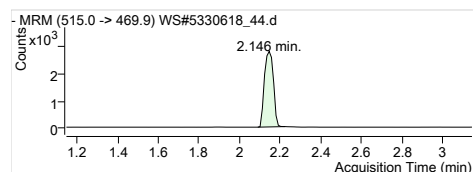
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 105.52 µg/L
 Sample type: 0.31612
 Sample



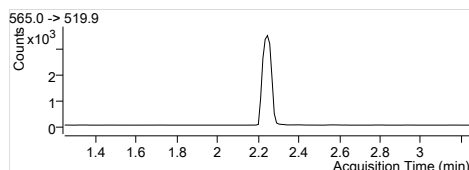
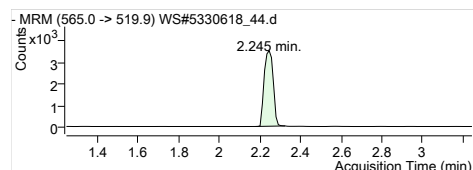
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 115.69 µg/L
 Sample type: 0.07468
 Sample



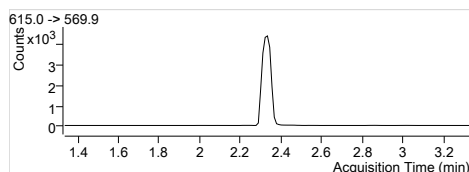
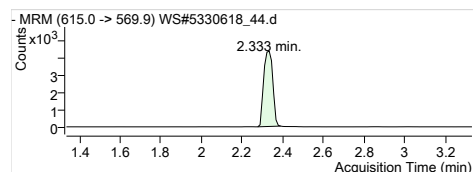
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 119.44 µg/L
 Sample type: 0.33460
 Sample



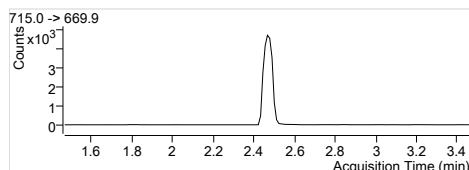
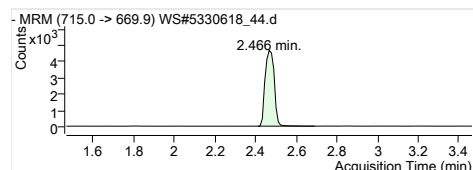
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 111.86 µg/L
 Sample type: 0.21304
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 115.23 µg/L
 Sample type: 0.27057
 Sample

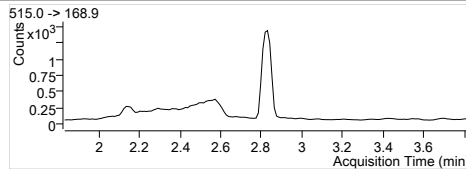
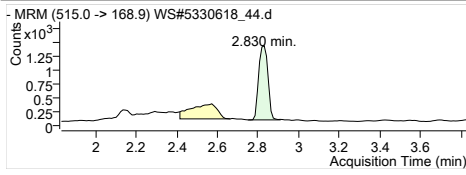


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 113.43 µg/L
 Sample type: 0.33945
 Sample

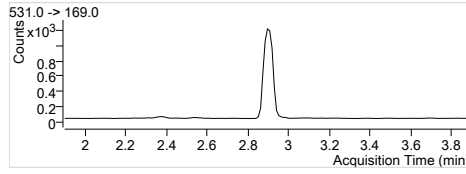
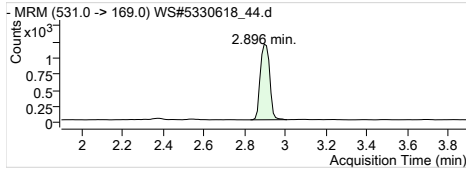


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 111.07 µg/L
 Sample type: 0.36480
 Sample

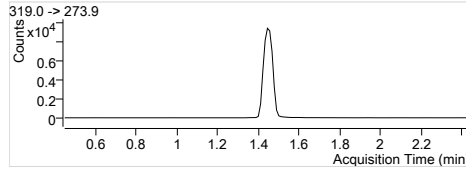
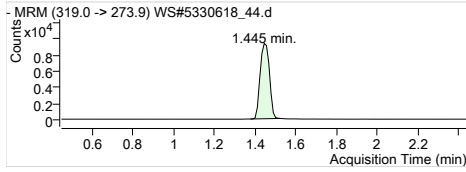
Quantitation Results



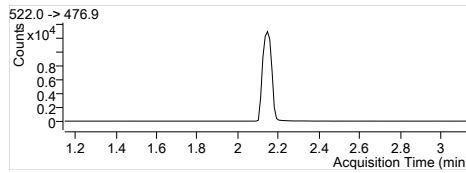
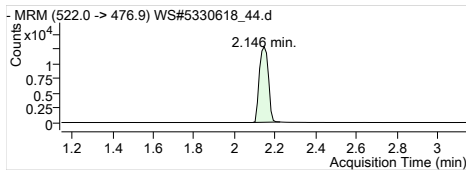
D3-MeFOSA
 RT (Exp. RT): 515.0 -> 168.9
 Calc. conc: 2.830 (2.830)
 Area ratio: 106.11 µg/L
 Sample type: 0.14356
 Sample



D5-EtFOSA
 RT (Exp. RT): 531.0 -> 169.0
 Calc. conc: 2.896 (2.896)
 Area ratio: 110.75 µg/L
 Sample type: 0.12662
 Sample



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 1.47 µg/L
 Sample type: 0
 Sample



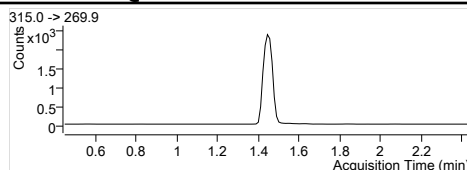
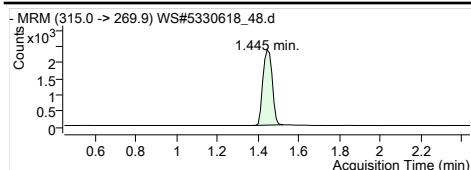
13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 1.54 µg/L
 Sample type: 0
 Sample

Quantitation Results

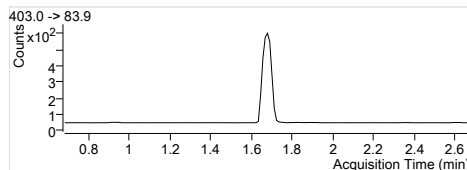
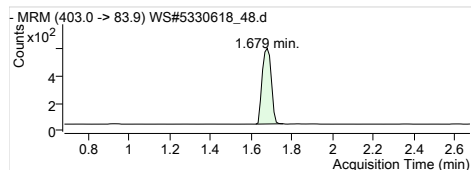
Batch Path	T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	IB	Instrument	LCMS04
Data File	WS#5330618_48.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E6
Acq. Date	2018/01/13 9:11:03 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	7426	1.44	1 µg/L
MPFHxS	1716	1.68	1 µg/L
MPFHpA	9128	1.70	1 µg/L
MPFOA	9818	1.89	1 µg/L
MPFOS	2143	1.97	1 µg/L
MPFNA	9656	2.02	1 µg/L
MPFDA	8014	2.15	1 µg/L
MPFUnA	10866	2.25	1 µg/L
MPFDoA	13234	2.33	1 µg/L
MPFTrDA	13937	2.47	1 µg/L
D3-MeFOSA IS	4349	2.83	1 µg/L
D5-EtFOSA IS	3859	2.90	1 µg/L
13C6-PFHxA IS	31564	1.44	1 µg/L
13C9-PFDA IS	39919	2.15	1 µg/L

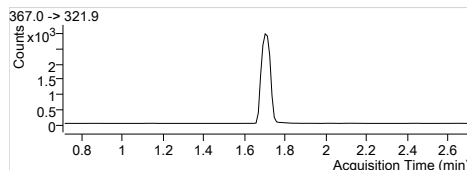
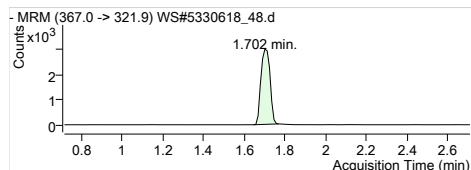
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1	215	1.97	-	0.01 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	7426	1.44	-	106.24 µg/L	-
18O2-PFHxS	1716	1.68	-	102.44 µg/L	-
13C4-PFHpA	9128	1.70	-	104.24 µg/L	-
13C4-PFOA	9818	1.89	-	103.83 µg/L	-
13C4-PFOS	2143	1.97	-	105.18 µg/L	-
13C5-PFNA	9609	2.02	-	108.67 µg/L	-
13C2-PFDA	7976	2.15	-	104.91 µg/L	-
13C2-PFUnA	10866	2.25	-	115.93 µg/L	-
13C2-PFDoA	13234	2.33	-	110.78 µg/L	-
13C2-PFTrDA	14169	2.47	-	108.07 µg/L	-
D3-MeFOSA	4465	2.83	-	104.56 µg/L	-
D5-EtFOSA	3887	2.90	-	107.71 µg/L	-
13C6-PFHxA	31564	1.44	-	1.57 µg/L	-
13C9-PFDA	39919	2.15	-	1.55 µg/L	-



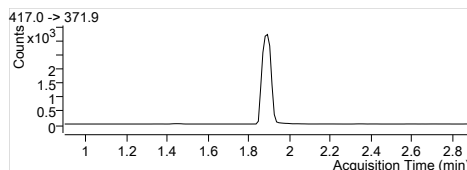
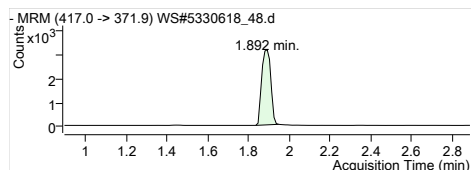
MPFHxA
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



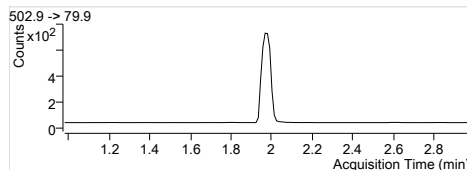
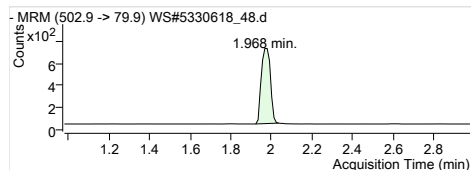
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: Sample



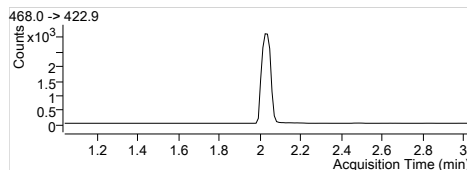
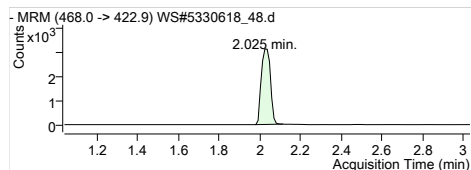
MPFHpA
 RT (Exp. RT): 1.702 (1.713)
 Concentration: 1 µg/L
 Sample type: Sample



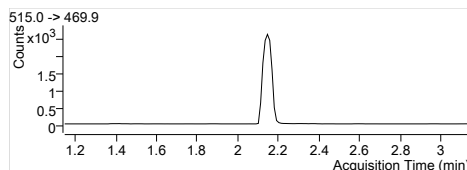
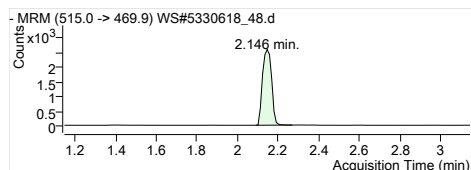
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Sample



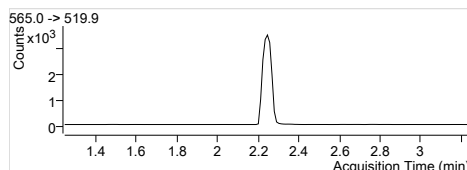
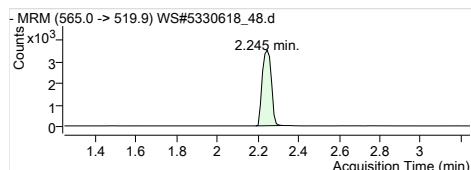
MPFOS
 RT (Exp. RT): 1.968 (1.979)
 Concentration: 1 µg/L
 Sample type: Sample



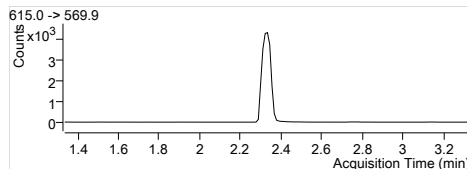
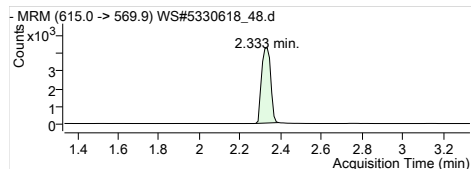
MPFNA
 RT (Exp. RT): 2.025 (2.036)
 Concentration: 1 µg/L
 Sample type: Sample



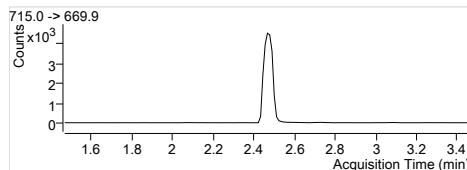
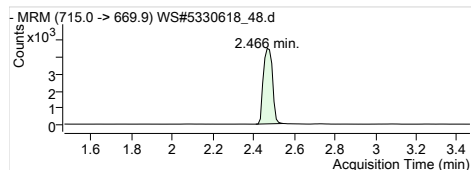
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Sample

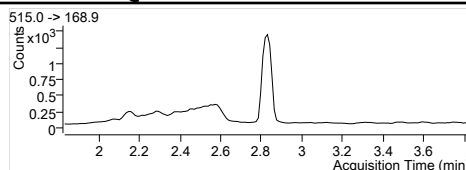
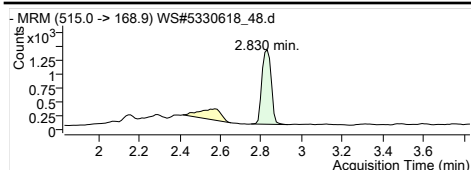


MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Sample

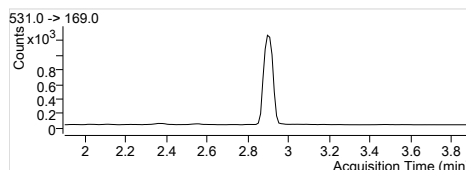
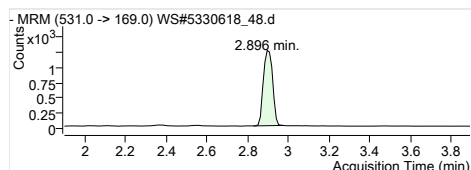


MPFTeDA
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: Sample

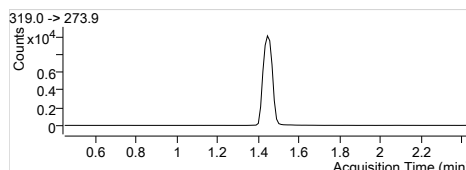
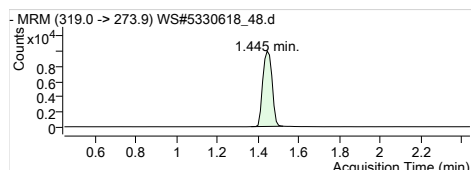
Quantitation Results



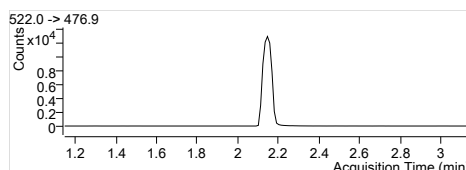
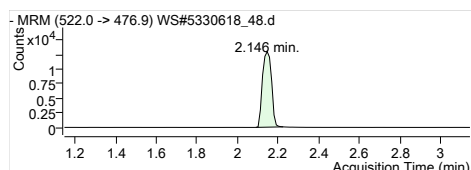
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



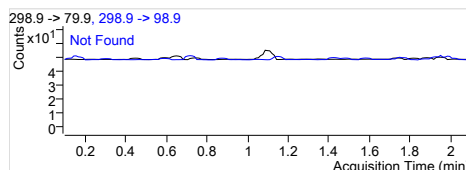
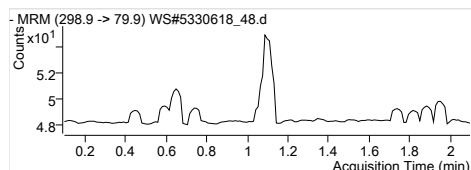
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



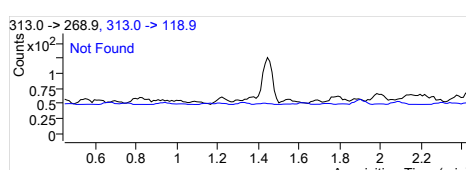
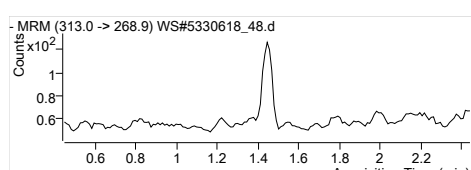
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



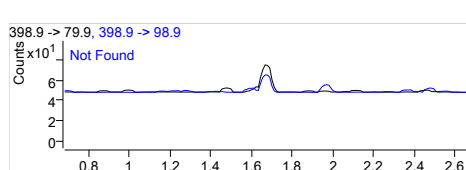
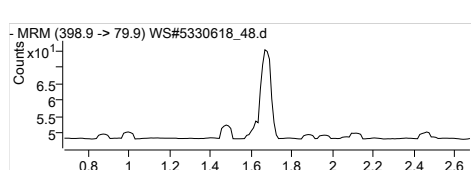
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



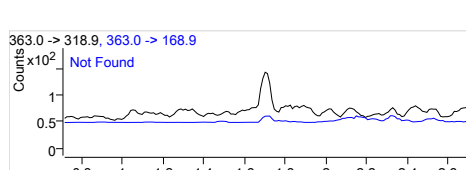
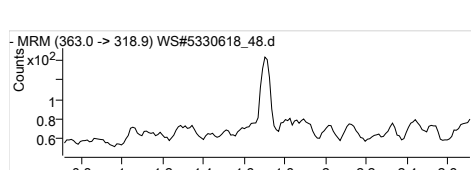
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: 0
 Sample type: Sample



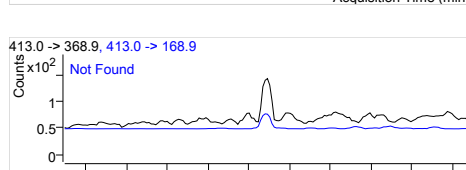
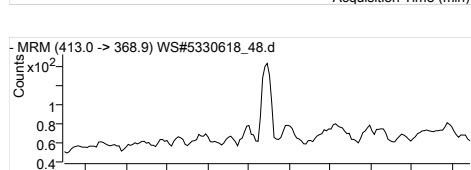
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: 0
 Sample type: Sample



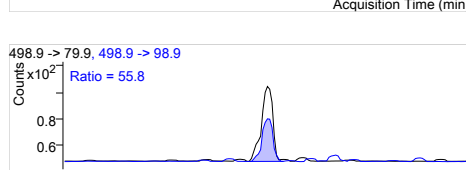
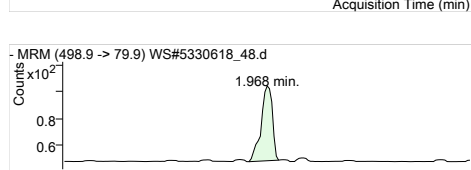
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: 0
 Sample type: Sample



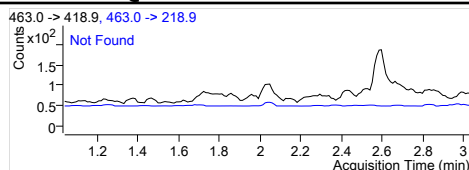
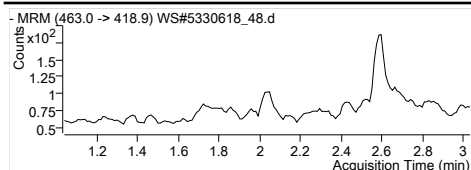
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: 0
 Sample type: Sample



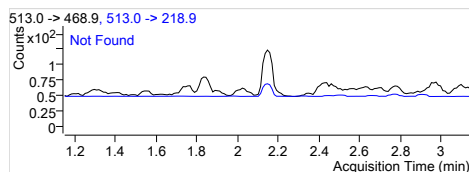
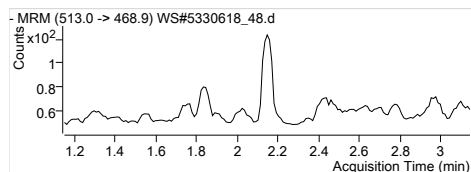
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: 0
 Sample type: Sample



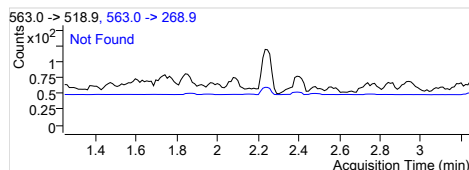
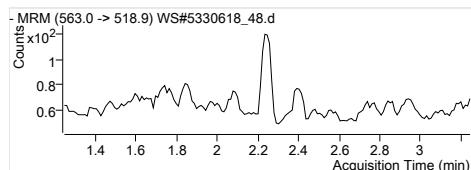
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.01 µg/L
 Area ratio: 0.10033
 Sample type: Sample



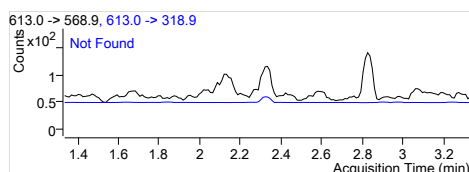
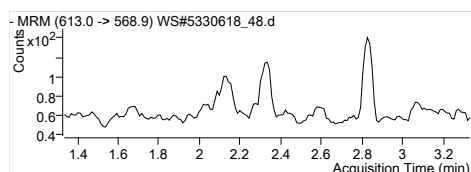
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



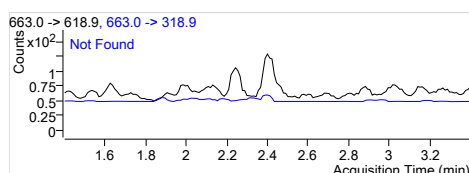
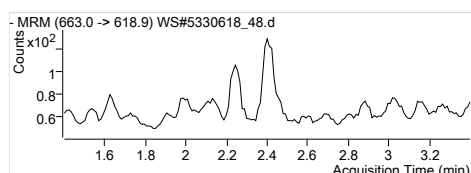
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



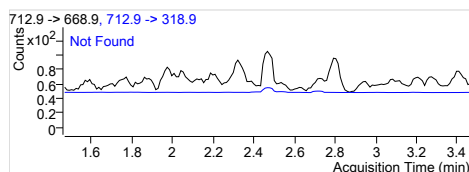
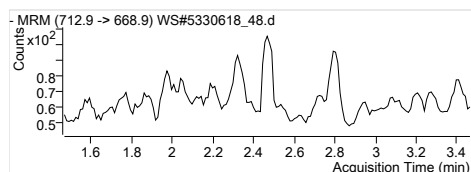
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



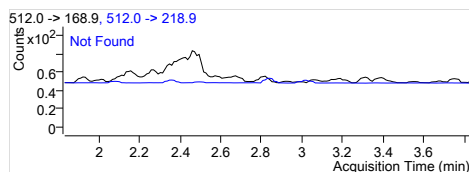
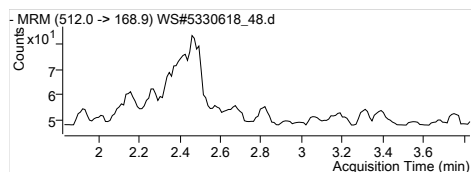
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



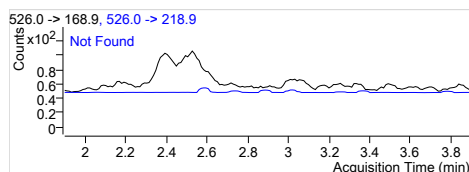
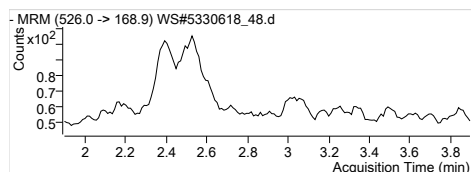
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



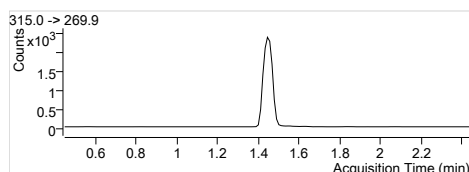
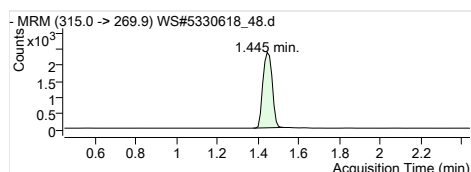
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

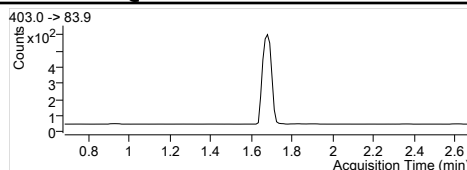
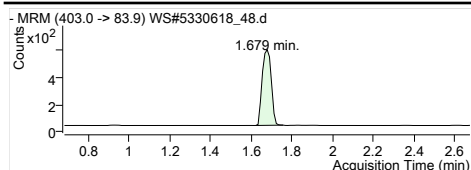


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

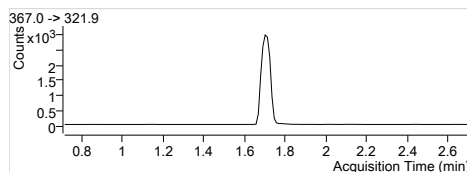
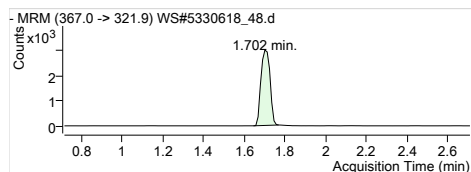


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 106.24 µg/L
 Sample type: 0.23527
 Sample

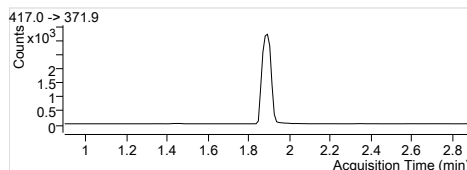
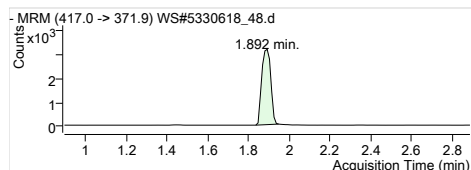
Quantitation Results



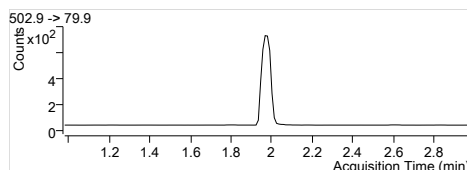
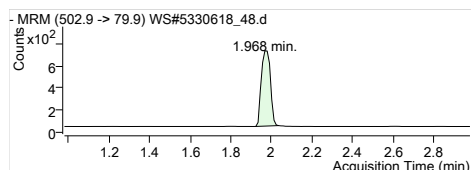
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 102.44 µg/L
 Sample type: 0.05437
 Sample



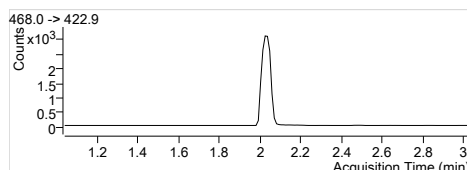
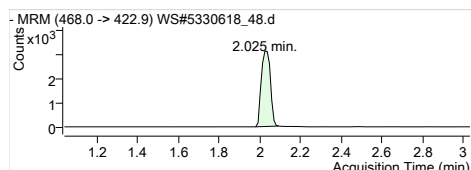
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 104.24 µg/L
 Sample type: 0.28919
 Sample



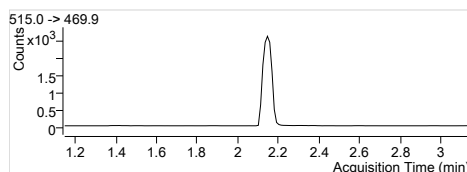
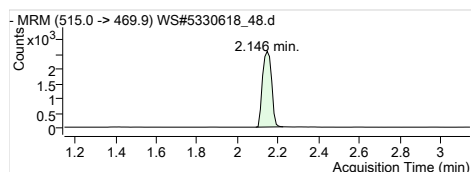
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 103.83 µg/L
 Sample type: 0.31105
 Sample



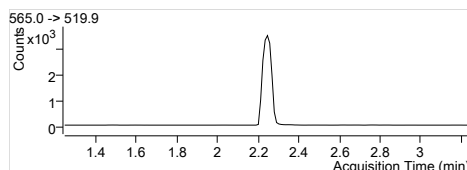
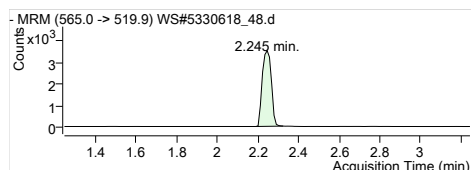
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 105.18 µg/L
 Sample type: 0.06789
 Sample



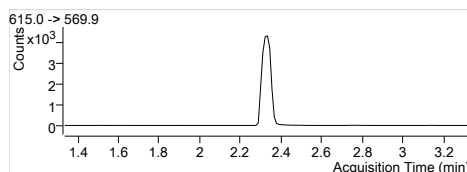
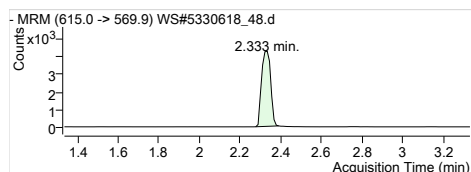
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 108.67 µg/L
 Sample type: 0.30443
 Sample



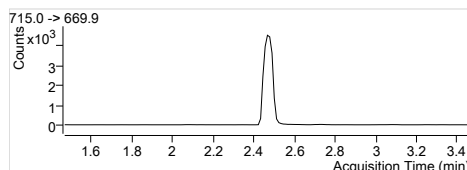
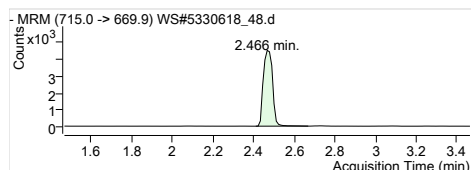
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 104.91 µg/L
 Sample type: 0.19980
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 115.93 µg/L
 Sample type: 0.27220
 Sample

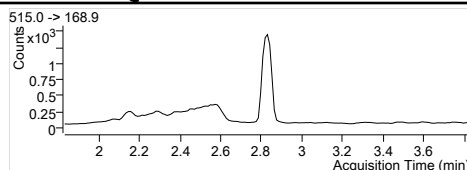
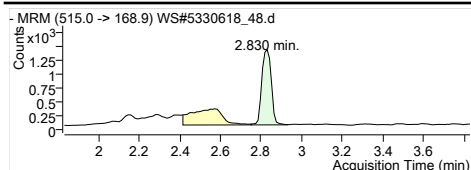


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 110.78 µg/L
 Sample type: 0.33152
 Sample

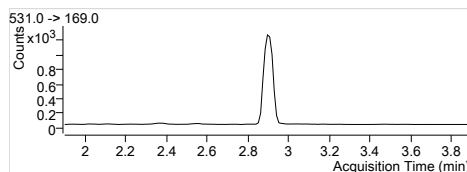
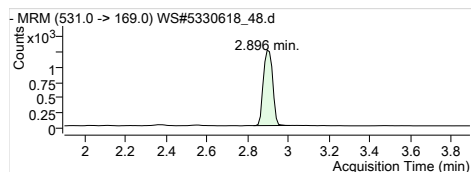


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 108.07 µg/L
 Sample type: 0.35494
 Sample

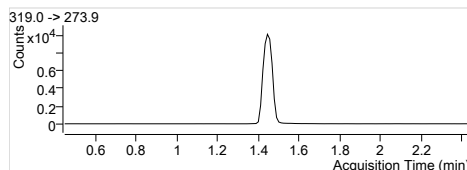
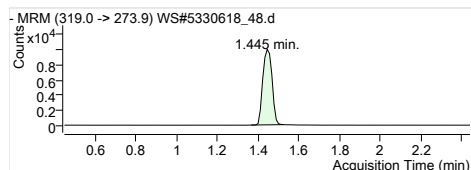
Quantitation Results



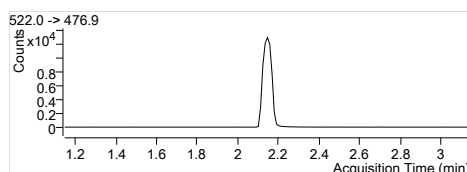
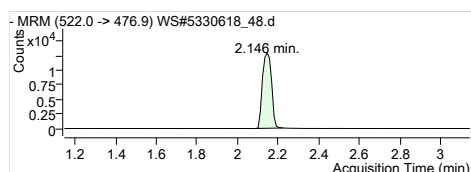
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 104.56 µg/L
Area ratio: 0.14146
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 107.71 µg/L
Area ratio: 0.12315
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.57 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.55 µg/L
Area ratio: 0
Sample type: Sample

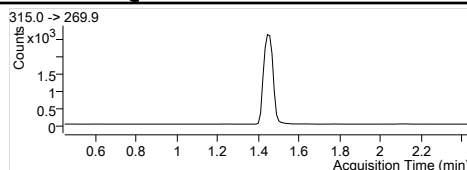
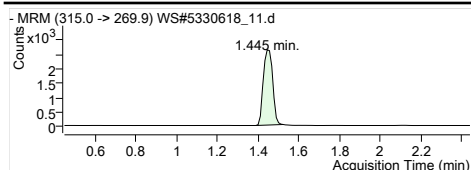
Quantitation Results

Batch Path	T:\lms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:BLANK	Instrument	LCMS04
Data File	WS#5330618_11.d	Operator	
Sample Type	Sample	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E8
Acq. Date	2018/01/13 6:04:38 AM	Injection Volume	Per Method
Sample Annotation	-		

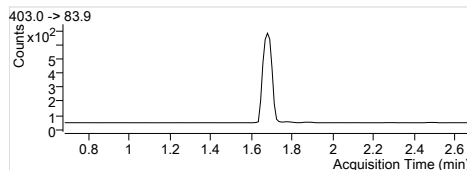
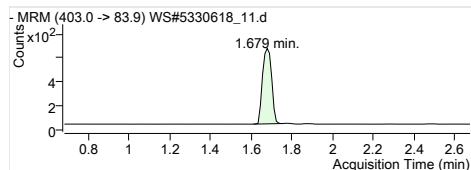
ISTD Compounds	Response	RT	Target conc.
MPFHxA	8352	1.44	1 µg/L
MPFHxS	1968	1.68	1 µg/L
MPFHpA	10242	1.70	1 µg/L
MPFOA	9922	1.89	1 µg/L
MPFOS	2453	1.98	1 µg/L
MPFNA	10458	2.04	1 µg/L
MPFDA	8723	2.15	1 µg/L
MPFUnA	10718	2.25	1 µg/L
MPFDoA	13847	2.33	1 µg/L
MPFTeDA	13765	2.47	1 µg/L
D3-MeFOSA IS	4388	2.83	1 µg/L
D5-EtFOSA IS	3516	2.91	1 µg/L
13C6-PFHxA IS	37592	1.44	1 µg/L
13C9-PFDA IS	47800	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
MeFOSA 1			-	ND	-
EtFOSA 1			-	ND	-
13C2-PFHxA	8352	1.44	-	100.33 µg/L	-
18O2-PFHxS	1968	1.68	-	98.65 µg/L	-
13C4-PFHpA	10242	1.70	-	98.21 µg/L	-
13C4-PFOA	9922	1.89	-	88.10 µg/L	-
13C4-PFOS	2453	1.98	-	101.09 µg/L	-
13C5-PFNA	10389	2.04	-	98.65 µg/L	-
13C2-PFDA	8653	2.15	-	95.05 µg/L	-
13C2-PFUnA	10718	2.25	-	95.49 µg/L	-
13C2-PFDoA	13847	2.33	-	96.80 µg/L	-
13C2-PFTeDA	13952	2.47	-	88.87 µg/L	-
D3-MeFOSA	4510	2.83	-	88.67 µg/L	-
D5-EtFOSA	3613	2.91	-	84.06 µg/L	-
13C6-PFHxA	37592	1.44	-	1.87 µg/L	-
13C9-PFDA	47800	2.15	-	1.85 µg/L	-

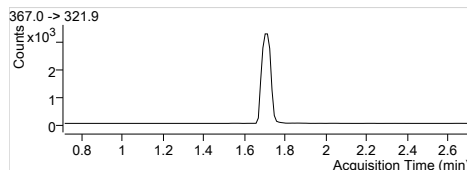
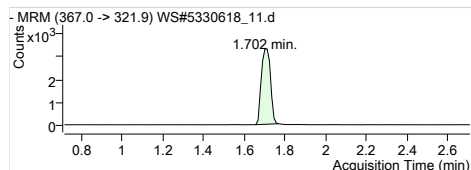
Quantitation Results



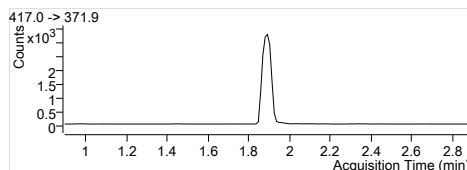
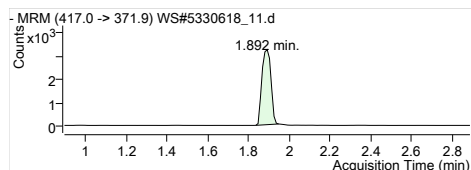
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



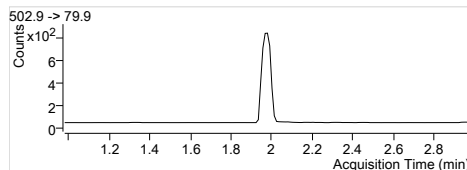
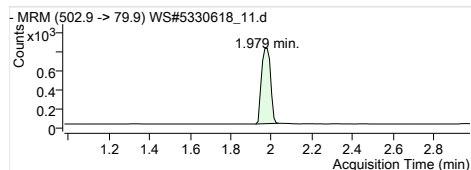
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



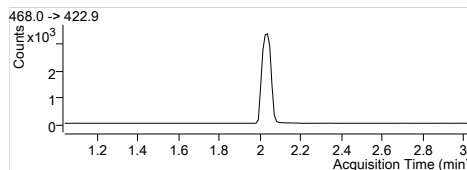
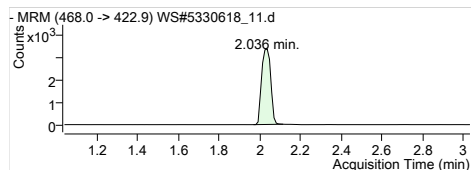
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Sample



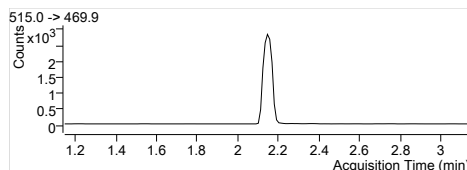
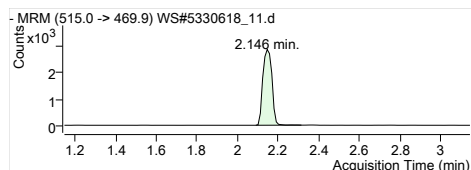
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



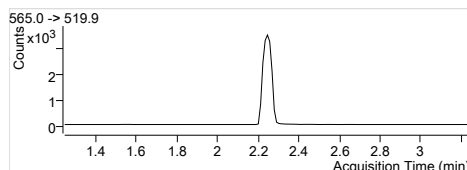
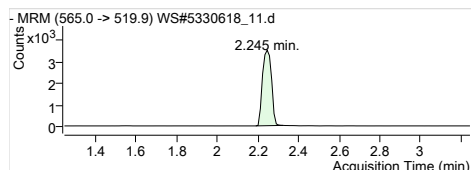
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



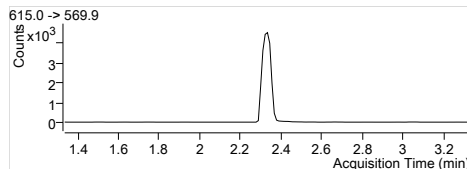
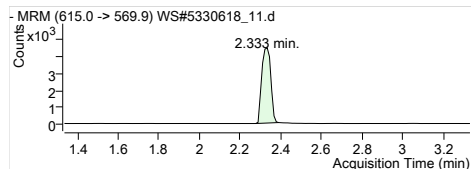
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



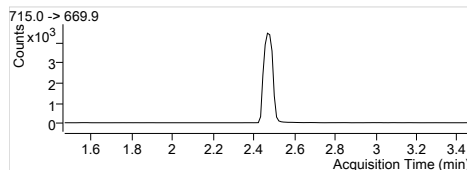
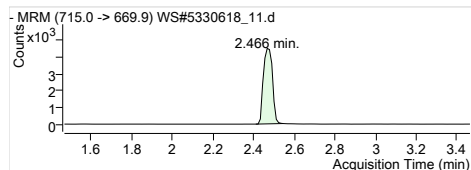
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample

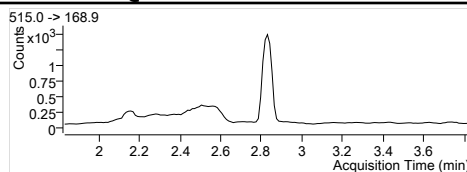
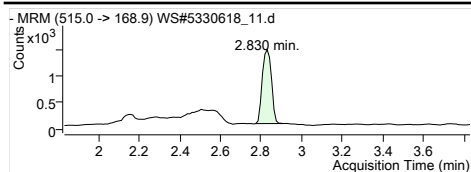


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Sample

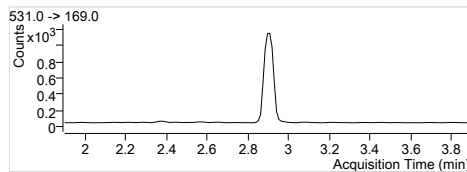
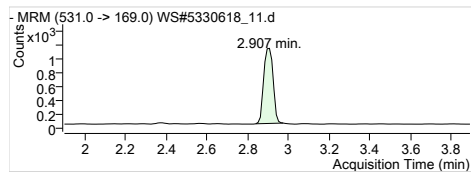


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Sample

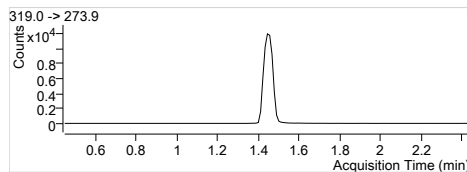
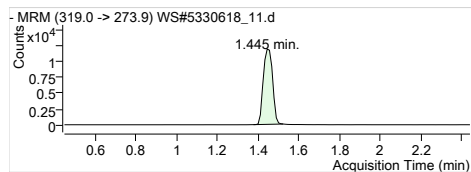
Quantitation Results



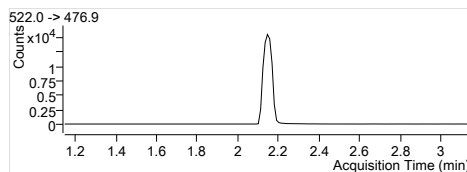
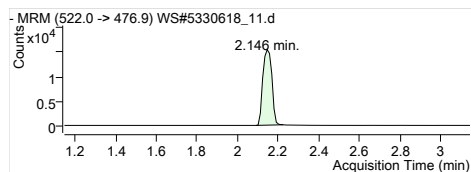
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Sample



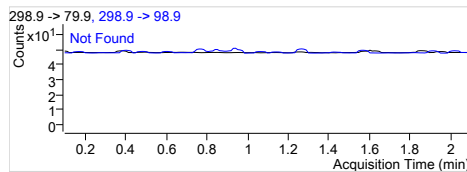
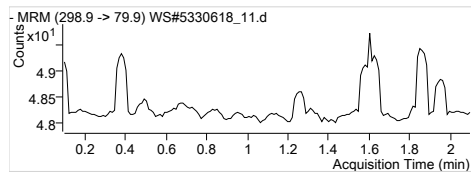
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.907 (2.896)
 Concentration: 1 µg/L
 Sample type: Sample



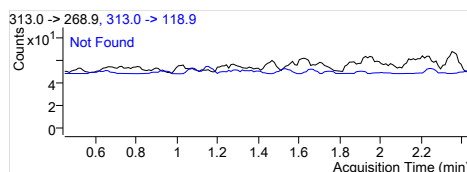
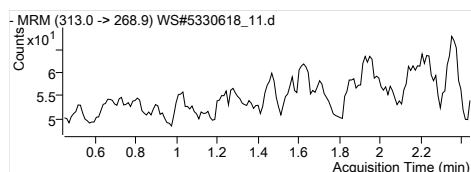
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Sample



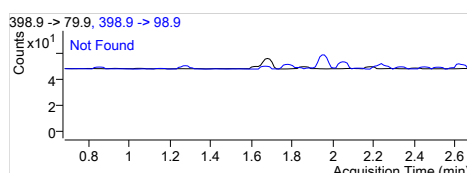
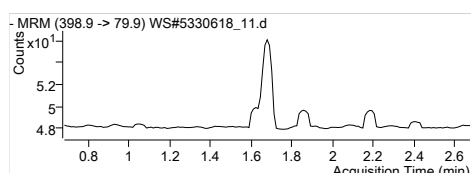
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Sample



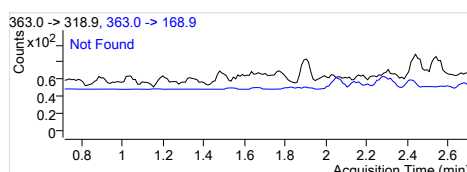
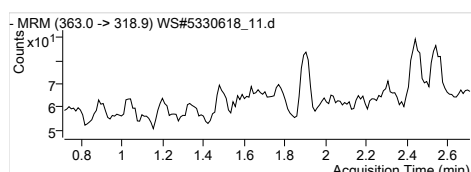
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 0.000 (1.098)
 Area ratio: N.D.
 Sample type: 0
 Sample



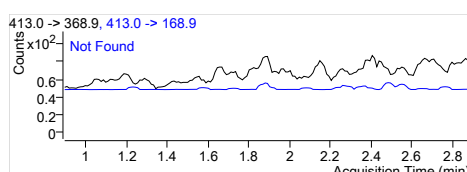
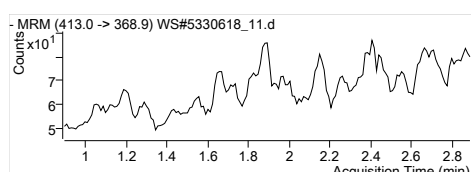
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 0.000 (1.445)
 Area ratio: N.D.
 Sample type: 0
 Sample



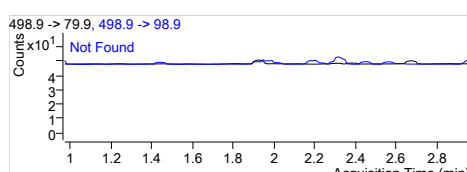
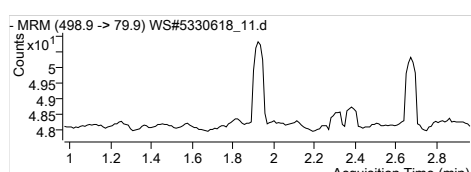
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 0.000 (1.679)
 Area ratio: N.D.
 Sample type: 0
 Sample



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 0.000 (1.713)
 Area ratio: N.D.
 Sample type: 0
 Sample

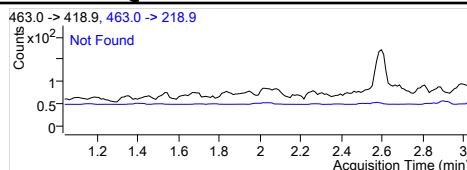
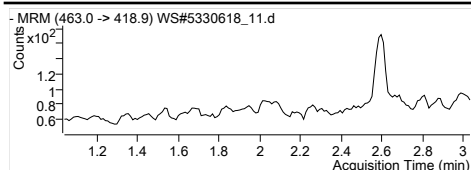


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 0.000 (1.892)
 Area ratio: N.D.
 Sample type: 0
 Sample

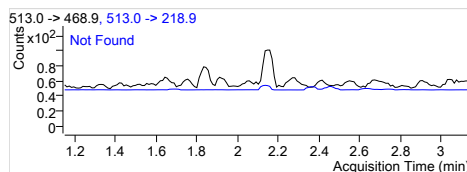
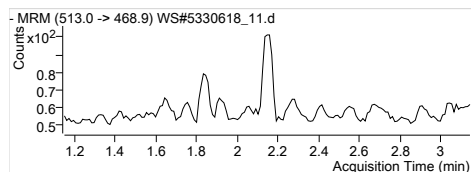


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 0.000 (1.968)
 Area ratio: N.D.
 Sample type: 0
 Sample

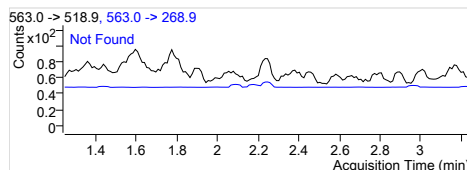
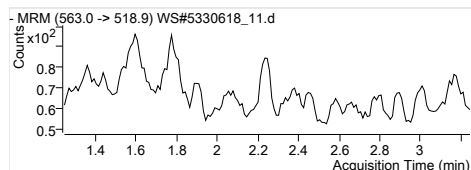
Quantitation Results



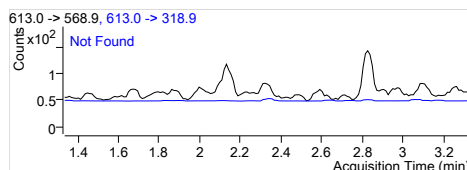
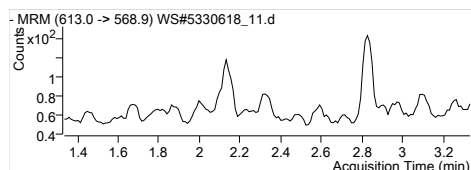
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 0.000 (2.036)
 Area ratio: N.D.
 Sample type: 0
 Sample



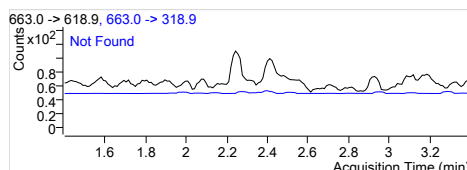
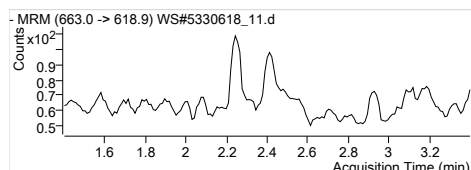
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 0.000 (2.146)
 Area ratio: N.D.
 Sample type: 0
 Sample



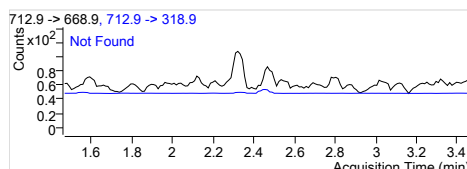
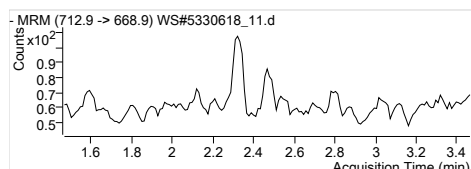
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 0.000 (2.245)
 Area ratio: N.D.
 Sample type: 0
 Sample



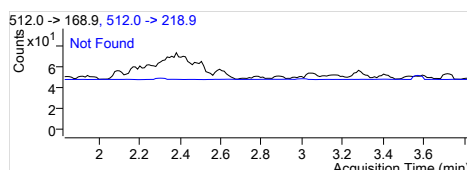
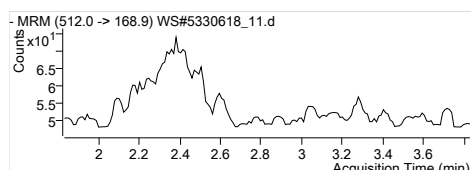
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 0.000 (2.334)
 Area ratio: N.D.
 Sample type: 0
 Sample



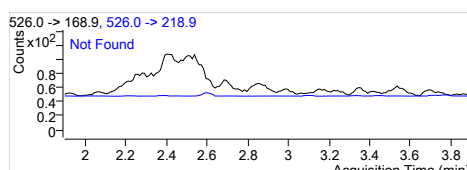
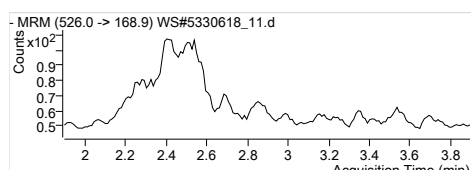
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 0.000 (2.400)
 Area ratio: N.D.
 Sample type: 0
 Sample



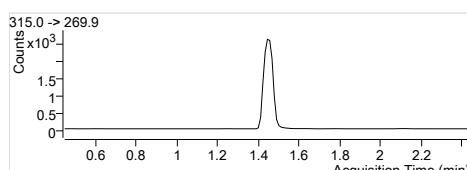
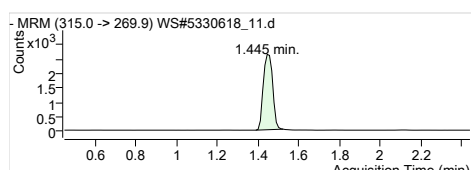
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 0.000 (2.467)
 Area ratio: N.D.
 Sample type: 0
 Sample



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 0.000 (2.831)
 Area ratio: N.D.
 Sample type: 0
 Sample

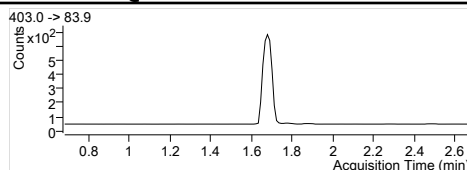
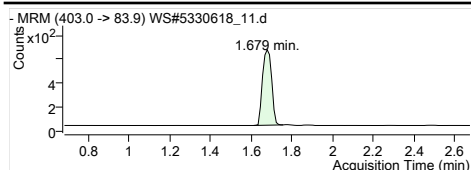


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 0.000 (2.897)
 Area ratio: N.D.
 Sample type: 0
 Sample

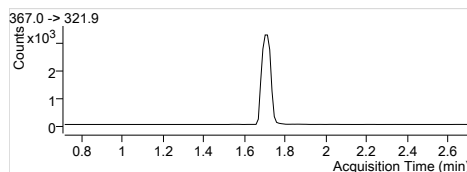
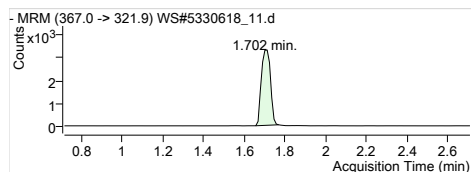


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 100.33 µg/L
 Sample type: 0.22217
 Sample

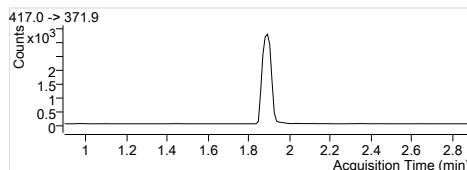
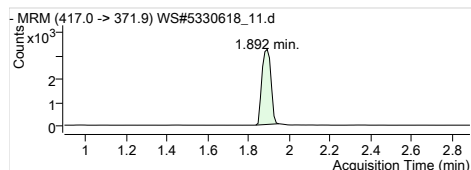
Quantitation Results



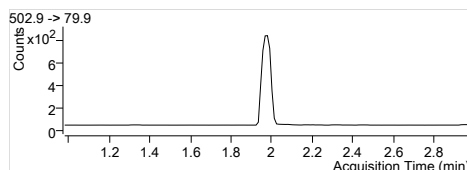
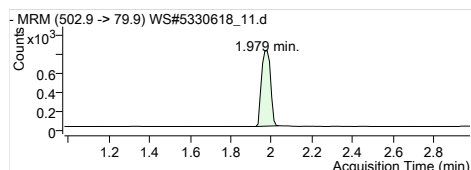
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 98.65 µg/L
 Sample type: 0.05235
 Sample



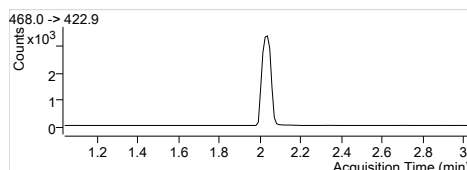
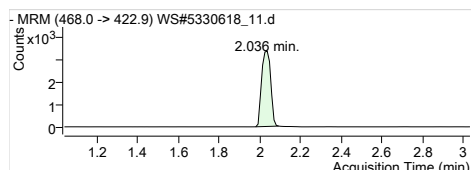
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 98.21 µg/L
 Sample type: 0.27245
 Sample



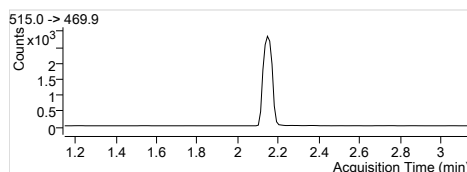
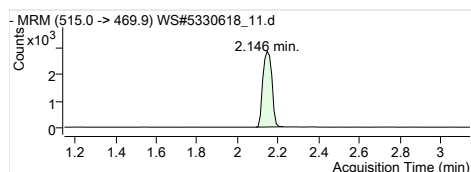
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 88.10 µg/L
 Sample type: 0.26394
 Sample



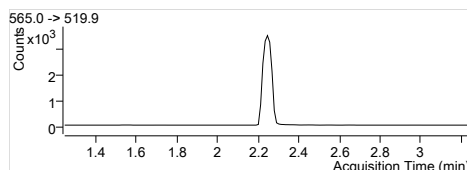
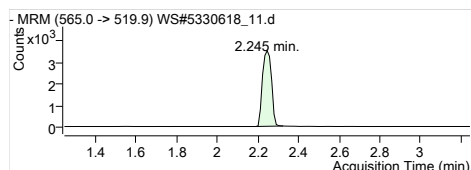
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 101.09 µg/L
 Sample type: 0.06525
 Sample



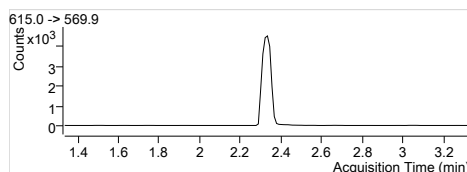
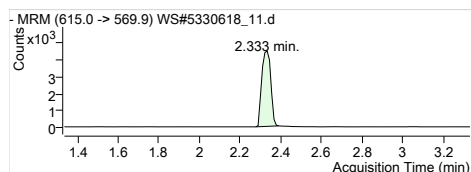
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 98.65 µg/L
 Sample type: 0.27636
 Sample



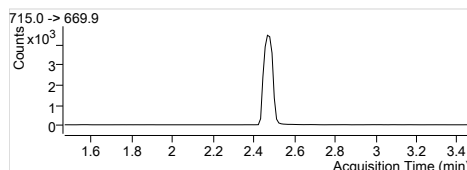
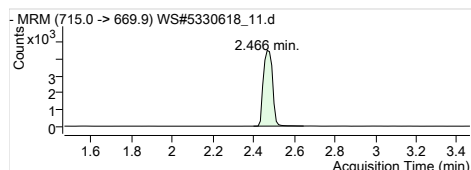
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 95.05 µg/L
 Sample type: 0.18103
 Sample



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 95.49 µg/L
 Sample type: 0.22423
 Sample

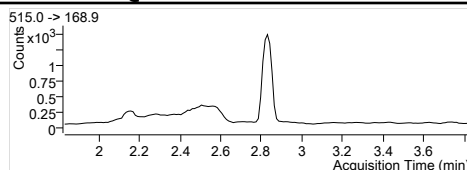
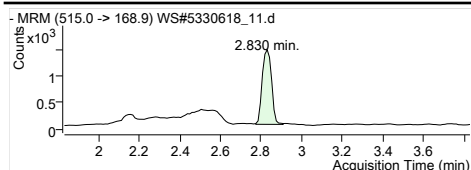


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 96.80 µg/L
 Sample type: 0.28969
 Sample

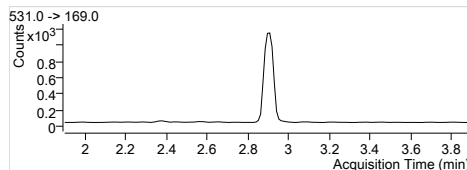
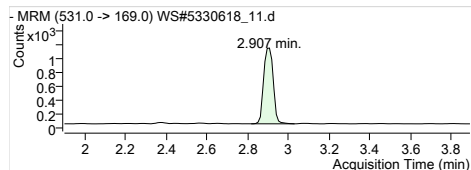


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 88.87 µg/L
 Sample type: 0.29188
 Sample

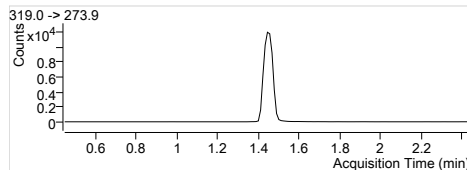
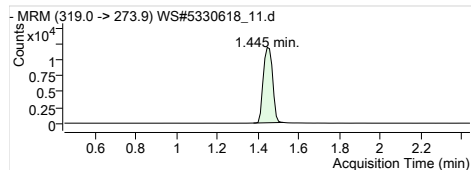
Quantitation Results



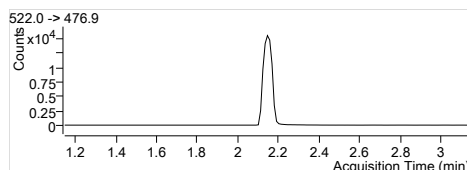
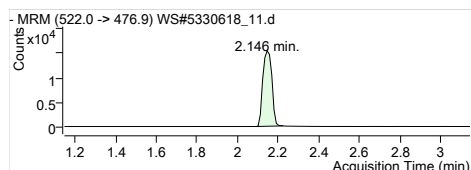
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 88.67 µg/L
Area ratio: 0.11997
Sample type: Sample



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.907 (2.896)
Calc. conc. 84.06 µg/L
Area ratio: 0.09611
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.87 µg/L
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.85 µg/L
Area ratio: 0
Sample type: Sample

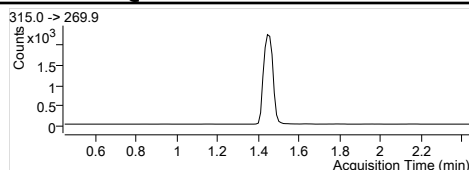
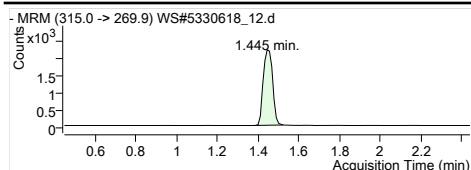
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:SPIKE	Instrument	LCMS04
Data File	WS#5330618_12.d	Operator	
Sample Type	QC	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-E9
Acq. Date	2018/01/13 6:09:34 AM	Injection Volume	Per Method
Sample Annotation	-		

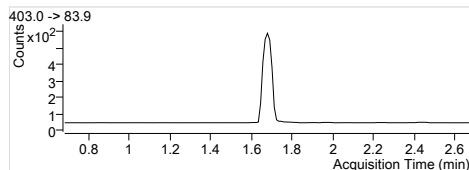
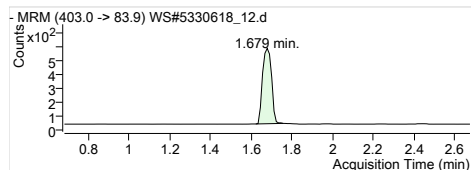
ISTD Compounds	Response	RT	Target conc.
MPFHxA	7070	1.44	1 µg/L
MPFHxS	1670	1.68	1 µg/L
MPFHpA	8956	1.71	1 µg/L
MPFOA	9585	1.89	1 µg/L
MPFOS	1945	1.97	1 µg/L
MPFNA	9239	2.02	1 µg/L
MPFDA	7726	2.15	1 µg/L
MPFUnA	9723	2.25	1 µg/L
MPFDoA	12038	2.33	1 µg/L
MPFTeDA	11577	2.47	1 µg/L
D3-MeFOSA IS	2961	2.83	1 µg/L
D5-EtFOSA IS	2516	2.90	1 µg/L
13C6-PFHxA IS	34592	1.44	1 µg/L
13C9-PFDA IS	43826	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	20021	1.10	20.80	0.57 µg/L	113.74
PFHxA 1	71305	1.44	20.80	0.57 µg/L	113.97
PFHxS 1	18098	1.68	20.80	0.60 µg/L	119.42
PFHpA 1	87541	1.70	20.80	0.54 µg/L	107.76
PFOA 1	103149	1.89	20.80	0.58 µg/L	116.47
PFOS 1	18199	1.97	20.80	0.56 µg/L	112.87
PFNA 1	87531	2.04	20.80	0.54 µg/L	107.98
PFDA 1	93064	2.15	20.80	0.56 µg/L	111.93
PFUnA 1	100097	2.25	20.80	0.53 µg/L	106.05
PFDoA 1	112370	2.33	20.80	0.52 µg/L	104.41
PFTTrDA 1	127617	2.40	20.80	0.59 µg/L	117.92
PFTeDA 1	99640	2.47	20.80	0.56 µg/L	112.13
MeFOSA 1	8544	2.82	20.80	0.54 µg/L	107.45
EtFOSA 1	8634	2.90	20.80	0.52 µg/L	104.16
13C2-PFHxA	7070	1.44	100.00	92.30 µg/L	92.30
18O2-PFHxS	1670	1.68	100.00	90.97 µg/L	90.97
13C4-PFHpA	8956	1.71	100.00	93.32 µg/L	93.32
13C4-PFOA	9585	1.89	100.00	92.49 µg/L	92.49
13C4-PFOS	1945	1.97	100.00	87.11 µg/L	87.11
13C5-PFNA	9146	2.02	100.00	94.38 µg/L	94.38
13C2-PFDA	7568	2.15	100.00	90.67 µg/L	90.67
13C2-PFUnA	9723	2.25	100.00	94.48 µg/L	94.48
13C2-PFDoA	12038	2.33	100.00	91.78 µg/L	91.78
13C2-PFTeDA	11694	2.47	100.00	81.24 µg/L	81.24
D3-MeFOSA	3025	2.83	100.00	64.63 µg/L	64.63
D5-EtFOSA	2574	2.90	100.00	65.08 µg/L	65.08
13C6-PFHxA	34592	1.44	100.00	1.72 µg/L	71.53
13C9-PFDA	43826	2.15	100.00	1.70 µg/L	70.79

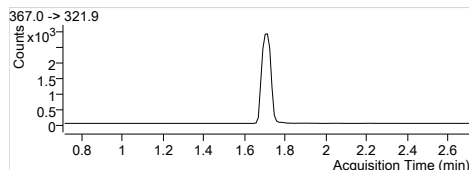
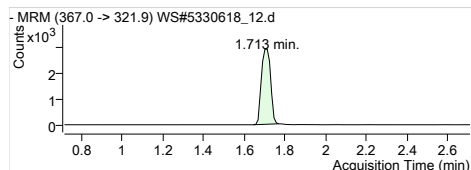
Quantitation Results



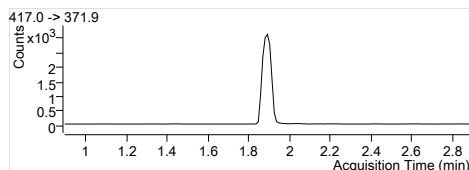
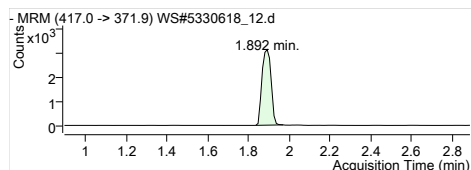
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: QC



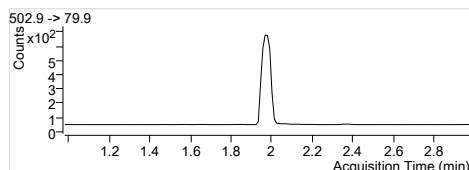
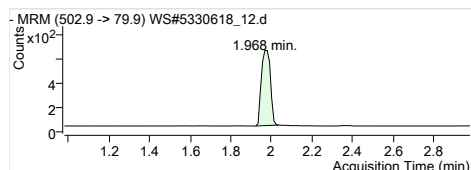
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



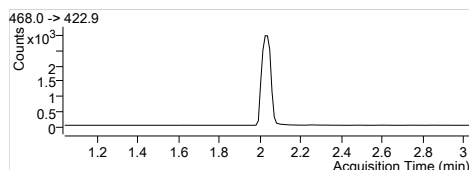
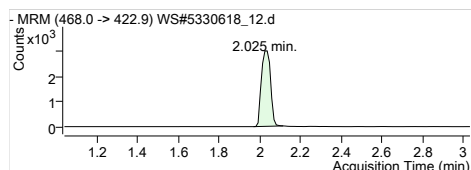
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: QC



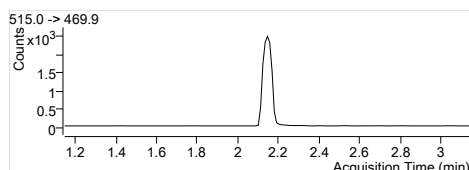
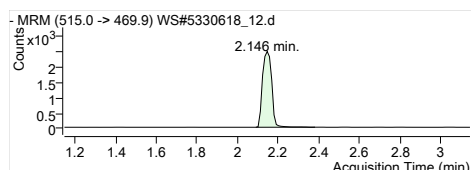
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



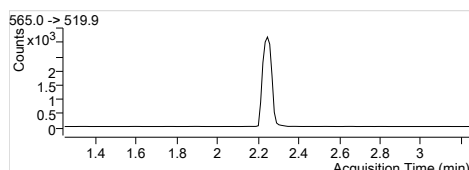
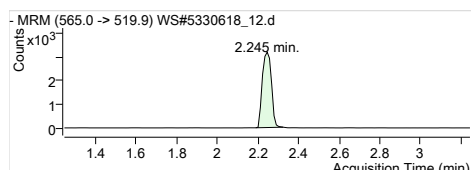
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: QC



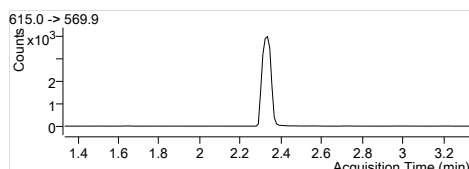
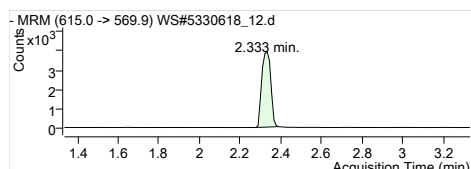
MPFNA
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: QC



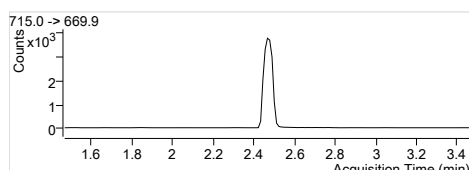
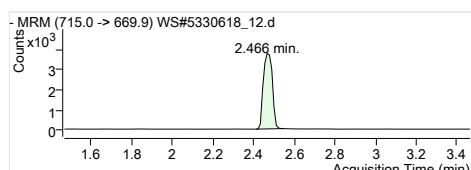
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC

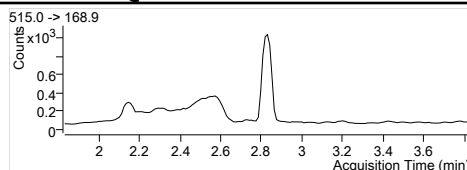
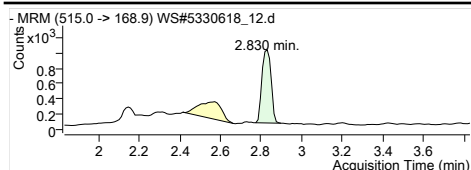


MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: QC

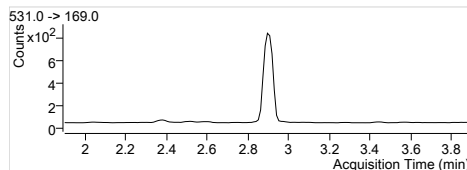
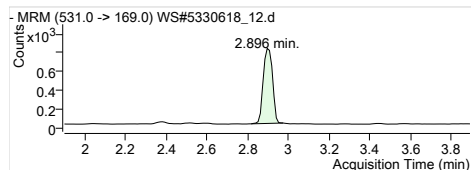


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: QC

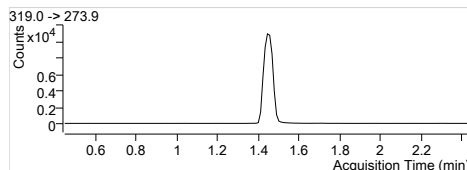
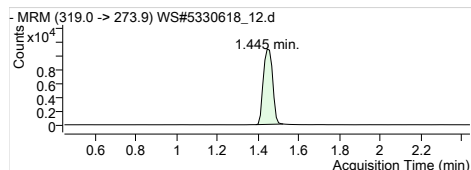
Quantitation Results



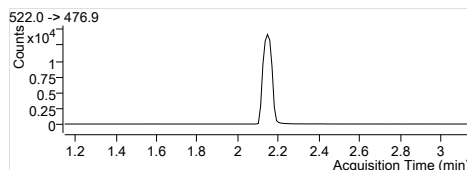
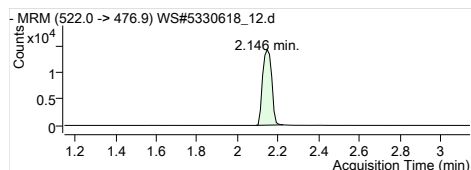
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: QC



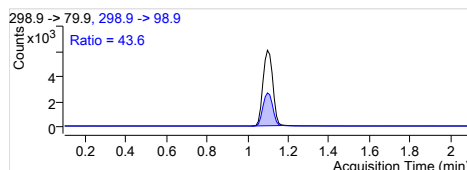
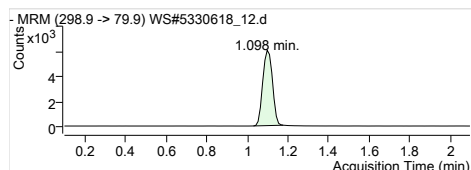
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: QC



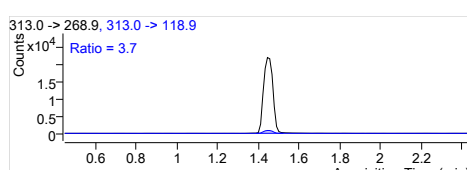
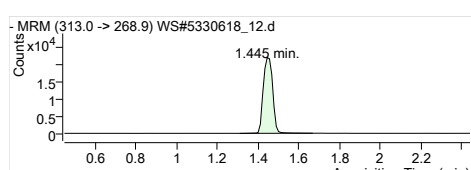
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: QC



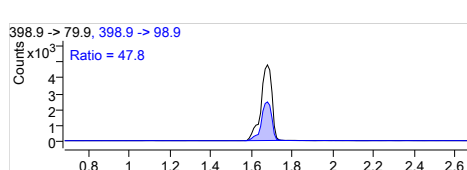
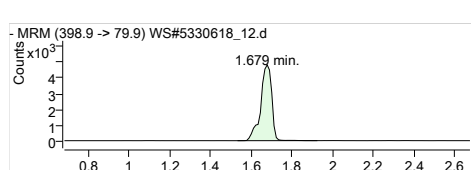
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: QC



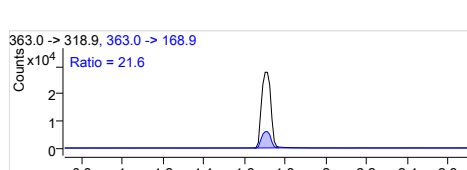
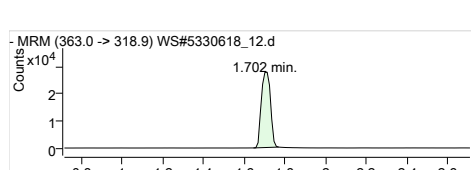
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.57 µg/L
 Sample type: 11.98862
 QC



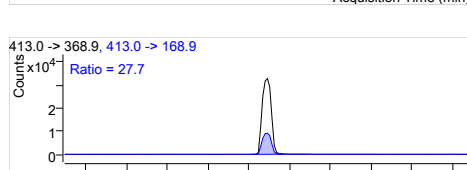
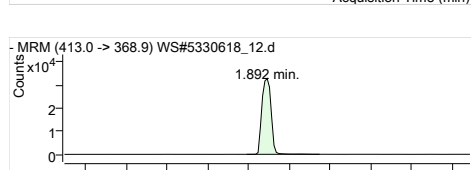
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 0.57 µg/L
 Sample type: 10.08557
 QC



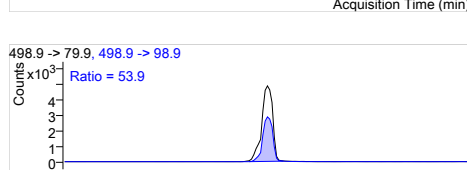
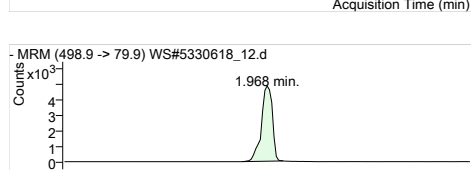
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 0.60 µg/L
 Sample type: 10.83713
 QC



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.54 µg/L
 Sample type: 9.77456
 QC

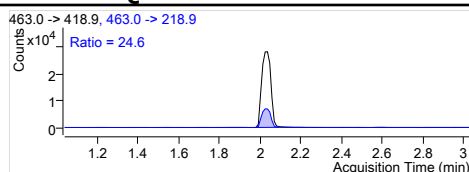
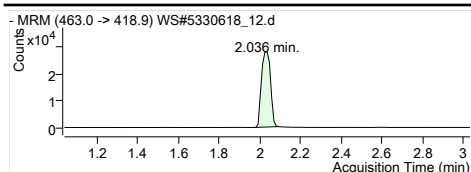


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.58 µg/L
 Sample type: 10.76150
 QC

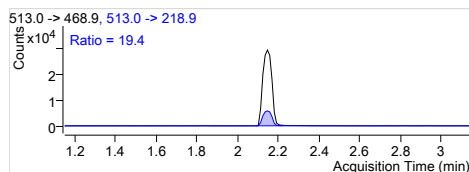
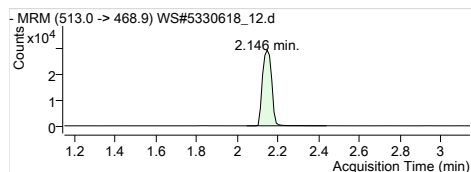


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 0.56 µg/L
 Sample type: 9.35681
 QC

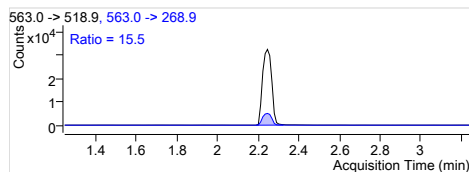
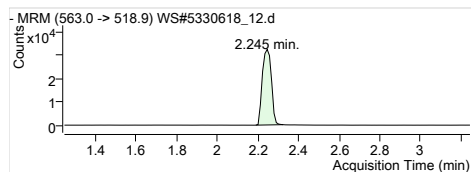
Quantitation Results



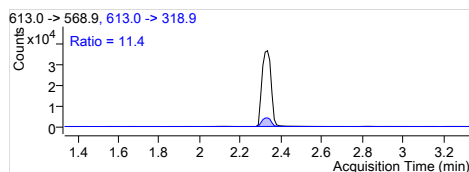
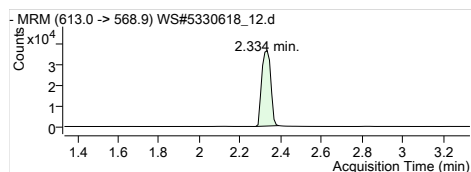
PFNA 1
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.54 µg/L
Area ratio: 9.47408
Sample type: QC



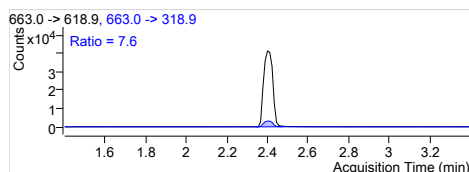
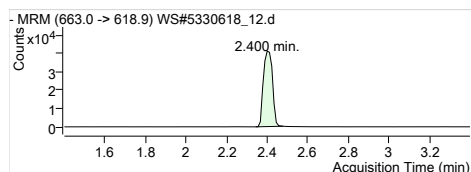
PFDA 1
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 0.56 µg/L
Area ratio: 12.04556
Sample type: QC



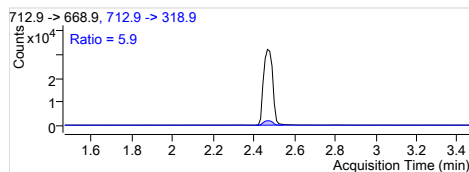
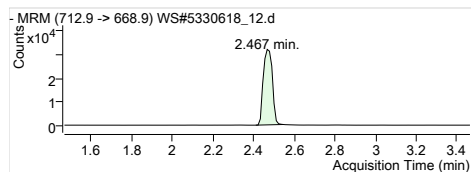
PFUnA 1
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 0.53 µg/L
Area ratio: 10.29487
Sample type: QC



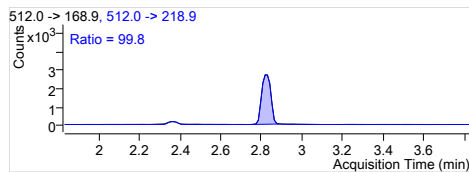
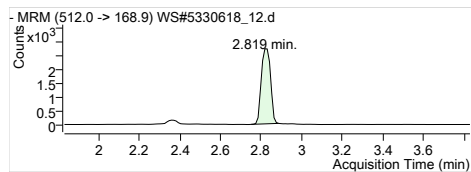
PFDaA 1
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 0.52 µg/L
Area ratio: 9.33461
Sample type: QC



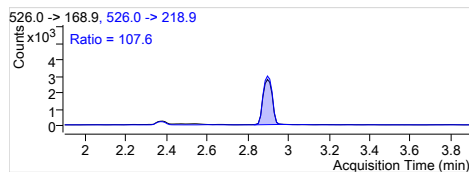
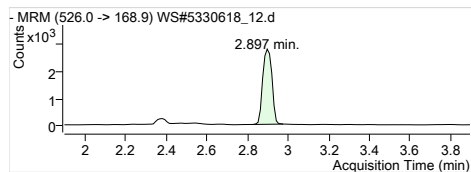
PFTrDA 1
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.59 µg/L
Area ratio: 11.02332
Sample type: QC



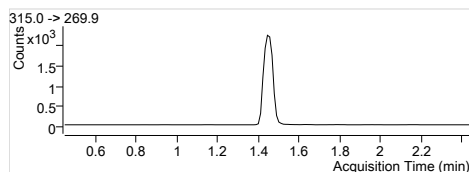
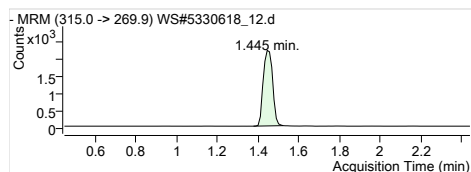
PFTeDA 1
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.56 µg/L
Area ratio: 8.60672
Sample type: QC



MeFOSA 1
RT (Exp. RT): 2.819 (2.831)
Calc. conc. 0.54 µg/L
Area ratio: 2.88551
Sample type: QC

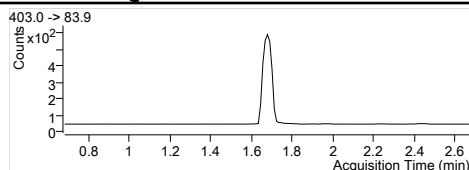
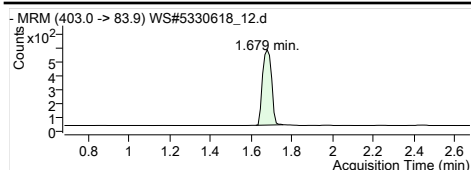


EtFOSA 1
RT (Exp. RT): 2.897 (2.897)
Calc. conc. 0.52 µg/L
Area ratio: 3.43164
Sample type: QC

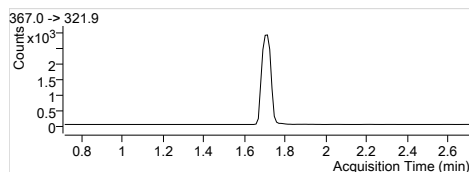
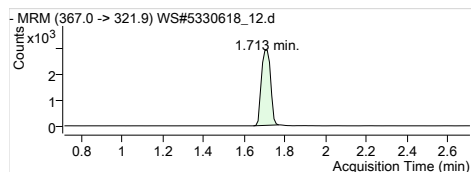


13C2-PFHxA
RT (Exp. RT): 1.445 (1.445)
Calc. conc. 92.30 µg/L
Area ratio: 0.20438
Sample type: QC

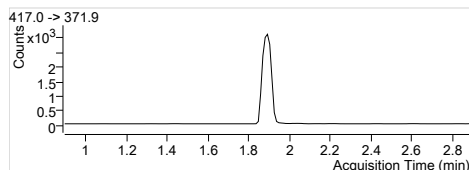
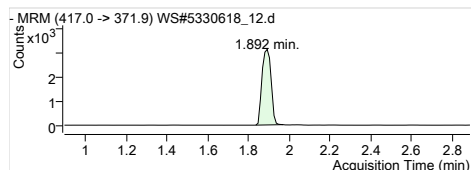
Quantitation Results



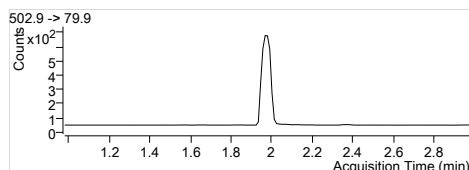
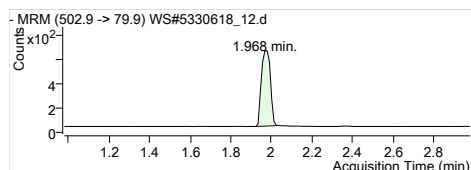
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 90.97 µg/L
Sample type: 0.04828
QC



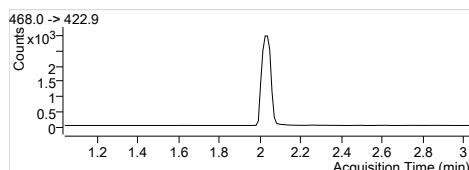
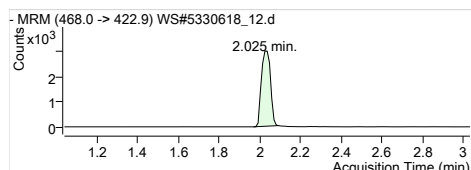
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 93.32 µg/L
Sample type: 0.25890
QC



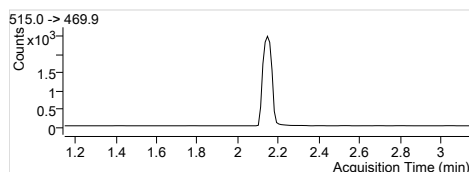
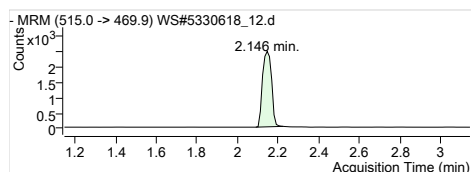
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 92.49 µg/L
Sample type: 0.27709
QC



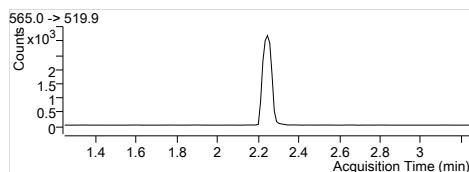
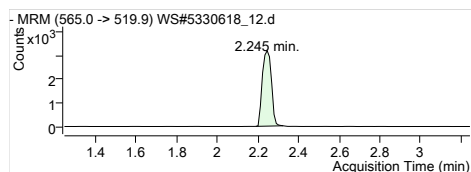
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.968 (1.979)
Area ratio: 87.11 µg/L
Sample type: 0.05623
QC



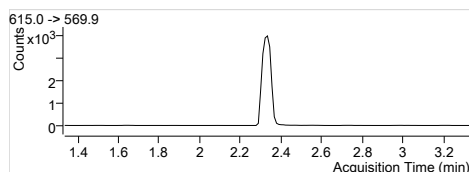
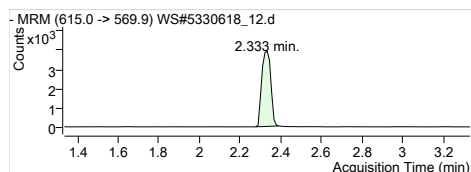
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.025 (2.036)
Area ratio: 94.38 µg/L
Sample type: 0.26440
QC



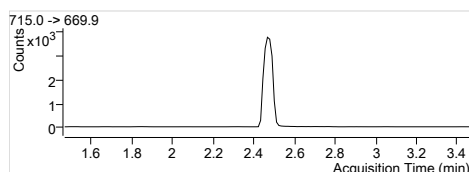
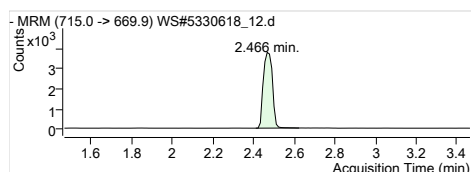
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 90.67 µg/L
Sample type: 0.17268
QC



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 94.48 µg/L
Sample type: 0.22185
QC

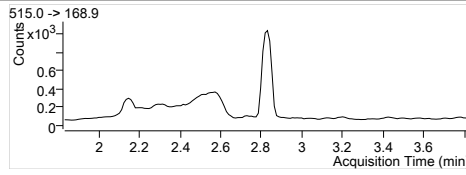
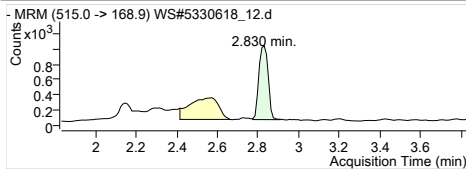


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 91.78 µg/L
Sample type: 0.27468
QC

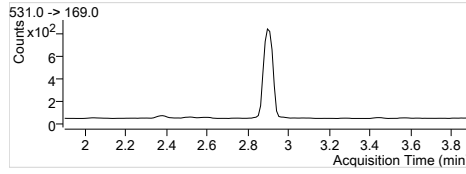
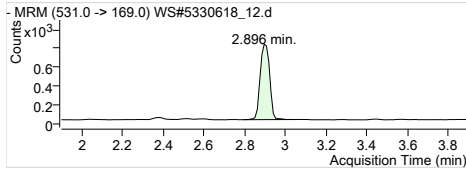


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.466)
Area ratio: 81.24 µg/L
Sample type: 0.26683
QC

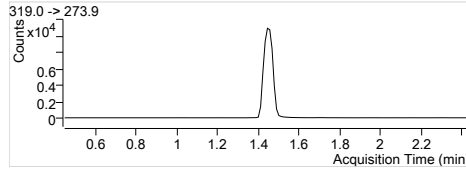
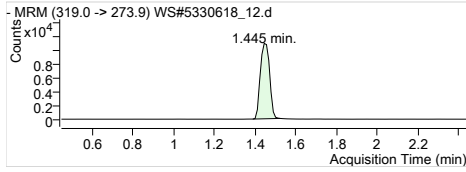
Quantitation Results



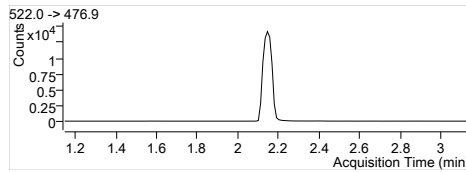
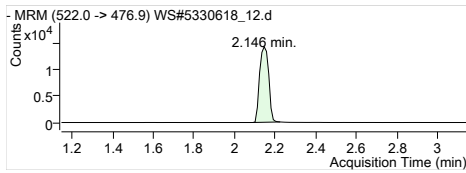
D3-MeFOSA
 RT (Exp. RT): 515.0 -> 168.9
 Calc. conc: 2.830 (2.830)
 Area ratio: 64.63 µg/L
 Sample type: 0.08745
 QC



D5-EtFOSA
 RT (Exp. RT): 531.0 -> 169.0
 Calc. conc: 2.896 (2.896)
 Area ratio: 65.08 µg/L
 Sample type: 0.07441
 QC



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 1.72 µg/L
 Sample type: 0
 QC



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 1.70 µg/L
 Sample type: 0
 QC

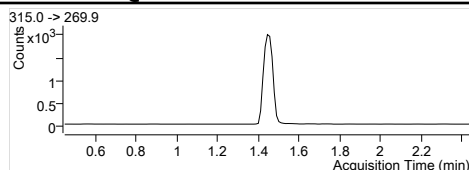
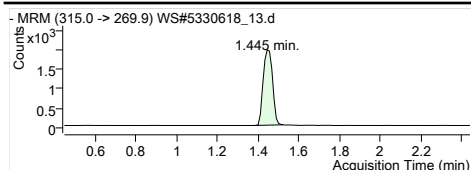
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:MTRX SPK	Instrument	LCMS04
Data File	WS#5330618_13.d	Operator	
Sample Type	QC	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-F1
Acq. Date	2018/01/13 6:14:30 AM	Injection Volume	Per Method
Sample Annotation	FUH133		

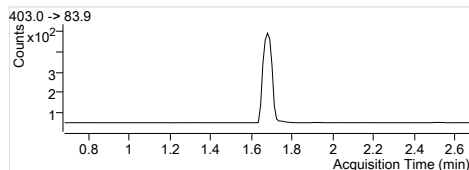
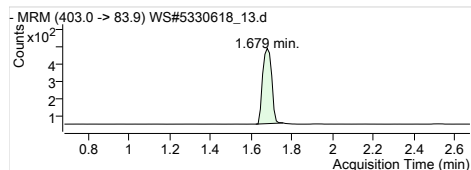
ISTD Compounds	Response	RT	Target conc.	
MPFHxA	6230	1.44	1 µg/L	
MPFHxS	1364	1.68	1 µg/L	
MPFHpA	7626	1.70	1 µg/L	
MPFOA	8798	1.89	1 µg/L	
MPFOS	1811	1.98	1 µg/L	
MPFNA	8255	2.04	1 µg/L	
MPFDA	7136	2.15	1 µg/L	
MPFUnA	8459	2.25	1 µg/L	
MPFDoA	10210	2.33	1 µg/L	
MPFTeDA	11167	2.47	1 µg/L	
D3-MeFOSA IS	2925	2.83	1 µg/L	
D5-EtFOSA IS	2419	2.90	1 µg/L	
13C6-PFHxA IS	29034	1.44	1 µg/L	
13C9-PFDA IS	40043	2.15	1 µg/L	

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	19538	1.10	20.80	0.68 µg/L	135.85
PFHxA 1	109786	1.44	20.80	0.99 µg/L	199.01
PFHxS 1	59001	1.68	20.80	2.39 µg/L	478.19
PFHpA 1	99616	1.70	20.80	0.72 µg/L	143.77
PFOA 1	126652	1.89	20.80	0.78 µg/L	155.74
PFOS 1	116157	1.97	20.80	3.85 µg/L	770.79
PFNA 1	80780	2.02	20.80	0.56 µg/L	111.52
PFDA 1	84666	2.15	20.80	0.55 µg/L	110.26
PFUnA 1	89732	2.25	20.80	0.55 µg/L	109.27
PFDoA 1	101653	2.33	20.80	0.56 µg/L	111.36
PFTTrDA 1	115276	2.40	20.80	0.55 µg/L	110.44
PFTeDA 1	87071	2.47	20.80	0.51 µg/L	101.62
MeFOSA 1	8387	2.82	20.80	0.53 µg/L	106.77
EtFOSA 1	8071	2.90	20.80	0.51 µg/L	101.29
13C2-PFHxA	6230	1.44	100.00	96.90 µg/L	96.90
18O2-PFHxS	1364	1.68	100.00	88.53 µg/L	88.53
13C4-PFHpA	7626	1.70	100.00	94.68 µg/L	94.68
13C4-PFOA	8798	1.89	100.00	101.15 µg/L	101.15
13C4-PFOS	1811	1.98	100.00	96.63 µg/L	96.63
13C5-PFNA	8173	2.04	100.00	100.49 µg/L	100.49
13C2-PFDA	7091	2.15	100.00	92.98 µg/L	92.98
13C2-PFUnA	8459	2.25	100.00	89.97 µg/L	89.97
13C2-PFDoA	10210	2.33	100.00	85.20 µg/L	85.20
13C2-PFTeDA	11281	2.47	100.00	85.77 µg/L	85.77
D3-MeFOSA	2933	2.83	100.00	74.67 µg/L	74.67
D5-EtFOSA	2536	2.90	100.00	76.40 µg/L	76.40
13C6-PFHxA	29034	1.44	100.00	1.44 µg/L	60.04
13C9-PFDA	40043	2.15	100.00	1.55 µg/L	64.68

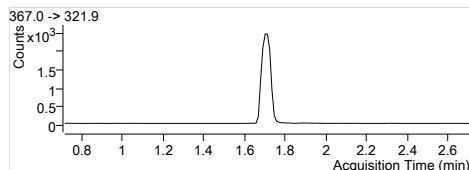
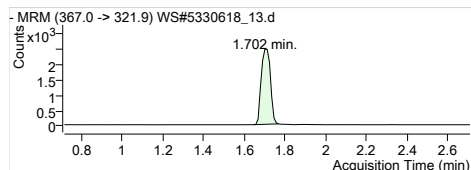
Quantitation Results



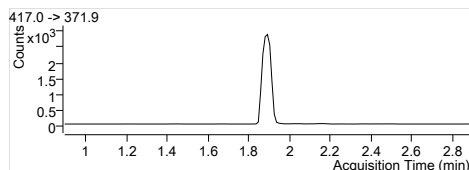
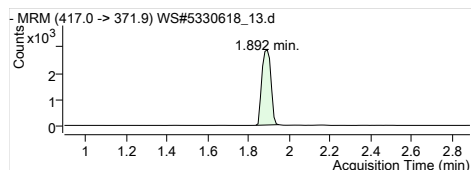
MPFHxA
Internal Standard
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: QC



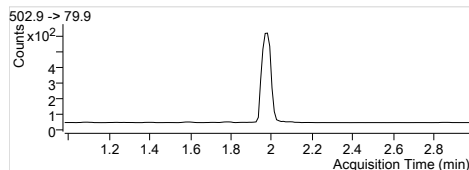
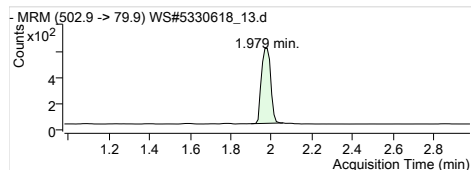
MPFHxS
Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



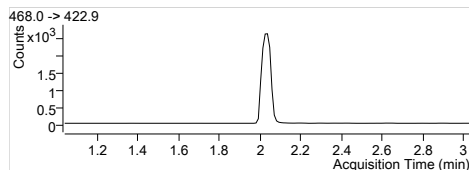
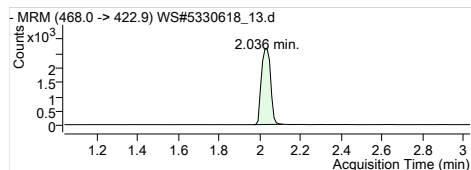
MPFHpA
Internal Standard
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: QC



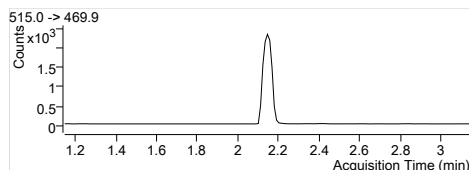
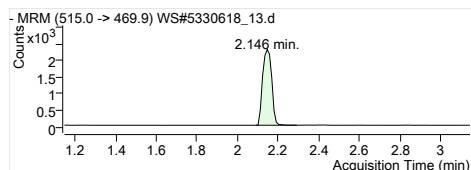
MPFOA
Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



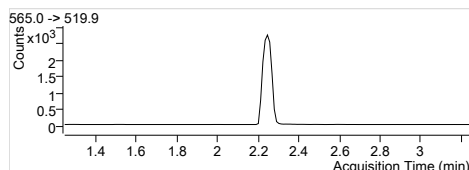
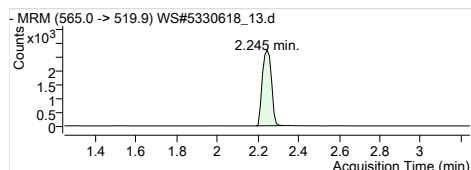
MPFOS
Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



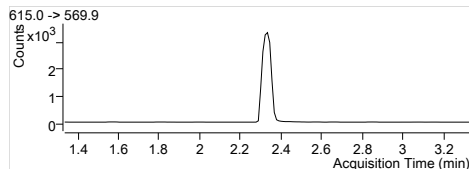
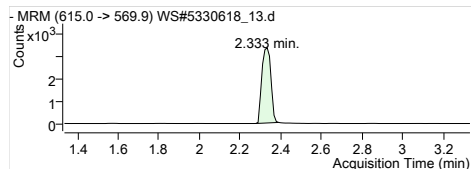
MPFNA
Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC



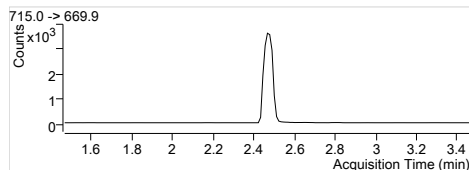
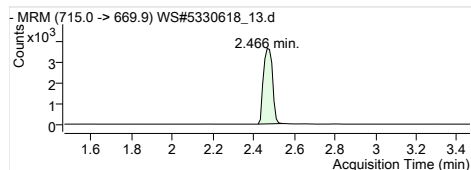
MPFDA
Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



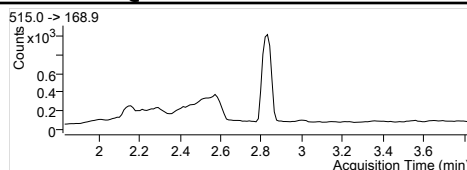
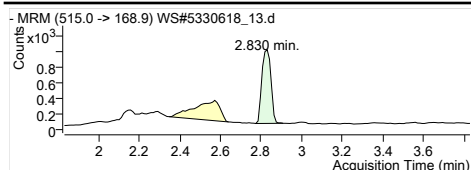
MPFUaA
Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



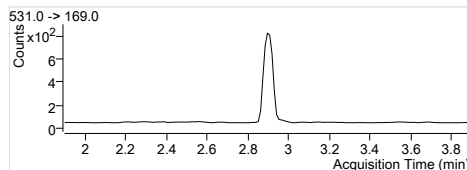
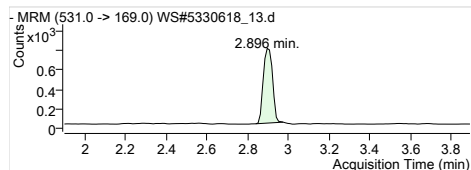
MPFDaA
Internal Standard
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: QC



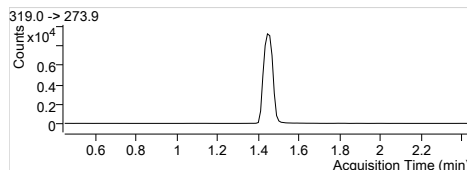
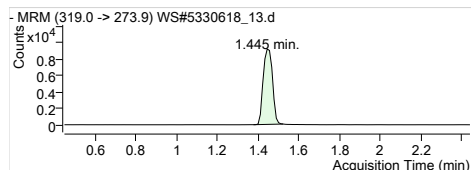
MPFTeDA
Internal Standard
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: QC



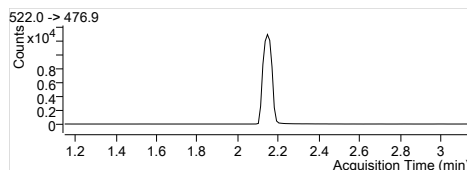
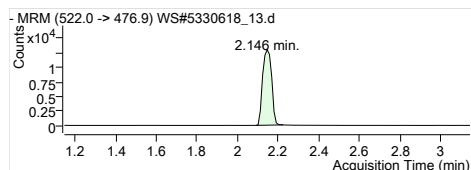
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: QC



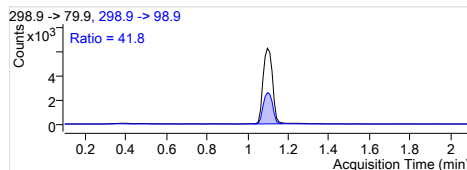
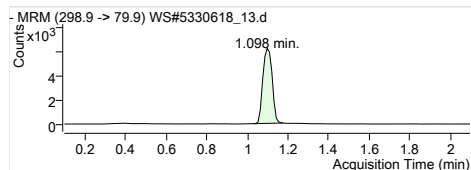
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: QC



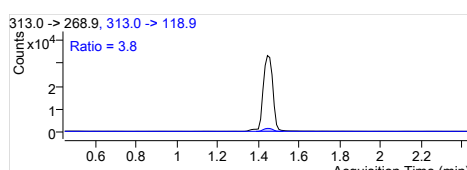
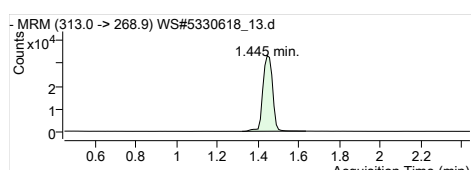
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: QC



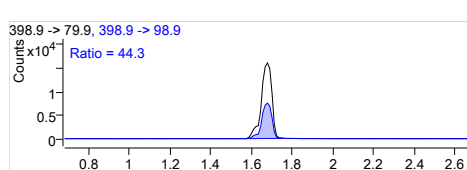
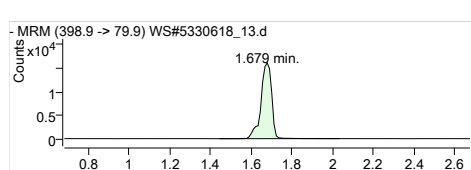
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: QC



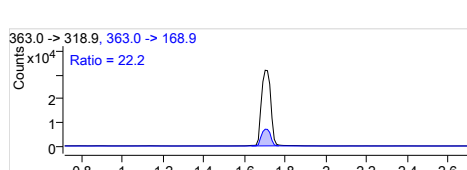
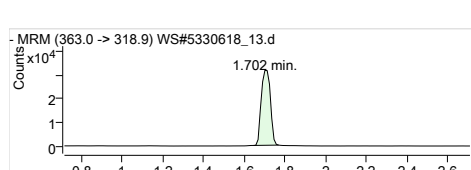
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.68 µg/L
 Sample type: 14.32405
 QC



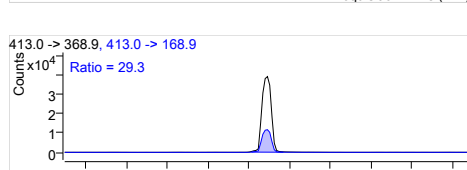
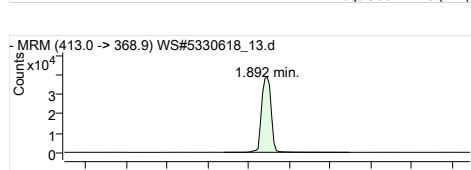
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 0.99 µg/L
 Sample type: 17.62215
 QC



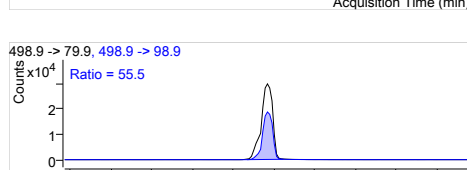
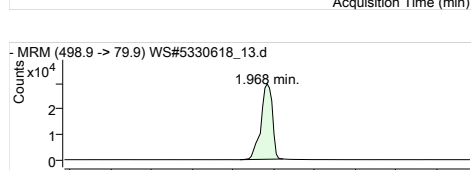
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 2.39 µg/L
 Sample type: 43.25587
 QC



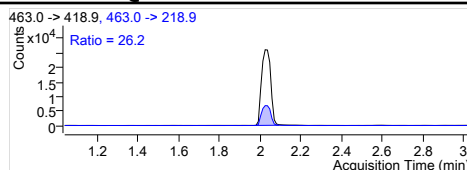
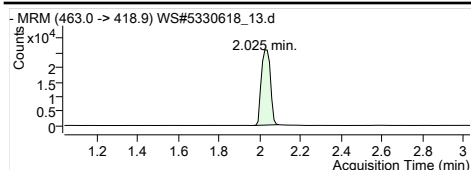
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.72 µg/L
 Sample type: 13.06268
 QC



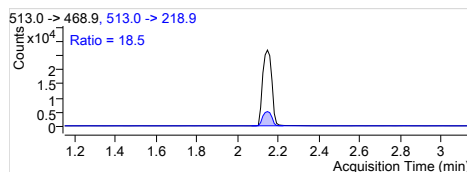
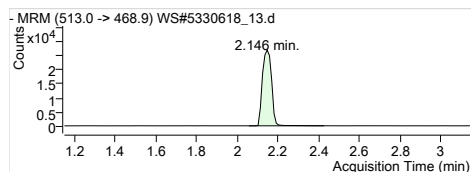
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.78 µg/L
 Sample type: 14.39554
 QC



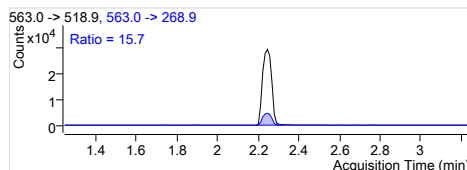
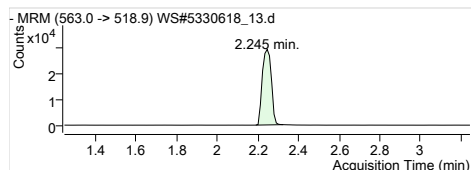
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 3.85 µg/L
 Sample type: 64.13970
 QC



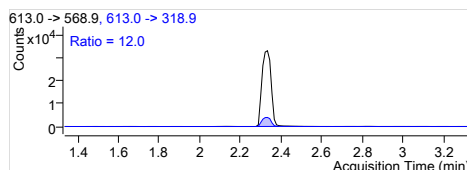
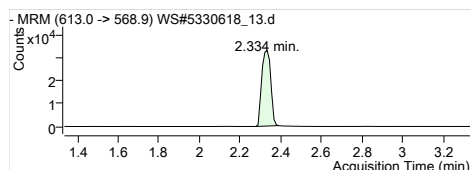
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 0.56 µg/L
 Sample type: 9.78558
 QC



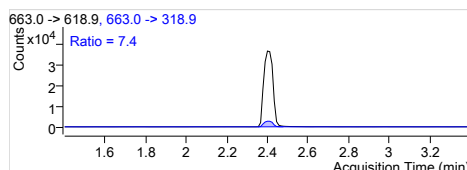
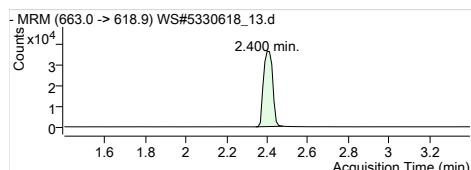
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 0.55 µg/L
 Sample type: 11.86463
 QC



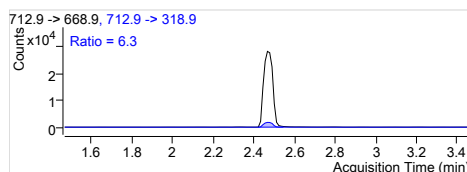
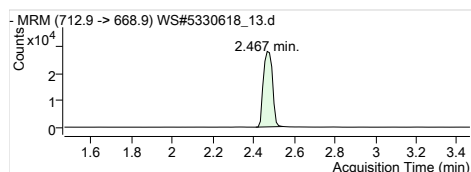
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 0.55 µg/L
 Sample type: 10.60787
 QC



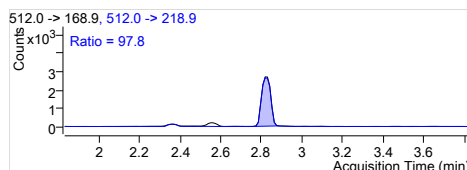
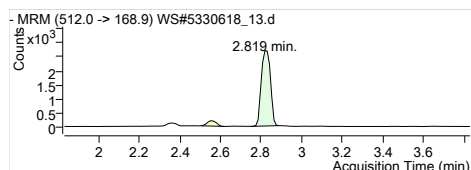
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 0.56 µg/L
 Sample type: 9.95622
 QC



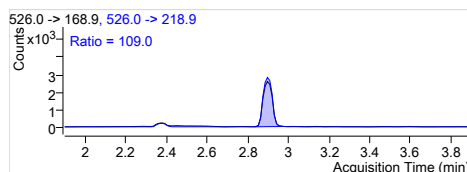
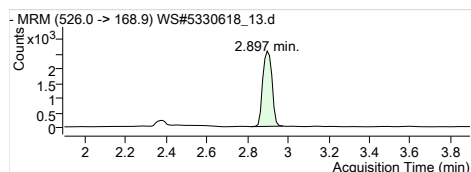
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 0.55 µg/L
 Sample type: 10.32292
 QC



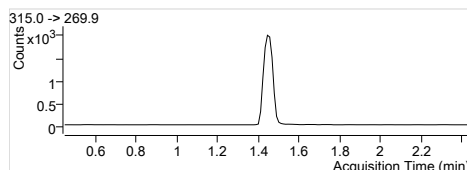
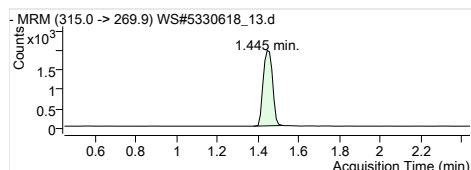
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 0.51 µg/L
 Sample type: 7.79717
 QC



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 0.53 µg/L
 Sample type: 2.86735
 QC

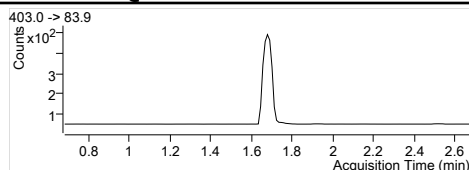
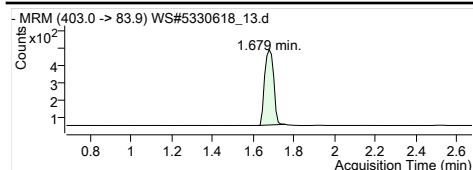


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 0.51 µg/L
 Sample type: 3.33650
 QC

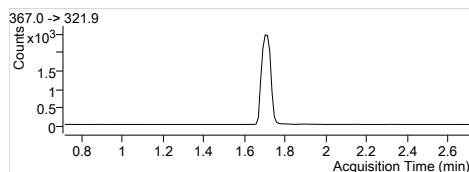
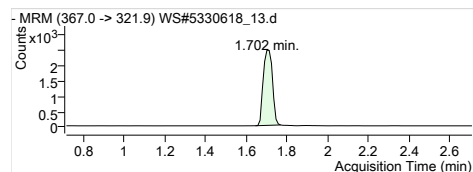


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 96.90 µg/L
 Sample type: 0.21458
 QC

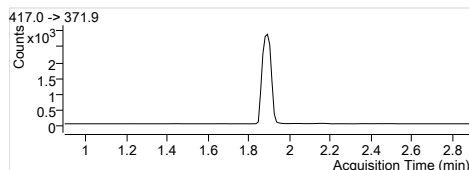
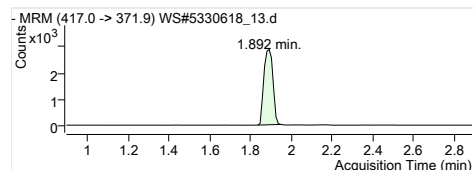
Quantitation Results



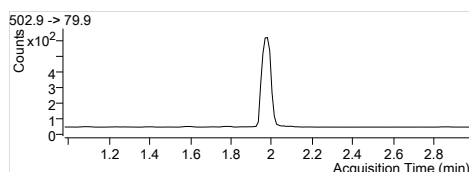
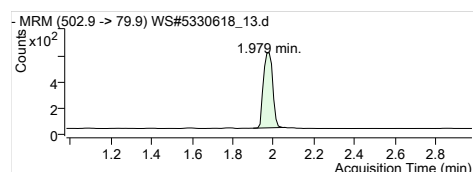
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 88.53 µg/L
 Sample type: 0.04698
 QC



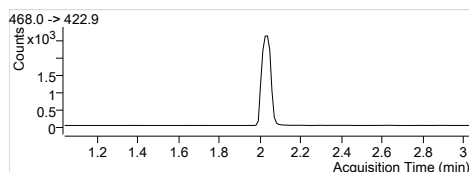
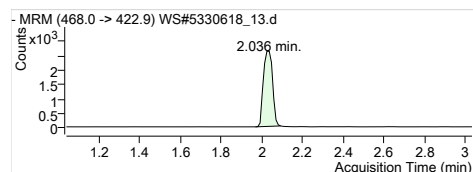
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 94.68 µg/L
 Sample type: 0.26266
 QC



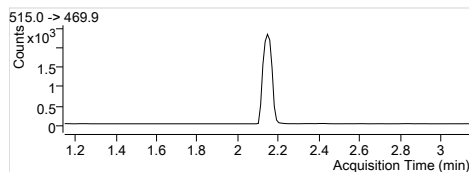
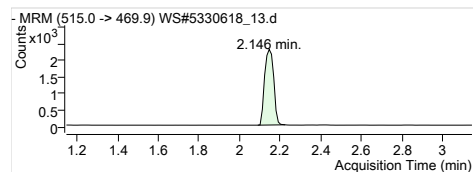
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 101.15 µg/L
 Sample type: 0.30302
 QC



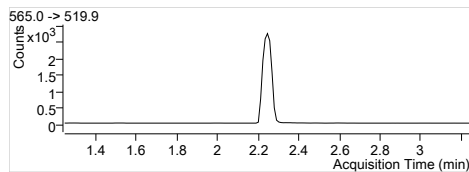
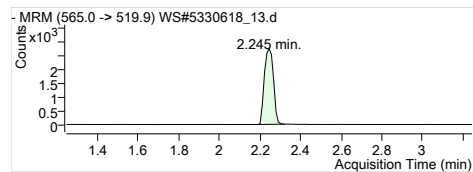
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 96.63 µg/L
 Sample type: 0.06238
 QC



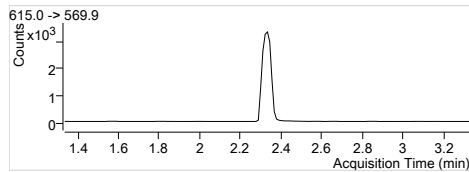
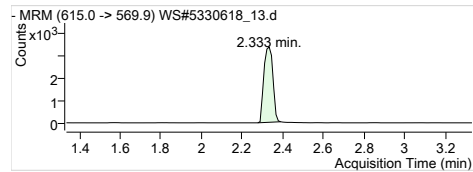
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 100.49 µg/L
 Sample type: 0.28150
 QC



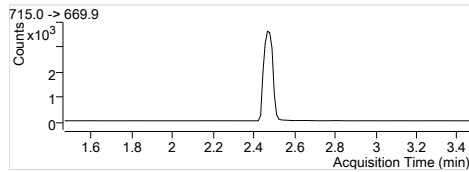
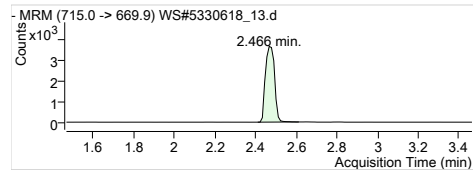
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 92.98 µg/L
 Sample type: 0.17708
 QC



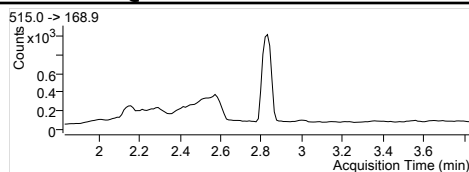
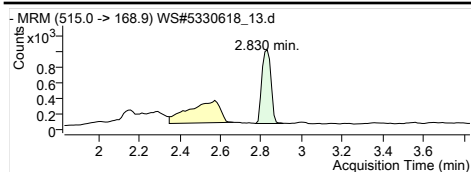
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 89.97 µg/L
 Sample type: 0.21125
 QC



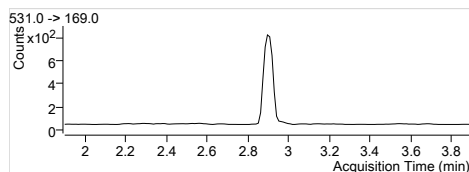
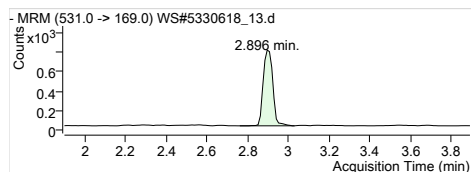
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 85.20 µg/L
 Sample type: 0.25498
 QC



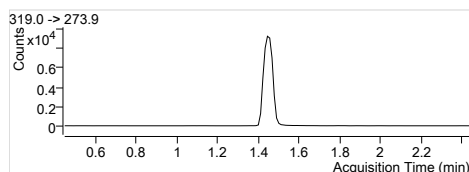
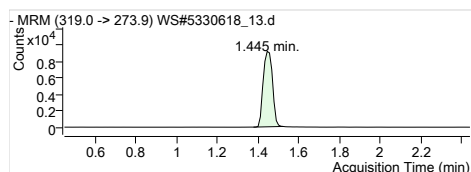
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 85.77 µg/L
 Sample type: 0.28172
 QC



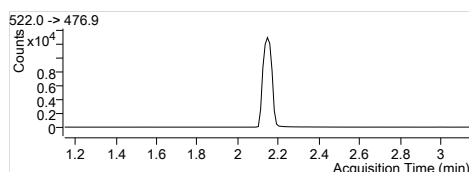
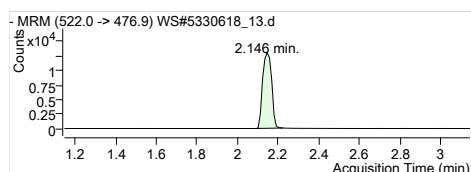
D3-MeFOSA
 RT (Exp. RT): 515.0 -> 168.9
 Calc. conc: 2.830 (2.830)
 Area ratio: 74.67 µg/L
 Sample type: 0.10102
 QC



D5-EtFOSA
 RT (Exp. RT): 531.0 -> 169.0
 Calc. conc: 2.896 (2.896)
 Area ratio: 76.40 µg/L
 Sample type: 0.08735
 QC



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 1.44 µg/L
 Sample type: 0
 QC



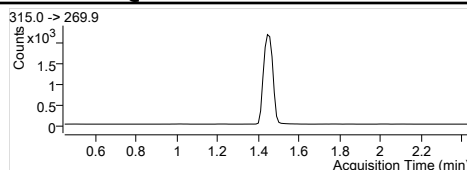
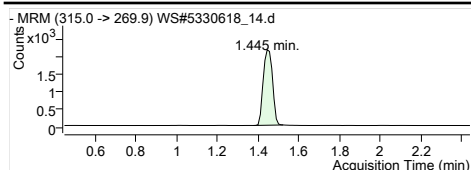
13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 1.55 µg/L
 Sample type: 0
 QC

Quantitation Results

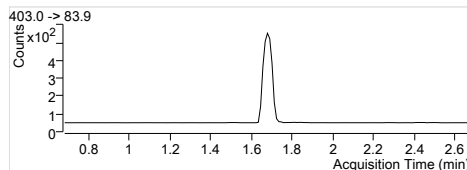
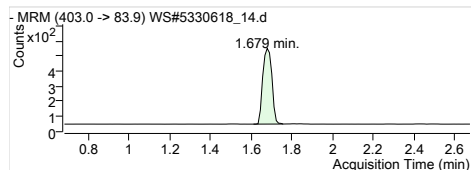
Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	5330618:MTRX SPK:D1	Instrument	LCMS04
Data File	WS#5330618_14.d	Operator	
Sample Type	QC	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P3-F2
Acq. Date	2018/01/13 6:19:26 AM	Injection Volume	Per Method
Sample Annotation	FUH133		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	6835	1.44	1 µg/L
MPFHxS	1569	1.68	1 µg/L
MPFHpA	8357	1.71	1 µg/L
MPFOA	9007	1.89	1 µg/L
MPFOS	1857	1.98	1 µg/L
MPFNA	8350	2.04	1 µg/L
MPFDA	6923	2.15	1 µg/L
MPFUnA	8089	2.25	1 µg/L
MPFDoA	10077	2.33	1 µg/L
MPFTeDA	10863	2.47	1 µg/L
D3-MeFOSA IS	2849	2.83	1 µg/L
D5-EtFOSA IS	2335	2.90	1 µg/L
13C6-PFHxA IS	30209	1.44	1 µg/L
13C9-PFDA IS	39152	2.15	1 µg/L

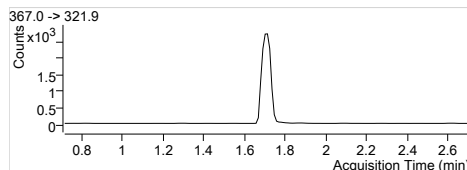
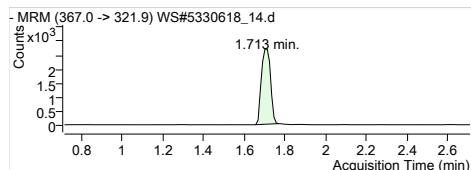
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	20076	1.10	20.80	0.61 µg/L	121.38
PFHxA 1	113548	1.44	20.80	0.94 µg/L	187.62
PFHxS 1	57882	1.68	20.80	2.04 µg/L	407.75
PFHpA 1	102587	1.71	20.80	0.67 µg/L	135.15
PFOA 1	132332	1.89	20.80	0.79 µg/L	158.95
PFOS 1	116802	1.97	20.80	3.77 µg/L	755.88
PFNA 1	84104	2.04	20.80	0.57 µg/L	114.77
PFDA 1	87621	2.15	20.80	0.59 µg/L	117.59
PFUnA 1	88823	2.25	20.80	0.56 µg/L	113.11
PFDoA 1	102094	2.33	20.80	0.57 µg/L	113.31
PFTTrDA 1	117797	2.40	20.80	0.58 µg/L	116.00
PFTeDA 1	89898	2.47	20.80	0.54 µg/L	107.83
MeFOSA 1	8439	2.82	20.80	0.55 µg/L	110.30
EtFOSA 1	7946	2.90	20.80	0.52 µg/L	103.30
13C2-PFHxA	6835	1.44	100.00	102.17 µg/L	102.17
18O2-PFHxS	1569	1.68	100.00	97.87 µg/L	97.87
13C4-PFHpA	8357	1.71	100.00	99.72 µg/L	99.72
13C4-PFOA	9007	1.89	100.00	99.53 µg/L	99.53
13C4-PFOS	1857	1.98	100.00	95.23 µg/L	95.23
13C5-PFNA	8249	2.04	100.00	97.48 µg/L	97.48
13C2-PFDA	6868	2.15	100.00	92.11 µg/L	92.11
13C2-PFUnA	8089	2.25	100.00	87.99 µg/L	87.99
13C2-PFDoA	10077	2.33	100.00	86.00 µg/L	86.00
13C2-PFTeDA	11064	2.47	100.00	86.04 µg/L	86.04
D3-MeFOSA	2876	2.83	100.00	70.37 µg/L	70.37
D5-EtFOSA	2365	2.90	100.00	68.47 µg/L	68.47
13C6-PFHxA	30209	1.44	100.00	1.50 µg/L	62.47
13C9-PFDA	39152	2.15	100.00	1.52 µg/L	63.24



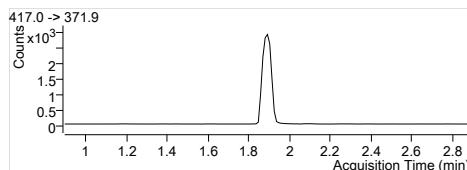
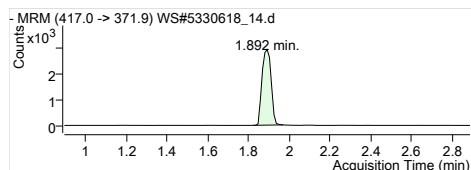
MPFHxA
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: QC



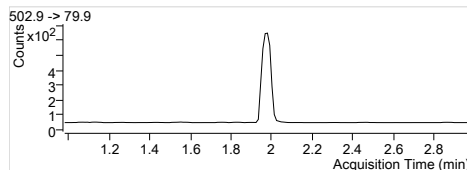
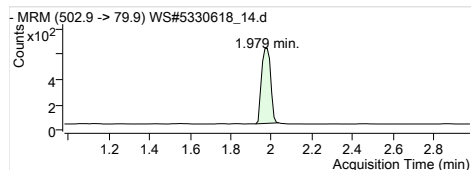
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: QC



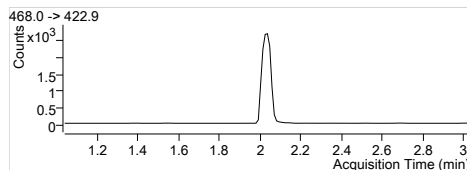
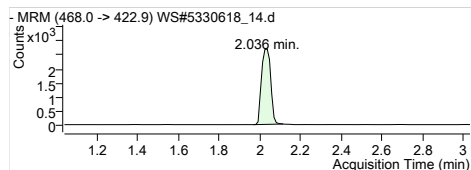
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: QC



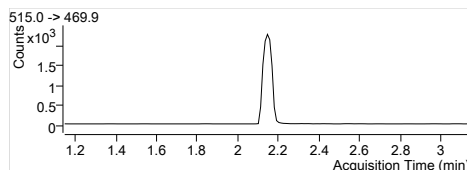
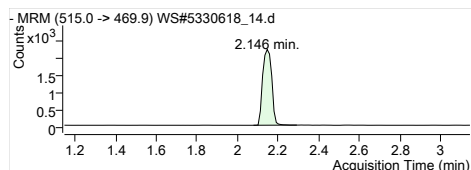
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: QC



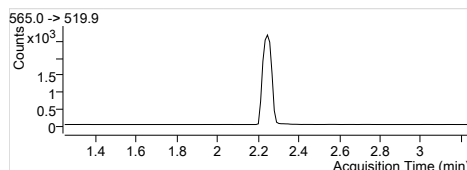
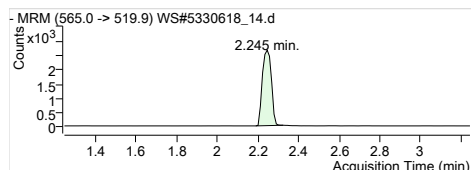
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: QC



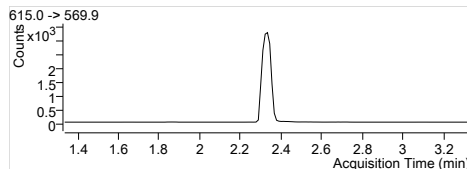
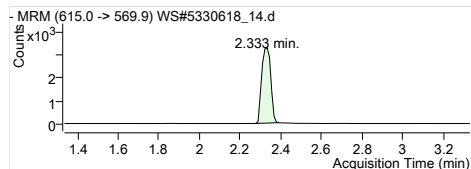
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: QC



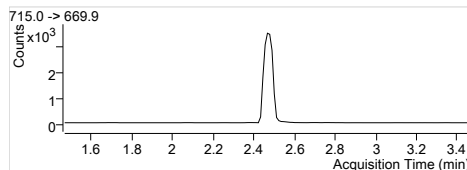
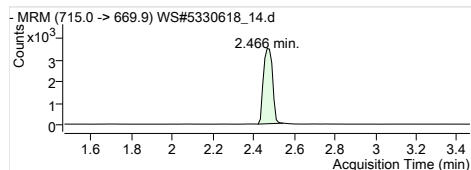
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: QC



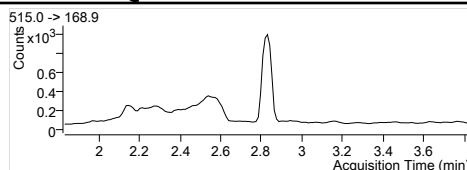
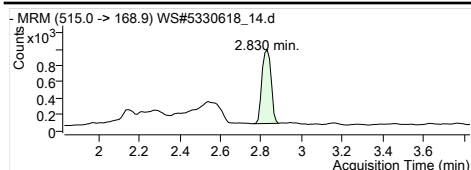
MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: QC



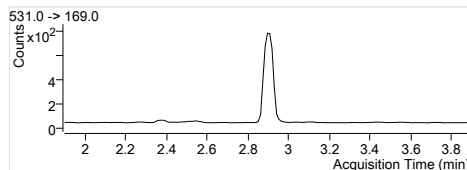
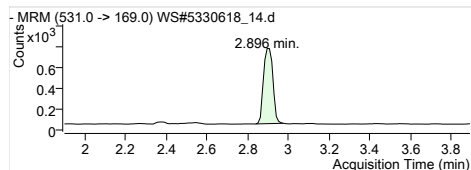
MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: QC



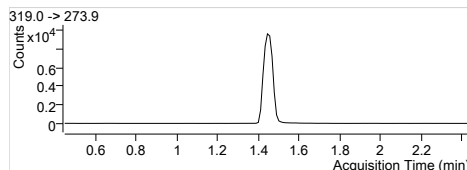
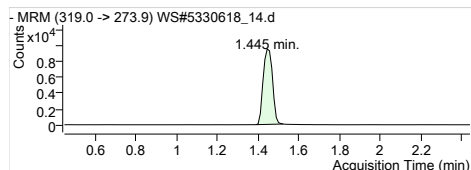
MPFTEA
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: QC



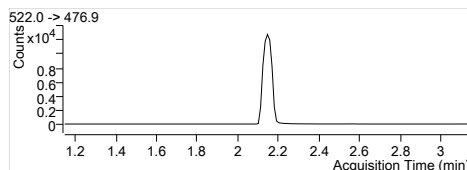
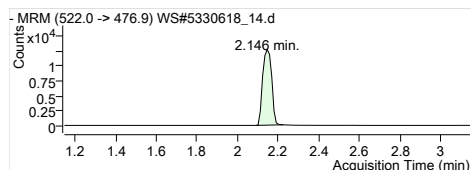
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: QC



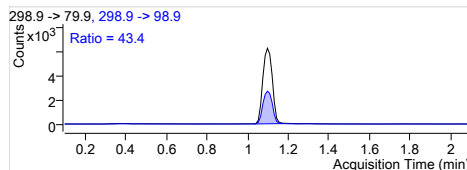
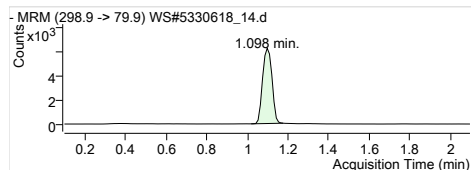
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: QC



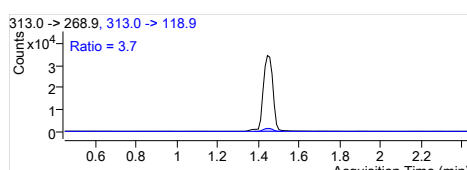
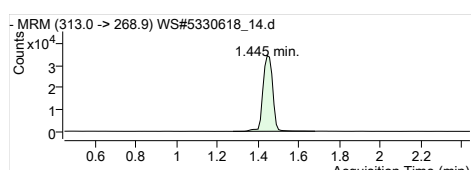
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: QC



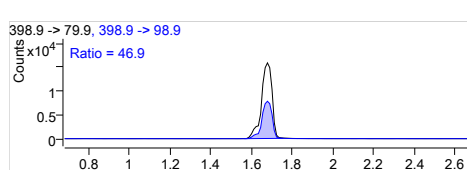
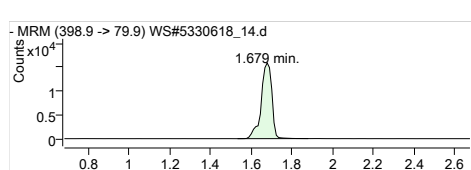
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: QC



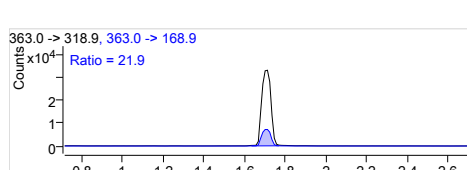
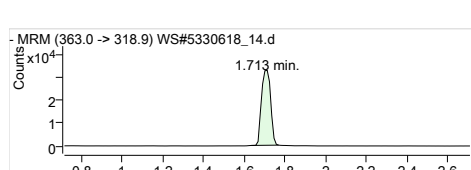
PFBS 1
 298.9 -> 79.9
 RT (Exp. RT): 1.098 (1.098)
 Calc. conc. 0.61 µg/L
 Area ratio: 12.79541
 Sample type: QC



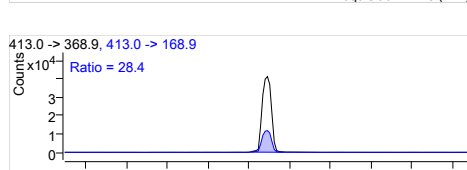
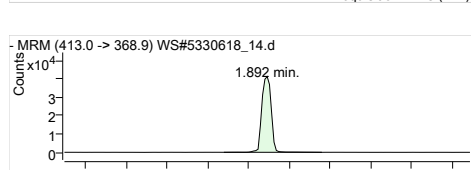
PFHxA 1
 313.0 -> 268.9
 RT (Exp. RT): 1.445 (1.445)
 Calc. conc. 0.94 µg/L
 Area ratio: 16.61273
 Sample type: QC



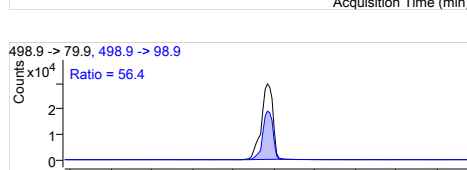
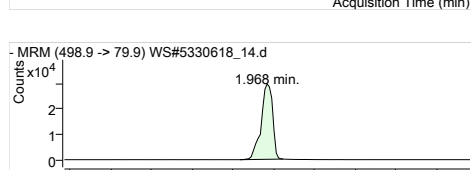
PFHxS 1
 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.679)
 Calc. conc. 2.04 µg/L
 Area ratio: 36.89101
 Sample type: QC



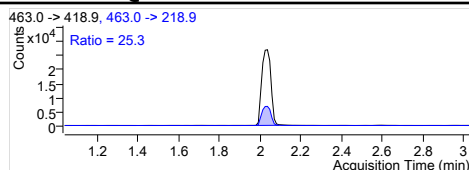
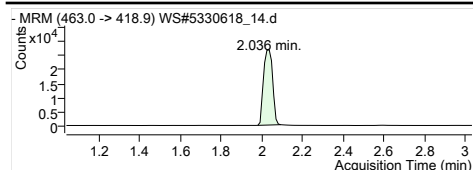
PFHpA 1
 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 0.67 µg/L
 Area ratio: 12.27558
 Sample type: QC



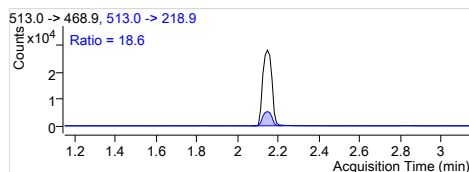
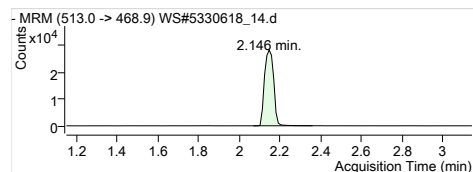
PFOA 1
 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 0.79 µg/L
 Area ratio: 14.69213
 Sample type: QC



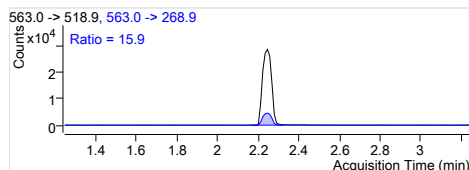
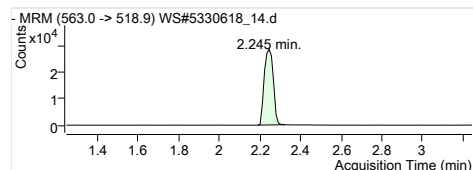
PFOS 1
 498.9 -> 79.9
 RT (Exp. RT): 1.968 (1.968)
 Calc. conc. 3.77 µg/L
 Area ratio: 62.89822
 Sample type: QC



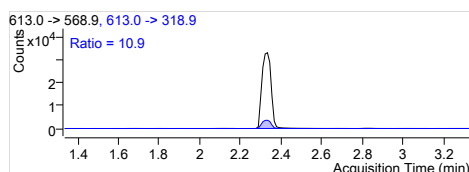
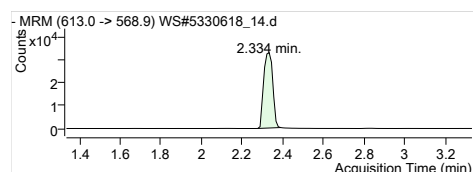
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 0.57 µg/L
 Sample type: 10.07234
 QC



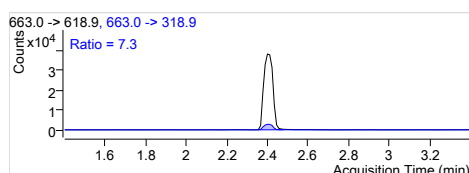
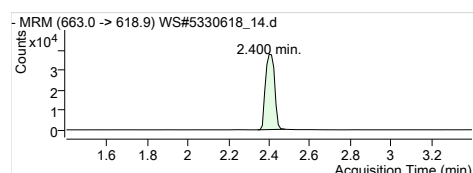
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 0.59 µg/L
 Sample type: 12.65651
 QC



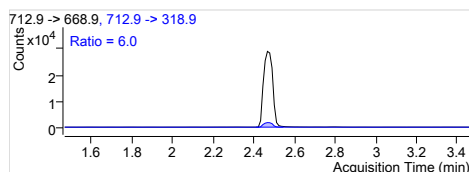
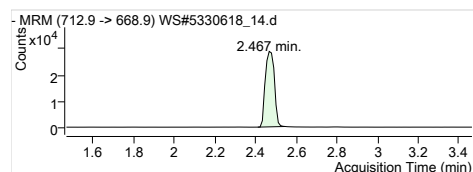
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 0.56 µg/L
 Sample type: 10.98071
 QC



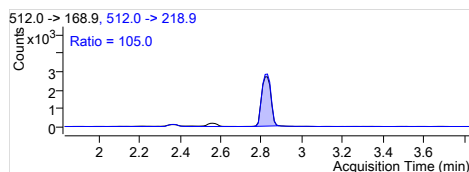
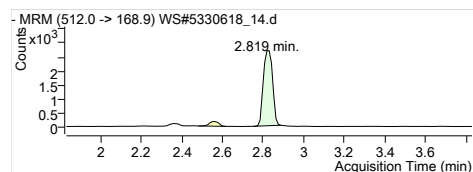
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 0.57 µg/L
 Sample type: 10.13139
 QC



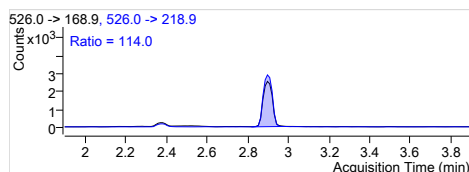
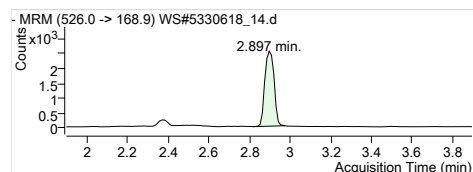
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 0.58 µg/L
 Sample type: 10.84387
 QC



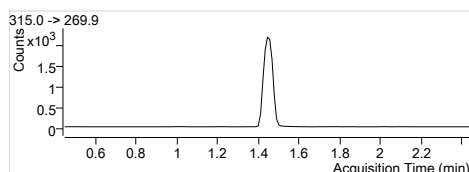
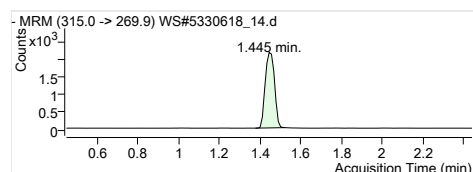
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 0.54 µg/L
 Sample type: 8.27561
 QC



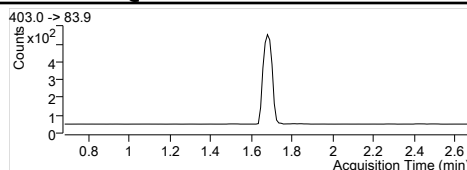
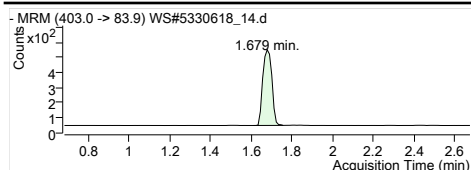
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 0.55 µg/L
 Sample type: 2.96209
 QC



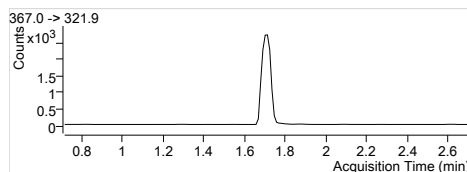
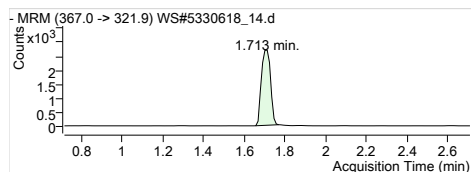
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 0.52 µg/L
 Sample type: 3.40300
 QC



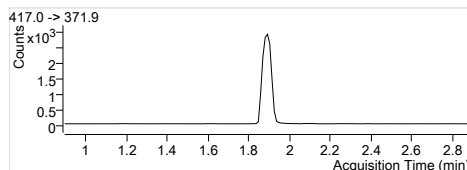
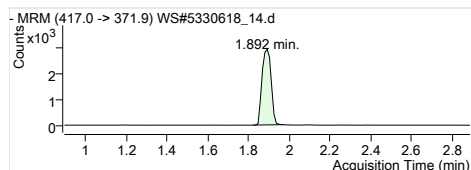
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 102.17 µg/L
 Sample type: 0.22626
 QC



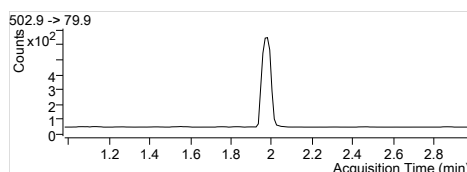
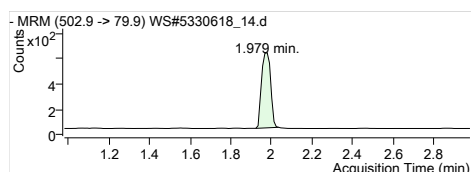
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 97.87 µg/L
 Sample type: 0.05194
 QC



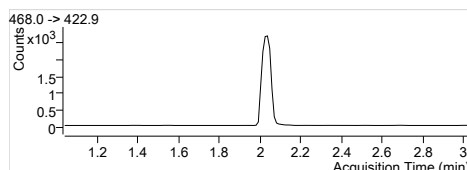
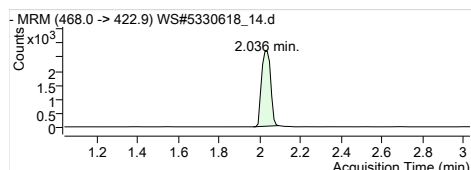
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 99.72 µg/L
 Sample type: 0.27664
 QC



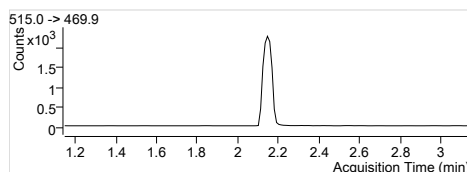
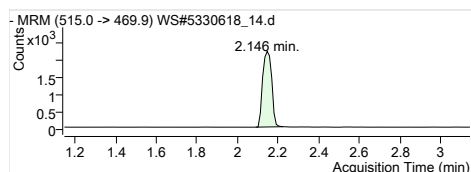
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 99.53 µg/L
 Sample type: 0.29816
 QC



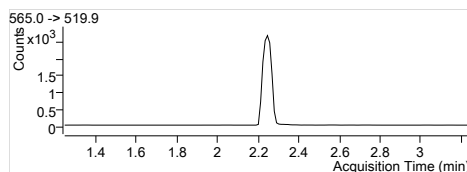
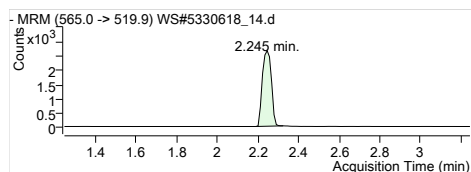
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 95.23 µg/L
 Sample type: 0.06147
 QC



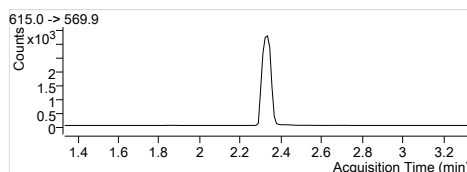
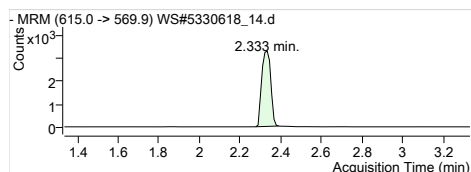
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 97.48 µg/L
 Sample type: 0.27306
 QC



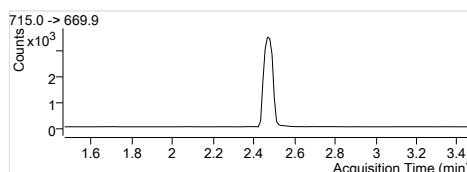
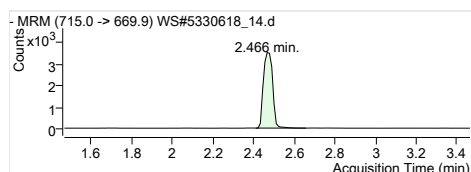
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 92.11 µg/L
 Sample type: 0.17542
 QC



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 87.99 µg/L
 Sample type: 0.20661
 QC

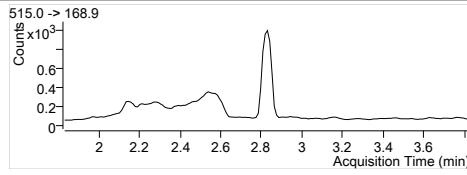
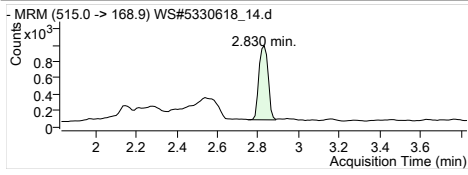


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 86.00 µg/L
 Sample type: 0.25738
 QC

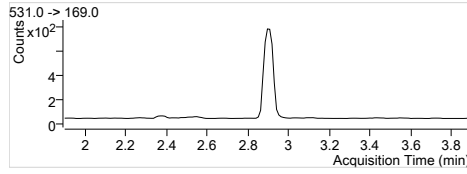
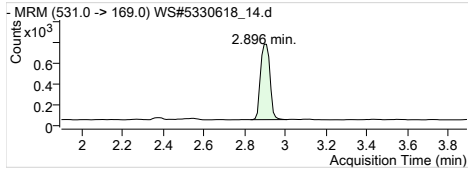


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 86.04 µg/L
 Sample type: 0.28259
 QC

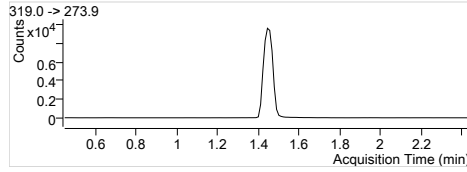
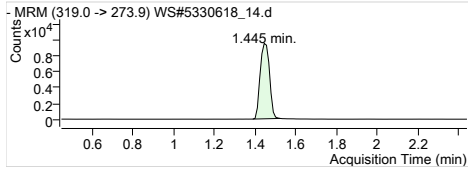
Quantitation Results



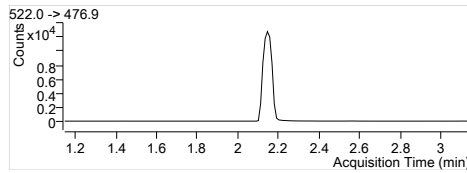
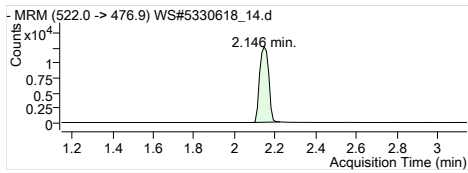
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 70.37 µg/L
Area ratio: 0.09520
Sample type: QC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 68.47 µg/L
Area ratio: 0.07829
Sample type: QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 1.50 µg/L
Area ratio: 0
Sample type: QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 1.52 µg/L
Area ratio: 0
Sample type: QC

DoD Projects - Internal Data Validation Checklist						
Run date: 2018/01/13						
Worksheet # (s): 5330576						
Analysis: PF05ALCM-W			1st 100% review		*2nd 100% review	
Primary review by the analyst - 1st 100 % analysis review			yes	no	n/a	review
1	Sample analyses meet hold time criteria		✓			✓
2	Analysis set-up meets method criteria		✓			✓
3	Tuning and correct calibration used - criteria meets method criteria		✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control		✓			✓
5	Internal area counts checked (if applicable)		✓			✓
6	LCS, SRM are within acceptance criteria		✓			✓
7	Surrogate Recovery(s) is within acceptance criteria			✓		✓
8	Method Blank meets acceptance criteria		✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria				✓	✓
10	Duplicate precision meets acceptance criteria		✓			✓
11	QC is documented on the run logs		✓			✓
12	Runs checked for carryover		✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts		✓			✓
14	Initial weights, splits, imprinter volumes (where applicable) are documented		✓			✓
15	Standards and reagents traceable to Certificates of Analysis		✓			✓
16	Samples above calibration range diluted and reanalyzed		✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered		✓			✓
18	Analytical observations/anomalies documented in LIMS				✓	✓
19	Random calculation checked and in correct units		✓			✓
20	If corrective actions were applied they are documented, initialed & dated		✓			✓
21	Manual integration – before & after data with a reason included, initialed & dated				✓	✓
22	Transferred data is validated in LIMS for correctness		✓			✓
23	Data package assembled (where required)		✓			✓
Reviewed by: AD		Date: 2018/01/15				
Comments:						
Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review			yes	no	n/a	
1	Repeats documented and referenced				✓	
2	Method and sample deviations noted, anomalies described (if applicable)				✓	
3	Data and QC validated in LIMS				✓	
4	Random calculation checked		✓			
5	Benchsheet (s) signed and dated		✓			
6	Data Package (if required) checked for completeness		✓			
Reviewed by: [Signature]		Date: 2/2/2018				
Comments:						

*Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5330576 Testcode: PFO SALCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present	✓		
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		✓
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.			
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SSV Date: 2017/12/23

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Refer to
BRL FCD-00002/19

AD
2018/01/15

Reviewed by: _____ Date: _____

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: _____ Date: _____

Comments:

WS# : 5330576

Page #: 1/2



Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Saturday, December 23, 2017

Assigned to : Shivani Shivani

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

Job Number	Sample Number	D	Sample ID	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	SPIKE	0	PFOS	0	125	3	1X				2017/12/23
	SPIKE	1	PFOS	0	125	3	1X				2017/12/23
	BLANK			0	125	3	1X				2017/12/23
B7S7424	*FUH125-01R	06-MW25-1217	<0.1	25/12.5	3	5X/50X	2	2017/12/26	2018/01/04 18:00	DOD	2017/12/23
B7S7424	*FUH126-01R	06-MW26-1217	<0.1	125/12.5	3	1X/10X	2	2017/12/26	2018/01/04 18:00	DOD	2017/12/23
B7S7424	*FUH127-01R	06-MW30-1217	<0.1	125	3	1X	2	2017/12/26	2018/01/04 18:00	DOD	2017/12/23
B7S7424	*FUH128-01R	06-MW31-1217	<0.1	125/12.5	3	1X/10X	2	2017/12/26	2018/01/04 18:00	DOD	2017/12/23
B7S7795	FUI835-01R	[REDACTED]	0	125	3	1X	2	2017/12/25	2018/01/05 18:00		2017/12/23
B7S7795	FUI836-01R	[REDACTED]	0	125	3	1X	2	2017/12/25	2018/01/05 18:00		2017/12/23
B7S7795	FUI837-01R	[REDACTED]	0	280	6	1X	1	2017/12/25	2018/01/05 18:00		2017/12/23
B7S7795	FUI838-01R	[REDACTED]	0	125	3	1X	2	2017/12/26	2018/01/05 18:00		2017/12/23
B7S7795	FUI839-01R	[REDACTED]	0	125	3	1X	2	2017/12/26	2018/01/05 18:00		2017/12/23
B7S7795	FUI840-01R	[REDACTED]	0	125	3	1X	1	2017/12/26	2018/01/05 18:00		2017/12/23
B7S9360	*FUQ574-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
B7S9360	*FUQ575-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
B7S9360	*FUQ576-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
B7S9360	*FUQ577-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
B7S9360	*FUQ578-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
B7S9360	*FUQ579-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
B7S9360	*FUQ580-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
B7S9360	*FUQ581-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
B7S9360	*FUQ582-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
B7S9360	*FUQ583-01R	[REDACTED]	<0.1	125	3	1X	2	2017/12/24	2018/01/09 18:00		2017/12/23
2017/12/23 SSV											

5-5
5-3
5-1
5-7-18
5-10-11
5-13
5-15-16
5-18
5-20
5-22
5-24
6-1
6-3
6-5
6-7
6-9
6-11
6-13
6-15
6-17
6-19
6-21
6-23

addimat no final

Remarks: • Carbon Clean up done.
• Sp1a / Sp1b Dup used instead of sample / sample Dup due to insufficient volumes of samples.

Samples extracted by: Shivani Shivani

Instrumentation performed by: [Signature]

Date: 2018/01/12

Calculations performed by: AD

Date: 2018/01/15

Validated by: [Signature]

Date: 2018/01/15

Job No.	Rep	Client Name	Contact	Client Tier	National
	Remarks				
GB7S7424	SP8	EMAX Laboratories Inc	Richard Beauvil	Tier 4 (Enviro.)	
	NREG. PFOSALCM-W *MS/MSD required on FUH133 PMA please do not change* Level IV data package and NEDD EDD and EDF EDD required *PM check report comments for DoD accreditation Project #: TREASURE ISLAND, IR SITE 06				*job has been updated to generate EDD,
DB7S7795	[REDACTED]				
GB7S9360	[REDACTED]				

Job	Sample	Lab Comments
	SPIKE	
	SPIKE	
	BLANK	
B7S7424	FUH125-01R	
B7S7424	FUH126-01R	9 centrifuge sample at 4000 rpm.
B7S7424	FUH127-01R	
B7S7424	FUH128-01R	11
B7S7795	FUI835-01R	
B7S7795	FUI836-01R	
B7S7795	FUI837-01R	
B7S7795	FUI838-01R ①	
B7S7795	FUI839-01R	
B7S7795	FUI840-01R	
B7S9360	FUQ574-01R	
B7S9360	FUQ575-01R	
B7S9360	FUQ576-01R ①	
B7S9360	FUQ577-01R	9 centrifuge sample at 4000 rpm.
B7S9360	FUQ578-01R	
B7S9360	FUQ579-01R	
B7S9360	FUQ580-01R	
B7S9360	FUQ581-01R	
B7S9360	FUQ582-01R	
B7S9360	FUQ583-01R	

	Calibration Standard #	meon(µe)	Spl(µe)	
S ₁		2825	25	} SK-7221
S ₂		2800	50	
S ₃		2700	150	
S ₄		2813	375	} I-5197
S ₅		2775	75	
S ₆		2725	125	} I-5203
ICV		2788	62.5	
IS		2850		

↓
150(µe)

① visual evaporation was observed in vial. AD
2018/01/15

Worksheet Reagent Tracking Record

Worksheet # 5330576

Surrogate/Spike solutions	✓	Solution ID #	Conc.	Blk-Spk		MS		Samples	
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	T-5203(2/3)	1ug/mL	75	21	62.5	75	21	62.5
PFC Internal Standard Solution	✓	SI-6741(1/4) KPC	50/125 ng/mL	200	100	150	200	100	150
PFC Injection IS	✓	SI-6716(2/4) KPC	100 400 ng/mL	20	20	20	20	20	20
ICV	✓	IS203(2/3)	1ug/mL		62.5				
Solvent/Reagent	✓	Lot No.	Date Opened	Solvent/Reagent	✓	Lot No.	Date Opened/ Prepared	*Spiked by: SSV	
DCM				50% NaOH				Spike Date 2/17/12/23	
Ottawa Sand				o-Phosphoric Acid				Spike Syringe/Pipette ID# G243909 N31477F	
Methanol	✓	SI150545	2017/12/23	Borax				Int. Std Syringe/Pipette ID# K19865F	
2-Propanol (IPA)				Calcium Chloride				Injection IS # G243909	
Acetonitrile				EDTA				*Spiking Witnessed by: KPC	
Sodium Sulfate				Phosphate Buffer				Final pH	
70:30 Methanol: Water				Sodium Thiosulphate				X	
60:40 Water: Methanol	✓	PRURE-108-232		DNPH					
DCM:Ethyl Ether (75:25)				FMOC					
Hexane:IPA (98:2)				5M Acetate Buffer					
2% Formic Acid	✓	PRURE-108-236		0.2% NH ₄ OH	✓	PRURE-108-235			
0.2% Formic Acid				Leachate Fluid					
0.05M KOH				Reagent Water	✓	57297	2017/12/23		
0.05M HCl									
Equipment & ID	✓	Equipment	ID#	✓	Equipment	Lot #	Bottle Tracking		
Pipettor	✓	SPE Cartridge	003337149A	✓	QC Balance ID	FC-1	Bottle#	18630	
	✓	Filter			Thermometer ID &Temp		Cap#	18422	
Dispenser		Centrifuge	42148683	3:40-3:45			Systems plus Lot#		
		Sonicator					17/12/12		

K19865F,
N31477F,
K55191G,
K39876F

Comments:

250 mL Volumetric Cylinder # 3026
Enviro Carb # 92806V

Worksheet: S330576

Dilution and Column Cleanup Worksheet

Maxxam Analytics

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL SSV DATE	Column Clean Up
B7S7424	FUN125	-	5X	2.5	-	150	2.5	2017/12/23	-
	FUN125	-	50X	2.5	122.5	150	12.5	2017/12/23	-
B7S7424	FUN126	-	10X	12.5	-	150	12.5	2017/12/23	-
	FUN128	-	10X	12.5	-	150	12.5	2017/12/23	-

2017/12/23 SSV

10 ml # K55191G
 5 ml # K39876F
 Volumetric cylinder # 3026

Worksheet Number: 5330576

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	Units	SPIKE	SPIKE Dup1	BLANK	DL	B7S7424 FUH125	DL
6:2 Fluorotelomer sulfonate	ug/L	125.04454	122.98664	0	0.02	N/A *****	0.1
8:2 Fluorotelomer sulfonate	ug/L	100.13267	110.09256	0	0.02	N/A *****	0.1
N-ethylperfluorooctane sulfonamide	ug/L	113.91121	122.22098	0	0.04	0	0.2
EtFOSAA	ug/L	N/A *****	N/A *****	N/A *****		N/A *****	0.1
N-ethylperfluorooctane sulfonamide	ug/L	119.86542	113.40650	0	0.04	N/A *****	0.1
N-methylperfluorooctane sulfonamide	ug/L	126.19573	121.62642	0	0.04	0	0.2
MeFOSAA	ug/L	N/A *****	N/A *****	N/A *****		N/A *****	0.1
N-methylperfluorooctanesulfonamidol	ug/L	106.16133	103.91986	0	0.04	N/A *****	0.1
Perfluorobutanoic acid	ug/L	118.41865	119.68765	0	0.02	N/A *****	0.1
Perfluorobutane Sulfonate (PFBS)	ug/L	105.43726	118.81503	0	0.02	0.08395395	0.1
Perfluorodecane Sulfonate	ug/L	103.94377	97.25809	0	0.02	N/A *****	0.1
Perfluoroheptanoic Acid (PFHpA)	ug/L	124.82227	119.91150	0	0.02	0.51565078	0.1
Perfluoroheptane sulfonate	ug/L	118.28802	115.99259	0	0.02	N/A *****	0.1
Perfluorohexanoic Acid (PFHxA)	ug/L	120.97523	109.84768	0	0.02	1.81607639	0.1
Perfluorohexane Sulfonate (PFHxS)	ug/L	107.56705	127.03564	0	0.02	2.62601643	0.1
Perfluorononanoic Acid (PFNA)	ug/L	116.73391	115.35100	0	0.02	0.08410912	0.1
Perfluorooctane Sulfonamide (PFOSA)	ug/L	113.15807	118.85251	0	0.02	N/A *****	0.1
Perfluoropentanoic Acid (PFPeA)	ug/L	102.47996	104.12365	0	0.02	N/A *****	0.1
Perfluorotetradecanoic Acid	ug/L	122.97474	119.90074	0	0.02	0	0.1
Perfluorotridecanoic Acid	ug/L	118.92386	113.52053	0	0.02	0	0.1
Perfluoroundecanoic Acid (PFUnA)	ug/L	108.17959	109.68011	0	0.02	0	0.1
Perfluorodecanoic Acid (PFDA)	ug/L	111.58920	114.84864	0	0.02	0	0.1
Perfluorododecanoic Acid (PFDoA)	ug/L	105.27956	115.29967	0	0.02	0	0.1
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	119.87033	111.73544	0	0.02	4.09432234	0.1
Perfluorooctane Sulfonate (PFOS)	ug/L	102.72197	99.57973	0	0.02	18.4741009	1
13C2-6:2 Fluorotelomer sulfonate	ug/L	86.0018215	90.2950726	117.758885		N/A *****	
13C2-8:2 Fluorotelomer sulfonate	ug/L	100.987401	92.6855816	108.263639		N/A *****	
13C2-perfluorotetradecanoic acid	ug/L	73.6377750	81.5602027	89.7075157		86.1545875	
13C4-Perfluorobutanoic acid	ug/L	94.2266975	97.8456681	108.170576		N/A *****	
D3-MeFOSAA	ug/L	N/A *****	N/A *****	N/A *****		N/A *****	
D5-EtFOSAA	ug/L	N/A *****	N/A *****	N/A *****		N/A *****	
N-methyl-d3-perfluorooctane sulfona	ug/L	82.2574145	94.6902280	86.9754727		N/A *****	
N-ethyl-d5-perfluorooctane sulfonam	ug/L	75.5100134	83.5643217	84.8823829		N/A *****	
13C2-Perfluorodecanoic acid	ug/L	91.0657974	98.3766383	98.8375337		89.1902958	
13C2-Perfluorododecanoic acid	ug/L	86.4298543	86.2964953	90.9665663		94.6366700	
13C2-Perfluorohexanoic acid	ug/L	89.7350374	102.335751	107.453029		105.998909	
13C2-Perfluoroundecanoic acid	ug/L	90.0872105	95.0807084	94.5045656		94.3149218	
13C4-Perfluoroheptanoic acid	ug/L	89.1072659	97.4707764	99.1418337		106.291475	
13C5-Perfluorononanoic acid	ug/L	90.1729291	93.4889934	105.153410		105.055134	
13C4-Perfluorooctanoic acid	ug/L	91.1622205	101.104881	101.795392		94.7041571	
13C4-Perfluorooctanesulfonate	ug/L	95.2597420	101.627220	105.781380		96.8710593	
13C5-Perfluoropentanoic acid	ug/L	105.633662	106.804729	109.156628		N/A *****	
13C8-Perfluorooctane Sulfonamide	ug/L	80.2469199	84.8486801	93.3630815		N/A *****	
18O2-Perfluorohexanesulfonate	ug/L	100.948726	91.6857341	105.625963		103.357523	

Worksheet Number: 5330576

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B7S7424 FUH126	DL	B7S7424 FUH127	DL	B7S7424 FUH128	DL	B7S7795 FUI835
6:2 Fluorotelomer sulfonate	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	N/A*****
8:2 Fluorotelomer sulfonate	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	N/A*****
N-ethylperfluorooctane sulfonamide	0	0.04	0	0.04	0	0.04	N/A*****
EtFOSAA	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	N/A*****
N-ethylperfluorooctane sulfonamide	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	N/A*****
N-methylperfluorooctane sulfonamide	0	0.04	0	0.04	0	0.04	N/A*****
MeFOSAA	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	N/A*****
N-methylperfluorooctanesulfonamidol	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	N/A*****
Perfluorobutanoic acid	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	0
Perfluorobutane Sulfonate (PFBS)	0.02750615	0.02	0	0.02	0.06060741	0.02	0
Perfluorodecane Sulfonate	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	0
Perfluoroheptanoic Acid (PFHpA)	0.16351860	0.02	0	0.02	0.29644656	0.02	0
Perfluoroheptane sulfonate	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	0
Perfluorohexanoic Acid (PFHxA)	0.41366826	0.02	0.00929590	0.02	0.65961244	0.02	0
Perfluorohexane Sulfonate (PFHxS)	0.83119083	0.02	0.05939645	0.02	1.80444783	0.2	0
Perfluorononanoic Acid (PFNA)	0.01672619	0.02	0	0.02	0.04696632	0.02	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	0
Perfluoropentanoic Acid (PFPeA)	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02	0
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0.2	0
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0.2	0
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0.02	0
Perfluorodecanoic Acid (PFDA)	0.01401208	0.02	0	0.02	0.01307877	0.02	0
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.02	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	0.95532868	0.2	0.02658532	0.02	0.27097134	0.02	0
Perfluorooctane Sulfonate (PFOS)	3.79324476	0.2	0.09654915	0.02	1.20638367	0.2	0
13C2-6:2 Fluorotelomer sulfonate	N/A*****		N/A*****		N/A*****		N/A*****
13C2-8:2 Fluorotelomer sulfonate	N/A*****		N/A*****		N/A*****		N/A*****
13C2-perfluorotetradecanoic acid	76.9153650		82.7545768		90.3911690		81.3479965
13C4-Perfluorobutanoic acid	N/A*****		N/A*****		N/A*****		94.6937373
D3-MeFOSAA	N/A*****		N/A*****		N/A*****		N/A*****
D5-EtFOSAA	N/A*****		N/A*****		N/A*****		N/A*****
N-methyl-d3-perfluorooctane sulfona	N/A*****		N/A*****		N/A*****		N/A*****
N-ethyl-d5-perfluorooctane sulfonam	N/A*****		N/A*****		N/A*****		N/A*****
13C2-Perfluorodecanoic acid	92.8690312		90.8900331		88.0432396		97.1933489
13C2-Perfluorododecanoic acid	82.5513599		85.0687972		66.5713513		88.2760033
13C2-Perfluorohexanoic acid	91.2409902		104.631299		94.5837777		95.6026321
13C2-Perfluoroundecanoic acid	81.4247693		87.0318126		79.9933840		94.1360163
13C4-Perfluoroheptanoic acid	96.2729718		105.890345		99.8416910		97.8941844
13C5-Perfluorononanoic acid	91.8419069		106.329465		96.1463304		101.973866
13C4-Perfluorooctanoic acid	103.071187		98.8222833		97.2984724		104.269576
13C4-Perfluorooctanesulfonate	99.2574578		110.134950		106.887813		100.165022
13C5-Perfluoropentanoic acid	N/A*****		N/A*****		N/A*****		98.9260630
13C8-Perfluorooctane Sulfonamide	N/A*****		N/A*****		N/A*****		87.2503378
18O2-Perfluorohexanesulfonate	96.4307282		108.144782		115.743456		95.6012790

Worksheet Number: 5330576

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B7S7795 FUI836	B7S7795 FUI837	B7S7795 FUI838	B7S7795 FUI839	B7S7795 FUI840	B7S9360 FUQ574	B7S9360 FUQ575
6:2 Fluorotelomer sulfonate	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	0	0
8:2 Fluorotelomer sulfonate	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	0	0
N-ethylperfluorooctane sulfonamide	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	0	0
EtFOSAA	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
N-ethylperfluorooctane sulfonamide	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	0	0
N-methylperfluorooctane sulfonamide	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	0	0
MeFOSAA	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
N-methylperfluorooctanesulfonamidol	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	0	0
Perfluorobutanoic acid	0	0	0	0	0	0	0
Perfluorobutane Sulfonate (PFBS)	0	0	0	0	0	0	0
Perfluorodecane Sulfonate	0	0	0	0	0	0	0
Perfluoroheptanoic Acid (PFHpA)	0	0.01151186	0	0	0	0	0
Perfluoroheptane sulfonate	0	0	0	0	0	0	0
Perfluorohexanoic Acid (PFHxA)	0	0	0	0	0	0	0
Perfluorohexane Sulfonate (PFHxS)	0	0	0	0	0	0	0
Perfluorononanoic Acid (PFNA)	0	0	0	0	0	0	0
Perfluorooctane Sulfonamide (PFOSA)	0	0	0	0	0	0	0
Perfluoropentanoic Acid (PFPeA)	0	0	0	0	0	0	0
Perfluorotetradecanoic Acid	0	0	0	0	0	0	0
Perfluorotridecanoic Acid	0	0	0	0	0	0	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	0	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0	0	0	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0	0	0	0	0.01157615	0
Perfluorooctane Sulfonate (PFOS)	0	0	0	0	0	0.01728280	0
13C2-6:2 Fluorotelomer sulfonate	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	94.8493128	90.8973746
13C2-8:2 Fluorotelomer sulfonate	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	95.0293793	82.9587411
13C2-perfluorotetradecanoic acid	69.5854501	79.6437864	54.5732021	63.4108063	65.7560151	72.3701558	59.9444819
13C4-Perfluorobutanoic acid	97.8805809	94.1965237	93.6490859	93.4329440	102.668434	86.8173047	75.2430362
D3-MeFOSAA	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
D5-EtFOSAA	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
N-methyl-d3-perfluorooctane sulfona	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	76.0884869	66.9279226
N-ethyl-d5-perfluorooctane sulfonam	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	76.5037011	67.6018571
13C2-Perfluorodecanoic acid	95.2521917	90.4033190	79.1253359	79.5574113	88.2500348	94.6815608	71.0309720
13C2-Perfluorododecanoic acid	83.6884772	95.1096027	70.1071965	76.2313953	75.1825227	83.9064623	67.6489420
13C2-Perfluorohexanoic acid	94.8007912	102.257051	92.0913789	100.854722	101.396200	99.4265373	84.7848153
13C2-Perfluoroundecanoic acid	95.4390507	92.8242982	77.4888143	78.1714967	82.2067655	83.6271690	72.8667745
13C4-Perfluoroheptanoic acid	101.805145	96.7578041	85.6763474	93.7383752	98.8435084	96.7573459	84.8378039
13C5-Perfluorononanoic acid	87.5872676	1134.5668	97.6048535	94.7662933	99.1369166	99.2573331	82.2831399
13C4-Perfluorooctanoic acid	93.6727264	62.1896510	87.8209299	97.9848795	99.2580601	102.339772	89.2056370
13C4-Perfluorooctanesulfonate	101.049613	72.1480647	100.914331	89.6994064	100.157210	100.641065	86.1857414
13C5-Perfluoropentanoic acid	100.264970	95.2556856	95.8588105	95.9013294	102.587311	95.8095687	86.7699142
13C8-Perfluorooctane Sulfonamide	95.8280528	81.8257905	75.7394393	82.7449292	88.1064703	87.8361900	72.5136104
18O2-Perfluorohexanesulfonate	102.387069	103.466562	98.0162028	99.9851643	111.238310	96.4716709	96.2303161

Worksheet Number: 5330576

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

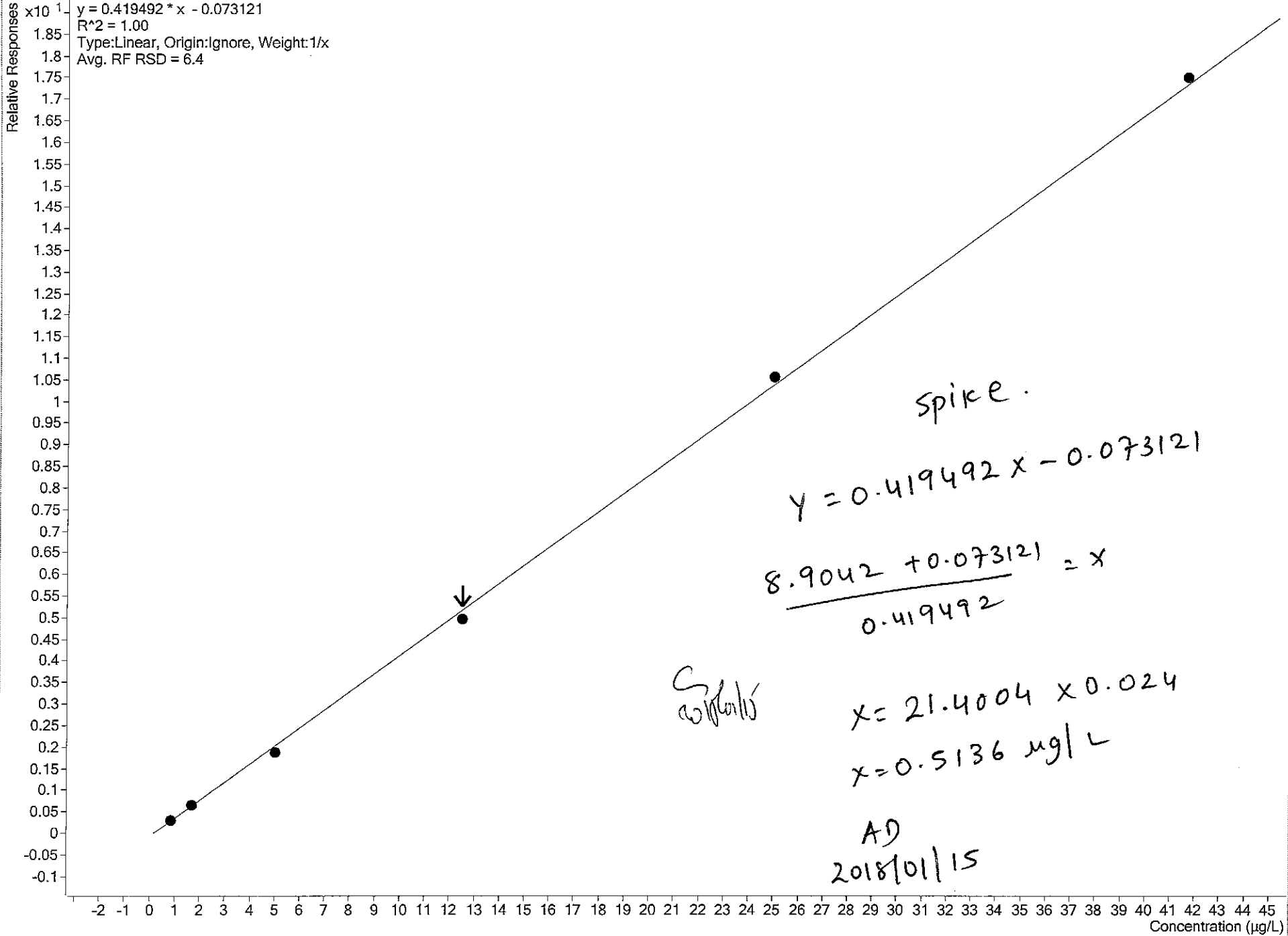
Parameter Name	B7S9360 FUQ576	B7S9360 FUQ577	B7S9360 FUQ578	B7S9360 FUQ579	B7S9360 FUQ580	B7S9360 FUQ581	B7S9360 FUQ582
6:2 Fluorotelomer sulfonate	0	0	0	0	0	0	0
8:2 Fluorotelomer sulfonate	0	0	0	0	0	0	0
N-ethylperfluorooctane sulfonamide	0	0	0	0	0	0	0
EtFOSAA	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****
N-ethylperfluorooctane sulfonamide	0	0	0	0	0	0	0
N-methylperfluorooctane sulfonamide	0	0	0	0	0	0	0
MeFOSAA	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****
N-methylperfluorooctanesulfonamidol	0	0	0	0	0	0	0
Perfluorobutanoic acid	0	0	0	0	0	0	0
Perfluorobutane Sulfonate (PFBS)	0	0	0	0	0	0.00951568	0
Perfluorodecane Sulfonate	0	0	0	0	0	0	0
Perfluoroheptanoic Acid (PFHpA)	0	0	0	0	0	0	0
Perfluoroheptane sulfonate	0	0	0	0	0	0	0
Perfluorohexanoic Acid (PFHxA)	0	0	0	0	0	0	0
Perfluorohexane Sulfonate (PFHxS)	0	0	0	0	0	0	0
Perfluorononanoic Acid (PFNA)	0	0	0	0	0	0	0
Perfluorooctane Sulfonamide (PFOSA)	0	0	0	0	0	0	0
Perfluoropentanoic Acid (PFPeA)	0.00870281	0	0	0	0	0	0
Perfluorotetradecanoic Acid	0	0	0	0	0	0	0
Perfluorotridecanoic Acid	0	0	0	0	0	0	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	0	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0	0	0	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0	0	0	0	0	0
Perfluorooctane Sulfonate (PFOS)	0	0	0	0.02078153	0.01348163	0	0
13C2-6.2 Fluorotelomer sulfonate	97.3603751	101.471585	114.101171	88.9668661	110.115242	107.178758	108.579701
13C2-8.2 Fluorotelomer sulfonate	98.3393658	109.431431	110.304989	86.4517395	112.133138	109.899356	114.657357
13C2-perfluorotetradecanoic acid	68.9580138	89.3038553	85.7455607	69.8789809	79.4532043	77.7379513	91.4566034
13C4-Perfluorobutanoic acid	94.4112901	97.2196152	103.650195	95.6808673	98.6335886	103.751208	107.091706
D3-MeFOSAA	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****
D5-EtFOSAA	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****	N/A*****
N-methyl-d3-perfluorooctane sulfona	77.8715361	90.9259588	83.8721017	88.5982519	88.4745823	77.5098050	101.684156
N-ethyl-d5-perfluorooctane sulfonam	82.0136240	77.5537185	84.3332553	72.1095242	85.1836928	79.0344719	93.7905382
13C2-Perfluorodecanoic acid	95.4845116	101.066354	93.3906189	93.6411844	97.9772276	103.581729	111.718212
13C2-Perfluorododecanoic acid	84.1622694	89.7217634	91.8255538	77.9801451	85.7900162	86.2139856	89.2666765
13C2-Perfluorohexanoic acid	98.3637486	104.960436	113.588557	99.0829123	102.522964	107.389165	112.487901
13C2-Perfluoroundecanoic acid	84.6158321	92.9344893	93.5222719	83.2519004	92.6480771	90.6019549	103.274008
13C4-Perfluoroheptanoic acid	106.619852	103.628142	106.143799	97.6031252	105.896011	113.808982	119.355219
13C5-Perfluorononanoic acid	99.6602193	103.724610	111.146877	93.0351148	99.6161133	106.881356	118.407694
13C4-Perfluorooctanoic acid	106.137770	112.825096	112.166349	97.5540032	105.004031	106.973699	111.469542
13C4-Perfluorooctanesulfonate	103.782478	118.216428	114.288040	96.1463278	98.6205720	112.764449	115.080517
13C5-Perfluoropentanoic acid	102.393292	104.919306	109.972776	100.646476	108.834306	110.892949	114.998297
13C8-Perfluorooctane Sulfonamide	92.9259123	98.9717688	93.6222225	90.8671528	99.4655087	96.8986131	99.0936947
18O2-Perfluorohexanesulfonate	107.103476	107.353512	113.905644	99.8208841	110.659712	107.038096	111.689099

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B7S9360 FUQ583	DL	RDL	MDL	IDL		
6:2 Fluorotelomer sulfonate	0	0.02	0.02	0.0066	0		
8:2 Fluorotelomer sulfonate	0	0.02	0.02	0.0066	0		
N-ethylperfluorooctane sulfonamide	0	0.02	0.02	0.01	0		
EtFOSAA	N/A*****	0.02	0.02	0.0033	0		
N-ethylperfluorooctane sulfonamide	0	0.02	0.02	0.0079	0		
N-methylperfluorooctane sulfonamide	0	0.02	0.02	0.013	0		
MeFOSAA	N/A*****	0.02	0.02	0.0029	0		
N-methylperfluorooctanesulfonamidol	0	0.02	0.02	0.012	0		
Perfluorobutanoic acid	0	0.02	0.02	0.0055	0		
Perfluorobutane Sulfonate (PFBS)	0	0.02	0.02	0.0054	0		
Perfluorodecane Sulfonate	0	0.02	0.02	0.006	0		
Perfluoroheptanoic Acid (PFHpA)	0	0.02	0.02	0.0074	0		
Perfluoroheptane sulfonate	0	0.02	0.02	0.008	0		
Perfluorohexanoic Acid (PFHxA)	0	0.02	0.02	0.0035	0		
Perfluorohexane Sulfonate (PFHxS)	0.01090823	0.02	0.02	0.0056	0		
Perfluorononanoic Acid (PFNA)	0	0.02	0.02	0.0087	0		
Perfluorooctane Sulfonamide (PFOSA)	0	0.02	0.02	0.0034	0		
Perfluoropentanoic Acid (PFPeA)	0	0.02	0.02	0.0075	0		
Perfluorotetradecanoic Acid	0	0.02	0.02	0.0027	0		
Perfluorotridecanoic Acid	0	0.02	0.02	0.0038	0		
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0.02	0.0025	0		
Perfluorodecanoic Acid (PFDA)	0	0.02	0.02	0.0061	0		
Perfluorododecanoic Acid (PFDoA)	0	0.02	0.02	0.005	0		
Perfluoro-n-Octanoic Acid (PFOA)	0	0.02	0.02	0.0033	0		
Perfluorooctane Sulfonate (PFOS)	0.09092324	0.02	0.02	0.006	0		
13C2-6:2 Fluorotelomer sulfonate	123.240475						
13C2-8:2 Fluorotelomer sulfonate	117.953746						
13C2-perfluorotetradecanoic acid	93.1091569						
13C4-Perfluorobutanoic acid	119.181825						
D3-MeFOSAA	N/A*****						
D5-EtFOSAA	N/A*****						
N-methyl-d3-perfluorooctane sulfona	94.0186675						
N-ethyl-d5-perfluorooctane sulfonam	82.3168356						
13C2-Perfluorodecanoic acid	104.018828						
13C2-Perfluorododecanoic acid	94.0548256						
13C2-Perfluorohexanoic acid	118.893801						
13C2-Perfluoroundecanoic acid	94.1908770						
13C4-Perfluoroheptanoic acid	115.477265						
13C5-Perfluorononanoic acid	114.606592						
13C4-Perfluorooctanoic acid	116.080753						
13C4-Perfluorooctanesulfonate	108.500612						
13C5-Perfluoropentanoic acid	118.245898						
13C8-Perfluorooctane Sulfonamide	101.536797						
18O2-Perfluorohexanesulfonate	117.482923						

PFOS 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 3 QCs

$y = 0.419492 * x - 0.073121$
 $R^2 = 1.00$
Type: Linear, Origin: Ignore, Weight: 1/x
Avg. RF RSD = 6.4



Spike.

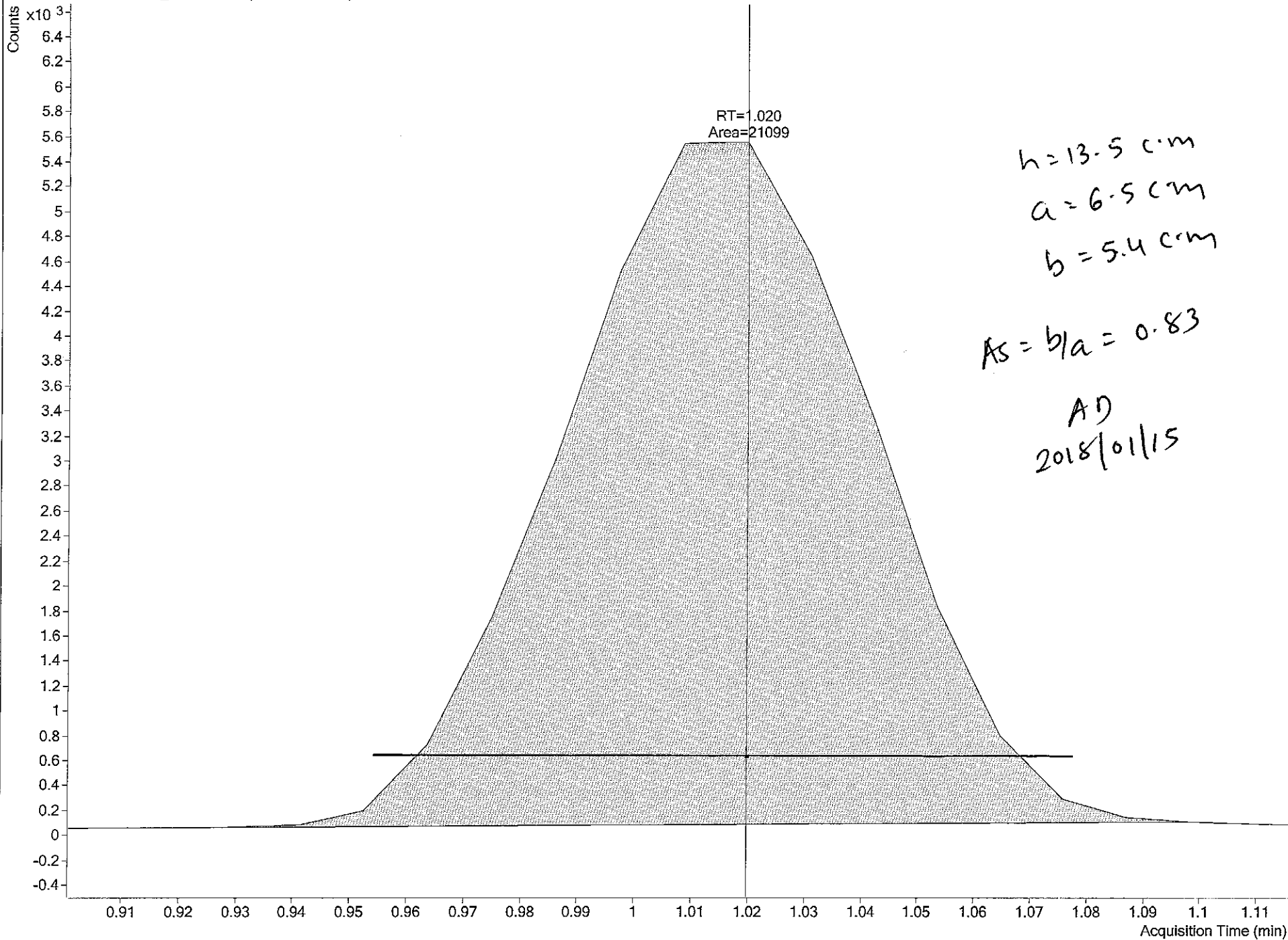
$$y = 0.419492x - 0.073121$$
$$\frac{8.9042 + 0.073121}{0.419492} = x$$

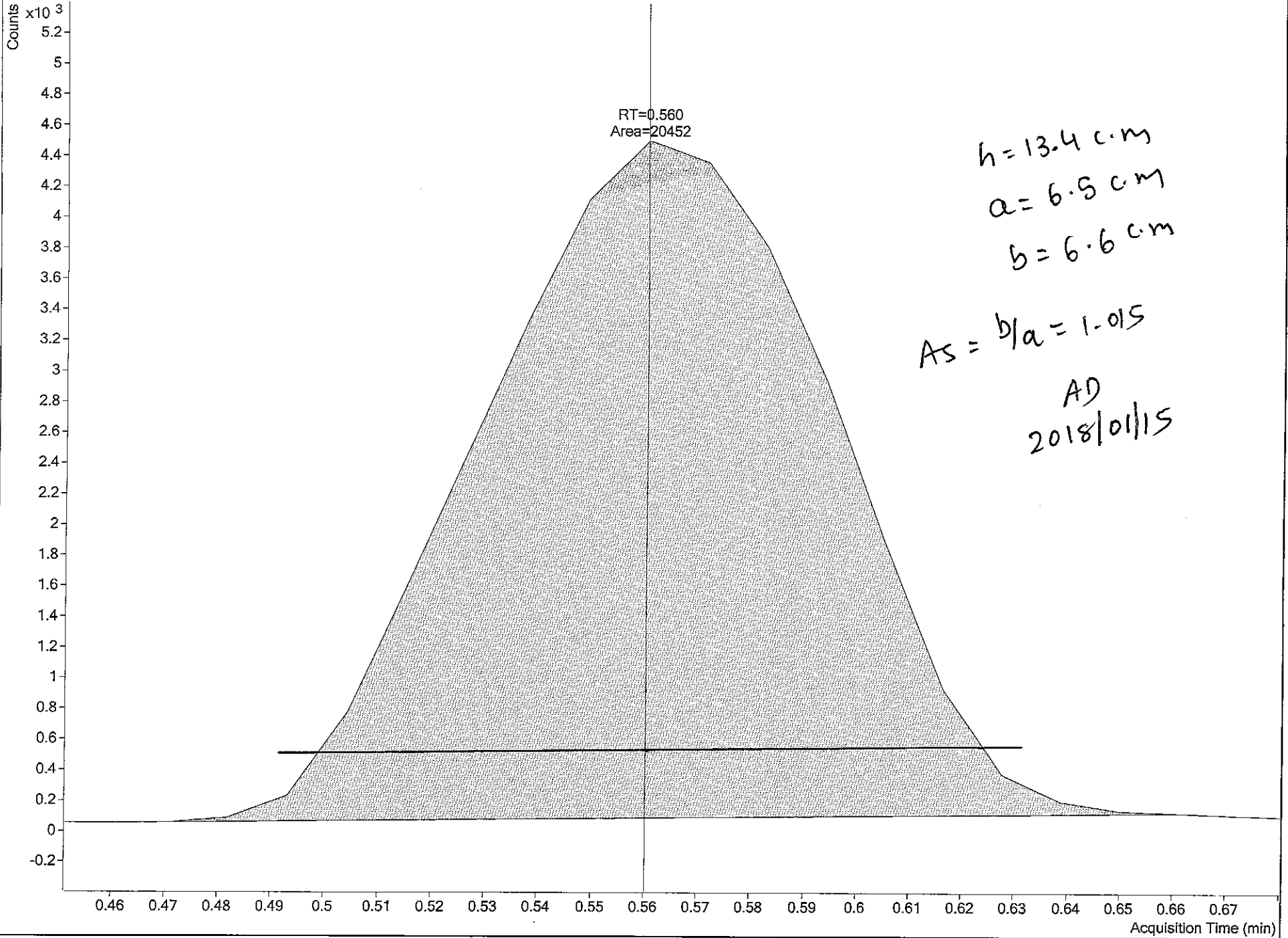
S. 2/15/15

$$x = 21.4004 \times 0.024$$

$$x = 0.5136 \mu\text{g/L}$$

AD
2018/01/15





Report Name: Worksheet - Parameter Lists

Report Date: 2017/12/23

Test Code: PFOSALCM-W

Worksheet Number: 5330576

<u>Sample Number</u>	<u>Parameter Code</u>	<u>Parameter</u>	
FUH125-01	ETFOSA	N-ethylperfluorooctane sulfonamide	*
FUH126-01	MEFOSA	N-methylperfluorooctane sulfonamide	*
FUH127-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FUH128-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FUI835-01	PFBA	Perfluorobutanoic acid	
FUI836-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FUI837-01	PFDS	Perfluorodecane Sulfonate	
FUI838-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FUI839-01	PFHPS	Perfluoroheptane sulfonate	
FUI840-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFOSA	Perfluorooctane Sulfonamide (PFOSA)	

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists

Report Date: 2017/12/23

Test Code: PFOSALCM-W

Worksheet Number: 5330576

<u>Sample Number</u>	<u>Parameter Code</u>	<u>Parameter</u>	
	PFPEA	Perfluoropentanoic Acid (PFPeA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FUQ574-01	6:2FTS	6:2 Fluorotelomer sulfonate	*
FUQ575-01	8:2FTS	8:2 Fluorotelomer sulfonate	*
FUQ576-01	ETFOSA	N-ethylperfluorooctane sulfonamide	*
FUQ577-01	ETFOSE	N-ethylperfluorooctane sulfonamide	*
FUQ578-01	MEFOSA	N-methylperfluorooctane sulfonamide	*
FUQ579-01	MEFOSE	N- methylperfluorooctanesulfona midol	*
FUQ580-01	PFBA	Perfluorobutanoic acid	
FUQ581-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FUQ582-01	PFDS	Perfluorodecane Sulfonate	
FUQ583-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHPS	Perfluoroheptane sulfonate	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFOSA	Perfluorooctane Sulfonamide (PFOSA)	
	PFPEA	Perfluoropentanoic Acid	

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists

Report Date: 2017/12/23

Test Code: PFOSALCM-W

Worksheet Number: 5330576

<u>Sample Number</u>	<u>Parameter Code</u>	<u>Parameter</u>
		(PFPeA)
	PFTEDA	Perfluorotetradecanoic Acid
	PFTRDA	Perfluorotridecanoic Acid
	PFUNA	Perfluoroundecanoic Acid (PFUnA)
	PFDA	Perfluorodecanoic Acid (PFDA)
	PFDOA	Perfluorododecanoic Acid (PFDoA)
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)
	PFOS	Perfluorooctane Sulfonate (PFOS)

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5330576 Instrument Sequences

1.	 5330576:SPIKE	SPIKE
2.	 5330576:SPIKE:D1	SPIKE :D1
3.	 5330576:BLANK	BLANK
4.	 5330576:FUH125-01	06-MW25-1217
5.	 5330576:FUH126-01	06-MW26-1217
6.	 5330576:FUH127-01	06-MW30-1217
7.	 5330576:FUH128-01	06-MW31-1217
8.	 5330576:FUI835-01	
9.	 5330576:FUI836-01	
10.	 5330576:FUI837-01	
11.	 5330576:FUI838-01	
12.	 5330576:FUI839-01	
13.	 5330576:FUI840-01	
14.	 5330576:FUQ574-01	
15.	 5330576:FUQ575-01	
16.	 5330576:FUQ576-01	
17.	 5330576:FUQ577-01	
18.	 5330576:FUQ578-01	
19.	 5330576:FUQ579-01	
20.	 5330576:FUQ580-01	
21.	 5330576:FUQ581-01	
22.	 5330576:FUQ582-01	
23.	 5330576:FUQ583-01	

Worklist Report



Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180112_Low_B.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180112\WS#5330576
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #196
 MP A1: Solution# 250 (FSRE18)
 MP B1: Methanol (SHBJ1155), Sigma

*KC
2018/01/12*

Plate Barcode:

Plate	Barcode
P3	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P3-A1	PFC_Water_Low.m	WS#5330576_01.d	Sample		As Method	-
2	STD 1	P3-A2	PFC_Water_Low.m	WS#5330576_02.d	Calibration	STD 1	As Method	-
3	STD 2	P3-A3	PFC_Water_Low.m	WS#5330576_03.d	Calibration	STD 2	As Method	-
4	STD 3	P3-A4	PFC_Water_Low.m	WS#5330576_04.d	Calibration	STD 3	As Method	-
5	STD 4	P3-A5	PFC_Water_Low.m	WS#5330576_05.d	Calibration	STD 4	As Method	-
6	STD 5	P3-A6	PFC_Water_Low.m	WS#5330576_06.d	Calibration	STD 5	As Method	-
7	STD 6	P3-A7	PFC_Water_Low.m	WS#5330576_07.d	Calibration	STD 6	As Method	-

D:\MassHunter\Worklists\PFCs\PFC_180112_Low_B.wkl

309 of 744

F-3066

Worklist Report



Maxxim Analytics

of 74

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P3-A8	PFC_Water_Low.m WS#5330576_08.d	Sample		As Method	-
9	ICV	P3-A9	PFC_Water_Low.m WS#5330576_09.d	QC	ICV	As Method	-
10	ISC	P3-A2	PFC_Water_Low.m WS#5330576_10.d	ConCal	STD 1	As Method	-
11	5330576:BLANK	P3-B1	PFC_Water_Low.m WS#5330576_11.d	Sample		As Method	-
12	5330576:SPIKE	P3-B2	PFC_Water_Low.m WS#5330576_12.d	QC	ICV	As Method	-
13	5330576:SPIKE:D1	P3-B3	PFC_Water_Low.m WS#5330576_13.d	QC	ICV	As Method	-
14	5330576:FUH125-01:50x	P3-B4	PFC_Water_Low.m WS#5330576_14.d	Sample		As Method	-
15	5330576:FUH125-01:5x	P3-B5	PFC_Water_Low.m WS#5330576_15.d	Sample		As Method	-
16	IB	P3-A8	PFC_Water_Low.m WS#5330576_16.d	Sample		As Method	-
17	5330576:FUH126-01:10x	P3-B6	PFC_Water_Low.m WS#5330576_17.d	Sample		As Method	-
18	5330576:FUH126-01	P3-B7	PFC_Water_Low.m WS#5330576_18.d	Sample		As Method	-
19	IB	P3-A8	PFC_Water_Low.m WS#5330576_19.d	Sample		As Method	-
20	5330576:FUH127-01	P3-B8	PFC_Water_Low.m WS#5330576_20.d	Sample		As Method	-
21	5330576:FUH128-01:10x	P3-B9	PFC_Water_Low.m WS#5330576_21.d	Sample		As Method	-
22	5330576:FUH128-01	P3-C1	PFC_Water_Low.m WS#5330576_22.d	Sample		As Method	-
23	IB	P3-A8	PFC_Water_Low.m WS#5330576_23.d	Sample		As Method	-
24	5330576:FUI835-01	P3-C2	PFC_Water_Low.m WS#5330576_24.d	Sample		As Method	-
25	5330576:FUI836-01	P3-C3	PFC_Water_Low.m WS#5330576_25.d	Sample		As Method	-
26	5330576:FUI837-01	P3-C4	PFC_Water_Low.m WS#5330576_26.d	Sample		As Method	-
27	CCV	P3-A5	PFC_Water_Low.m WS#5330576_27.d	ConCal	STD 4	As Method	-
28	5330576:FUI838-01	P3-C5	PFC_Water_Low.m WS#5330576_28.d	Sample		As Method	-
29	5330576:FUI839-01	P3-C6	PFC_Water_Low.m WS#5330576_29.d	Sample		As Method	-
30	5330576:FUI840-01	P3-C7	PFC_Water_Low.m WS#5330576_30.d	Sample		As Method	-

D:\MassHunterWorklists\PFCs\PFC_180112_Low_B.wkl

Worklist Report



Maxxim Analytics

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5330576:FUQ574-01	P3-C8	PFC_Water_Low.m	WS#5330576_31.d	Sample		As Method -
32	5330576:FUQ575-01	P3-C9	PFC_Water_Low.m	WS#5330576_32.d	Sample		As Method -
33	5330576:FUQ576-01	P3-D1	PFC_Water_Low.m	WS#5330576_33.d	Sample		As Method -
34	5330576:FUQ577-01	P3-D2	PFC_Water_Low.m	WS#5330576_34.d	Sample		As Method -
35	5330576:FUQ578-01	P3-D3	PFC_Water_Low.m	WS#5330576_35.d	Sample		As Method -
36	5330576:FUQ579-01	P3-D4	PFC_Water_Low.m	WS#5330576_36.d	Sample		As Method -
37	5330576:FUQ580-01	P3-D5	PFC_Water_Low.m	WS#5330576_37.d	Sample		As Method -
38	CCV	P3-A5	PFC_Water_Low.m	WS#5330576_38.d	ConCal	STD 4	As Method -
39	5330576:FUQ581-01	P3-D6	PFC_Water_Low.m	WS#5330576_39.d	Sample		As Method -
40	5330576:FUQ582-01	P3-D7	PFC_Water_Low.m	WS#5330576_40.d	Sample		As Method -
41	5330576:FUQ583-01	P3-D8	PFC_Water_Low.m	WS#5330576_41.d	Sample		As Method -
42	CCV	P3-A5	PFC_Water_Low.m	WS#5330576_42.d	ConCal	STD 4	As Method -

305 of 744

FINAL INJECTION SEQUENCE

Maxxam Analytics

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/01/13 1:53 AM	PFC_Water_Low.m	WS#5330576_02.d	P3-A2
STD 2	-	2018/01/13 1:57 AM	PFC_Water_Low.m	WS#5330576_03.d	P3-A3
STD 3	-	2018/01/13 2:02 AM	PFC_Water_Low.m	WS#5330576_04.d	P3-A4
STD 4	-	2018/01/13 2:07 AM	PFC_Water_Low.m	WS#5330576_05.d	P3-A5
STD 5	-	2018/01/13 2:12 AM	PFC_Water_Low.m	WS#5330576_06.d	P3-A6
STD 6	-	2018/01/13 2:17 AM	PFC_Water_Low.m	WS#5330576_07.d	P3-A7
IB	-	2018/01/13 2:22 AM	PFC_Water_Low.m	WS#5330576_08.d	P3-A8
ICV	-	2018/01/13 2:27 AM	PFC_Water_Low.m	WS#5330576_09.d	P3-A9
ISC	-	2018/01/13 2:32 AM	PFC_Water_Low.m	WS#5330576_10.d	P3-A2
5330576:BLANK	-	2018/01/13 2:37 AM	PFC_Water_Low.m	WS#5330576_11.d	P3-B1
5330576:SPIKE	-	2018/01/13 2:42 AM	PFC_Water_Low.m	WS#5330576_12.d	P3-B2
5330576:SPIKE:D1	-	2018/01/13 2:47 AM	PFC_Water_Low.m	WS#5330576_13.d	P3-B3
5330576:FUH125-01:50x	Reported for PFOS	2018/01/13 2:52 AM	PFC_Water_Low.m	WS#5330576_14.d	P3-B4
5330576:FUH125-01:5x	Reported for all except PFOS	2018/01/13 2:57 AM	PFC_Water_Low.m	WS#5330576_15.d	P3-B5
IB	-	2018/01/13 3:02 AM	PFC_Water_Low.m	WS#5330576_16.d	P3-A8
5330576:FUH126-01:10x	Reported for all PFOA, PFOS	2018/01/13 3:07 AM	PFC_Water_Low.m	WS#5330576_17.d	P3-B6
5330576:FUH126-01	Reported for all except PFOA, PFOS	2018/01/13 3:11 AM	PFC_Water_Low.m	WS#5330576_18.d	P3-B7
IB	-	2018/01/13 3:16 AM	PFC_Water_Low.m	WS#5330576_19.d	P3-A8
5330576:FUH127-01	-	2018/01/13 3:21 AM	PFC_Water_Low.m	WS#5330576_20.d	P3-B8
5330576:FUH128-01:10x	Reported for PFHxS, PFOS, PFTeDA, PFTTrDA	2018/01/13 3:26 AM	PFC_Water_Low.m	WS#5330576_21.d	P3-B9
5330576:FUH128-01	Reported for all except PFHxS, PFOS, PFTeDA, PFTTrDA	2018/01/13 3:31 AM	PFC_Water_Low.m	WS#5330576_22.d	P3-C1
IB	-	2018/01/13 3:36 AM	PFC_Water_Low.m	WS#5330576_23.d	P3-A8
5330576:FUI835-01	-	2018/01/13 3:41 AM	PFC_Water_Low.m	WS#5330576_24.d	P3-C2
5330576:FUI836-01	-	2018/01/13 3:46 AM	PFC_Water_Low.m	WS#5330576_25.d	P3-C3
5330576:FUI837-01	-	2018/01/13 3:51 AM	PFC_Water_Low.m	WS#5330576_26.d	P3-C4
CCV	-	2018/01/13 3:56 AM	PFC_Water_Low.m	WS#5330576_27.d	P3-A5
5330576:FUI838-01	-	2018/01/13 4:01 AM	PFC_Water_Low.m	WS#5330576_28.d	P3-C5
5330576:FUI839-01	-	2018/01/13 4:06 AM	PFC_Water_Low.m	WS#5330576_29.d	P3-C6
5330576:FUI840-01	-	2018/01/13 4:11 AM	PFC_Water_Low.m	WS#5330576_30.d	P3-C7
5330576:FUQ574-01	-	2018/01/13 4:16 AM	PFC_Water_Low.m	WS#5330576_31.d	P3-C8
5330576:FUQ575-01	-	2018/01/13 4:21 AM	PFC_Water_Low.m	WS#5330576_32.d	P3-C9
5330576:FUQ576-01	-	2018/01/13 4:25 AM	PFC_Water_Low.m	WS#5330576_33.d	P3-D1
5330576:FUQ577-01	-	2018/01/13 4:30 AM	PFC_Water_Low.m	WS#5330576_34.d	P3-D2

306 of 744

FINAL INJECTION SEQUENCE

Maxxam Analytics

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5330576:FUQ578-01	-	2018/01/13 4:35 AM	PFC_Water_Low.m	WS#5330576_35.d	P3-D3
5330576:FUQ579-01	-	2018/01/13 4:40 AM	PFC_Water_Low.m	WS#5330576_36.d	P3-D4
5330576:FUQ580-01	-	2018/01/13 4:45 AM	PFC_Water_Low.m	WS#5330576_37.d	P3-D5
CCV	-	2018/01/13 4:50 AM	PFC_Water_Low.m	WS#5330576_38.d	P3-A5
5330576:FUQ581-01	-	2018/01/13 4:55 AM	PFC_Water_Low.m	WS#5330576_39.d	P3-D6
5330576:FUQ582-01	-	2018/01/13 5:00 AM	PFC_Water_Low.m	WS#5330576_40.d	P3-D7
5330576:FUQ583-01	-	2018/01/13 5:05 AM	PFC_Water_Low.m	WS#5330576_41.d	P3-D8
CCV	-	2018/01/13 5:10 AM	PFC_Water_Low.m	WS#5330576_42.d	P3-A5

307 of 744

DoD Projects - Internal Data Validation Checklist				
Run date: 2018/01/13				
Worksheet # (s): 5330618				
Analysis: PFO S A L C M - W			1st 100% review	
Primary review by the analyst - 1st 100 % analysis review			yes	no
			n/a	*2nd 100% review
1	Sample analyses meet hold time criteria		✓	
2	Analysis set-up meets method criteria		✓	✓
3	Tuning and correct calibration used - criteria meets method criteria		✓	✓
4	SQC/Control Charts updated, analysis in statistical/method control		✓	✓
5	Internal area counts checked (if applicable)		✓	✓
6	LCS, SRM are within acceptance criteria		✓	✓
7	Surrogate Recovery(s) is within acceptance criteria		✓	✓
8	Method Blank meets acceptance criteria		✓	✓
9	Matrix Spike recovery(s) meets acceptance criteria		✓	✓
10	Duplicate precision meets acceptance criteria		✓	✓
11	QC is documented on the run logs		✓	✓
12	Runs checked for carryover		✓	✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts		✓	✓
14	Initial weights, splits, imprinter volumes (where applicable) are documented		✓	✓
15	Standards and reagents traceable to Certificates of Analysis		✓	✓
16	Samples above calibration range diluted and reanalyzed		✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered		✓	✓
18	Analytical observations/anomalies documented in LIMS			✓
19	Random calculation checked and in correct units		✓	✓
20	If corrective actions were applied they are documented, initialed & dated		✓	✓
21	Manual integration –before & after data with a reason included, initialed & dated			✓
22	Transferred data is validated in LIMS for correctness		✓	✓
23	Data package assembled (where required)		✓	✓
Reviewed by: AD Date: 2018/01/16				
Comments:				
Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review				
		yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS			✓
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		
Reviewed by: CM Date: 2/1/17				
Comments:				

*Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5330618 Testcode: PFOSALCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time			
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: DPJ Date: 2017/12/23

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Refer to BRL FCD00002119
AD
2018/01/16

Reviewed by: _____ Date: _____

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: _____ Date: _____

Comments:

WS# : 5330618

Page #: 1/2



Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Saturday, December 23, 2017

Assigned to : Dixita Patel

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

Sediments

Job Number	Sample Number	D	Sample ID	F	% Moist ure	Wt. of Vol	Final Vol W	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	mg
11,5	MTRX SPK	0	PFOS FUH133-01		Lo1	125	3	10					2017/12/23	26
11,7	MTRX SPK	1	PFOS FUH133-01		Lo1	125	3	10					2017/12/23	24
11,3	SPIKE		PFOS		0	125	3	10					2017/12/23	32
11,1	BLANK				0	125	3	10					2017/12/23	30
11,9	B7S5172		[REDACTED]		0.3	110	3	10	2	2017/12/26	2018/01/02 23:00	DOD	2017/12/23	27
11,14	B7S5172		[REDACTED]		0.1	125/0.25	3	20/20%	2	2017/12/26	2018/01/02 23:00	DOD	2017/12/23	35
11,16	B7S5172		[REDACTED]		Lo1	125/12.5	3	10/10%	2	2017/12/26	2018/01/02 23:00	DOD	2017/12/23	26
11,18	B7S6042		[REDACTED]		0.1	25/5	3	50/25%	2	2017/12/26	2018/01/10 23:00		2017/12/23	28
11,26	B7S6042		[REDACTED]		0.1	25/5	3	50/25%	2	2017/12/26	2018/01/10 23:00		2017/12/23	33
11,22	B7S7424		06-MW32-1217		Lo1	25/0.5	3	50/50%	2	2017/12/26	2018/01/04 18:00	DOD	2017/12/23	26
11,24	B7S7424		06-MW32-1217 DUP		Lo1	25/2.5	3	50/50%	2	2017/12/26	2018/01/04 18:00	DOD	2017/12/23	31
12,1	B7S7424		06-MW33-1217		Lo1	125/12.5	3	10/10%	2	2017/12/26	2018/01/04 18:00	DOD	2017/12/23	35
12,3	B7S7424		06-MW34-1217		Lo1	125/12.5	3	10/10%	2	2017/12/26	2018/01/04 18:00	DOD	2017/12/23	27
12,5	B7S7424		06-MW35-1217		Lo1	125/2.5	3	10/10%	6	2017/12/26	2018/01/04 18:00	DOD	2017/12/23	26
12,7	B7S7424		06-MW36-1217		Lo1	125/12.5	3	10/10%	2	2017/12/26	2018/01/04 18:00	DOD	2017/12/23	30
2017/12/23 DPS														

Remarks: _____

Samples extracted by: Dixita Patel 2017/12/23 DPS
 Instrumentation performed by: ce
 Calculations performed by: AD
 Validated by: an
 Maxxam Analytics

Date: 2018/01/12
 Date: 2018/01/16
 Date: 2018/01/17

Job No.	Rep	Client Name	Contact	Client Tier	National
	Remarks				

✓ B7S5172

✓ MB7S6042

✓ GB7S7424

SP8 EMAX Laboratories Inc Richard Beauvil Tier 4 (Enviro.)
 NREG. PFOSALCM-W *MS/MSD required on FUH133 *job has been updated to generate EDD,
 PMA please do not change* Level IV data package and NEDD EDD and EDF EDD required *PM check report comments
 for DoD accreditation Project #: TREASURE ISLAND, IR SITE 06

2017/12/23 DPS

Job	Sample	Lab Comments
	MTRX SPK *	
	MTRX SPK *	
	SPIKE	
	BLANK	
B7S5172	FTT971-01R *	
B7S5172	FTT974-01R	
B7S5172	FTT975-01R *	
B7S6042	FUA629-01R	
B7S6042	FUA630-01R	
B7S7424	FUH129-01R	
B7S7424	FUH130-01R	
B7S7424	FUH131-01R *	
B7S7424	FUH132-01R *	
B7S7424	FUH133-01R *	
B7S7424	FUH134-01R *	

- Samples with (*) are centrifuge at 4000 rpm and decanted
- All samples are carbon cleaned

Calibration Standard	Vol. of MeOH	Amount spiked (ug)
S1	2825	25
S2	2800	50
S3	2760	150
S4	2813	37.5
S5	2775	75
S6	2725	125
ICV Maxxam Analytcs	2788	62.5 - I-5203(2/3)
FB	2850	-

SK-7221(2/3)
F-5197(2/3)

Worksheet Reagent Tracking Record

Worksheet # 5330618

Surrogate/Spike solutions	✓	Solution ID #		Conc.	Volume (µL)				Samples		
					Blk-Spk		MS		Solid	Liquid	
DGT Spike				100 ug/mL	60	30	60	30	NA	NA	
Diquat Dibromide				50 ug/mL	NA	350	NA	350	NA	NA	
Explosives Spiking solution A				20 ug/mL	250	100	250	100	NA	NA	
Explosives Spiking solution B				20/80 ug/mL	250	100	250	100	NA	NA	
Formaldehyde Spike				100 ug/mL	25	25	25	25	NA	NA	
Glyphosate Spike				25 ug/mL	500	20	500	20	NA	NA	
Nonylphenol Ethoxylate Spike				100 ug/mL	100	100	100	100	NA	NA	
Nonylphenol Spike				10 ug/mL	100	100	100	100	NA	NA	
Paraquat Cl Tetrahydrate				20 ug/mL	NA	125	NA	125	NA	NA	
Perchlorate Standard Spike				10 ng/mL	NA	100	NA	100	NA	NA	
Perchlorate Standard Spike				500 ng/mL	40	NA	40	NA	NA	NA	
Perchlorate O-18 Internal Standard				0.10 ng/µL	20	20	20	20	20	20	
Morpholine Second Source Working Std				2500 ug/L	NA	80	NA	80	NA	NA	
Morpholine-D8 Internal Standard				10 ug/mL	NA	50	NA	50	NA	50	
Steril Second Source Spiking Solution				NA	20	NA	20	NA	NA	NA	
Sterilants Comp. IS Working Solution				3 ug/mL	50	NA	50	NA	50	NA	
Comp. PFC Working Solution A	✓	I-5203(2/3)		1ug/mL	75	21	62.5	75	21	62.5	
PFC Internal Standard Solution	✓	S2-6791(1/4) J83		50/125 ng/mL	200	100	150	200	100	150	
PFC Injection IS	✓	S2-6716(2/4) J81		400 ng/mL	20	20	20	20	20	20	
ICV	✓	I-5203(2/3)		1ug/mL			62.5				
Solvent/Reagent	✓	Lot No.	Date Opened	Solvent/Reagent	✓	Lot No.	Date Opened/Prepared	*Spiked by:			
DCM				50% NaOH				DP5			
Ottawa Sand				o-Phosphoric Acid				Spike Date			
Methanol	✓	SHB53481	2017/12/23	Borax				2017/12/23			
2-Propanol (IPA)				Calcium Chloride				Spike Syringe/Pipette ID#			
Acetonitrile				EDTA				Inj. IS: ✓			
Sodium Sulfate				Phosphate Buffer				G243906			
70:30 Methanol: Water				Sodium Thiosulphate				Int. Std Syringe/Pipette ID#			
60:40 Water: Methanol	✓	PRLRE108 232		DNPH				K19865F			
DCM:Ethyl Ether (75:25)				FMOG				*Spiking Witnessed by:			
Hexane:IPA (98:2)				5M Acetate Buffer				J83			
2% Formic Acid	✓	PRLRE108 236		0.2% NH ₄ OH	✓	PRLRE 108 235		Final pH			
0.2% Formic Acid				Leachate Fluid				X			
0.05M KOH				Reagent Water	✓	57297 2017/12/23					
0.05M HCl											
BW Carb.	✓	98806V									
Equipment & ID	✓	Equipment	ID#	✓	Equipment	Lot #	Bottle Tracking				
Pipettor	✓	SPE Cartridge	003357149A	✓	QC Balance ID	FL-1	Bottle# 18630				
		Filter			Thermometer ID & Temp		Cap# 18422				
Dispenser	✓	Centrifuge	42148683				Systems plus Lot#				
		Sonicator					17-12-12				

Comments: 250 Volumetric cylinder # 3026

Worksheet: 5330618

Dilution and Column Cleanup Worksheet

Maxxam Analytics

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added (uL)	New Effective Final Volume	INITIAL DATE	Column Clean Up
B7S5172	FTT974-01	1X	2X	62.5	—	150	62.5	2017/12/23 OPS	—
B7S5172	FTT974-01	1X	20X	6.25	—	150	6.25	2017/12/23 OPS	—
B7S5172	FTT975-01	1X	10X	12.5	—	150	12.5	2017/12/23 OPS	—
B7S6042	FUA629-01	1X	5X	25	—	150	25	2017/12/23 OPS	—
B7S6042	FUA629-01	1X	25X	5	—	150	5	2017/12/23 OPS	—
B7S6042	FUA630-01	1X	5X	25	—	150	25	2017/12/23 OPS	—
B7S6042	FUA630-01	1X	25X	5	—	150	5	2017/12/23 OPS	—
B7S7424	FUH130-01	1X	5X	25	—	150	25	2017/12/23 OPS	—
B7S7424	FUH130-01	1X	50X	2.5	122.5	150	12.5	2017/12/23 OPS	—
B7S7424	FUH129-01	1X	5X	25	—	150	25	2017/12/23 OPS	—
B7S7424	FUH129-01	1X	50X	2.5	122.5	150	12.5	2017/12/23 OPS	—

Worksheet: 5330618

Dilution and Column Cleanup Worksheet

Maxxam Analytics

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added (mL)	Solvent Added mL	Int Stan Added (u)	New Effective Final Volume	INITIAL DATE	Column Clean Up
B7S7424	FOH 131-01	1x	10x	12.5	—	150	12.5	2017/12/23 DPS	—
B7S7424	FOH 132-01	1x	10x	12.5	—	150	12.5	2017/12/23 DPS	—
B7S7424	FOH 133-01	1x	10x	12.5	—	150	12.5	2017/12/23 DPS	—
B7S7424	FOH 134-01	1x	10x	12.5	—	150	12.5	2017/12/23 DPS	—

Worksheet Number: 5330618

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	DL	B7S5172 FTT971
6:2 Fluorotelomer sulfonate	ug/L	106.85201	117.12339	107.16498	0	0.02	0.03023529
8:2 Fluorotelomer sulfonate	ug/L	116.81382	105.26546	108.99492	0	0.02	0
N-ethylperfluorooctane sulfonamide EtFOSAA	ug/L	101.12602	103.13133	103.99503	0	0.04	N/A*****
N-ethylperfluorooctane sulfonamide MeFOSAA	ug/L	118.72993	117.64114	117.08579	0	0.02	N/A*****
N-methylperfluorooctane sulfonamide MeFOSAA	ug/L	109.89062	119.33783	106.77001	0	0.02	N/A*****
N-methylperfluorooctanesulfonamidol	ug/L	100.05712	103.57735	107.27752	0	0.04	N/A*****
N-methylperfluorooctanesulfonamidol	ug/L	112.12493	111.95712	116.62096	0	0.02	N/A*****
Perfluorobutanoic acid	ug/L	97.43592	98.18069	111.82863	0	0.02	N/A*****
Perfluorobutane Sulfonate (PFBS)	ug/L	110.76361	114.77455	113.48155	0	0.02	0.00948690
Perfluorodecane Sulfonate	ug/L	126.12648	111.67382	113.55445	0	0.02	0.01293866
Perfluoroheptanoic Acid (PFHpA)	ug/L	92.74281	98.01758	101.81790	0	0.02	0
Perfluoroheptane sulfonate	ug/L	110.77824	102.17224	107.58442	0	0.02	0.01403665
Perfluorohexanoic Acid (PFHxA)	ug/L	117.60312	103.29420	107.09129	0	0.02	N/A*****
Perfluorohexanoic Acid (PFHxA)	ug/L	102.42121	91.04979	113.78914	0	0.02	0.04652512
Perfluorohexane Sulfonate (PFHxS)	ug/L	1165.6NC	95.30038NC	119.23018	0	0.02	0.34895659
Perfluorononanoic Acid (PFNA)	ug/L	105.46254	108.71292	107.80876	0	0.02	0.00793308
Perfluorooctane Sulfonamide (PFOSA)	ug/L	111.37244	108.68266	117.06623	0	0.02	0
Perfluoropentanoic Acid (PFPeA)	ug/L	107.64495	112.54254	110.25259	0	0.02	0.02090083
Perfluorotetradecanoic Acid	ug/L	101.45251	107.65888	111.95398	0	0.02	0
Perfluorotridecanoic Acid	ug/L	110.26010	115.81759	117.73191	0	0.02	0
Perfluoroundecanoic Acid (PFUnA)	ug/L	109.09941	112.93248	105.88149	0	0.02	0
Perfluorodecanoic Acid (PFDA)	ug/L	108.75923	116.08312	111.75388	0	0.02	0
Perfluorododecanoic Acid (PFDoA)	ug/L	111.17762	113.13244	104.24065	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	105.19022	108.39001	116.28696	0	0.02	0.07559189
Perfluorooctane Sulfonate (PFOS)	ug/L	122.16NC	117.279NC	112.69215	0	0.02	0.63097780
13C2-6:2 Fluorotelomer sulfonate	ug/L	94.7514508	87.5029766	94.8833626	111.853620		105.306510
13C2-8:2 Fluorotelomer sulfonate	ug/L	100.209786	100.077924	94.4682199	103.724989		93.9894686
13C2-perfluorotetradecanoic acid	ug/L	85.7725216	86.0370281	81.2378537	88.8660254		76.1113817
13C4-Perfluorobutanoic acid	ug/L	60.9049092	81.1802320	94.1843086	94.0537579		100.729949
D3-MeFOSAA	ug/L	103.391266	140.674381	84.2088262	95.3935576		N/A*****
D5-EtFOSAA	ug/L	98.7773666	133.074689	80.6544243	97.1127486		N/A*****
N-methyl-d3-perfluorooctane sulfona	ug/L	87.3183632	83.5778579	79.6583590	87.1474478		N/A*****
N-ethyl-d5-perfluorooctane sulfonam	ug/L	76.2966677	79.8074230	81.8640072	84.1936803		N/A*****
13C2-Perfluorodecanoic acid	ug/L	92.9805346	92.1059094	90.6693390	95.0495286		91.8801235
13C2-Perfluorododecanoic acid	ug/L	85.1989494	86.0027644	91.7820194	96.7972234		85.9957132
13C2-Perfluorohexanoic acid	ug/L	96.8992297	102.174217	92.2960027	100.330783		100.460685
13C2-Perfluoroundecanoic acid	ug/L	89.9671054	87.9897762	94.4843286	95.4942420		92.6603418
13C4-Perfluoroheptanoic acid	ug/L	94.6780001	99.7158111	93.3229343	98.2062918		98.6267449
13C5-Perfluorononanoic acid	ug/L	100.486960	97.4765252	94.3823115	98.6537047		102.879965
13C4-Perfluorooctanoic acid	ug/L	101.150626	99.5257149	92.4928022	88.1039303		97.6044427
13C4-Perfluorooctanesulfonate	ug/L	96.6301787	95.2306523	87.1054118	101.088865		93.1667168
13C5-Perfluoropentanoic acid	ug/L	101.165191	94.5226695	94.2703929	95.9643935		103.854574
13C8-Perfluorooctane Sulfonamide	ug/L	83.0736171	86.5808884	81.4956559	93.2876297		89.6236360
18O2-Perfluorohexanesulfonate	ug/L	88.5250275	97.8690036	90.9702464	98.6479886		93.9962458

Worksheet Number: 5330618

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	DL	B7S5172 FTT974	DL	B7S5172 FTT975	DL	B7S6042 FUA629	B7S6042 FUA630
6:2 Fluorotelomer sulfonate	0.023	17.7087998	0.4	0.49990881	0.02	15.8050688	12.9491985
8:2 Fluorotelomer sulfonate	0.023	2.80076681	0.4	0.01059922	0.02	0	0
N-ethylperfluorooctane sulfonamide	0.023	N/A*****	0.04	N/A*****	0.02	0	0
EtFOSAA	0.023	N/A*****	0.04	N/A*****	0.02	0	0
N-ethylperfluorooctane sulfonamide	0.023	N/A*****	0.04	N/A*****	0.02	0	0
N-methylperfluorooctane sulfonamide	0.023	N/A*****	0.04	N/A*****	0.02	0.06832963	0
MeFOSAA	0.023	N/A*****	0.04	N/A*****	0.02	0	0
N-methylperfluorooctanesulfonamide	0.023	N/A*****	0.04	N/A*****	0.02	0	0
Perfluorobutanoic acid	0.023	0.40872442	0.04	0.09325686	0.02	1.51069008	2.34020747
Perfluorobutane Sulfonate (PFBS)	0.023	0.17885163	0.04	0.07127125	0.02	0.87949536	0.54949739
Perfluorodecane Sulfonate	0.023	0	0.04	0	0.02	0	0
Perfluoroheptanoic Acid (PFHpA)	0.023	0.68146168	0.04	0.10950482	0.02	1.01443029	1.79676713
Perfluoroheptane sulfonate	0.023	N/A*****	0.04	N/A*****	0.02	0.11942250	0.06623544
Perfluorohexanoic Acid (PFHxA)	0.023	1.77455050	0.04	0.33610300	0.02	5.49392933	6.87158067
Perfluorohexane Sulfonate (PFHxS)	0.023	5.75557859	0.4	0.89166702	0.02	9.27342146	7.42726000
Perfluorononanoic Acid (PFNA)	0.023	0.15326200	0.04	0.03064521	0.02	0	0
Perfluorooctane Sulfonamide (PFOSA)	0.023	0.01800535	0.04	0.01032431	0.02	0	0
Perfluoropentanoic Acid (PFPeA)	0.023	1.02607919	0.04	0.25208271	0.02	6.61039648	8.15946826
Perfluorotetradecanoic Acid	0.023	0	0.04	0	0.02	0	0
Perfluorotridecanoic Acid	0.023	0	0.04	0	0.02	0	0
Perfluoroundecanoic Acid (PFUnA)	0.023	0	0.04	0	0.02	0	0
Perfluorodecanoic Acid (PFDA)	0.023	0.01541207	0.04	0	0.02	0	0
Perfluorododecanoic Acid (PFDoA)	0.023	0	0.04	0	0.02	0	0
Perfluoro-n-Octanoic Acid (PFOA)	0.023	1.77638619	0.04	0.23855367	0.02	0.87296293	1.09488796
Perfluorooctane Sulfonate (PFOS)	0.023	15.6101780	0.4	0.96559818	0.02	0.04782248	0
13C2-6:2 Fluorotelomer sulfonate		88.0791877		93.2161028		91.1810715	89.1297964
13C2-8:2 Fluorotelomer sulfonate		88.8291148		88.5335312		99.3327616	86.1056932
13C2-perfluorotetradecanoic acid		58.1141458		72.4613293		79.1669291	79.7694786
13C4-Perfluorobutanoic acid		95.9202620		83.7680695		94.4428576	84.3420074
D3-MeFOSAA		N/A*****		N/A*****		85.0750661	83.4265591
D5-EtFOSAA		N/A*****		N/A*****		81.5454630	83.0796536
N-methyl-d3-perfluorooctane sulfona		N/A*****		N/A*****		66.2197663	60.6368913
N-ethyl-d5-perfluorooctane sulfonam		N/A*****		N/A*****		64.3848666	68.2567723
13C2-Perfluorodecanoic acid		89.2161659		85.1262925		88.7450425	77.6323785
13C2-Perfluorododecanoic acid		80.9330194		77.9565705		87.1259522	82.1664271
13C2-Perfluorohexanoic acid		98.1502704		93.2925449		91.9093577	83.0505353
13C2-Perfluoroundecanoic acid		89.4337522		84.9428095		88.2341672	84.6910652
13C4-Perfluoroheptanoic acid		92.9663123		91.6455296		91.1738834	84.4631576
13C5-Perfluorononanoic acid		99.3852652		95.4271201		95.3739779	90.3008974
13C4-Perfluorooctanoic acid		90.4375979		94.4192833		94.7474411	87.8547814
13C4-Perfluorooctanesulfonate		86.0676485		92.2713347		100.138792	91.8551631
13C5-Perfluoropentanoic acid		98.9279918		89.7749600		97.2620082	88.1197930
13C8-Perfluorooctane Sulfonamide		83.2947010		83.9627845		88.9113541	77.6258881
18O2-Perfluorohexanesulfonate		89.8162434		83.5678819		99.5119049	97.2648762

Worksheet Number: 5330618

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	DL	B7S7424 FUH129	B7S7424 FUH130	DL	B7S7424 FUH131	DL	B7S7424 FUH132
6:2 Fluorotelomer sulfonate	0.5	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
8:2 Fluorotelomer sulfonate	0.1	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
N-ethylperfluorooctane sulfonamide	0.1	0	0	0.2	0	0.04	0
EtFOSAA	0.1	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
N-ethylperfluorooctane sulfonamide	0.1	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
N-methylperfluorooctane sulfonamide	0.1	0	0	0.2	0	0.04	0
MeFOSAA	0.1	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
N-methylperfluorooctanesulfonamidol	0.1	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
Perfluorobutanoic acid	0.1	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
Perfluorobutane Sulfonate (PFBS)	0.1	0.13427665	0.14715455	0.1	0.06355305	0.02	0.06545686
Perfluorodecane Sulfonate	0.1	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
Perfluoroheptanoic Acid (PFHpA)	0.1	0.88749788	0.86326604	0.1	0.39339425	0.02	0.13282929
Perfluoroheptane sulfonate	0.1	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
Perfluorohexanoic Acid (PFHxA)	0.5	2.22621713	2.17850437	0.1	1.20369965	0.2	0.49555721
Perfluorohexane Sulfonate (PFHxS)	0.5	7.02486445	6.63078753	1	1.97377343	0.2	1.55008042
Perfluorononanoic Acid (PFNA)	0.1	0.11414473	0.11977966	0.1	0.03136357	0.02	0.01690573
Perfluorooctane Sulfonamide (PFOSA)	0.1	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
Perfluoropentanoic Acid (PFPeA)	0.5	N/A *****	N/A *****	0.1	N/A *****	0.02	N/A *****
Perfluorotetradecanoic Acid	0.1	0	0	0.1	0	0.02	0
Perfluorotridecanoic Acid	0.1	0	0	0.1	0	0.02	0
Perfluoroundecanoic Acid (PFUnA)	0.1	0	0	0.1	0	0.02	0
Perfluorodecanoic Acid (PFDA)	0.1	0.03275621	0	0.1	0.01002719	0.02	0.00708980
Perfluorododecanoic Acid (PFDoA)	0.1	0	0	0.1	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	0.1	1.21676310	1.12312405	0.1	1.29696833	0.2	0.37922297
Perfluorooctane Sulfonate (PFOS)	0.1	18.9831722	17.5898712	1	6.11435246	0.2	3.12367712
13C2-6:2 Fluorotelomer sulfonate		N/A *****	N/A *****		N/A *****		N/A *****
13C2-8:2 Fluorotelomer sulfonate		N/A *****	N/A *****		N/A *****		N/A *****
13C2-perfluorotetradecanoic acid		82.7171813	74.8803099		73.9366134		80.1405548
13C4-Perfluorobutanoic acid		N/A *****	N/A *****		N/A *****		N/A *****
D3-MeFOSAA		N/A *****	N/A *****		N/A *****		N/A *****
D5-EtFOSAA		N/A *****	N/A *****		N/A *****		N/A *****
N-methyl-d3-perfluorooctane sulfona		N/A *****	N/A *****		N/A *****		N/A *****
N-ethyl-d5-perfluorooctane sulfonam		N/A *****	N/A *****		N/A *****		N/A *****
13C2-Perfluorodecanoic acid		87.3753157	84.1927975		84.6068212		87.0282732
13C2-Perfluorododecanoic acid		85.3953361	75.3060150		82.0412488		84.4568325
13C2-Perfluorohexanoic acid		87.7219278	92.1764254		97.2933490		89.8313508
13C2-Perfluoroundecanoic acid		88.2503304	88.5589935		84.4024495		86.8983418
13C4-Perfluoroheptanoic acid		88.5589883	93.3005646		87.9151078		87.9795008
13C5-Perfluorononanoic acid		88.5316472	89.6489961		95.7212534		96.1317789
13C4-Perfluorooctanoic acid		83.2598509	89.2273137		91.8767790		85.6836153
13C4-Perfluorooctanesulfonate		93.9480140	99.1372436		92.9083355		94.4277125
13C5-Perfluoropentanoic acid		N/A *****	N/A *****		N/A *****		N/A *****
13C8-Perfluorooctane Sulfonamide		N/A *****	N/A *****		N/A *****		N/A *****
18O2-Perfluorohexanesulfonate		88.4088040	94.6214478		95.6696737		93.0357908

Worksheet Number: 5330618

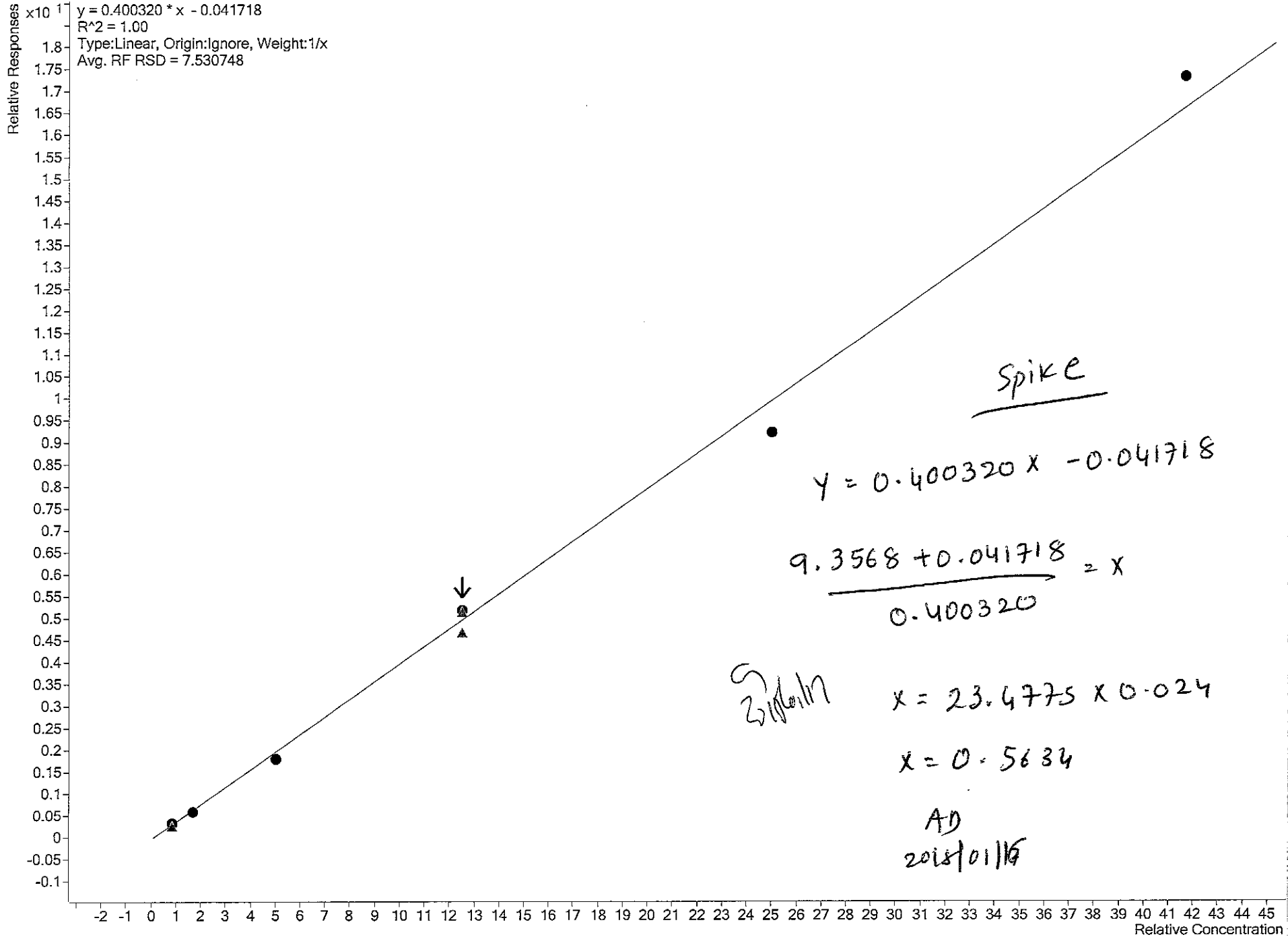
PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B7S7424 FUH133	B7S7424 FUH134	DL	RDL	MDL	IDL
6:2 Fluorotelomer sulfonate	N/A*****	N/A*****	0.02	0.02	0.0066	0
8:2 Fluorotelomer sulfonate	N/A*****	N/A*****	0.02	0.02	0.0066	0
N-ethylperfluorooctane sulfonamide	0	0	0.04	0.02	0.01	0
EtFOSAA	N/A*****	N/A*****	0.02	0.02	0.0033	0
N-ethylperfluorooctane sulfonamide	N/A*****	N/A*****	0.02	0.02	0.0079	0
N-methylperfluorooctane sulfonamide	0	0	0.04	0.02	0.013	0
MeFOSAA	N/A*****	N/A*****	0.02	0.02	0.0029	0
N-methylperfluorooctanesulfonamidol	N/A*****	N/A*****	0.02	0.02	0.012	0
Perfluorobutanoic acid	N/A*****	N/A*****	0.02	0.02	0.0055	0
Perfluorobutane Sulfonate (PFBS)	0.04754247	0.07564361	0.02	0.02	0.0054	0
Perfluorodecane Sulfonate	N/A*****	N/A*****	0.02	0.02	0.006	0
Perfluoroheptanoic Acid (PFHpA)	0.16378842	0.43627764	0.02	0.02	0.0074	0
Perfluoroheptane sulfonate	N/A*****	N/A*****	0.02	0.02	0.008	0
Perfluorohexanoic Acid (PFHxA)	0.48134771	0.93233642	0.02	0.02	0.0035	0
Perfluorohexane Sulfonate (PFHxS)	1.47681874	2.57472748	0.2	0.02	0.0056	0
Perfluorononanoic Acid (PFNA)	0.02938606	0.02657825	0.02	0.02	0.0087	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*****	N/A*****	0.02	0.02	0.0034	0
Perfluoropentanoic Acid (PFPeA)	N/A*****	N/A*****	0.02	0.02	0.0075	0
Perfluorotetradecanoic Acid	0	0	0.02	0.02	0.0027	0
Perfluorotridecanoic Acid	0	0	0.02	0.02	0.0038	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0.02	0.02	0.0025	0
Perfluorodecanoic Acid (PFDA)	0.00660633	0.00585640	0.02	0.02	0.0061	0
Perfluorododecanoic Acid (PFDoA)	0	0	0.02	0.02	0.005	0
Perfluoro-n-Octanoic Acid (PFOA)	0.25151927	0.35014172	0.02	0.02	0.0033	0
Perfluorooctane Sulfonate (PFOS)	3.76867340	1.38359020	0.2	0.02	0.006	0
13C2-6:2 Fluorotelomer sulfonate	N/A*****	N/A*****				
13C2-8:2 Fluorotelomer sulfonate	N/A*****	N/A*****				
13C2-perfluorotetradecanoic acid	77.5225411	86.0273380				
13C4-Perfluorobutanoic acid	N/A*****	N/A*****				
D3-MeFOSAA	88.1623203	N/A*****				
D5-EtFOSAA	83.6599072	N/A*****				
N-methyl-d3-perfluorooctane sulfona	N/A*****	N/A*****				
N-ethyl-d5-perfluorooctane sulfonam	N/A*****	N/A*****				
13C2-Perfluorodecanoic acid	84.3932658	94.1056584				
13C2-Perfluorododecanoic acid	84.7184165	87.0225680				
13C2-Perfluorohexanoic acid	86.9134688	92.9589675				
13C2-Perfluoroundecanoic acid	82.3990271	94.8661103				
13C4-Perfluoroheptanoic acid	94.3343107	88.9580111				
13C5-Perfluorononanoic acid	98.0152154	99.2557048				
13C4-Perfluorooctanoic acid	94.5451816	93.4992124				
13C4-Perfluorooctanesulfonate	81.0030372	88.6032314				
13C5-Perfluoropentanoic acid	N/A*****	N/A*****				
13C8-Perfluorooctane Sulfonamide	N/A*****	N/A*****				
18O2-Perfluorohexanesulfonate	88.6268297	80.5102608				

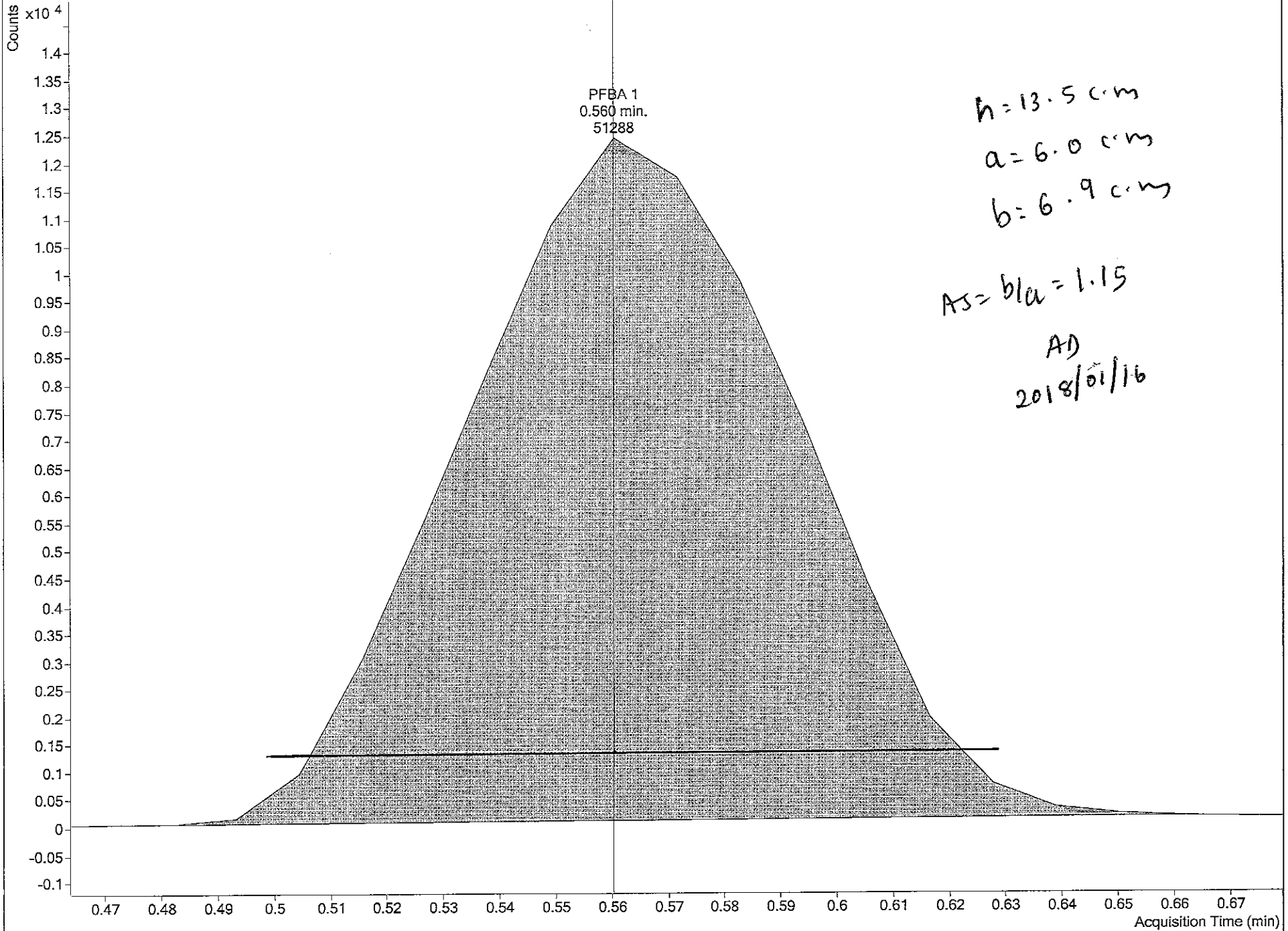
PFOS 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs

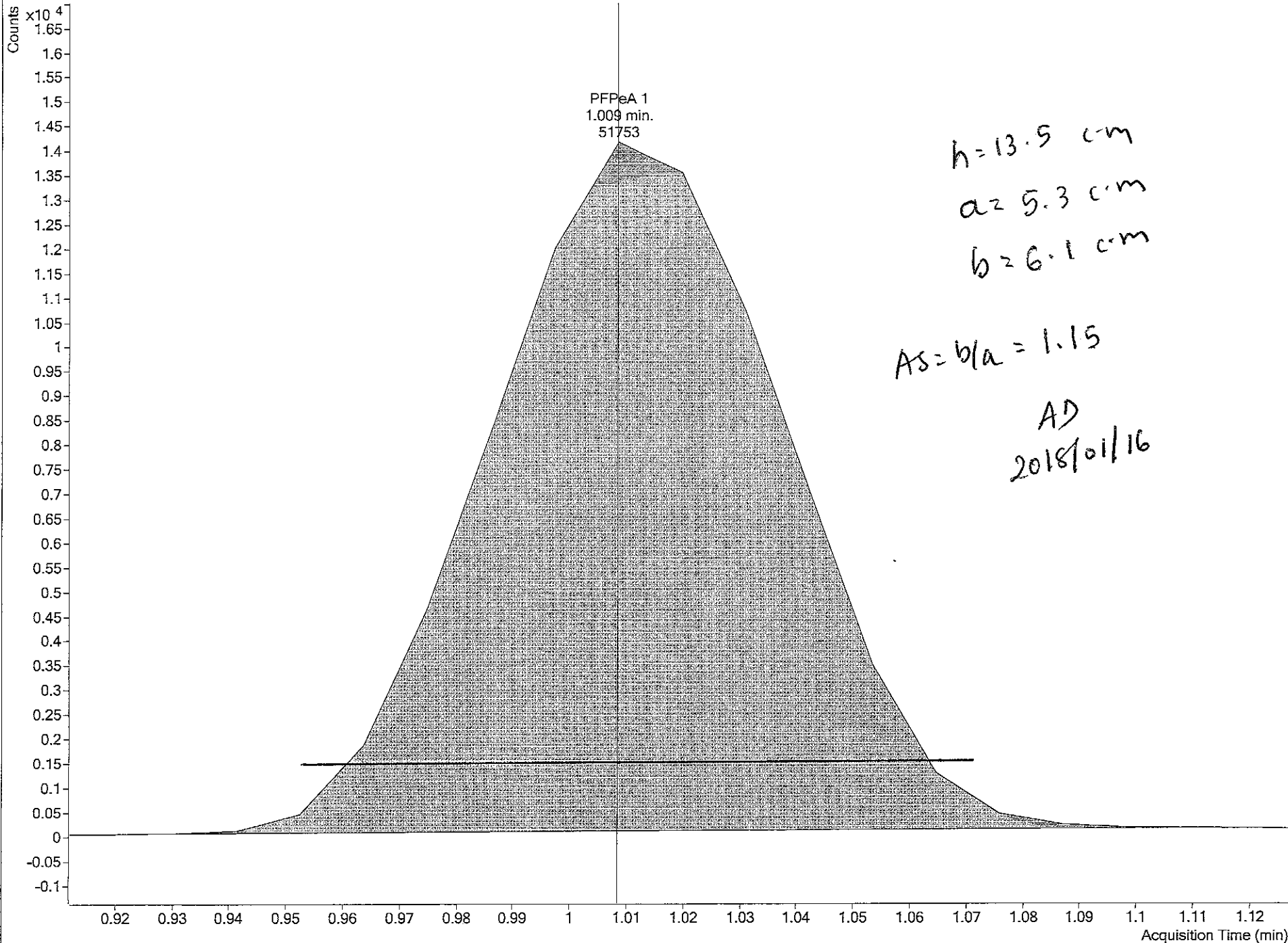
Maxxam Analytics

$y = 0.400320 * x - 0.041718$
 $R^2 = 1.00$
Type: Linear, Origin: Ignore, Weight: 1/x
Avg. RF RSD = 7.530748



319 of 744





Report Name: Worksheet - Parameter Lists

Report Date: 2017/12/23

Test Code: PFOSALCM-W

Worksheet Number: 5330618

<u>Sample Number</u>	<u>Parameter Code</u>	<u>Parameter</u>	
FTT971-01	6:2FTS	6:2 Fluorotelomer sulfonate	*
FTT974-01	8:2FTS	8:2 Fluorotelomer sulfonate	*
FTT975-01	PFBA	Perfluorobutanoic acid	
	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFDS	Perfluorodecane Sulfonate	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFOSA	Perfluorooctane Sulfonamide (PFOSA)	
	PFPEA	Perfluoropentanoic Acid (PFPeA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FUA629-01	6:2FTS	6:2 Fluorotelomer sulfonate	*
FUA630-01	8:2FTS	8:2 Fluorotelomer sulfonate	*
	ETFOSA	N-ethylperfluorooctane sulfonamide	*
	ETFOSAA	EtFOSAA	*
	ETFOSE	N-ethylperfluorooctane sulfonamide	*
	MEFOSA	N-methylperfluorooctane sulfonamide	*
	MEFOSAA	MeFOSAA	*
	MEFOSE	N-	*

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists

Report Date: 2017/12/23

Test Code: PFOSALCM-W

Worksheet Number: 5330618

<u>Sample Number</u>	<u>Parameter Code</u>	<u>Parameter</u>
		methylperfluorooctanesulfonamide
	PFBA	Perfluorobutanoic acid
	PFBS	Perfluorobutane Sulfonate (PFBS)
	PFDS	Perfluorodecane Sulfonate
	PFHPA	Perfluoroheptanoic Acid (PFHpA)
	PFHPS	Perfluoroheptane sulfonate
	PFHXA	Perfluorohexanoic Acid (PFHxA)
	PFHXS	Perfluorohexane Sulfonate (PFHxS)
	PFNA	Perfluorononanoic Acid (PFNA)
	PFOSA	Perfluorooctane Sulfonamide (PFOSA)
	PFPEA	Perfluoropentanoic Acid (PFPeA)
	PFTEDA	Perfluorotetradecanoic Acid
	PFTRDA	Perfluorotridecanoic Acid
	PFUNA	Perfluoroundecanoic Acid (PFUnA)
	PFDA	Perfluorodecanoic Acid (PFDA)
	PFDOA	Perfluorododecanoic Acid (PFDoA)
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)
	PFOS	Perfluorooctane Sulfonate (PFOS)
FUH129-01	ETFOSA	N-ethylperfluorooctane sulfonamide *
FUH130-01	MEFOSA	N-methylperfluorooctane sulfonamide *
FUH131-01	PFBS	Perfluorobutane Sulfonate (PFBS)
FUH132-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)
FUH133-01	PFHXA	Perfluorohexanoic Acid (PFHxA)

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists

Report Date: 2017/12/23

Test Code: PFOSALCM-W

Worksheet Number: 5330618

<u>Sample Number</u>	<u>Parameter Code</u>	<u>Parameter</u>
FUH134-01	PFHXS	Perfluorohexane Sulfonate (PFHxS)
	PFNA	Perfluorononanoic Acid (PFNA)
	PFTEDA	Perfluorotetradecanoic Acid
	PFTRDA	Perfluorotridecanoic Acid
	PFUNA	Perfluoroundecanoic Acid (PFUnA)
	PFDA	Perfluorodecanoic Acid (PFDA)
	PFDOA	Perfluorododecanoic Acid (PFDoA)
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)
	PFOS	Perfluorooctane Sulfonate (PFOS)

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5330618 Instrument Sequences

1.	 5330618:MTRX SPK	MTRX SPK
2.	 5330618:MTRX SPK:D1	MTRX SPK :D1
3.	 5330618:SPIKE	SPIKE
4.	 5330618:BLANK	BLANK
5.	 5330618:FTT971-01	
6.	 5330618:FTT974-01	
7.	 5330618:FTT975-01	
8.	 5330618:FUA629-01	
9.	 5330618:FUA630-01	
10.	 5330618:FUH129-01	06-MW32-1217
11.	 5330618:FUH130-01	06-MW32-1217 DUP
12.	 5330618:FUH131-01	06-MW33-1217
13.	 5330618:FUH132-01	06-MW34-1217
14.	 5330618:FUH133-01	06-MW35-1217
15.	 5330618:FUH134-01	06-MW36-1217

Worklist Report



Instrument Name: LCMS04 Worklist Path: D:\MassHunter\Worklists\PFCs\PFC_180112_Low_C.wkl

Operator Name: ---
 Run Type: Standard Start
 Part of Method to Run: Acquisition Only
 Execution of Acquisition-DA: Synchronous
 Acquisition Method Path: D:\MassHunter\Acquisition Method
 DA Method Path: D:\MassHunter\methods
 Data File Path: D:\MassHunter\Data\PFC\20180112\WS#5330618
 Pre-Worklist Script: ---
 Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
 Acquisition Clean Up Script: ---
 Overlapped Injection: Yes
 Clear Sample Selection After Run: Yes
 Wait Time for Ready(Min): 10
 Threshold Disk Value(GB): 10
 Comment: Column #196
 MP A1: Solution# 250 (FSRE18)
 MP B1: Methanol (SHBJ1155), Sigma

*KC
2018/01/12*

Plate Barcode:

Plate	Barcode
P3	
P4	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P3-A1	PFC_Water_Low.m	WS#5330618_01.d	Sample		As Method	-
2	STD 1	P3-D9	PFC_Water_Low.m	WS#5330618_02.d	Calibration	STD 1	As Method	-
3	STD 2	P3-E1	PFC_Water_Low.m	WS#5330618_03.d	Calibration	STD 2	As Method	-
4	STD 3	P3-E2	PFC_Water_Low.m	WS#5330618_04.d	Calibration	STD 3	As Method	-
5	STD 4	P3-E3	PFC_Water_Low.m	WS#5330618_05.d	Calibration	STD 4	As Method	-
6	STD 5	P3-E4	PFC_Water_Low.m	WS#5330618_06.d	Calibration	STD 5	As Method	-

328 of 744

Worklist Report

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment	
Maxxam Analytes	7	STD 6	P3-E5	PFC_Water_Low.m	WS#5330618_07.d	Calibration	STD 6	As Method	-
	8	IB	P3-E6	PFC_Water_Low.m	WS#5330618_08.d	Sample		As Method	-
	9	ICV	P3-E7	PFC_Water_Low.m	WS#5330618_09.d	QC	ICV	As Method	-
	10	ISC	P3-D9	PFC_Water_Low.m	WS#5330618_10.d	ConCal	STD 1	As Method	-
	11	5330618:BLANK	P3-E8	PFC_Water_Low.m	WS#5330618_11.d	Sample		As Method	-
	12	5330618:SPIKE	P3-E9	PFC_Water_Low.m	WS#5330618_12.d	QC	ICV	As Method	-
	13	5330618:MTRX SPK	P3-F1	PFC_Water_Low.m	WS#5330618_13.d	QC	ICV	As Method	-
	14	5330618:MTRX SPK:D1	P3-F2	PFC_Water_Low.m	WS#5330618_14.d	QC	ICV	As Method	-
	15	IB	P3-E6	PFC_Water_Low.m	WS#5330618_15.d	Sample		As Method	-
	16	5330618:FTT971-01	P3-F3	PFC_Water_Low.m	WS#5330618_16.d	Sample		As Method	-
	17	5330618:FTT974-01:20x	P3-F4	PFC_Water_Low.m	WS#5330618_17.d	Sample		As Method	-
	18	5330618:FTT974-01:2x	P3-F5	PFC_Water_Low.m	WS#5330618_18.d	Sample		As Method	-
	19	IB	P3-E6	PFC_Water_Low.m	WS#5330618_19.d	Sample		As Method	-
	20	5330618:FTT975-01:10x	P3-F6	PFC_Water_Low.m	WS#5330618_20.d	Sample		As Method	-
	21	5330618:FTT975-01	P3-F7	PFC_Water_Low.m	WS#5330618_21.d	Sample		As Method	-
	22	IB	P3-E6	PFC_Water_Low.m	WS#5330618_22.d	Sample		As Method	-
	23	5330618:FUA629-01:25x	P3-F8	PFC_Water_Low.m	WS#5330618_23.d	Sample		As Method	-
	24	5330618:FUA629-01:5x	P3-F9	PFC_Water_Low.m	WS#5330618_24.d	Sample		As Method	-
	25	IB	P3-E6	PFC_Water_Low.m	WS#5330618_25.d	Sample		As Method	-
	26	5330618:FUA630-01:25x	P4-A1	PFC_Water_Low.m	WS#5330618_26.d	Sample		As Method	-
	27	5330618:FUA630-01:5x	P4-A2	PFC_Water_Low.m	WS#5330618_27.d	Sample		As Method	-
	28	IB	P3-E6	PFC_Water_Low.m	WS#5330618_28.d	Sample		As Method	-
	29	CCV	P3-E3	PFC_Water_Low.m	WS#5330618_29.d	ConCal	STD 4	As Method	-

D:\MassHunter\Worklists\PFCs\PFC_180112_Low_C.wkl

Worklist Report

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment		
Maximum Analytics	30	5330618:FUH129-01:50x	P4-A3	PFC_Water_Low.m	WS#5330618_30.d	Sample		As Method	-	
	31	5330618:FUH129-01:5x	P4-A4	PFC_Water_Low.m	WS#5330618_31.d	Sample		As Method	-	
	32	IB	P3-E6	PFC_Water_Low.m	WS#5330618_32.d	Sample		As Method	-	
	33	5330618:FUH130-01:50x	P4-A5	PFC_Water_Low.m	WS#5330618_33.d	Sample		As Method	-	
	34	5330618:FUH130-01:5x	P4-A6	PFC_Water_Low.m	WS#5330618_34.d	Sample		As Method	-	
	35	IB	P3-E6	PFC_Water_Low.m	WS#5330618_35.d	Sample		As Method	-	
	36	5330618:FUH131-01:10x	P4-A7	PFC_Water_Low.m	WS#5330618_36.d	Sample		As Method	-	
	37	5330618:FUH131-01	P4-A8	PFC_Water_Low.m	WS#5330618_37.d	Sample		As Method	-	
	38	IB	P3-E6	PFC_Water_Low.m	WS#5330618_38.d	Sample		As Method	-	
	39	5330618:FUH132-01:10x	P4-A9	PFC_Water_Low.m	WS#5330618_39.d	Sample		As Method	-	
	40	5330618:FUH132-01	P4-B1	PFC_Water_Low.m	WS#5330618_40.d	Sample		As Method	-	
	41	IB	P3-E6	PFC_Water_Low.m	WS#5330618_41.d	Sample		As Method	-	
	42	5330618:FUH133-01:10x	P4-B2	PFC_Water_Low.m	WS#5330618_42.d	Sample		As Method	-	
	43	5330618:FUH133-01	P4-B3	PFC_Water_Low.m	WS#5330618_43.d	Sample		As Method	-	
	44	IB	P3-E6	PFC_Water_Low.m	WS#5330618_44.d	Sample		As Method	-	
	45	CCV	P3-E3	PFC_Water_Low.m	WS#5330618_45.d	ConCal	STD 4		As Method	-
	46	5330618:FUH134-01:10x	P4-B4	PFC_Water_Low.m	WS#5330618_46.d	Sample		As Method	-	
	47	5330618:FUH134-01	P4-B5	PFC_Water_Low.m	WS#5330618_47.d	Sample		As Method	-	
	48	IB	P3-E6	PFC_Water_Low.m	WS#5330618_48.d	Sample		As Method	-	
49	CCV	P3-E3	PFC_Water_Low.m	WS#5330618_49.d	ConCal	STD 4		As Method	-	

328 of 744

FINAL INJECTION SEQUENCE

Maxxam Analytics

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/01/13 5:20 AM	PFC_Water_Low.m	WS#5330618_02.d	P3-D9
STD 2	-	2018/01/13 5:25 AM	PFC_Water_Low.m	WS#5330618_03.d	P3-E1
STD 3	-	2018/01/13 5:30 AM	PFC_Water_Low.m	WS#5330618_04.d	P3-E2
STD 4	-	2018/01/13 5:35 AM	PFC_Water_Low.m	WS#5330618_05.d	P3-E3
STD 5	-	2018/01/13 5:39 AM	PFC_Water_Low.m	WS#5330618_06.d	P3-E4
STD 6	-	2018/01/13 5:44 AM	PFC_Water_Low.m	WS#5330618_07.d	P3-E5
IB	-	2018/01/13 5:49 AM	PFC_Water_Low.m	WS#5330618_08.d	P3-E6
ICV	-	2018/01/13 5:54 AM	PFC_Water_Low.m	WS#5330618_09.d	P3-E7
ISC	-	2018/01/13 5:59 AM	PFC_Water_Low.m	WS#5330618_10.d	P3-D9
5330618:BLANK	-	2018/01/13 6:04 AM	PFC_Water_Low.m	WS#5330618_11.d	P3-E8
5330618:SPIKE	-	2018/01/13 6:09 AM	PFC_Water_Low.m	WS#5330618_12.d	P3-E9
5330618:MTRX SPK	FUH133	2018/01/13 6:14 AM	PFC_Water_Low.m	WS#5330618_13.d	P3-F1
5330618:MTRX SPK:D1	FUH133	2018/01/13 6:19 AM	PFC_Water_Low.m	WS#5330618_14.d	P3-F2
IB	-	2018/01/13 6:24 AM	PFC_Water_Low.m	WS#5330618_15.d	P3-E6
5330618:FTT971-01	-	2018/01/13 6:29 AM	PFC_Water_Low.m	WS#5330618_16.d	P3-F3
5330618:FTT974-01:20x	Reported for 6:2-FTS, 8:2-FTS, PFHxS, PFOS	2018/01/13 6:34 AM	PFC_Water_Low.m	WS#5330618_17.d	P3-F4
5330618:FTT974-01:2x	Reported for all except 6:2-FTS, 8:2-FTS, PFHxS, PFOS	2018/01/13 6:39 AM	PFC_Water_Low.m	WS#5330618_18.d	P3-F5
IB	-	2018/01/13 6:44 AM	PFC_Water_Low.m	WS#5330618_19.d	P3-E6
5330618:FTT975-01:10x	Not used	2018/01/13 6:49 AM	PFC_Water_Low.m	WS#5330618_20.d	P3-F6
5330618:FTT975-01	Reported for all	2018/01/13 6:53 AM	PFC_Water_Low.m	WS#5330618_21.d	P3-F7
IB	-	2018/01/13 6:58 AM	PFC_Water_Low.m	WS#5330618_22.d	P3-E6
5330618:FUA629-01:25x	Reported for 6:2-FTS, PFHxA, PFHxS, PFPeA	2018/01/13 7:03 AM	PFC_Water_Low.m	WS#5330618_23.d	P3-F8
5330618:FUA629-01:5x	Reported for all except 6:2-FTS, PFHxA, PFHxS, PFPeA	2018/01/13 7:08 AM	PFC_Water_Low.m	WS#5330618_24.d	P3-F9
IB	-	2018/01/13 7:13 AM	PFC_Water_Low.m	WS#5330618_25.d	P3-E6
5330618:FUA630-01:25x	Reported for 6:2-FTS, PFHxA, PFHxS, PFPeA	2018/01/13 7:18 AM	PFC_Water_Low.m	WS#5330618_26.d	P4-A1
5330618:FUA630-01:5x	Reported for all except 6:2-FTS, PFHxA, PFHxS, PFPeA	2018/01/13 7:23 AM	PFC_Water_Low.m	WS#5330618_27.d	P4-A2
IB	-	2018/01/13 7:29 AM	PFC_Water_Low.m	WS#5330618_28.d	P3-E6
CCV	-	2018/01/13 7:33 AM	PFC_Water_Low.m	WS#5330618_29.d	P3-E3
5330618:FUH129-01:50x	Reported for PFHxS, PFOS	2018/01/13 7:39 AM	PFC_Water_Low.m	WS#5330618_30.d	P4-A3
5330618:FUH129-01:5x	Reported for all except PFHxS, PFOS	2018/01/13 7:44 AM	PFC_Water_Low.m	WS#5330618_31.d	P4-A4
IB	-	2018/01/13 7:49 AM	PFC_Water_Low.m	WS#5330618_32.d	P3-E6
5330618:FUH130-01:50x	Reported for PFHxS, PFOS	2018/01/13 7:54 AM	PFC_Water_Low.m	WS#5330618_33.d	P4-A5
5330618:FUH130-01:5x	Reported for all except PFHxS, PFOS	2018/01/13 7:59 AM	PFC_Water_Low.m	WS#5330618_34.d	P4-A6

329 of 744

FINAL INJECTION SEQUENCE

Maxxam Analytics

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
IB	-	2018/01/13 8:04 AM	PFC_Water_Low.m	WS#5330618_35.d	P3-E6
5330618:FUH131-01:10x	Reported for PFHxA, PFHxS, PFOA, PFOS	2018/01/13 8:09 AM	PFC_Water_Low.m	WS#5330618_36.d	P4-A7
5330618:FUH131-01	Reported for all except PFHxA, PFHxS, PFOA, PFOS	2018/01/13 8:14 AM	PFC_Water_Low.m	WS#5330618_37.d	P4-A8
IB	-	2018/01/13 8:19 AM	PFC_Water_Low.m	WS#5330618_38.d	P3-E6
5330618:FUH132-01:10x	Reported for PFHxS, PFOS	2018/01/13 8:25 AM	PFC_Water_Low.m	WS#5330618_39.d	P4-A9
5330618:FUH132-01	Reported for all except PFHxS, PFOS	2018/01/13 8:30 AM	PFC_Water_Low.m	WS#5330618_40.d	P4-B1
IB	-	2018/01/13 8:35 AM	PFC_Water_Low.m	WS#5330618_41.d	P3-E6
5330618:FUH133-01:10x	Reported for PFHxS, PFOS	2018/01/13 8:40 AM	PFC_Water_Low.m	WS#5330618_42.d	P4-B2
5330618:FUH133-01	Reported for all except PFHxS, PFOS	2018/01/13 8:45 AM	PFC_Water_Low.m	WS#5330618_43.d	P4-B3
IB	-	2018/01/13 8:50 AM	PFC_Water_Low.m	WS#5330618_44.d	P3-E6
CCV	-	2018/01/13 8:55 AM	PFC_Water_Low.m	WS#5330618_45.d	P3-E3
5330618:FUH134-01:10x	Reported for PFHxS, PFOS	2018/01/13 9:00 AM	PFC_Water_Low.m	WS#5330618_46.d	P4-B4
5330618:FUH134-01	Reported for all except PFHxS, PFOS	2018/01/13 9:05 AM	PFC_Water_Low.m	WS#5330618_47.d	P4-B5
IB	-	2018/01/13 9:11 AM	PFC_Water_Low.m	WS#5330618_48.d	P3-E6
CCV	-	2018/01/13 9:15 AM	PFC_Water_Low.m	WS#5330618_49.d	P3-E3

330 of 744

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	19966	0	24846	0
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		22822		27539	
STD 2		21084		27017	
STD 3		19569		22411	
STD 4		19966		24846	
STD 5		22593		27529	
STD 6		21907		27633	
IB		21803		29013	
ICV		22296		27728	
ISC		22745		29199	
5330576:BLANK		23363		29630	
5330576:SPIKE		28954		35867	
5330576:SPIKE:D1		24235		28966	
5330576:FUH125-01:50x		20694		25504	
5330576:FUH125-01:5x		21448		27471	
IB		24389		31315	
5330576:FUH126-01:10x		24587		31325	
5330576:FUH126-01		28839		36021	
IB		22682		29985	
5330576:FUH127-01		24035		31292	
5330576:FUH128-01:10x		23713		30740	
5330576:FUH128-01		24104		32974	
IB		21853		28644	
5330576:FUI835-01		25487		31635	
5330576:FUI836-01		24457		30264	
5330576:FUI837-01		28701		36652	
CCV		20373		25901	
5330576:FUI838-01		28655		37482	
5330576:FUI839-01		26533		33473	
5330576:FUI840-01		27847		35813	
5330576:FUQ574-01		25562		31712	
5330576:FUQ575-01		27892		35312	
5330576:FUQ576-01		29326		37549	
5330576:FUQ577-01		22713		28002	
5330576:FUQ578-01		23260		30911	
5330576:FUQ579-01		22780		28458	
5330576:FUQ580-01		24646		31141	
CCV		20082		24702	
5330576:FUQ581-01		24235		30591	
5330576:FUQ582-01		24016		30492	
5330576:FUQ583-01		22920		30013	
CCV		19856		24721	

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	53781	0	70195	0
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		46152		59876	
STD 2		59265		75437	
STD 3		47053		59173	
STD 4		53781		70195	
STD 5		34886		45454	
STD 6		49011		61346	
IB		30078		37808	
ICV		39438		49484	
ISC		47599		62024	
5330618:BLANK		37592		47800	
5330618:SPIKE		34592		43826	
5330618:MTRX SPK		29034		40043	
5330618:MTRX SPK:D1		30209		39152	
IB		31063		38525	
5330618:FTT971-01		39292		49386	
5330618:FTT974-01:20x		38645		47800	
5330618:FTT974-01:2x		32883		42839	
IB		30940		39187	
5330618:FTT975-01:10x		36027		46589	
5330618:FTT975-01		34116		44046	
IB		32615		39822	
5330618:FUA629-01:25x		47188		59353	
5330618:FUA629-01:5x		32039		43238	
IB		30353		38193	
5330618:FUA630-01:25x		31869		43306	
5330618:FUA630-01:5x		30206		40858	
IB		29483		37235	
CCV		54612		73623	
5330618:FUH129-01:50x		36937		48854	
5330618:FUH129-01:5x		34491		44036	
IB		30579		39191	
5330618:FUH130-01:50x		37957		50661	
5330618:FUH130-01:5x		31668		42863	
IB		31086		38756	
5330618:FUH131-01:10x		55642		71982	
5330618:FUH131-01		33366		45539	
IB		30546		38912	
5330618:FUH132-01:10x		42918		55963	
5330618:FUH132-01		31248		39928	
IB		30042		40421	
5330618:FUH133-01:10x		35209		44453	
5330618:FUH133-01		38558		51515	
IB		29647		39805	
CCV		57232		71376	
5330618:FUH134-01:10x		39882		51176	
5330618:FUH134-01		37979		50846	
IB		31564		39919	
CCV		58034		73689	

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

Product Number: 34860
Batch Number: SHBJ1155
 Brand: SIGALD
 CAS Number: 67-56-1
 MDL Number: MFCD00004595
 Formula: CH4O
 Formula Weight: 32.04 g/mol
 Quality Release Date: 20 APR 2017
 Expiration Date: MAR 2022

CH₃OH

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.36
UV Absorbance 205nm	≤ 1.00	0.69
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	99.98 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period	-----	-----
1800 Days		

HPLC

2017/06/22
LW

4x4L

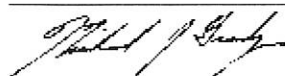
Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ1155



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Maxxam Analytics

334 of 744

SIGMA-ALDRICH

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Product Name:
Methanol - for HPLC, ≥99.9%

Certificate of Analysis

Product Number: 34860
 Batch Number: SHBJ5451
 Brand: SIGALD
 CAS Number: 67-56-1
 MDL Number: MFCD00004595
 Formula: CH₄O
 Formula Weight: 32.04 g/mol
 Quality Release Date: 27 SEP 2017
 Expiration Date: SEP 2022

CH₃OH

*Rec'd: 8
 2017/11/20
 4 x 4 L
 LC group*

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period	-----	-----
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

SIGMA-ALDRICH[®]

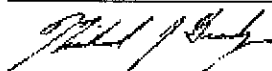
sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Maxxam Analytics
CAM FCD-01357/1
PRLRE: 10% PG: 888

REAGENT PREPARATION FORM

Reagent # 175 Replaced Reagent # 173 Analyst: TRW
 Reagent Name: 0.2% NH₄OH Preparation date: 2017/11/30 Expiry date: Daily
 Final Volume: 500mL Oven No.: Temp.: Final Conc.: 0.2:99.8 v/v
 Balance ID: Pipette/Syringe/Cylinder ID: N31477F 5553 Storage: shelf

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1mL	2016/12/14	2017/04/03	Fisher	158310	2021/04/30
MeOH	499mL	2017/11/29	2017/11/30	Sigma	SHBJ5451	2022/09/30
TRW 2017/11/30						

NOTES:

Reagent # 176 Replaced Reagent # 160 Analyst: GSZ
 Reagent Name: 0.3% NH₄OH in MeOH Preparation date: 2017/11/30 Expiry date: Daily
 Final Volume: 250ml Oven No.: Temp.: Final Conc.: 0.3:99.7 v/v
 Balance ID: Pipette/Syringe/Cylinder ID: N31477F Storage:

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	0.75 ml	2016/12/16	2017/04/03	Fisher	158310	2021/04/30
MeOH	249.75 ml	2017/11/27	2017/11/30	Sigma	SHBJ5451	2022/09/30
GSZ 2017/11/30						

NOTES: 250ml Class A Vol. Cylinder (3026)

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES. CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS.



Certificate of Analysis

1 Roswell Lane
 Fair Lawn, NJ 07410
 201 796-7100 fax
 201 796-1329 fax

Fisher Scientific Quality System has been certified to ISO 9001 by International Register
 Number 15030170000. Registered by BSI 00190544144 Number 0617-000016

This is to certify that the material described herein conforms to the specifications of the manufacturer. Certain data from these analyses are included for your information. This certificate is not valid unless accompanied by the original container label. This certificate is not valid unless accompanied by the original container label. This certificate is not valid unless accompanied by the original container label.

Material Number / Lot #	178375	Quantity / Release Date	400000
Description	AMMONIUM HYDROXIDE, CERTIFIED A.D.S. PLUS		
Country of Origin	United States	Suggested Reuse Date	Age-7021
Chemical Class	Inorganic/Non-organic		
ES&T/USE Comment	This product does not contain and is not manufactured with any material ingredients identified in any national standard, listed in countries within the US (including the Philippines (PH)) & known to exist.		
Physical Dominant	This product is not flammable, non-hazardous and is stable.		

*See lot: 2016/12/28
 & bottle - 165*

Design name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	≤ 0.5	0.01
ARSENIC AND ANTIMONY	ppm	≤ 0.5	0.05
ASPHALT	mg/g	Inductive Resonance 21.0 - 50.0	0.0
BORON (B)	ppm	≤ 0.1	0.01
CALCIUM (Ca)	ppm	≤ 0.3	0.01
CARBON DIOXIDE	%	≤ 0.002	0.0018
CHLORINE	ppm	≤ 0.5	0.01
CHROMIUM (Cr)	ppm	≤ 0.1	0.01
COPPER (Cu)	ppm	≤ 0.1	0.01
SOLID (sg)	ppm	≤ 0.1	0.01
HEAVY METALS (as Pb)	ppm	≤ 0.1	0.1
IDENTIFICATION	PASS/FAIL	✓ PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.01
LEAD (Pb)	ppm	≤ 0.1	0.01
MANGANESE (Mn)	ppm	≤ 0.3	0.01
MANGANESE (Mn)	ppm	≤ 0.2	0.01
NICKEL (Ni)	ppm	≤ 0.1	0.01
NITRATE (NO3)	ppm	≤ 2	0.0
PHOSPHATE (PO4)	ppm	≤ 0.4	0.10
POTASSIUM (K)	ppm	≤ 0.3	0.01
RESIDUAL AFTER TITRATION	ppm	≤ 0.1	0.01
SODIUM (Na)	ppm	≤ 0.1	0.01
GLYCOLIC ACID (GLYCOLIC)	PASS/FAIL	✓ PASS TEST	PASS TEST
SELENIUM (Se)	ppm	≤ 0.1	0.01
THIOL (S)	ppm	≤ 0.1	0.01
TITANIUM (Ti)	ppm	≤ 0.1	0.01
ZINC (Zn)	ppm	≤ 0.3	0.01



[Signature]
 Quality Control Manager SVP

This is a copy of the original certificate of analysis. It is not valid unless accompanied by the original container label. This certificate is not valid unless accompanied by the original container label. This certificate is not valid unless accompanied by the original container label.

Received: 2016/12/10 1x500mL MMN
 Received: 2016/12/14 1x500mL MMN
 Received: 2016/12/16 1x500mL MMN

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Product Name:
Methanol - for HPLC, ≥99.9%

Certificate of Analysis

Product Number: 34860
 Batch Number: SHBJ5451
 Brand: SIGALD
 CAS Number: 67-56-1
 MDL Number: MFCD00004595
 Formula: CH₄O
 Formula Weight: 32.04 g/mol
 Quality Release Date: 27 SEP 2017
 Expiration Date: SEP 2022

CH₃OH

*Rec'd: j
 2017/11/20
 4 x 4 L
 LC group*

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

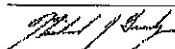
SIGMA-ALDRICH®sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sigmaaldrich.comOutside USA: eurotechserv@sigmaaldrich.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ6461



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 2 of 2

Date Received: 2017/11/27 4x4 L

Maxxam Analytics
 CAM FCD-01357/1
 PRLRE: 108 PG: 96

REAGENT PREPARATION FORM

Reagent # 191 Replaced Reagent # 171 Analyst: JPS
 Reagent Name: 60:40 (H₂O:MeOH) Preparation date: 2017/12/05 Expiry date: 2018/02/05
 Final Volume: 1L Oven No.: — Temp.: — Final Conc.: 60:40 (v/v)
 Balance ID: — Pipette/Syringe/Cylinder ID: 5553 Storage: shelf

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	400ml	2017/12/04	2017/12/05	Sigma	SHB5451	2018/09/30 2022/09/31
LCMS	44.600ml 2017/12/04 JPS 2017/12/05	2017/12/04	2017/12/05	Omni	57256	2018/09/30

NOTES:

Reagent # 192 Replaced Reagent # 185 Analyst: LA
 Reagent Name: 0.3% NH₄OH in MeOH Preparation date: 2017/12/06 Expiry date: Daily
 Final Volume: 100ml Oven No.: — Temp.: — Final Conc.: 0.3:99.7 v/v
 Balance ID: — Pipette/Syringe/Cylinder ID: N31477 Storage: —

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	0.3 ml	2016/12/16	2017/04/03	Fisher	15830	2021/04/30
MeOH	99.7 ml	2017/12/09	2017/12/05	Sigma	SHB5451	2022/09/31

NOTES:



11300 Canal Lane
 Fair Lawn, NJ 07410
 908 998 7100 ext 101
 201 798 1300 Fax

Certificate of Analysis

Special Analytical Charge Analysis has been performed to determine the purity of the material. The analysis was performed in accordance with the methods described in the Certificate of Analysis Report (COA) 0000018.

This is a certificate of analysis for the material described in the analysis report provided. Certain data have been based on the analysis of the material described in the analysis report. The analysis was performed in accordance with the methods described in the Certificate of Analysis Report (COA) 0000018. The analysis was performed in accordance with the methods described in the Certificate of Analysis Report (COA) 0000018.

Lot Number	18997	Quality Test / Release Date	4/18/2016
Description	AMMONIUM HYDROXIDE, CERTIFIED A.O.C. PLUS		
Country of Origin	United States	Suggested Reuse Date	Apr-2021
Chemical Origin	Inorganic non-organic		
BSC/TC Comment	This product does not contain and is not manufactured with any critical ingredients derived from any animal products, including countries where Swine Flu or Spangluam virus is present (BAP) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

*See Note: 2016/12/28
 11 bottles - RB*

Regul name	Units	Specification	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	≤ 0.3	0.01
ARSENIC AND ANTIMONY	ppm	≤ 0.1	0.02
BARBIT	mg/kg	ANALYSIS BASED ON 26.0 - 32.0	0.0
BARIUM (Ba)	ppm	≤ 0.1	0.01
CALCIUM (Ca)	ppm	≤ 0.3	0.02
CARBON DIOXIDE	%	≤ 0.002	0.000
CHLORIDE	ppm	≤ 0.3	0.01
COPPER (Cu)	ppm	≤ 0.2	0.01
DISSOLVED SOLIDS	ppm	≤ 0.1	0.01
GOLD (Au)	ppm	≤ 0.3	0.01
HEAVY METALS (As, Pb)	ppm	≤ 0.1	0.01
IDENTIFICATION	PASS/FAIL	✓ PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.01
LEAD (Pb)	ppm	≤ 0.2	0.01
MAGNESIUM (Mg)	ppm	≤ 0.3	0.01
MANGANESE (Mn)	ppm	≤ 0.2	0.01
NICKEL (Ni)	ppm	≤ 0.1	0.01
NITRATE (NO3)	ppm	≤ 2	0.0
PHOSPHATE (PO4)	ppm	≤ 0.4	0.01
POTASSIUM (K)	ppm	≤ 0.3	0.01
RESIDUAL AFTER IGNITION	ppm	≤ 0.1	0.01
SODIUM (Na)	ppm	✓ PASS	0.02
SUBSTANCE SPECIFIC PASSING	PASS/FAIL	✓ PASS TEST	PASS TEST
SILICATE (SiO2)	ppm	≤ 0.2	0.01
TIN (Sn)	ppm	≤ 0.3	0.01
TITANIUM (Ti)	ppm	≤ 0.3	0.01
ZINC (Zn)	ppm	≤ 0.3	0.01


 QUALITY CONTROL BY
 Quality Control Manager SFF

This is a certificate of analysis for the material described in the analysis report provided. Certain data have been based on the analysis of the material described in the analysis report. The analysis was performed in accordance with the methods described in the Certificate of Analysis Report (COA) 0000018. The analysis was performed in accordance with the methods described in the Certificate of Analysis Report (COA) 0000018.

Received: 2016/12/14 1x500mL MMN
 Received: 2016/12/16 1x500mL MMN

SIGMA-ALDRICH

www.sigmaaldrich.com

3630 Sorbus Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Phone USA: 1-800-451-9700

Outside USA: +314-455-5700

Certificate of Analysis

Product Name
Methanol - for HPLC, 99.9%

CH₃OH

Product Number: 34889
 Batch Number: 8H85451
 Brand: SIGALD
 CAS Number: 67-58-1
 MDL Number: MFCD00092446
 Formula: CH₄O
 Formula Weight: 32.04 g/mol
 Quality Release Date: 27 SEP 2017
 Expiration Date: 30/ 2022

*Rec'd 20 11/10
 9 x 4 L
 C. C. [Signature]*

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	0.00
UV Absorbance 780nm	≤ 0.01	0.00
UV Absorbance 880nm	≤ 0.02	0.00
UV Absorbance 240nm	≤ 0.10	0.00
UV Absorbance 230nm	≤ 0.10	0.00
UV Absorbance 220nm	≤ 0.05	0.00
UV Absorbance 210nm	≤ 0.05	0.00
UV Absorbance 200nm	≤ 1.00	0.05
Fluorescence 754nm	≤ 1.0 ppb	0.01 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.99 %	100.00 %
Color Test	≤ 10 APHA	0 APHA
Water (by Karl Fischer)	≤ 0.02 %	0.001 %
Residue on Ignition	≤ 0.0005 %	0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants that at the time of the quality release or subsequent release date the product conformed to the information contained in this publication. The current specification sheet may be available at SigmaAldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of this product for its intended use. See reverse side of the box or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

- Date Received: 2017/11/10 4x4 L
- Date Received: 2017/11/27 4x4 L
- Date Received: 2017/12/04 4x4 L
- Date Received: 2017/12/07 4x4 L

Maxxam Analytics
CAM FCD-01357/1
PRLRE: 108 PG: 110

REAGENT PREPARATION FORM

Reagent # 219 Replaced Reagent # 210 Analyst: GSZ
 Reagent Name: 0.3% NH₄OH in MeOH Preparation date: 2017/12/15 Expiry date: Daily
 Final Volume: 250 ml Oven No.: — Temp.: — Final Conc.: 0.3 ± 99.7 %
 Balance ID: — Pipette/Syringe/Cylinder ID: N31477F Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	0.75 ml	2016/12/16	2017/04/03	Fisher	158310	2021/04/30
MeOH	249.25 ml	2017/12/07	2017/12/15	Sigma	SHB35451	2022/09/30
		0.75, 2017/12/15				

NOTES: 250 ml class A vol. cylinder (3026)

Reagent # 220 Replaced Reagent # 216 Analyst: OPS
 Reagent Name: 0.2% NH₄OH Preparation date: 2017/12/18 Expiry date: DAILY
 Final Volume: 1L Oven No.: — Temp.: — Final Conc.: 0.2 ± 99.8 %
 Balance ID: — Pipette/Syringe/Cylinder ID: K39876F Storage: SH129

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	998 ml	2017/12/07	2017/12/18	Sigma	SHB35451	2022/09/30
NH ₄ OH	2 ml	2016/12/16	2017/04/03	FISHER	158310	2021/04/30
		2017/12/18 OPS				

NOTES:



11800 Kent Lane
 Pittsford, NY 14221
 800 745 7100
 516 442 1500

Certificate of Analysis

Model Specifications and Test Plans are available on the Fisher Scientific website at www.fishersci.com

This is a certificate of analysis for the product described herein. It is not intended to be used as a substitute for the product's label. The information provided herein is for informational purposes only and does not constitute a warranty. The information provided herein is not intended to be used as a substitute for the product's label. The information provided herein is not intended to be used as a substitute for the product's label.

Catalog Number	11800	Quality Test/Release Date	4/10/16
Lot Number	11800		
Description	ALUMINUM HYDROXIDE, CERTIFIED A.D.B. PLUS		
Country of Origin	United States	Suggested Retail Price	App-7021
Chemical Class	Inorganic non-metal		
BSCT/IR Comment	This product does not contain and is not manufactured with any restricted ingredients defined in the applicable standards, including countries which include Springtime (except for the product's label).		
Physical Comment	This product is free from genetically modified substances and is gluten free.		

*See Revd: 2016/12/28
 & before - RB*

Retain Name	Units	Specification	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	500g	99.93	99.91
ARSENIC AND ANTIMONY	ppm	≤ 0.05	≤ 0.02
BARIUM	ppm	≤ 0.01	0.0
BORON (B)	ppm	≤ 0.1	0.01
CALCIUM (Ca)	ppm	≤ 0.3	0.01
CARBON (C)	%	≤ 0.02	0.02
CHLORIDE	0.00%	≤ 0.5	0.01
CHROMIUM (Cr)	ppm	≤ 0.2	0.01
COPPER (Cu)	ppm	≤ 0.2	0.01
COBALT (Co)	ppm	≤ 0.3	0.01
FLUORINE (F)	ppm	≤ 0.3	0.1
IDENTIFICATION	PASS/FAIL	PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.01
LEAD (Pb)	ppm	≤ 0.2	0.01
MANGANESE (Mn)	ppm	≤ 0.3	0.01
MAGNESIUM (Mg)	ppm	≤ 0.2	0.01
MERCURY (Hg)	ppm	≤ 0.1	0.01
NITRATE (NO ₃)	ppm	≤ 2	0.0
NITROGEN (N)	ppm	≤ 0.4	0.01
NITROGEN (N)	ppm	≤ 0.4	0.01
PHOSPHORUS (P)	ppm	≤ 0.3	0.01
POTASSIUM (K)	ppm	≤ 0.1	0.01
SILICATE (SiO ₂)	ppm	≤ 0.3	0.01
SODIUM (Na)	ppm	≤ 0.1	0.01
SODIUM (Na)	ppm	≤ 0.1	0.01
SULFUR (S)	ppm	≤ 0.3	0.01
TANTALUM (Ta)	ppm	≤ 0.1	0.01
TUNGSTEN (W)	ppm	≤ 0.3	0.01
ZINC (Zn)	ppm	≤ 0.3	0.01


 Quality Control Manager QPC

This is a certificate of analysis for the product described herein. It is not intended to be used as a substitute for the product's label. The information provided herein is for informational purposes only and does not constitute a warranty. The information provided herein is not intended to be used as a substitute for the product's label.

Received: 2016/12/10 1x500mL MMN
 Received: 2016/12/14 1x500mL MMN
 Received: 2016/12/16 1x500mL MMN

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sigmaaldrich.com

Outside USA: eurtechserv@sigmaaldrich.com

Product Name:
Methanol - for HPLC, ≥99.9%

Certificate of Analysis

Product Number: 34860
 Batch Number: SHBJ5451
 Brand: SIGALD
 CAS Number: 67-66-1
 MDL Number: MFCD00004695
 Formula: CH₄O
 Formula Weight: 32.04 g/mol
 Quality Release Date: 27 SEP 2017
 Expiration Date: SEP 2022

CH₃OH

*Rec'd: 2
 2017/11/20
 4 x 4 L
 LC group*

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

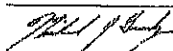
SIGMA-ALDRICH*sigma-aldrich.com*

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@stl.comOutside USA: eurotechserv@stl.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ6461



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 2 of 2

Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/12 4x4L
Date Received: 2017/12/16 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L

REAGENT PREPARATION FORM

Reagent # 231 Replaced Reagent # 226 Analyst: DHB
 Reagent Name: 0.2% MeOH Preparation date: 2017/12/21 Expiry date: daily
 Final Volume: 1L Oven No.: - Temp.: - Final Conc.: 0.2:99.8 v/v
 Balance ID: - Pipette/Syringe/Cylinder ID: 5434346 Storage: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	2ml	2014/12/06	2017/04/03	Fisher	158310	2017/04/30
MeOH	998ml	2017/12/21	2017/12/21	Sigma	SHBJ5451	2017/01/30
2017/12/21 DHB						

NOTES: 1L cylinder #5553

Reagent # 232 Replaced Reagent # 209 Analyst: JDS
 Reagent Name: 60:40 (MeOH) Preparation date: 2017/12/21 Expiry date: 2018/02/21
 Final Volume: 1L Oven No.: - Temp.: - Final Conc.: 60:40 (v/v)
 Balance ID: - Pipette/Syringe/Cylinder ID: #5553 Storage: shelf

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	400ml	2017/12/16	2017/12/20	Sigma	SHBJ5451	2012/09/30
LCMS H ₂ O	600ml	2017/12/19	2017/12/20	Omnimix	57297	2018/10/31
JDS 2017/12/21						

NOTES:

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@slal.com

Outside USA: eurtechserv@slal.com

Product Name:
Methanol - for HPLC, ≥99.9%**Certificate of Analysis****CH₃OH**

Product Number: 34860
 Batch Number: SHBJ5451
 Brand: SIGALD
 CAS Number: 67-66-1
 MDL Number: MFCD00004695
 Formula: CH₄O
 Formula Weight: 32.04 g/mol
 Quality Release Date: 27 SEP 2017
 Expiration Date: SEP 2022

*Recd: 8
 2017/11/20
 4 x 4 L
 LC group*

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

SIGMA-ALDRICH®

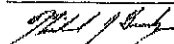
sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sigmaaldrich.comOutside USA: eurotechserv@sigmaaldrich.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ6451



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of Invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 2 of 2

Date Received: 2017/11/10 4x4L

Date Received: 2017/11/27 4x4L

Date Received: 2017/12/01 4x4L

Date Received: 2017/12/04 4x4L

Date Received: 2017/12/07 4x4L

Date Received: 2017/12/12 4x4L

Date Received: 2017/12/16 4x4L

Date Received: 2017/12/19 4x4L

Date Received: 2018/01/04 4x4L

Certificate of Analysis

Date of Release: 10/27/2017
 Name: Water
 Description: For LC/MS
 Item No: WXC601-1, WXC601-3, WXC601-901
 Lot / Batch No: 57297
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Release Date			31-OCT-2018	
Evaporative Residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinines at 254 nm		1	< 1	ppb
Fluorescence as quinines at 305 nm		1	< 1	ppb
Conductivity at 210 nm		2	0.22	nAU
Conductivity at 254 nm		0.5	0.09	nAU
LC/MS Proxy (un-sulfonated)		50	< 50	ppb
LC/MS Proxy (sulfonated)		50	< 50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 205 nm		0.01	< 0.001	AU
UV Abs. at 212 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		180	< 180	nm

Dr. Oliver Schramm

Quality Control Manager

This document has been prepared electronically and is valid without signatures.

840 Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
 800 Concord Road
 Billerica, MA 01821
 U.S.A.

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS
 Date Received: 2017/12/04 4 x 4L LCMS
 Date Received: 2017/12/06 4 x 4L LCMS
 Date Received: 2017/12/07 4 x 4L LCMS
 Date Received: 2017/12/10 4 x 4L LCMS
 Date Received: 2017/12/19 4 x 4L LCMS
 Date Received: 2017.12.29 - 8 x 4L - HPLC
 Date Received: 2018.01.04 - 8 x 4L - HPLC

Maxxam Analytics
 CAM FCD-01357/1
 PRLRE: 108PG: 118

REAGENT PREPARATION FORM

Reagent # 235 Replaced Reagent # 231 Analyst: SSV
 Reagent Name: 0.2% NH₄OH Preparation date: 2017/12/23 Expiry date: Daily
 Final Volume: 1L Oven No.: - Temp.: - Final Conc.: 0.2% 998 v/v
 Balance ID: - Pipette/Syringe/Cylinder ID: N31477F Storage: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	2 mL	2017/08/15	2017/12/23	Fisher	166631	2020/01/31
MeOH	998 mL	2017/11/19	2017/12/23	Sigma	SNB35451	2022/09/30
			2017/12/23			

NOTES:

Volumetric cylinder # 5553

Reagent # 236 Replaced Reagent # 225 Analyst: DP5
 Reagent Name: 2% Formic acid Preparation date: 2017/12/23 Expiry date: 2018/02/23
 Final Volume: 1L Oven No.: - Temp.: - Final Conc.: 2% 987 v/v
 Balance ID: - Pipette/Syringe/Cylinder ID: K551914 Storage: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic acid	20 mL	2017/12/07	2017/12/07	Sigma	SNB31624	2018/05/31
LCMS H ₂ O	980 mL	2017/12/19	2017/12/23	Amn Solu	57297	2018/10/31
		2017/12/23	DP5			

NOTES:

Volumetric cylinder # 5553

Certificate of Analysis

1 Reagent Lane
 100 Linn, NJ 07410
 201.766.7303 (tel)
 201.766.1329 (fax)

When Scientific Quality System has been found to conform to Quality Management System
 Standard ISO 9001:2008 standard by SGL Global Certificate Number: CQSP - 1000106

This is an analytical certificate of analysis for the material below which is intended to comply with the specifications of the graph listed. Values have been verified by HPLC analysis. Other substances may be present in the material, including the material's carrier, but they are not listed, they are not tested for, and they are not included in the certificate of analysis. For more information, please contact the manufacturer. This certificate is not intended to be used as a substitute for the manufacturer's certificate of analysis. This certificate is not intended to be used as a substitute for the manufacturer's certificate of analysis.

Catalog Number	A050	Quality Test / Release Date	1/17/2017
Lot Number	166931	Expiration Date	Jan20
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Genetic Comment	This product is free from genetically modified substances and is gluten free.		

Element	Unit	Specification	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter
ALUMINUM	ppm	<= 5.3	0.045
ARSENIC AND ANTIMONY	ppm	<= 5.05	<0.150
ASSAY	wt/wt %	Inclusive Between 26.0 - 30.0	29.8
BORON (B)	ppm	<= 5.1	0.033
CALCIUM (Ca)	ppm	<= 5.3	0.036
CARBON DIOXIDE	%	<= 5.002	0.0320
CHLORIDE	ppm	<= 5.5	<0.50
CHROMIUM (Cr)	ppm	<= 5.2	0.033
COPPER (Cu)	ppm	<= 5.1	0.033
GOLD (Au)	ppm	<= 5.3	0.033
HEAVY METALS (as Pb)	ppm	<= 5.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 5.1	0.033
LEAD (Pb)	ppm	<= 5.2	0.033
MAGNESIUM (Mg)	ppm	<= 5.3	0.044
MANGANESE (Mn)	ppm	<= 5.2	0.033
NICKEL (Ni)	ppm	<= 5.1	0.033
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 5.4	<0.40
POTASSIUM (K)	ppm	<= 5.3	0.022
RESIDUE AFTER IGNITION	ppm	<= 5	5.03
SODIUM (Na)	ppm	= Report	0.045
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 5.3	0.034
TITANIUM (Ti)	ppm	<= 5.3	0.033
ZINC (Zn)	ppm	<= 5.3	0.033



Quality Assurance Specialist - Certificate of Analysis BPF

Note: The data listed on this certificate is for the material as received. It is not intended to be used as a substitute for the manufacturer's certificate of analysis. For more information, please contact the manufacturer. This certificate is not intended to be used as a substitute for the manufacturer's certificate of analysis.

Date Received: 2017.08.15 - 1 bottle -HPLC

SIGMA-ALDRICH[®]

sigma-aldrich.com

3060 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sigmaaldrich.com

Outside USA: eurtechserv@sigmaaldrich.com

Certificate of AnalysisProduct Name:
Methanol - for HPLC, ≥99.9%CH₃OH

Product Number: 34860
 Batch Number: SHBJ5451
 Brand: SIGALD
 CAS Number: 67-68-1
 MDL Number: MFCD00004595
 Formula: CH₄O
 Formula Weight: 32.04 g/mol
 Quality Release Date: 27 SEP 2017
 Expiration Date: SEP 2022

*Rec'd: 8
 2017/11/20
 4 x 4 L
 LC group*

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

SIGMA-ALDRICH

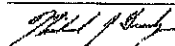
sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sigmaaldrich.comOutside USA: eurotechserv@sigmaaldrich.com

Certificate of Analysis

Product Number: 34880
Batch Number: SHBJ5451



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of Invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 2 of 2

Date Received: 2017/11/10 4x4L

Date Received: 2017/11/27 4x4L

Date Received: 2017/12/01 4x4L

Date Received: 2017/12/04 4x4L

Date Received: 2017/12/07 4x4L

Date Received: 2017/12/09 4x4L

Date Received: 2017/12/12 4x4L

Date Received: 2017/12/16 4x4L

Date Received: 2017/12/19 4x4L

Date Received: 2018/01/04 4x4L

Maxxam Analytics
 CAM FCD-01357/1
 PRLRE: 108PG: 118

REAGENT PREPARATION FORM

Reagent # 235 Replaced Reagent # 231 Analyst: SSV
 Reagent Name: 0.2% NH₄OH Preparation date: 2017/12/23 Expiry date: Daily
 Final Volume: 1L Oven No.: - Temp.: - Final Conc.: 0.2% 998 v/v
 Balance ID: - Pipette/Syringe/Cylinder ID: N31477F Storage: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	2ml	2017/08/15	2017/12/23	Fisher	166631	2020/01/31
meon	998ml	2017/11/19	2017/12/23	Sigma	SNB35451	2022/09/30
			2017/12/23			

NOTES:

Volumetric cylinder # 5553

Reagent # 236 Replaced Reagent # 225 Analyst: DP5
 Reagent Name: 2% Formic acid Preparation date: 2017/12/23 Expiry date: 2018/02/23
 Final Volume: 1L Oven No.: - Temp.: - Final Conc.: 2% 987 v/v
 Balance ID: - Pipette/Syringe/Cylinder ID: K551914 Storage: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic acid	20ml	2017/12/07	2017/12/07	Sigma	SNB31624	2018/05/31
LCMS H ₂ O	980ml	2017/12/19	2017/12/23	Amn Solu	57297	2018/10/31
		2017/12/23	DP5			

NOTES:

Volumetric cylinder # 5553

SIGMA-ALDRICH

sigmaaldrich.com

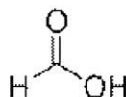
3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sigmaaldrich.comOutside USA: eurotechserv@sigmaaldrich.com**Certificate of Analysis**

Product Name:

Formic acid - reagent grade, ≥95%

Product Number: F0507
 Batch Number: SHBJ1624
 Brand: SIGALD
 CAS Number: 64-18-6
 MDL Number: MFCD0003297
 Formula: CH2O2
 Formula Weight: 45.03 g/mol
 Quality Release Date: 24 MAY 2017
 Expiration Date: MAY 2019



Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Very Faint Yellow
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 96.0 %	97.2 %
Expiration Date Period	-----	-----
1 Year		

Michael Grady, Manager
 Quality Control
 Sheboygan Falls, WI, US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The correct Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Date Received: 2017/08/11-SSB-1 bottle-P2A

Date Received: 2017/08/25 -SSB-1 bottle-P2A

Date Received: 2017/08/29-SSB-1 bottle-P2A

Date Received: 2017/12/07-SSB-1 bottle-P2A

Certificate of Analysis

Date of Release: NOV 17 2017
 Name: Water
 Chemical: For LC/MS
 Part No: WX5001-1, WX0001-0, WX0001-901
 Lot / Batch No: 57297
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-OCT-2019	
Evaporative residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinone at 254 nm		1	< 1	ppb
Fluorescence as quinone at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.22	mAU
Gradient at 254 nm		0.5	0.09	mAU
LC/MS Purity (non-fluorescent)		50	>50	%
LC/MS Purity (fluorescent)		50	>50	%
Metals, suitable for LC/MS			Complies	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-290 nm		0.005	< 0.001	AU
UV Cut-off		190	< 190	nm

Dr. Oliver Schramm
 Quality Control Manager
 This document has been prepared electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
 200 Concord Road
 Billerica, MA 01821
 U.S.A.

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS
 Date Received: 2017/12/04 4 x 4L LCMS
 Date Received: 2017/12/06 4 x 4L LCMS
 Date Received: 2017/12/07 4 x 4L LCMS
 Date Received: 2017/12/10 4 x 4L LCMS
 Date Received: 2017/12/19 4 x 4L LCMS
 Date Received: 2017.12.29 - 8 x 4L - HPLC
 Date Received: 2018.01.04 - 8 x 4L - HPLC

Maxxam

CAM FCD-00595/1
 FSRE: 18 PG: 125

REAGENT PREPARATION FORM

SOLUTION # 249 REAGENT NAME: MeOH / 1% Acetic Acid (80/20)
 ANALYST: J DATE PREPARED: 2017/12/20 EXPIRY DATE: 2018/02/20
 STORAGE: RT BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	1.6 L	2017/08/14	2017/12/20	Fisher	168335	2021/12/31
Acetic Acid glacial	4 ml	2013/03/14	2013/07/24	Fisher	512334	2018/01/02
RODI H ₂ O	346 ml	-	-	in-house	-	-

NOTES:

SOLUTION # 250 REAGENT NAME: 20 mM Ammonium acetate
 ANALYST: ke DATE PREPARED: 2017/12/21 EXPIRY DATE: 2018/12/21
 STORAGE: RT BALANCE ID: S/N: 8510684207 MS2043 PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium acetate	6.1595g	2017/08/03	2017/09/18	Sigma	8CBT4732	2019/01/30
Water	4.00L	2017/12/20	2017/12/21	Millipore	57297	2018/10/31

NOTES:

SIGMA-ALDRICH3300 Service Street, St. Louis, MO 63103 USA
Email: USA_Inquiry@sigmaaldrich.com

Product Name: AMMONIUM ACETATE
reagent grade, >= 98 %

Product Number: A7262

Batch Number: BCBT4732

Brand: Sigma-Aldrich

CAS Number: 631-81-8

Formula: CH₃CO₂NH₄

Formula Weight: 77.08

Storage Temperature: 2-8 C

Quality Release Date: 16 JAN 2017

Recommended Retest Date: JAN 2018

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	WHITE	WHITE
APPEARANCE (FORM)	MOIST CRYSTALS	MOIST CRYSTALS
TITRATION	> 98 %	99.0 %
TITRATION (METHOD)	TITRATION WITH NaOH	TITRATION WITH NaOH
SOLUBILITY (COLOR)	COLORLESS	COLORLESS
SOLUBILITY (TURBIDITY)	CLEAR	CLEAR
SOLUBILITY (METHOD)	1 G/ML H ₂ O	1 G/ML H ₂ O



Dr. Claudia Gollner
Manager Quality Control
Buchs, Switzerland

Rec'd. ?
11/08/02
1 x 500 g
LC group
Storage: F.D.

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date, the product conforms to the information on the immediately preceding page. No other specifications shall apply as a result of Sigma-Aldrich.com. For US customers, please contact Technical Service. Purchaser must comply with the warranty of the product for its particular law. See technical side of product for pricing and/or additional terms and conditions of sale.

Certificate of Analysis

Date of Release: 10/27/2017
 Name: Water
 Description: For LCMS
 Item No: WXS011-1, WXS001-0, WXS001-901
 Lot / Batch No: 57297
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			01-OCT-2018	
Evaporative residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinone at 254 nm		1	< 1	ppb
Fluorescence as quinone at 365 nm		1	< 1	ppb
Conductivity at 210 nm		2	0.22	µmS
Conductivity at 254 nm		0.5	0.09	µmS
LCMS Purity (non-solubility)		50	>50	ppm
LCMS Purity (residual)		50	<50	ppm
Particulate, suitable for LCMS			Confirms	
UV Abs. at 205 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.025	< 0.001	AU
UV Abs. at 270 nm		0.025	< 0.001	AU
UV Abs. at 400-280 nm		0.025	< 0.001	AU
UV Cut-off		150	< 150	nm

Dr. Oliver Schramm

Quality Control Manager

This document has been prepared electronically and is valid without a signature.

EMG Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
 200 Concord Road
 Billerica, MA 01821
 U.S.A.

The life science business of Merck KGaA, Darmstadt, Germany operates its MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS

Date Received: 2017/12/04 4 x 4L LCMS

Date Received: 2017/12/06 4 x 4L LCMS

Date Received: 2017/12/07 4 x 4L LCMS

Date Received: 2017/12/10 4 x 4L LCMS

Certificate of Analysis

Date of Release: 10/21/2017
 Name: Water
 Direct Solvnt. For LCMS
 Item No: WX501-1, WX001-8, WX001-901
 Lot / Batch No: 57297
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-OCT-2018	
Evaporative residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			PASSES TEST	
Fluorescence as quinole at 254 nm		1	< 1	ppb
Fluorescence as quinole at 365 nm		1	< 1	ppb
Conduct at 210 nm		2	0.22	mAU
Conduct at 254 nm		0.5	0.09	mAU
LCMS Purity (in-MS solvent)		50	>50	ppb
LCMS Purity (residual)		50	>50	ppb
Metals, suitable for LCMS			Contains	
UV Abs. at 205 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	< 190	nm

Dr. Oliver Schramel

Quality Control Manager

This document has been prepared electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
 200 Concord Road
 Billerica, MA 01821
 U.S.A.

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS

Date Received: 2017/12/06 4 x 4L LCMS

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

PRLST 142 PG. 117

Solution No.: I-5197 Date: 2017/12/06 Expiry Date: 2018/12/06 Discard Date: —
 Replaces Solution No.: I-5166 Replaced by Solution: — Chemist: lw
 Compound(s)/Solution Name: Comp ~ PFC working soln A
 Number of Parent Solution(s): See attached sheet
 Concentration of Parent Solution(s): See attached sheet (mg, ug)/mL
 Aliquot of Parent Solution(s): See attached sheet mL / uL
 Pipette/Syringe ID: N 31477A (1ml)
 Dilution Solvent: 0.3% NH₄OH in MeOH Dilution Volume: 2.5 mL
 Final Concentration(s): 1 (mg, ug)/mL
 Solution derivatized (as methyl ester): — As Other (specify): —
 Solution Contains Surrogate Compounds: — For mix refer to table on page: —
 Solution used for: PFC Volumetric Flask: 25ml class A 5640
(Identify by serial number or other unique ID)
 Solvent Supplier: See PRLR 108-192 Lot No.: See PRLR 108-192
 Date Opened: See PRLR 108-192
 Storage Location: F2-11 One time Use, Not Stored: —
 Ampule Supplier: Wellington Date Opened: —
 Mix Name: —
 Catalogue No.: — Ampule expiry Date: See attached sheet
 Lot No.: See attached sheet
 Date Received: See attached sheet

Notes/Comments:

I-5197 (PRLST 142 Pg 117)

Compound Name	ID#	Conc. (ug/mL)	Vol.. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	S4239-1	50	500	1	2022/05/29
L-PFBS	S4239-2	44.2	565	1	2021/12/02
PFPeA	S4239-3	50	500	1	2022/06/14
PFHxA	S4239-4	50	500	1	2021/12/02
br-PFHxSk	S4239-5	45.5	528	1	2022/01/04
PFHpA	S4239-6	50	500	1	2021/12/02
L-PFHpS	S4239-7	47.6	525	1	2022/09/01
PFOA	S4239-8	50	500	1	2022/02/17
brPFOSK	S4239-9	46.4	540	1	2022/01/12
PFNA	S4239-10	50	500	1	2022/07/20
PFDA	S4239-11	50	500	1	2022/05/29
L-PFDS	S4239-12	48.2	518	1	2022/02/17
PFUdA	S4239-13	50	500	1	2021/10/18
PFDoA	S4239-14	50	500	1	2022/05/29
PFTrDA	S4239-15	50	500	1	2022/05/02
PFTeDA	S4239-16	50	500	1	2022/09/21
PFOSA (FOSA-I)	S4239-17	50	500	1	2022/09/01
N-MeFOSA-M	S4239-18	50	500	1	2022/07/05
N-EtFOSA-M	S4239-19	50	500	1	2022/07/05
N-MeFOSE-M	S4239-20	50	500	1	2022/04/24
N-EtFOSE-M	S4239-21	50	500	1	2022/04/24
N-MeFOSAA	S4239-22	50	500	1	2022/01/11
N-EtFOSAA	S4239-23	50	500	1	2022/01/11
6:2FTS	S4239-24	47.4	528	1	2022/04/20
8:2FTS	S4239-25	47.9	522	1	2021/12/12

NO writing on bottom page

lw 2017/12/06

PRLST 133 PG 132

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4239 Date: 2017/11/15 Expiry Date: 2018/11/15 Discard Date: —
 Replaces Solution: see attached sheet Replaced by Solution: — Chemist: LOW

S-4239 (PRLST 133-132)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4239-1	PFBA	PFBA0517	2017/09/26	2022/05/29	S4193-1		50	MeOH	FZ-11
S4239-2	L-PFBS	LPFBS1116	2017/09/26	2021/12/02	S4193-2		44.2	MeOH	FZ-11
S4239-3	PFPeA	PFPeA0617	2017/09/26	2022/06/14	S4193-3		50	MeOH	FZ-11
S4239-4	PFHxA	PFHxA1216	2017/09/26	2021/12/02	S4193-4		50	MeOH	FZ-11
S4239-5	br-PFHxSk	brPFHxSK0117	2017/09/26	2022/01/04	S4193-5		45.5	MeOH	FZ-11
S4239-6	PFHpA	PFHpA1216	2017/09/26	2021/12/02	S4193-6		50	MeOH	FZ-11
S4239-7	L-PFHpS	LPFHpS0817	2017/09/26	2022/09/01	S4193-7		47.6	MeOH	FZ-11
S4239-8	PFOA	PFOA0217	2017/09/26	2022/02/17	S4193-8		50	MeOH	FZ-11
S4239-9	brPFOSK	brPFOSK0117	2017/09/26	2022/01/12	S4193-9		46.4	MeOH	FZ-11
S4239-10	PFNA	PFNA0717	2017/09/26	2022/07/20	S4193-10		50	MeOH	FZ-11
S4239-11	PFDA	PFDA0517	2017/09/26	2022/05/29	S4193-11		50	MeOH	FZ-11
S4239-12	L-PFDS	LPFDS0217	2017/09/26	2022/02/17	S4193-12		48.2	MeOH	FZ-11
S4239-13	PFuDA	PFuDA1016	2017/09/26	2022/10/18	S4193-13		50	MeOH	FZ-11
S4239-14	PFDoA	PFDoA0517	2017/09/26	2022/05/29	S4193-14		50	MeOH	FZ-11
S4239-15	PFTrDA	PFTrDA0517	2017/09/26	2022/05/02	S4193-15		50	MeOH	FZ-11
S4239-16	PFTeDA	PFTeDA0917	2017/09/26	2022/09/21	S4193-16		50	MeOH	FZ-11
S4239-17	PFOSA (FOSA-I)	FOSA08171	2017/09/26	2022/09/01	S4193-17		50	IPA	FD-59
S4239-18	N-MeFOSA-M	NMeFOSA0717M	2017/09/26	2022/07/05	S4193-18		50	MeOH	FZ-11
S4239-19	N-EtFOSA-M	NEtFOSA0717M	2017/09/26	2022/07/05	S4193-19		50	MeOH	FZ-11
S4239-20	N-MeFOSE-M	NMeFOSE0417M	2017/09/26	2022/04/24	S4193-20		50	MeOH	FZ-11
S4239-21	N-EtFOSE-M	NEtFOSE0417M	2017/09/26	2022/04/24	S4193-21		50	MeOH	FZ-11
S4239-22	N-MeFOSAA	NMeFOSAA0117	2017/09/26	2022/01/11	S4193-22		50	MeOH	FD-59
S4239-23	N-EtFOSAA	NEtFOSAA0117	2017/09/26	2022/01/11	S4193-23		50	MeOH	FD-59
S4239-24	6:2FTS	62FTS0417	2017/09/26	2022/04/20	S4193-24		47.4	MeOH	FD-59
S4239-25	8:2FTS	82FTS1216	2017/09/26	2021/12/12	S4193-25		47.9	MeOH	FD-59
Date Opened (All compounds): <u>2017/09/26</u>			Supplier (All compounds): <u>Wellington</u>			Chemist: <u>LOW</u>			

No writing on bottom page

(specify model and serial no.)

Solvent Used: _____
 Solvent Supplier: _____ Lot No(s): 2017/11/15
 Date Opened: _____
 Storage Location / Conditions: _____



WELLINGTON LABORATORIES

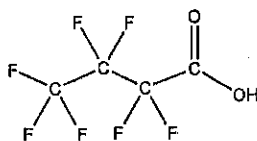
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0517

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/29/2017

EXPIRY DATE: (mm/dd/yyyy) 05/29/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*1 X 2 ampoules
Gsz 2017/09/24*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 05/30/2017
(mm/dd/yyyy)

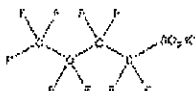
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFBS **LOT NUMBER:** LPFBS1116
COMPOUND: Potassium pentafluorobutanesulfonate
STRUCTURE: **CAS #:** 28420-49-3



MOLECULAR FORMULA: C₄F₅SO₃K **MOLECULAR WEIGHT:** 338.19
CONCENTRATION: 50.0 ± 2.5 µg/ml (K salt)
 44.2 ± 2.2 µg/ml (PFBS anion) **SOLVENT(S):** Methanol
CHEMICAL PURITY: >99%
LAST TESTED: 12/02/2016
EXPIRY DATE: 12/02/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:


Figure 1. LC/MS Data (TIC and Mass Spectrum)
 Figure 2. LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

See page 2 for further details.

*Received from
2016/12/19
1.2ml
FZ-11*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittum Date: 12/02/2016

Wellington Laboratories Inc., 348 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2435 • Fax: 519-822-2849 • info@well-labs.com

Product of the
 Analytical, Revised 2014 03-24

LPT104116 (1 of 3)
 1/1/16

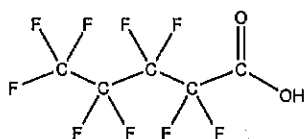
Received 2016/12/19 2x1.2ml HPLC
 Received 2016/12/23 1 x 1.2mL MMN FZ-11
 RECEIVED 2017/03/10 1X1 MMN
 Received 2017/05/25 2 x 1.2mL MMN FZ-11
 Received 2017/05/29 2 x 1.2mL MMN FZ-11
 Date Received: 2017/06/02-DMZ-1.2ml-FD
 RECEIVED 2017/08/09 1x1.2ml
 Date received: 2017/08/30 1x1.2ml - HPLC
 RECEIVED: 2017/09/26 2X1.2mL HPLC
 received 2017/09/12 2 ampules HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFPeA **LOT NUMBER:** PFPeA0617
COMPOUND: Perfluoro-n-pentanoic acid
STRUCTURE: **CAS #:** 2706-90-3



MOLECULAR FORMULA: $C_5HF_9O_2$ **MOLECULAR WEIGHT:** 264.05
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 06/14/2017
EXPIRY DATE: (mm/dd/yyyy) 06/14/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:


Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*1 X 2 ampoules
 652 2017/09/26*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of $C_6H_2F_8O_2$ (hydrido - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 06/16/2017
 B.G. Chittim, General Manager (mm/dd/yyyy)

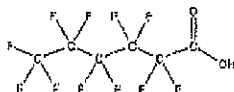
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHxA **LOT NUMBER:** PFHxA1216
COMPOUND: Perfluoro-n-hexanoic acid
STRUCTURE: **CAS #:** 307-24-4



MOLECULAR FORMULA: C₆HF₁₁O₂ **MOLECULAR WEIGHT:** 314.05
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (12/02/2010) 12/02/2010
EXPIRY DATE: (12/02/2021) 12/02/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*Received
1x 1.2mL
12/07/2016*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 1.0% of branched isomers.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: *B.G. Gillim* Date: 12/07/2016
 B.G. Gillim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2430 • Fax: 519-822-2849 • Info@well-labs.com

Form 021, Rev 02 2004-11-10
 Revision 5, Revised 2011-03-24

PFHxA1216 (1 of 4)
 wpl

Received 2017/05/25 2 x 1.2mL MMN FZ-11
 Received 2017/05/29 2 x 1.2mL MMN FZ-11
 Date Received: 2017/06/02-DMZ-1.2ml- FD
 Date Received: 2017/08/09 1x1.2ml MMN FZ-11
 Date received: 2017/08/30 1x1.2ml HPLC
 Date received 2017/09/26 1x2 ampules HPLC
 DATE RECEIVED 2017/09/12 2 ampules HPLC



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

br-PFHxSK

**Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers**

PRODUCT CODE: br-PFHxSK
LOT NUMBER: brPFHxSK0117
CONCENTRATION: 50.0 ± 2.6 µg/ml (total potassium salt)
 45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S): Methanol
DATE PREPARED: 01/03/2017
LAST TESTED: 01/04/2017
EXPIRY DATE: 01/04/2022
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ¹⁹F-NMR
 Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS Data (SIR)
 Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017-10-16/17
 DMZ, L2-MLX
 Frdgn

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-8 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 348 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2426 • Fax: 519-822-2843 • info@well-labs.com

date received: 2017/05/29 HPLC
 date received: 2017/08/30 HPLC
 date received: 2017/08/09 HPLC
 date received: 2017/09/26 HPLC
 DATE RECEIVED 2017/09/12 2 ampoules HPLC



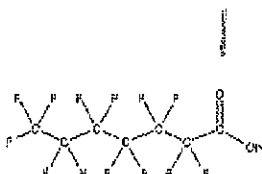
**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: PFH0A
COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFH0A1216

STRUCTURE:



CAS #: 375-85-9

*Received
2016-12-16
2 x 1.2 ml
FZ-11*

MOLECULAR FORMULA: C₇H₃F₆O₂
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 364.06
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: 12/02/2016

EXPIRY DATE: 12/02/2021

RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 molar eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chillum

Date: 12/12/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M6 CANADA
519-822-2436 • Fax: 519-822-2048 • Info@well-labs.com

File: PFH0A, Method: M04-11-12
Revision: 01, Rev: 01/17/16-03-26

PFH0A1216 (1 of 4)
pg 2

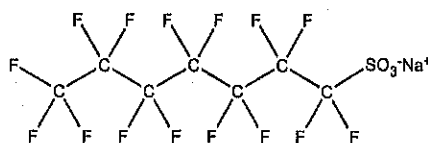
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
Date Received: 2017/08/09 1x1.2ml HPLC
Date Received: 2017/08/30 1x1.2ml HPLC
Date received 2017/09/26 1x2 ampoules HPLC
DATE RECEIVED 2017/09/12 2 ampoules HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS **LOT NUMBER:** LPFHpS0817
COMPOUND: Sodium perfluoro-1-heptanesulfonate
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₇F₁₅SO₃Na **MOLECULAR WEIGHT:** 472.10
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
 47.6 ± 2.4 µg/ml (PFHhS anion)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/01/2017
EXPIRY DATE: (mm/dd/yyyy) 09/01/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 X 2 ampoules

GSZ 2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of L-PFHxS (C₈F₁₃SO₃Na) and ~ 0.1% of L-PFOS (C₈F₁₇SO₃Na).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 09/07/2017
 B.G. Chittim, General Manager (mm/dd/yyyy)

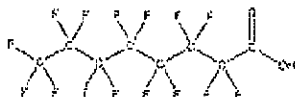
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: PPOA **LOT NUMBER:** PPOA0217
COMPOUND: Perfluoro-n-octanoic acid
STRUCTURE: **CAS #:** 335-87-1



MOLECULAR FORMULA: C₈H₇F₁₇O₂ **MOLECULAR WEIGHT:** 414.07
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENTS:** Methylol
 Water (<1%)
CHEMICAL PURITY: >99%
LAST TESTED: 02/17/2017
EXPIRY DATE: 02/17/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:


Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
 B.M.Z., 1.2 mL x 1
 fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Griffin Date: 02/22/2017

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2435 • Fax: 519-822-2848 • info@well-labs.com

date received:2017/05/29 1.2x1 - HPLC
 date received:2017/05/29 1.2x1 - HPLC
 Date Received:2017/06/02-1.2 x 1-HPLC
 date received:2017/08/09 1.2x1 - HPLC
 date received:2017/08/30 1.2x1 - HPLC
 date received 2017/09/26 1x4 ampules HPLC
 date received 2017/09/12 2 ampules HPLC



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

br-PFOSK

**Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers**

PRODUCT CODE: br-PFOSK
LOT NUMBER: brPFOSK0117
CONCENTRATION: 50 ± 2.5 µg/ml (total potassium salt)
 46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S): Methanol
DATE PREPARED: 01/08/2017
LAST TESTED: 01/12/2017
EXPIRY DATE: 01/12/2022
RECOMMENDED STORAGE: Store ampule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ¹⁹F-NMR
 Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS Data (SIR)
 Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 6/7/2017
 Box 2, 1.2 mL x 1
 Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer, potassium salt).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Buntinggate Dr, Guelph ON N1Q 3J5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

date received: 2017/05/29 1.2x1- HPLC
 date received: 2017/08/09 1 ampule HPLC
 date received: 2017/08/30 1 ampule HPLC
 date received: 2017/09/26 1.2x1ampule HPLC
 date received 2017/09/12 2 ampules

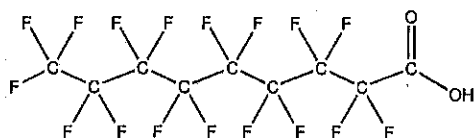


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFNA **LOT NUMBER:** PFNA0717
COMPOUND: Perfluoro-n-nonanoic acid

STRUCTURE: **CAS #:** 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$ **MOLECULAR WEIGHT:** 464.08
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/20/2017
EXPIRY DATE: (mm/dd/yyyy) 07/20/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

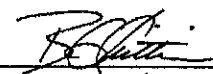
Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 X 2 ampoules
 65Z 2017/09/24

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-octanoic acid (PFOA), < 0.1% of perfluoro-n-heptanoic acid (PFHpA), and < 0.1% of perfluoro-n-undecanoic acid (PFUdA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager **Date:** 07/24/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

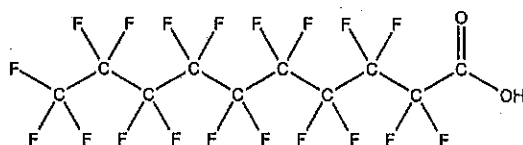


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDA **LOT NUMBER:** PFDA0517
COMPOUND: Perfluoro-n-decanoic acid

STRUCTURE: **CAS #:** 335-76-2



MOLECULAR FORMULA: $C_{10}H_{19}O_2$ **MOLECULAR WEIGHT:** 514.08
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/29/2017
EXPIRY DATE: (mm/dd/yyyy) 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

1 X 2 ampoules
 662 2017/09/26

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 05/30/2017
 B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

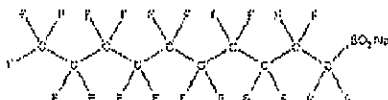


**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: L-PFDS **LOT NUMBER:** LPF080217
COMPOUND: Sodium perfluoro-1-dodecanesulfonate

STRUCTURE: **CAS #:** 2806-15-7



MOLECULAR FORMULA: $C_{11}F_{21}SO_2Na$ **MOLECULAR WEIGHT:** 622.13
CONCENTRATION: 60.0 ± 2.6 µg/ml (Na salt) **SOLVENT(S):** Methanol
48.2 ± 2.4 µg/ml (PFDS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 02/17/2017
EXPIRY DATE: 02/17/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1. LC/MS Data (TIC and Mass Spectrum)
Figure 2. LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDS).

*Date received
2017/03/10
2 Ampoules
HPLC
SSV*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: *B.G. Chittim* Date: 02/22/2017
B.G. Chittim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2049 • info@well-labs.com

Form 129, Rev 01/11
Revised 2015-03-24

01/09/17 11:01:01
rev

Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
date received: 2017/08/30 1 ampule HPLC
DATE RECEIVED: 2017/09/26 1X2 AMPULES HPLC

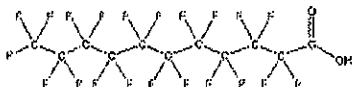


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFUDA **LOI NUMBER:** PFUDA1018
COMPOUND: Perfluoro-n-undecanoic acid

STRUCTURE: **GAS #:** 2058-04-8



MOLECULAR FORMULA: C₁₁HF₁₁O₂ **MOLECULAR WEIGHT:** 564.09
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98% **RECOMMENDED STORAGE:** Store ampoule in a cool, dark place
LAST TESTED: (month/year) 10/18/2016
EXPIRY DATE: (month/year) 10/18/2021

DOCUMENTATION DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 10/19/2016
B.G. Chittim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
619-822-2436 • Fax: 619-822-2046 • info@well-labs.com

Form 001, Revised 2/06/14
Revision 02, Revised 7/16/16-24

PFUDA1018 (1 of 4)
10/16

*Received
2016-12-19
1 x 1.2 ml
FZ-35
mm
2016/12/19*

Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35M
Received 2016/12/16 2 x 1.2mL -HPLC FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
Received 2017/08/09 1 x 1.2mL MMN FZ-11
Received 2017/08/30 1 x 1.2mL MMN FZ-11
Received 2017/09/26 1 x 1.2mL HPLC
Received 2017/09/12 2 ampoules

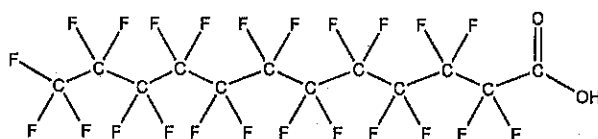


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFD0A **LOT NUMBER:** PFD0A0517
COMPOUND: Perfluoro-n-dodecanoic acid

STRUCTURE: **CAS #:** 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{20}O_2$ **MOLECULAR WEIGHT:** 614.10
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/29/2017
EXPIRY DATE: (mm/dd/yyyy) 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:


1 X 2 ampoules
 GSZ 2017/09/26

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 05/30/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTrDA **LOT NUMBER:** PFTrDA0517
COMPOUND: Perfluoro-n-tridecanoic acid

STRUCTURE: **CAS #:** 72629-94-8



MOLECULAR FORMULA: $C_{13}HF_{27}O_2$ **MOLECULAR WEIGHT:** 664.11
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/02/2017
EXPIRY DATE: (mm/dd/yyyy) 05/02/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

HPLC
2017/08/09


DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUda ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{22}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE.

Certified By:  Date: 05/04/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • Info@well-labs.com

Form#27, Issued 2004-11-10
Revision# 4, Revised 2017-03-09

PFTrDA0517 (1 of 4)
rev0

Received 2017/05/29 1 x 1.2mL HPLC

Received 2017/08/09 1 x 1.2mL HPLC

Received 2017/08/30 1 x 1.2mL HPLC

Received 2017/09/26 1 x 2 ampules HPLC

Received 2017/09/12 2 ampules HPLC

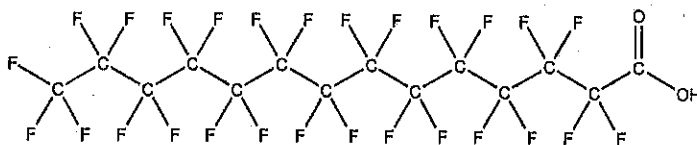


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFTeDA **LOT NUMBER:** PFTeDA0917
COMPOUND: Perfluoro-n-tetradecanoic acid

STRUCTURE: **CAS #:** 376-06-7



MOLECULAR FORMULA: $C_{14}HF_{27}O_2$ **MOLECULAR WEIGHT:** 714.11
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/21/2017
EXPIRY DATE: (mm/dd/yyyy) 09/21/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*1 X 2 ampoules
 652 2017/09/26*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDoA ($C_{12}HF_{23}O_2$) and ~ 0.2% of PFPeDA ($C_{15}HF_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 09/21/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

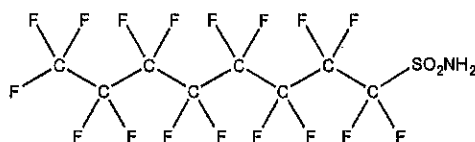


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FOSA-I **LOT NUMBER:** FOSA08171
COMPOUND: Perfluoro-1-octanesulfonamide

STRUCTURE: **CAS #:** 754-91-6



MOLECULAR FORMULA: $C_8H_2F_{17}NO_2S$ **MOLECULAR WEIGHT:** 499.14
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Isopropanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/01/2017
EXPIRY DATE: (mm/dd/yyyy) 09/01/2022
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

*1X2 ampoules
652 2017/09/26*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager **Date:** 09/14/2017
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

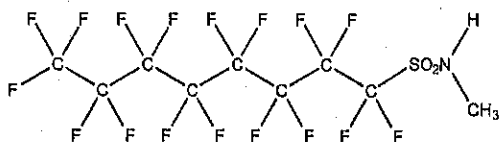


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M **LOT NUMBER:** NMeFOSA0717M
COMPOUND: N-methylperfluoro-1-octanesulfonamide

STRUCTURE: **CAS #:** 31506-32-8



MOLECULAR FORMULA: C₉H₄F₁₇NO₂S **MOLECULAR WEIGHT:** 513.17
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/05/2017
EXPIRY DATE: (mm/dd/yyyy) 07/05/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 X 2 ampoules
652 2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 07/10/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

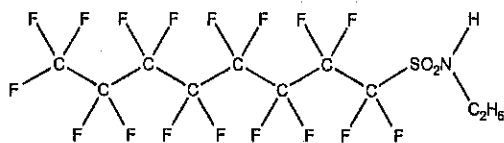


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M **LOT NUMBER:** NEtFOSA0717M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

STRUCTURE: **CAS #:** 4151-50-2



MOLECULAR FORMULA: $C_{10}H_{17}F_{17}NO_2S$ **MOLECULAR WEIGHT:** 527.20
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/05/2017
EXPIRY DATE: (mm/dd/yyyy) 07/05/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 X 2 ampoules
652-2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 07/18/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

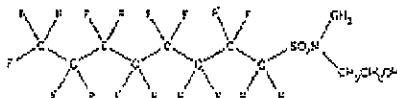


**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: N-MFOSE-M **LOT NUMBER:** NMOFOSE0417M
COMPOUND: 2-(N-methylpentafluoro-1-octanesulfonamido)ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA: C₁₀H₃F₁₁NO₃S **MOLECULAR WEIGHT:** 557.22
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 04/24/2017 (HRGC/LRMS)
04/25/2017 (LC/MS)
EXPIRY DATE: 04/24/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:


Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MS/MS Transitions)

received: 2017/06/02
DMZ, 1.2 mL X 1
fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 05/05/2017
B.S. Cutlira, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2049 • info@well-labs.com

Form W-01 Issue 2014-07-10
Revised: 2017-03-22

NMOFOSE0417M 11 of 21
pg. 11

date received: 2017/05/29 1x1.2 HPLC
date received: 2017/06/02 1x1.2 HPLC
date received: 2017/08/09 1x1.2 HPLC
date received: 2017/08/30 1x1.2 HPLC
date received: 2017/09/26 1x1.2 HPLC

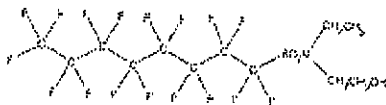


**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: N-EP05E-M
COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol
LOT NUMBER: NERF05E0417A

STRUCTURE:
CAS #: 1591-69-2



MOLECULAR FORMULA: C₁₀H₁₉F₁₇NO₅
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >99%
LAST TESTED: 04/24/2017 (HRGC/LRMS)
EXPIRY DATE: 04/21/2017 (LC/MS)
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

MOLECULAR WEIGHT: 671.26
SOLVENT(S): Methanol

DOCUMENTATION DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
Q12, 1.2 mL x 1
Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (product ion), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B G Chinlin, Quality Manager

Date: 04/26/2017
[Signature]

Wellington Laboratories Inc., 345 Southgate Dr, Guelph ON N1G 3A5 CANADA
519-822-2438 • Fax: 519-822-2840 • info@well-labs.com

FW0621 (rev 03/04/16)

date received: 2017/05/29 1x1.2 HPLC
date received: 2017/08/09 1x1.2 HPLC
date received: 2017/08/30 1x1.2 HPLC
date received: 2017/08/09 1x1.2 HPLC
date received: 2017/09/26 1x1.2 HPLC

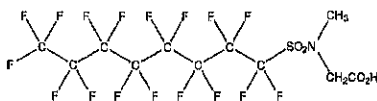


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSAA **LOT NUMBER:** NMeFOSAA0117
COMPOUND: N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2355-31-9



MOLECULAR FORMULA: C₁₀H₂F₁₇NO₂S **MOLECULAR WEIGHT:** 571.21
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/11/2017
EXPIRY DATE: (mm/dd/yyyy) 01/11/2022
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*HPLC
2/7/16 8/10/17*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: *B.G. Chittim* Date: 01/12/2017
B.G. Chittim (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form#27, Issued 2004-11-10
Revision#3, Revised 2015-03-24

NMeFOSAA0117 (1 of 4)
rev0

Received date 2017/05/25 1 x 1.2mL HPLC
Received date 2017/08/09 1 x 1.2mL HPLC
Received date 2017/08/30 1 x 1.2mL HPLC
RECEIVED DATE: 2017/09/26 1x1.2 mL HPLC
received date 2017-09-12 2 ampules HPLC

Ampoule & TAU
 Date received: 2017/09/12



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-EIFOSAA **LOT NUMBER:** NEIFOSAA0117
COMPOUND: N-ethylperfluoro-1-octanesulfonamideacetic acid

STRUCTURE: **CAS #:** 2991-50-6



MOLECULAR FORMULA: $C_{12}H_9F_{17}NO_4S$ **MOLECULAR WEIGHT:** 585.23
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (numeric/yyyy) 01/11/2017
EXPIRY DATE: (numeric/yyyy) 01/11/2022
RECOMMENDED STORAGE: Refrigerate ampoule

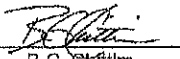
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim **Date:** 01/12/2017
 (numeric/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • Info@well-labs.com

Form 8-27, Issued 2004-11-10
 Revision 1-3, Revised 2015-03-24

NEIFOSAA0117 (1 of 4)
 row0

Received : 20170525HPLC,
 RECEIVED: 2017/09/26 HPLC

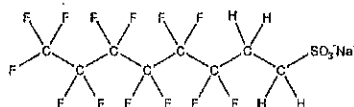


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0417
COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_8H_8F_{13}SO_3Na$ **MOLECULAR WEIGHT:** 450.15
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/ml}$ (Na salt) **SOLVENT(S):** Methanol
 $47.4 \pm 2.4 \mu\text{g/ml}$ (6:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/20/2017
EXPIRY DATE: (mm/dd/yyyy) 04/20/2022
RECOMMENDED STORAGE: Refrigerate ampoule

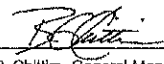
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 04/24/2017
B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • Info@well-labs.com

Form#:27, Issued 2004-11-10
Revision#:4, Revised 2017-03-06

62FTS0417 (1 of 4)
rev0

Date Received: 2017/05/25 1x1.2 HPLC
Date Received: 2017/08/09 1x1.2 HPLC
Date Received: 2017/08/30 1x1.2 HPLC
Date Received: 2017/09/26 1x1.2 HPLC

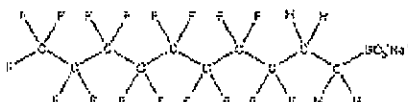


**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: 82F1S **LQT NUMBER:** 82F1S1218
COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_{10}H_{18}F_{18}SO_3Na$ **MOLECULAR WEIGHT:** 550.19
CONCENTRATION: 50.0 ± 2.6 µg/ml (Na salt)
47.9 ± 2.4 µg/ml (8:2F1S anion) **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 12/21/2016 12/12/2018
EXPIRY DATE: 12/21/2021 12/12/2021
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION DATA ATTACHED:

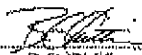
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

See page 2 for further details.

*Date received
2017/03/10
2 Ampoules
HPLC
SSV*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chellim Date: 12/21/2016

Wellington Laboratories Inc., 348 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2848 • info@well-labs.com

Printed on: 12/21/2016 11:18
Instruments: HPLC-MS-MS

20170125 01 of 1
10/6

Received 2017/05/25 2 x 1.2mL MMN FD-59
Received 2017/05/29 2 x 1.2mL MMN FD-59
Received 2017/08/09 2 x 1.2mL MMN FD-59
Received 2017/08/30 2 x 1.2mL MMN FD-59
Received 2017/09/26 2 x 1.2nL HPLC

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

PRLST 142 PG. 121

Solution No.: I-5203 Date: 2017/12/06 Expiry Date: 2018/12/06 Discard Date: _____
 Replaces Solution No.: I-5171 Replaced by Solution: _____ Chemist: GSZ
 Compound(s)/Solution Name: PFC SECOND SOURCE SPIKING SOLUTION A
 Number of Parent Solution(s): See attached sheet
 Concentration of Parent Solution(s): See attached sheet (mg, ug)/mL
 Aliquot of Parent Solution(s): See attached sheet mL / uL
 Pipette/Syringe ID: N31477F (inv pipette)
 Dilution Solvent: 0.3% NH₄OH in MeOH Dilution Volume: 25 mL
 Final Concentration(s): 1.0 (mg, ug)/mL
 Solution derivatized (as methyl ester): - As Other (specify): -
 Solution Contains Surrogate Compounds: - For mix refer to table on page: -
 Solution used for: PFC Volumetric Flask: 25 mL Class A (5640)
 (identify by serial number or other unique ID)
 Solvent Supplier: See PRURE 108-192 Lot No.: See PRURE 108-192
 Date Opened: See PRURE 108-192
 Storage Location: F211 One time Use, Not Stored: -
 Ampule Supplier: Wellington Date Opened: See attached sheet
 Mix Name: -
 Catalogue No.: - Ampule expiry Date: See attached sheet
 Lot No.: See attached sheet
 Date Received: See attached sheet

I-5203 (PRLST 142 p.121)

Compound Name	ID#	Conc. (ug/mL)	Vol.. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	S4240-1	50	500	1	2022/05/29
L-PFBS	S4240-2	44.2	565	1	2021/12/02
PFPeA	S4240-3	50	500	1	2022/06/14
PFHxA	S4240-4	50	500	1	2021/12/02
br-PFHxSk	S4240-5	45.5	528	1	2022/01/04
PFHpA	S4240-6	50	500	1	2021/12/02
L-PFHpS	S4240-7	47.6	525	1	2022/09/01
PFOA	S4240-8	50	500	1	2022/02/17
brPFOSK	S4240-9	46.4	540	1	2022/01/12
PFNA	S4240-10	50	500	1	2022/07/20
PFDA	S4240-11	50	500	1	2022/05/29
L-PFDS	S4240-12	48.2	518	1	2022/02/17
PFuDA	S4240-13	50	500	1	2021/10/18
PFDoA	S4240-14	50	500	1	2022/05/29
PFTrDA	S4240-15	50	500	1	2022/05/02
PFTeDA	S4240-16	50	500	1	2022/09/21
PFOSA (FOSA-I)	S4240-17	50	500	1	2022/09/01
N-MeFOSA-M	S4240-18	50	500	1	2022/07/05
N-EtFOSA-M	S4240-19	50	500	1	2022/07/05
N-MeFOSE-M	S4240-20	50	500	1	2022/04/24
N-EtFOSE-M	S4240-21	50	500	1	2022/04/24
N-MeFOSAA	S4240-22	50	500	1	2022/01/11
N-EtFOSAA	S4240-23	50	500	1	2022/01/11
6:2FTS	S4240-24	47.4	528	1	2022/04/20
8:2FTS	S4240-25	47.9	522	1	2021/12/12

No writing on bottom page.

GSZ, 2017/12/06

PRLST 133 PG 133

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4240 Date: 2017/11/15 Expiry Date: See Below Discard Date: _____
 Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4240 (PRLST 133 p.133)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4240-1	PFBA	PFBA0517	2017/09/26	2022/05/29	S4197-1		50	MeOH	FZ-11
S4240-2	L-PFBS	LPFBS1116	2017/09/26	2021/12/02	S4197-2		44.2	MeOH	FZ-11
S4240-3	PFPeA	PFPeA0617	2017/09/26	2022/06/14	S4197-3		50	MeOH	FZ-11
S4240-4	PFHxA	PFHxA1216	2017/09/26	2021/12/02	S4197-4		50	MeOH	FZ-11
S4240-5	br-PFHxSk	brPFHxSK0117	2017/09/26	2022/01/04	S4197-5		45.5	MeOH	FZ-11
S4240-6	PFHpA	PFHpA1216	2017/09/26	2021/12/02	S4197-6		50	MeOH	FZ-11
S4240-7	L-PFHpS	LPFHpS0817	2017/09/26	2022/09/01	S4197-7		47.6	MeOH	FZ-11
S4240-8	PFOA	PFOA0217	2017/09/26	2022/02/17	S4197-8		50	MeOH	FZ-11
S4240-9	brPFOSK	brPFOSK0117	2017/09/26	2022/01/12	S4197-9		46.4	MeOH	FZ-11
S4240-10	PFNA	PFNA0717	2017/09/26	2022/07/20	S4197-10		50	MeOH	FZ-11
S4240-011	PFDA ^{65Z} _{2017/11/15}	PFDA0517	2017/09/26	2022/05/29	S4197-11		50	MeOH	FZ-11
S4240-12	L-PFDS	LPFDS0217	2017/09/26	2022/02/17	S4197-12		48.2	MeOH	FZ-11
S4240-13	PFUDA	PFUDA1016	2017/09/26	2021/10/18	S4197-13		50	MeOH	FZ-11
S4240-14	PFDOA	PFDOA0517	2017/09/26	2022/05/29	S4197-14		50	MeOH	FZ-11
S4240-15	PFTDA	PFTDA0517	2017/09/26	2022/05/02	S4197-15		50	MeOH	FZ-11
S4240-16	PFTeDA	PFTeDA0917	2017/09/26	2022/09/21	S4197-16		50	MeOH	FZ-11
S4240-17	PFOSA (FOSA-I)	FOSA08171	2017/09/26	2022/09/01	S4197-17		50	IPA	FD-59
S4240-18	N-MeFOSA-M	NMeFOSA0717M	2017/09/26	2022/07/05	S4197-18		50	MeOH	FZ-11
S4240-19	N-EtFOSA-M	NEtFOSA0717M	2017/09/26	2022/07/05	S4197-19		50	MeOH	FZ-11
S4240-20	N-MeFOSE-M	NMeFOSE0417M	2017/09/26	2022/04/24	S4197-20		50	MeOH	FZ-11
S4240-21	N-EtFOSE-M	NEtFOSE0417M	2017/09/26	2022/04/24	S4197-21		50	MeOH	FZ-11
S4240-22	N-MeFOSAA	NMeFOSAA0117	2017/09/26	2022/01/11	S4197-22		50	MeOH	FD-59
S4240-23	N-EtFOSAA	NEtFOSAA0117	2017/09/26	2022/01/11	S4197-23		50	MeOH	FD-59
S4240-24	6:2FTS	62FTS0417	2017/09/26	2022/04/20	S4197-24		47.4	MeOH	FD-59
S4240-25	8:2FTS	82FTS1216	2017/09/26	2021/12/12	S4197-25		47.9	MeOH	FD-59
Date Opened (All compounds): <u>2017/11/15</u>			Supplier (All compounds): <u>Wellington</u>			Chemist: <u>GSZ</u>			

No writing on bottom page.

Solvent Used: _____

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

Storage Location / Conditions: _____ *GSZ, 2017/11/15*

Notes/Comments _____



WELLINGTON LABORATORIES

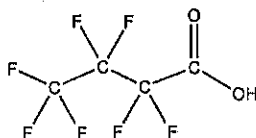
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0517

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/29/2017
EXPIRY DATE: (mm/dd/yyyy) 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 X 2 ampoules
652 2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 05/30/2017
(mm/dd/yyyy)

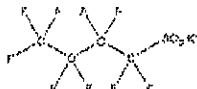
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFBS
COMPOUND: Potassium pentafluoro-3-butenesulfonate
LOT NUMBER: LPFBS1116
STRUCTURE:
CAS #: 28420-49-3



MOLECULAR FORMULA: C₂F₇SO₃K
MOLECULAR WEIGHT: 338.19
CONCENTRATION: 50.9 ± 2.5 µg/ml (K salt)
SOLVENT(S): Methanol
44.2 ± 2.2 µg/ml (PFBS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 12/02/2016
EXPIRY DATE: 12/02/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:


Figure 1. LC/MS Data (TIC and Mass Spectra)
Figure 2. LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

See page 2 for further details.

*Received from
2016/12/19
1x1.2ml
FZ-11*

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chiklin Date: 12/05/2016

Wellington Laboratories Inc., 343 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2940 • info@well-labs.com

PFBS1116, Rev 01, 12/05/16
November 23, 2016 (3/2)

LPFBS1116 (3/2)
1/16

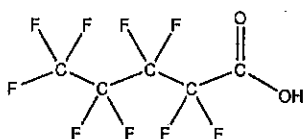
Received 2016/12/19 2x1.2ml HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
RECEIVED 2017/03/10 1X1 MMN
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
RECEIVED 2017/08/09 1x1.2ml
Date received: 2017/08/30 1x1.2ml - HPLC
RECEIVED: 2017/09/26 2X1.2mL HPLC
received 2017/09/12 2 ampoules HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFPeA **LOT NUMBER:** PFPeA0617
COMPOUND: Perfluoro-n-pentanoic acid
STRUCTURE: **CAS #:** 2706-90-3



MOLECULAR FORMULA: $C_5HF_8O_2$ **MOLECULAR WEIGHT:** 264.05
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 06/14/2017
EXPIRY DATE: (mm/dd/yyyy) 06/14/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*1 X 2 ampoules
652 2017/09/26*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of $C_8H_2F_{10}O_2$ (hydrido - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 06/16/2017
 (mm/dd/yyyy)

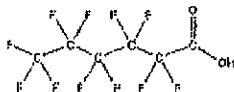
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: PFHxA **LQI NUMBER:** PFHxA1216
COMPOUND: Perfluoro-n-hexanoic acid
STRUCTURE: **CAS #:** 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$ **MOLECULAR WEIGHT:** 314.05
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: 12/02/2016
EXPIRY DATE: 12/02/2021
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:


Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*Received
1x1.2mL
MMN 2017-02-22*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 1.0% of branched isomers.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Gillim Date: 12/07/2016
premint

Wellington Laboratories Inc., 346 Southgate Dr, Guelph ON N1G 3M5 CANADA
 519-822-2438 • Fax: 519-822-2645 • Info@well-labs.com

Form 27, Issue 2014-11-10
 Revised 5, Revised 2011-03-24

PT1161710-21 of 41
 1/15

Received 2017/05/25 2 x 1.2mL MMN FZ-11
 Received 2017/05/29 2 x 1.2mL MMN FZ-11
 Date Received: 2017/06/02-DMZ-1.2ml- FD
 Date Received: 2017/08/09 1x1.2ml MMN FZ-11
 Date received: 2017/08/30 1x1.2ml HPLC
 Date received 2017/09/26 1x2 ampules HPLC
 DATE RECEIVED 2017/09/12 2 ampules HPLC



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

br-PFHxSK

**Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers**

PRODUCT CODE: br-PFHxSK
LOT NUMBER: brPFHxSK0117
CONCENTRATION: 50.0 ± 2.5 µg/ml (total potassium salt)
 45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S): Methanol
DATE PREPARED: 01/03/2017
LAST TESTED: 01/04/2017
EXPIRY DATE: 01/04/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ¹⁹F-NMR
 Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS Data (SIR)
 Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017-06-02
 0 ML, 1.2 mL X 1
 Fridga

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-8 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2476 • Fax: 519-822-2849 • info@well-labs.com

date received: 2017/05/29 HPLC
 date received: 2017/08/30 HPLC
 date received: 2017/08/09 HPLC
 date received: 2017/09/26 HPLC
 DATE RECEIVED 2017/09/12 2 ampules HPLC



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

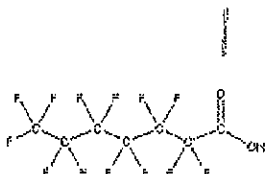
PRODUCT CODE: PFHpA

LOT NUMBER: PFHpA1216

COMPOUND:

Perfluoro-n-heptanoic acid

STRUCTURE:



CAS #: 375-85-9

*Received
2016-12-16
2 x 1.2 mL
FZ-11*

MOLECULAR FORMULA:

C₇H₂F₁₃O₂

MOLECULAR WEIGHT: 364.06

CONCENTRATION:

50 ± 2.5 µg/mL

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

> 98%

LAST TESTED:

12/02/2016

EXPIRY DATE:

12/02/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim
B.G. Chittim

Date: 12/12/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2049 • info@well-labs.com

PL100-01, Rev 01 2006-11-12
PL100-01, Rev 01 2006-11-12

PL100-01, Rev 01 2006-11-12
PL100-01, Rev 01 2006-11-12

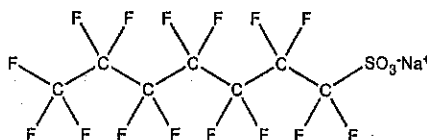
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
Date Received: 2017/08/09 1x1.2ml HPLC
Date Received: 2017/08/30 1x1.2ml HPLC
Date received 2017/09/26 1x2 ampules HPLC
DATE RECEIVED 2017/09/12 2 ampules HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS **LOT NUMBER:** LPFHpS0817
COMPOUND: Sodium perfluoro-1-heptanesulfonate
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_7F_{15}SO_3Na$ **MOLECULAR WEIGHT:** 472.10
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
 47.6 ± 2.4 µg/ml (PFHpS anion)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/01/2017
EXPIRY DATE: (mm/dd/yyyy) 09/01/2022
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 X 2 ampoules

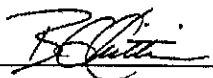
652 2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of L-PFHxS ($C_6F_{13}SO_3Na$) and ~ 0.1% of L-PFOS ($C_8F_{17}SO_3Na$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:


 B.G. Chittim, General Manager

Date: 09/07/2017

(mm/dd/yyyy)

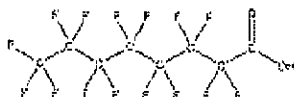
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: PFDA **LOT NUMBER:** PFDA0217
COMPOUND: Perfluoro-n-octanoic acid
STRUCTURE: **CAS #:** 335-67-1



MOLECULAR FORMULA: C₈H₇F₁₇O₂ **MOLECULAR WEIGHT:** 414.07
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED (internal): 02/17/2017
EXPIRY DATE (internal): 02/17/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
 DMZ, 1.2 mL x 1
 fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the ethyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Griffin Date: 02/22/2017
 B.G. Griffin

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2435 • Fax: 519-822-2848 • info@wlf-labs.com

Count of Ampoules: 100.00

date received: 2017/05/29 1.2x1 - HPLC
 date received: 2017/05/29 1.2x1 - HPLC
 Date Received: 2017/06/02-1.2 x 1-HPLC
 date received: 2017/08/09 1.2x1 - HPLC
 date received: 2017/08/30 1.2x1 - HPLC
 date received 2017/09/26 1x4 ampoules HPLC
 date received 2017/09/12 2 ampoules HPLC



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

br-PFOSK

Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE: br-PFOSK
LOT NUMBER: br-PFOSK0117
CONCENTRATION: 50 ± 2.5 µg/ml (total potassium salt)
 46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S): Methanol
DATE PREPARED: 01/09/2017
LAST TESTED: 01/12/2017
EXPIRY DATE: 01/12/2022
RECOMMENDED STORAGE: Store ampule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ¹⁹F-NMR
 Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS Data (SIR)
 Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
 DMZ, 1.2 mL x 1
 Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer, potassium salt).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr, Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

date received: 2017/05/29 1.2x1- HPLC
 date received: 2017/08/09 1 ampule HPLC
 date received: 2017/08/30 1 ampule HPLC
 date received: 2017/09/26 1.2x1ampule HPLC
 date received 2017/09/12 2 ampules

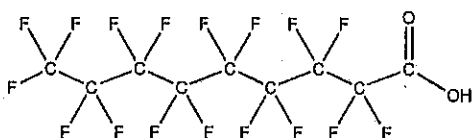


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFNA **LOT NUMBER:** PFNA0717
COMPOUND: Perfluoro-n-nonanoic acid

STRUCTURE: **CAS #:** 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$ **MOLECULAR WEIGHT:** 464.08
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/20/2017
EXPIRY DATE: (mm/dd/yyyy) 07/20/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 X 2 ampoules
 65Z 2017/09/24

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-octanoic acid (PFOA), < 0.1% of perfluoro-n-heptanoic acid (PFHpA), and < 0.1% of perfluoro-n-undecanoic acid (PFUdA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 07/24/2017
 B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Maxxam Analytics

Form#: 27, Issued 2004-11-10
 Revision#: 4, Revised 2017-03-06

401 of 744

PFNA0717 (1 of 4)
 rev0

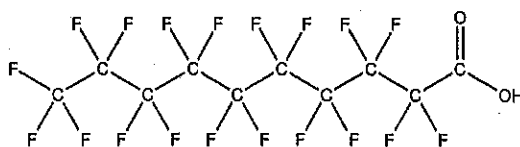


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDA **LOT NUMBER:** PFDA0517
COMPOUND: Perfluoro-n-decanoic acid

STRUCTURE: **CAS #:** 335-76-2



MOLECULAR FORMULA: C₁₀H₁₉O₂ **MOLECULAR WEIGHT:** 514.08
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/29/2017
EXPIRY DATE: (mm/dd/yyyy) 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:


Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 X 2 ampoules
 652 2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager **Date:** 05/30/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

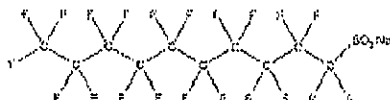


**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: L-PFDS **LOT NUMBER:** LPFDS0217
COMPOUND: Sodium perfluoro-1-dodecanesulfonate

STRUCTURE: **CAS #:** 2806-15-7



MOLECULAR FORMULA: $C_{12}F_{21}SO_2Na$ **MOLECULAR WEIGHT:** 622.13
CONCENTRATION: 60.0 ± 2.6 µg/ml (Na salt) **SOLVENT(S):** Methanol
48.2 ± 2.4 µg/ml (PFDS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 02/17/2017
EXPIRY DATE: 02/17/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1. LC/MS Data (TIC and Mass Spectrum)
Figure 2. LC/MS/MS Data (Selected MS/MS Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDS).

*Date received
2017/03/10
2 Ampoules
HPLC
SSV*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Cistler Date: 02/22/2017
B.G. Cistler

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form 02, Rev 01/14 21-12
Replaces: Replaces 2015-03 24

LPFDS0217 11 of 11
625

Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
date received: 2017/08/30 1 ampule HPLC
DATE RECEIVED: 2017/09/26 1X2 AMPULES HPLC

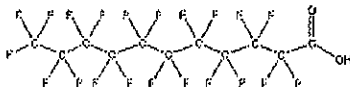


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFUdA **LOI NUMBER:** PFUdA1016
COMPOUND: Perfluoro-n-undecanoic acid

STRUCTURE: **RAS #:** 2058-94-8



MOLECULAR FORMULA: C₁₁HF₁₁O₂ **MOLECULAR WEIGHT:** 564.09
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: 09/11/2016 10/18/2016
EXPIRY DATE: 09/11/2021 10/18/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place


DOCUMENTATION DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **B.G. Chittim** Date: 10/19/2016
09/11/2021

Wellington Laboratories Inc., 346 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2049 • info@well-labs.com

Form 017, Issues 2/04-11-19
Revised 03/10/10 2/10-03-24

PFUdA1016 (1 of 8)
10/16

*Received
2016-12-19
1 x 1.2 ml
FZ-35
mm
2016/12/19*

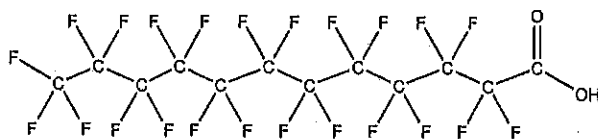
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35M
Received 2016/12/16 2 x 1.2mL -HPLC FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
Received 2017/08/09 1 x 1.2mL MMN FZ-11
Received 2017/08/30 1 x 1.2mL MMN FZ-11
Received 2017/09/26 1 x 1.2mL HPLC
Received 2017/09/12 2 ampoules



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFD0A **LOT NUMBER:** PFD0A0517
COMPOUND: Perfluoro-n-dodecanoic acid
STRUCTURE: **CAS #:** 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$ **MOLECULAR WEIGHT:** 614.10
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/29/2017
EXPIRY DATE: (mm/dd/yyyy) 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

1 X 2 ampoules
 GSZ 2017/09/26

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 05/30/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

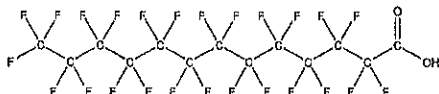


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTrDA **LOT NUMBER:** PFTrDA0617
COMPOUND: Perfluoro-n-tridecanoic acid

STRUCTURE: **CAS #:** 72829-94-8



MOLECULAR FORMULA: C₁₃H₂₆O₂ **MOLECULAR WEIGHT:** 664.11
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >96%
LAST TESTED: (mm/dd/yyyy) 05/02/2017
EXPIRY DATE: (mm/dd/yyyy) 06/02/2022
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

HPLC
2017/08/09

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUDa (C₁₁H₂₂O₂), ~ 0.4% of PFDoA (C₁₂H₂₄O₂), and ~ 0.1% of PFTeDA (C₁₄H₂₈O₂).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE.

Certified By: 
B.G. Chittim, General Manager **Date:** 05/04/2017
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form#27, Issued 2004-11-10
Revision#4, Revised 2017-03-06

PFTrDA0617 (1 of 4)
rev0

Received 2017/05/29 1 x 1.2mL HPLC

Received 2017/08/09 1 x 1.2mL HPLC

Received 2017/08/30 1 x 1.2mL HPLC

Received 2017/09/26 1 x 2 ampules HPLC

Received 2017/09/12 2 ampules HPLC

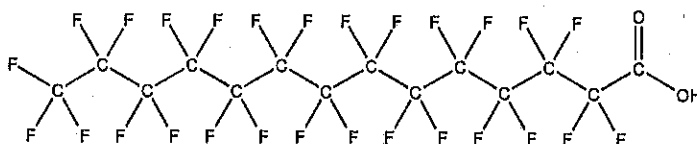


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFTeDA **LOT NUMBER:** PFTeDA0917
COMPOUND: Perfluoro-n-tetradecanoic acid

STRUCTURE: **CAS #:** 376-06-7



MOLECULAR FORMULA: $C_{14}HF_{27}O_2$ **MOLECULAR WEIGHT:** 714.11
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/21/2017
EXPIRY DATE: (mm/dd/yyyy) 09/21/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*1 X 2 ampoules
 65% 2017/09/26*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDoA ($C_{12}HF_{23}O_2$) and ~ 0.2% of PFPeDA ($C_{15}HF_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 09/21/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

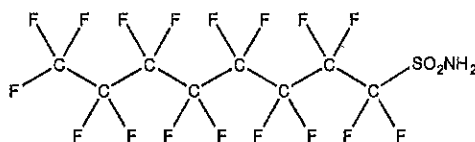


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FOSA-I **LOT NUMBER:** FOSA08171
COMPOUND: Perfluoro-1-octanesulfonamide

STRUCTURE: **CAS #:** 754-91-6



MOLECULAR FORMULA: $C_8H_2F_{17}NO_2S$ **MOLECULAR WEIGHT:** 499.14
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Isopropanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/01/2017
EXPIRY DATE: (mm/dd/yyyy) 09/01/2022
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

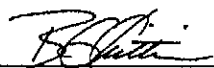
Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

*1X2 ampoules
652 2017/09/26*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager **Date:** 09/14/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

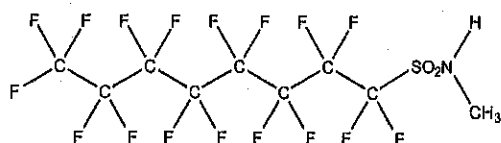


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M **LOT NUMBER:** NMeFOSA0717M
COMPOUND: N-methylperfluoro-1-octanesulfonamide

STRUCTURE: **CAS #:** 31506-32-8



MOLECULAR FORMULA: C₉H₄F₁₇NO₂S **MOLECULAR WEIGHT:** 513.17
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/05/2017
EXPIRY DATE: (mm/dd/yyyy) 07/05/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

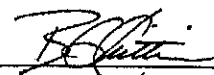
Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 X 2 ampoules
 652 2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager **Date:** 07/10/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

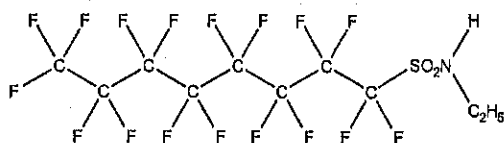


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M **LOT NUMBER:** NEtFOSA0717M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

STRUCTURE: **CAS #:** 4151-50-2



MOLECULAR FORMULA: $C_{10}H_{17}F_{17}NO_2S$ **MOLECULAR WEIGHT:** 527.20
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/05/2017
EXPIRY DATE: (mm/dd/yyyy) 07/05/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 X 2 ampoules
652-2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 07/18/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

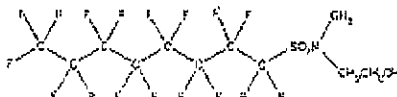


**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: N-MFOSE-M **LOT NUMBER:** NMFOSE0417M
COMPOUND: 2-(N-methylpiperidino-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA: C₁₁H₂₁F₁₁N₂O₂S **MOLECULAR WEIGHT:** 557.22
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 04/24/2017 (HRGC/LRMS)
04/27/2017 (LC/MS)
EXPIRY DATE: 04/24/2022
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

received: 2017/06/02
0.012, 1.2 ml x 1
fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B. G. Chittin Date: 05/05/2017
B. G. Chittin, General Manager PERSON

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2049 • info@well-labs.com

Form 37 Issues E04 (1-17)
Revised/Changed 2017-03-02

NMFOSE0417M 11 of 01
05/01

date received: 2017/05/29 1x1.2 HPLC
date received: 2017/06/02 1x1.2 HPLC
date received: 2017/08/09 1x1.2 HPLC
date received: 2017/08/30 1x1.2 HPLC
date received: 2017/09/26 1x1.2 HPLC



**WELLINGTON
LABORATORIES**

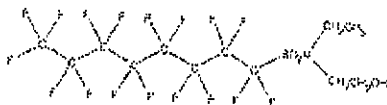
**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: N-EPOSE-N
COMPOUND: 2-(N-ethylpiperidino)-1-octano sulfonamide-ethanol

LOT NUMBER: NEF03E0417M

STRUCTURE:

CAS #: 1691-89-2



MOLECULAR FORMULA: C₁₈H₃₁N₂O₃S
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >99%
LAST TESTED: 04/24/2017 (HPLC, RMS)
EXPIRY DATE: 04/21/2017 (LC/MS)
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

MOLECULAR WEIGHT: 371.25
SOLVENT(S): Methanol

DOCUMENTATION DATA ATTACHED:

- Figure 1: HPLC/MS Data (TIC and Mass Spectrum)
- Figure 2: LC/MS Data (TIC and Mass Spectrum)
- Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017 10 6 10 2
DMZ, LRM X 1
Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: *[Signature]* Date: 04/26/2017
R G Collins, General Manager

Wellington Laboratories Inc., 345 Southgate Dr, Guelph ON N1G 3M5 CANADA
513-822-2436 • Fax: 519-822-2840 • info@well-labs.com

date received: 2017/05/29 1x1.2 HPLC
date received: 2017/08/09 1x1.2 HPLC
date received: 2017/08/30 1x1.2 HPLC
date received: 2017/08/09 1x1.2 HPLC
date received: 2017/09/26 1x1.2 HPLC

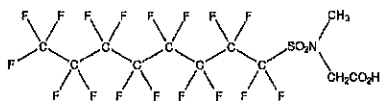


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSAA **LOT NUMBER:** NMeFOSAA0117
COMPOUND: N-methylperfluoro-1-octanesulfonamideacetic acid

STRUCTURE: **CAS #:** 2355-31-9



MOLECULAR FORMULA: $C_9H_5F_{17}NO_4S$ **MOLECULAR WEIGHT:** 571.21
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/11/2017
EXPIRY DATE: (mm/dd/yyyy) 01/11/2022
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*17860
2016.8/09*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: *B.G. Chittim* Date: 01/12/2017
B.G. Chittim (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form# 27, Issued 2004-11-10
Revision# 3, Revised 2015-03-24

NMeFOSAA0117 (1 of 4)
revD

Received date 2017/05/25 1 x 1.2mL HPLC
Received date 2017/08/09 1 x 1.2mL HPLC
Received date 2017/08/30 1 x 1.2mL HPLC
RECEIVED DATE: 2017/09/26 1X1.2 mL HPLC
received date 2017-09-12 2 ampules HPLC

Ampoule: e TAW
 Date received: 2017/09/12

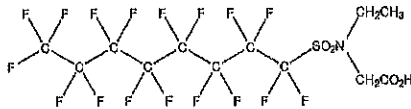


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSAA **LOT NUMBER:** NEIFOSAA0117
COMPOUND: N-ethylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2991-50-8



MOLECULAR FORMULA: C₁₂H₉F₁₇NO₃S
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 585.23
SOLVENT(S): Methanol
 Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/11/2017
EXPIRY DATE: (mm/dd/yyyy) 01/11/2022
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim

Date: 01/12/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • Info@well-labs.com

Form#127, Issued 2004-11-10
 Revision#3, Revised 2016-03-24

NEIFOSAA0117 (1 of 4)
 rev0

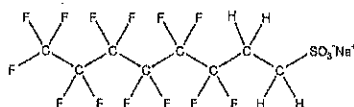
Received : 20170525HPLC,
 RECEIVED: 2017/09/26 HPLC



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0417
COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_8H_2F_{16}SO_3Na$ **MOLECULAR WEIGHT:** 450.15
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/ml}$ (Na salt) **SOLVENT(S):** Methanol
 $47.4 \pm 2.4 \mu\text{g/ml}$ (6:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/20/2017
EXPIRY DATE: (mm/dd/yyyy) 04/20/2022
RECOMMENDED STORAGE: Refrigerate ampoule


DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 04/24/2017
 B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • Info@well-labs.com

Form# 27, Issued 2004-11-10
 Revision# 4, Revised 2017-03-08

62FTS0417 (1 of 4)
 rev0

Date Received: 2017/05/25 1x1.2 HPLC
 Date Received: 2017/08/09 1x1.2 HPLC
 Date Received: 2017/08/30 1x1.2 HPLC
 Date Received: 2017/09/26 1x1.2 HPLC

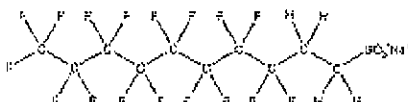


**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: 82FTS **LOT NUMBER:** 82FTS1218
COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_{10}H_{18}F_{18}SO_3Na$ **MOLECULAR WEIGHT:** 550.18
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
47.9 ± 2.4 µg/ml (8:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 12/12/2016
EXPIRY DATE: 12/12/2021
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (110 and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

See page 2 for further details.

*Date received
2017/03/10
2 Ampoules
HPLC
SSV*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chellim Date: 12/21/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M6 CANADA
519-822-2436 • Fax: 519-822-2848 • info@well-labs.com

Form 27, rev 01/2014
Inclusion of Therapeutic NWS-05-01

82FTS1218 (1 of 4)
16/6

Received 2017/05/25 2 x 1.2mL MMN FD-59
Received 2017/05/29 2 x 1.2mL MMN FD-59
Received 2017/08/09 2 x 1.2mL MMN FD-59
Received 2017/08/30 2 x 1.2mL MMN FD-59
Received 2017/09/26 2 x 1.2nL HPLC

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI 6715 Prep'n Date: 2017-11-30 Expiry Date: 2017-12-07 Discard Date: N/A
 Replaces Solution No.: SI 6706 Replaced by Solution: SI 6722 Chemist: SMP
 Sol'n. Name: Hexanes O-terphenyl
 Solution Used As: Internal Std: N/A Surrogate Spike: Yes
 Spike Volume: 5.0 uL or mL (for I.S. uL per mL) For Instrument/Analysis: GCFID
 Solvent(s): Hexanes Supplier(s): Fisher Lot No(s): 174498
 Date Solvent Opened: 2017-11-30
 Volumetric Flask Used: Class A Syringe ID: G-13542234
 Storage Location and Conditions: FD-65
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL / uL)	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
<u>O-terphenyl</u>	<u>PHJ-148</u>	<u>100 mg/mL</u>	<u>4</u>	<u>4000</u>	<u>100</u>	<u>N/A</u>
	<u>149</u>					
	<u>SMP</u>					
	<u>2017-11-30</u>					
				<u>SMP</u>	<u>2017-11-30</u>	

Notes:

Solution No.: SI 6716 Prep'n Date: 2017/11/30 Expiry Date: 2018/06/20 Discard Date: _____
 Replaces Solution No.: SI 6631 Replaced by Solution: _____ Chemist: GSZ
 Sol'n. Name: IND. IS
 Solution Used As: Internal Std: / Surrogate Spike: _____
 Spike Volume: 20 (uL) or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS-MS
 Solvent(s): 0.3% NH₄OH in MeOH Supplier(s): See PRURE 108-176 Lot No(s): See PRURE 108-176
 Date Solvent Opened: See PRURE 108-176
 Volumetric Flask Used: 200ml Class A (5640) Syringe ID: Pipette N31477F
 Storage Location and Conditions: FZ 11
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL (uL))	Dilution Volume (mL)	Final Conc'n. ng/mL (ug/mL)	Absolute Amount Spiked (ug / ng)
<u>¹³C₉ PFDA</u>	<u>S-4194</u>	<u>50</u>	<u>400</u>	<u>200</u>	<u>100</u>	
<u>¹³C₆ PFHxA</u>	<u>S-4195</u>	<u>50</u>	<u>400</u>	<u>200</u>	<u>100</u>	

Notes:

PRLST 133 PG 108

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4194 Date: 2017/09/18 Expiry Date: 2018/06/20 Discard Date: _____

Replaces Solution: S-4142 Replaced by Solution: _____ Chemist: GSZ

Compound: ¹³C₉ PFPA Purity: _____

Date Received: 2017/06/09 Expiry Date: 2018/06/20 Lot No.: SC1D-014

Supplier: CEL

Date Opened: 2017/09/18

Final Gross Weight: _____ g/mg Dilution Volume: _____ mL

Tare Weight*: _____ g/mg Volumetric Flask: _____

Net Weight: _____ g/mg Concentration: 50 (ug/mL) mg/mL

Adjusted Net Weight**: _____ mg Solvent(s): MeOH

Balance Used: _____
(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

Storage Location / Conditions: FZ II

Notes/Comments

Received as solution in ampule -

Solution No.: S-4195 Date: 2017/09/18 Expiry Date: 2020/09/30 Discard Date: _____

Replaces Solution: S-4143 Replaced by Solution: _____ Chemist: GSZ

Compound: ¹³C₆ PFHxA Purity: _____

Date Received: 2017/06/09 Expiry Date: 2020/09/30 Lot No.: SDAA-004

Supplier: CEL

Date Opened: 2017/09/18

Final Gross Weight: _____ g/mg Dilution Volume: _____ mL

Tare Weight*: _____ g/mg Volumetric Flask: _____

Net Weight: _____ g/mg Concentration: 50 ug/mL

Adjusted Net Weight**: _____ mg Solvent(s): MeOH

Balance Used: _____
(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

Storage Location / Conditions: FZ II

Notes/Comments

Received as solution in ampule -



Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: PERFLUORODECANOIC ACID
(Isotopic Label & Purity Specification) (13C9, 99%) 50 UG/ML IN METHANOL

Lot Number: SCID-014

Catalog Number: CLM-8172-S

Product Information

Chemical Purity Specification: $\geq 98\%$

Labeled CAS Number: NA

Unlabeled CAS Number: 335-76-2

MW*: 323.02

Chemical Formula: $CF_3(CF_2)_8CO_2H$

Storage: Store at room temperature away from light and moisture.

Stability: See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as elemental and isotopic profiles are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volume measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1-1994, NCR Document 10CPR30 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffix are -J,2, -I, -0.5, -10, or -0.1.

* For isotopically labeled compounds, MW listed is for the fully enriched product.

Approved by: T. J. Eckenley

Timothy J. Eckenley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	06/20/2008
Expiration Date	06/20/2018
Concentration Based on Gravimetry	50.0 $\mu\text{g/mL}$
Chemical Purity of Neat Material(s)	>98%
LC/MS for Concentration	46.2 \pm 6.4 $\mu\text{g/mL}$ (k=2)

*Received from
250 uL 10/15
1 x 1.2 mL
RT*

50 Frontage Road, Andover, MA 01810-5415 USA • 1 800 322 1174 (North America) • 1 978 749 8000 (International) • isotope.com

Date Received: 2016.8.17 - 1 x 1.2mL - HPLC
Date Received: 2016.09.14 - HPLC - 1 x 1.2ml
Date Received: 2016/11/22 1x 1.2ml MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)
Date received: 2017/06/09 - 1x1.2ml - HPLC



Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: PERFLUOROHXANOIC ACID, SODIUM SALT
(Isotopic Label & Enrichment Specifications) (13C6, 99%) 50 UG/ML IN METHANOL

Lot Number: SDAA-004

Catalog Number: CLM-8340-S

Product Information

Chemical Purity Specification: $\geq 98\%$

MW*: 320.00

*For analytical methods, use the MW of the labeled product.

Labeled CAS Number: NA

Unlabeled CAS Number: 307-24-4

Chemical Formula: *CF3(*CF2)4*COOH

Storage: Store at room temperature away from light and moisture.

Stability: See storage and expiration date.

*Received from
2016/05/20
1 x 1.2ml
RT*

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1-1994, NCR Document 100/4850 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -10, or -4L.

Approved by: T. J. Eckersley

T. J. Eckersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	9/30/2010
Expiration Date	9/30/2020
Concentration Based on Gravimetry	50.4 µg/mL
Chemical Purity of Non-Material(s)	99.2%
LC/MS for Concentration	47.1 ± 2.6 µg/mL (k=2)

50 Enterprise Road, Andover, MA 01810, 603.753.1154 • 1.800.422.1176 (toll-free) • cambridgeisotope.com • 1.638.349.8770 (customer service) • 1.800.422.1176

Date Received: 2016/08/17 1x 1.2ml MMN HPLC
Date Received: 2016/09/14 1x 1.2ml MMN HPLC
Date Received: 2016/11/22 1x 1.2ml MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)
Date Received: 2017.06.09 - 1 x 1.2ml - HPLC

144 PG 80

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI-6741 Prep'n Date: 2017/12/15 Expiry Date: 2021/09/30 Discard Date: _____
 Replaces Solution No.: SI-6727 Replaced by Solution: SI-6753 Chemist: GSZ
 Sol'n. Name: PFC INTERNAL STD SPIKING SOLUTION
 Solution Used As: Internal Std: / Surrogate Spike: _____
 Spike Volume: - uL or mL (for I.S. uL per mL) For Instrument/Analysis: GCMS/MS
 Solvent(s): 0.3% NH₄OH in MeOH Supplier(s): See PRKRE 10E-219 Lot No(s): See PRKRE 10E-219
 Date Solvent Opened: See PRKRE 10E-219
 Volumetric Flask Used: 200mL Class A (5640) Syringe ID: Pipette K19865F/N31477F
 Storage Location and Conditions: FZ11
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date: See attached sheet

SI-6741 (PKIST 144 p. 80)

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Dilution volume (mL)	Final Conc. (ng/mL)	Exp. date
MPFBA	S4250-1	50	200	200	50	2022/04/12
M5PFPeA	S4250-2	50	200	200	50	2022/07/20
MPFHxA	S4255-1	50	200	200	50	2021/11/22
MPFHxS	S4250-3	50	200	200	50	2022/02/17
M4PFHpA	S4250-4	50	200	200	50	2022/05/03
MPFOA	S4250-5	50	200	200	50	2021/10/18
MPFOS	S4250-6	50	200	200	50	2022/10/17
MPFNA	S4250-7	50	200	200	50	2021/09/30
MPFDA	S4250-8	50	200	200	50	2021/09/30
MPFUdA	S4242-1	50	200	200	50	2021/11/22
MPFDoA	S4250-9	50	200	200	50	2022/05/23
M2PFTeDA	S4250-10	50	200	200	50	2022/03/01
MPFOA	S4250-11	50	200	200	50	2022/04/20
D3-N-MeFOSAA	S4260-1	50	200	200	50	2021/11/22
D5-N-EtFOSAA	S4260-2	50	200	200	50	2021/11/22
D-N-MeFOSA-M	S4255-2	50	500	200	125	2022/04/20
D-N-EtFOSA-M	S4255-3	50	500	200	125	2022/10/11
D7-N-MeFOSE-M	S4255-4	50	500	200	125	2022/10/13
D9-N-EtFOSE-M	S4255-5	50	500	200	125	2022/10/13
M2-6:2FTS	S4255-6	50	500	200	125	2022/02/17
M2-8:2FTS	S4255-7	50	500	200	125	2022/07/05

No writing on bottom page.

GSZ, 2017/12/15

Notes:

PRLST 133 PG 139

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4250 Date: 2017/12/01 Expiry Date: See Below Discard Date: _____
 Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4250 (PRLST 133 p. 139)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4250-1	MPFBA	MPFBA0417	2017/10/25	2022/04/12	S4204-1		50	MeOH	FZ-11
S4250-2	M5PFPeA	M5PFPeA0717	2017/10/25	2022/07/20	S4204-2		50	MeOH	FZ-11
S4250-3	MPFHxS	MPFHxS0217	2017/10/25	2022/02/17	S4204-3		50	MeOH	FZ-11
S4250-4	M4PFHpA	M4PFHpA0517	2017/10/25	2022/05/03	S4204-4		50	MeOH	FZ-11
S4250-5	MPFOA	MPFOA1016	2017/02/22	2021/10/18	S4204-5		50	MeOH	FZ-11
S4250-6	MPFOS	MPFOS1017	2017/10/25	2022/10/17	S4204-6		50	MeOH	FZ-11
S4250-7*	MPFNA	MPFNA0916	2017/10/25	2021/09/30	S4204-7		50	MeOH	FZ-11
S4250-8	MPFDA	MPFDA0916	2017/02/22	2021/09/30	S4204-8		50	MeOH	FZ-11
S4250-9	MPFDoA	MPFDoA0517	2017/10/25	2022/05/23	S4204-9		50	MeOH	FZ-11
S4250-10	M2PFTeDA	M2PFTeDA0217	2017/10/25	2022/03/01	S4204-10		50	MeOH	FZ-11
S4250-11	MPFOA	M8FOA04171	2017/05/31	2022/04/20	S4204-11		50	IPA	FD-59
Date opened (All compounds): <u>2017/12/01</u>			Supplier: <u>Wellington</u>			Chemist: <u>GSZ</u>			

No writing on bottom page.

Solution No.: S-4251 Date: 2017/12/05 Expiry Date: 2018/01/05 Discard Date: _____
 Replaces Solution: S-4249 Replaced by Solution: S-4252 Chemist: DPS

Compound: Morpholine Stock Std Purity: 99.9%

Date Received: 2016/09/07 Expiry Date: 2020/01/31 Lot No.: 57136 21720

Supplier: Sigma-Aldrich

Date Opened: 2016/09/08

Final Gross Weight: 0.0110 g/mg Dilution Volume: 10 mL

Tare Weight*: _____ g/mg Volumetric Flask: 10ml Class A

Net Weight: _____ g/mg Concentration: 1098.9 (ug/mL)

Adjusted Net Weight**: 0.010989 mg Solvent(s): _____

Balance Used: FC-1
 (specify model and serial no.)

Solvent Used: D1 H2O

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

Storage Location / Conditions: FD-59

Notes/Comments Aquid in Bottle

PRLST 133 PG 141

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4254 Date: ⁶⁵²2017/12/06 Expiry Date: ⁶⁵²2018/01/06 Discard Date: 2018/12/06
 Replaces Solution: S-4214 Replaced by Solution: _____ Chemist: 652
 Compound: MORPHOLINE 2,2,3,3,5,5,6,6-d8 Purity: 98.9%
 Date Received: 2016/08/16 Expiry Date: 2019/08/16 Lot No.: M-346
 Supplier: CDN
 Date Opened: 2016/08/23
 Final Gross Weight: 6.0123 (g)mg Dilution Volume: 10 mL
 Tare Weight*: _____ g/mg Volumetric Flask: 10ml Class A (5630)
 Net Weight: _____ g/mg Concentration: 1,216.5 (ug/ml), mg/mL
 Adjusted Net Weight**: 0.012165 g mg Solvent(s): PI H₂O
 Balance Used: FC-1
 (specify model and serial no.)
 Solvent Used: PI H₂O
 Solvent Supplier: - Lot No(s): -
 Date Opened: -
 Storage Location / Conditions: FD59

Notes/Comments

Solution No.: S-4255 Date: 2017/12/07 Expiry Date: See Below Discard Date: _____
 Replaces Solution: _____ Replaced by Solution: _____ Chemist: 652

S-4255 (PRLST 133 p. 141)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4255-1	MPFHxA	MPFHxA1116	2017/11/07	2021/11/22	S4226-1		50	MeOH	FZ11
S4255-2	D-N-MeFOSA-M	dNMeFOSA0417M	2017/11/07	2022/04/20	S4242-2		50	MeOH	FZ11
S4255-3	D-N-EtFOSA-M	dNEtFOSA0417M	2017/11/07	2022/10/11	S4242-3		50	MeOH	FZ11
S4255-4	D7-N-MeFOSE-M	d7NMeFOSE1017M	2017/11/07	2022/10/13	S4242-4		50	MeOH	FZ11
S4255-5	D9-N-EtFOSE-M	d9NEtFOSE1017M	2017/11/07	2022/10/13	S4242-5		50	MeOH	FZ11
S4255-6	M2-6:2FTS	M2621FTS0217	2017/11/07	2022/02/17	S4242-6		50	MeOH	FD59
S4255-7	M2-8:2FTS	M2821FTS0717	2017/11/07	2022/07/05	S4242-7		50	MeOH	FD59
Date opened (All compounds): <u>2017/12/07</u>			Supplier: Wellington			Chemist: <u>652</u>			

No writing on bottom page.

Notes/Comments

PRLST 133 PG 135

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4242 Date: 2017/11/24 Expiry Date: See Below Discard Date: _____
 Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4242 (PRLST 133 pg. 135)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4242-1	MPPUdA	MPFUdA1116	2017/09/07	2021/11/22	S4196		50	MeOH	FZ11
S4242-2	D-N-MeFOSA-M	dNMeFOSA0417M	2017/10/25	2022/04/20	S4226-4		50	MeOH	FZ11
S4242-3	D-N-EtFOSA-M	dNEtFOSA0417M	2017/10/25	2022/04/20	S4226-5		50	MeOH	FZ11
S4242-4	D7-N-MeFOSE-M	d7NMeFOSE0217M	2017/10/25	2022/03/23	S4226-6		50	MeOH	FZ11
S4242-5	D9-N-EtFOSE-M	d9NEtFOSE0317M	2017/10/25	2022/03/23	S4226-7		50	MeOH	FZ11
S4242-6	M2-6:2FTS	M262FTS0217	2017/10/25	2022/02/17	S4226-8		50	MeOH	FD59
S4242-7	M2-8:2FTS	M282FTS0717	2017/10/25	2022/07/05	S4226-9		50	MeOH	FD59
Date opened (All compounds): <u>2017/11/24</u>			Supplier: <u>Wilmington</u>			Chemist: <u>GSZ</u>			

No writing on bottom page.

NOTES/Comments

Solution No.: S4243 Date: 2017/11/29 Expiry Date: 2018/11/29 Discard Date: _____
 Replaces Solution: _____ Replaced by Solution: _____ Chemist: TH

Compound: Metolachlor ESA sodium salt Purity: _____

Date Received: 2017/11/23 Expiry Date: 2017/11/29 Lot No.: BCBT 3582

Supplier: Sigma - Aldrich

Date Opened: 2017/11/29

Final Gross Weight: 0.0024 g/mg Dilution Volume: 2 mL

Tare Weight*: _____ g/mg Volumetric Flask: Class A

Net Weight: _____ g/mg Concentration: 1000 ug/mL

Adjusted Net Weight**: _____ mg Solvent(s): _____

Balance Used: Sartorius Serial # 0031304817
 (specify model and serial no.)

Solvent Used: Methanol

Solvent Supplier: Sigma Aldrich Lot No(s): SKBS5451

Date Opened: 2017/11/29

Storage Location / Conditions: _____

Notes/Comments

PRLST 133 PG 144

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4260 Date: 2017/12/14 Expiry Date: See Below Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4260 (PRLST 133 p. 144)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4260-1	D3-N-MeFOSAA	d3NMeFOSAA1116	2017/05/31	2021/11/22	S4226-2		50	MeOH	FD59
S4260-2	D5-N-EtFOSAA	d3NEtFOSAA1116	2017/05/31	2021/11/22	S4226-3		50	MeOH	FD59
Date opened (All compounds): <u>2017/12/14</u>			Supplier: <u>Wellington</u>			Chemist: <u>GSZ</u>			

No writing on bottom page.

Storage Location / Conditions: _____

Notes/Comments

Solution No.: _____ Date: _____ Expiry Date: _____ Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: _____

Compound: _____ Purity: _____

Date Received: _____ Expiry Date: _____ Lot No.: _____

Supplier: _____

Date Opened: _____

Final Gross Weight: _____ g/mg Dilution Volume: _____ mL

Tare Weight*: _____ g/mg Volumetric Flask: _____

Net Weight: _____ g/mg Concentration: _____ ug/mL

Adjusted Net Weight**: _____ mg Solvent(s): _____

Balance Used: _____
(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

Storage Location / Conditions: _____

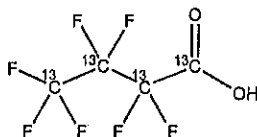
Notes/Comments



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFBA **LOT NUMBER:** MPFBA0417
COMPOUND: Perfluoro-n-[1,2,3,4-¹³C₄]butanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₄HF₇O₂ **MOLECULAR WEIGHT:** 218.01
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99%¹³C
 (1,2,3,4-¹³C₄)
LAST TESTED: (mm/dd/yyyy) 04/12/2017
EXPIRY DATE: (mm/dd/yyyy) 04/12/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampoule
2017/09/07
1 ampoule
2017/10/25 652

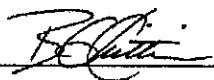
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 04/20/2017
 B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

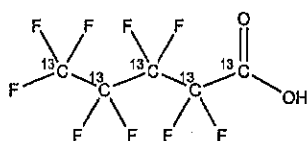


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFPeA **LOT NUMBER:** M5PFPeA0717
COMPOUND: Perfluoro-n-[¹³C]₅pentanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₅HF₉O₂ **MOLECULAR WEIGHT:** 269.01
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
 (¹³C₅)
LAST TESTED: (mm/dd/yyyy) 07/20/2017
EXPIRY DATE: (mm/dd/yyyy) 07/20/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampoule
2017/09/07
1 ampoule
2017/10/25 G52

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 07/26/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

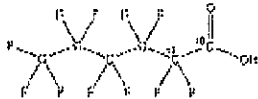
PRODUCT CODE:
COMPOUND:

MPFHxA
Perfluoro-n-(1,2-¹³C)₂hexanoic acid

LOT NUMBER: MPFHxA1118

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:
CONCENTRATION:

¹⁸O₂¹³C₂NF₁₁O₂
50 ± 2.5 µg/µl

MOLECULAR WEIGHT: 316.04
SOLVENT(S): Methanol
Water (<1%)
ISOTOPIC PURITY: ≥99% ¹³C
(1,2-¹³C₂)

CHEMICAL PURITY:

>99%

LAST TESTED: (month/year)

11/22/2016

EXPIRY DATE: (month/year)

11/22/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place *(Freezer)*

*HPLC (1)
2017/02/02
SSV*

DOCUMENTATION/ DATA ATTACHED:

- Figure 1: LC/MS Data (TIC and Mass Spectrum)
- Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim
B.G. Chittim

Date:

12/13/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2435 • Fax: 519-822-2848 • info@well-labs.com

Control Sheet (Rev) 8/01 (1-15)
Revised (0, Revised) 10/10/11

MPFHxA1118 (1 of 2)
10/15

Received date: 2017/02/22 1x1.2 mL MMN
Received date: 2017/02/14 1x1.2 mL MMN
Received date: 2017/02/02 2x1.2 mL MZH
Received date: 2017/05/02 1x1.2 mL SSV
Received date: 2017/05/31 2x1.2 mL ssv
Date Received: 2017.05.02 - 1 x 1.2ml - HPLC
Date Received: 2017/09/12 - 1 ampule HPLC
Date Received: 2017/11/07 - 1 ampule HPLC

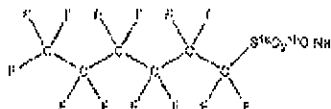


**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: MPFHxS **LOT NUMBER:** MPFHxS0217
COMPOUND: Sodium perfluoro-1-hexano[¹³C]₆sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₆F₁₃S¹⁸O₃Na
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.3 ± 2.4 µg/ml (MPFHxS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 02/17/2017
EXPIRY DATE: 02/17/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 425.10
SOLVENT(S): Methanol
ISOTOPIC PURITY: >94% (¹³C)

DOCUMENTATION DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

Fz.
1 ampule
HPLC
2017/05/02
JPS

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS (C₆F₁₃S¹⁸O₃) has been observed to be up to 10% lower than for PFHxS (C₆F₁₃S¹⁶O₃) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 1.0% of sodium perfluoro-1-octano[¹⁸O]₈sulfonate (¹⁸O₂-PFOS).
- Due to the isotopic purity of the starting material (¹³C₆ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: 

B.O. Chittim

Date: 03/02/2017

Wellington Laboratories Inc., 346 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

1800.001, Rev 01 2014-11-20
Perfluoro-1-hexano[¹³C]₆sulfonate 2015.03.01

MPFHxS(13C)₆
rev1

Date received 2017/09/07 1 ampule HPLC
Date received 2017/10/25 1 ampule HPLC

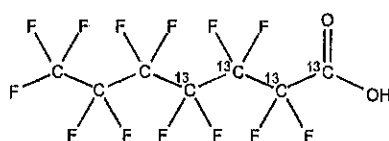


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M4PFHpA **LOT NUMBER:** M4PFHpA0517
COMPOUND: Perfluoro-n-[1,2,3,4-¹³C₄]heptanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₄¹²C₃HF₁₃O₂ **MOLECULAR WEIGHT:** 368.03
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99%¹³C
 (1,2,3,4-¹³C)
LAST TESTED: (mm/dd/yyyy) 05/03/2017
EXPIRY DATE: (mm/dd/yyyy) 05/03/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*1 ampoule
 2017/09/08
 1 ampoule
 2017/10/25 652*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 

B.G. Chittim, General Manager

Date: 05/11/2017
 (mm/dd/yyyy)

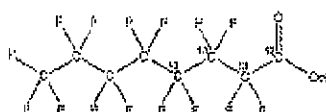
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPPFOA
COMPOUND: Perfluoro-n-(1,2,3,4-¹³C)₈octanoic acid
LOY NUMBER: MPPFOA1016
STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: ¹³C₄¹²C₄HF₁₈O₂
CONCENTRATION: 50 ± 2.6 µg/ml
MOLECULAR WEIGHT: 416.04
SOLVENT(S): Methanol
 Water (<1%)
CHEMICAL PURITY: >99%
ISOTOPIC PURITY: ≥99% ¹³C
 (1,2,3,4-¹³C)
LAST TESTED: (mm) (WSP) 10/19/2016
EXPIRY DATE: (mm) (WSP) 10/19/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:


Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*Received mm
 2016-12-12
 1x1.2ml
 F2-11*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of native perfluoro-n-octanoic acid (PFOA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chikiri
 Date: 10/19/2016
per WSP

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2549 • Info@well-labs.com

Form 22, Rev 02 2014-11-16
 Controlled, Revised 2014-03-27

MPPFOA-16 (1-05)
 (u/c)

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
 Received date: 2017/02/14 1x1.2 mL MMN
 Received date: 2017/02/22 2x1.2 mL MZH

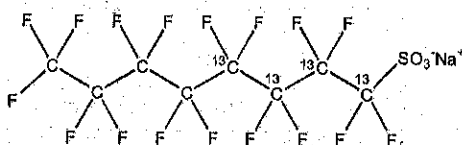


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS1017
COMPOUND: Sodium perfluoro-1-[1,2,3,4-¹³C₄]octanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	¹³ C ₄ ¹² C ₄ F ₁₇ SO ₃ Na	MOLECULAR WEIGHT:	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.8 ± 2.4 µg/ml (MPFOS anion)	SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%	ISOTOPIC PURITY:	≥99% ¹³ C (1,2,3,4- ¹³ C ₄)
LAST TESTED: (mm/dd/yyyy)	10/17/2017		
EXPIRY DATE: (mm/dd/yyyy)	10/17/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

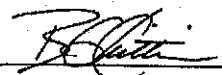
1 ampoule
2017/10/25 65Z

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.4% Sodium perfluoro-1-[1,2,3-¹³C₃]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:


 B.G. Chittim, General Manager

Date: 10/18/2017
 (mm/dd/yyyy)

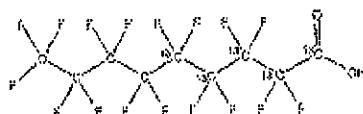
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • Info@well-labs.com



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: MPFNA
COMPOUND: Perfluoro-n-(1,2,3,4,5-¹³C₅)nonanoic acid
LOT NUMBER: MPFNA0R16
STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: ¹³C₅¹³C₄F₁₉O₂
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 469.04
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >99%
ISOTOPIC PURITY: ≥99% ¹³C
(1,2,3,4,5-¹³C₅)
LAST TESTED: 09/30/2016
EXPIRY DATE: 09/30/2021
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*Received from
2016-12-12
1x1.2 ml
F2-11*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: *B.G. Chilton* Date: 10/11/2016
B.G. Chilton

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2949 • info@well-labs.com

Form 077, Rev 01 2014.11.10
Revised 2011-03-29

MPFNA0R16 (1 of 2)
rev 0

Received date: 2017/02/22 2x1.2 mL MZ
Received date: 2017/05/02 1x1.2 mL ssv
Received date: 2017/05/31 2x1.2 mL ssv
Received date: 2017/09/07 2x1.2 mL TRW
Received date: 2017/10/25 2x1.2 mL



**WELLINGTON
LABORATORIES**

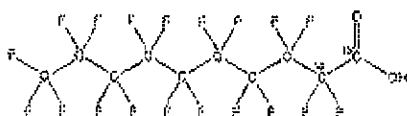
**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: MPFDA
COMPOUND: Perfluoro-n-[1,2-¹³C]₁₀decanoic acid

LOT NUMBER: MPFDA0016

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: ¹³C₁₀¹²C₉HF₁₉O₂
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 516.07

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >99%

ISOTOPIC PURITY: ≥99% ¹³C
(1,2-¹³C)

LAST TESTED: 09/30/2016

EXPIRY DATE: 09/30/2021

RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION DATA ATTACHED:

Figure 1: LC/MS Data (FIC and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*Received MMN
2016-12-12
1x1.2 ml
F2-11*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of ¹³C₁₀-PFNA.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chisholm
B.G. Chisholm

Date: 10/07/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2049 • info@well-labs.com

Form 02, Revised 11/04-11-10
Revised 2, Rev 001 2011-03-04

MPFDA0016 P. 01 of 01
REV

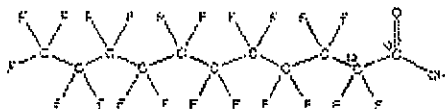
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/14 1x1.2 mL MMN
Date Received: 2017.02.22 - 2 x 1.2ml - HPLC,
Date Received: 2017.05.02 - 1 x 1.2ml - HPLC
Date Received: 2017.05.31 - 2 x 1.2ml - HPLC



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: MPFUdA **LOT NUMBER:** MPFUdA1116
COMPOUND: Perfluoro-n-[1,2-¹³C]₂undecanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₁₁¹⁸F₂₁HF₂₁O₂ **MOLECULAR WEIGHT:** 568.08
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
 (1,2-¹³C)
LAST TESTED: 11/22/2015
EXPIRY DATE: 11/22/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

*Received from
2017/07/22
1 x 1.2 mL (F2-11)*

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mola eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of 1-¹³C,-PFUdA (~1%; see Figure 2), 2-¹³C,-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ¹³C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim
B.G. Chittim

Date: 12/07/2016
B.G. Chittim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2438 • Fax: 519-822-2849 • info@well-labs.com

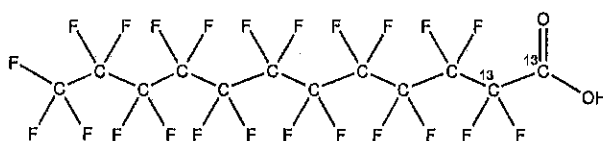
Received 2017/05/02 2x1.2 mL HPLC
 Date Received: 2017.05.02 - 1 x 1.2ml - HPLC
 Date Received: 2017.06.29 - 1 x 1.2ml - HPLC
 Date Received: 2017.09/07 - 1 x 1.2ml - HPLC
 Date Received: 2017.02/22 - 1 x 1.2ml - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDoA **LOT NUMBER:** MPFDoA0517
COMPOUND: Perfluoro-n-[1,2-¹³C₂]dodecanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₂¹²C₁₀HF₂₃O₂ **MOLECULAR WEIGHT:** 616.08
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
 (1,2-¹³C₂)
LAST TESTED: (mm/dd/yyyy) 05/23/2017
EXPIRY DATE: (mm/dd/yyyy) 05/23/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*1 ampoule
 2017/10/09 F ;
 1 ampoule
 2017/10/25, GSZ*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 

B.G. Chittim, General Manager

Date: 05/26/2017
(mm/dd/yyyy)

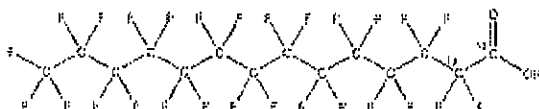
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFTeDA **LOT NUMBER:** M2PFTeDA0217
COMPOUND: Perfluoro-n-[1,2-¹³C₂]tetradecanoic acid
STRUCTURE: **GAS #:** Not available



MOLECULAR FORMULA: ¹³C, ¹²C, H, F, O₂ **MOLECULAR WEIGHT:** 716.10
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
 (1.2-‰)
LAST TESTED: *date* 03/01/2017
EXPIRY DATE: *date* 03/01/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

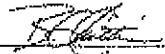
DOCUMENTATION/DATA ATTACHER:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 03/07/2017
 B. D. Chittam, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M6 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Comp 27, Rev 01 2015-11-10
 Document 4, Revised 2017-03-01

M2PFTeDA0217 | 1 of 6
 10/17

Date received 2017/09/07 1 ampule HPLC
 Date received 2017/10/25 1 ampule HPLC

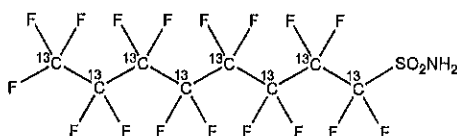


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8FOSA-I **LOT NUMBER:** M8FOSA04171
COMPOUND: Perfluoro-1-[¹³C₈]octanesulfonamide

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₈H₂F₁₇NO₂S
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/20/2017
EXPIRY DATE: (mm/dd/yyyy) 04/20/2022
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 507.09
SOLVENT(S): Isopropanol
ISOTOPIC PURITY: ≥99% ¹³C
 (¹³C₈)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

Date received
 2017/05/31
cr

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.1% of perfluoro-1-[¹³C₄]octanesulfonamide and ~ 0.01% of perfluoro-1-[¹³C₇]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 05/04/2017
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

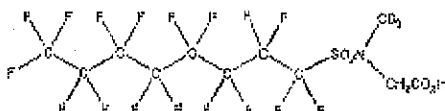


**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA1116
COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamideacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₉D₃H₇F₁₁NO₃S
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 574.23
SOLVENT(S): Methanol
 Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥98% ²H₁
LAST TESTED: 11/22/2016
EXPIRY DATE: 11/22/2021
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

[Signature]
S.G. Chittim

Date: 12/07/2016

Received
2x1.2 ml
2017-12-22
[Signature]

Wellington Laboratories Inc., 346 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2430 • Fax: 519-822-2849 • Info@well-labs.com

Fumigant, Issue 2011-11-19
 Revision 0, Revised 2015-01-24

d3NMeFOSAA1116 (1 of 1)
 10/11

date received 2017/05/31 2x1.2

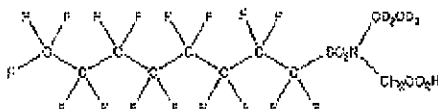


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEIFOSAA1116
COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₁₀H₁₃F₁₇NO₄S

MOLECULAR WEIGHT: 590.26

CONCENTRATION: 50 ± 2.6 µg/ml

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥98% ¹³C

LAST TESTED: 11/22/2016

EXPIRY DATE: 11/22/2021

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

- Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*Received from
2016/12/16
17.12 mL
FD-59*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/31/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form 257, Issued 2014-07-17
Rev. 02/18 2, Revised 2018-03-26

d5NEIFOSAA1116 (1 of 4)
1000

Received date: 2017/02/22 2x1.2 mL MZH

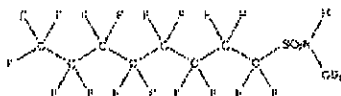
Received date: 2017/05/31 2x1.2 mL ssv



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d,N-MeFOSA-M
COMPOUND: N-methyl-d₅-perfluoro-1-octanesulfonamide
LOI NUMBER: dNMeFOSA0417M
STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: C₈D₅HF₁₅NO₂S
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: (b) (4) 04/26/2017
EXPIRY DATE: (b) (4) 04/26/2022
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

MOLECULAR WEIGHT: 516.19
SOLVENT(S): Methanol
ISOTOPIC PURITY: ≥96% ¹H,

DOCUMENTATION DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

See page 2 for further details.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: 
B. G. Chittim, General Manager

Date: 04/24/2017
04/24/2017

Wellington Laboratories Inc., 346 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

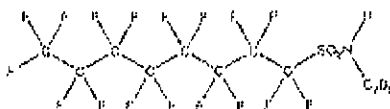
Received date 2017/07/21 2 x 1.2mL HPLC
Received date 2017/08/09 1 x 1.2mL HPLC
Received date 2017/09/07 1 x 1.2mL HPLC
RECEIVED: 2017/09/27 1X2 AMPULES HPLC
Date Received: 2017.10.25 - 1 ampoule - HPLC
RECEIVED: 2017/11/07 1 x 1.2ml HPLC
RECEIVED: 2017/11/07 1 x 1.2ml HPLC



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d-N-EIFOSA-M **LOT NUMBER:** #NEIFOSAD417M
COMPOUND: N-ethyl-d₈-perfluoro-1-octanesulfonamide
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₁₀D₈HF₁₇NO₂S **MOLECULAR WEIGHT:** 532.23
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98% **(ISOTOPIC PURITY):** ≥99% ²¹H₁
LAST TESTED: Prepared 04/20/2017
EXPIRY DATE: Expires 04/20/2022
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

Fz
2 ampoule
HPLC
2017/06/29
DPS


DOCUMENTATION DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of N-methyl-d₈-perfluoro-1-octanesulfonamide (d-N-MeFOSA)

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 04/24/2017
 B. G. Chalmers, CSuro Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1B 3M5 CANADA
 519-822-2496 • Fax: 519-822-2049 • Info@well-labs.com

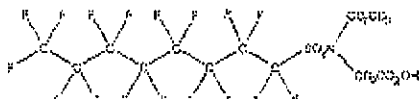
Received date 2017/07/21 2 x 1.2mL HPLC
 Received date 2017/09/07 1 x 1.2mL HPLC
 received: 2017/09/27 1x2 ampules HPLC
 Received date 2017/10/25 2 x 1.2mL HPLC
 Received date 2017/11/07 2x 1.2ml HPLC



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE: 09-N-EIPOSE-M **LOT NUMBER:** 09NEIPOSE1017M
COMPOUND: 2-(N-ethyl-05-perfluoro-1-octanesulfonamido)ethan-04-ol
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₁₀H₁₇FO₈NS **MOLECULAR WEIGHT:** 580.31
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% 1H
LAST TESTED: 10/13/2017 (HRGC/LRMS)
 10/12/2017 (LC/MS)
EXPIRY DATE: 10/13/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

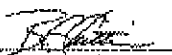
DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS Data (TIC and Mass Spectrum)
 Figure 3: LC/MS/MS Data (Selected MS/MS Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.
- Contains ~ 1.2% of N-ethyl-05-perfluoro-1-octanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 10/18/2017
 B. St. Cyr, General Manager

Wellington Laboratories Inc., 346 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2840 • info@well-labs.com

Form 31, Issue 009-11-19
 Revised & Reclassified 2019-08-14

09NEIPOSE1017M (1) of 2
 (09)

*1 ampoule
 MAC
 2017/11/07*

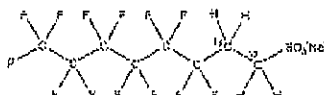


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-6-2F7S **LOT NUMBER:** M262FT50217
COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-1,1,2-¹³C₃octano sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₃H₇F₁₃SO₃Na **MOLECULAR WEIGHT:** 452.13
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
47.5 ± 2.4 µg/ml (M2-6-2F7S anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: 02/17/2017 (1,2-¹³C)
EXPIRY DATE: 02/17/2022
RECOMMENDED STORAGE: Refrigerate ampoules

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*HPLC
2017/05/31
2x 1.2 ml*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2F7S contains 4.22% of ³⁵S (due to natural isotopic abundance) therefore both native 6:2F7S and M2-6:2F7S will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2F7S during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

[Signature]
B.G. Chittim

Date: 02/24/2017

Wellington Laboratories Inc., 345 Southgate Dr. Guelph, ON N1G 3M5 CANADA
519-822-2435 • Fax: 519-822-2849 • info@well-labs.com

Revised: 02/17/2017
Revised: 02/17/2017

MS-2017-11 (1 of 1)
15/0

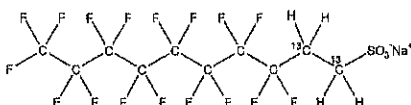
Date Received: 2017/05/02 2x1.2ml HPLC
Date Received: 2017/06/29 2x1.2ml HPLC
Received date 2017/07/21 2 x 1.2mL HPLC
Received date 2017/09/07 1 x 1.2mL HPLC
Received date: 2017/09/27 1x2 ampoules HPLC
Received date: 2017/10/25 1x2 ampoules HPLC
Received date: 2017/11/07 1x2 ampoules HPLC
Date Received: 2017.11.07 - 1 ampule - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0717
COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C]₂decane sulfonate
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₂¹²C₈H₁₄F₁₆SO₃Na **MOLECULAR WEIGHT:** 552.15
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
 47.9 ± 2.4 µg/ml (M2-8:2FTS anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (mm/dd/yyyy) 07/05/2017 (1,2-¹³C)
EXPIRY DATE: (mm/dd/yyyy) 07/05/2022
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

*2 ampoules x 1.2 ml
 HPLC
 2017/07/21
 FDS*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ³⁴S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: *B.G. Chittim* Date: 07/07/2017
 B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Formik27, Issued 2004-11-10
 Revision#4, Revised 2017-03-09

M282FTS0717 (1 of 4)
 rev0

Date Received: 2017/07/21 2x1.2ml HPLC
 Date Received: 2017/09/07 1x1.2ml HPLC
 Received date: 2017/09/27 1x2 ampoules HPLC
 Received date: 2017/10/25 1x2 ampoules HPLC
 Date Received: 2017.11.07 - 1 ampule - HPLC

PREPARATION OF SPIKING STANDARD SOLUTION

Solution No.: SK-7221 Prep'n Date: 2017/12/06 Expiry Date: 2018/12/06 Discard Date: -
 Replaces Solution No.: SK-7218 Replaced by Solution: _____ Chemist: LW
 Solution Name: Comp: PFC working solⁿ C Solvent(s): See PR1RE108-192 *0.3% NH4OH in MeOH*
 Solvent Supplier(s): Aldrich Solvent Lot No(s): See PR1RE108-192
 Date Opened: See PR1RE108-192
 Volumetric Flask Used: 25ml Class A (5640) Volume: 25 mL Spike Volume: - uL / mL*
 Syringe ID: Pipette K39876F
 Storage Location and Conditions: F2-11
 For extended mix of compounds, refer to table on: -

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL (mL)*)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng)*
<u>Comp: PFC working solⁿ A</u>	<u>I-5197</u>	<u>1</u>	<u>2.5</u>	<u>100 ng/mL</u>	<u>-</u>
<u>2017/12/06 LW</u>					

Notes:

Solution No.: SK-7222 Prep'n Date: 2017/12/06 Expiry Date: 2018/12/06 Discard Date: _____
 Replaces Solution No.: SK-7193 Replaced by Solution: _____ Chemist: GSZ
 Solution Name: PFC SECOND SOURCE SPIKING SOLUTION C Solvent(s): 0.3% NH4OH in MeOH
 Solvent Supplier(s): See PR1RE 108-192 Solvent Lot No(s): See PR1RE 108-192
 Date Opened: 2017/12/06
 Volumetric Flask Used: 10ml Class A (5640) Volume: 10 mL Spike Volume: - uL / mL*
 Syringe ID: Pipette N31477F
 Storage Location and Conditions: F211
 For extended mix of compounds, refer to table on: -

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL (mL)*)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng)*
<u>PFC SECOND SOURCE SPIKING SOLN A</u>	<u>I-5203</u>	<u>1</u>	<u>1</u>	<u>100 ng/mL</u>	<u>-</u>
<u>GSZ, 2017/12/06</u>					

Notes:

Do not write beneath any inserts or place any inserts on top of any raw data entered on this page. Initial and date all entries, corrections and inserts. Include ALL relevant traceable references on ALL inserts.

TUNE CHECK

Instrument: Agilent 6470 LC/MS/MS

Instrument Serial Number: SG1611G001

Maxxam Instrument Identification: LCMS04

Mass Calibration Performed: July 7, 2017

Tune Check Performed: July 10 & 11, 2017

Mass Assignment Reference Table _____ Page 2

Analyte Precursor Ion Verification _____ Page 4

Analyte Product Ion Verification _____ Page 31

Extracted and Injection Internal Standard Precursor Ion Verification _____ Page 59

Extracted and Injection Internal Standard Product Ion Verification _____ Page 83

Reviewed by:



Adam Robinson, Supervisor – Liquid Chromatography

July 12 / 2017
Date

Mass Assignments – Analytes, Extracted Internal Standards and Injection Internal Standards

Compound	Abbreviation	Precursor Ion (m/z)	Precursor Ion Formula	Quant Ion (m/z)	Quantitation Ion Formula	Confirmation Ion (m/z)	Confirmation Ion Formula
Native Analytes							
Perfluorobutanoic acid	PFBA	212.9	$[\text{CF}_3(\text{CF}_2)_2\text{CO}_2]^-$	169.0	$[\text{CF}_3(\text{CF}_2)_2]^-$	¹ N/A	N/A
Perfluorobutanesulfonate	PFBS	298.9	$[\text{CF}_3(\text{CF}_2)_3\text{SO}_3]^-$	79.9	$[\text{SO}_3]^-$	98.9	$[\text{FSO}_3]^-$
Perfluoropentanoic acid	PFPeA	262.9	$[\text{CF}_3(\text{CF}_2)_3\text{CO}_2]^-$	218.9	$[\text{CF}_3(\text{CF}_2)_3]^-$	¹ N/A	N/A
Perfluorohexanoic acid	PFHxA	313.0	$[\text{CF}_3(\text{CF}_2)_4\text{CO}_2]^-$	269.0	$[\text{CF}_3(\text{CF}_2)_4]^-$	119.0	$[\text{CF}_3(\text{CF}_2)]^-$
Perfluorohexanesulfonate	PFHxS	398.9	$[\text{CF}_3(\text{CF}_2)_5\text{SO}_3]^-$	79.9	$[\text{SO}_3]^-$	98.9	$[\text{FSO}_3]^-$
Perfluoroheptanoic acid	PFHpA	363.0	$[\text{CF}_3(\text{CF}_2)_5\text{CO}_2]^-$	319.0	$[\text{CF}_3(\text{CF}_2)_5]^-$	169.2	$[\text{CF}_3(\text{CF}_2)_2]^-$
Perfluoroheptanesulfonate	PFHpS	448.9	$[\text{CF}_3(\text{CF}_2)_6\text{SO}_3]^-$	79.9	$[\text{SO}_3]^-$	99.0	$[\text{FSO}_3]^-$
Perfluorooctanoic acid	PFOA	413.1	$[\text{CF}_3(\text{CF}_2)_6\text{CO}_2]^-$	369.0	$[\text{CF}_3(\text{CF}_2)_6]^-$	169.0	$[\text{CF}_3(\text{CF}_2)_2]^-$
Perfluorooctanesulfonate	PFOS	498.8	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_3]^-$	79.9	$[\text{SO}_3]^-$	98.9	$[\text{FSO}_3]^-$
Perfluorononanoic acid	PFNA	462.9	$[\text{CF}_3(\text{CF}_2)_7\text{CO}_2]^-$	419.0	$[\text{CF}_3(\text{CF}_2)_7]^-$	219.1	$[\text{CF}_3(\text{CF}_2)_3]^-$
Perfluorodecanoic acid	PFDA	513.0	$[\text{CF}_3(\text{CF}_2)_8\text{CO}_2]^-$	469.1	$[\text{CF}_3(\text{CF}_2)_8]^-$	218.9	$[\text{CF}_3(\text{CF}_2)_3]^-$
Perfluorodecanesulfonate	PFDS	598.9	$[\text{CF}_3(\text{CF}_2)_9\text{SO}_3]^-$	79.9	$[\text{SO}_3]^-$	98.8	$[\text{FSO}_3]^-$
Perfluoroundecanoic acid	PFUnA	562.9	$[\text{CF}_3(\text{CF}_2)_9\text{CO}_2]^-$	519.0	$[\text{CF}_3(\text{CF}_2)_9]^-$	269.2	$[\text{CF}_3(\text{CF}_2)_4]^-$
Perfluorododecanoic acid	PFDoA	612.9	$[\text{CF}_3(\text{CF}_2)_{10}\text{CO}_2]^-$	569.0	$[\text{CF}_3(\text{CF}_2)_{10}]^-$	319.0	$[\text{CF}_3(\text{CF}_2)_5]^-$
Perfluorotridecanoic acid	PFTTrDA	663.0	$[\text{CF}_3(\text{CF}_2)_{11}\text{CO}_2]^-$	619.0	$[\text{CF}_3(\text{CF}_2)_{11}]^-$	318.9	$[\text{CF}_3(\text{CF}_2)_5]^-$
Perfluorotetradecanoic acid	PFTeDA	713.0	$[\text{CF}_3(\text{CF}_2)_{12}\text{CO}_2]^-$	669.0	$[\text{CF}_3(\text{CF}_2)_{12}]^-$	319.2	$[\text{CF}_3(\text{CF}_2)_5]^-$
Perfluorooctane sulfonamide	PFOSA	497.9	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{NH}]^-$	78.0	$[\text{SO}_2\text{N}]^-$	478.0	$[(\text{CF}_2)_8\text{SO}_2\text{N}]^-$
N-methylperfluorooctane sulfonamide	MeFOSA	511.9	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{N}(\text{CH}_3)]^-$	169.0	$[\text{CF}_3(\text{CF}_2)_2]^-$	219.0	$[\text{CF}_3(\text{CF}_2)_3]^-$
N-ethylperfluorooctane sulfonamide	EtFOSA	526.0	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{N}(\text{C}_2\text{H}_5)]^-$	169.0	$[\text{CF}_3(\text{CF}_2)_2]^-$	219.0	$[\text{CF}_3(\text{CF}_2)_3]^-$
N-methylperfluorooctane sulfonamidoethanol	MeFOSE	616.0	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{N}(\text{CH}_3)\text{C}_2\text{H}_4\text{OH}\text{CH}_2\text{CO}_2]^-$	59.0	$[\text{CH}_3\text{CO}_2]^-$	¹ N/A	N/A
N-ethylperfluorooctane sulfonamidoethanol	EtFOSE	630.0	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{N}(\text{C}_2\text{H}_5)\text{C}_2\text{H}_4\text{OH}\text{CH}_2\text{CO}_2]^-$	59.0	$[\text{CH}_3\text{CO}_2]^-$	¹ N/A	N/A
N-methylperfluorooctanesulfonamidoacetic acid	MeFOSAA	570.1	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{N}(\text{CH}_3)\text{CH}_2\text{CO}_2]^-$	419.1	$[\text{CF}_3(\text{CF}_2)_7]^-$	483.0	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_2]^-$
N-ethylperfluorooctanesulfonamidoacetic acid	EtFOSAA	584.1	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{N}(\text{C}_2\text{H}_5)\text{CH}_2\text{CO}_2]^-$	419.1	$[\text{CF}_3(\text{CF}_2)_7]^-$	483.0	$[\text{CF}_3(\text{CF}_2)_7\text{SO}_2]^-$
6:2 Fluorotelomersulfonate	6:2FTS	427.0	$[\text{CF}_3(\text{CF}_2)_5\text{CH}_2\text{CH}_2\text{SO}_3]^-$	407.0	$[\text{CF}_3(\text{CF}_2)_4\text{CFCHCH}_2\text{SO}_3]^-$	80.9	$[\text{SO}_2\text{OH}]^-$
8:2 Fluorotelomersulfonate	8:2FTS	526.9	$[\text{CF}_3(\text{CF}_2)_7\text{CH}_2\text{CH}_2\text{SO}_3]^-$	507.0	$[\text{CF}_3(\text{CF}_2)_6\text{CFCHCH}_2\text{SO}_3]^-$	80.9	$[\text{SO}_2\text{OH}]^-$
Mass-labeled Extracted Internal Standards							
¹³ C ₄ -Perfluorobutanoic acid	MPFBA	216.9	$[\text{C}_4^{13}\text{CF}_3^{13}\text{CF}_2^{13}\text{CO}_2]^-$	172.0	$[\text{C}_4^{13}\text{CF}_3^{13}\text{CF}_2]^-$	N/A	N/A

Compound	Abbreviation	Precursor Ion (m/z)	Precursor Ion Formula	Quant Ion (m/z)	Quantitation Ion Formula	Confirmation Ion (m/z)	Confirmation Ion Formula
¹³ C ₅ -Perfluoropentanoic acid	MPFPeA	267.9	[¹³ CF ₃ (¹³ CF ₂) ₃ ¹³ CO ₂] ⁻	223.0	[¹³ CF ₃ (¹³ CF ₂) ₃] ⁻	N/A	N/A
¹⁸ O ₂ -Perfluorohexanoic acid	MPFHxA	314.9	[CF ₃ (CF ₂) ₅ (¹⁸ O) ₂ O] ⁻	270.0	[CF ₃ (CF ₂) ₅ ¹⁸ O] ⁻	N/A	N/A
¹⁸ O ₂ -Perfluorohexanesulfonate	MPFHxS	402.9	[CF ₃ (CF ₂) ₅ S(¹⁸ O) ₂ O] ⁻	84.0	[S(¹⁸ O) ₂ O] ⁻	N/A	N/A
¹³ C ₄ -Perfluoroheptanoic acid	MPFHpA	366.9	[CF ₃ CF ₂ (¹³ CF ₂) ₃ ¹³ CO ₂] ⁻	322.0	[CF ₃ CF ₂ (¹³ CF ₂) ₃] ⁻	N/A	N/A
¹³ C ₄ -Perfluorooctanoic acid	MPFOA	416.9	[CF ₃ (CF ₂) ₅ (¹³ CF ₂) ₃ ¹³ CO ₂] ⁻	372.0	[CF ₃ (CF ₂) ₅ (¹³ CF ₂) ₃] ⁻	N/A	N/A
¹³ C ₄ -Perfluorooctanesulfonate	MPFOS	502.9	[CF ₃ (CF ₂) ₅ (¹³ CF ₂) ₃ SO ₃] ⁻	79.9	[SO ₃] ⁻	N/A	N/A
¹³ C ₅ -Perfluorononanoic acid	MPFNA	467.9	[CF ₃ (CF ₂) ₆ (¹³ CF ₂) ₄ ¹³ CO ₂] ⁻	423.0	[CF ₃ (CF ₂) ₆ (¹³ CF ₂) ₄] ⁻	N/A	N/A
¹³ C ₂ -Perfluorodecanoic acid	MPFDA	514.9	[CF ₃ (CF ₂) ₇ (¹³ CF ₂) ₃ ¹³ CO ₂] ⁻	470.0	[CF ₃ (CF ₂) ₇ (¹³ CF ₂) ₃] ⁻	N/A	N/A
¹³ C ₂ -Perfluoroundecanoic acid	MPFUnA	564.9	[CF ₃ (CF ₂) ₈ (¹³ CF ₂) ₃ ¹³ CO ₂] ⁻	520.0	[CF ₃ (CF ₂) ₈ (¹³ CF ₂) ₃] ⁻	N/A	N/A
¹³ C ₂ -Perfluorododecanoic acid	MPFDoA	614.9	[CF ₃ (CF ₂) ₉ (¹³ CF ₂) ₃ ¹³ CO ₂] ⁻	570.0	[CF ₃ (CF ₂) ₉ (¹³ CF ₂) ₃] ⁻	N/A	N/A
¹³ C ₂ -Perfluorotetradecanoic acid	MPFTEA	714.9	[CF ₃ (CF ₂) ₁₁ (¹³ CF ₂) ₃ ¹³ CO ₂] ⁻	669.9	[CF ₃ (CF ₂) ₁₁ (¹³ CF ₂) ₃] ⁻	N/A	N/A
¹³ C ₈ -Perfluorooctane sulfonamide	MPFOA	505.8	[¹³ CF ₃ (¹³ CF ₂) ₇ SO ₂ NH] ⁻	77.9	[SO ₂ N] ⁻	N/A	N/A
N-methyl-d ₃ -perfluorooctanesulfonamide	D ₃ -MeFOA	514.9	[CF ₃ (CF ₂) ₇ SO ₂ N(CD ₃)] ⁻	168.9	[CF ₃ (CF ₂) ₇] ⁻	N/A	N/A
N-ethyl-d ₅ -perfluorooctanesulfonamide	D ₅ -EtFOA	531.0	[CF ₃ (CF ₂) ₇ SO ₂ N(C ₂ D ₅)] ⁻	168.9	[CF ₃ (CF ₂) ₇] ⁻	N/A	N/A
N-methyl-d ₃ -perfluorooctanesulfonamidoethanol-d ₄	D ₇ -MeFOE	623.1	[CF ₃ (CF ₂) ₇ SO ₂ N(CD ₃)CD ₂ CD ₂ OH · CH ₃ CO ₂] ⁻	59.0	[CH ₃ CO ₂] ⁻	N/A	N/A
N-ethyl-d ₅ -perfluorooctanesulfonamidoethanol-d ₄	D ₉ -EtFOE	639.1	[CF ₃ (CF ₂) ₇ SO ₂ N(CD ₂ CD ₃)CD ₂ CD ₂ OH · CH ₃ CO ₂] ⁻	59.0	[CH ₃ CO ₂] ⁻	N/A	N/A
N-methyl-d ₃ -perfluorooctanesulfonamidoacetic acid	D ₃ -MeFOA	573.1	[CF ₃ (CF ₂) ₇ SO ₂ N(CD ₃)CH ₂ CO ₂] ⁻	419.1	[CF ₃ (CF ₂) ₇] ⁻	N/A	N/A
N-ethyl-d ₅ -perfluorooctanesulfonamidoacetic acid	D ₅ -EtFOA	589.2	[CF ₃ (CF ₂) ₇ SO ₂ N(CD ₂ CD ₃)CH ₂ CO ₂] ⁻	419.0	[CF ₃ (CF ₂) ₇] ⁻	N/A	N/A
¹³ C ₂ -Fluorotelomersulfonate (6:2)	M2-6:2FTS	429.0	[CF ₃ (CF ₂) ₅ (¹³ CH ₂) ₂ SO ₃] ⁻	80.9	[SO ₂ OH] ⁻	N/A	N/A
¹³ C ₂ -Fluorotelomersulfonate (8:2)	M2-8:2FTS	528.9	[CF ₃ (CF ₂) ₇ (¹³ CH ₂) ₂ SO ₃] ⁻	80.9	[SO ₂ OH] ⁻	N/A	N/A
Injection Internal Standards							
¹³ C ₆ -Perfluorohexanoic acid	¹³ C ₆ -PFHxA	318.9	[¹³ CF ₃ (¹³ CF ₂) ₄ ¹³ CO ₂] ⁻	274.0	[¹³ CF ₃ (¹³ CF ₂) ₄] ⁻	N/A	N/A
¹³ C ₉ -Perfluorodecanoic acid	¹³ C ₉ -PFDA	521.9	[CF ₃ (¹³ CF ₂) ₈ ¹³ CO ₂] ⁻	477.1	[CF ₃ (¹³ CF ₂) ₈] ⁻	N/A	N/A

Analyte Precursor Ion Verification

Sample Name
User Name
Sample Type
CQ Method

PFBA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

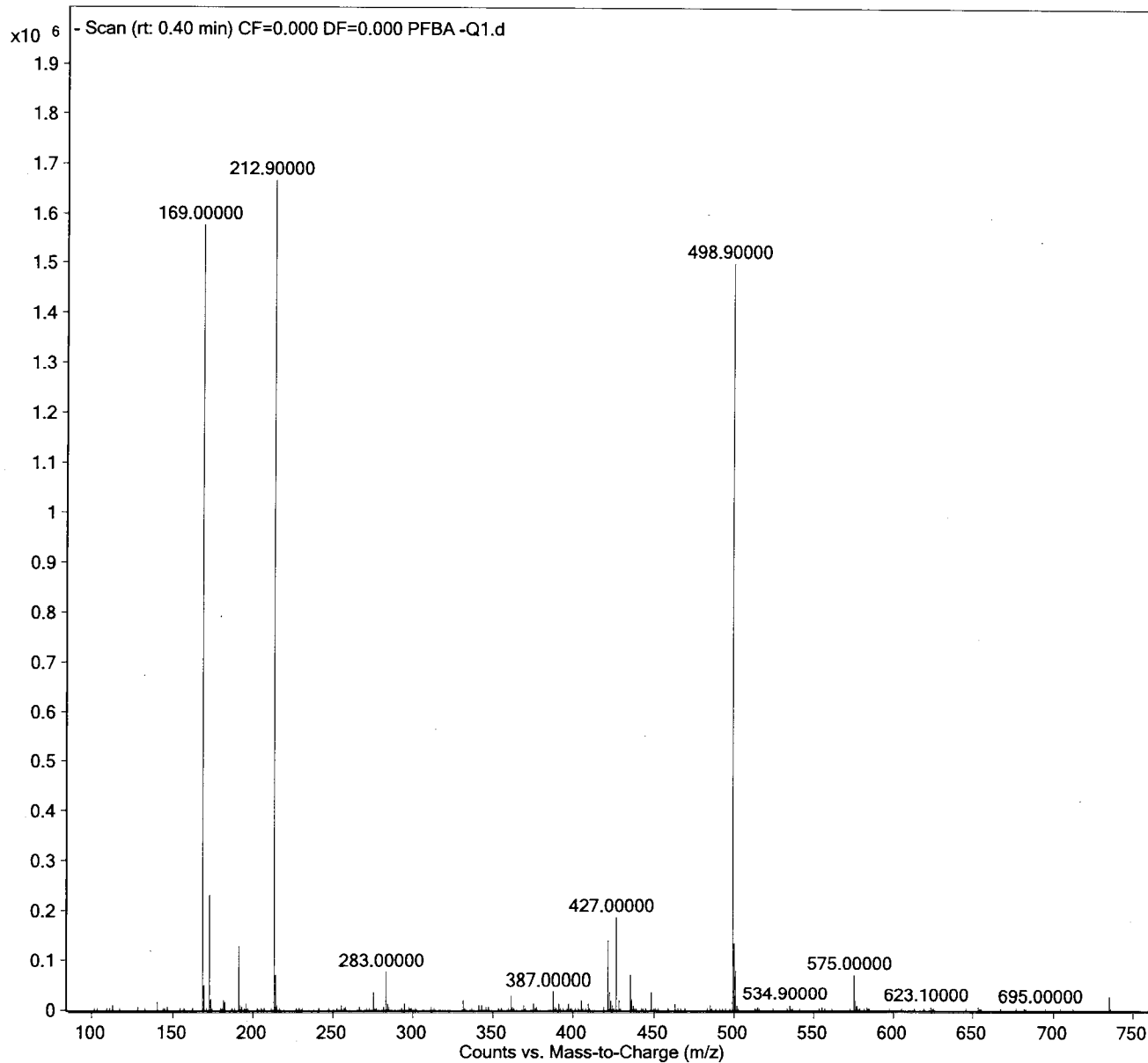
Position
Inj Vol
IRM Calibration Status
Comment

P1-A1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFBA -Q1.d
2017/07/10 4:37:04 PM



Sample Name
User Name
Sample Type
CQ Method

PFBS -Q1
M_G
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

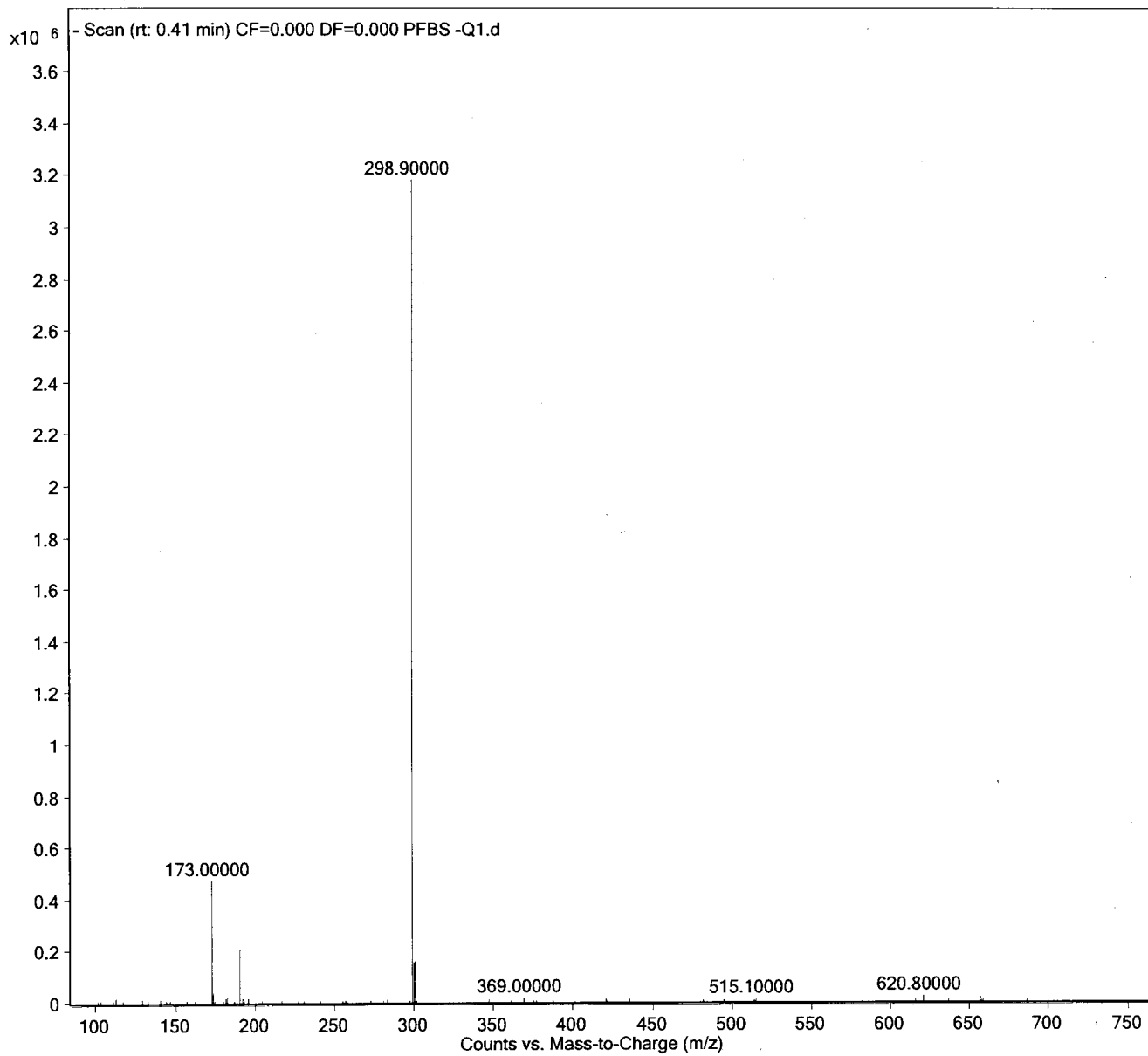
P1-A2
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFBS -Q1.d
2017/07/10 4:42:36 PM

Massam Analytics

453 of 744



Sample Name
User Name
Sample Type
CQ Method

PFPeA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

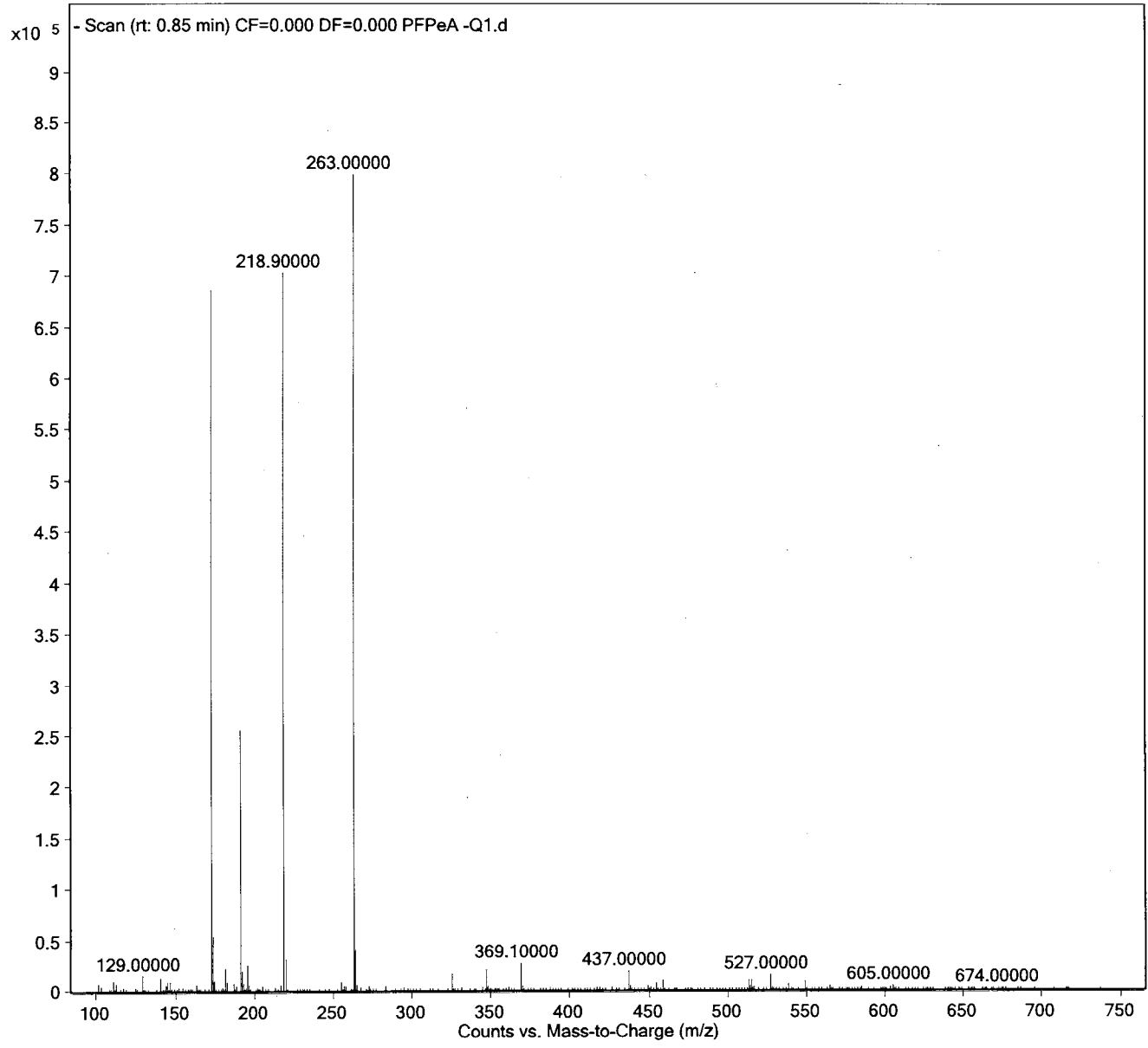
Position
Inj Vol
IRM Calibration Status
Comment

P1-A3
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFPeA -Q1.d
2017/07/10 4:48:06 PM



Sample Name
User Name
Sample Type
CQ Method

PFHxA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

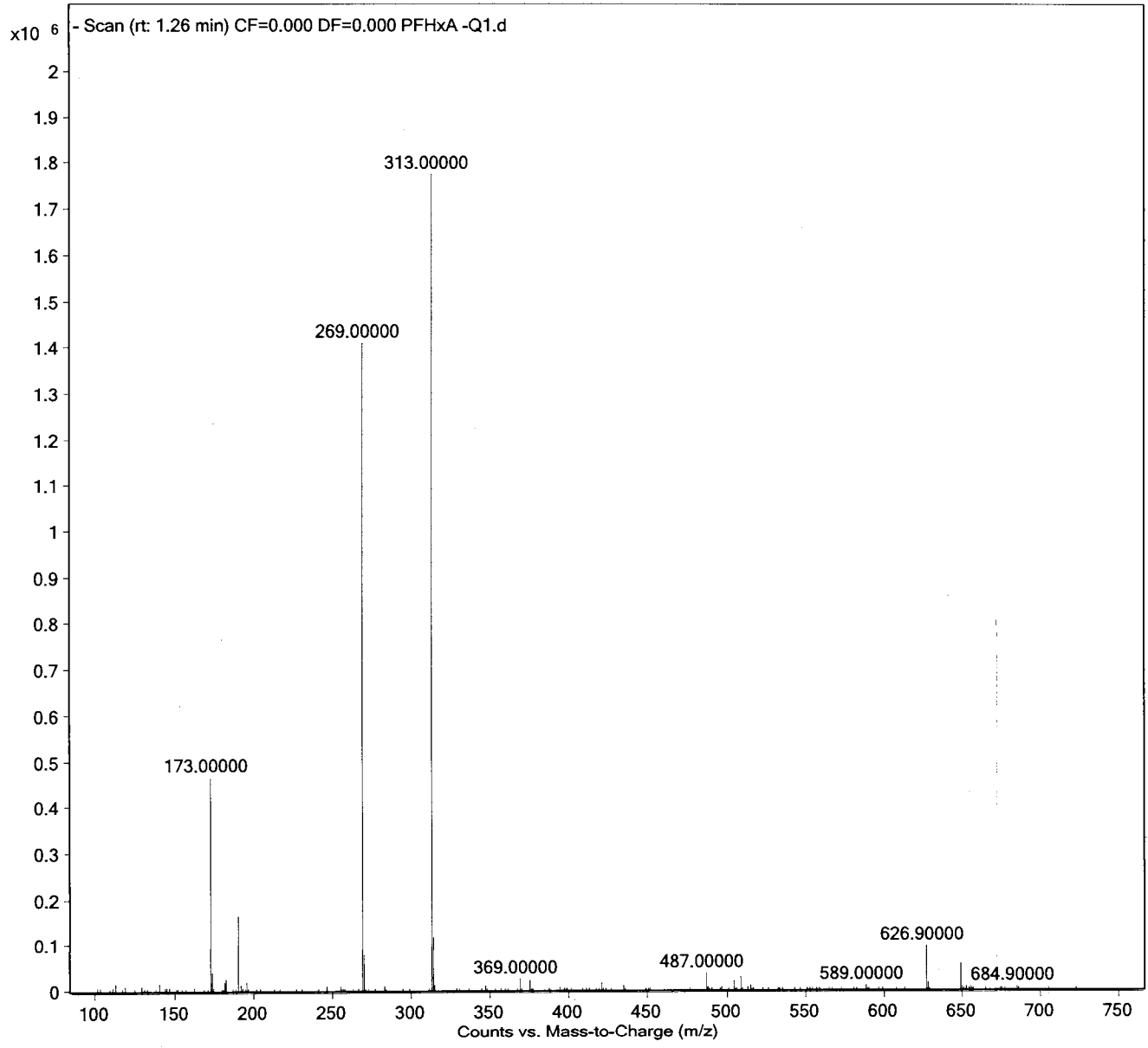
P1-A4
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFHxA -Q1.d
2017/07/10 4:53:36 PM

Massam Analytics

455 of 744



Sample Name
User Name
Sample Type
CQ Method

PFHxS -Q1
M_G
Sample
PFC_MassVerification-Q1.m

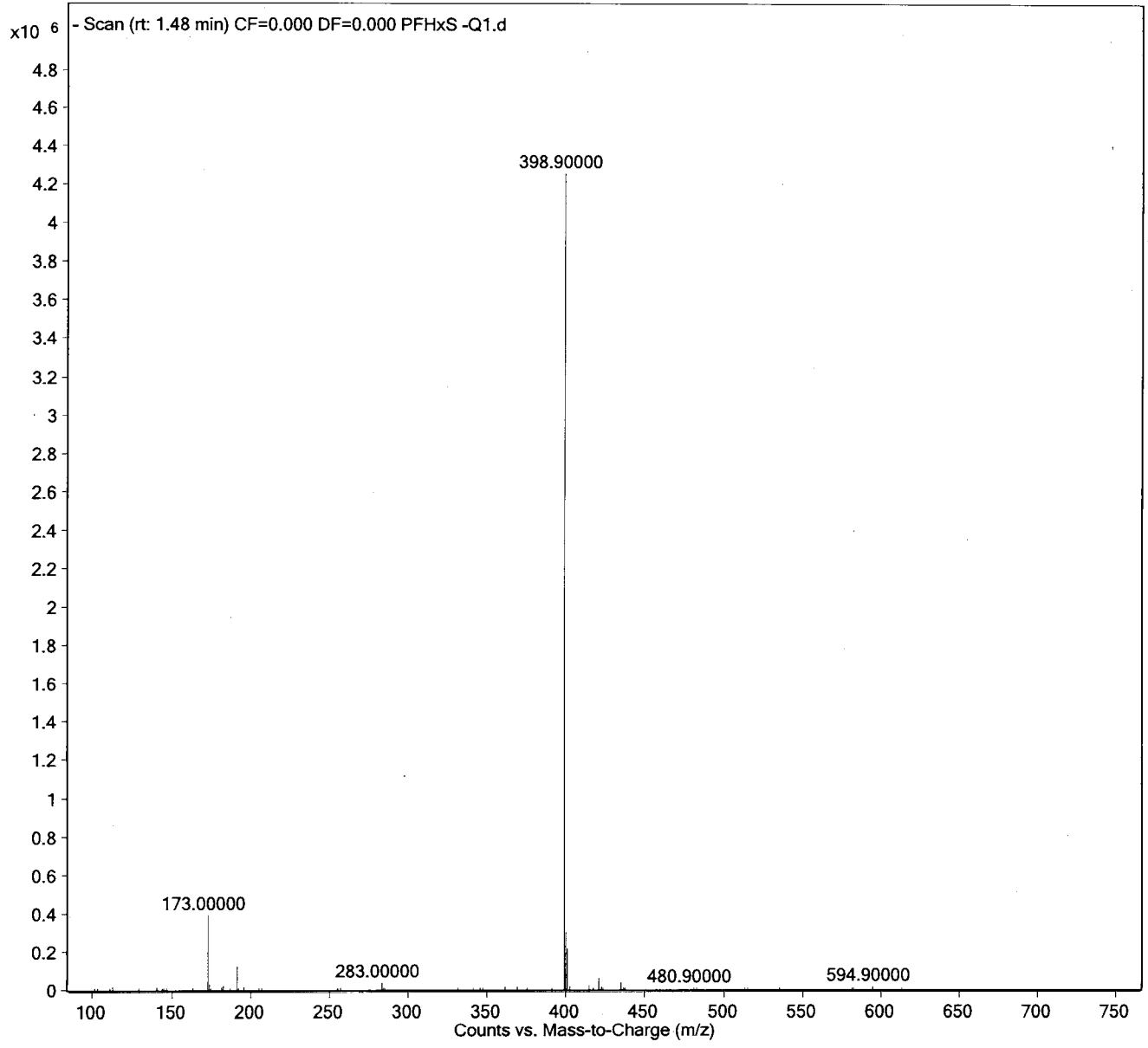
Position
Inj Vol
IRM Calibration Status
Comment

P1-A5
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFHxS -Q1.d
2017/07/10 4:59:06 PM



Sample Name
User Name
Sample Type
CQ Method

PFHpA-Q1
M_G
Sample
PFC_MassVerification-Q1.m

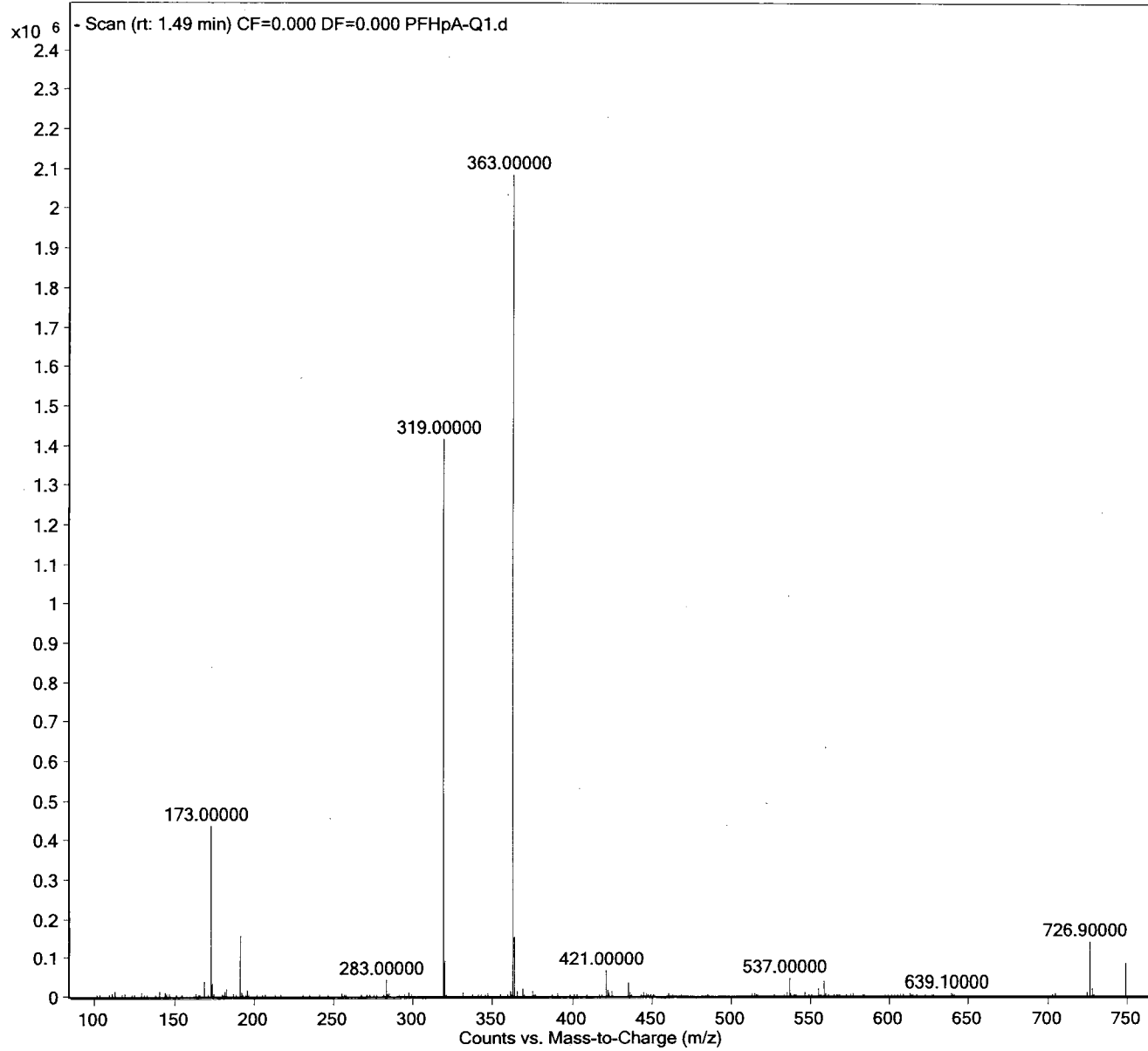
Position
Inj Vol
IRM Calibration Status
Comment

P1-A6
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFHpA-Q1.d
2017/07/10 5:04:36 PM

Masskam Analytics



457 of 744

Sample Name
User Name
Sample Type
CQ Method

PFHpS-Q1
M_G
Sample
PFC_MassVerification-Q1.m

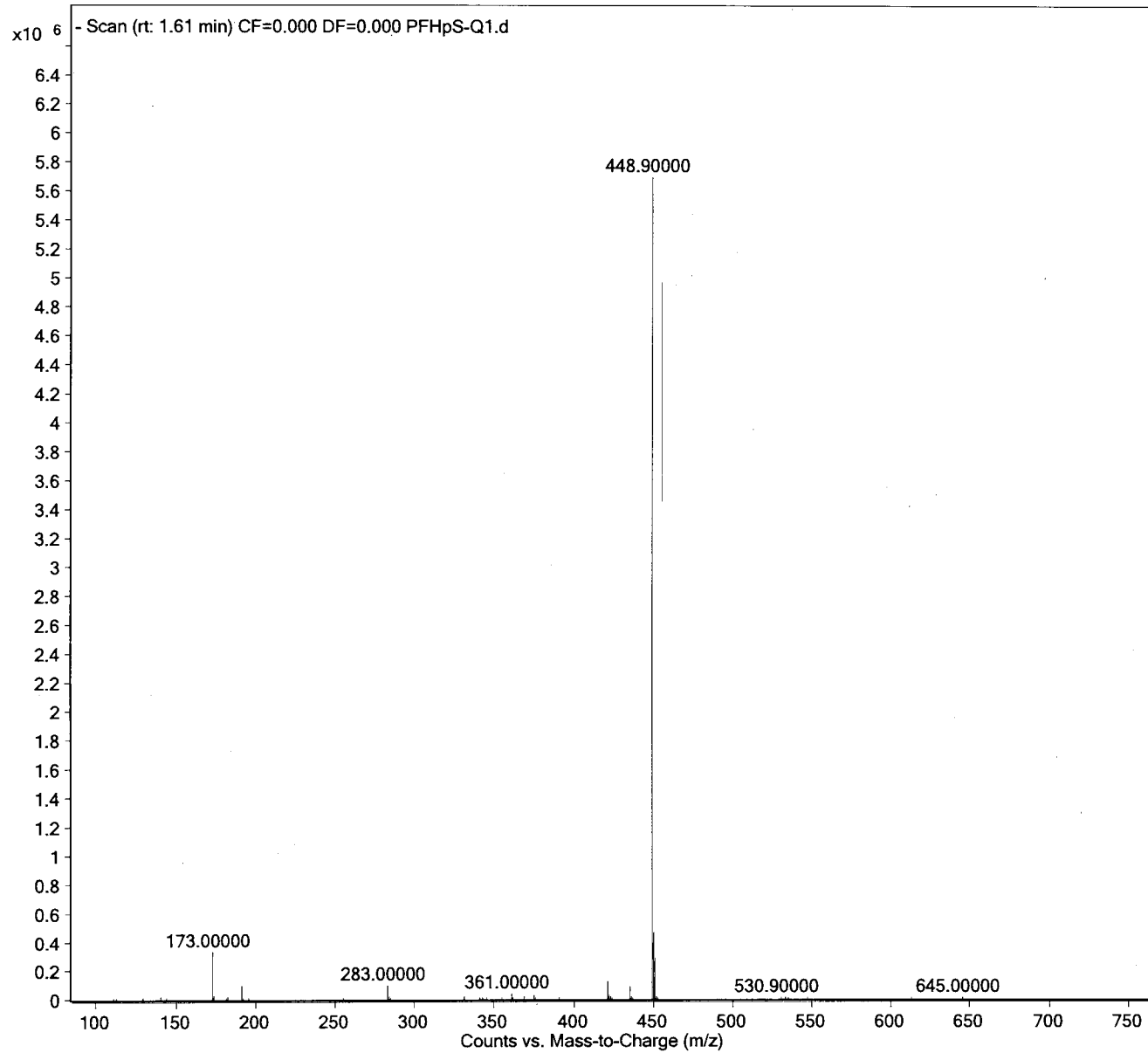
Position
Inj Vol
IRM Calibration Status
Comment

P1-A7
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFHpS-Q1.d
2017/07/10 5:10:06 PM

Maxkam Analytics



458 of 744

Sample Name
User Name
Sample Type
CQ Method

PFOA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

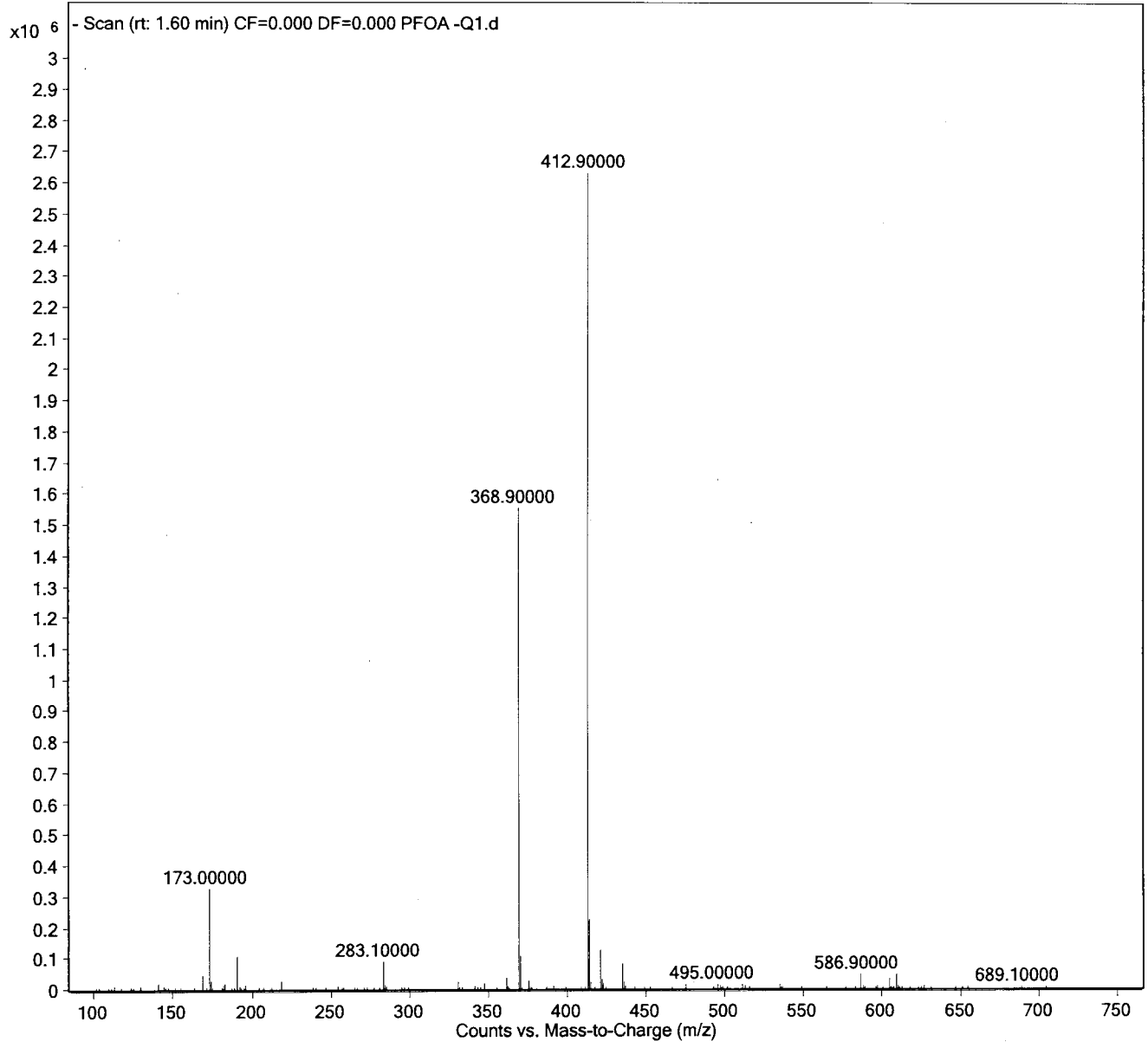
P1-A8
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFOA -Q1.d
2017/07/10 5:15:38 PM

Massam Analytics



459 of 744

Sample Name
User Name
Sample Type
CQ Method

PFOS -Q1
M_G
Sample
PFC_MassVerification-Q1.m

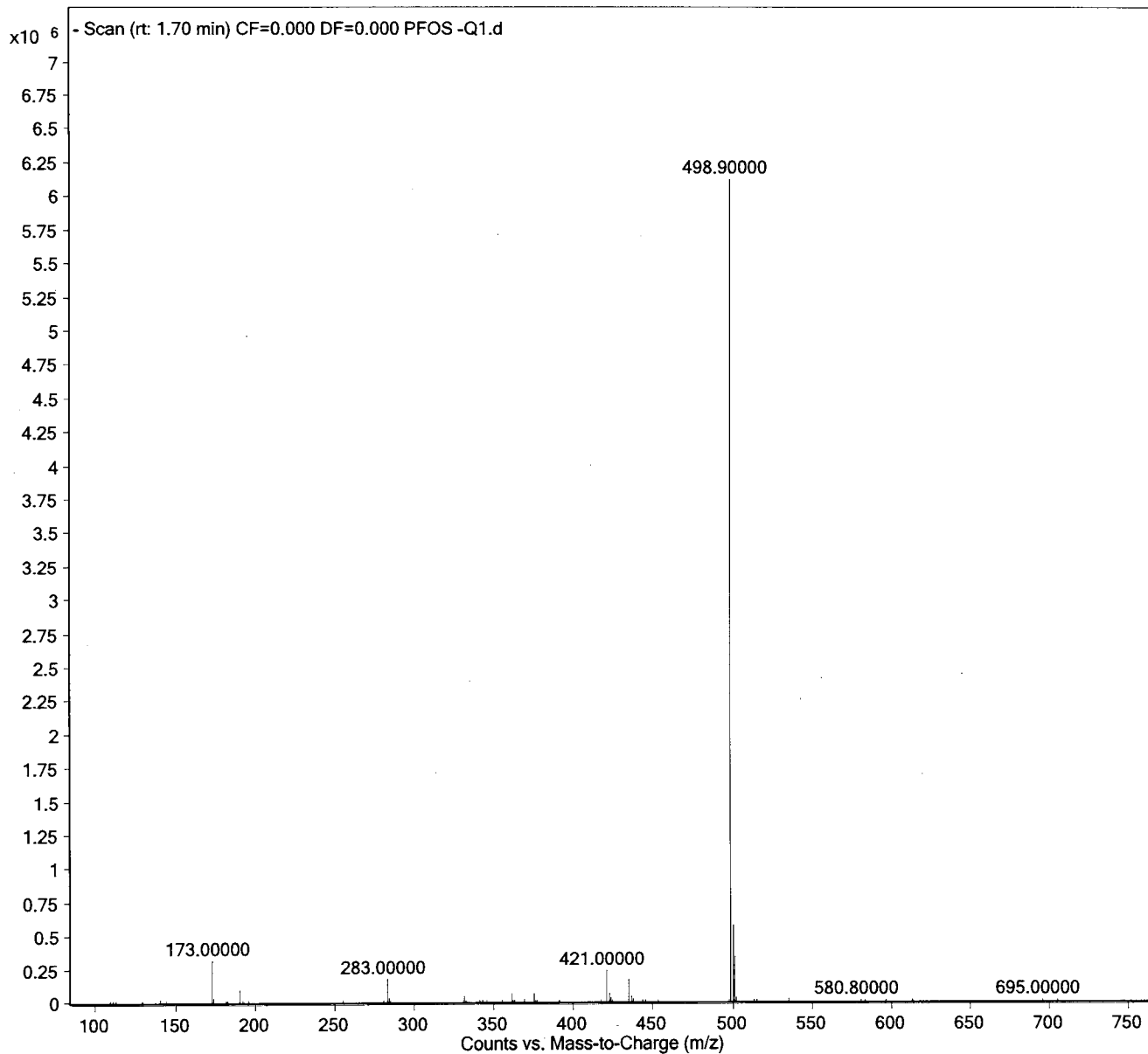
Position
Inj Vol
IRM Calibration Status
Comment

P1-A9
10
Not Applicable
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFOS -Q1.d
2017/07/10 5:21:10 PM

Maxam Analytics



460 of 744

Sample Name
User Name
Sample Type
CQ Method

PFNA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

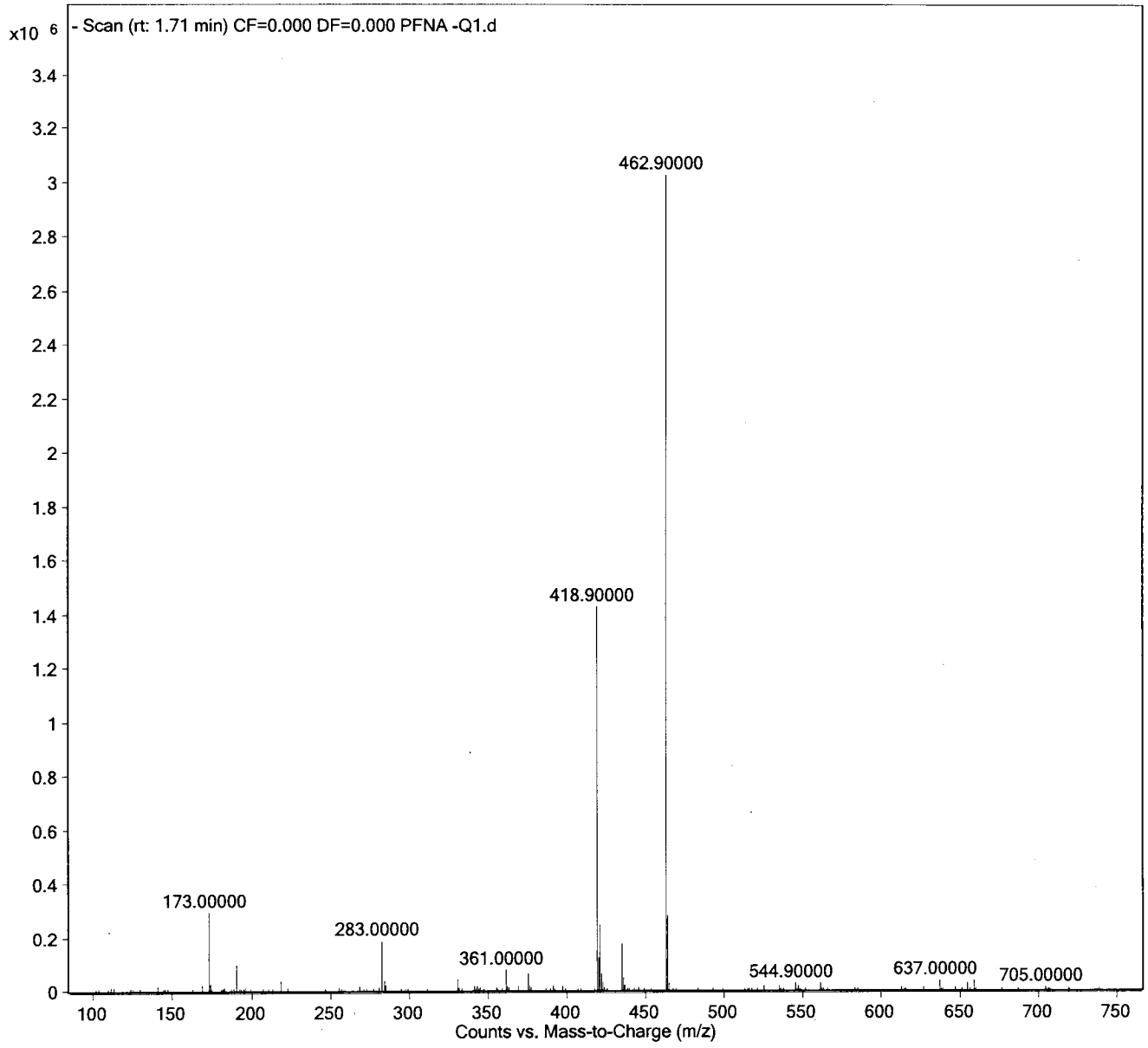
Position
Inj Vol
IRM Calibration Status
Comment

P1-B1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFNA -Q1.d
2017/07/10 5:26:42 PM



Sample Name
User Name
Sample Type
Sample Method

PFDA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

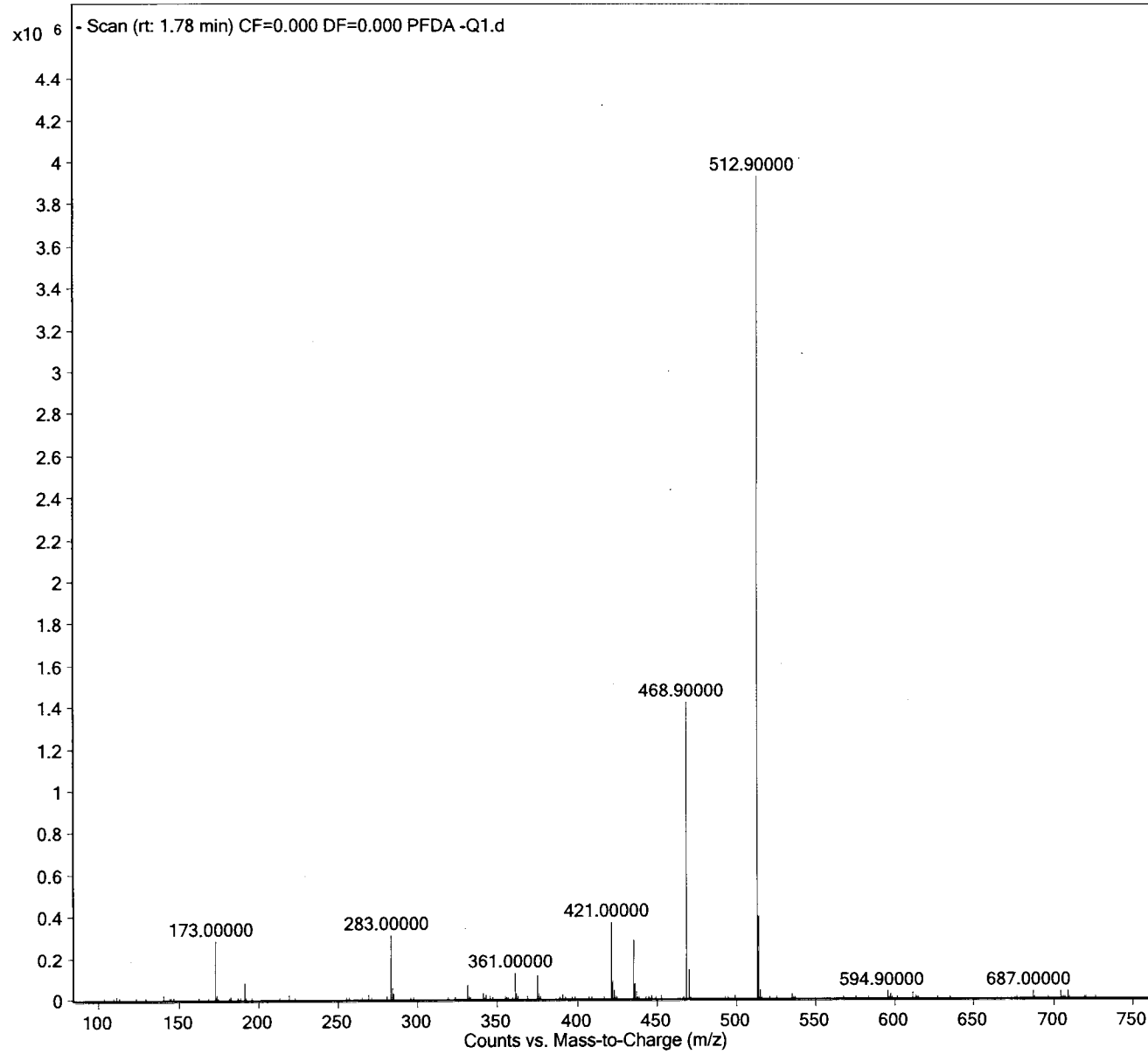
P1-B2
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFDA -Q1.d
2017/07/10 5:32:12 PM

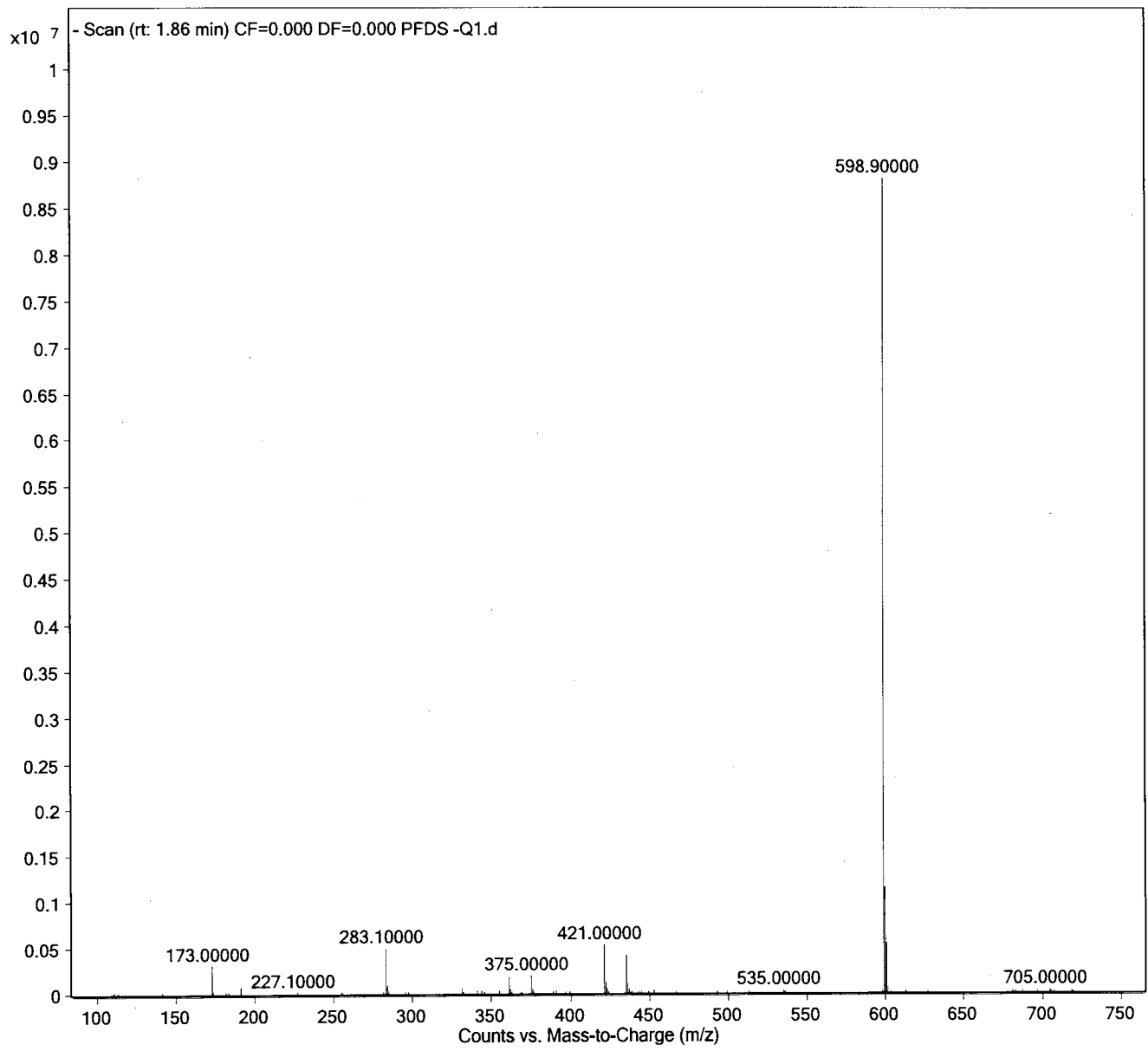
Maxam Analytics



462 of 744

Sample Name	PFDS-Q1	Position	P1-B3	Instrument Name	LCMS04
User Name	M_G	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	PFDS-Q1.d
QC Method	PFC_MassVerification-Q1.m	Comment		Acquired Time	2017/07/10 5:37:42 PM

Maxam Analytics



463 of 744

Sample Name
User Name
Sample Type
CQ Method

PFUnA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

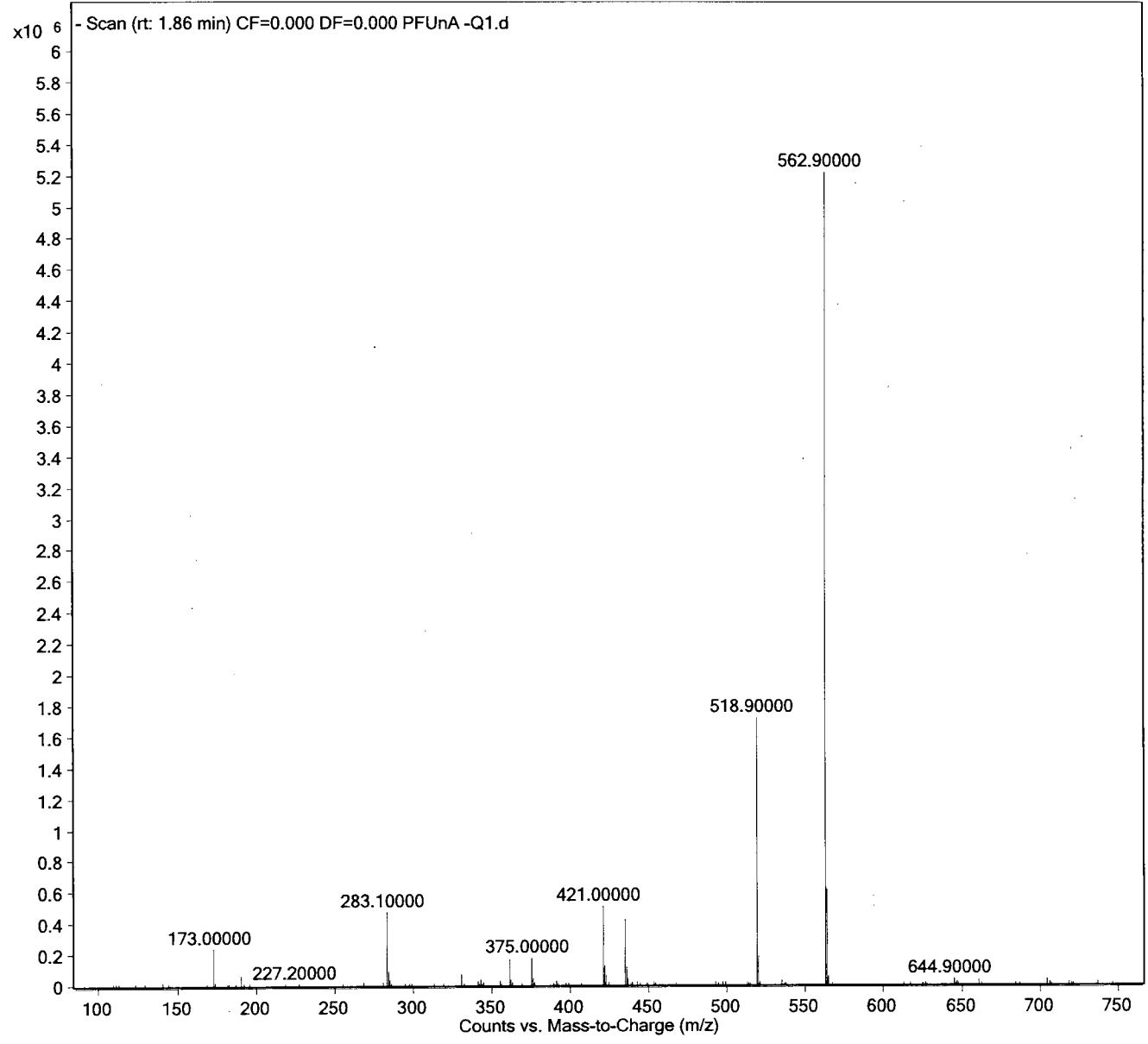
Position
Inj Vol
IRM Calibration Status
Comment

P1-B4
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFUnA -Q1.d
2017/07/10 5:43:12 PM



Sample Name
User Name
Sample Type
CQ Method

PFD0A -Q1
M_G
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

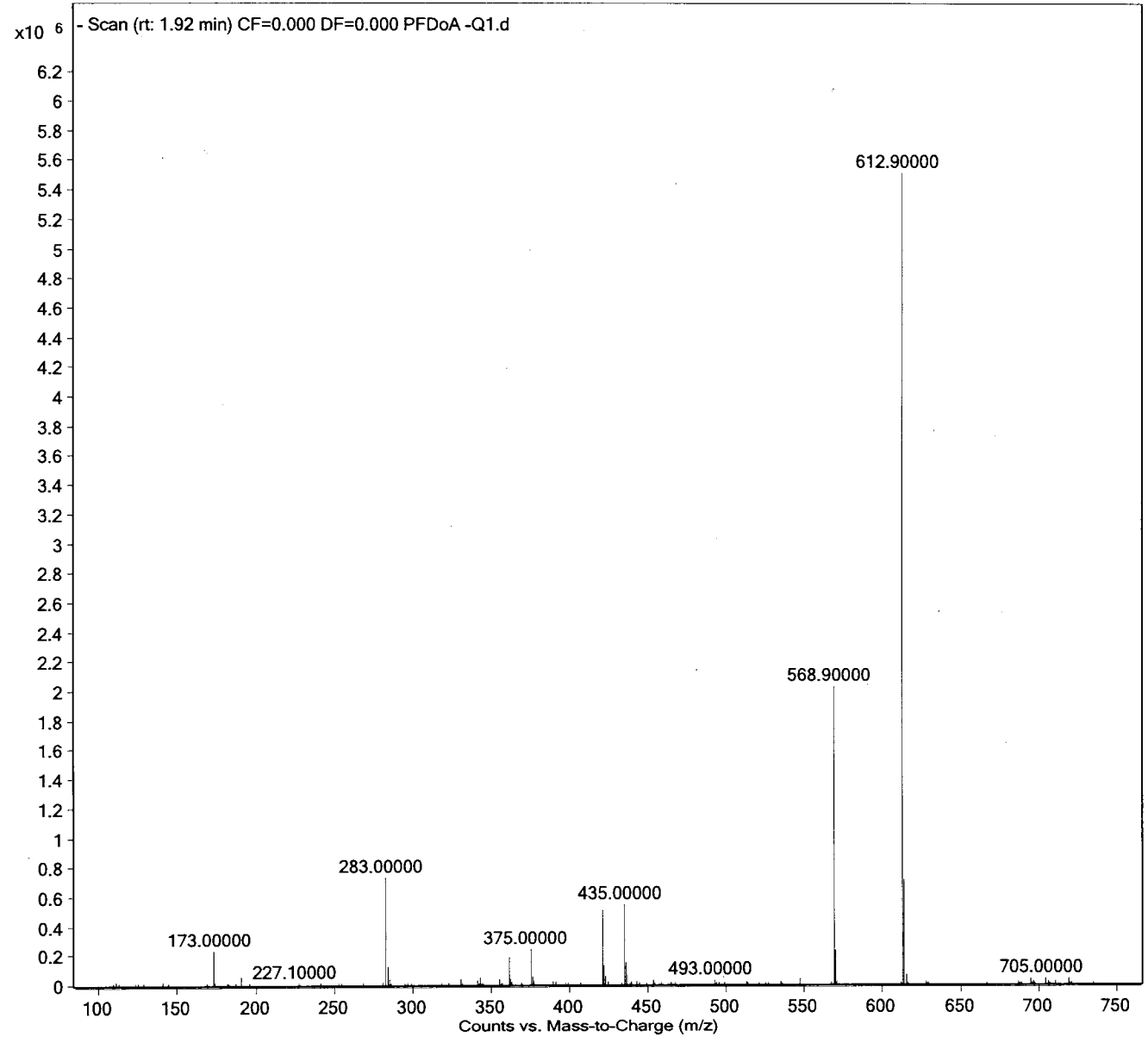
P1-B5
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFD0A -Q1.d
2017/07/10 5:48:42 PM

Prakasham Analytics

465 of 744



Sample Name
User Name
Sample Type
CQ Method

PFTrDA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

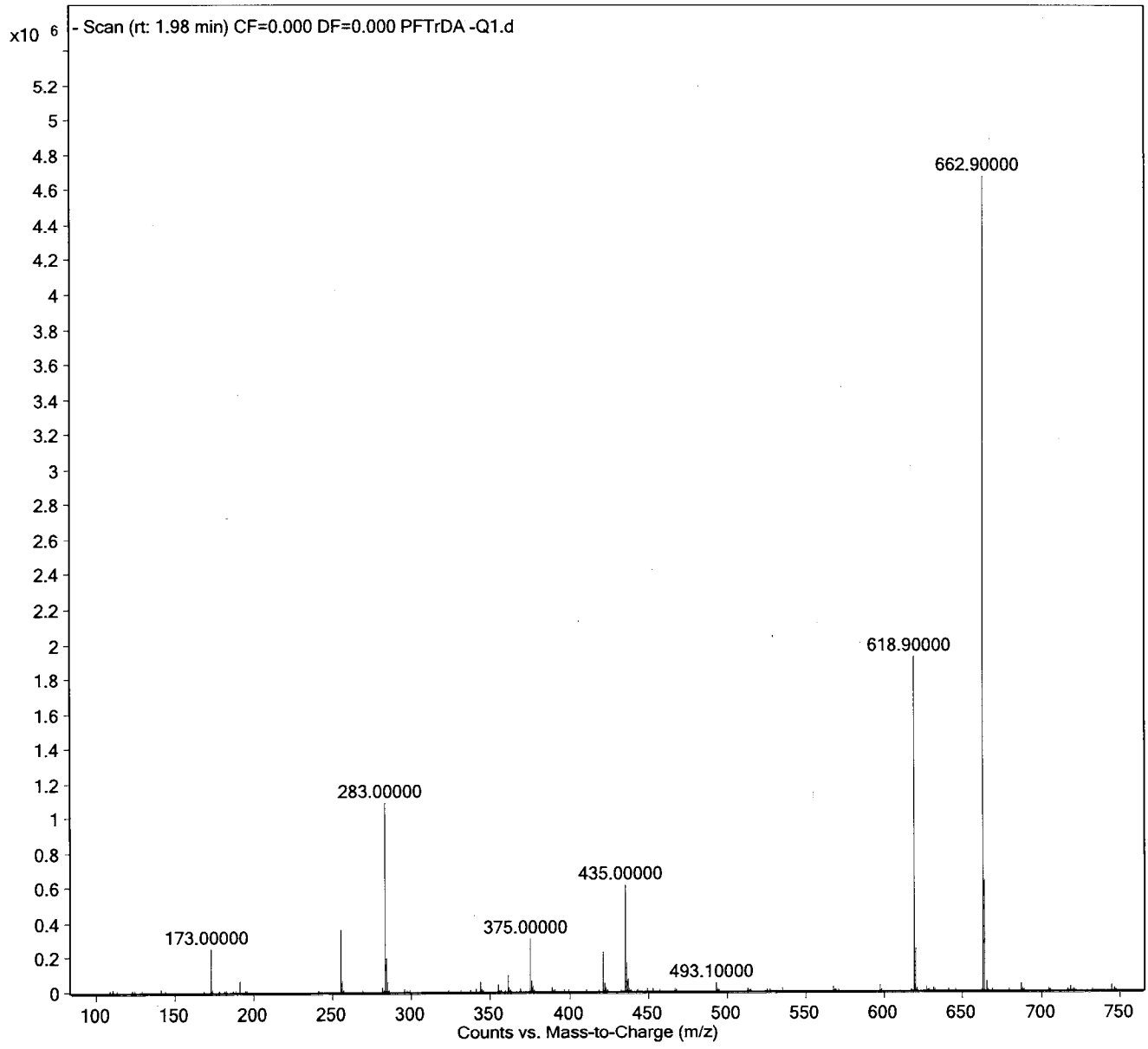
P1-B6
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFTrDA -Q1.d
2017/07/10 5:54:12 PM

Maxam Analytics



466 of 744

Sample Name
User Name
Sample Type
Sample Method

PFTeDA-Q1
M_G
Sample
PFC_MassVerification-Q1.m

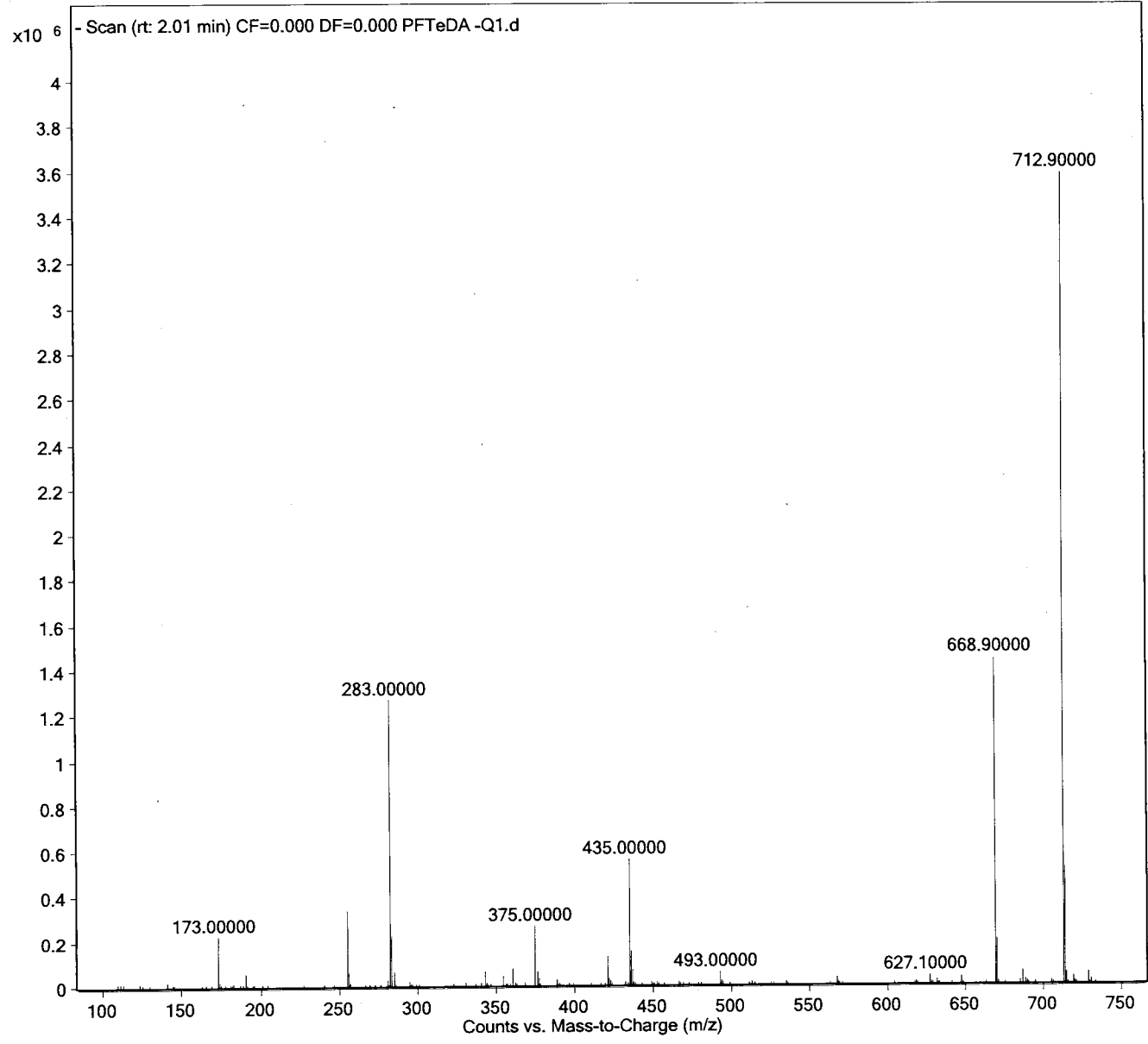
Position
Inj Vol
IRM Calibration Status
Comment

P1-B7
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFTeDA-Q1.d
2017/07/10 5:59:42 PM

Massam Analytics



467 of 744

Sample Name
User Name
Sample Type
Sample Method

PFOSA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

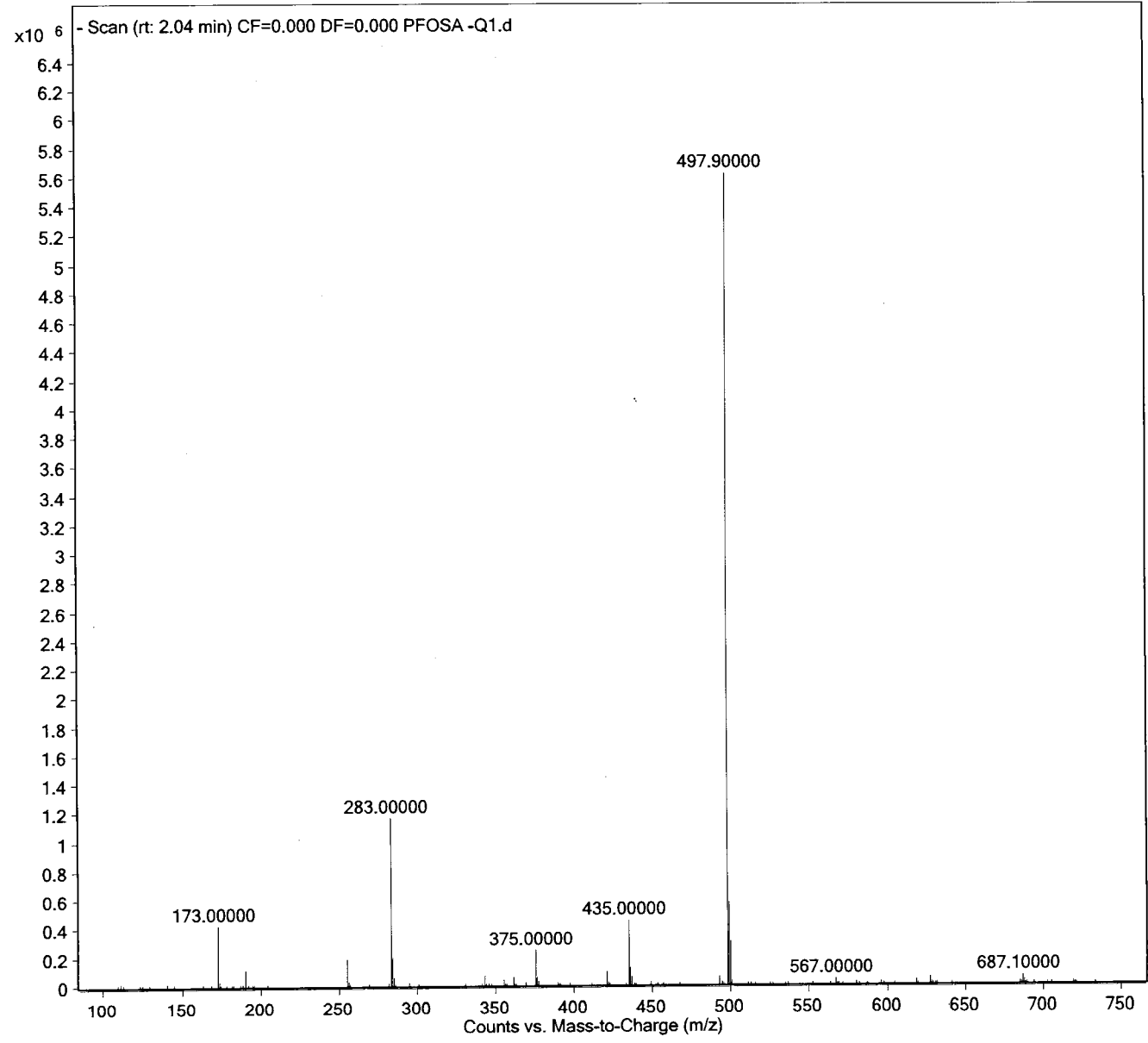
P1-B8
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFOSA -Q1.d
2017/07/10 6:05:13 PM

Maxam Analytics

468 of 744



Sample Name
User Name
Sample Type
CQ Method

MeFOSA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

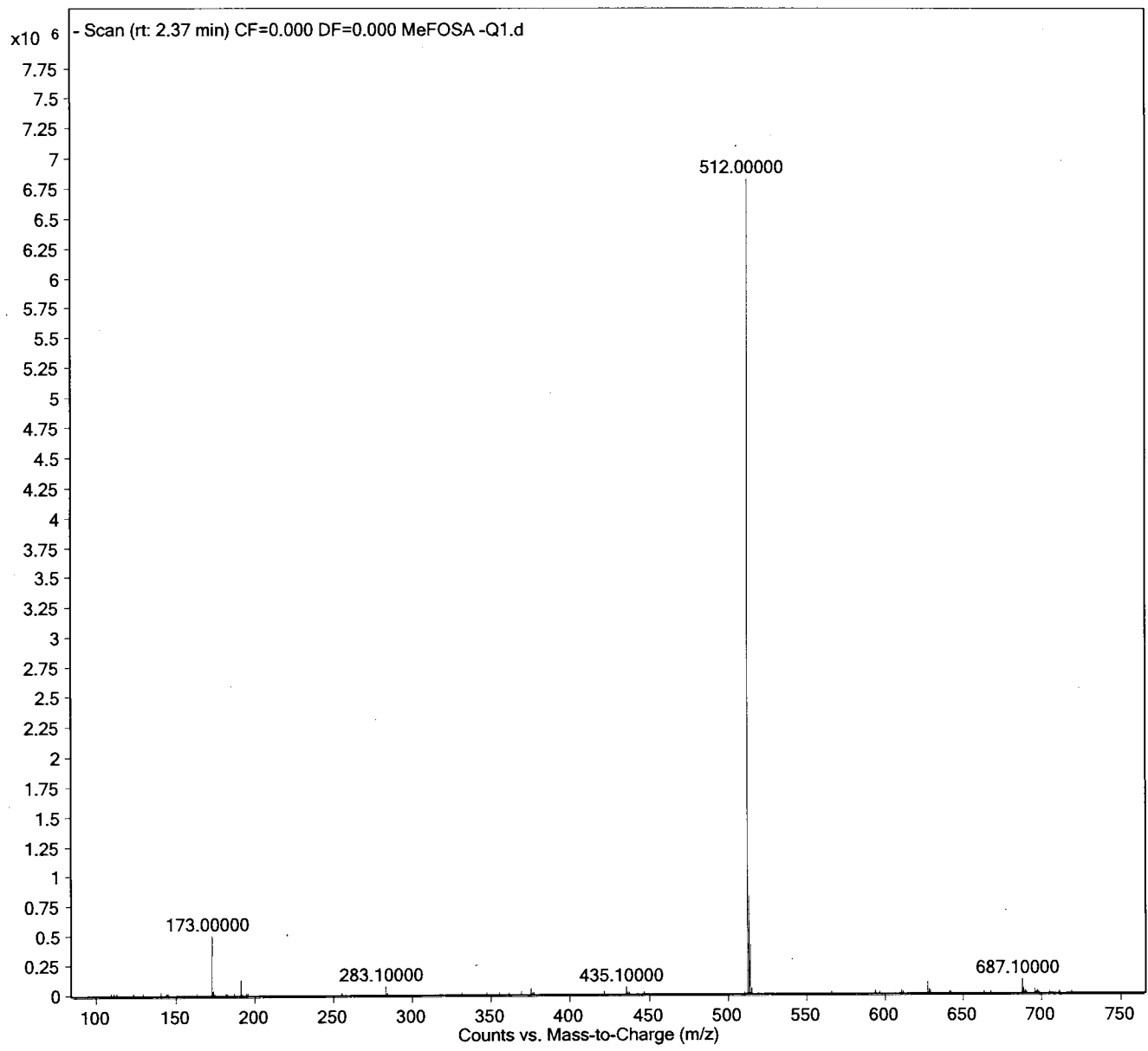
Position
Inj Vol
IRM Calibration Status
Comment

P1-B9
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
MeFOSA -Q1.d
2017/07/10 6:10:45 PM

Maxam Analytics



469 of 744

Sample Name
User Name
Sample Type
CQ Method

EtFOSA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

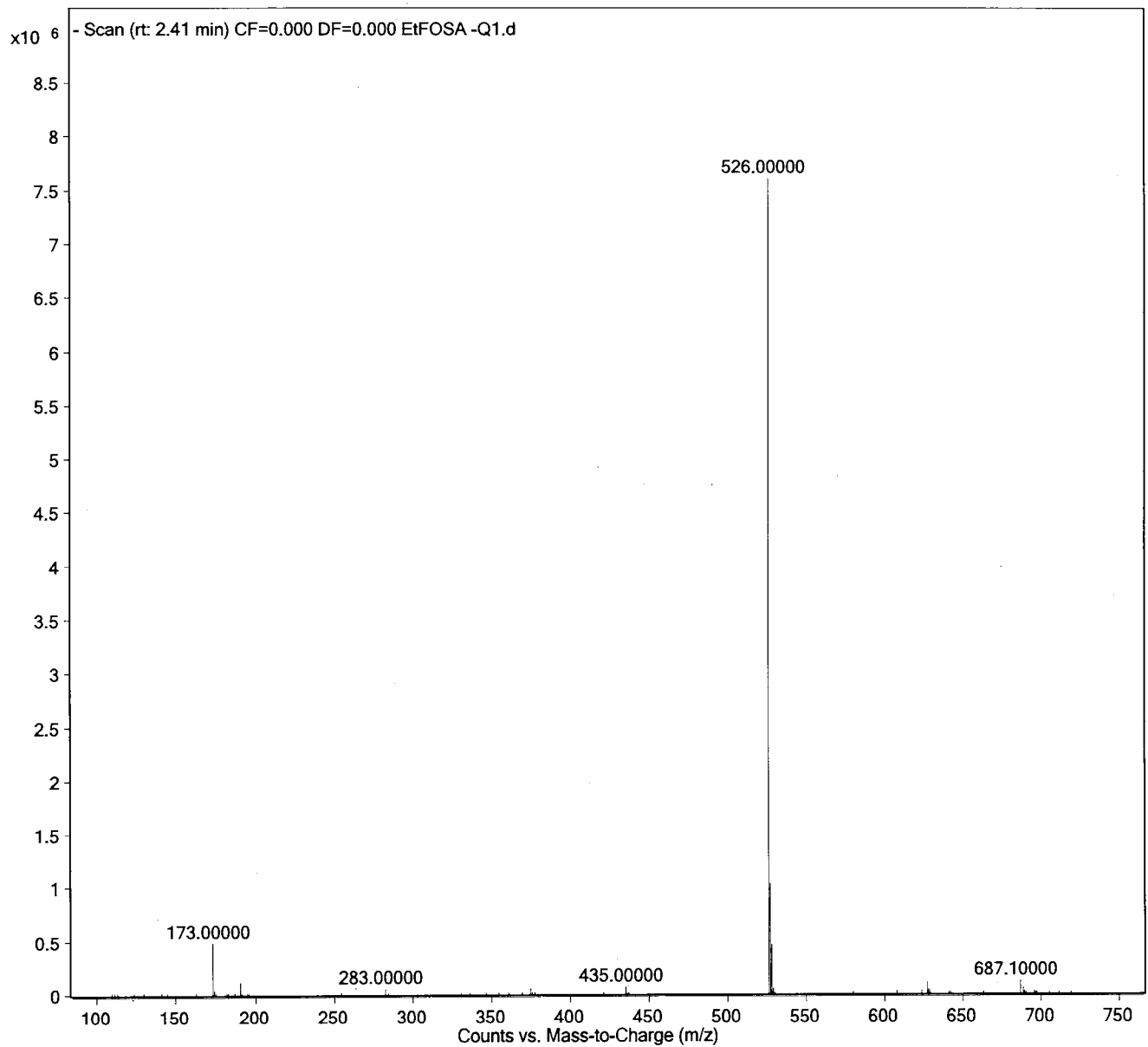
P1-C1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
EtFOSA -Q1.d
2017/07/10 6:16:16 PM

Maxam Analytics

470 of 744



Sample Name
User Name
Sample Type
CQ Method

MeFOSE -Q1
M_G
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

P1-C2
10
Not Applicable

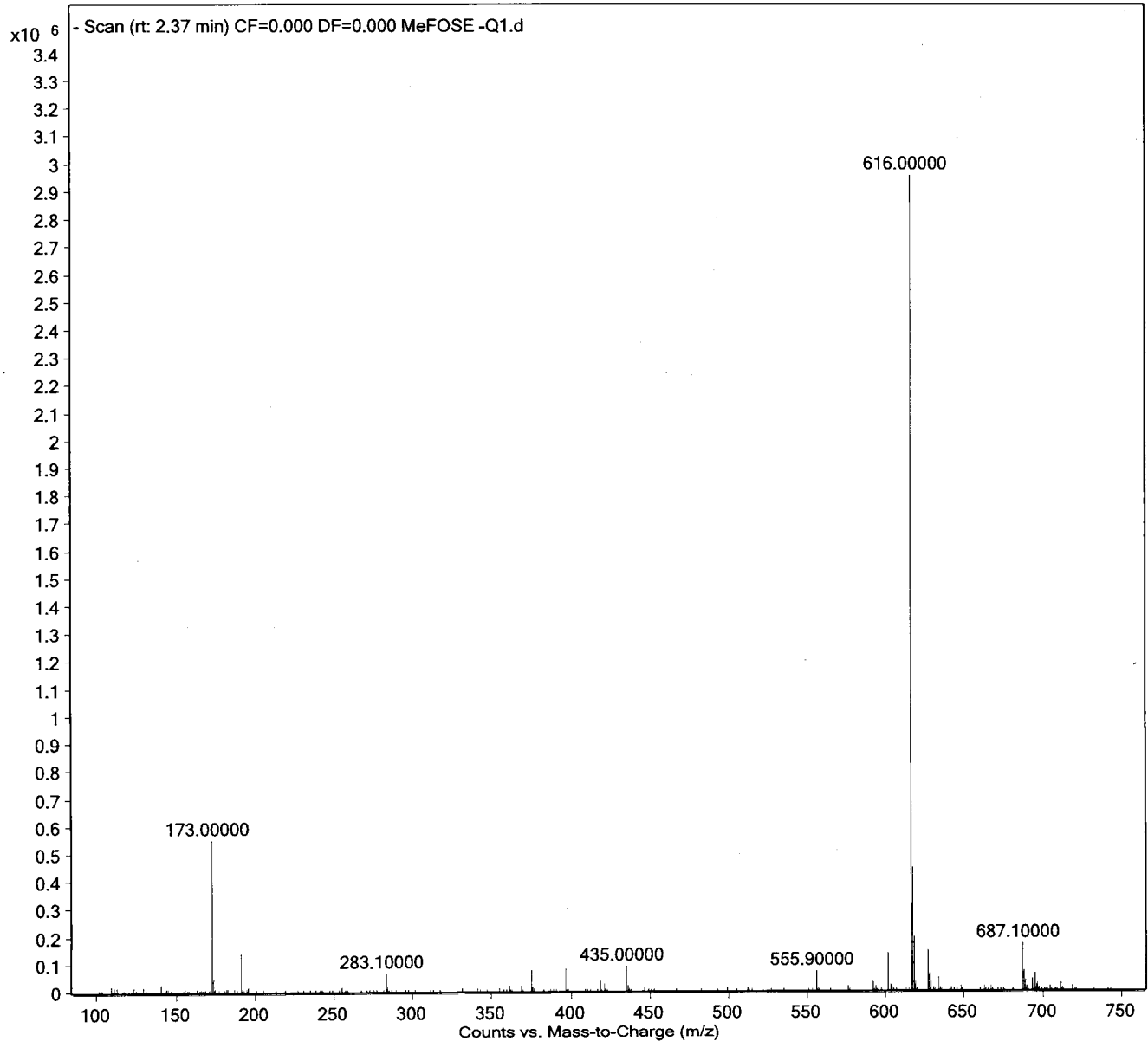
Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MeFOSE -Q1.d
2017/07/10 6:21:46 PM

Maxam Analytics

471 of 744



Sample Name
User Name
Sample Type
CQ Method

EtFOSE -Q1
M_G
Sample
PFC_MassVerification-Q1.m

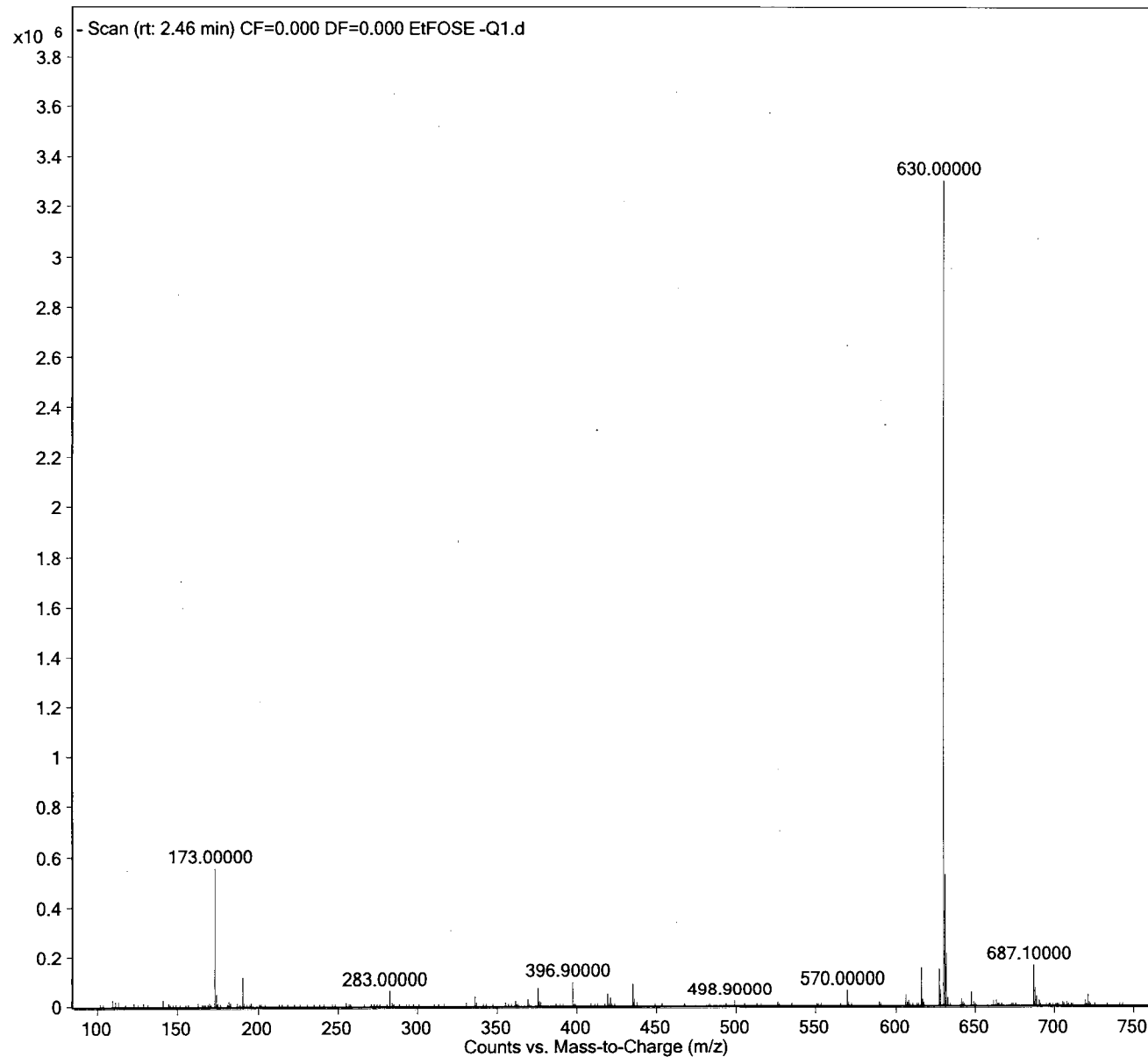
Position
Inj Vol
IRM Calibration Status
Comment

P1-C3
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

EtFOSE -Q1.d
2017/07/10 6:27:16 PM



Sample Name
User Name
Sample Type
QC Method

MeFOSAA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

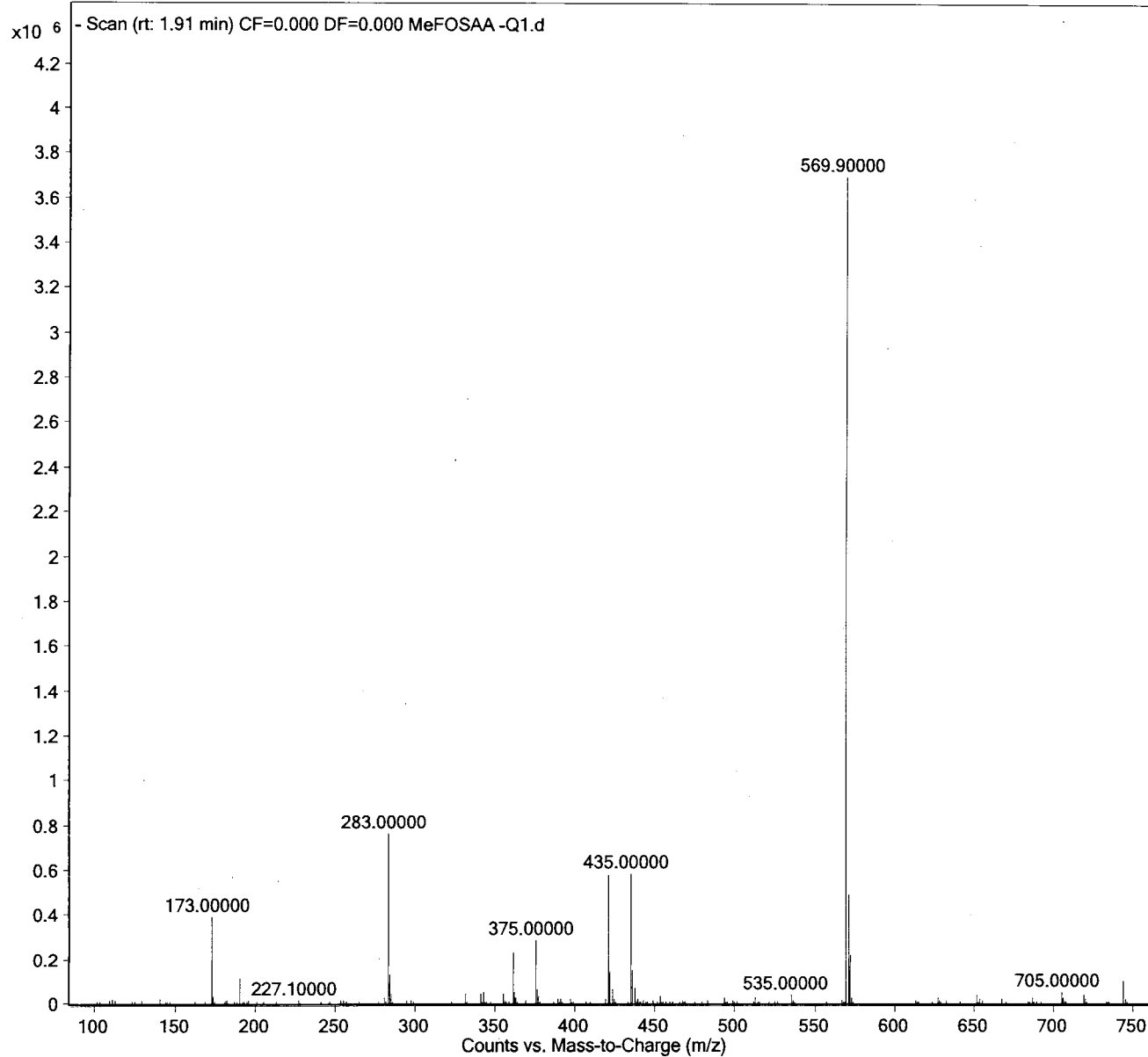
Position
Inj Vol
IRM Calibration Status
Comment

P1-C4
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MeFOSAA -Q1.d
2017/07/10 6:32:46 PM



Sample Name
User Name
Sample Type
Sample Method

EtFOSAA -Q1
M_G
Sample
PFC_MassVerification-Q1.m

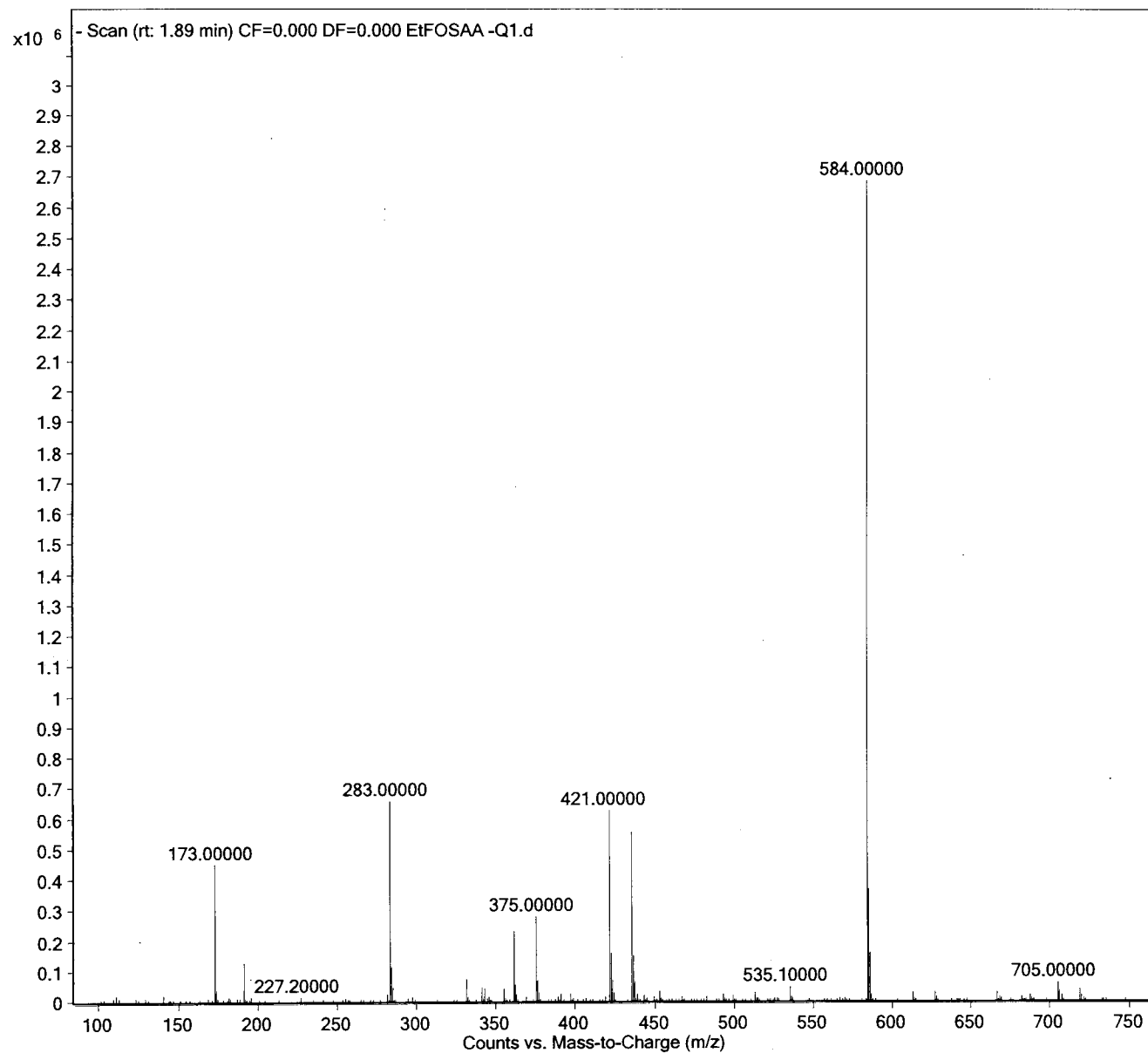
Position
Inj Vol
IRM Calibration Status
Comment

P1-C5
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

EtFOSAA -Q1.d
2017/07/10 6:38:16 PM



Sample Name
User Name
Sample Type
CQ Method

6:2FTS -Q1
M_G
Sample
PFC_MassVerification-Q1.m

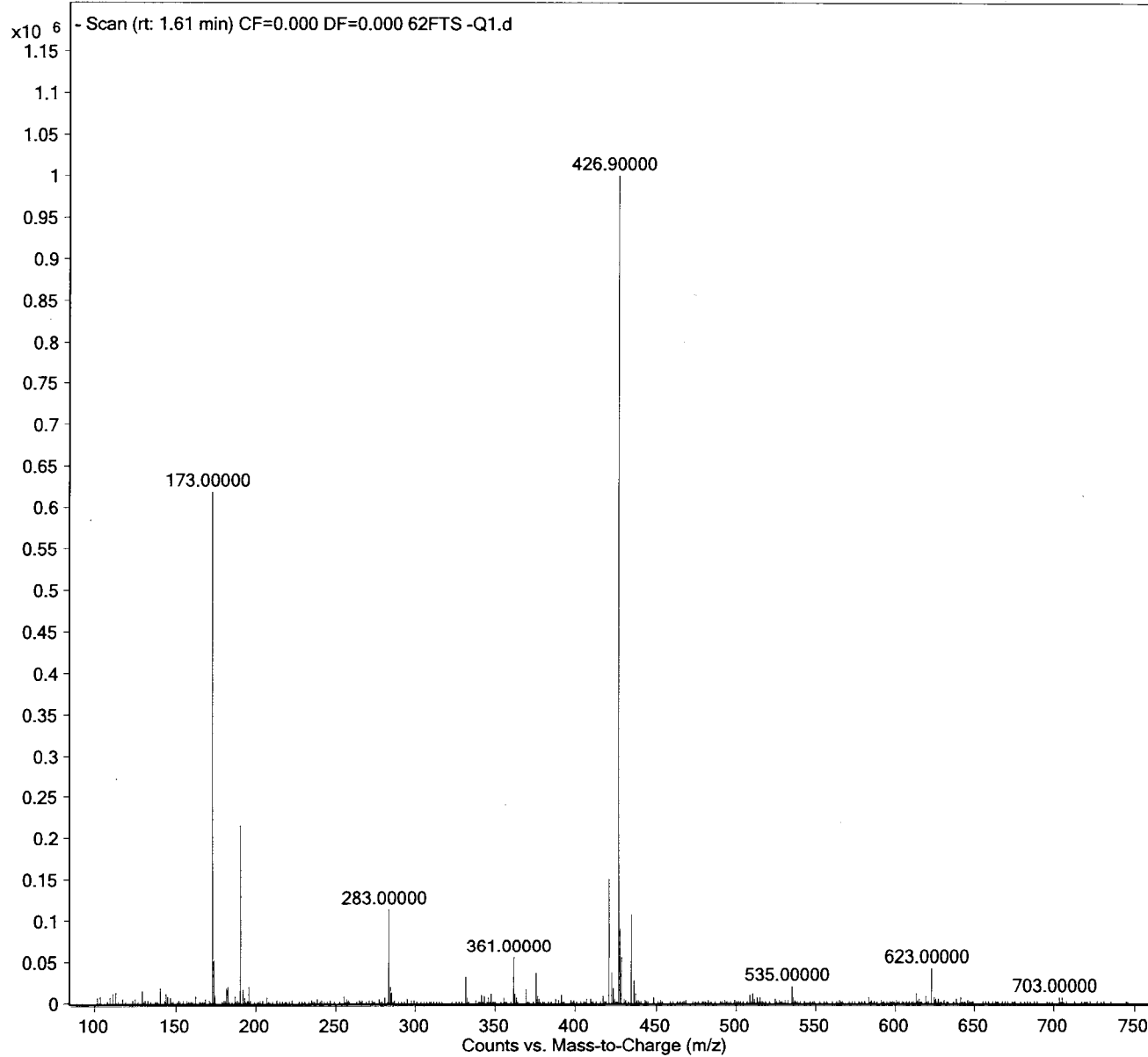
Position
Inj Vol
IRM Calibration Status
Comment

P1-C6
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

62FTS -Q1.d
2017/07/10 6:43:46 PM



Sample Name
User Name
Sample Type
CQ Method

8:2FTS -Q1
M_G
Sample
PFC_MassVerification-Q1.m

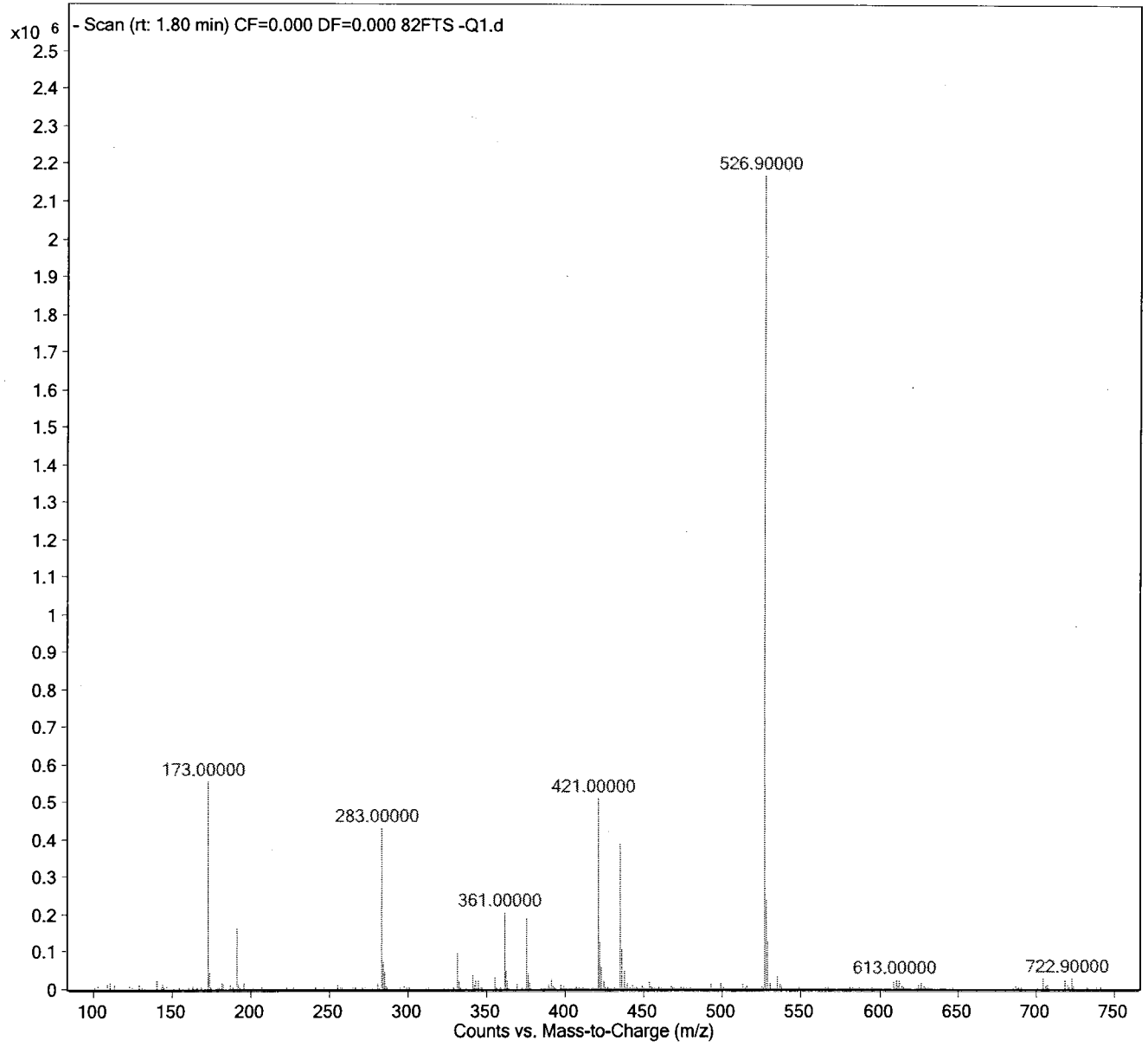
Position
Inj Vol
IRM Calibration Status
Comment

P1-C7
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

82FTS -Q1.d
2017/07/10 6:49:16 PM



Worklist Report



Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFAS_MASSVER_170710.
 WKL
Operator Name: M_G
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\Mass Verification\20170710
Pre-Worklist Script: ---
Post-Worklist Script: ---
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: ---
Plate Barcode: None

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
1	PFBA -Q1	P1-A1	PFC_MassVerificatio n-Q1.m	PFBA -Q1.d	Sample	As Method	PFAS-Q1
2	PFBS -Q1	P1-A2	PFC_MassVerificatio n-Q1.m	PFBS -Q1.d	Sample	As Method	PFAS-Q1
3	PFPeA -Q1	P1-A3	PFC_MassVerificatio n-Q1.m	PFPeA -Q1.d	Sample	As Method	PFAS-Q1
4	PFHxA -Q1	P1-A4	PFC_MassVerificatio n-Q1.m	PFHxA -Q1.d	Sample	As Method	PFAS-Q1
5	PFHxS -Q1	P1-A5	PFC_MassVerificatio n-Q1.m	PFHxS -Q1.d	Sample	As Method	PFAS-Q1
6	PFHpA-Q1	P1-A6	PFC_MassVerificatio n-Q1.m	PFHpA-Q1.d	Sample	As Method	PFAS-Q1
7	PFHpS-Q1	P1-A7	PFC_MassVerificatio n-Q1.m	PFHpS-Q1.d	Sample	As Method	PFAS-Q1
8	PFOA -Q1	P1-A8	PFC_MassVerificatio n-Q1.m	PFOA -Q1.d	Sample	As Method	PFAS-Q1
9	PFOS -Q1	P1-A9	PFC_MassVerificatio n-Q1.m	PFOS -Q1.d	Sample	As Method	PFAS-Q1

D:\MassHunter\Worklists\PFCs\PFAS_MASSVER_170710.wkl

Worklist Report



Maximum Analytes

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
10	PFNA -Q1	P1-B1	PFC_MassVerificatio n-Q1.m	PFNA -Q1.d	Sample	As Method	PFAS-Q1
11	PFDA -Q1	P1-B2	PFC_MassVerificatio n-Q1.m	PFDA -Q1.d	Sample	As Method	PFAS-Q1
12	PFDS -Q1	P1-B3	PFC_MassVerificatio n-Q1.m	PFDS -Q1.d	Sample	As Method	PFAS-Q1
13	PFUnA -Q1	P1-B4	PFC_MassVerificatio n-Q1.m	PFUnA -Q1.d	Sample	As Method	PFAS-Q1
14	PFDoA -Q1	P1-B5	PFC_MassVerificatio n-Q1.m	PFDoA -Q1.d	Sample	As Method	PFAS-Q1
15	PFTTrDA -Q1	P1-B6	PFC_MassVerificatio n-Q1.m	PFTTrDA -Q1.d	Sample	As Method	PFAS-Q1
16	PFTeDA -Q1	P1-B7	PFC_MassVerificatio n-Q1.m	PFTeDA -Q1.d	Sample	As Method	PFAS-Q1
17	PFOSA -Q1	P1-B8	PFC_MassVerificatio n-Q1.m	PFOSA -Q1.d	Sample	As Method	PFAS-Q1
18	MeFOSA -Q1	P1-B9	PFC_MassVerificatio n-Q1.m	MeFOSA -Q1.d	Sample	As Method	PFAS-Q1
19	EtFOSA -Q1	P1-C1	PFC_MassVerificatio n-Q1.m	EtFOSA -Q1.d	Sample	As Method	PFAS-Q1
20	MeFOSE -Q1	P1-C2	PFC_MassVerificatio n-Q1.m	MeFOSE -Q1.d	Sample	As Method	PFAS-Q1
21	EtFOSE -Q1	P1-C3	PFC_MassVerificatio n-Q1.m	EtFOSE -Q1.d	Sample	As Method	PFAS-Q1
22	MeFOSAA -Q1	P1-C4	PFC_MassVerificatio n-Q1.m	MeFOSAA -Q1.d	Sample	As Method	PFAS-Q1
23	EtFOSAA -Q1	P1-C5	PFC_MassVerificatio n-Q1.m	EtFOSAA -Q1.d	Sample	As Method	PFAS-Q1
24	6:2FTS -Q1	P1-C6	PFC_MassVerificatio n-Q1.m	62FTS -Q1.d	Sample	As Method	PFAS-Q1
25	8:2FTS -Q1	P1-C7	PFC_MassVerificatio n-Q1.m	82FTS -Q1.d	Sample	As Method	PFAS-Q1

478 of 744



Analyte Product Ion Verification

Sample Name
User Name
Sample Type
Sample Method

PFBA -Q3
M_G
Sample
PFC_MassVerification-PFBA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

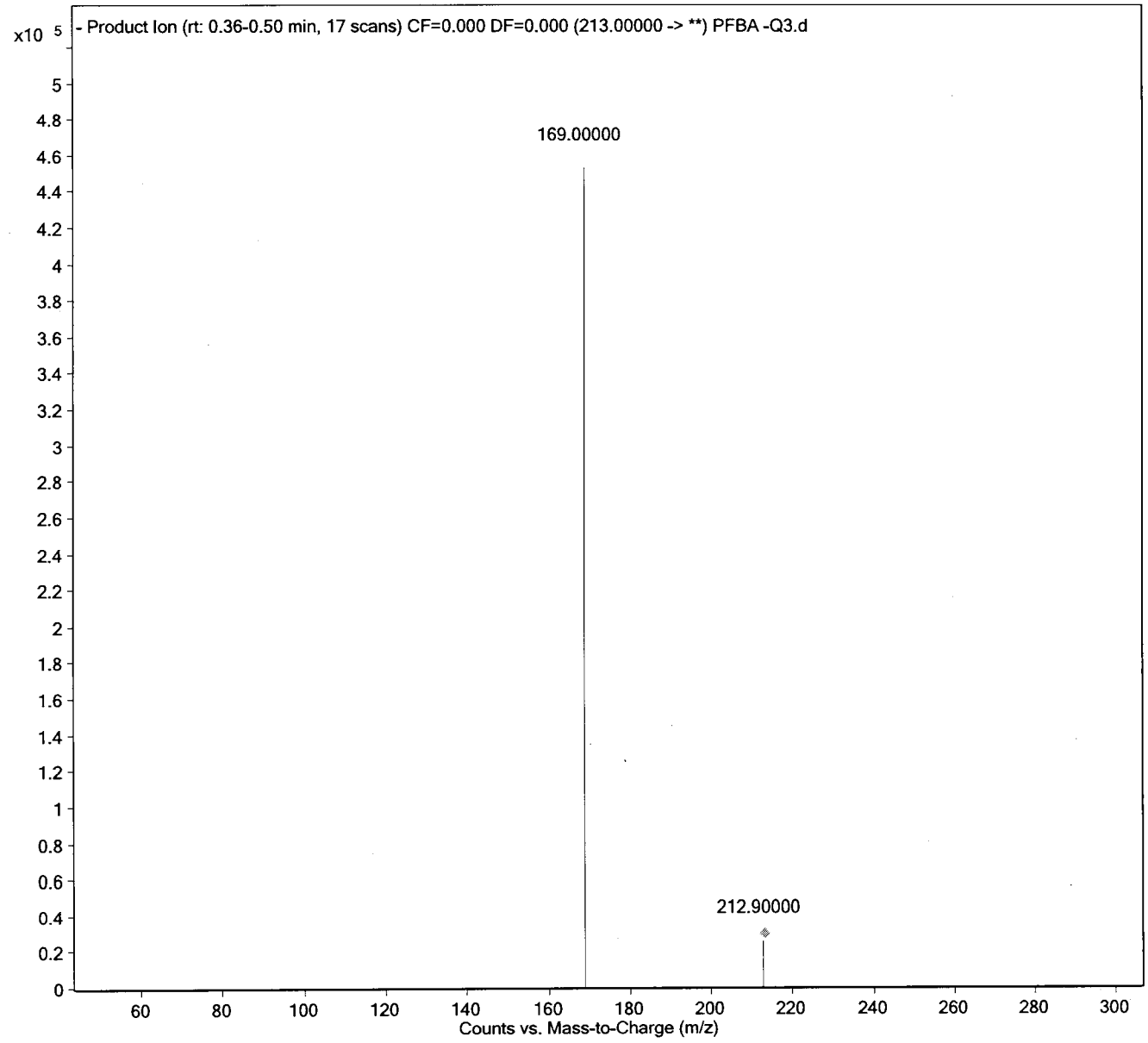
P1-A1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFBA -Q3.d
2017/07/10 6:54:46 PM

Sanjam Analytics

480 of 744



Sample Name
User Name
Sample Type
CQ Method

PFBS -Q3
M_G
Sample
PFC_MassVerification-PFBS-Q3.m

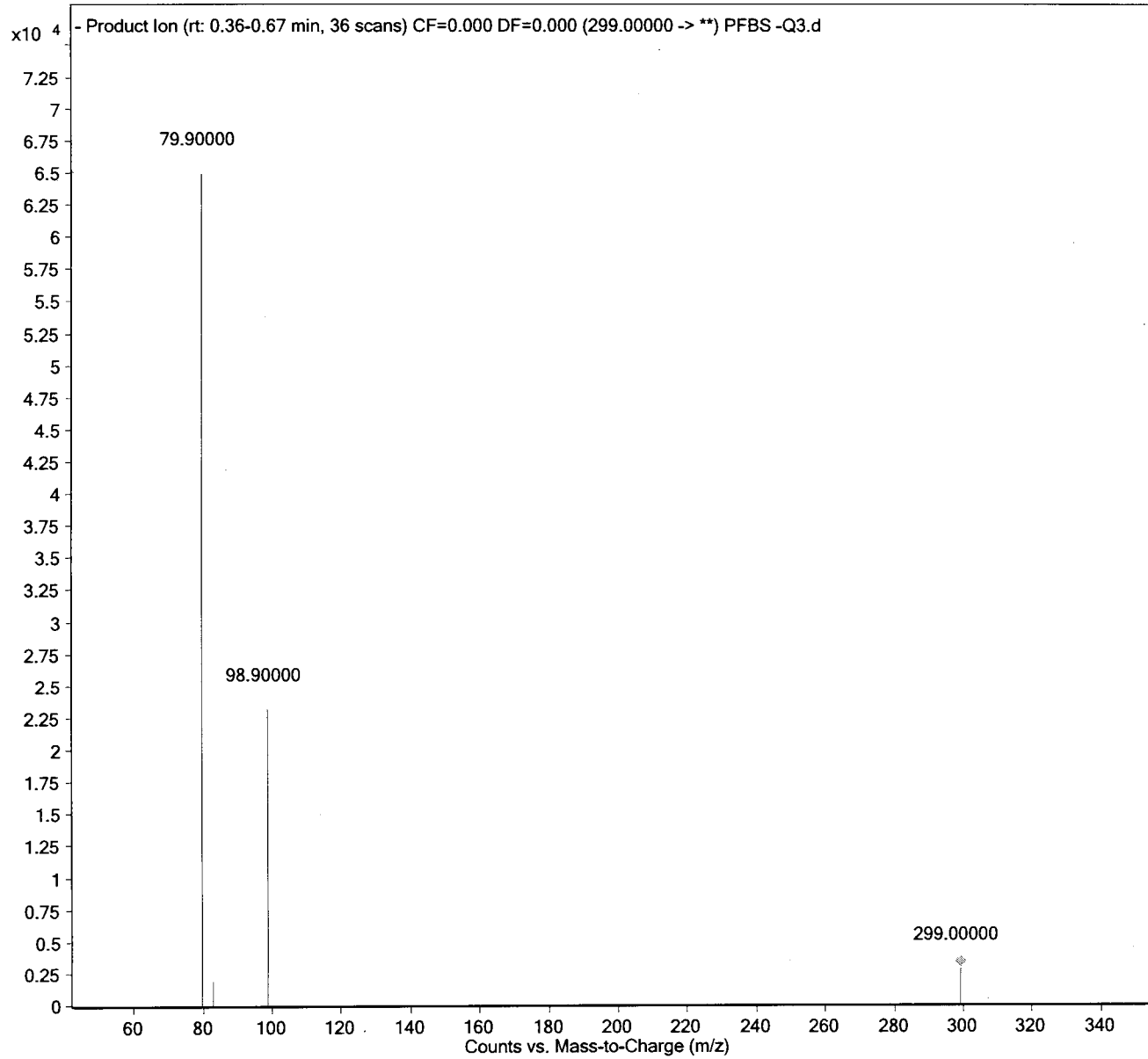
Position
Inj Vol
IRM Calibration Status
Comment

P1-A2
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFBS -Q3.d
2017/07/10 7:00:16 PM



Sample Name
User Name
Sample Type
ACQ Method

PFPeA -Q3
M_G
Sample
PFC_MassVerification-PFPeA-Q3.m

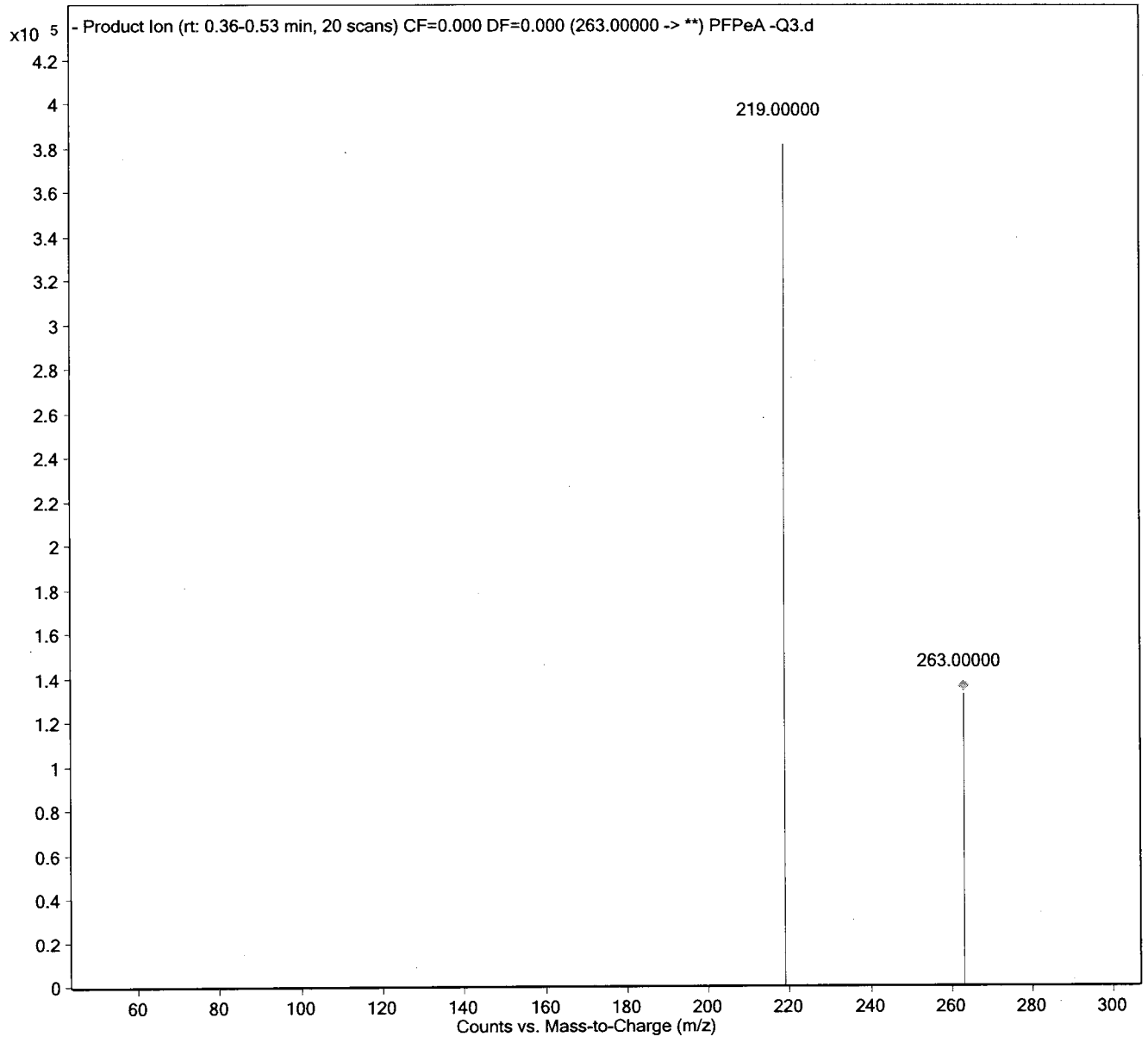
Position
Inj Vol
IRM Calibration Status
Comment

P1-A3
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFPeA -Q3.d
2017/07/10 7:05:46 PM



7:44am Analytics

482 of 744

Sample Name
User Name
Sample Type
Sample Method

PFHxA -Q3
M_G
Sample
PFC_MassVerification-PFHxA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

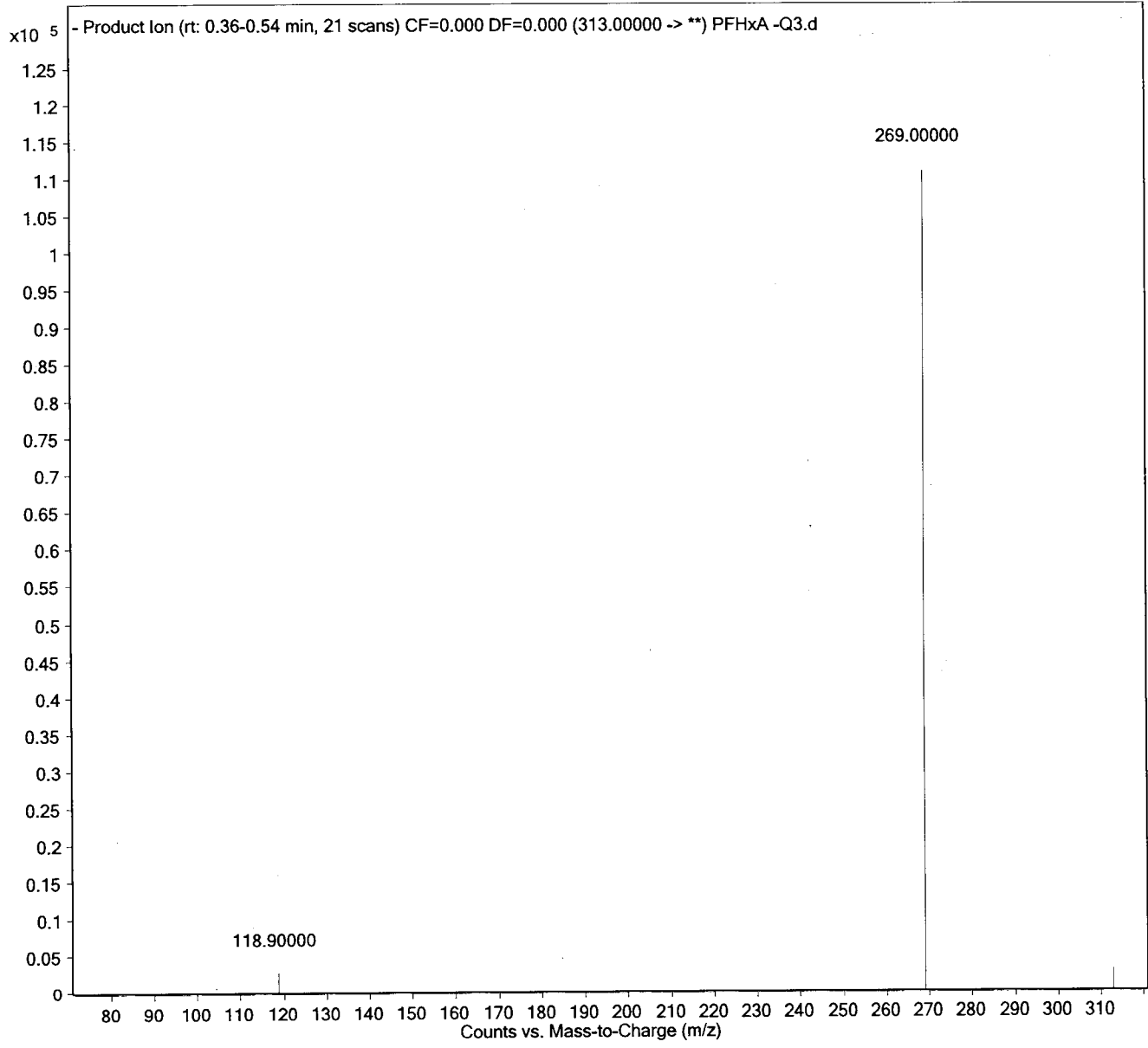
P1-A4
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFHxA -Q3.d
2017/07/10 7:11:16 PM

Maxam Analytics

483 of 744



Sample Name
User Name
Sample Type
CQ Method

PFHxS -Q3
M_G
Sample
PFC_MassVerification-PFHxS-Q3.m

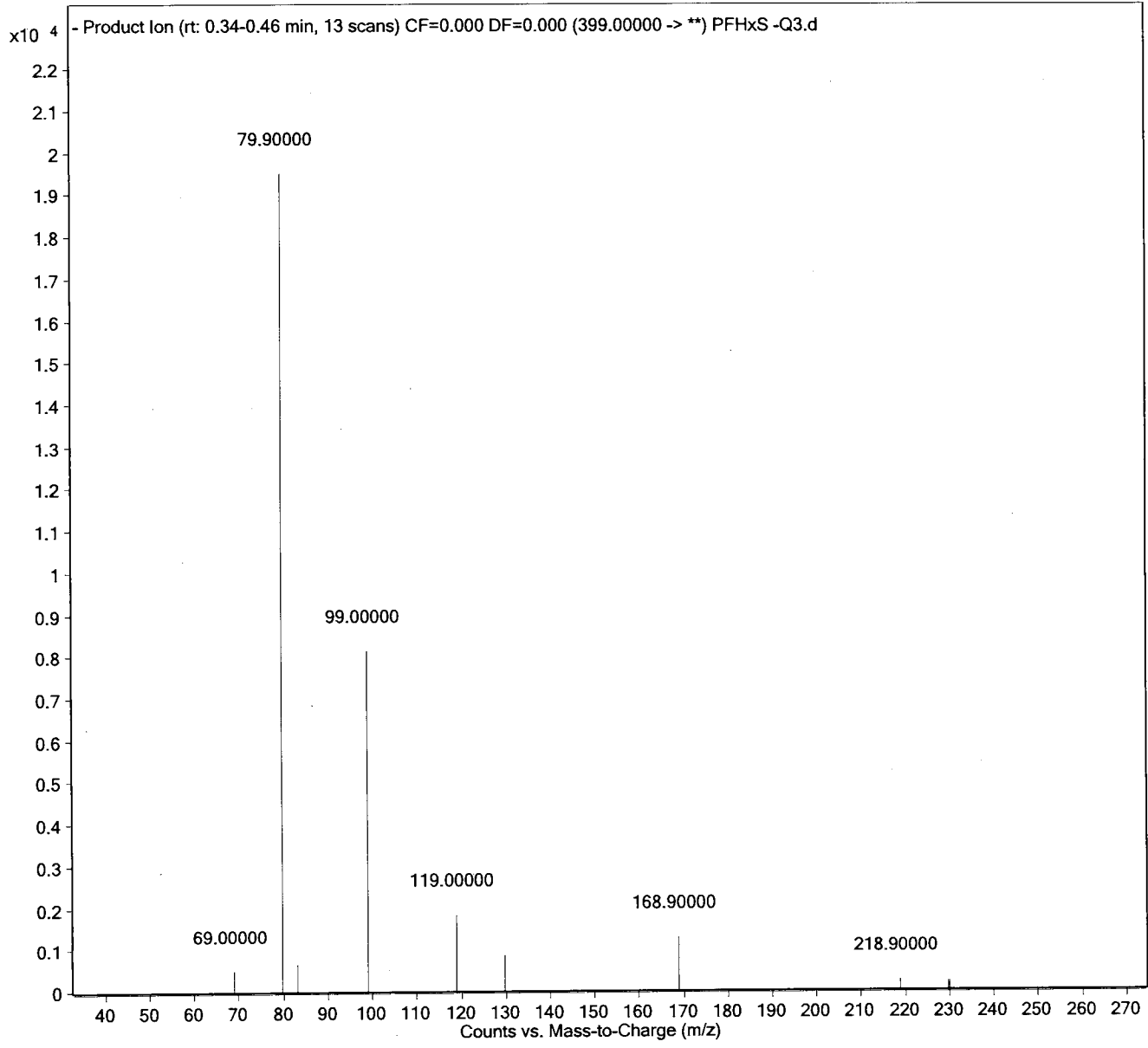
Position
Inj Vol
IRM Calibration Status
Comment

P1-A5
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFHxS -Q3.d
2017/07/10 7:16:46 PM



Sample Name
User Name
Sample Type
CQ Method

PFHpA-Q3
M_G
Sample
PFC_MassVerification-PFHpA-Q3.m

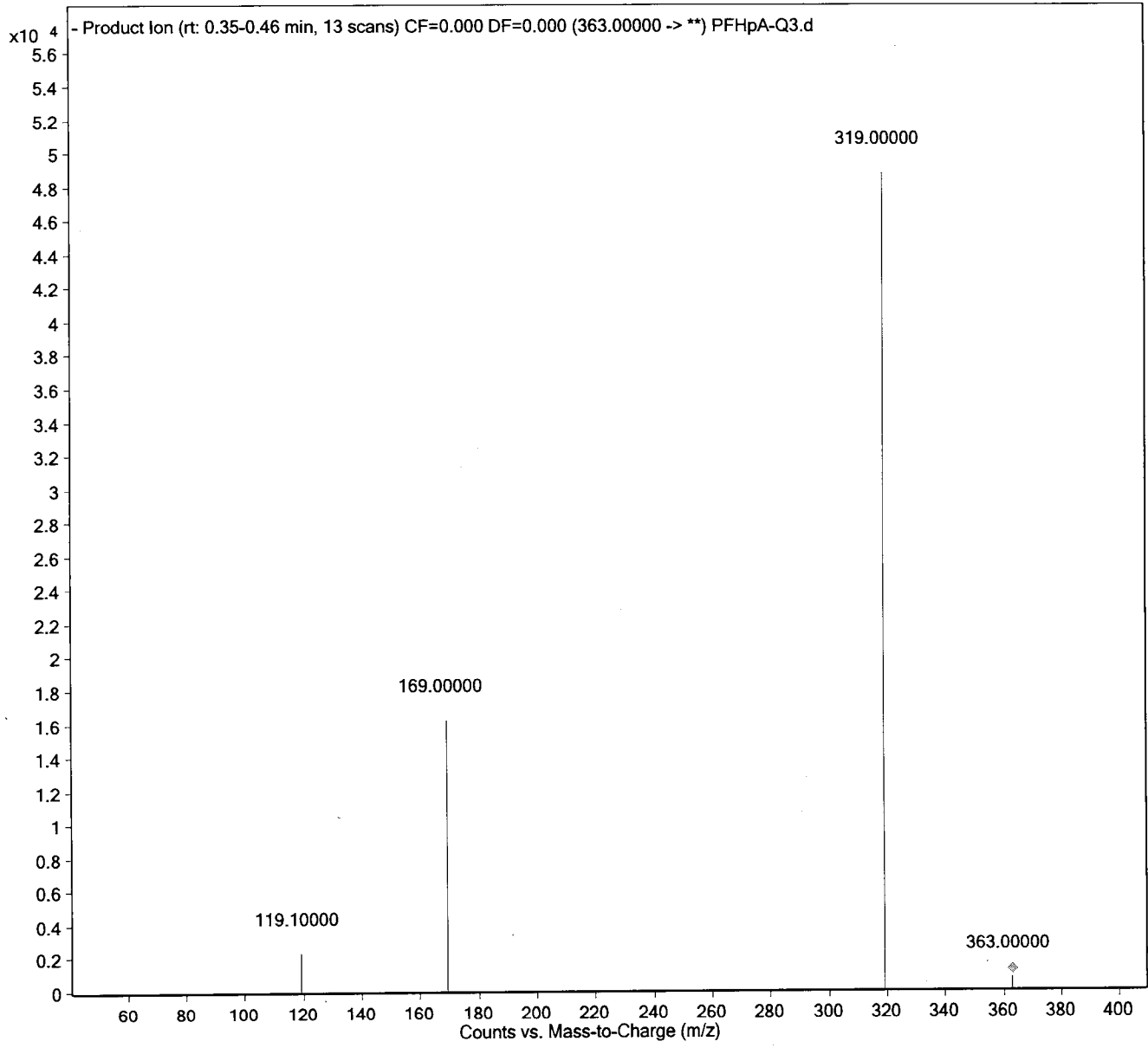
Position
Inj Vol
IRM Calibration Status
Comment

P1-A6
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFHpA-Q3.d
2017/07/10 7:22:16 PM



Sample Name
User Name
Sample Type
Sample Method

PFHpS-Q3
M_G
Sample
PFC_MassVerification-PFHpS-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

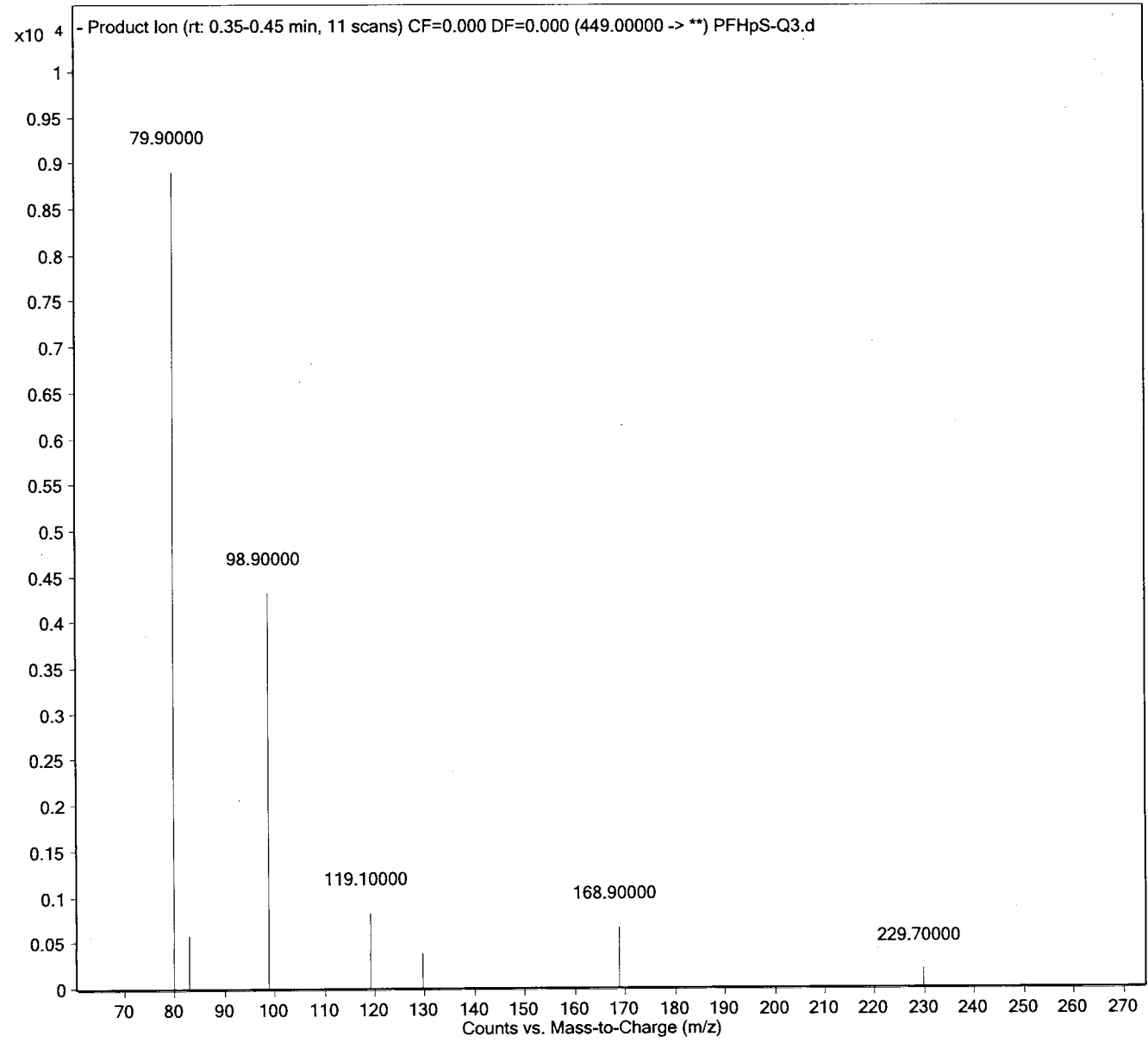
P1-A7
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFHpS-Q3.d
2017/07/10 7:27:47 PM

Maxam Analytics



486 of 744

Sample Name
User Name
Sample Type
CQ Method

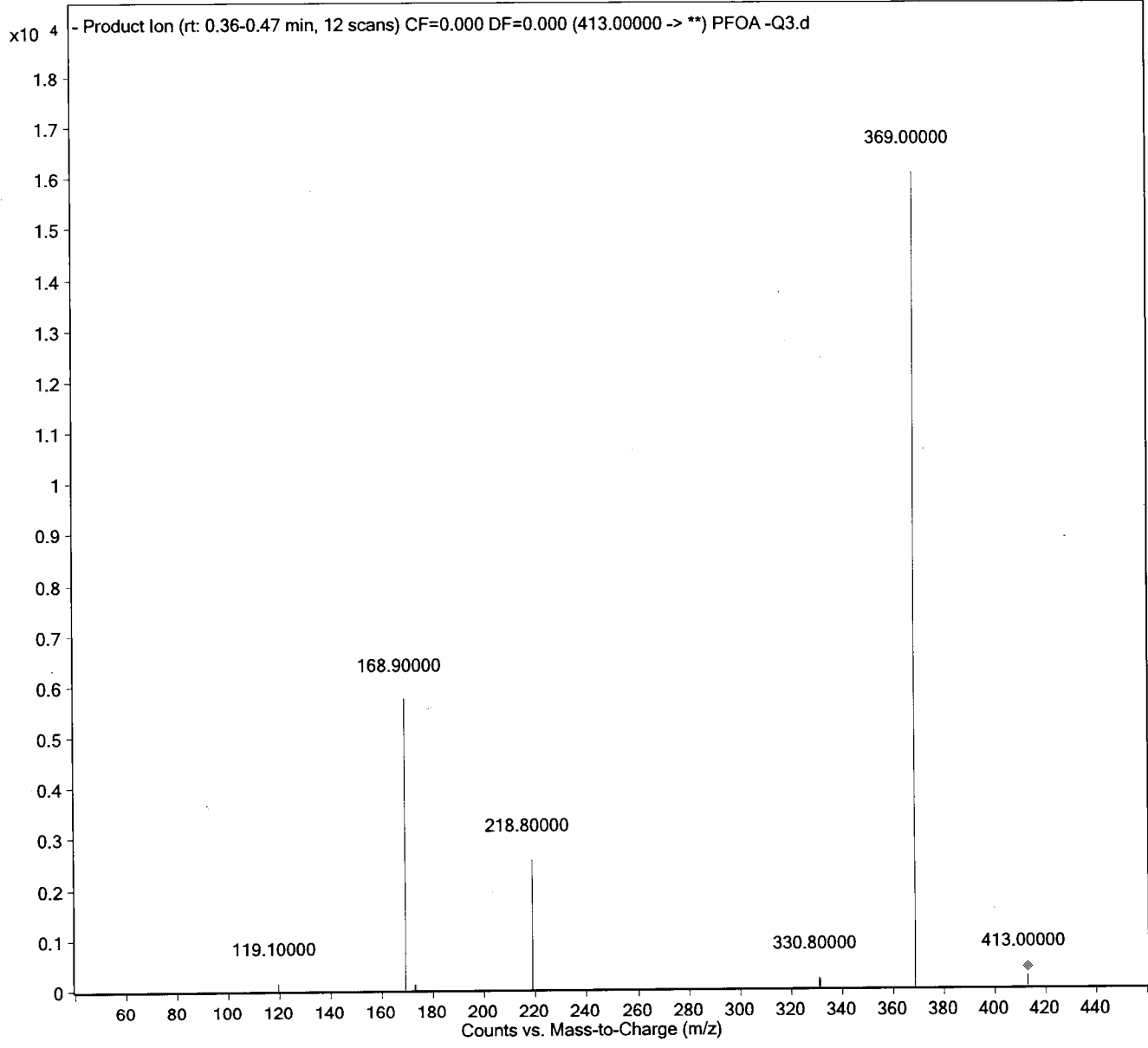
PFOA-Q3
M_G
Sample
PFC_MassVerification-PFOA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P1-A8
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFOA-Q3.d
2017/07/10 7:33:19 PM

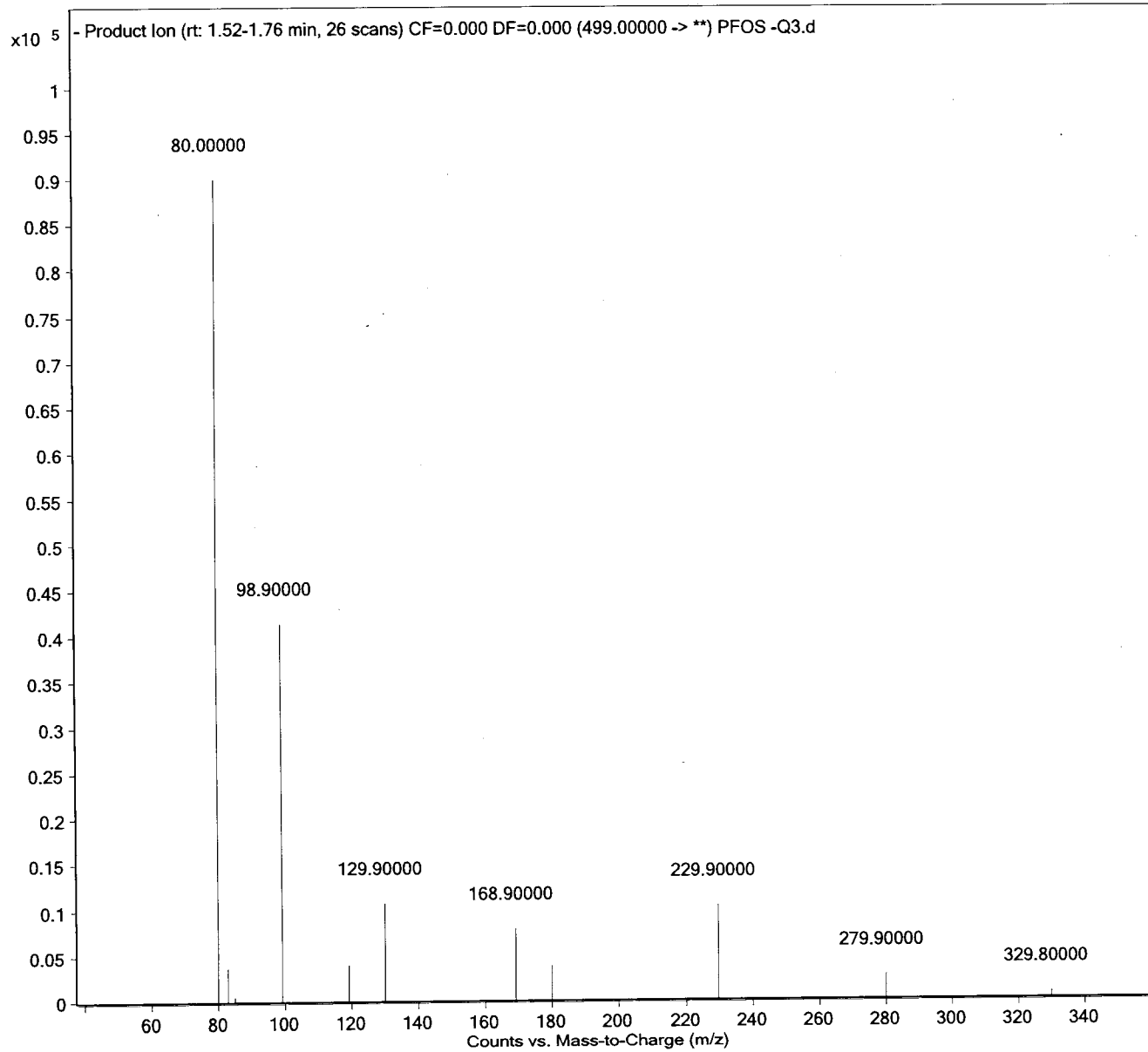


Sample Name
User Name
Sample Type
CQ Method

PFOS -Q3
M_G
Sample
PFC_MassVerification-PFOS-Q3.m

Position P1-A9
Inj Vol 10
IRM Calibration Status Not Applicable
Comment

Instrument Name LCMS04
InjPosition
Data Filename PFOS -Q3.d
Acquired Time 2017/07/10 7:38:51 PM



Sample Name
User Name
Sample Type
CQ Method

PFNA -Q3
M_G
Sample
PFC_MassVerification-PFNA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

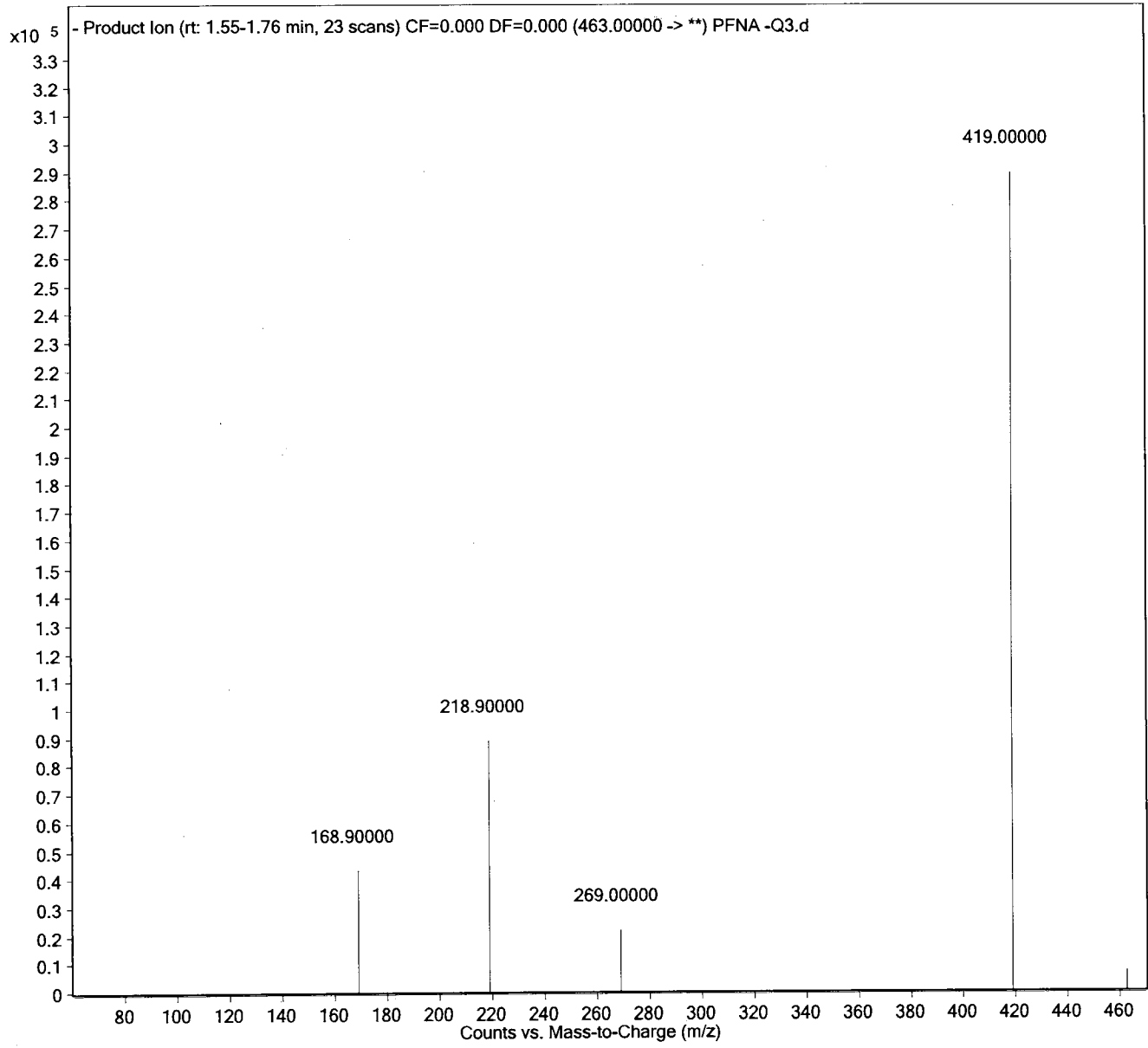
P1-B1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFNA -Q3.d
2017/07/10 7:44:22 PM

Maxam Analytics



Sample Name
User Name
Sample Type
CQ Method

PFDA -Q3
M_G
Sample
PFC_MassVerification-PFDA-Q3.m

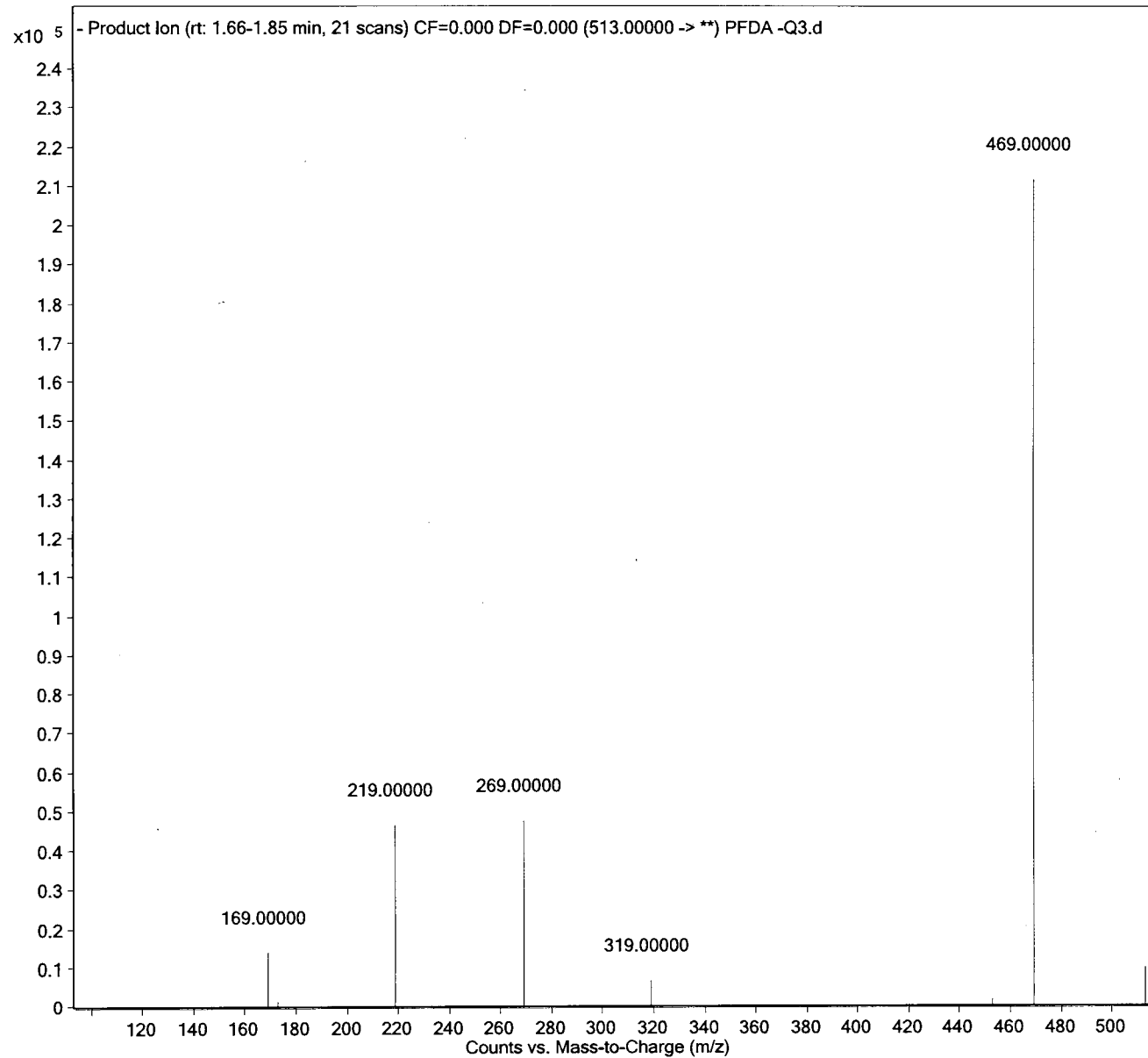
Position
Inj Vol
IRM Calibration Status
Comment

P1-B2
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFDA -Q3.d
2017/07/10 7:49:52 PM



Sample Name
User Name
Sample Type
CQ Method

PFDS-Q3
M_G
Sample
PFC_MassVerification-PFDS-Q3.m

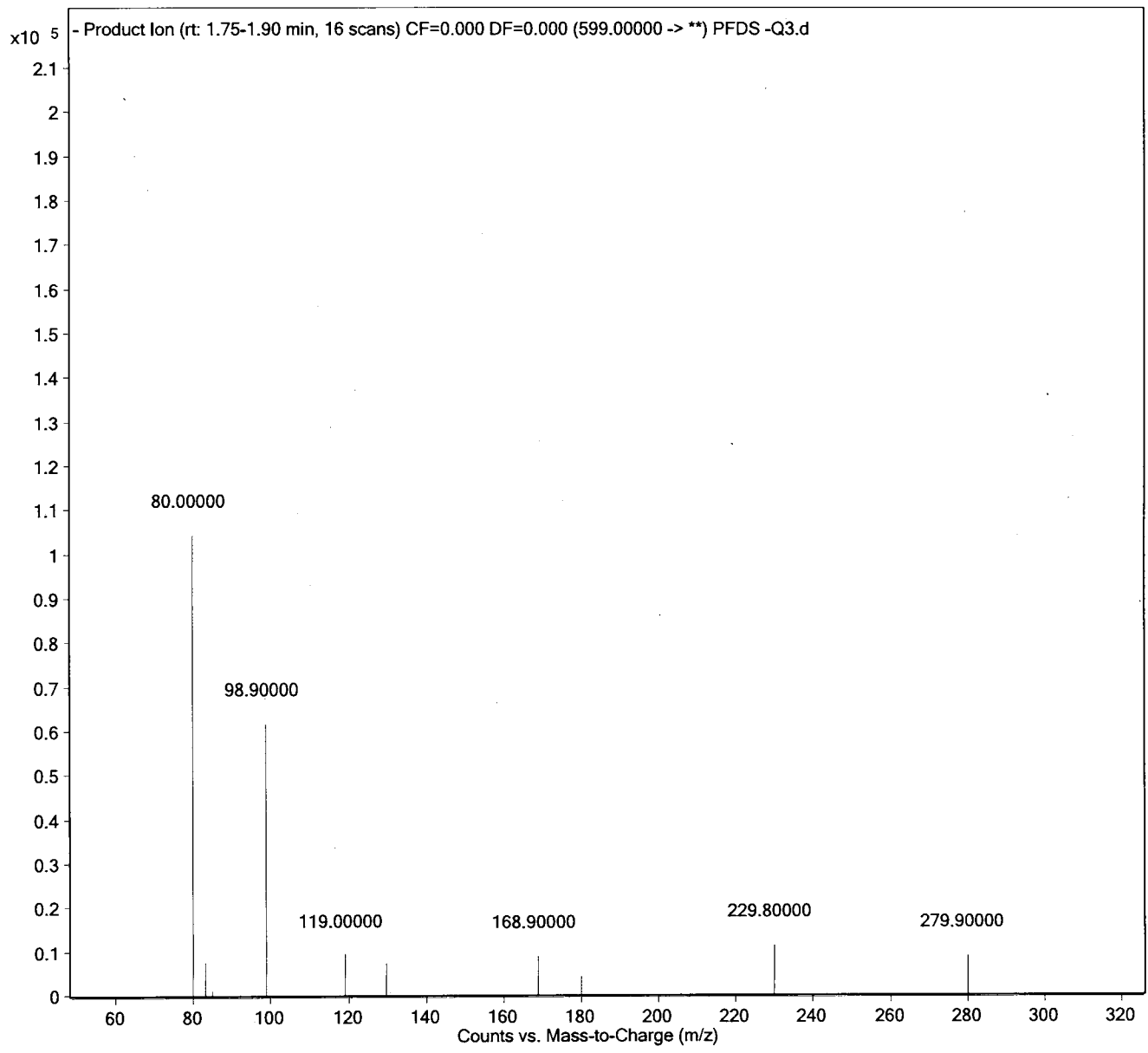
Position
Inj Vol
IRM Calibration Status
Comment

P1-B3
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFDS-Q3.d
2017/07/10 7:55:22 PM



Sample Name
User Name
Sample Type
CQ Method

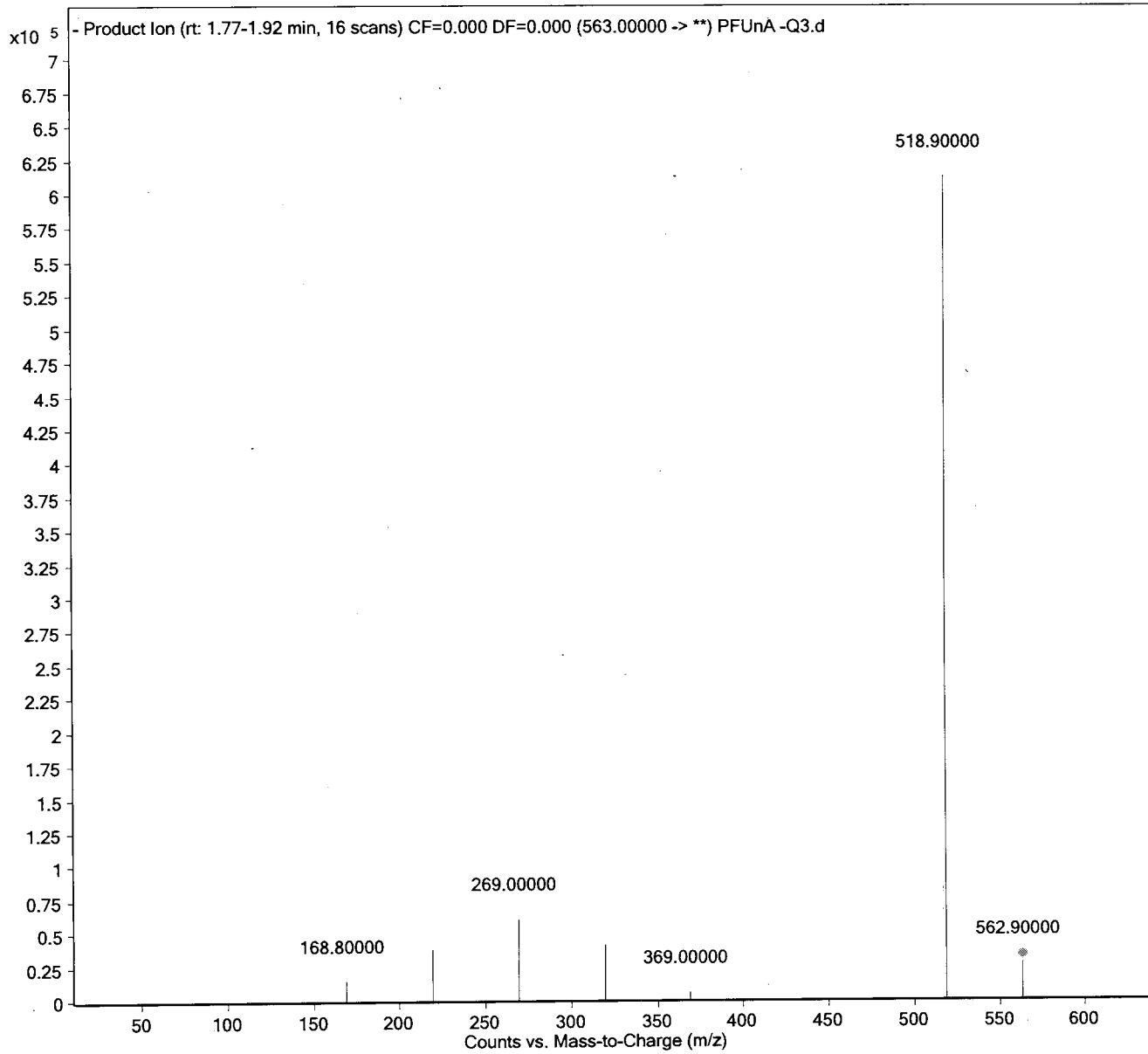
PFUnA -Q3
M_G
Sample
PFC_MassVerification-PFUnA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P1-B4
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFUnA -Q3.d
2017/07/10 8:00:52 PM



Sample Name
User Name
Sample Type
XQC Method

PFDoA -Q3
M_G
Sample
PFC_MassVerification-PFDoA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P1-B5
10
Not Applicable

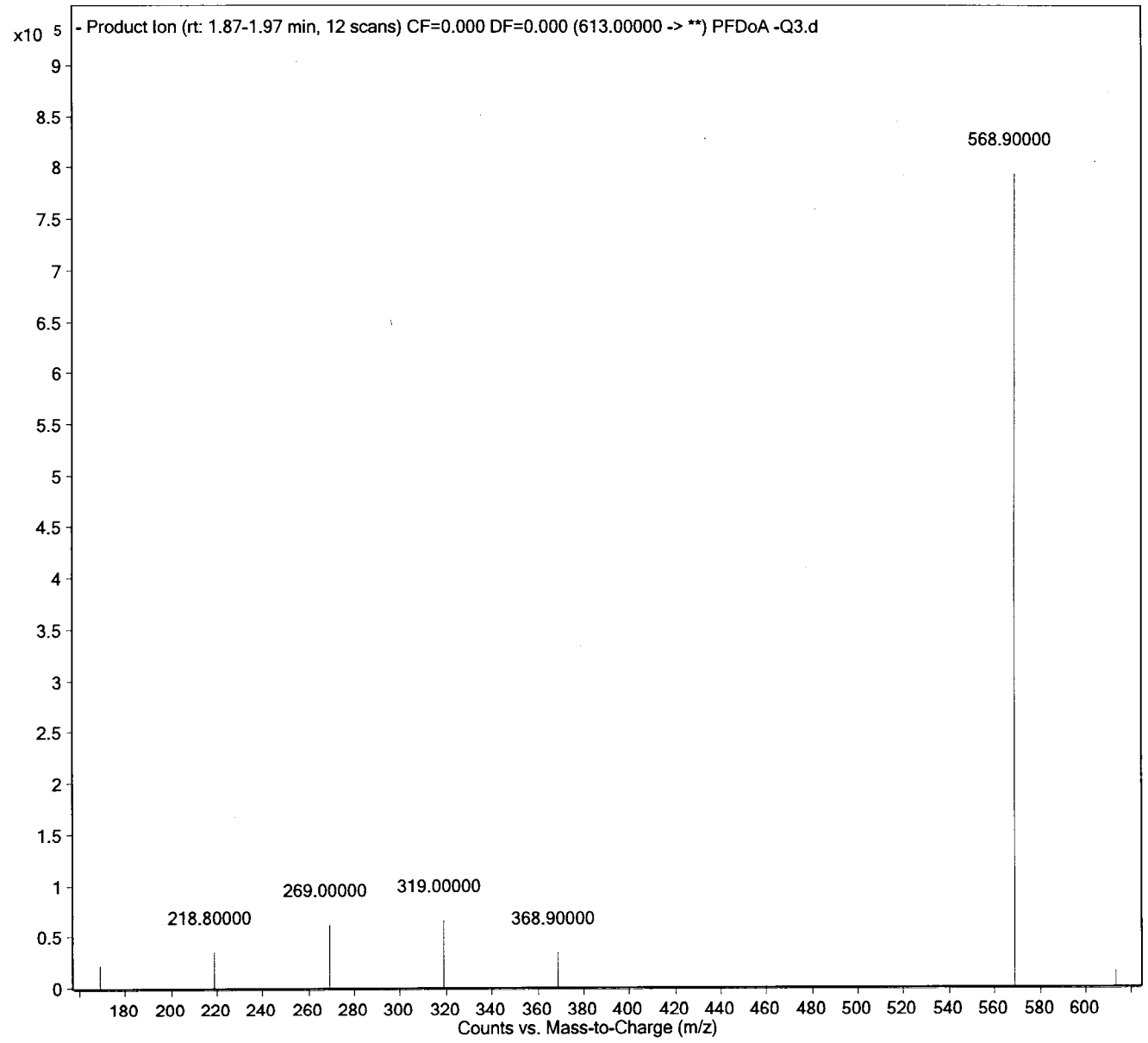
Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFDoA -Q3.d
2017/07/10 8:06:23 PM

Sanam Analytics

493 of 744



Sample Name
User Name
Sample Type
CQ Method

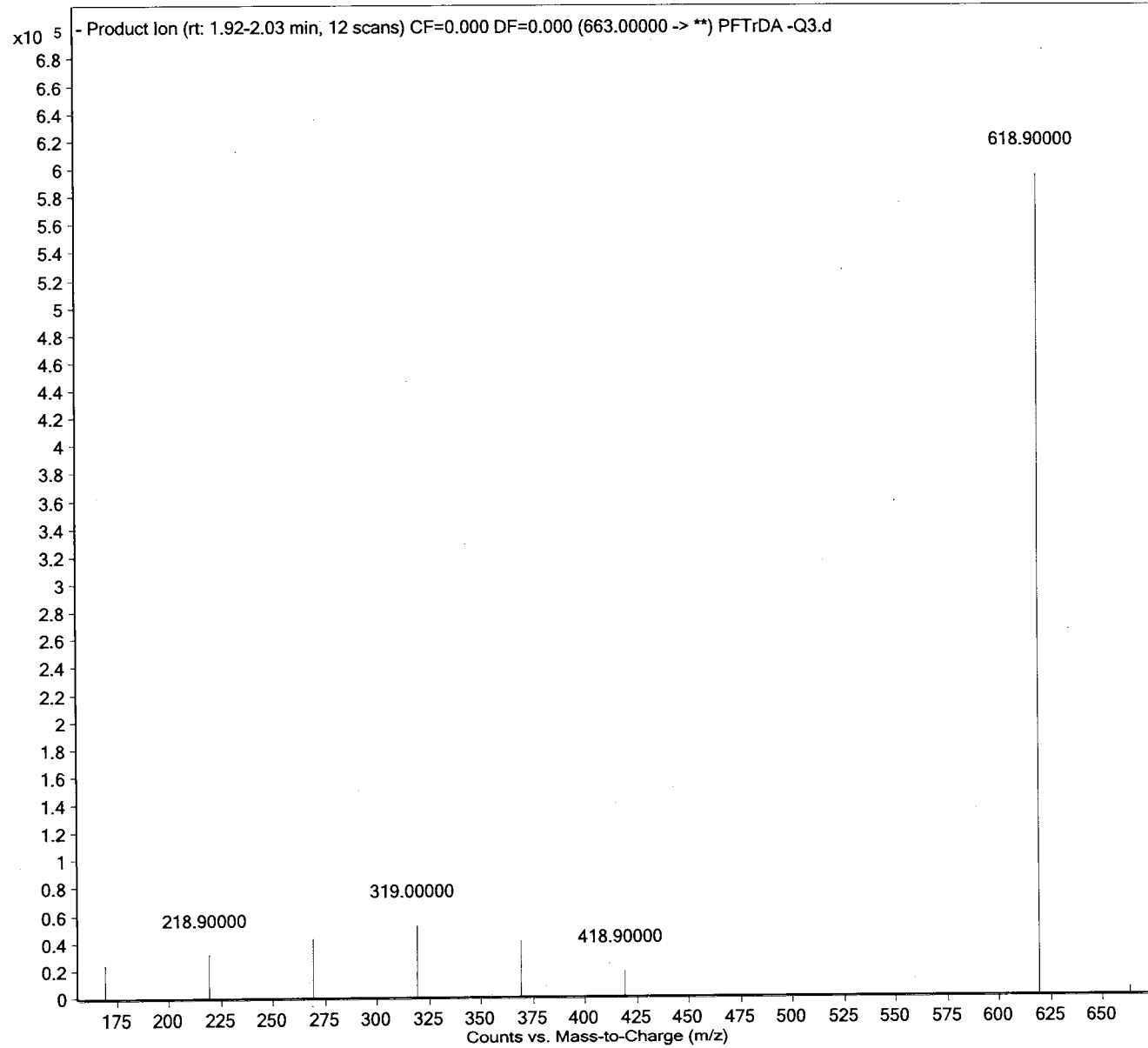
PFTTrDA -Q3
M_G
Sample
PFC_MassVerification-PFTTrDA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P1-B6
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
PFTTrDA -Q3.d
2017/07/10 8:11:53 PM



Sample Name
User Name
Sample Type
ACQ Method

PFTeDA -Q3
M_G
Sample
PFC_MassVerification-PFTeDA-Q3.m

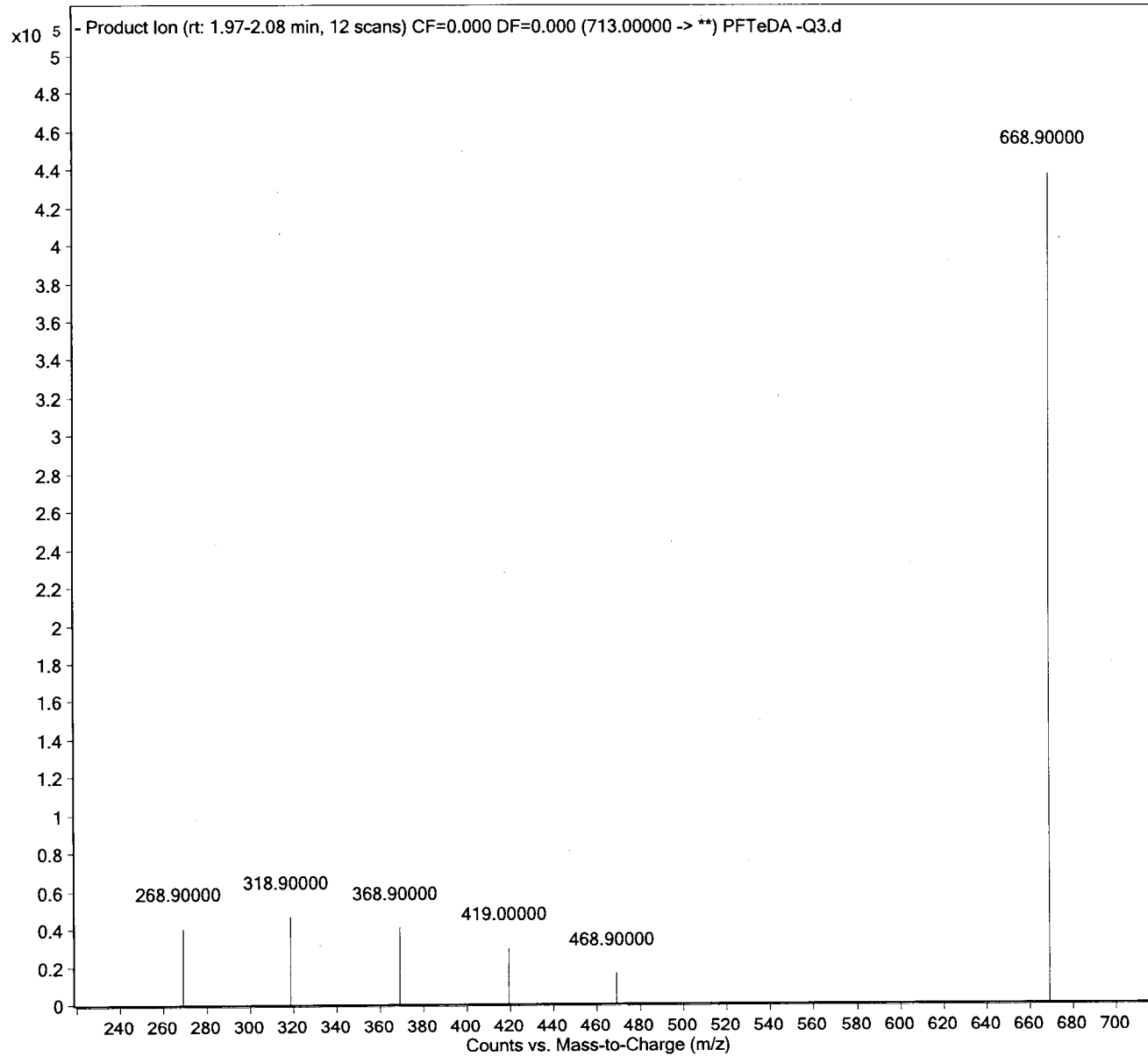
Position
Inj Vol
IRM Calibration Status
Comment

P1-B7
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFTeDA -Q3.d
2017/07/10 8:17:23 PM



Sample Name
User Name
Sample Type
CQ Method

PFOSA -Q3
M_G
Sample
PFC_MassVerification-PFOSA-Q3.m

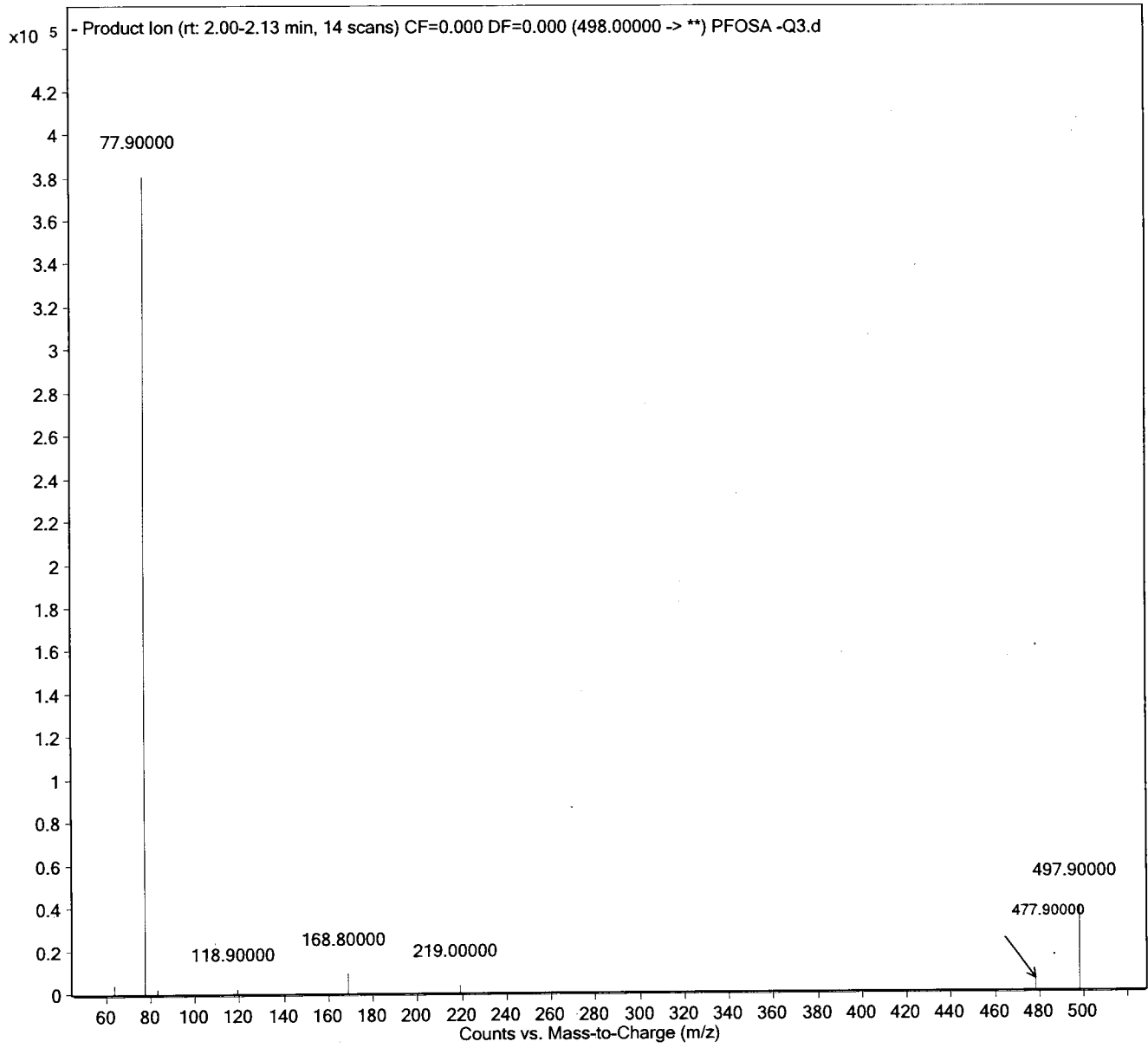
Position
Inj Vol
IRM Calibration Status
Comment

P1-B8
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

PFOSA -Q3.d
2017/07/10 8:22:55 PM



Sample Name
User Name
Sample Type
ACQ Method

MeFOSA -Q3
M_G
Sample
PFC_MassVerification-MeFOSA-Q3.m

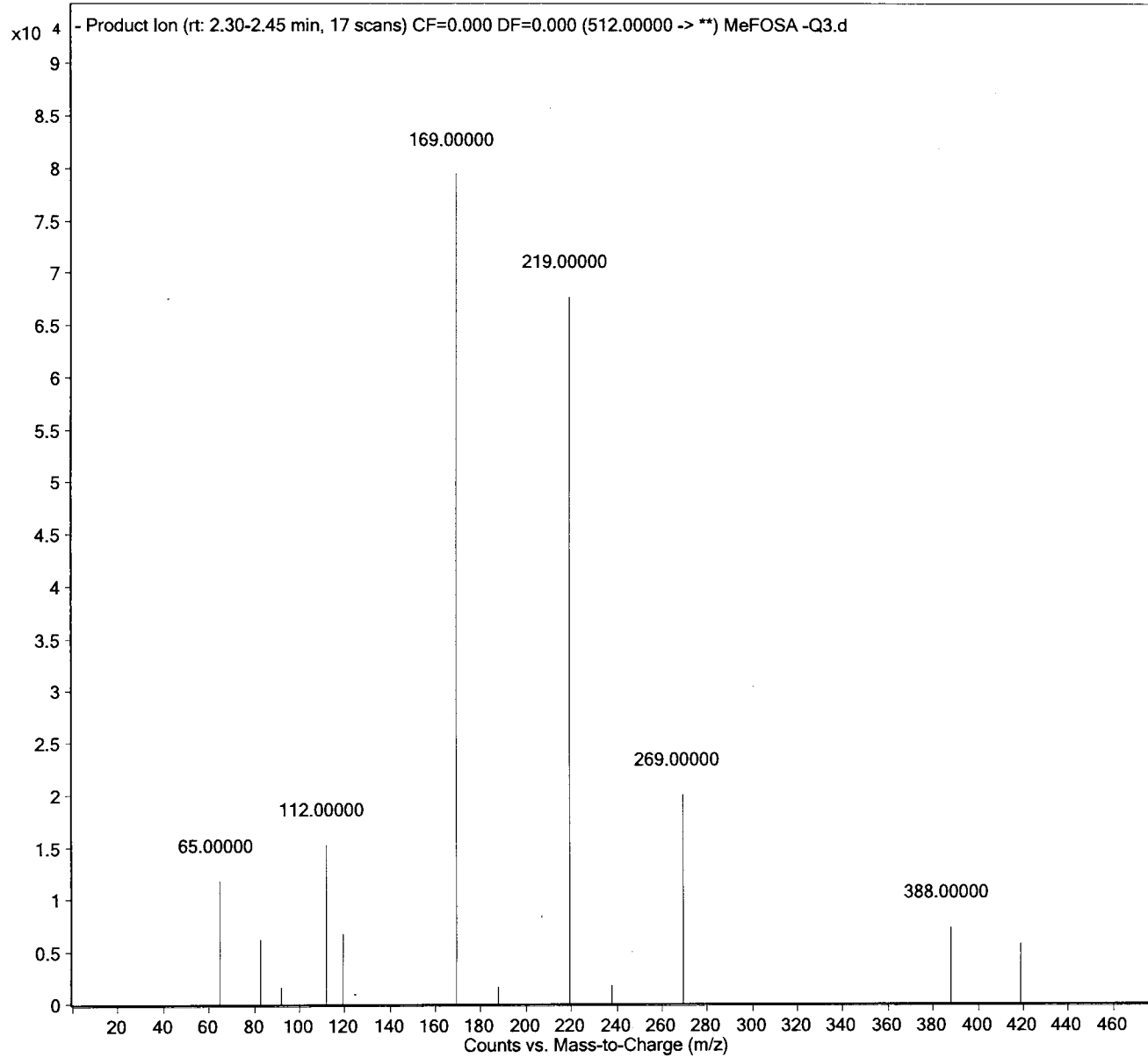
Position
Inj Vol
IRM Calibration Status
Comment

P1-B9
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MeFOSA -Q3.d
2017/07/10 8:28:25 PM



Sample Name
User Name
Sample Type
QC Method

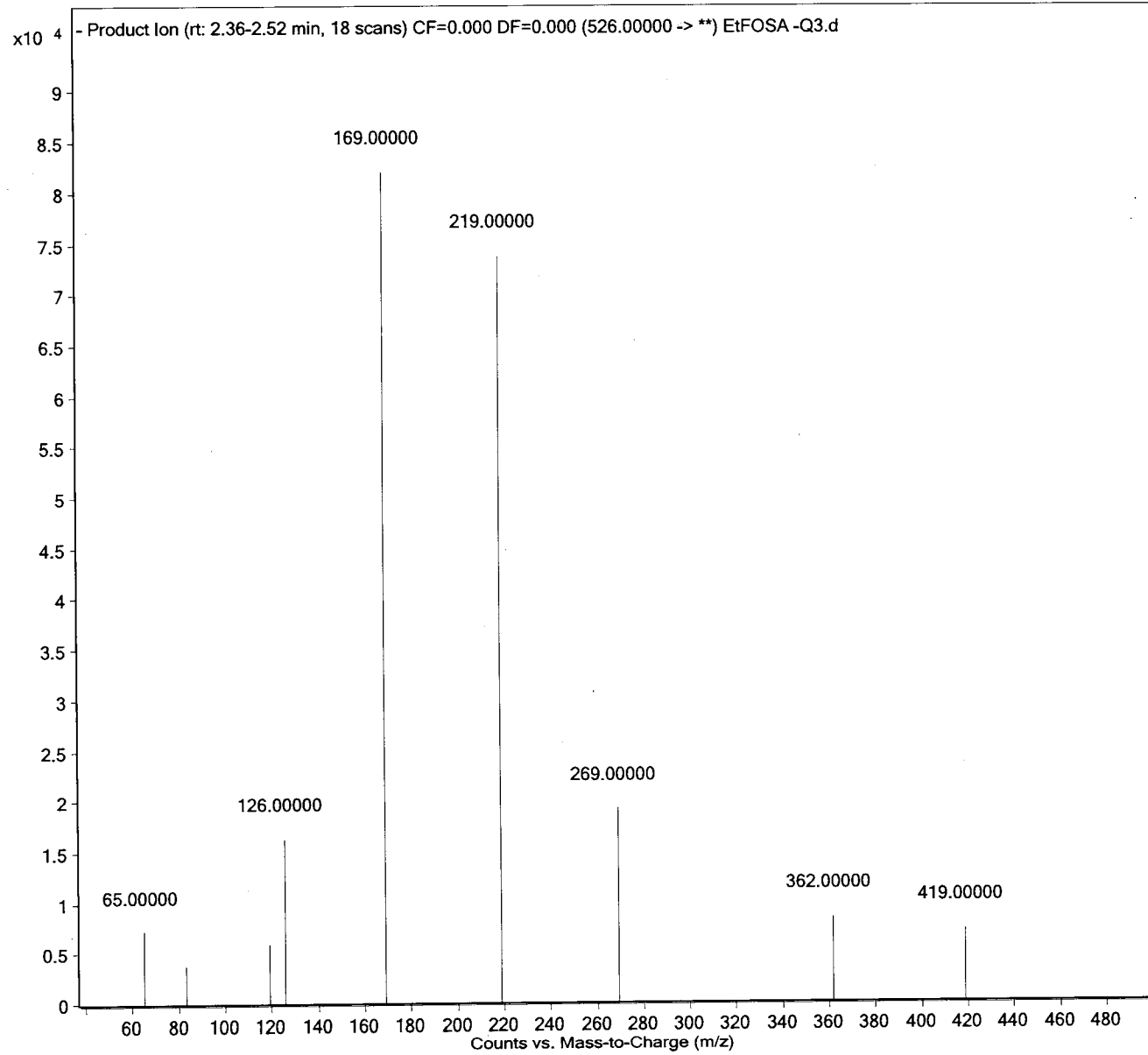
EtFOSA -Q3
M_G
Sample
PFC_MassVerification-EtFOSA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P1-C1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
EtFOSA -Q3.d
2017/07/10 8:33:57 PM



Sample Name
User Name
Sample Type
CQ Method

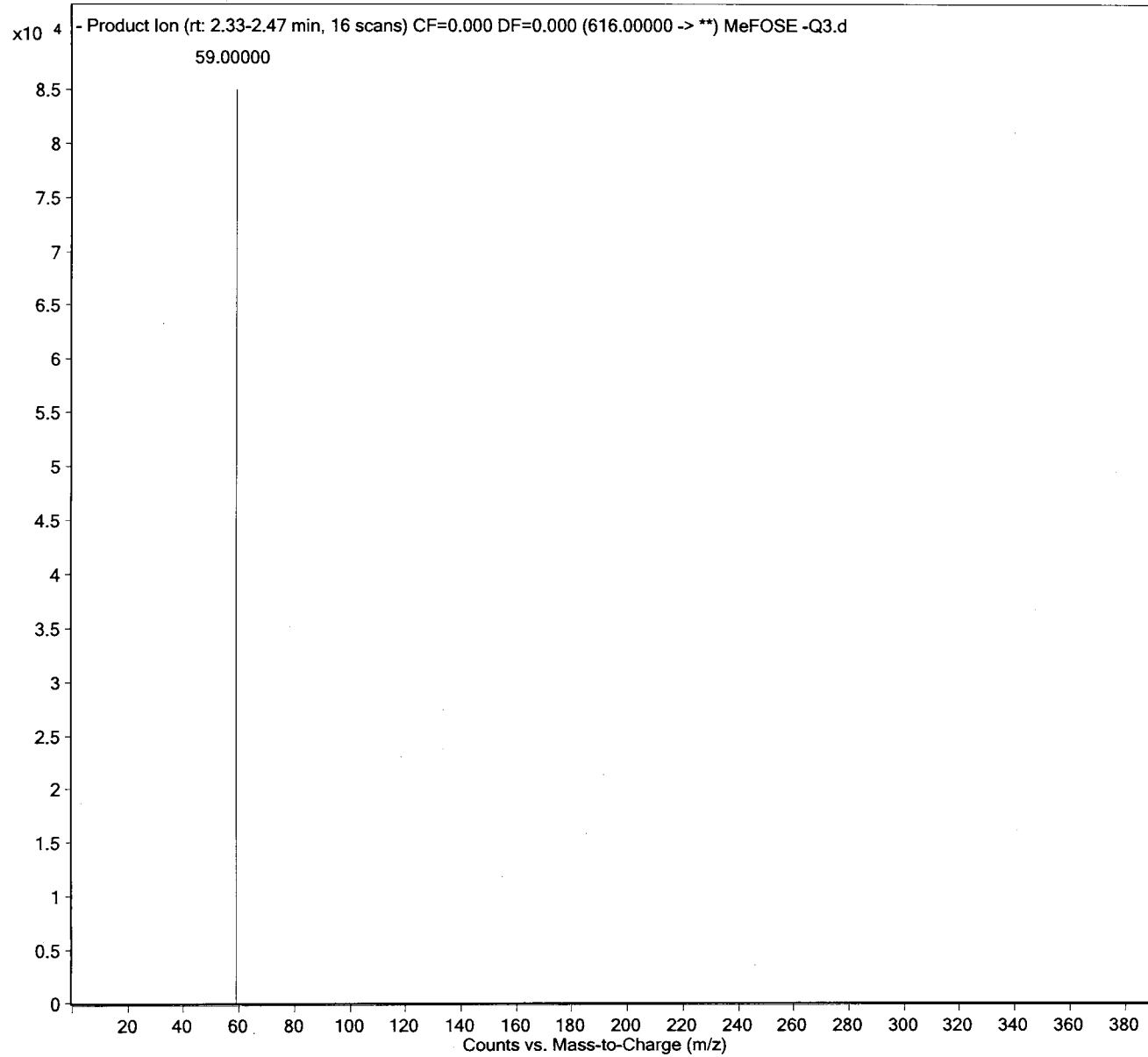
MeFOSE -Q3
M_G
Sample
PFC_MassVerification-MeFOSE-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P1-C2
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
10
MeFOSE -Q3.d
2017/07/10 8:39:26 PM



Sample Name
User Name
Sample Type
ACQ Method

EtFOSE -Q3
M_G
Sample
PFC_MassVerification-EtFOSE-Q3.m

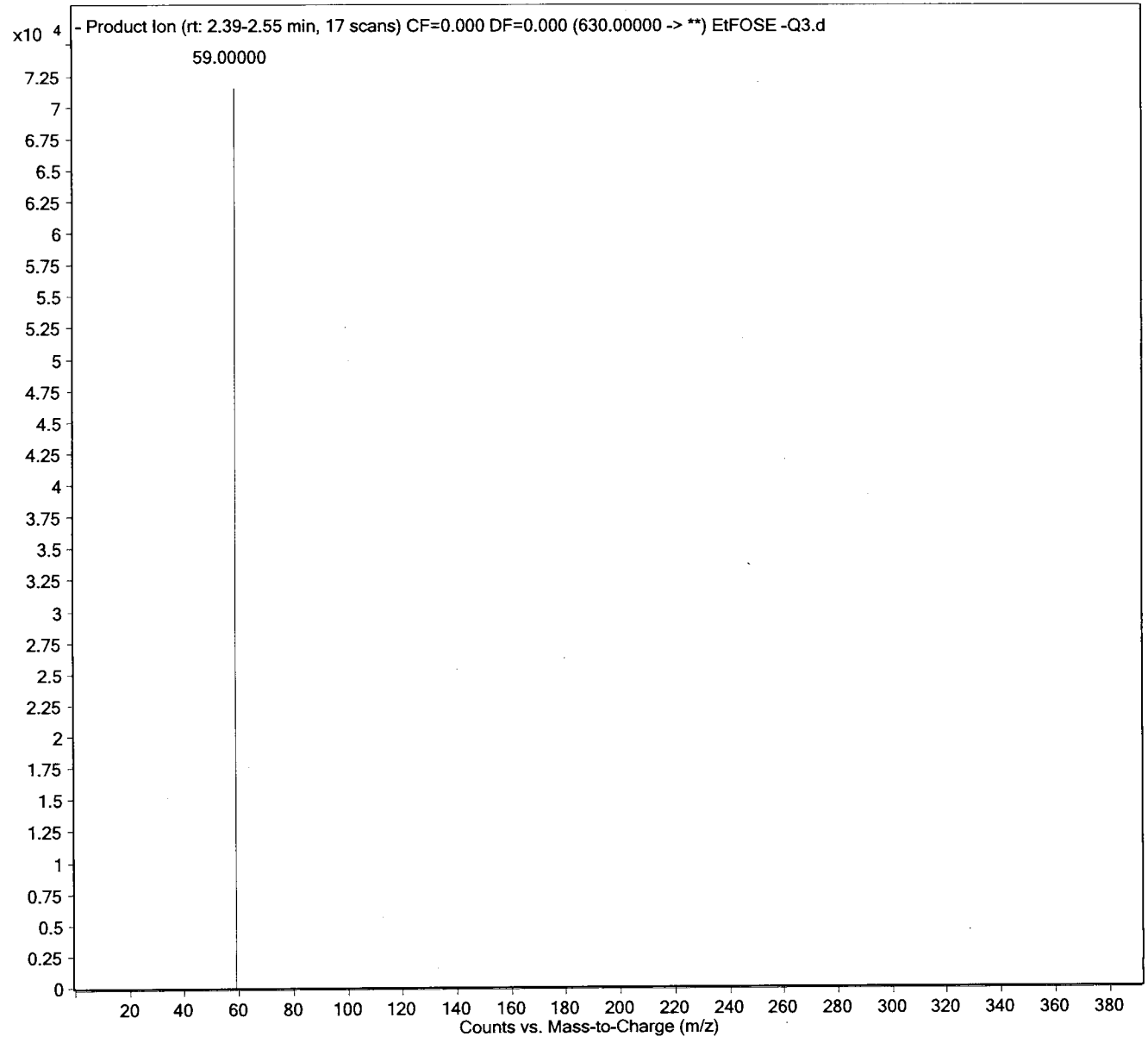
Position
Inj Vol
IRM Calibration Status
Comment

P1-C3
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
EtFOSE -Q3.d
2017/07/10 8:44:57 PM

5000000
744
Analytix



500 of 744

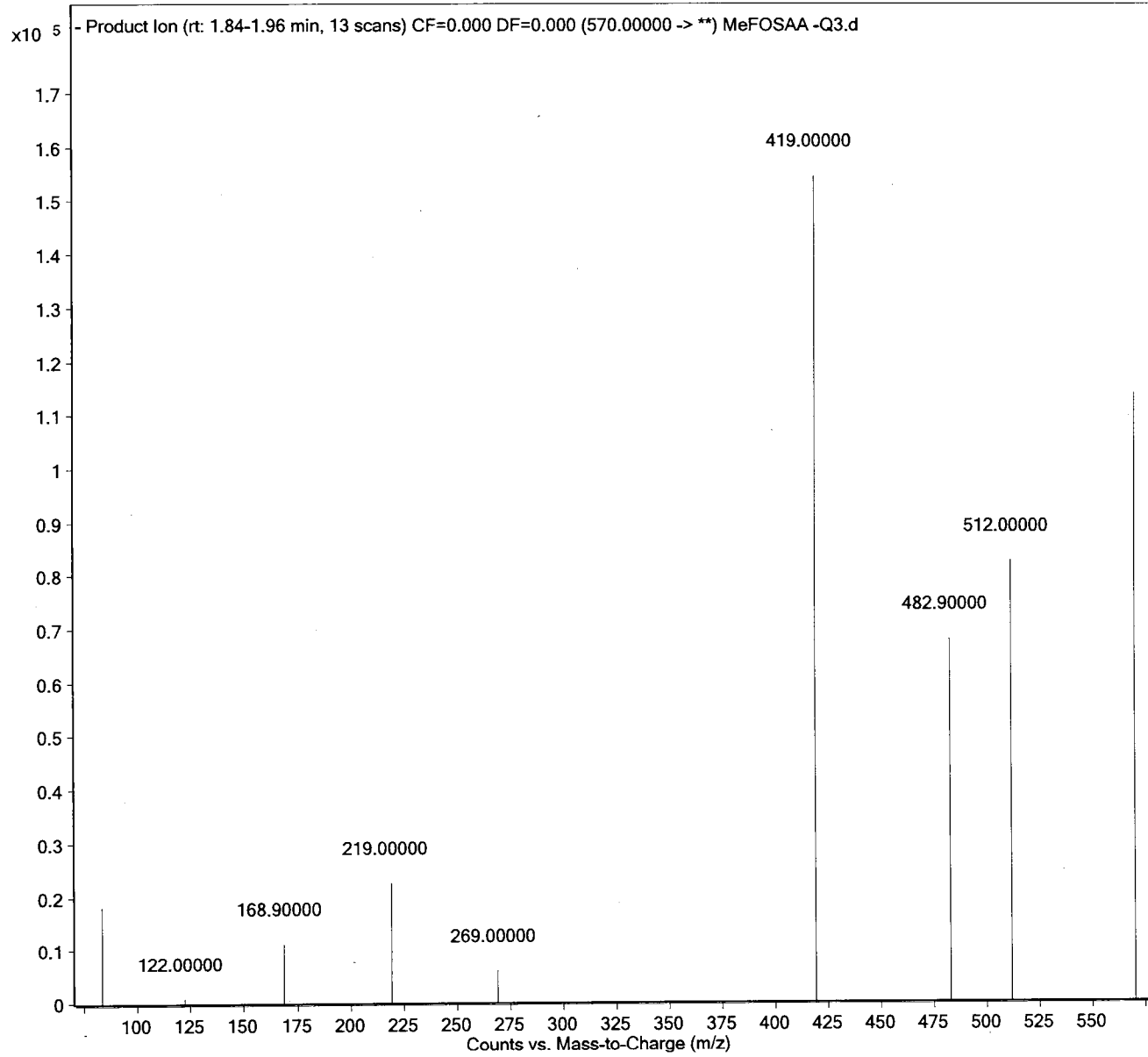
Sample Name
User Name
Sample Type
ACQ Method

MeFOSAA -Q3
M_G
Sample
PFC_MassVerification-MeFOSAA-Q3.m

Position P1-C4
Inj Vol 10
IRM Calibration Status Not Applicable
Comment

Instrument Name LCMS04
InjPosition
Data Filename MeFOSAA -Q3.d
Acquired Time 2017/07/10 8:50:27 PM

Maxam Analytics



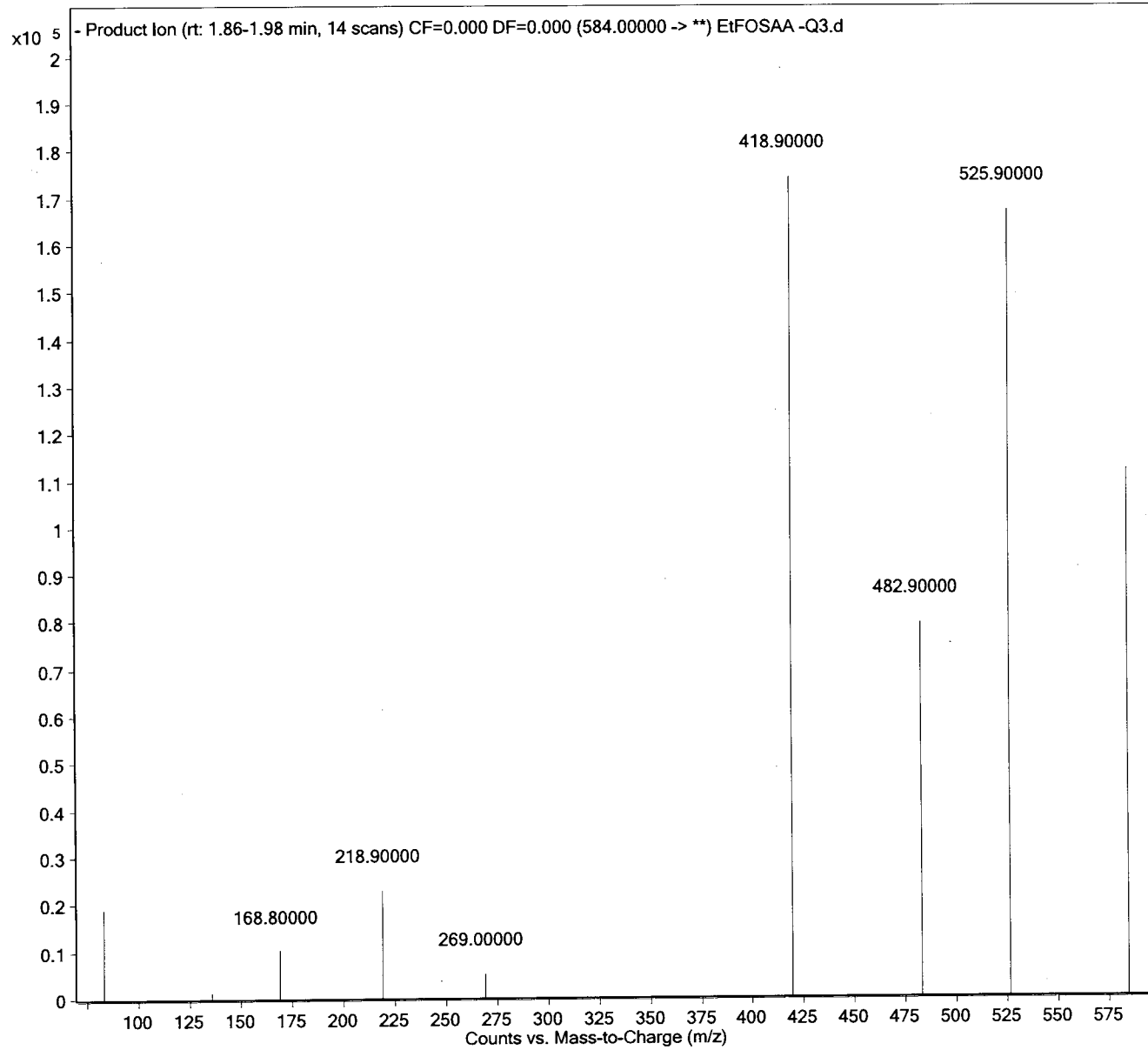
501 of 744

Sample Name
User Name
Sample Type
QC Method

EtFOSAA -Q3
M_G
Sample
PFC_MassVerification-EtFOSAA-Q3.m

Position P1-C5
Inj Vol 10
IRM Calibration Status Not Applicable
Comment

Instrument Name LCMS04
InjPosition
Data Filename EtFOSAA -Q3.d
Acquired Time 2017/07/10 8:55:57 PM



Sample Name
User Name
Sample Type
Sample Method

6:2FTS-Q3
M_G
Sample
PFC_MassVerification-6-2FTS-Q3.m

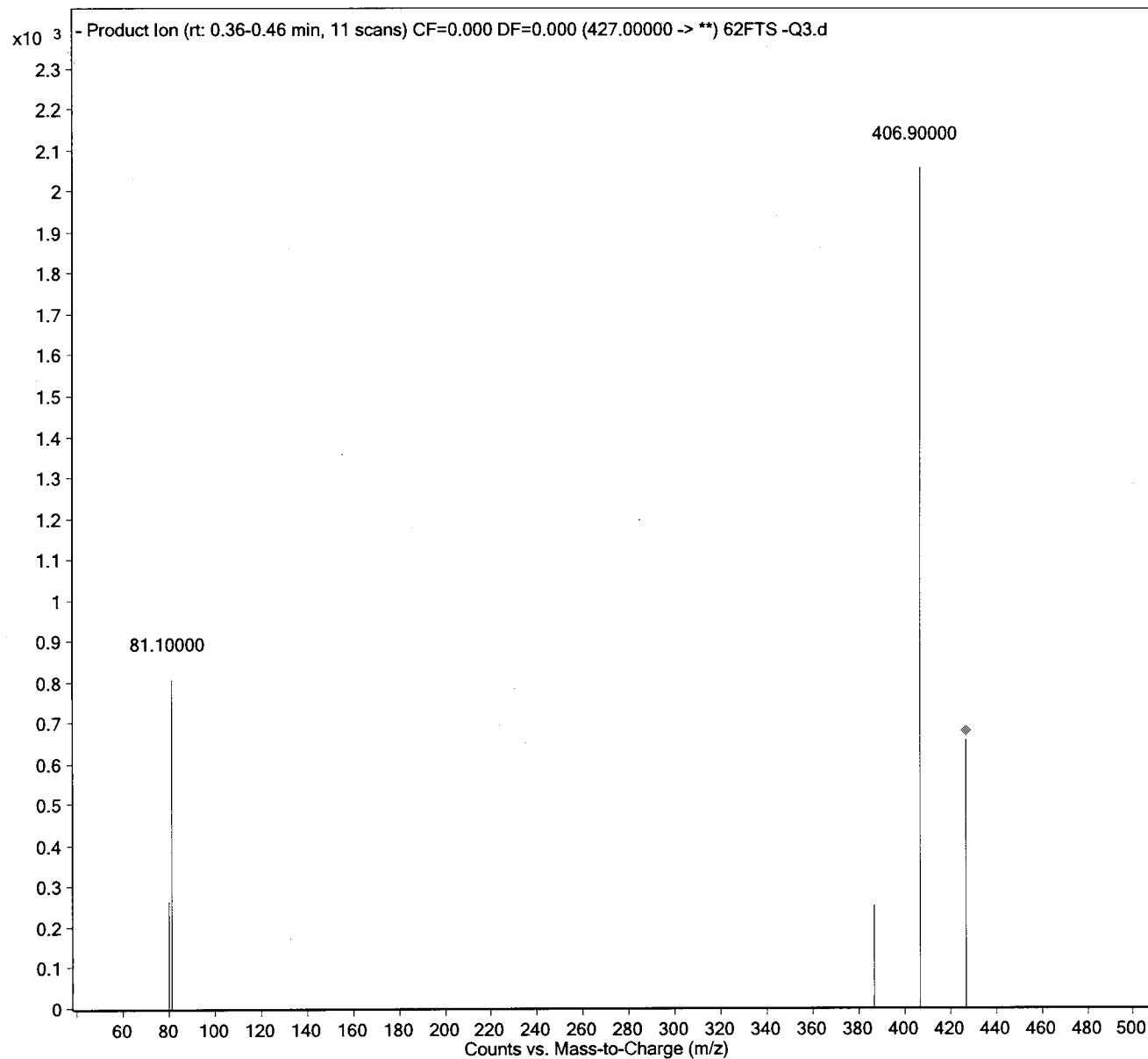
Position
Inj Vol
IRM Calibration Status
Comment

P1-C6
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

62FTS-Q3.d
2017/07/10 9:01:27 PM

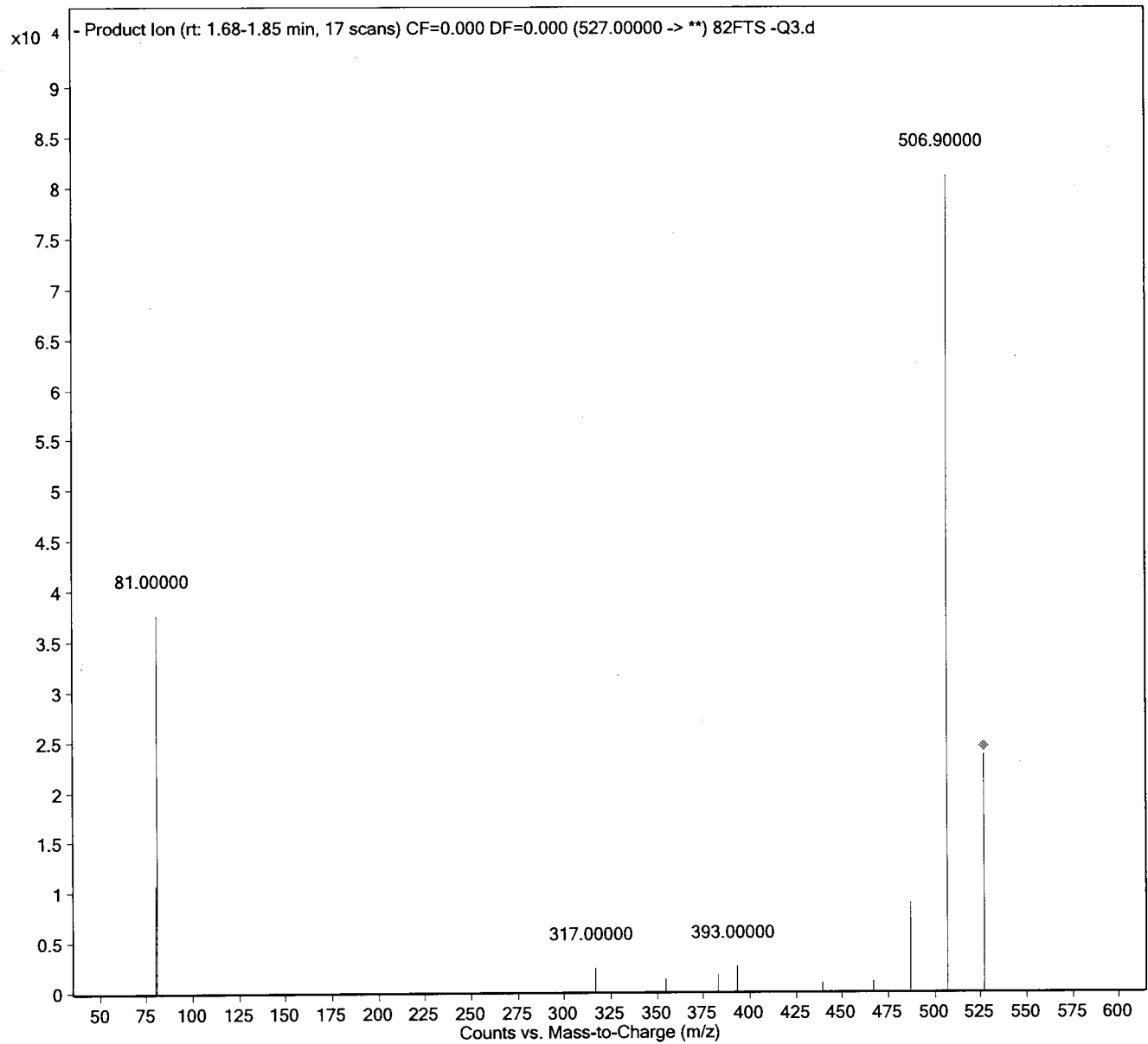


Sample Name
User Name
Sample Type
CQ Method

8:2FTS -Q3
M_G
Sample
PFC_MassVerification-8-2FTS-Q3.m

Position P1-C7
Inj Vol 10
IRM Calibration Status Not Applicable
Comment

Instrument Name LCMS04
InjPosition
Data Filename 82FTS -Q3.d
Acquired Time 2017/07/10 9:06:57 PM



Worklist Report



Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFAS_MASSVER_170710_Q3.wkl

Operator Name: M_G
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\Mass Verification\20170710_Q3
Pre-Worklist Script: ---
Post-Worklist Script: ---
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: ---

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
1	PFBA -Q3	P1-A1	PFC_MassVerificatio n-PFBA-Q3.m	PFBA -Q3.d	Sample	As Method	PFAS-Q3
2	PFBS -Q3	P1-A2	PFC_MassVerificatio n-PFBS-Q3.m	PFBS -Q3.d	Sample	As Method	PFAS-Q3
3	PFPeA -Q3	P1-A3	PFC_MassVerificatio n-PFPeA-Q3.m	PFPeA -Q3.d	Sample	As Method	PFAS-Q3
4	PFHxA -Q3	P1-A4	PFC_MassVerificatio n-PFHxA-Q3.m	PFHxA -Q3.d	Sample	As Method	PFAS-Q3
5	PFHxS -Q3	P1-A5	PFC_MassVerificatio n-PFHxS-Q3.m	PFHxS -Q3.d	Sample	As Method	PFAS-Q3
6	PFHpA -Q3	P1-A6	PFC_MassVerificatio n-PFHpA-Q3.m	PFHpA -Q3.d	Sample	As Method	PFAS-Q3
7	PFHpS -Q3	P1-A7	PFC_MassVerificatio n-PFHpS-Q3.m	PFHpS -Q3.d	Sample	As Method	PFAS-Q3
8	PFOA -Q3	P1-A8	PFC_MassVerificatio n-PFOA-Q3.m	PFOA -Q3.d	Sample	As Method	PFAS-Q3
9	PFOS -Q3	P1-A9	PFC_MassVerificatio n-PFOS-Q3.m	PFOS -Q3.d	Sample	As Method	PFAS-Q3

D:\MassHunter\Worklists\PFCs\PFAS_MASSVER_170710_Q3.wkl

Worklist Report



Maximum Analytes

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
10	PFNA -Q3	P1-B1	PFC_MassVerificatio n-PFNA-Q3.m	PFNA -Q3.d	Sample	As Method	PFAS-Q3
11	PFDA -Q3	P1-B2	PFC_MassVerificatio n-PFDA-Q3.m	PFDA -Q3.d	Sample	As Method	PFAS-Q3
12	PFDS -Q3	P1-B3	PFC_MassVerificatio n-PFDS-Q3.m	PFDS -Q3.d	Sample	As Method	PFAS-Q3
13	PFUnA -Q3	P1-B4	PFC_MassVerificatio n-PFUnA-Q3.m	PFUnA -Q3.d	Sample	As Method	PFAS-Q3
14	PFDoA -Q3	P1-B5	PFC_MassVerificatio n-PFDoA-Q3.m	PFDoA -Q3.d	Sample	As Method	PFAS-Q3
15	PFTTrDA -Q3	P1-B6	PFC_MassVerificatio n-PFTTrDA-Q3.m	PFTTrDA -Q3.d	Sample	As Method	PFAS-Q3
16	PFTeDA -Q3	P1-B7	PFC_MassVerificatio n-PFTeDA-Q3.m	PFTeDA -Q3.d	Sample	As Method	PFAS-Q3
17	PFOSA -Q3	P1-B8	PFC_MassVerificatio n-PFOSA-Q3.m	PFOSA -Q3.d	Sample	As Method	PFAS-Q3
18	MeFOSA -Q3	P1-B9	PFC_MassVerificatio n-MeFOSA-Q3.m	MeFOSA -Q3.d	Sample	As Method	PFAS-Q3
19	EtFOSA -Q3	P1-C1	PFC_MassVerificatio n-EtFOSA-Q3.m	EtFOSA -Q3.d	Sample	As Method	PFAS-Q3
20	MeFOSE -Q3	P1-C2	PFC_MassVerificatio n-MeFOSE-Q3.m	MeFOSE -Q3.d	Sample	As Method	PFAS-Q3
21	EtFOSE -Q3	P1-C3	PFC_MassVerificatio n-EtFOSE-Q3.m	EtFOSE -Q3.d	Sample	As Method	PFAS-Q3
22	MeFOSAA -Q3	P1-C4	PFC_MassVerificatio n-MeFOSAA-Q3.m	MeFOSAA -Q3.d	Sample	As Method	PFAS-Q3
23	EtFOSAA -Q3	P1-C5	PFC_MassVerificatio n-EtFOSAA-Q3.m	EtFOSAA -Q3.d	Sample	As Method	PFAS-Q3
24	6:2FTS -Q3	P1-C6	PFC_MassVerificatio n-6-2FTS-Q3.m	62FTS -Q3.d	Sample	As Method	PFAS-Q3
25	8:2FTS -Q3	P1-C7	PFC_MassVerificatio n-8-2FTS-Q3.m	82FTS -Q3.d	Sample	As Method	PFAS-Q3

506 of 744



Extracted and Injection Internal Standard Precursor Ion Verification

Sample Name
User Name
Sample Type
ACQ Method

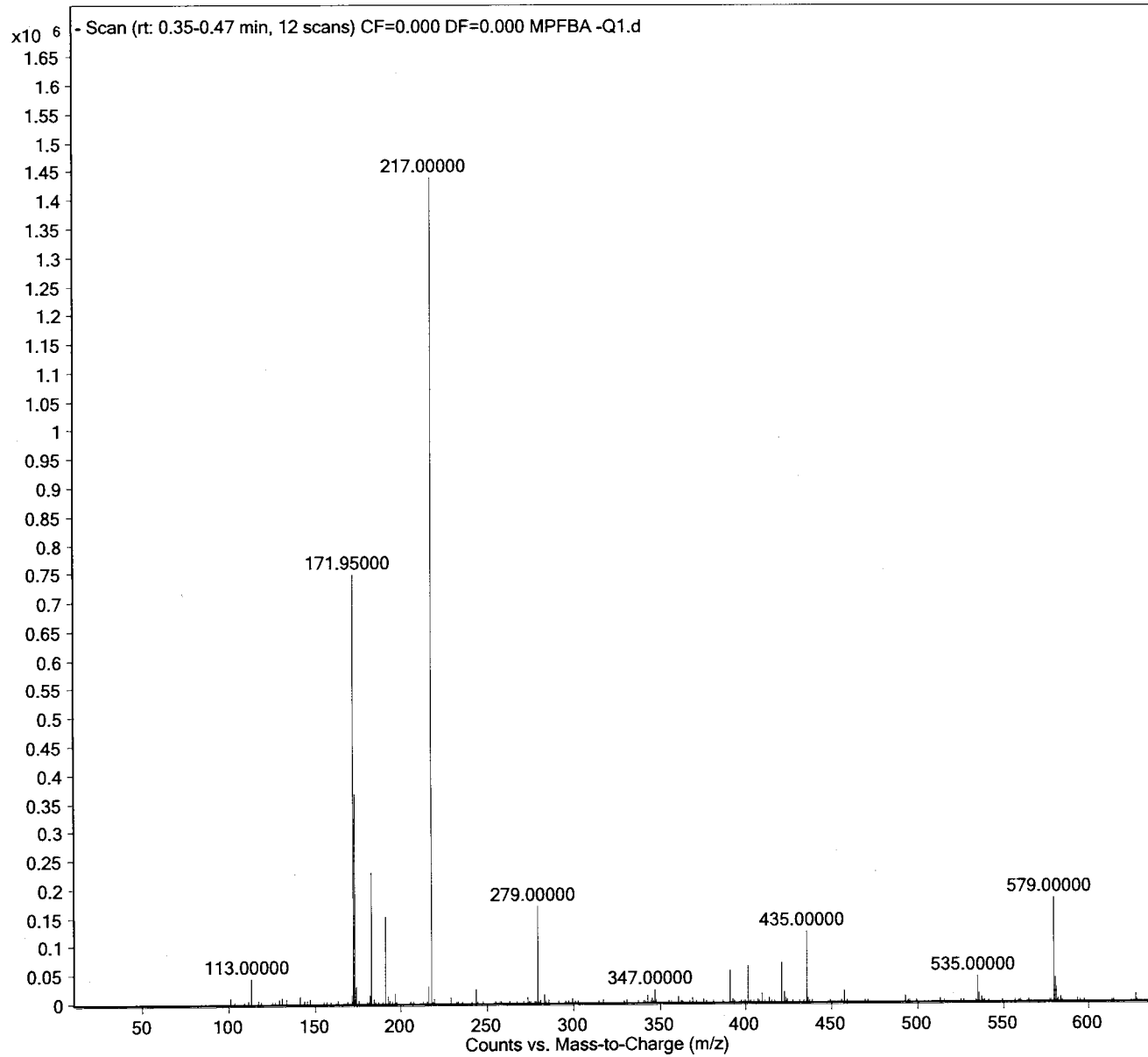
MPFBA
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

P2-A1
10
Not Applicable

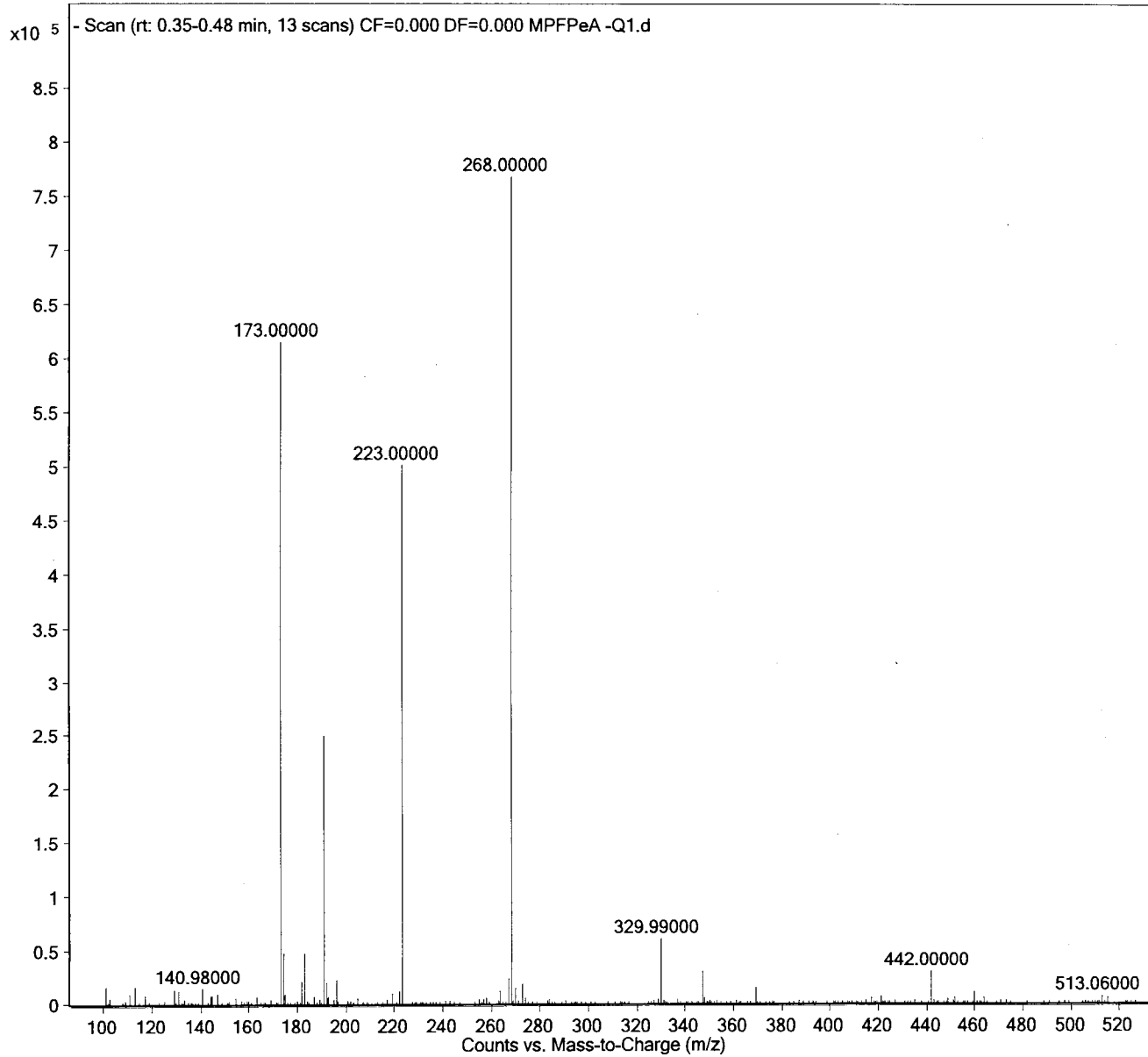
Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
MPFBA -Q1.d
2017/07/11 1:00:45 PM



Sample Name	MPFPeA	Position	P2-A2	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	MPFPeA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	Comment		Acquired Time	2017/07/11 1:06:18 PM

744
 Mass Analytics



509 of 744

Sample Name
User Name
Sample Type
AQ Method

MPFHxA
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

P2-A3
10
Not Applicable

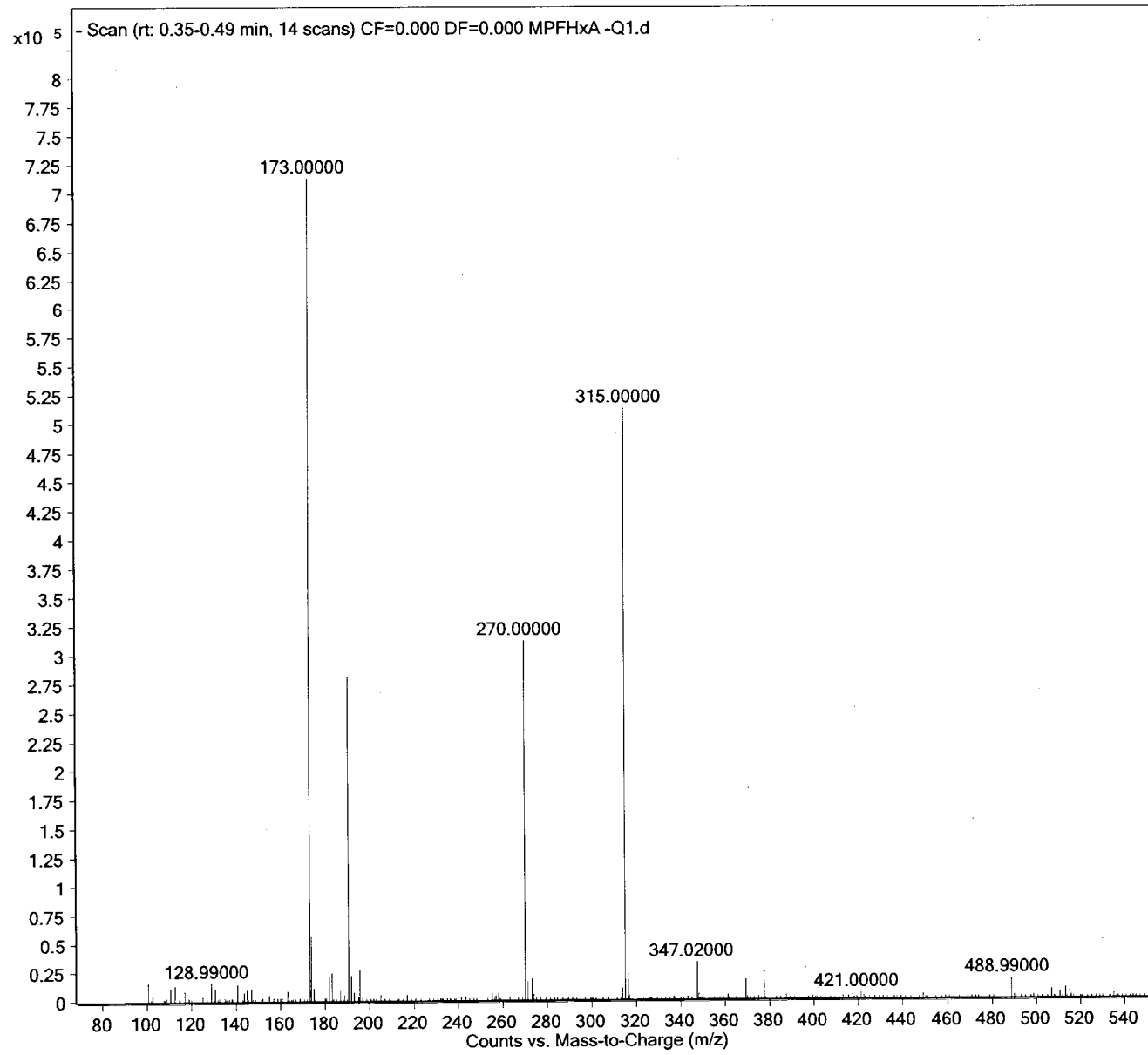
Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MPFHxA -Q1.d
2017/07/11 1:11:48 PM

Maxam Analytics

510 of 744



Sample Name
User Name
Sample Type
ACQ Method

MPFHxS
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

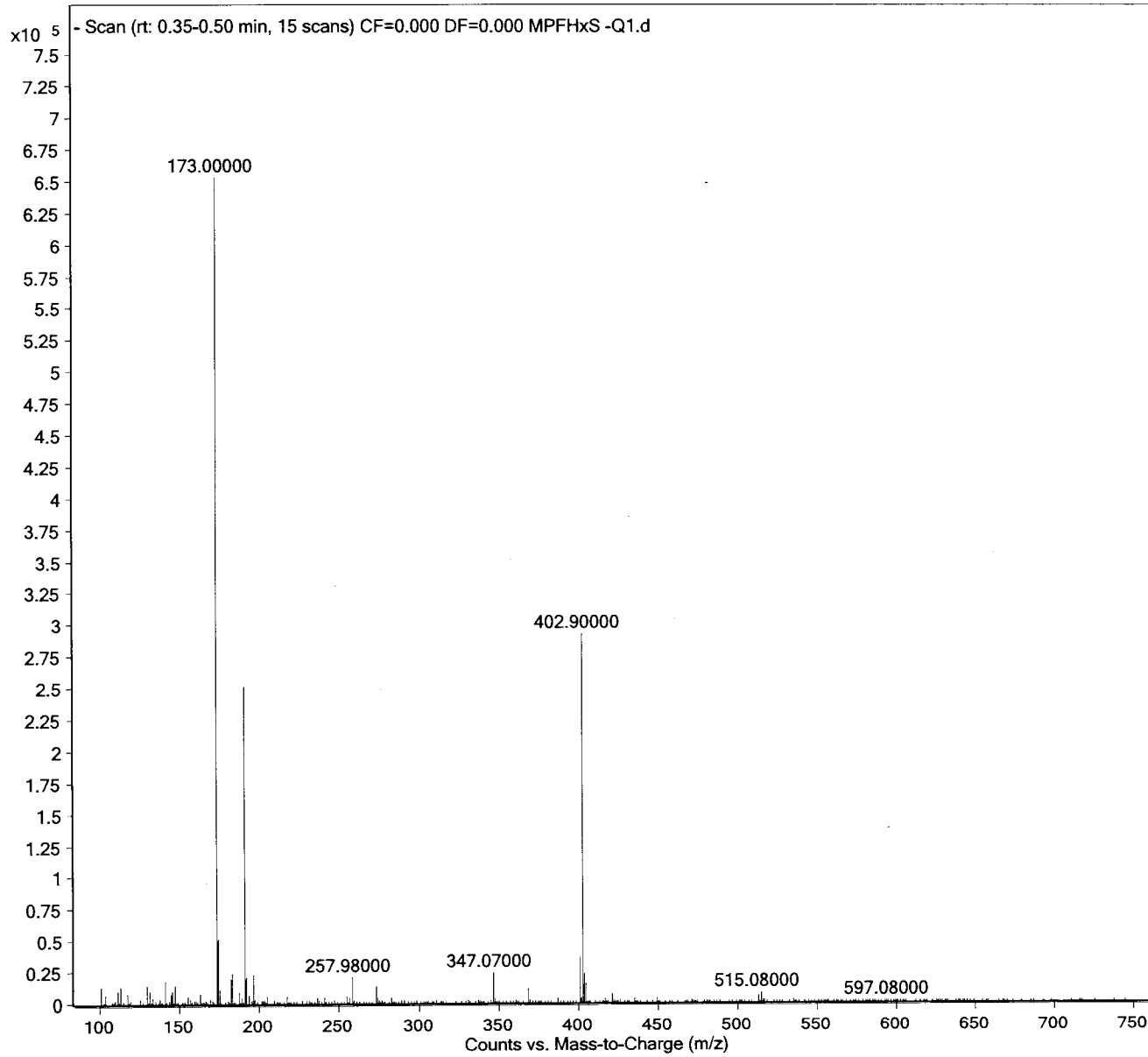
P2-A4
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
MPFHxS -Q1.d
2017/07/11 1:17:18 PM

Sam
Analytics

511 of 744



Sample Name
User Name
Sample Type
ACQ Method

MPFHpA
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

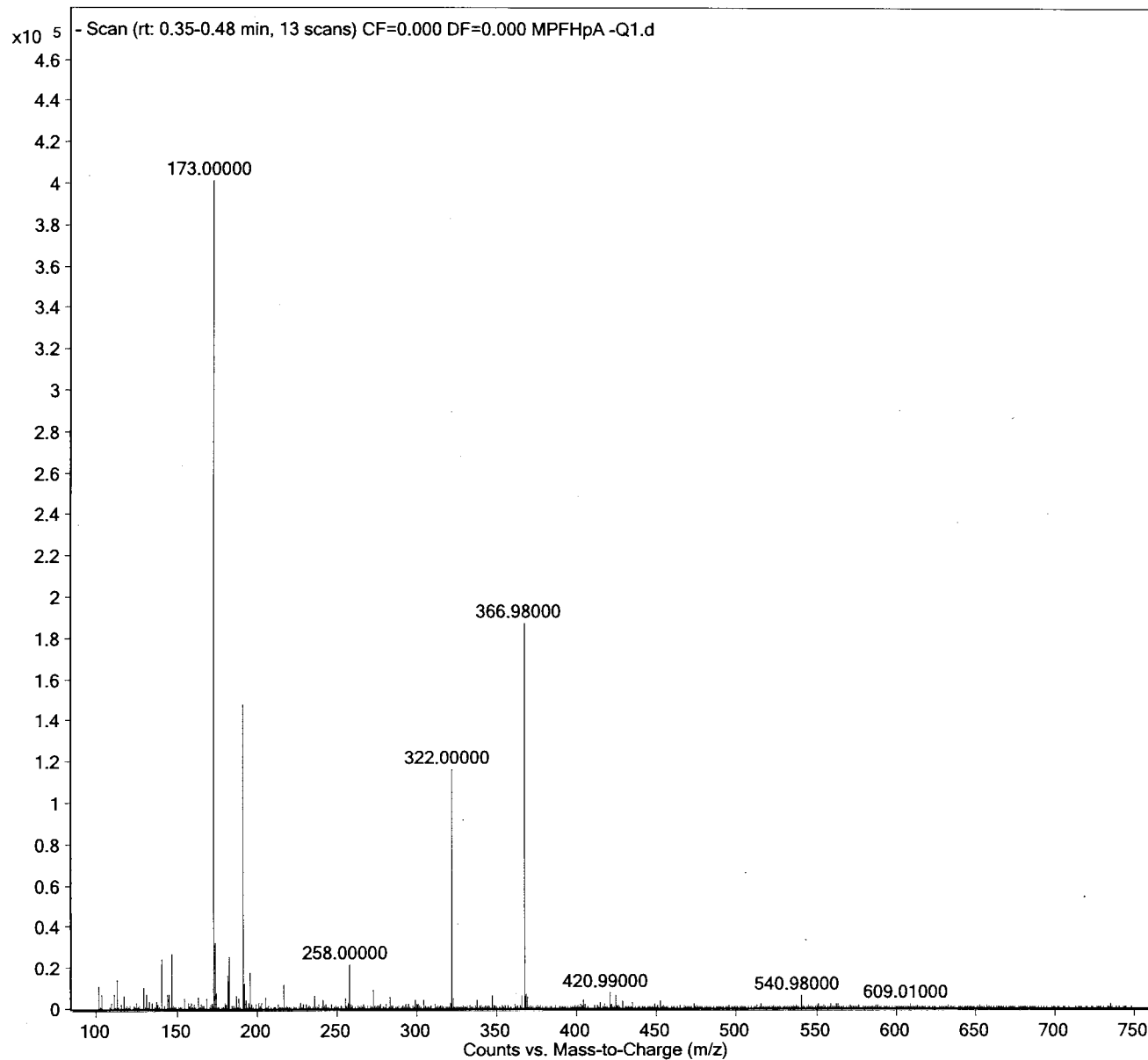
P2-A5
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MPFHpA -Q1.d
2017/07/11 1:22:48 PM

Massam Analytics



512 of 744

F-3275

Sample Name
User Name
Sample Type
ACQ Method

MPFOA
AD
Sample
PFC_MassVerification-Q1.m

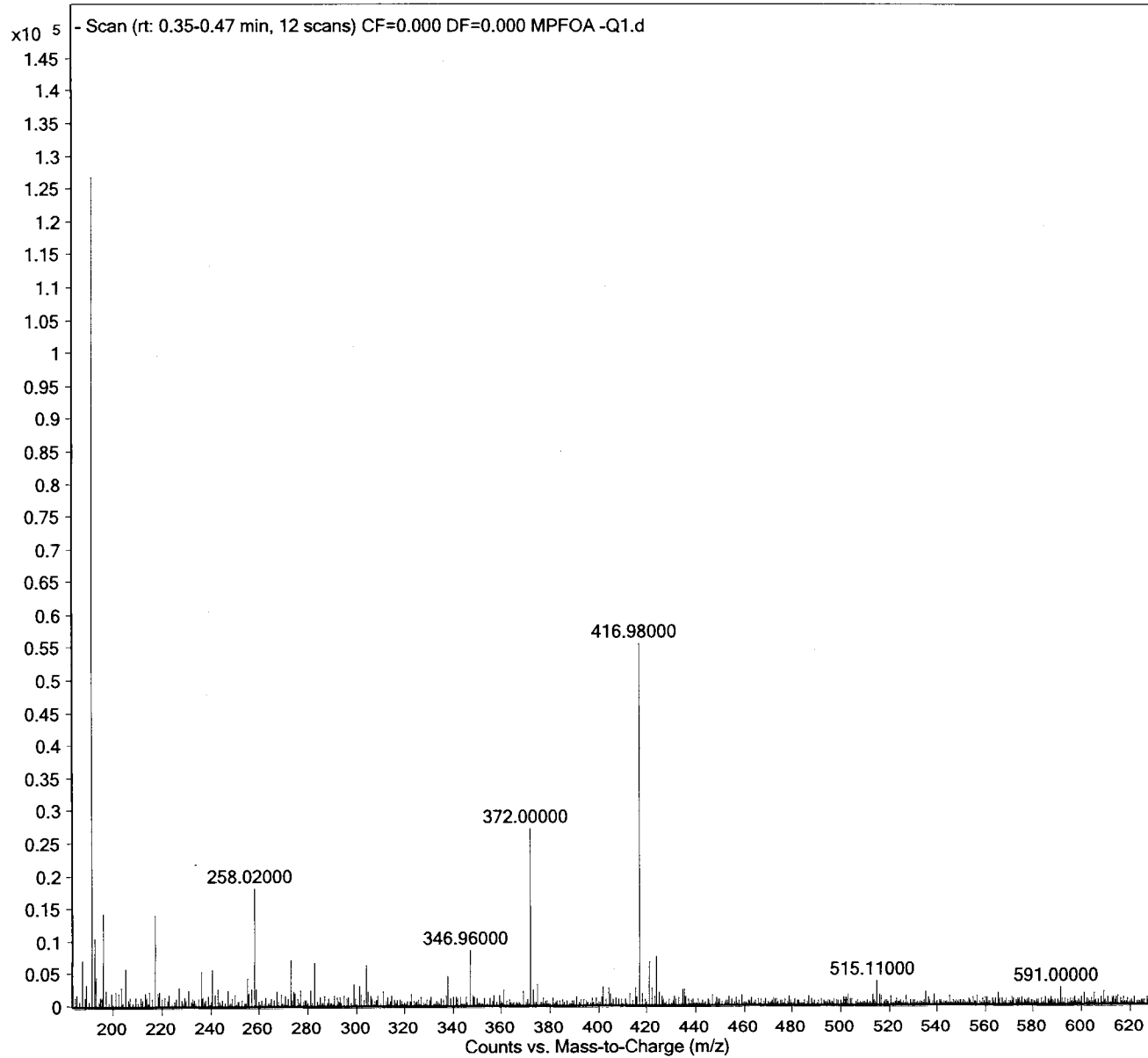
Position
Inj Vol
IRM Calibration Status
Comment

P2-A6
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
MPFOA -Q1.d
2017/07/11 1:28:18 PM

513 of 744
Maxam Analytics



513 of 744

Sample Name
User Name
Sample Type
Acq Method

MPFOS
AD
Sample
PFC_MassVerification-Q1.m

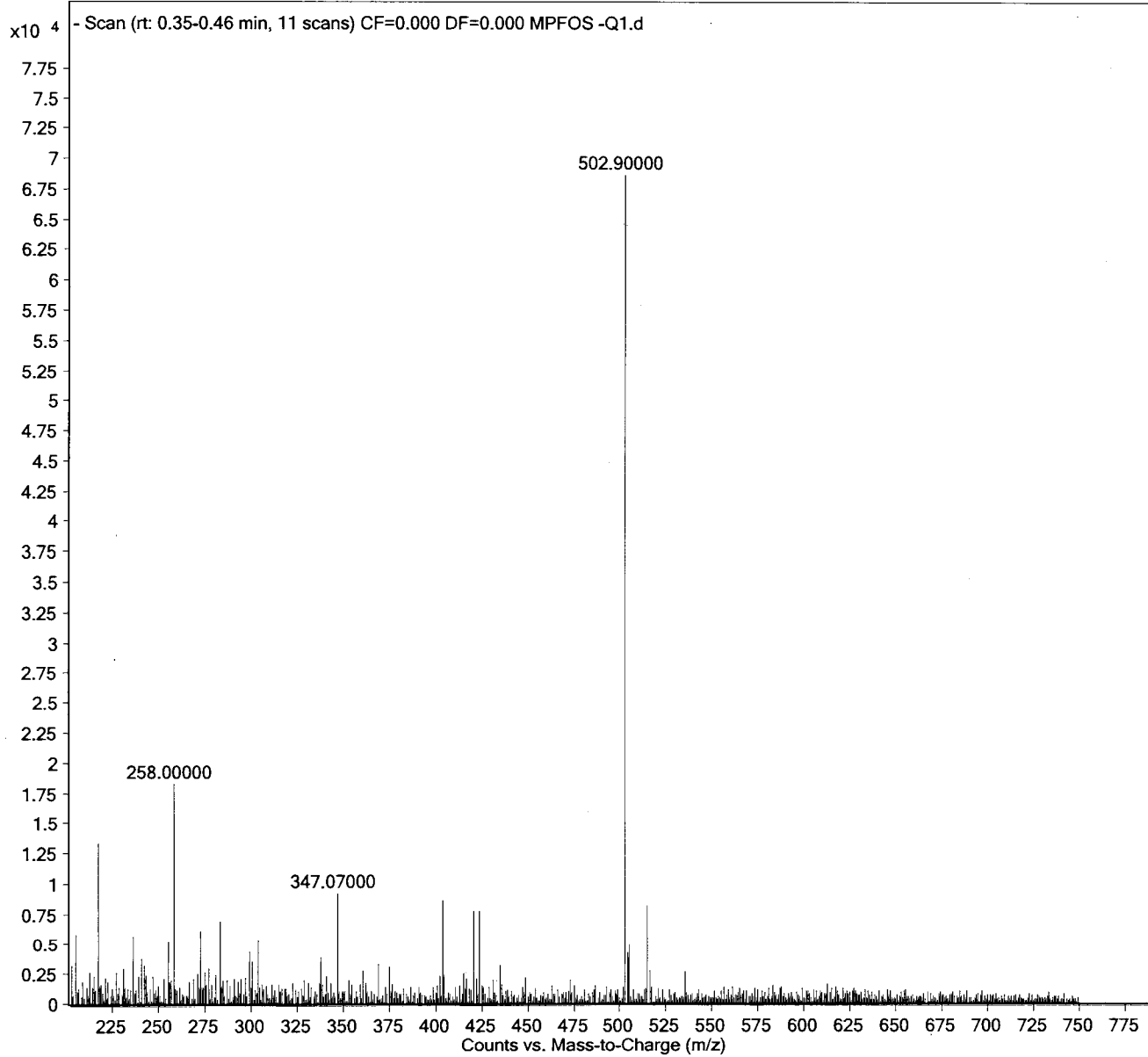
Position
Inj Vol
IRM Calibration Status
Comment

P2-A7
10
Not Applicable

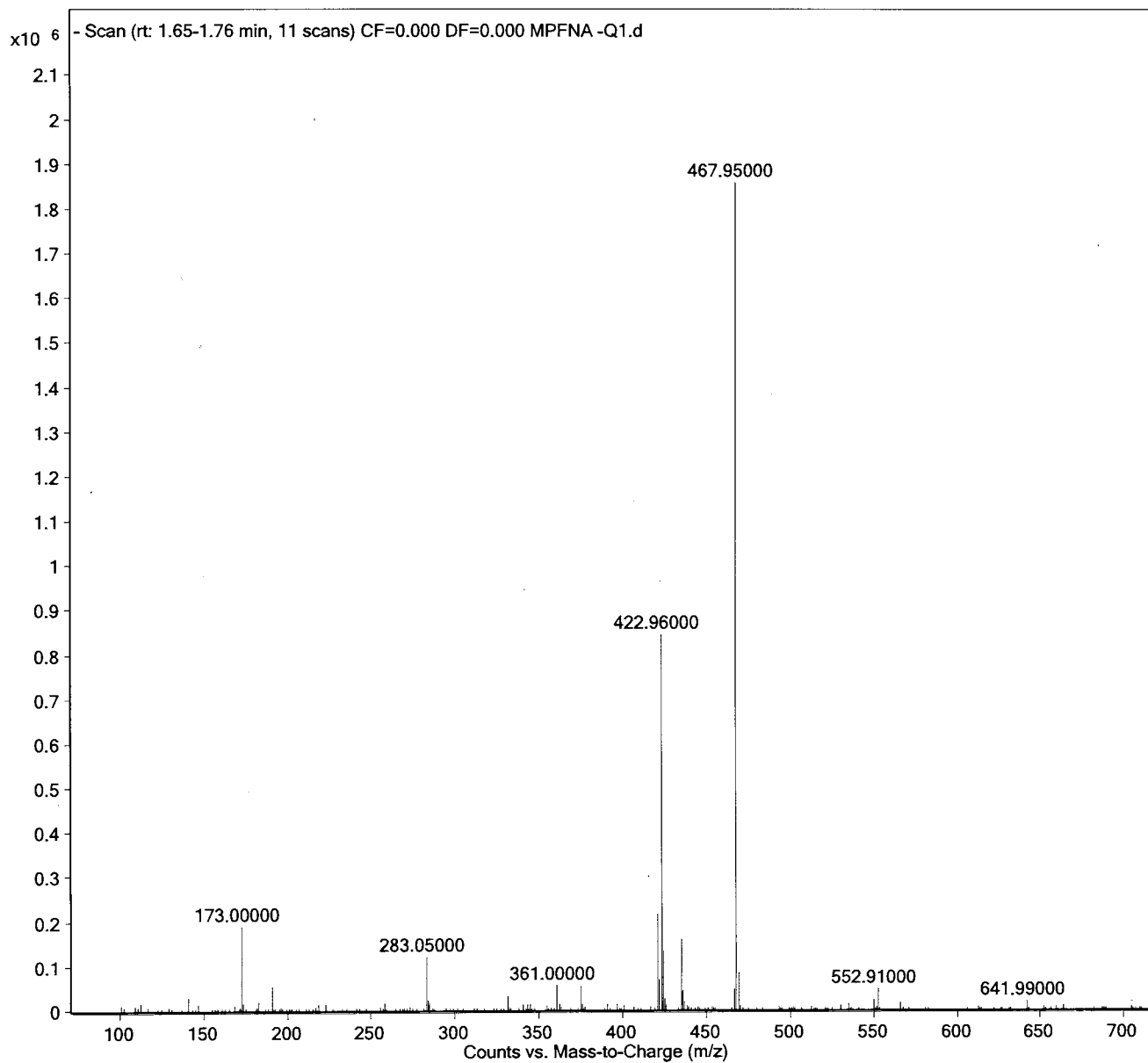
Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MPFOS -Q1.d
2017/07/11 1:33:49 PM



Sample Name	MPFNA	Position	P2-A8	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	MPFNA -Q1.d
Acq Method	PFC_MassVerification-Q1.m	Comment		Acquired Time	2017/07/11 1:39:21 PM



Sample Name
User Name
Sample Type
ACQ Method

MPFDA
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

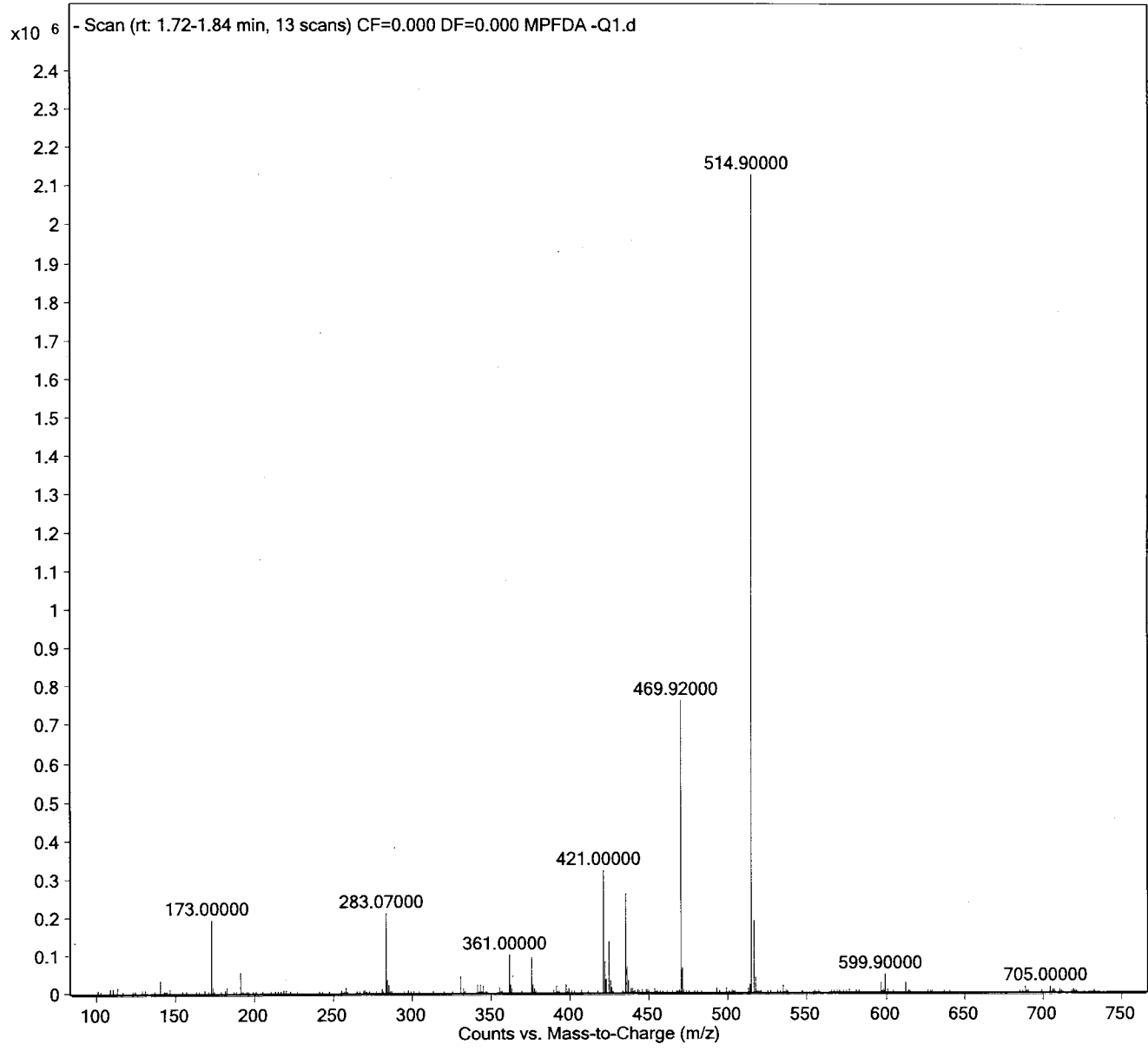
P2-A9
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MPFDA -Q1.d
2017/07/11 1:44:52 PM

Plasma Analytics



516 of 744

Sample Name
User Name
Sample Type
ACQ Method

MPFUnA
AD
Sample
PFC_MassVerification-Q1.m

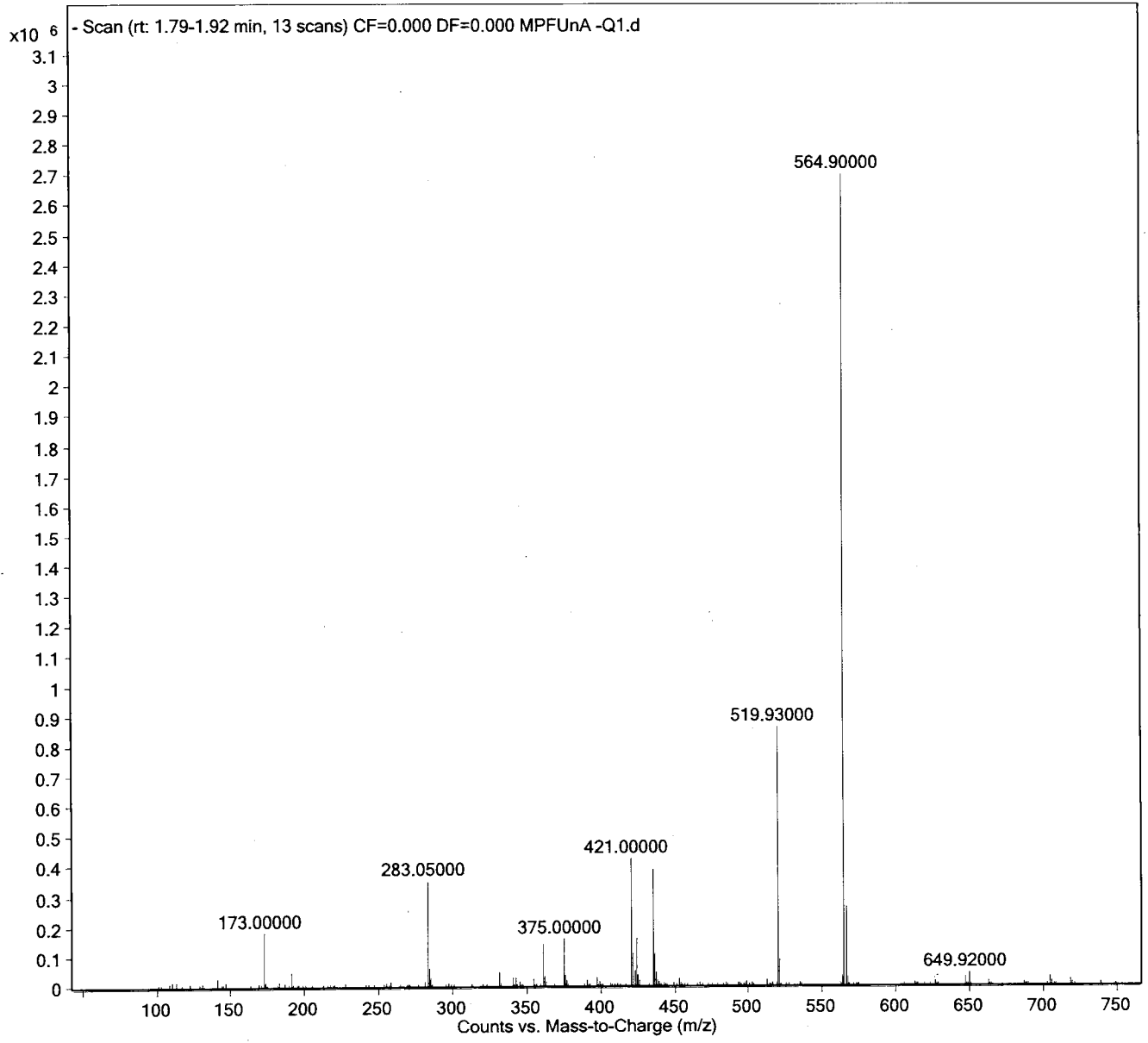
Position
Inj Vol
IRM Calibration Status
Comment

P2-B1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

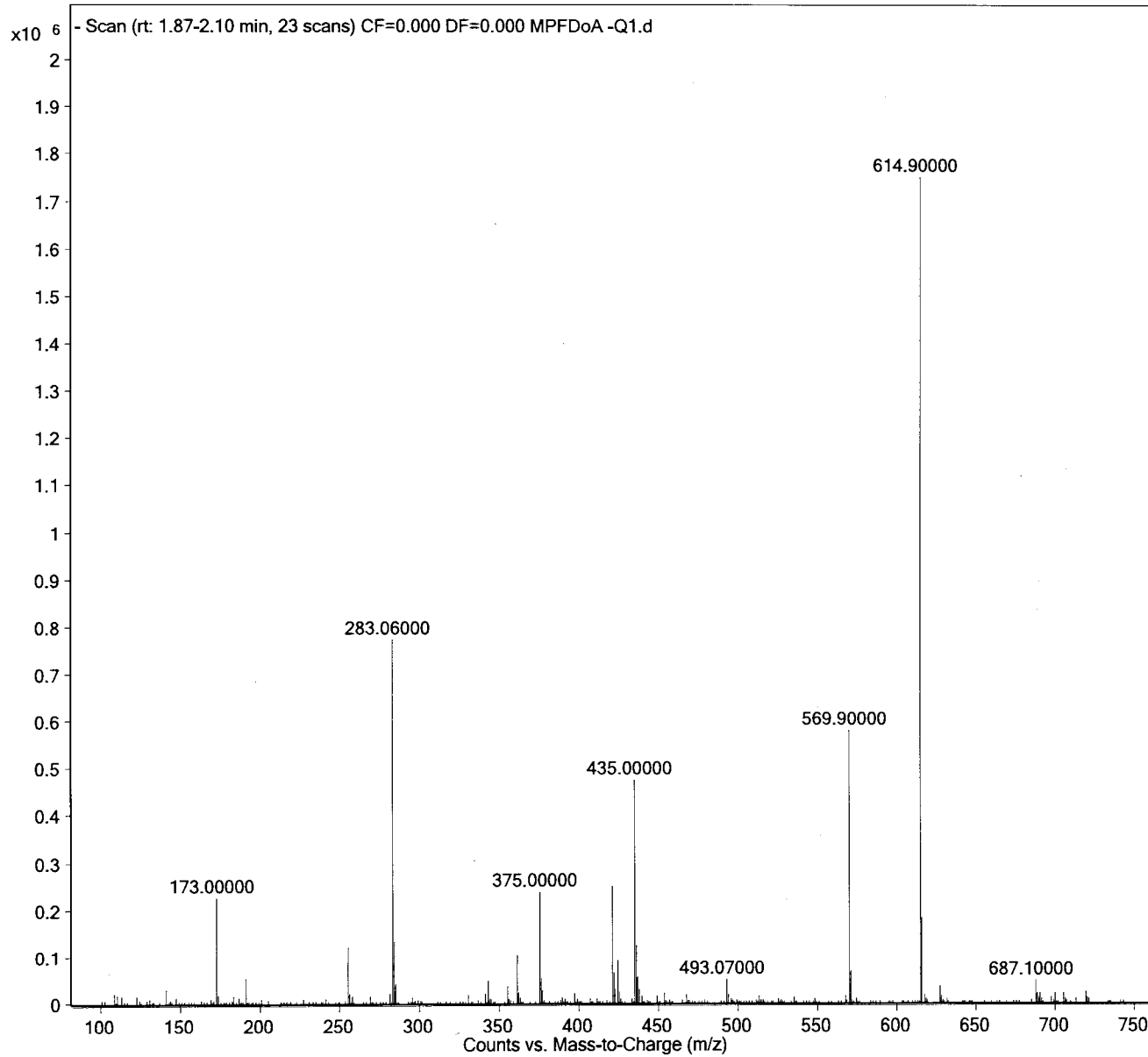
LCMS04

MPFUnA -Q1.d
2017/07/11 1:50:23 PM



Sample Name	MPFDoA	Position	P2-B2	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	MPFDoA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	Comment		Acquired Time	2017/07/11 1:55:53 PM

Mass
Analitics



518 of 744

Sample Name
User Name
Sample Type
Acq Method

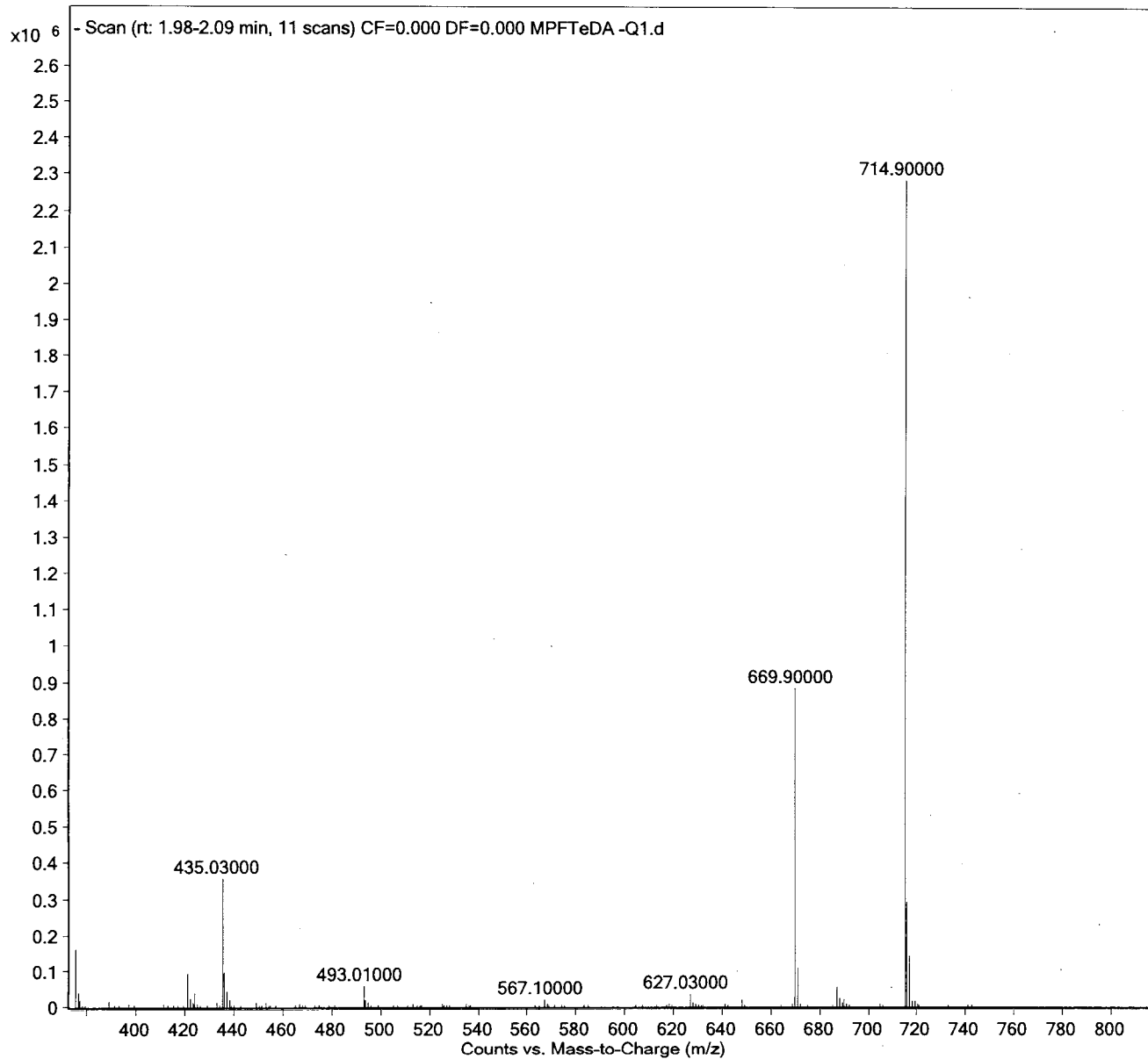
MPFTeDA
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

P2-B3
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
MPFTeDA -Q1.d
2017/07/11 2:01:23 PM



Sample Name
User Name
Sample Type
ACQ Method

MPFOSA
AD
Sample
PFC_MassVerification-Q1.m

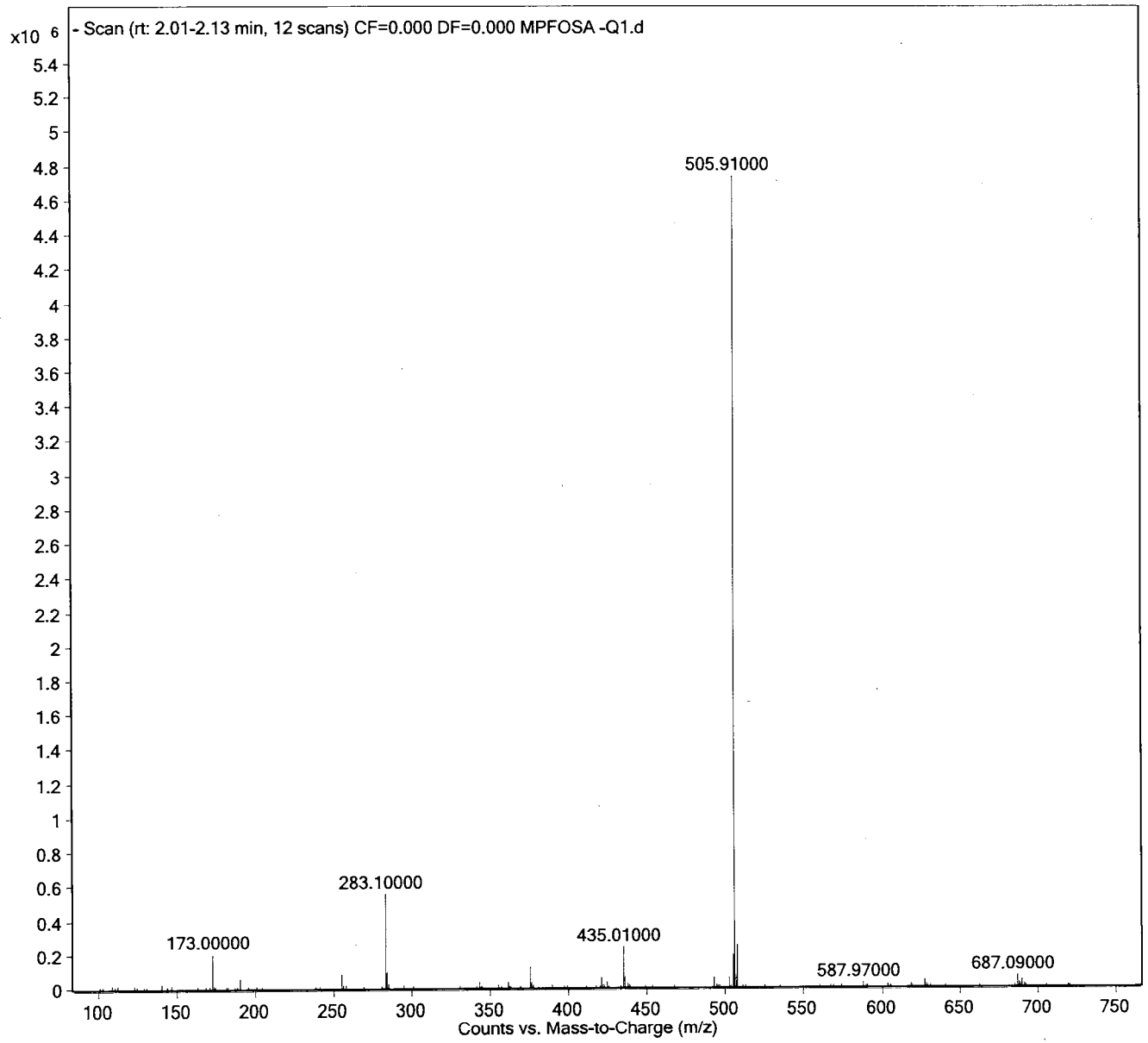
Position
Inj Vol
IRM Calibration Status
Comment

P2-B4
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MPFOSA -Q1.d
2017/07/11 2:06:53 PM



Sample Name
User Name
Sample Type
Acq Method

D3-MeFOSA
AD
Sample
PFC_MassVerification-Q1.m

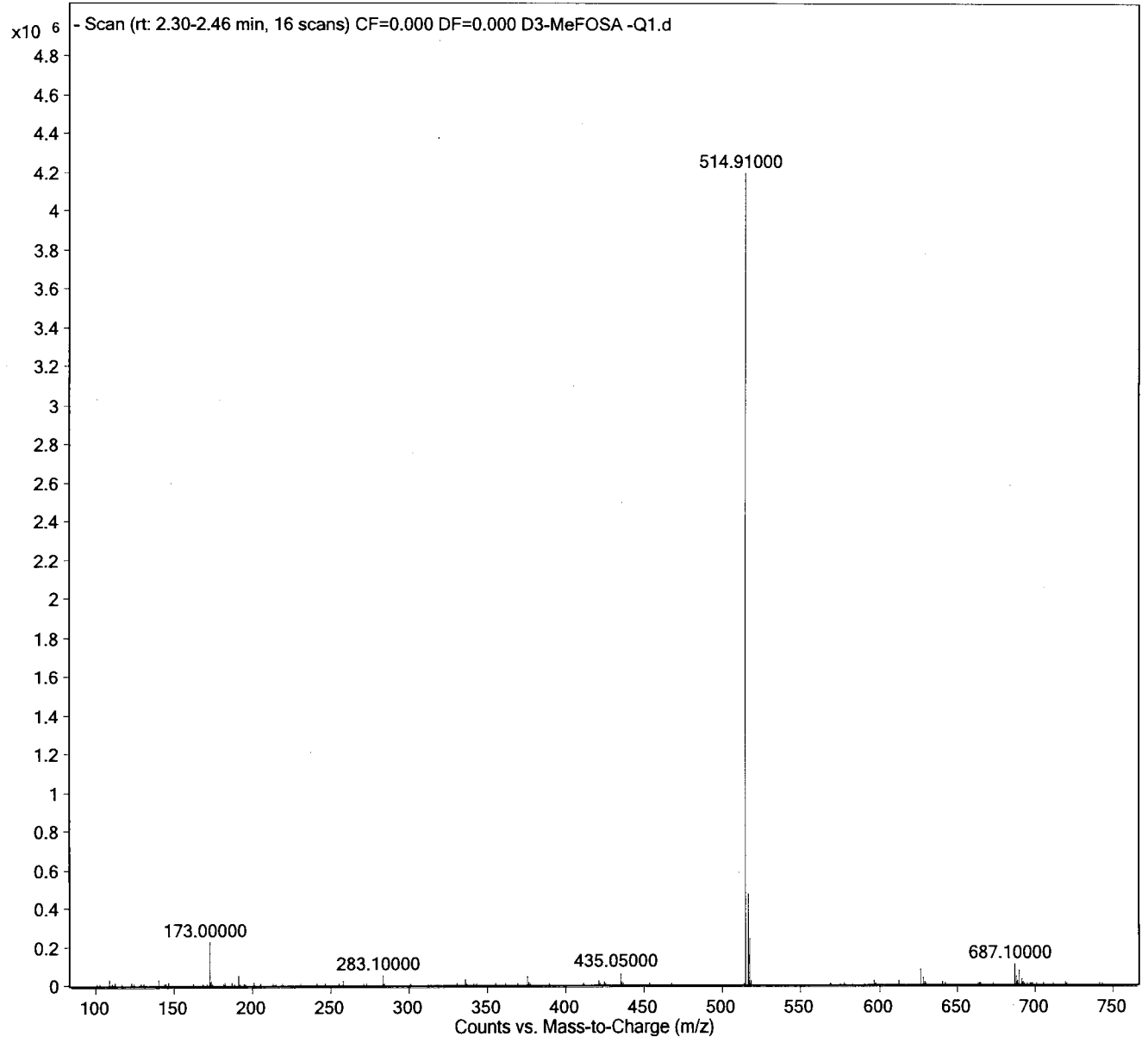
Position
Inj Vol
IRM Calibration Status
Comment

P2-B5
10
Not Applicable

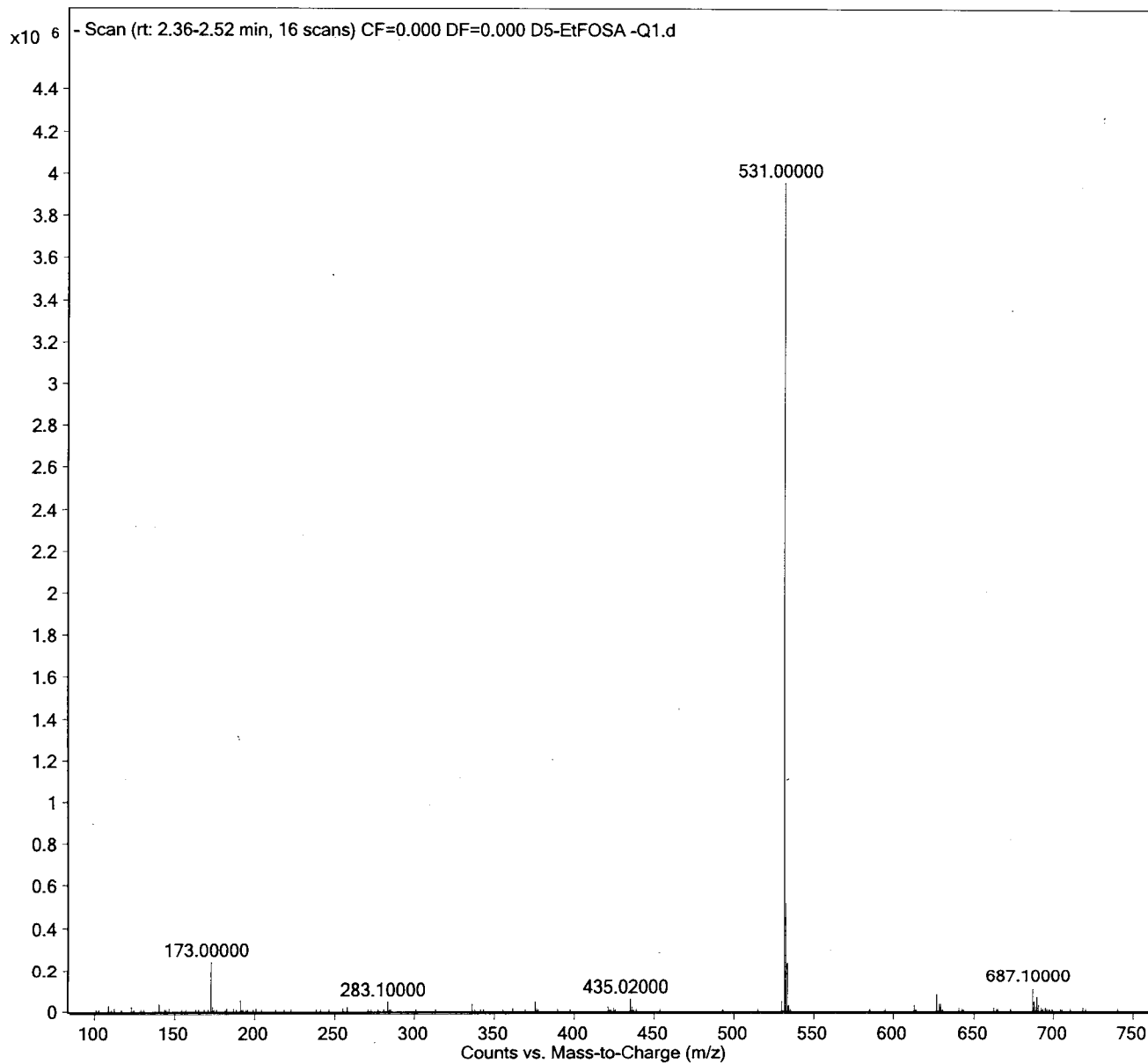
Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

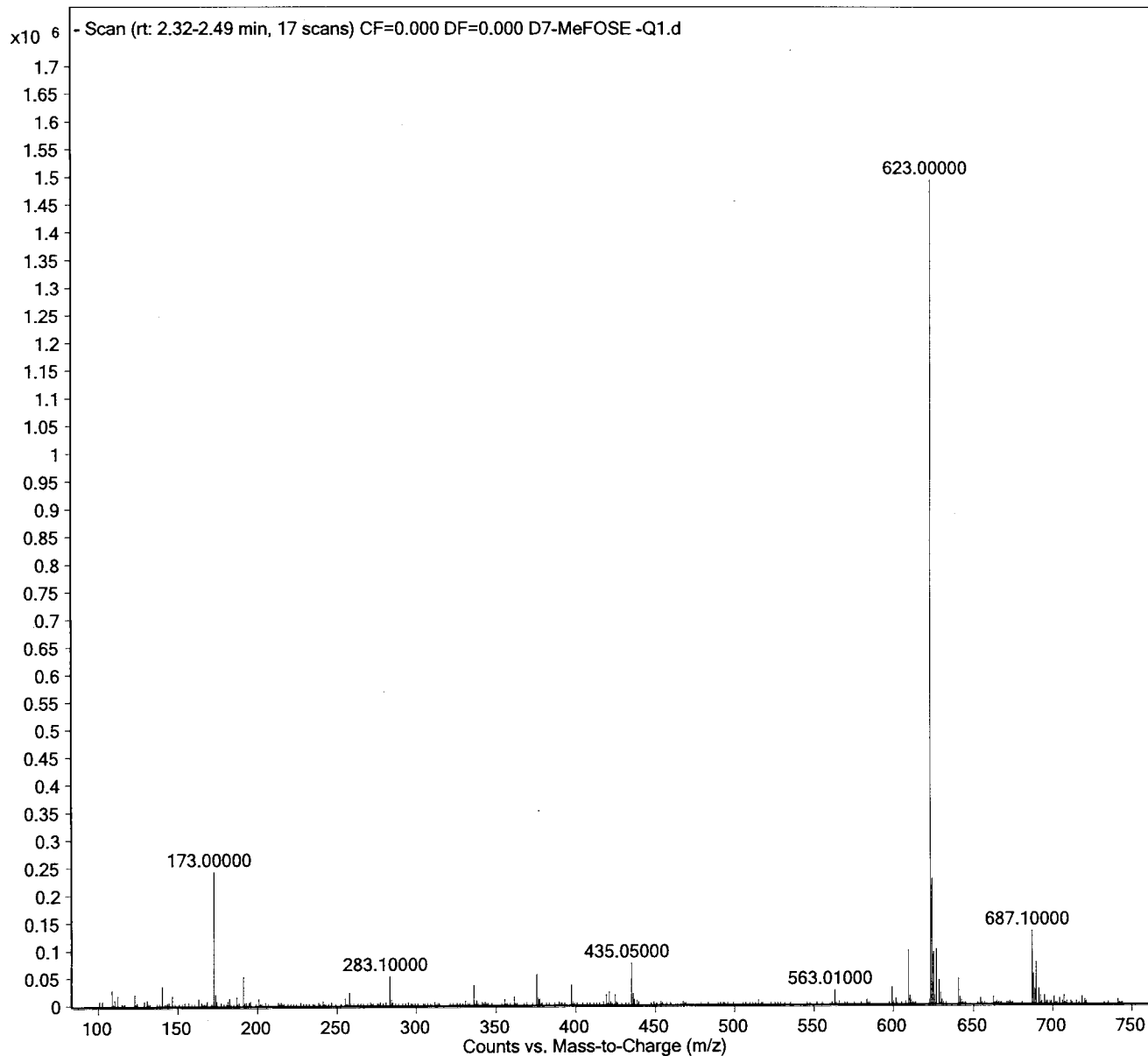
D3-MeFOSA -Q1.d
2017/07/11 2:12:24 PM



Sample Name	D5-EtFOSA	Position	P2-B6	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	D5-EtFOSA -Q1.d
QC Method	PFC_MassVerification-Q1.m	Comment		Acquired Time	2017/07/11 2:17:53 PM



Sample Name	D7-MeFOSE	Position	P2-B7	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	D7-MeFOSE -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	Comment		Acquired Time	2017/07/11 2:23:24 PM



Sample Name
User Name
Sample Type
ACQ Method

D9-EtFOSE
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

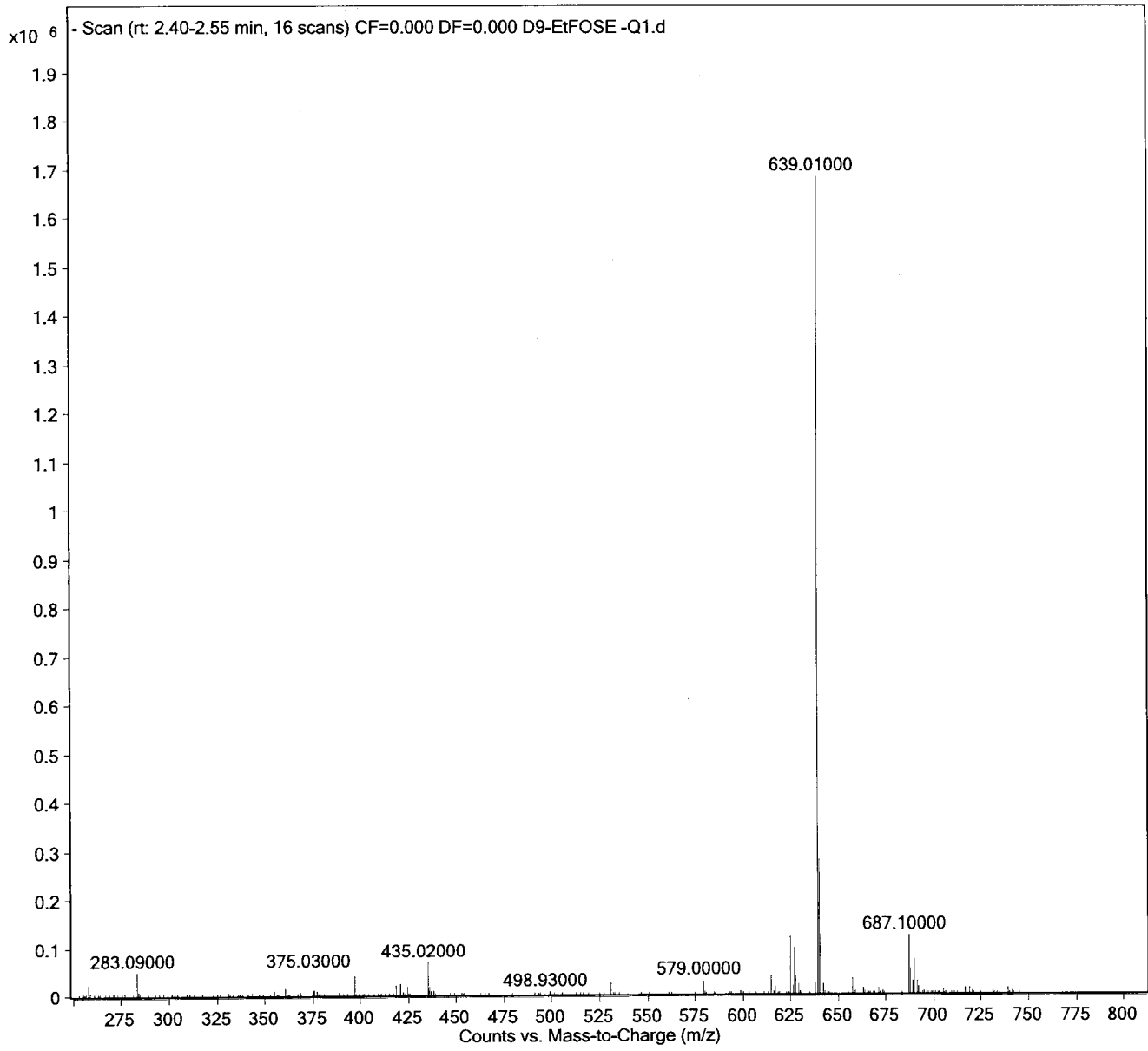
P2-B8
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

D9-EtFOSE -Q1.d
2017/07/11 2:28:56 PM

524 of 744



524 of 744

Sample Name
User Name
Sample Type
Acq Method

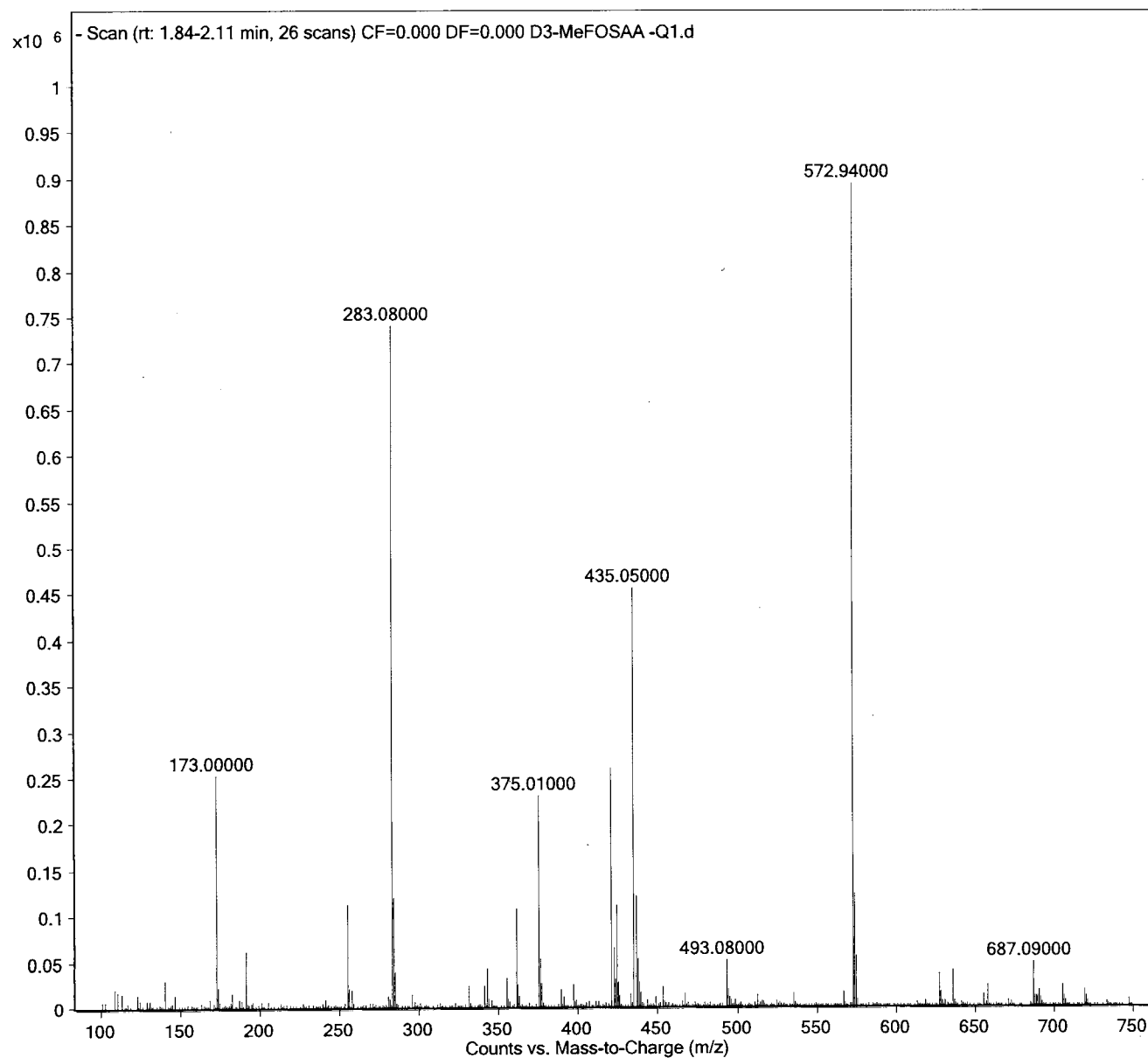
D3-MeFOSAA
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

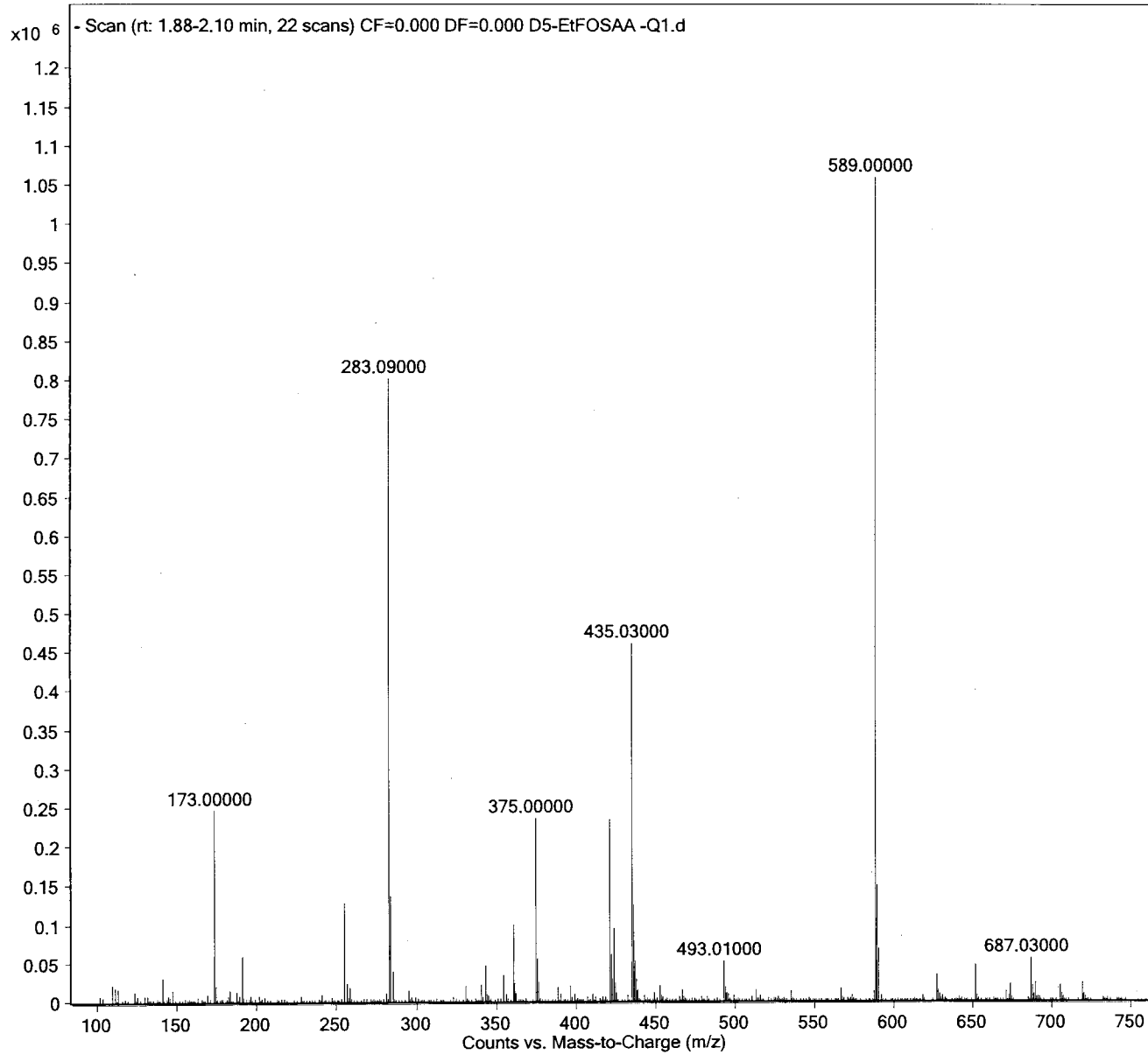
P2-B9
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
D3-MeFOSAA -Q1.d
2017/07/11 2:34:28 PM



Sample Name	D5-EtFOSAA	Position	P2-C1	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	D5-EtFOSAA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	Comment		Acquired Time	2017/07/11 2:39:59 PM



Sample Name
User Name
Sample Type
ACQ Method

M2-6:2FTS
AD
Sample
PFC_MassVerification-Q1.m

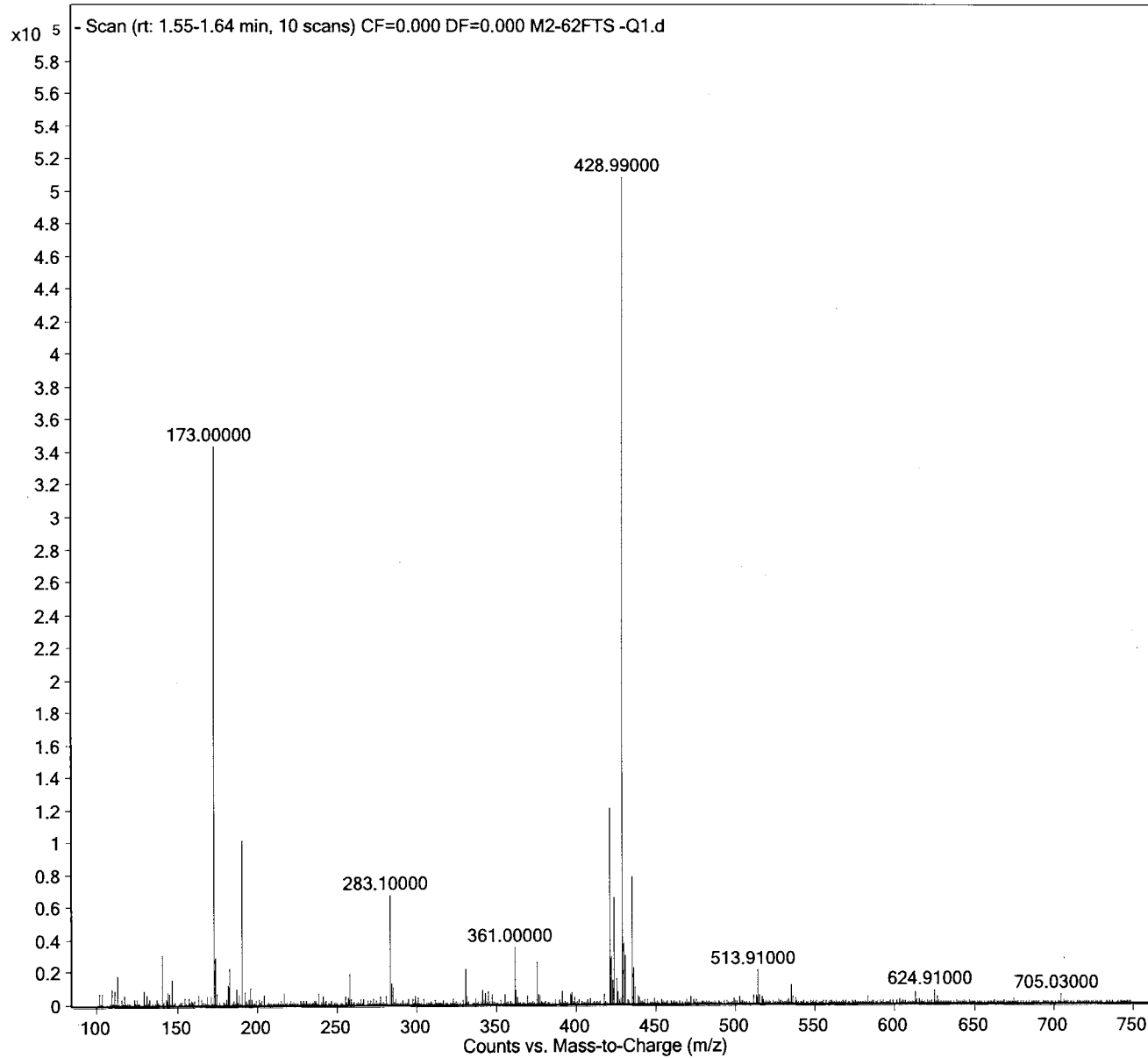
Position
Inj Vol
IRM Calibration Status
Comment

P2-C2
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

M2-62FTS-Q1.d
2017/07/11 2:45:29 PM



Sample Name
User Name
Sample Type
CQ Method

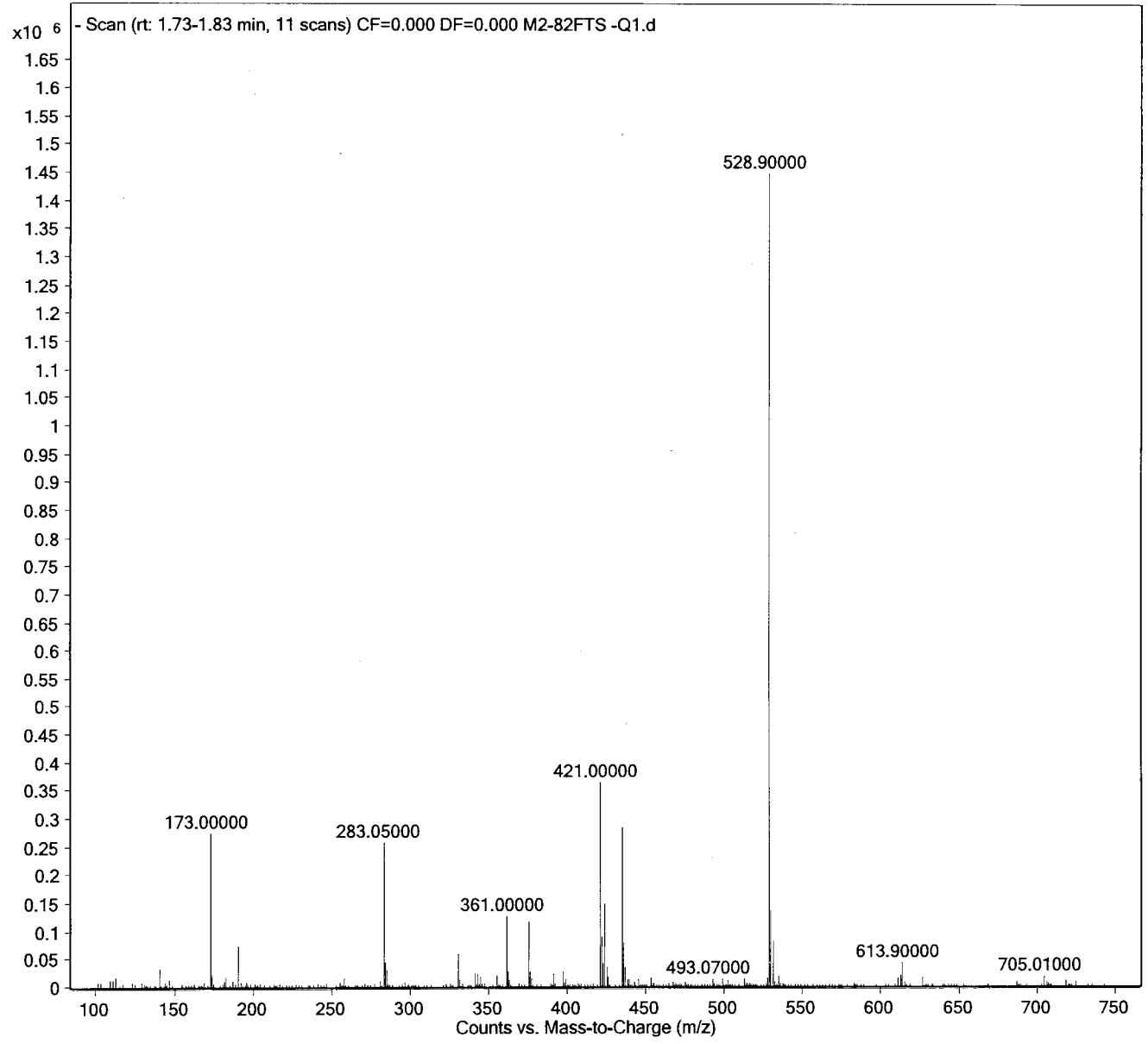
M2-8:2FTS
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

P2-C3
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
M2-82FTS -Q1.d
2017/07/11 2:50:59 PM



Sample Name
User Name
Sample Type
Sample Method

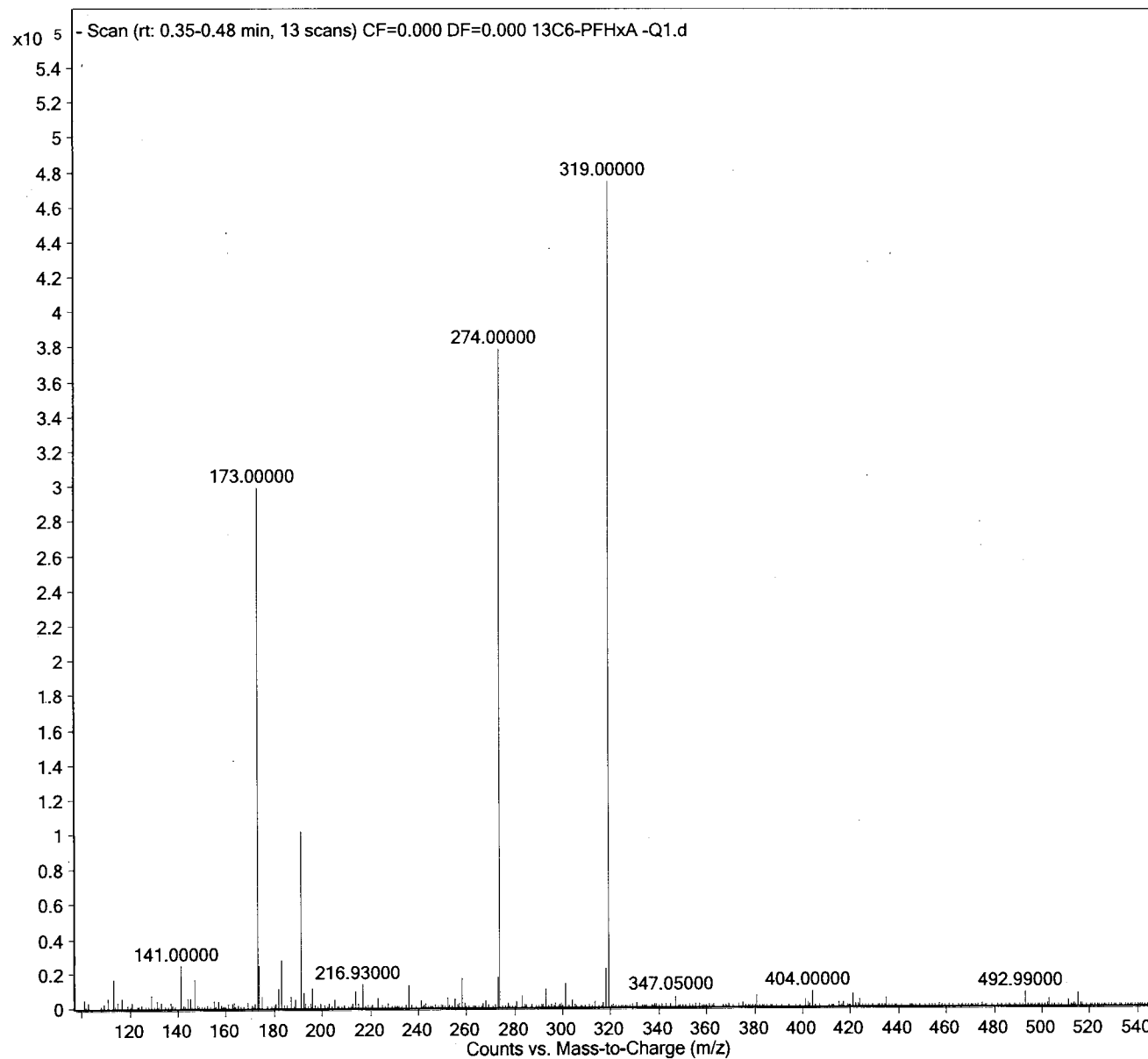
13C6-PFHxA
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

P2-C4
10
Not Applicable
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
10
13C6-PFHxA -Q1.d
2017/07/11 2:56:30 PM



Sample Name
User Name
Sample Type
CQ Method

13C9-PFDA
AD
Sample
PFC_MassVerification-Q1.m

Position
Inj Vol
IRM Calibration Status
Comment

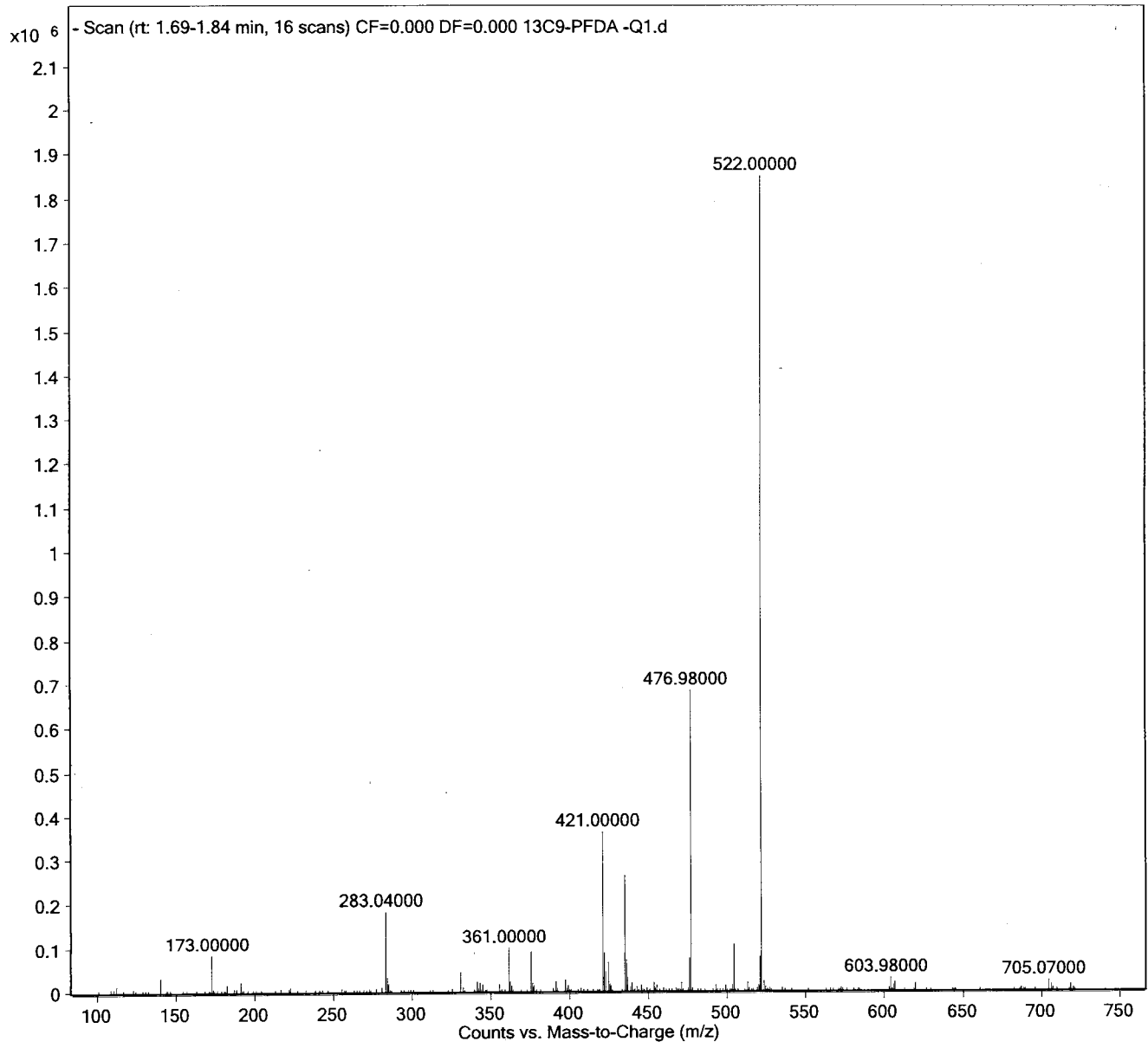
P2-C5
10
Not Applicable
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
13C9-PFDA -Q1.d
2017/07/11 3:01:59 PM

Maxam Analytics

530 of 744





Extracted and Injection Internal Standard Product Ion Verification

Sample Name
User Name
Sample Type
XQC Method

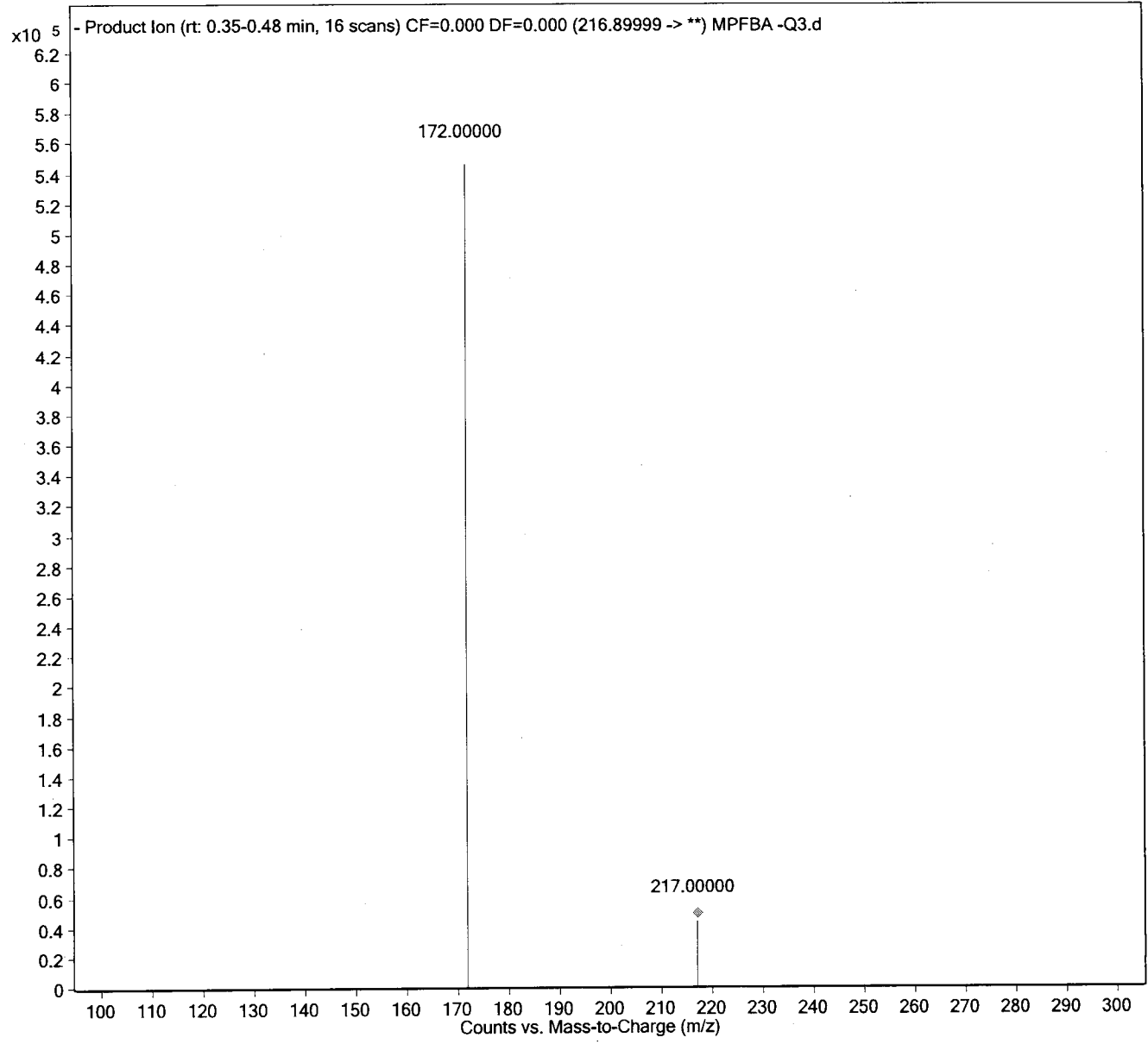
MPFBA -Q3
AD
Sample
PFC_MassVerification-MPFBA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P2-A1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
MPFBA -Q3.d
2017/07/11 3:07:29 PM

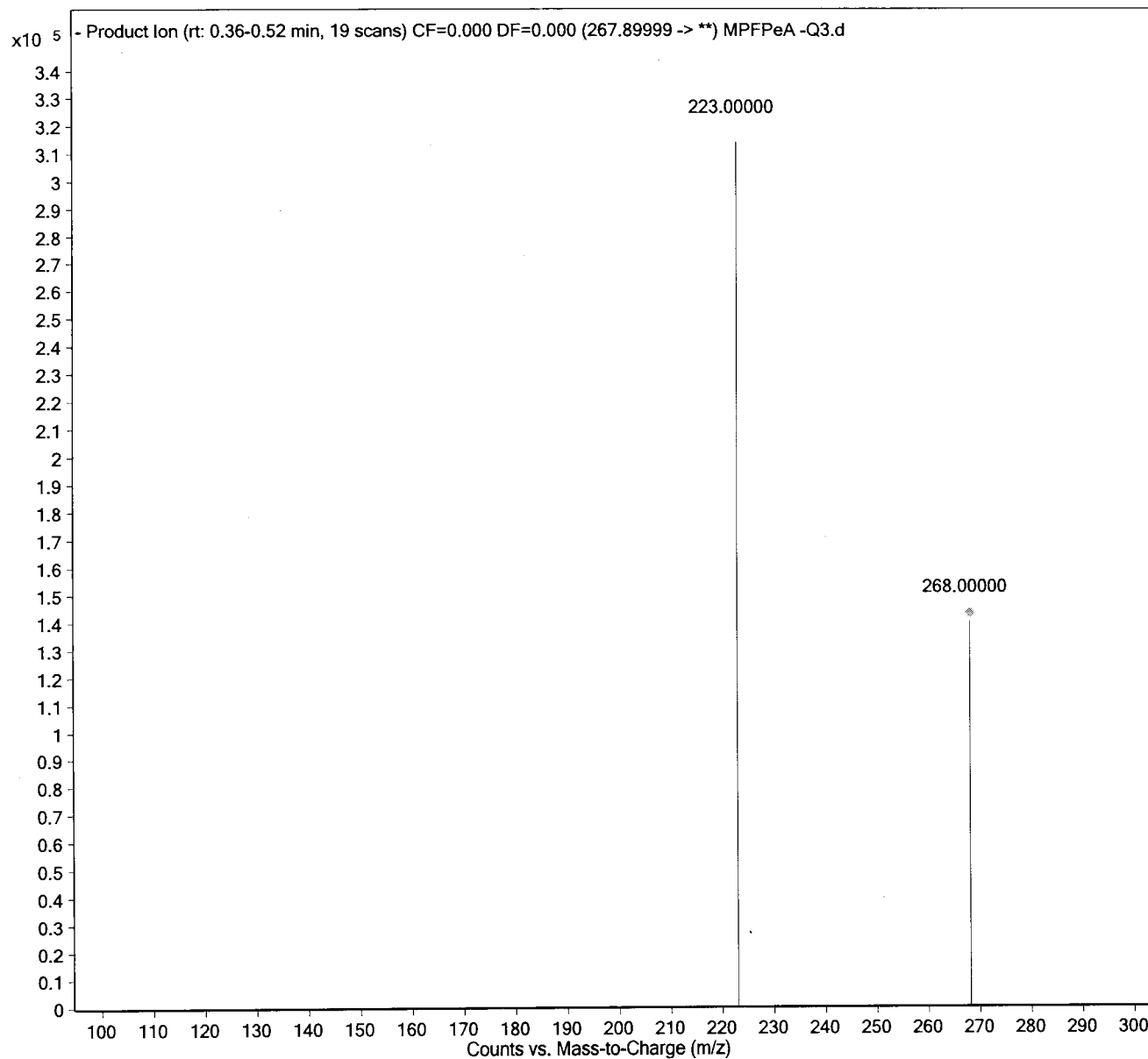


Sample Name
User Name
Sample Type
XQC Method

MPFPeA -Q3
AD
Sample
PFC_MassVerification-MPFPeA-Q3.m

Position P2-A2
Inj Vol 10
IRM Calibration Status Not Applicable
Comment

Instrument Name LCMS04
InjPosition
Data Filename MPFPeA -Q3.d
Acquired Time 2017/07/11 3:12:59 PM



Sample Name
User Name
Sample Type
ACQ Method

MPFHxS-Q3
AD
Sample
PFC_MassVerification-MPFHxS-Q3.m

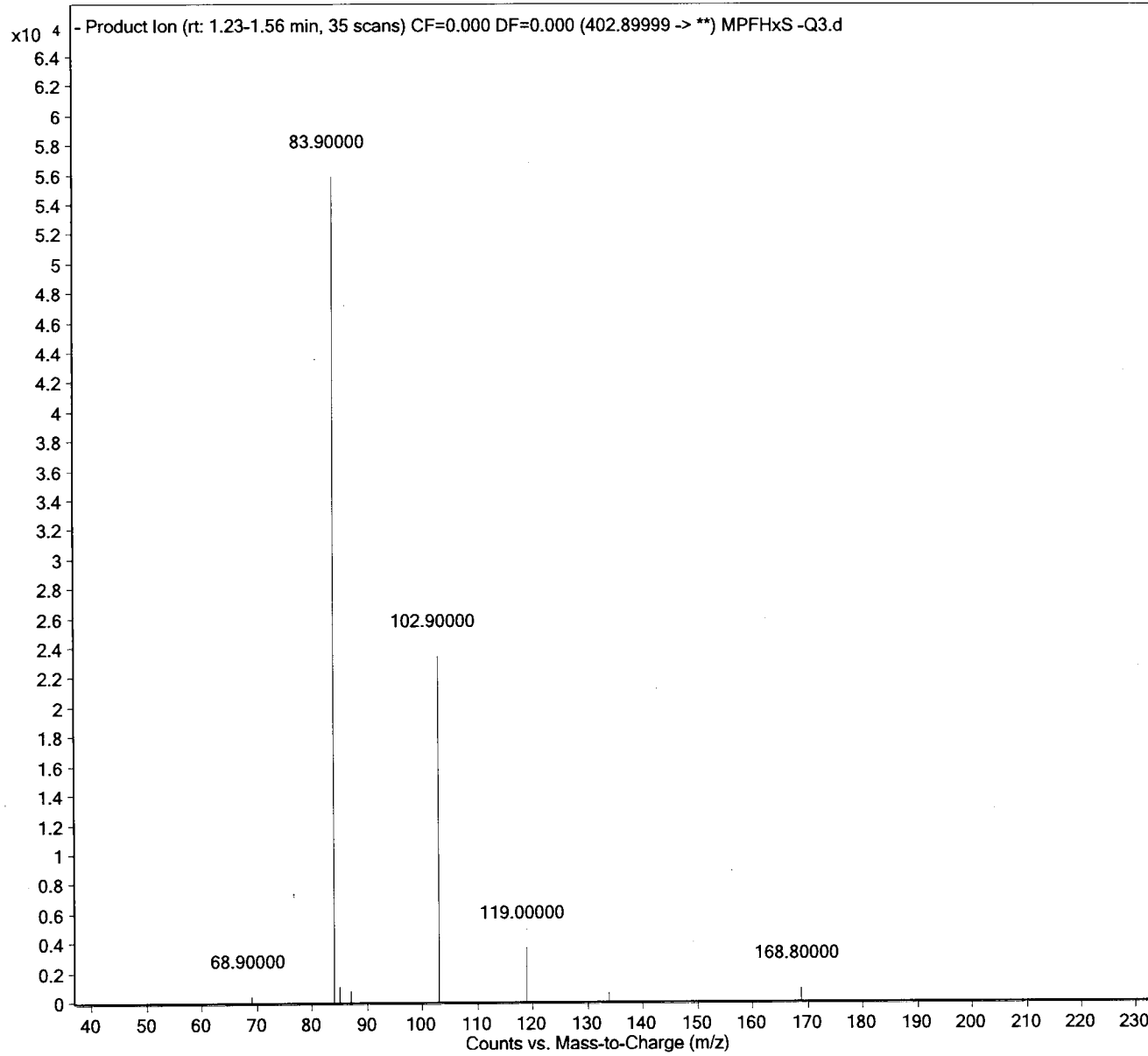
Position
Inj Vol
IRM Calibration Status
Comment

P2-A4
10
Not Applicable

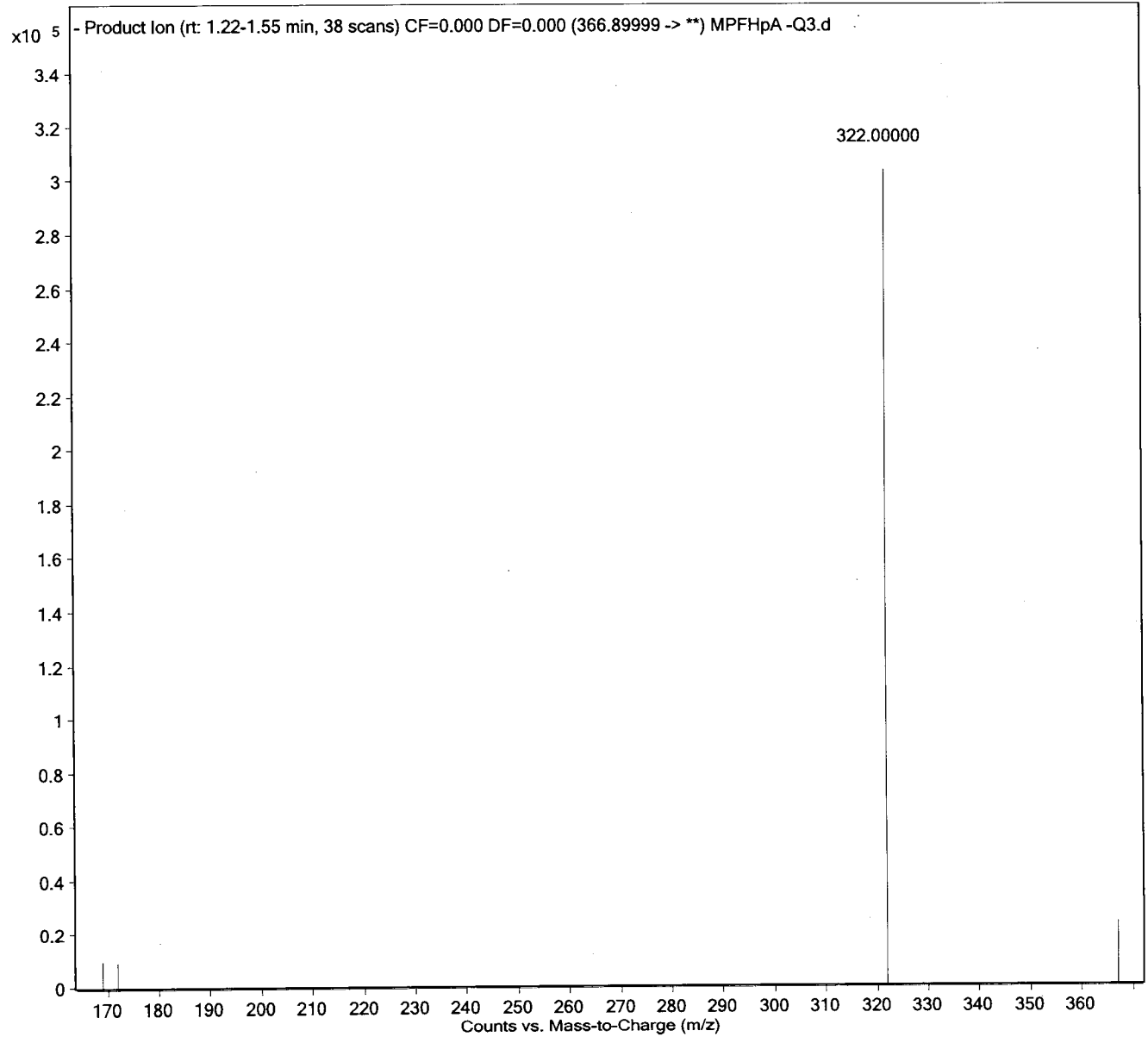
Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
MPFHxS-Q3.d
2017/07/11 3:24:00 PM

Maxam Analytics



Sample Name	MPFHpA -Q3	Position	P2-A5	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	MPFHpA -Q3.d
ACQ Method	PFC_MassVerification-MPFHpA-Q3.m	Comment		Acquired Time	2017/07/11 3:29:30 PM



Sample Name
User Name
Sample Type
ACQ Method

MPFOA -Q3
AD
Sample
PFC_MassVerification-MPFOA-Q3.m

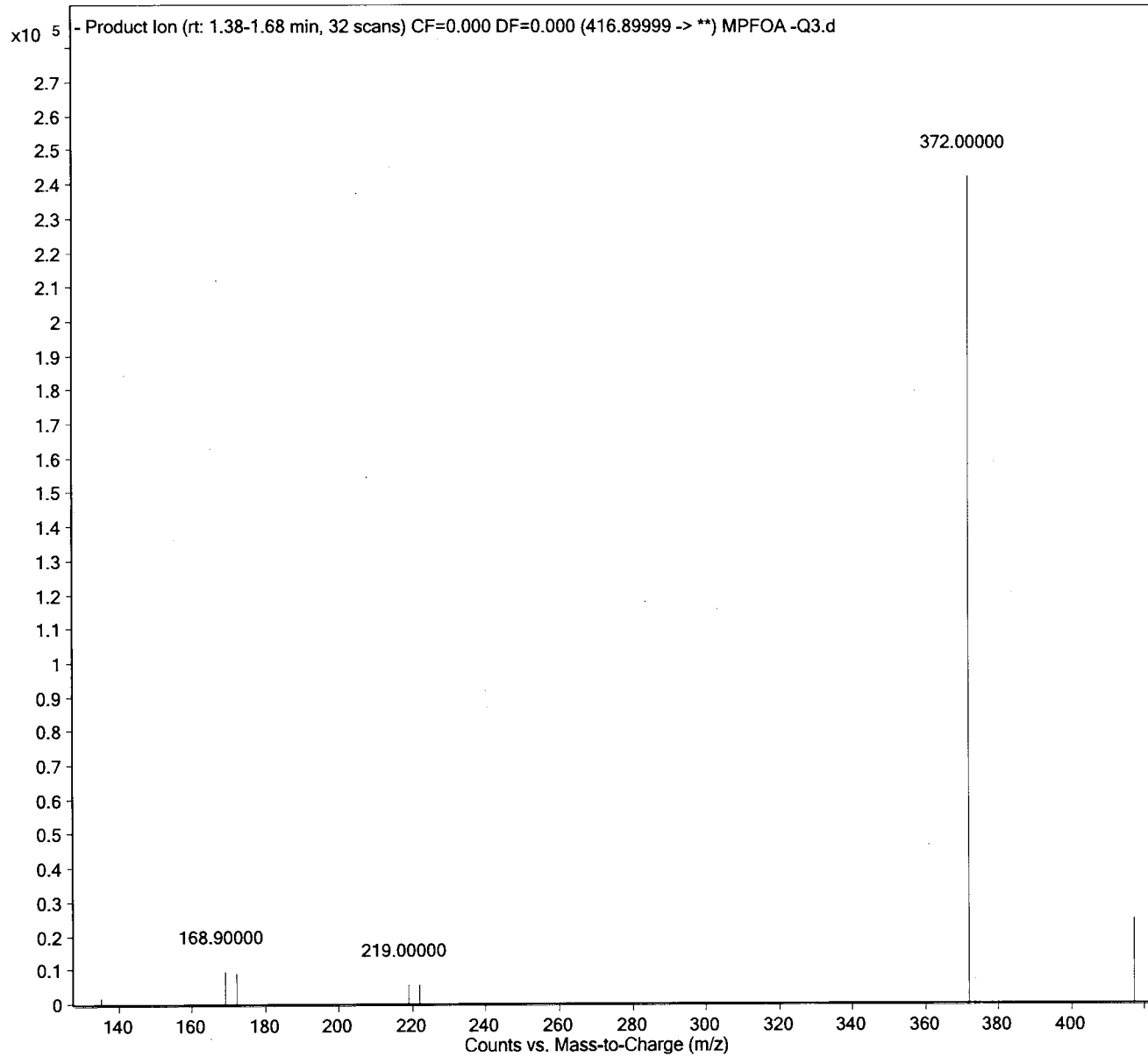
Position
Inj Vol
IRM Calibration Status
Comment

P2-A6
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MPFOA -Q3.d
2017/07/11 3:35:00 PM



Sample Name
User Name
Sample Type
ACQ Method

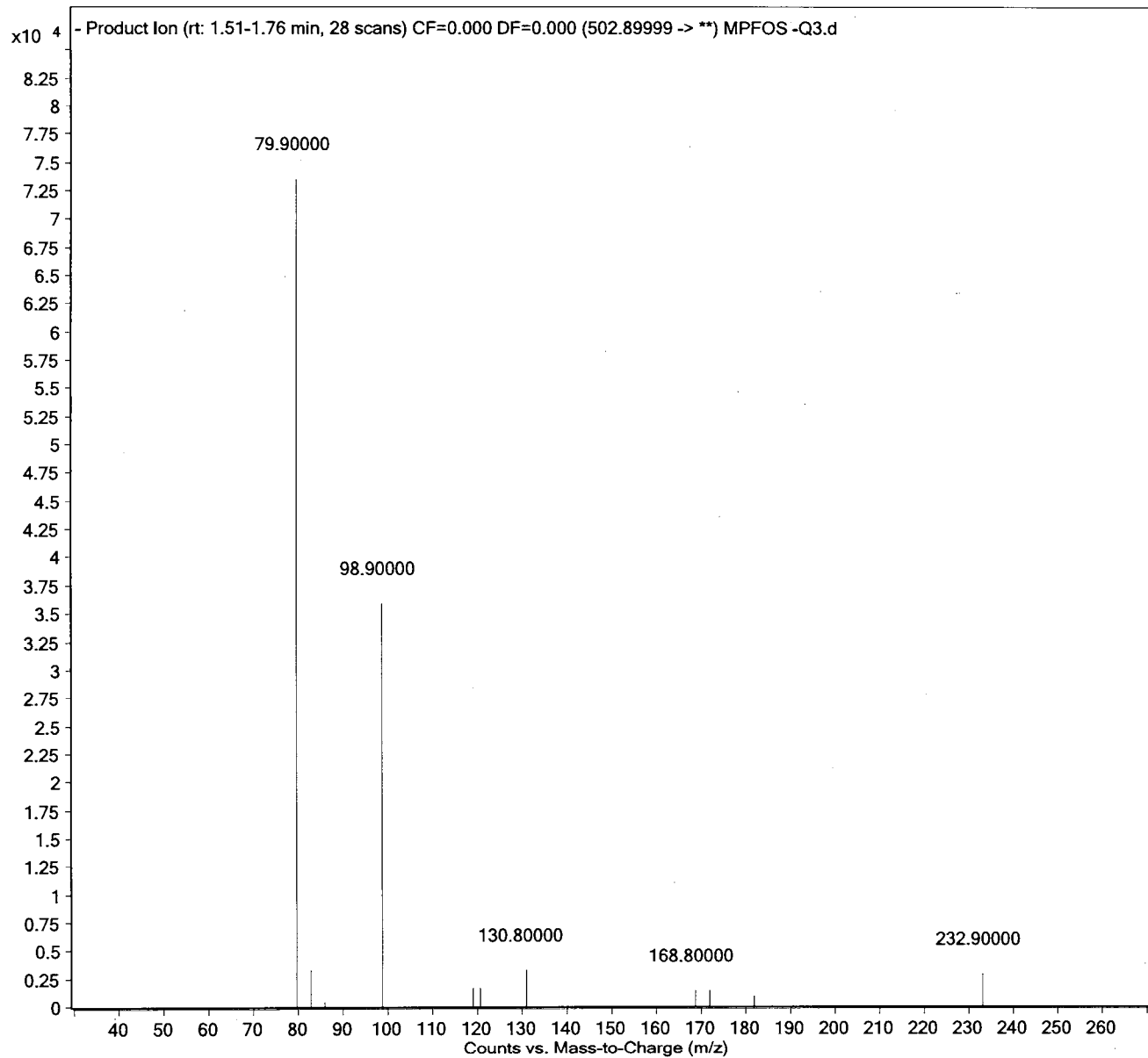
MPFOS -Q3
AD
Sample
PFC_MassVerification-MPFOS-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P2-A7
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
MPFOS -Q3.d
2017/07/11 3:40:32 PM



Sample Name
User Name
Sample Type
ACQ Method

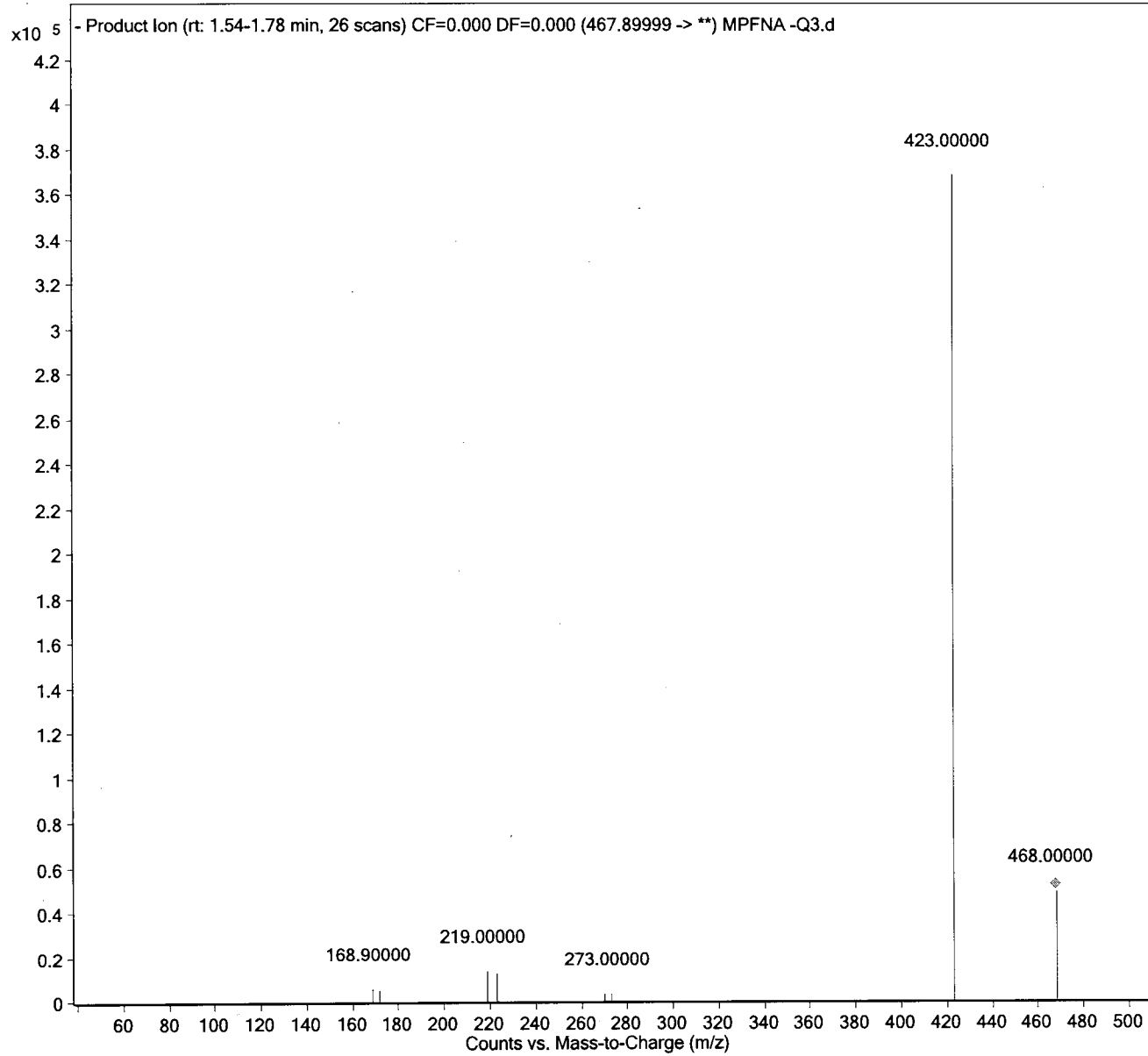
MPFNA -Q3
AD
Sample
PFC_MassVerification-MPFNA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P2-A8
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
MPFNA -Q3.d
2017/07/11 3:46:04 PM



Sample Name
User Name
Sample Type
ACQ Method

MPFDA -Q3
AD
Sample
PFC_MassVerification-MPFDA-Q3.m

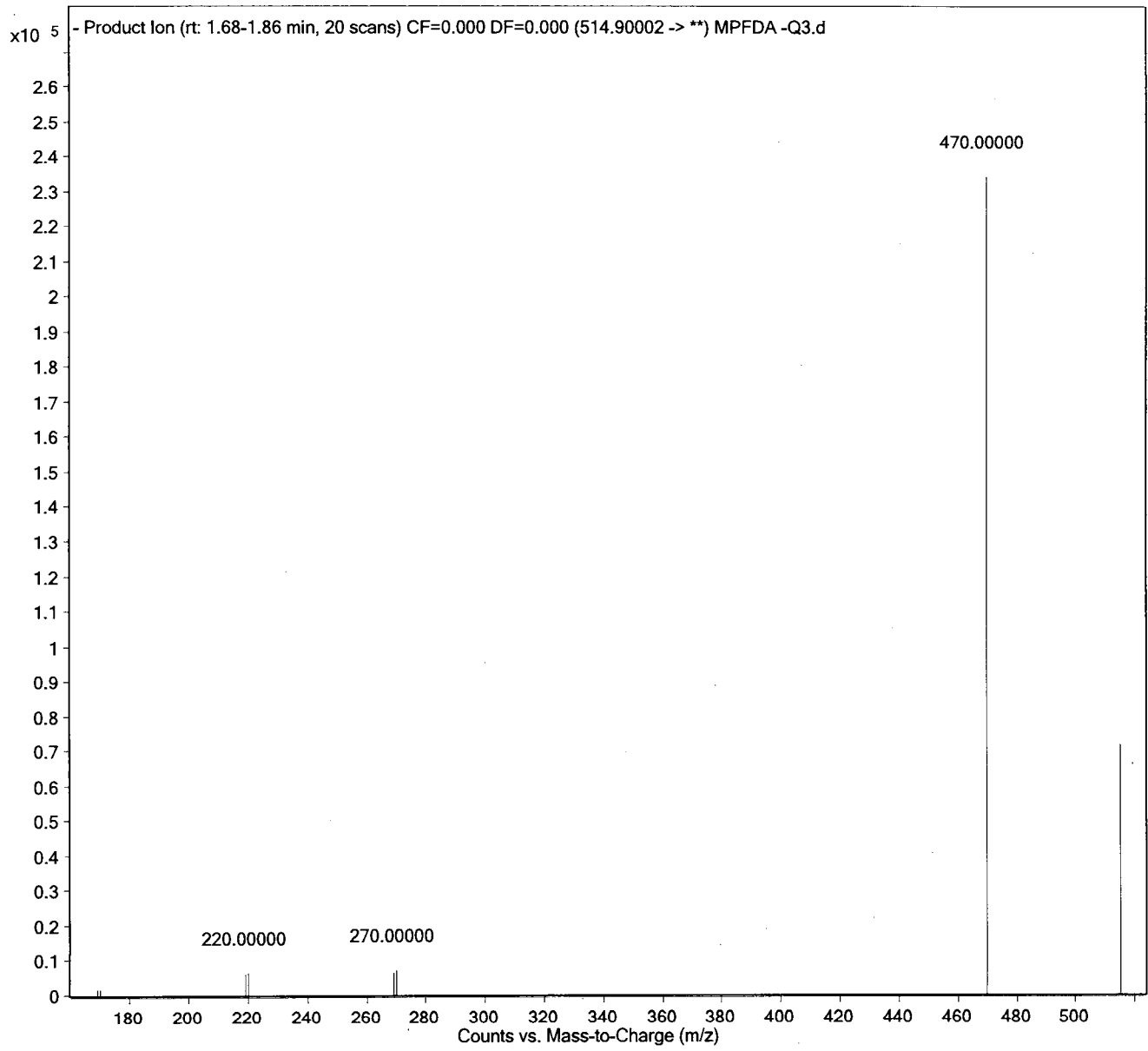
Position
Inj Vol
IRM Calibration Status
Comment

P2-A9
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MPFDA -Q3.d
2017/07/11 3:51:36 PM



Sample Name
User Name
Sample Type
ACQ Method

MPFUnA -Q3
AD
Sample
PFC_MassVerification-MPFUnA-Q3.m

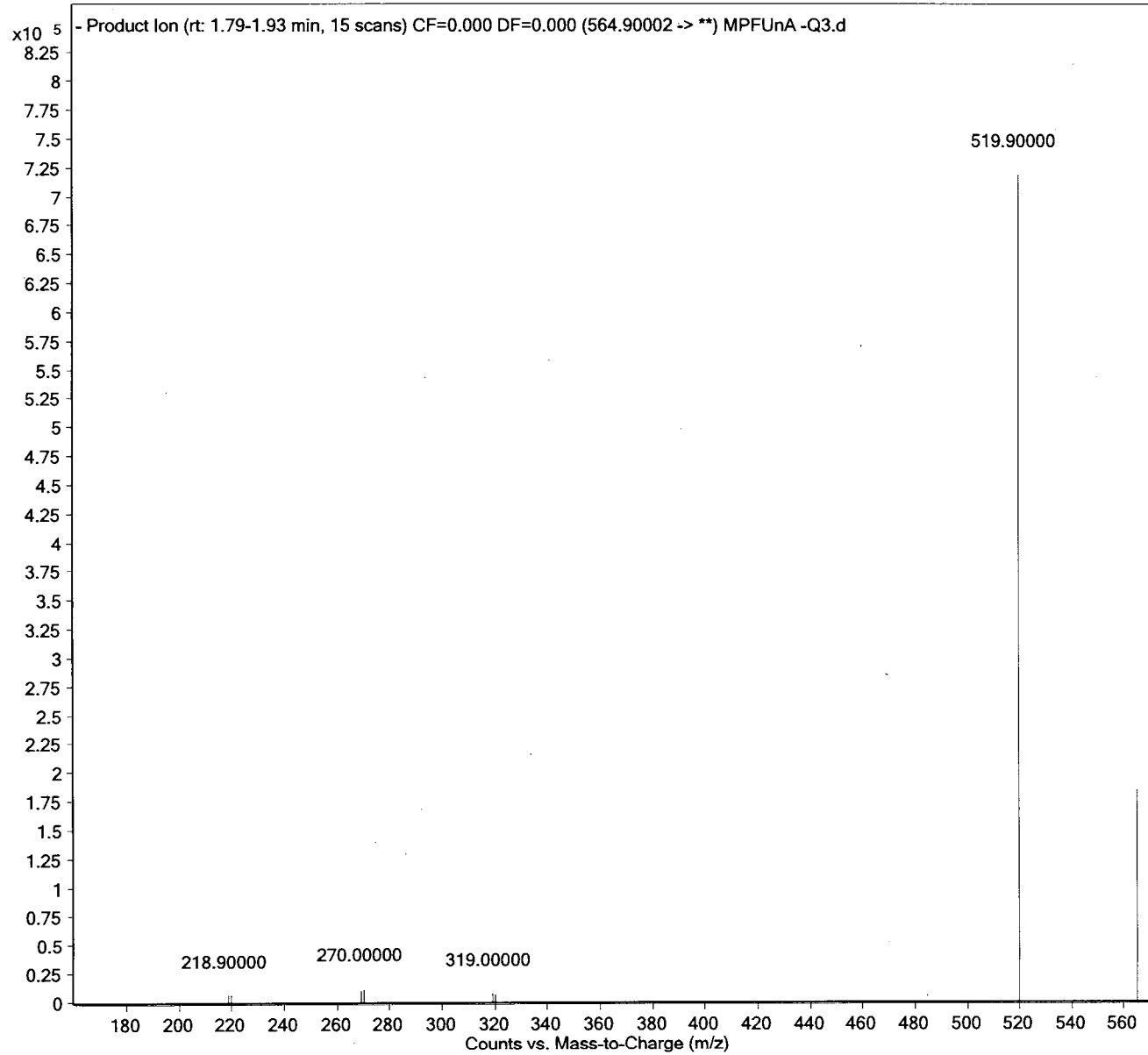
Position
Inj Vol
IRM Calibration Status
Comment

P2-B1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MPFUnA -Q3.d
2017/07/11 3:57:07 PM



Sample Name
User Name
Sample Type
ACQ Method

MPFDoA -Q3
AD
Sample
PFC_MassVerification-MPFDoA-Q3.m

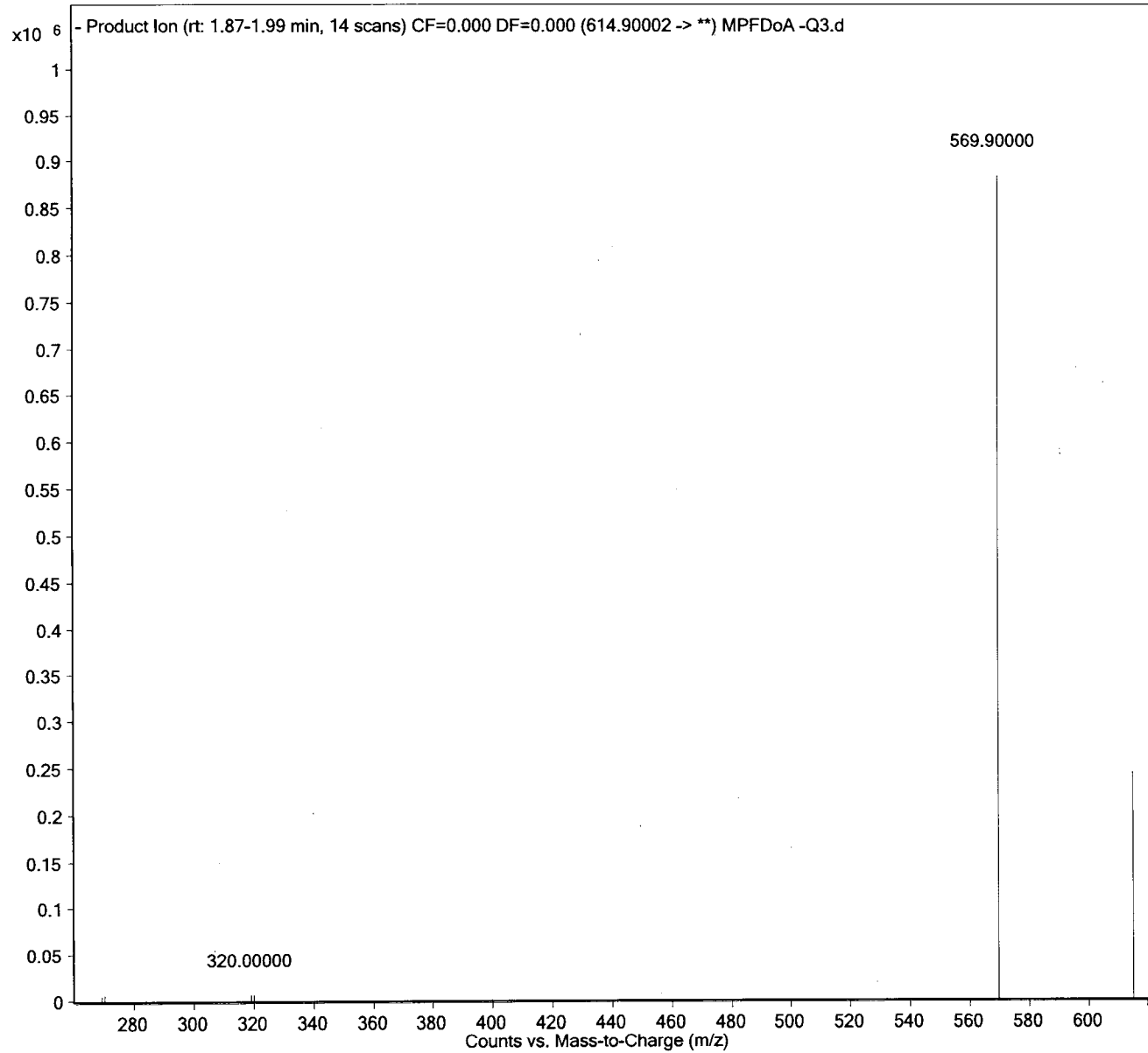
Position
Inj Vol
IRM Calibration Status
Comment

P2-B2
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

MPFDoA -Q3.d
2017/07/11 4:02:38 PM



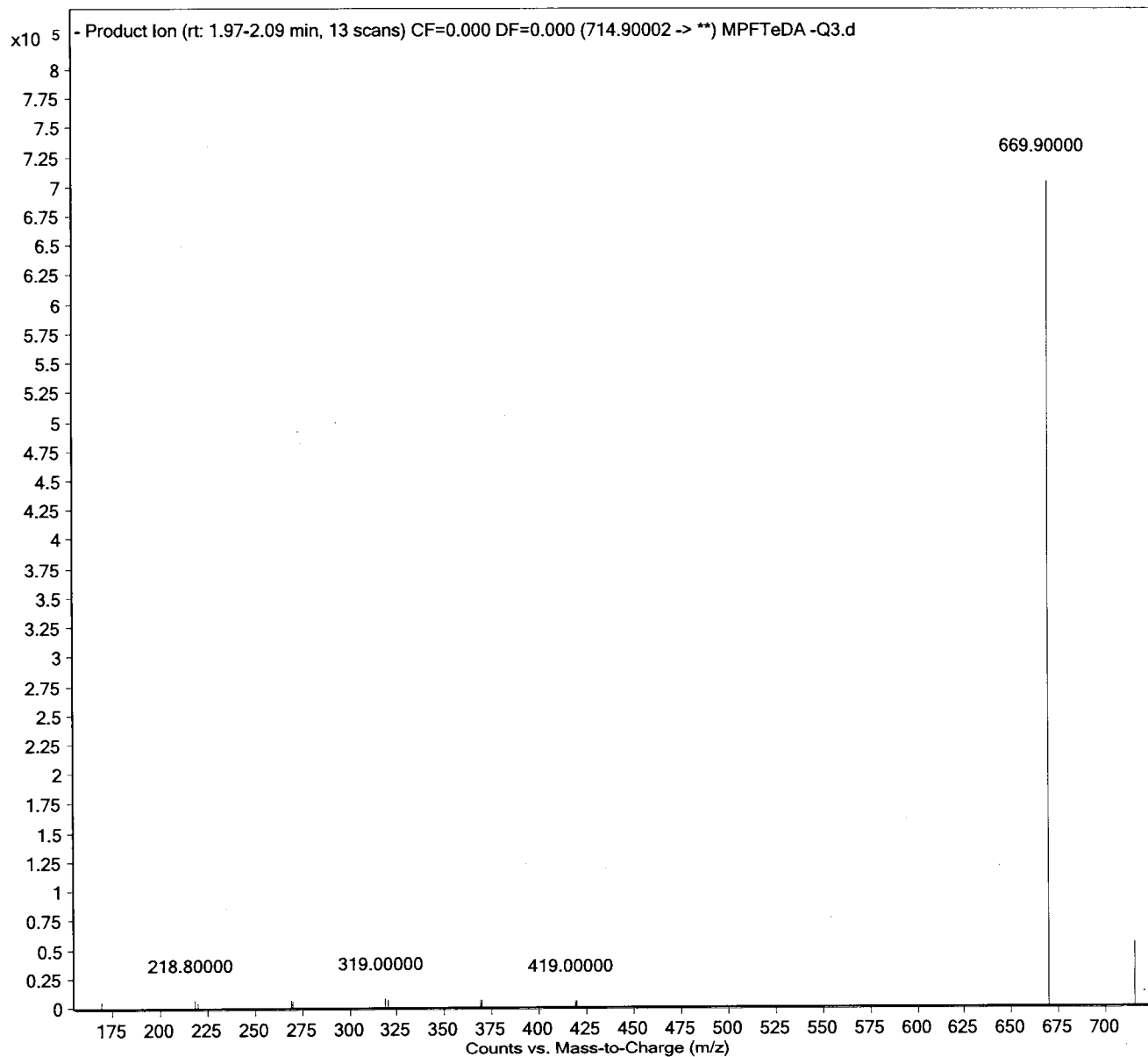
Sample Name
User Name
Sample Type
ACQ Method

MPFTeDA -Q3
AD
Sample
PFC_MassVerification-MPFTeDA-Q3.m

Position P2-B3
Inj Vol 10
IRM Calibration Status Not Applicable
Comment

Instrument Name LCMS04
InjPosition
Data Filename MPFTeDA -Q3.d
Acquired Time 2017/07/11 4:08:08 PM

Maxam Analytics



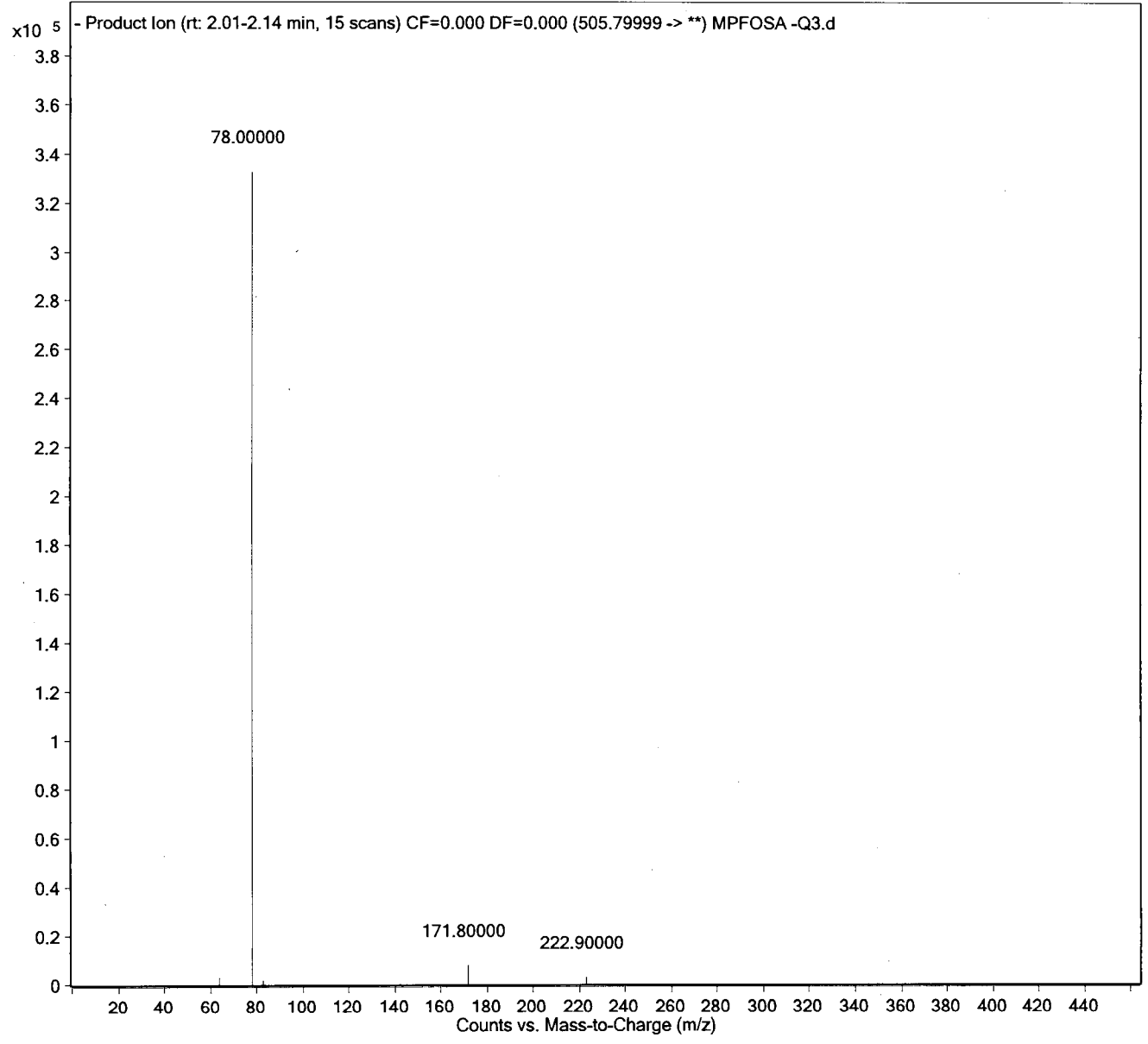
542 of 744

Sample Name
User Name
Sample Type
CQ Method

MPFOSA -Q3
AD
Sample
PFC_MassVerification-MPFOSA-Q3.m

Position P2-B4
Inj Vol 10
IRM Calibration Status Not Applicable
Comment

Instrument Name LCMS04
InjPosition
Data Filename MPFOSA -Q3.d
Acquired Time 2017/07/11 4:13:38 PM



Sample Name
User Name
Sample Type
ACQ Method

D3-MeFOSA -Q3
AD
Sample
PFC_MassVerification-D3-MeFOSA-Q3.m

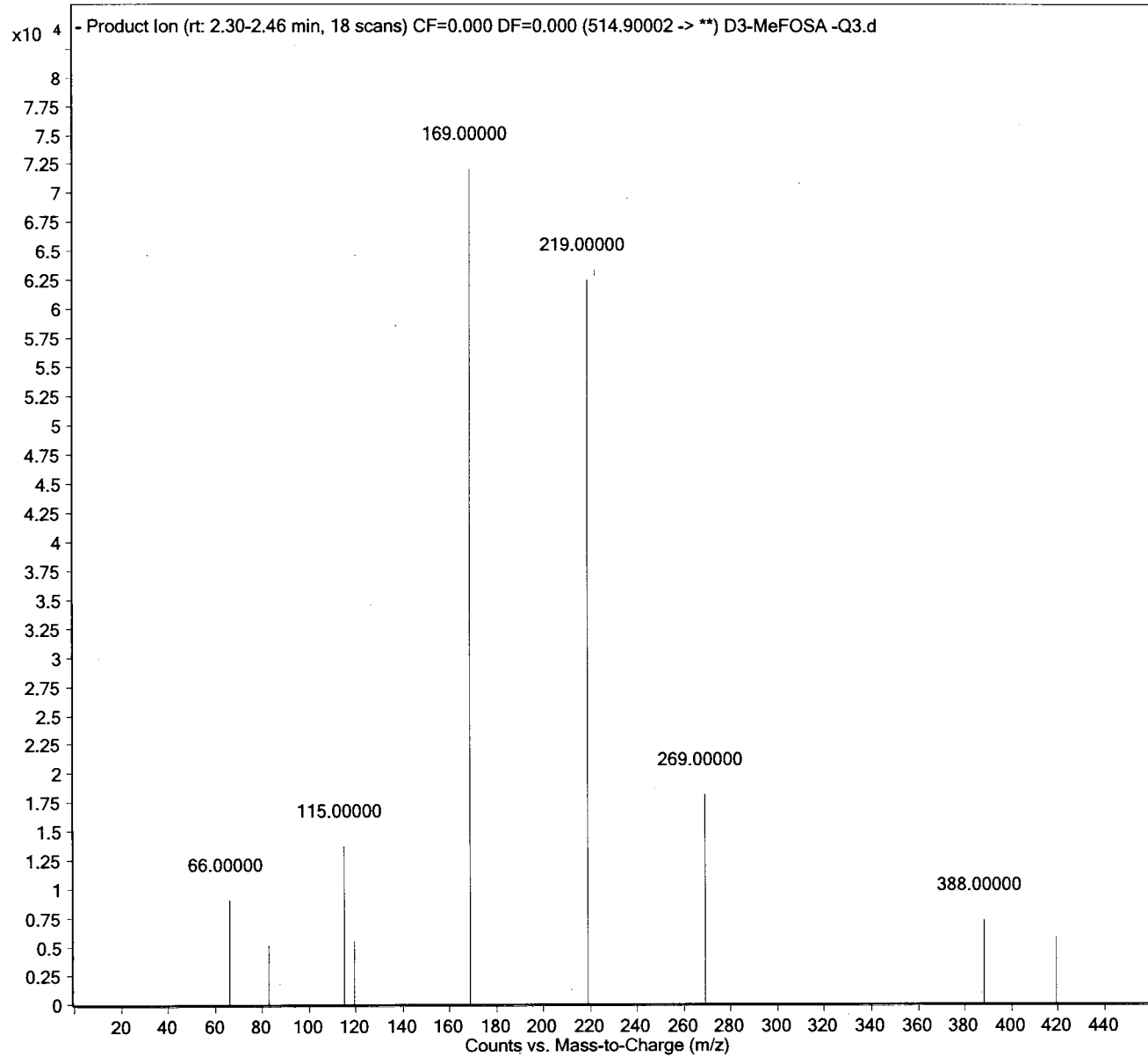
Position
Inj Vol
IRM Calibration Status
Comment

P2-B5
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

D3-MeFOSA -Q3.d
2017/07/11 4:19:08 PM



Sample Name
User Name
Sample Type
ACQ Method

D5-EtFOSA -Q3
AD
Sample
PFC_MassVerification-D5-EtFOSA-Q3.m

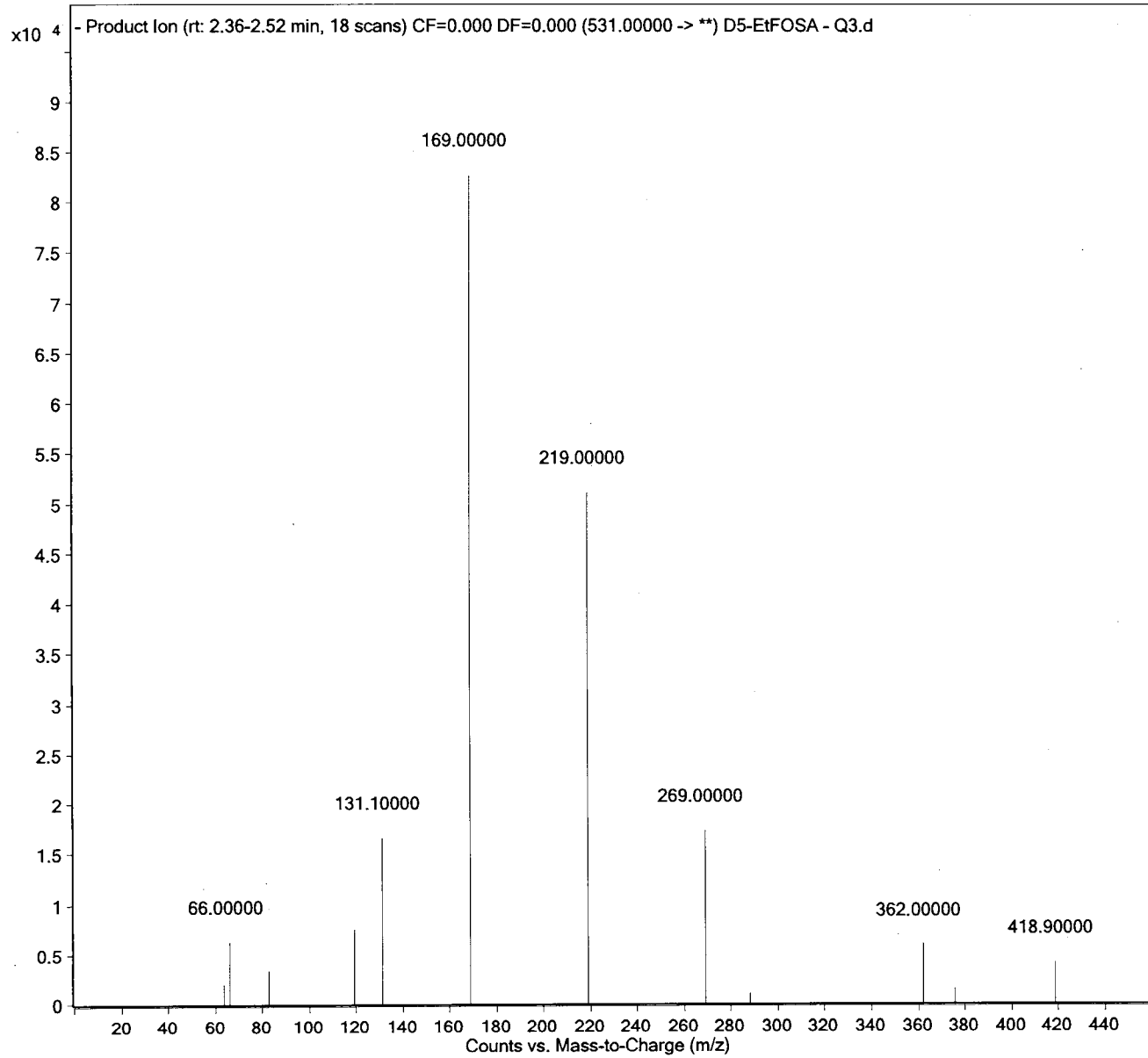
Position
Inj Vol
IRM Calibration Status
Comment

P2-B6
10
Not Applicable

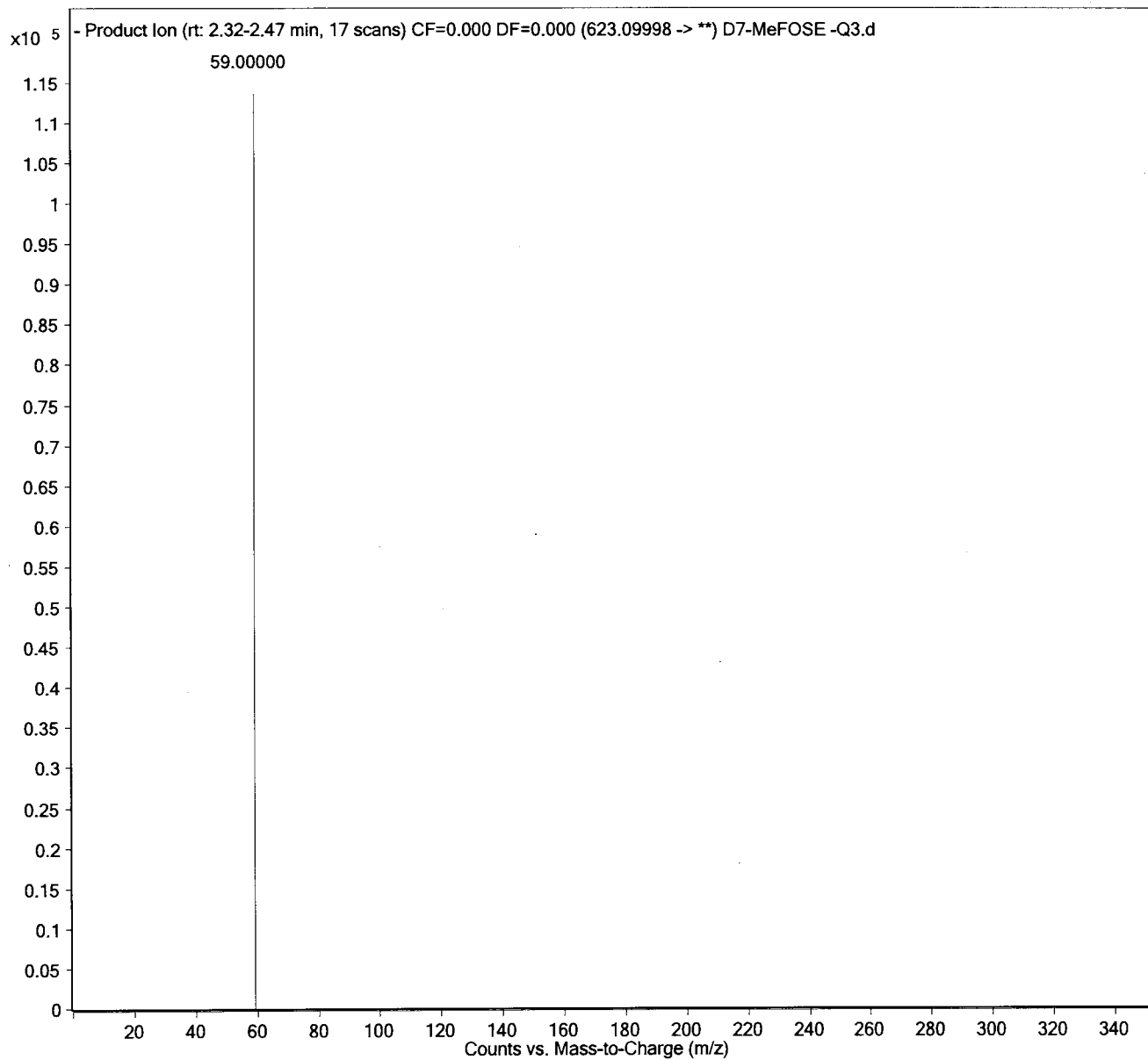
Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

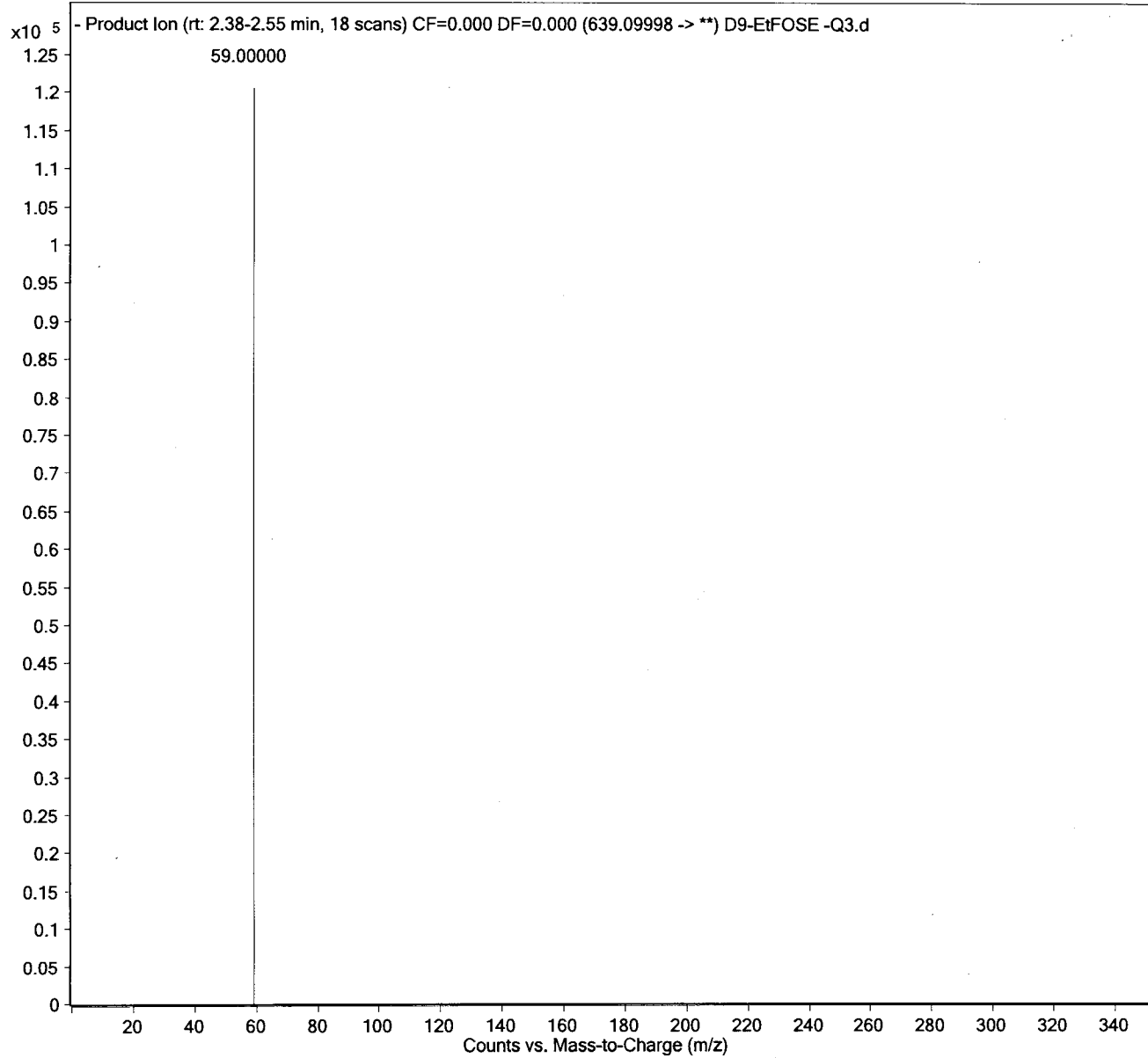
D5-EtFOSA - Q3.d
2017/07/11 4:24:38 PM



Sample Name	D7-MeFOSE -Q3	Position	P2-B7	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	D7-MeFOSE -Q3.d
QC Method	PFC_MassVerification-D7-MeFOSE-Q3.m	Comment		Acquired Time	2017/07/11 4:30:08 PM



Sample Name	D9-EtFOSE -Q3	Position	P2-B8	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	D9-EtFOSE -Q3.d
QC Method	PFC_MassVerification-D9-EtFOSE-Q3.m	Comment		Acquired Time	2017/07/11 4:35:38 PM



Sample Name
User Name
Sample Type
XQC Method

D3-MeFOSAA -Q3
AD
Sample
PFC_MassVerification-D3-MeFOSAA-Q3.m

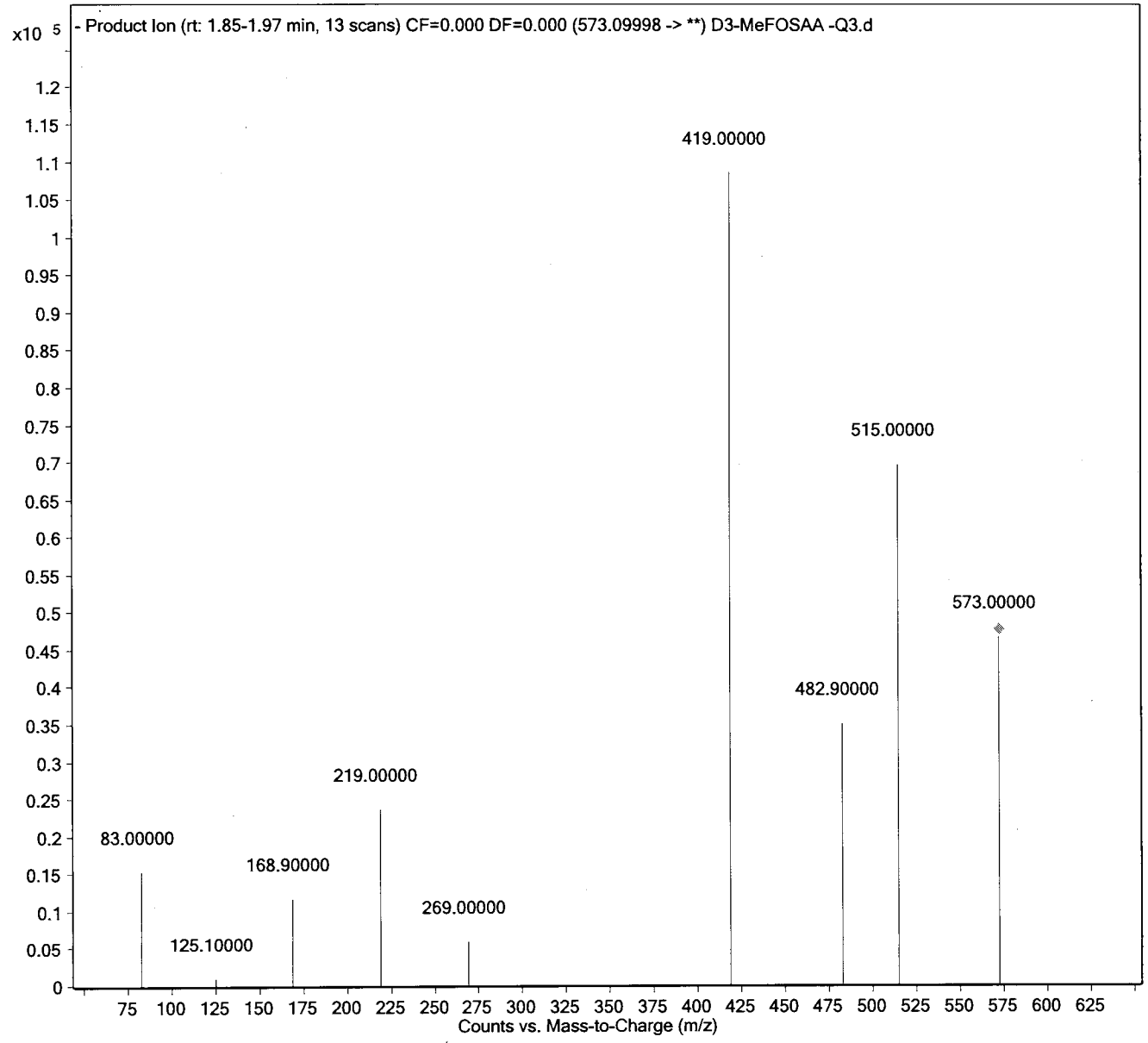
Position
Inj Vol
IRM Calibration Status
Comment

P2-B9
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
D3-MeFOSAA -Q3.d
2017/07/11 4:41:10 PM

548 of 744



Sample Name
User Name
Sample Type
Sample Method

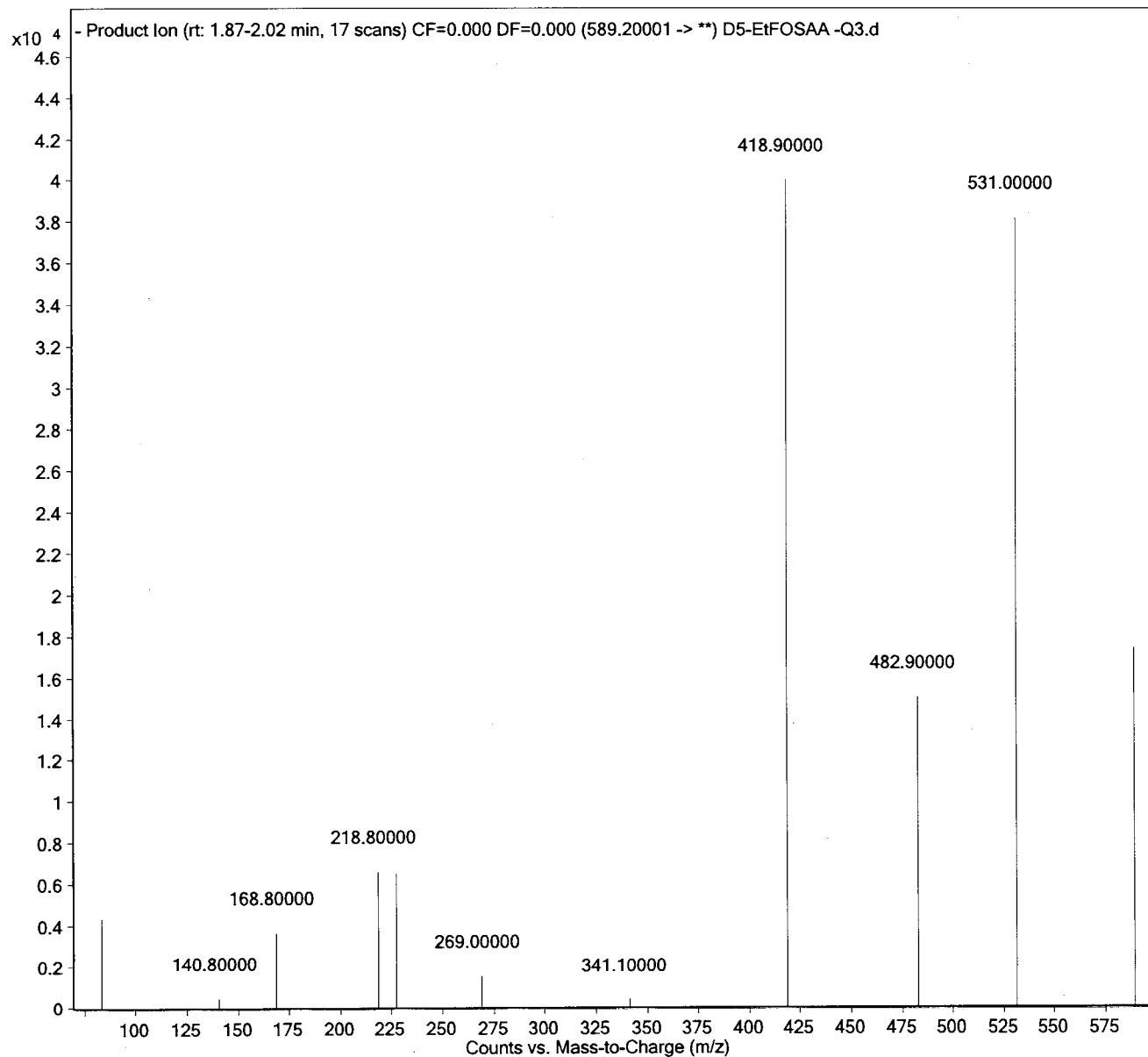
D5-EtFOSAA -Q3
AD
Sample
PFC_MassVerification-D5-EtFOSAA-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

P2-C1
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
D5-EtFOSAA -Q3.d
2017/07/12 8:41:07 AM



Sample Name
User Name
Sample Type
CQ Method

M2-6:2FTS -Q3
AD
Sample
PFC_MassVerification-M26-2FTS-Q3.m

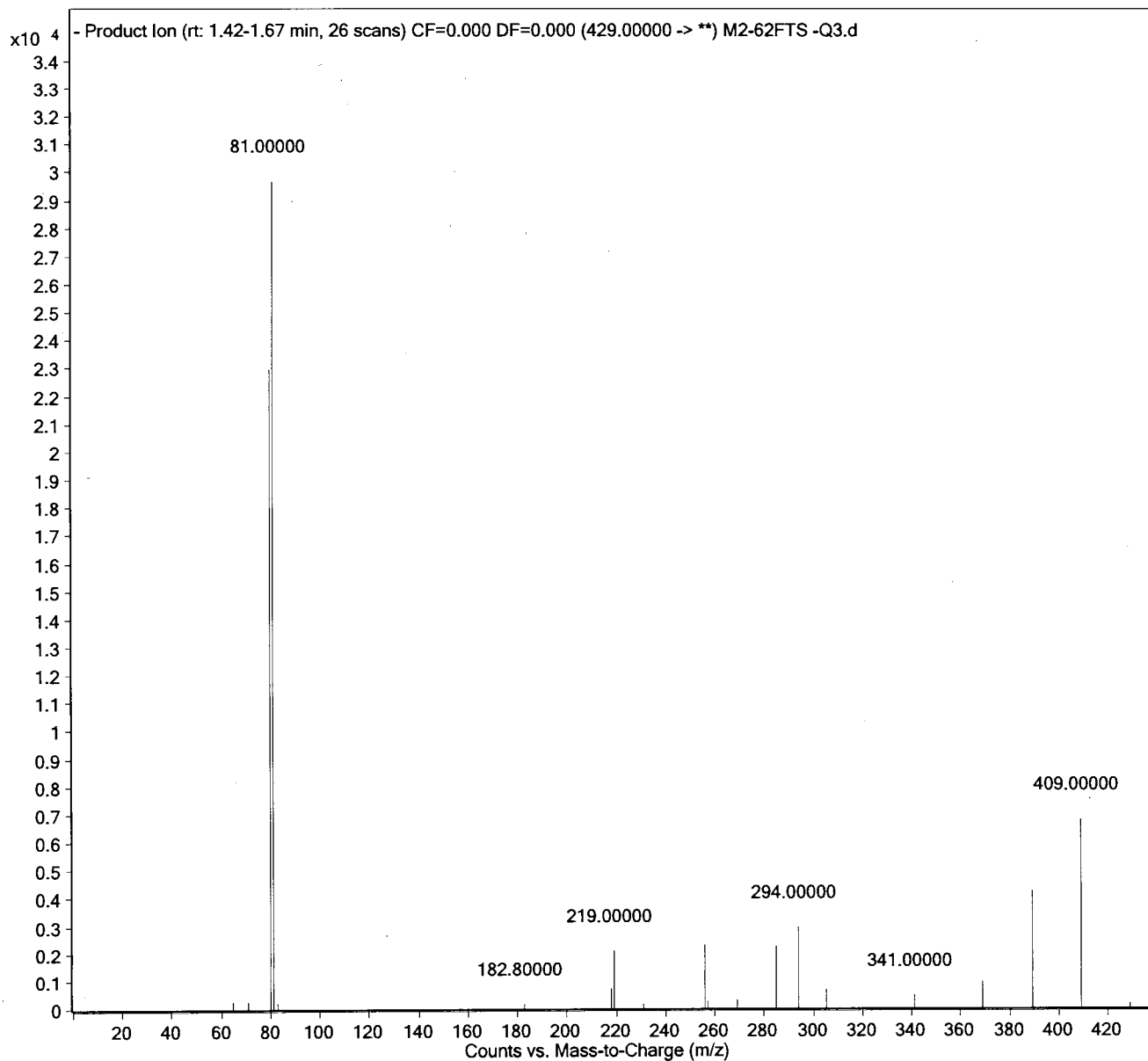
Position
Inj Vol
IRM Calibration Status
Comment

P2-C2
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04

M2-62FTS -Q3.d
2017/07/11 4:52:12 PM



Sample Name
User Name
Sample Type
CQ Method

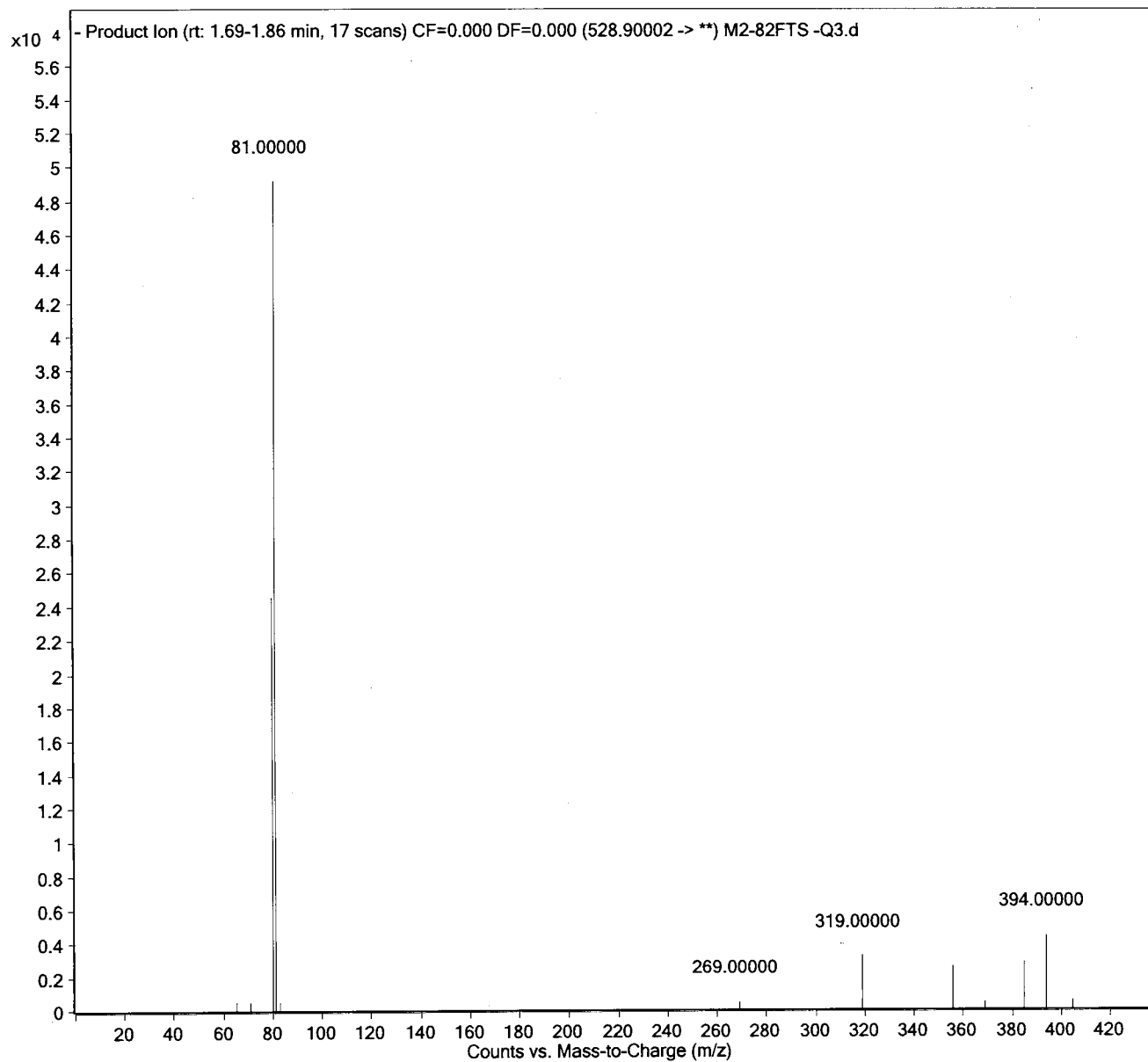
M2-8:2FTS -Q3
AD
Sample
PFC_MassVerification-M2-8-2FTS-Q3.m

Position
Inj Vol
IRM Calibration Status
Comment

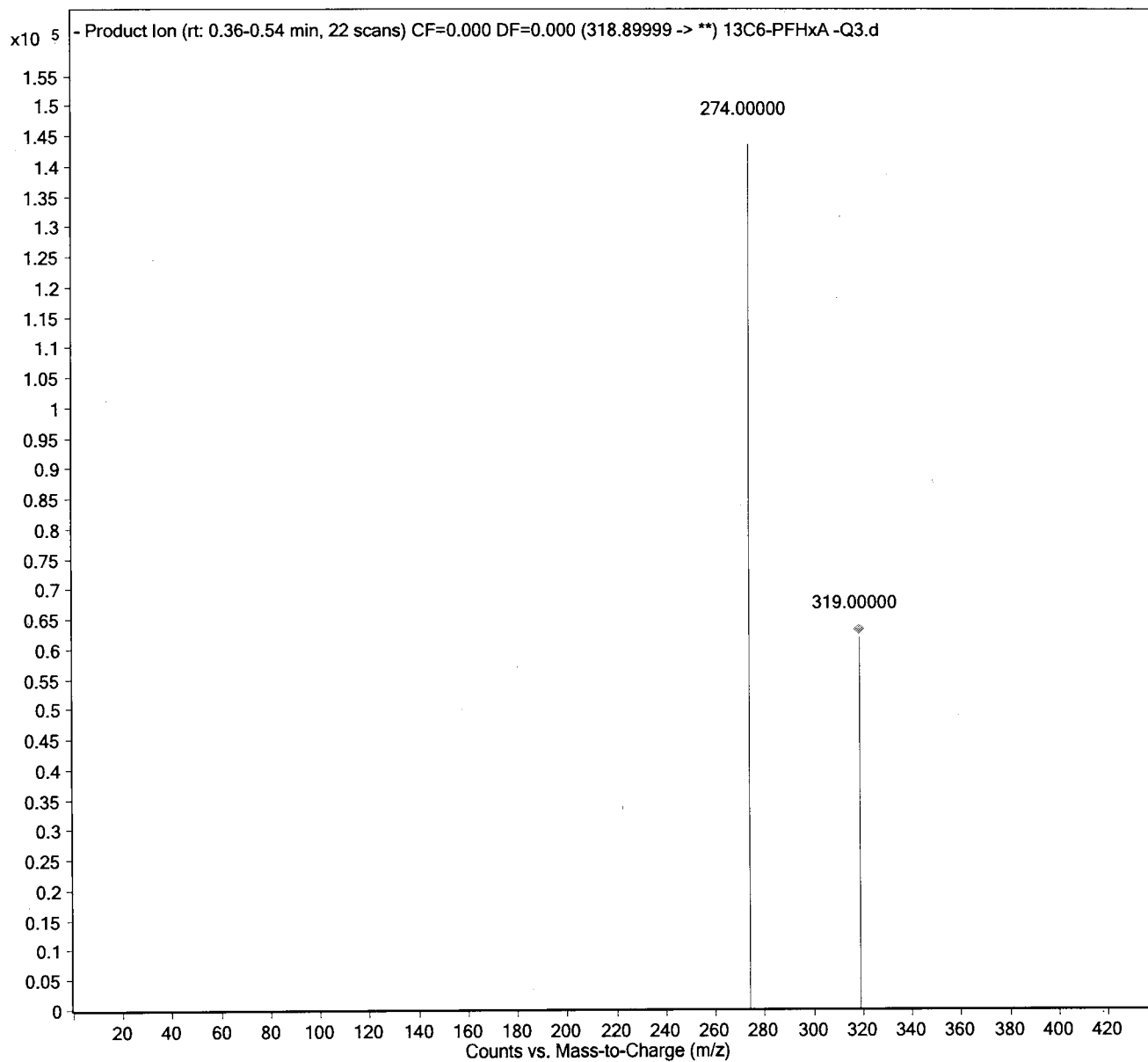
P2-C3
10
Not Applicable

Instrument Name
InjPosition
Data Filename
Acquired Time

LCMS04
M2-82FTS -Q3.d
2017/07/11 4:57:42 PM



Sample Name	13C6-PFHxA -Q3	Position	P2-C4	Instrument Name	LCMS04
User Name	AD	Inj Vol	10	InjPosition	
Sample Type	Sample	IRM Calibration Status	Not Applicable	Data Filename	13C6-PFHxA -Q3.d
CQ Method	PFC_MassVerification-13C6-PFHxA-Q3.m	Comment		Acquired Time	2017/07/11 5:03:12 PM



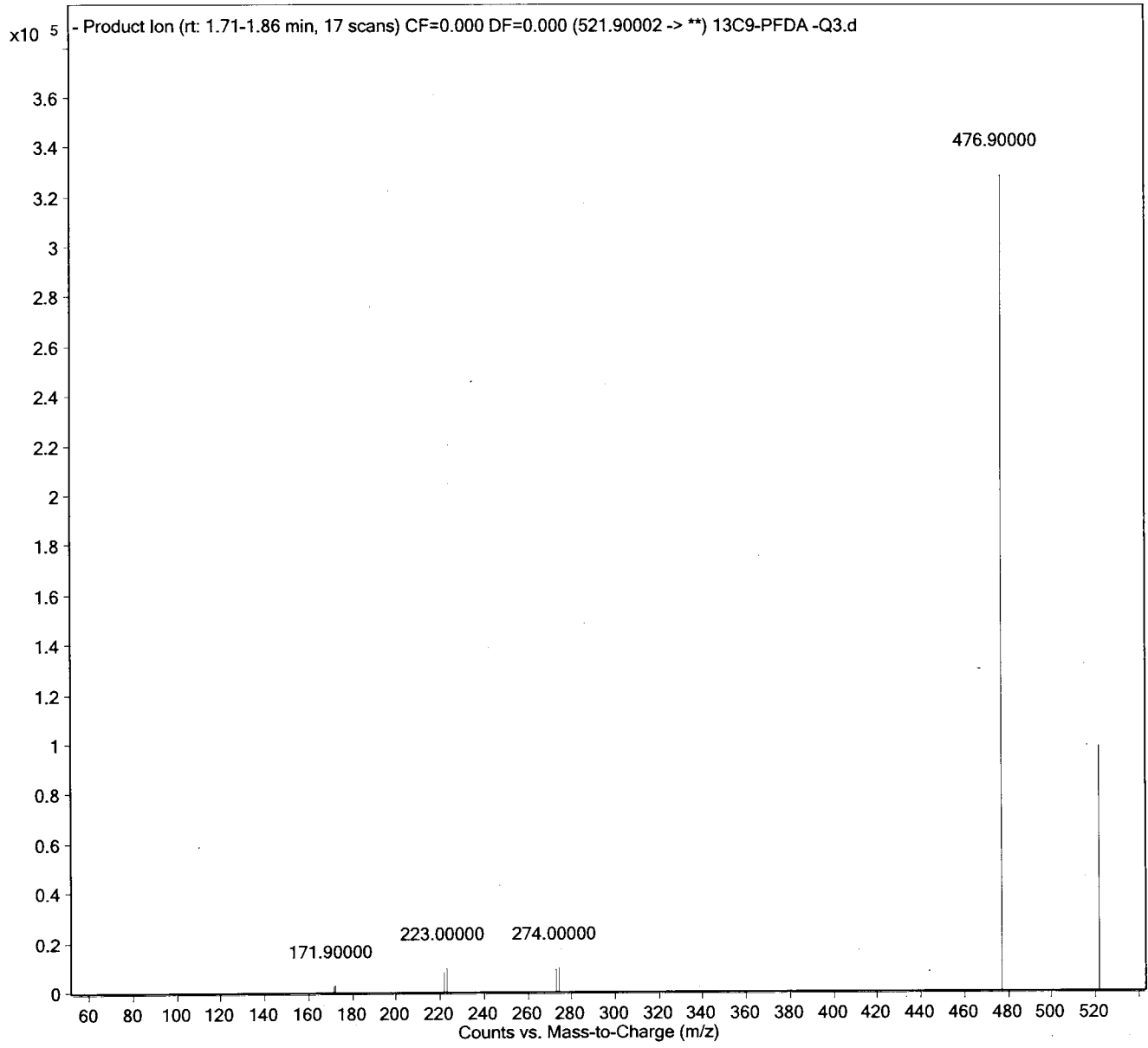
Sample Name
User Name
Sample Type
CQ Method

13C9-PFDA -Q3
AD
Sample
PFC_MassVerification-13C9-PFDA-Q3.m

Position P2-C5
Inj Vol 10
IRM Calibration Status Not Applicable
Comment

Instrument Name LCMS04
InjPosition
Data Filename 13C9-PFDA -Q3.d
Acquired Time 2017/07/11 5:08:42 PM

Maxam Analytics



553 of 744

Worklist Report



Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFAS_MASSVER_IS_170711.WKL

Operator Name: AD
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\Mass Verification\20170711_IS
Pre-Worklist Script: ---
Post-Worklist Script: ---
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: ---

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
1	MPFBA	P2-A1	PFC_MassVerification-Q1.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFBA -Q1.d	Sample	As Method	PFAS-Q1
2	MPFPeA	P2-A2	PFC_MassVerification-Q1.m	MPFPeA -Q1.d	Sample	As Method	PFAS-Q1
3	MPFHxA	P2-A3	PFC_MassVerification-Q1.m	MPFHxA -Q1.d	Sample	As Method	PFAS-Q1
4	MPFHxS	P2-A4	PFC_MassVerification-Q1.m	MPFHxS -Q1.d	Sample	As Method	PFAS-Q1
5	MPFHpA	P2-A5	PFC_MassVerification-Q1.m	MPFHpA -Q1.d	Sample	As Method	PFAS-Q1
6	MPFOA	P2-A6	PFC_MassVerification-Q1.m	MPFOA -Q1.d	Sample	As Method	PFAS-Q1
7	MPFOS	P2-A7	PFC_MassVerification-Q1.m	MPFOS -Q1.d	Sample	As Method	PFAS-Q1
8	MPFNA	P2-A8	PFC_MassVerification-Q1.m	MPFNA -Q1.d	Sample	As Method	PFAS-Q1

554 of 744

Worklist Report

Maxxim Analytics

555 of 744

Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
MPFDA	P2-A9	PFC_MassVerification-Q1.m	MPFDA -Q1.d	Sample	As Method	PFAS-Q1
MPFUnA	P2-B1	PFC_MassVerification-Q1.m	MPFUnA -Q1.d	Sample	As Method	PFAS-Q1
MPFDoA	P2-B2	PFC_MassVerification-Q1.m	MPFDoA -Q1.d	Sample	As Method	PFAS-Q1
MPFTeDA	P2-B3	PFC_MassVerification-Q1.m	MPFTeDA -Q1.d	Sample	As Method	PFAS-Q1
MPFOSA	P2-B4	PFC_MassVerification-Q1.m	MPFOSA -Q1.d	Sample	As Method	PFAS-Q1
D3-MeFOSA	P2-B5	PFC_MassVerification-Q1.m	D3-MeFOSA -Q1.d	Sample	As Method	PFAS-Q1
D5-EtFOSA	P2-B6	PFC_MassVerification-Q1.m	D5-EtFOSA -Q1.d	Sample	As Method	PFAS-Q1
D7-MeFOSE	P2-B7	PFC_MassVerification-Q1.m	D7-MeFOSE -Q1.d	Sample	As Method	PFAS-Q1
D9-EtFOSE	P2-B8	PFC_MassVerification-Q1.m	D9-EtFOSE -Q1.d	Sample	As Method	PFAS-Q1
D3-MeFOSAA	P2-B9	PFC_MassVerification-Q1.m	D3-MeFOSAA -Q1.d	Sample	As Method	PFAS-Q1
D5-EtFOSAA	P2-C1	PFC_MassVerification-Q1.m	D5-EtFOSAA -Q1.d	Sample	As Method	PFAS-Q1
M2-6:2FTS	P2-C2	PFC_MassVerification-Q1.m	M2-62FTS -Q1.d	Sample	As Method	PFAS-Q1
M2-8:2FTS	P2-C3	PFC_MassVerification-Q1.m	M2-82FTS -Q1.d	Sample	As Method	PFAS-Q1
13C6-PFHxA	P2-C4	PFC_MassVerification-Q1.m	13C6-PFHxA -Q1.d	Sample	As Method	PFAS-Q1
13C9-PFDA	P2-C5	PFC_MassVerification-Q1.m	13C9-PFDA -Q1.d	Sample	As Method	PFAS-Q1
MPFBA -Q3	P2-A1	PFC_MassVerification-MPFBA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_ISMPFBA -Q3.d	Sample	As Method	PFAS-Q3
MPFPeA -Q3	P2-A2	PFC_MassVerification-MPFPeA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_ISMPFPeA -Q3.d	Sample	As Method	PFAS-Q3
MPFHxA -Q3	P2-A3	PFC_MassVerification-MPFHxA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_ISMPFHxA -Q3.d	Sample	As Method	PFAS-Q3
MPFHxS -Q3	P2-A4	PFC_MassVerification-MPFHxS-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_ISMPFHxS -Q3.d	Sample	As Method	PFAS-Q3
MPFHpA -Q3	P2-A5	PFC_MassVerification-MPFHpA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_ISMPFHpA -Q3.d	Sample	As Method	PFAS-Q3

Worklist Report

Maxxim Analytics

556 of 174

Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
MPFOA -Q3	P2-A6	PFC_MassVerification-MPFOA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFOA -Q3.d	Sample	As Method	PFAS-Q3
MPFOS -Q3	P2-A7	PFC_MassVerification-MPFOS-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFOS -Q3.d	Sample	As Method	PFAS-Q3
MPFNA -Q3	P2-A8	PFC_MassVerification-MPFNA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFNA -Q3.d	Sample	As Method	PFAS-Q3
MPFDA -Q3	P2-A9	PFC_MassVerification-MPFDA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFDA -Q3.d	Sample	As Method	PFAS-Q3
MPFUnA -Q3	P2-B1	PFC_MassVerification-MPFUnA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFUnA -Q3.d	Sample	As Method	PFAS-Q3
MPFDoA -Q3	P2-B2	PFC_MassVerification-MPFDoA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFDoA -Q3.d	Sample	As Method	PFAS-Q3
MPFTeDA -Q3	P2-B3	PFC_MassVerification-MPFTeDA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFTeDA -Q3.d	Sample	As Method	PFAS-Q3
MPFOSA -Q3	P2-B4	PFC_MassVerification-MPFOSA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFOSA -Q3.d	Sample	As Method	PFAS-Q3
D3-MeFOSA -Q3	P2-B5	PFC_MassVerification-D3-MeFOSA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D3-MeFOSA -Q3.d	Sample	As Method	PFAS-Q3
D5-EtFOSA -Q3	P2-B6	PFC_MassVerification-D5-EtFOSA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D5-EtFOSA -Q3.d	Sample	As Method	PFAS-Q3
D7-MeFOSE -Q3	P2-B7	PFC_MassVerification-D7-MeFOSE-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D7-MeFOSE -Q3.d	Sample	As Method	PFAS-Q3
D9-EtFOSE -Q3	P2-B8	PFC_MassVerification-D9-EtFOSE-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D9-EtFOSE -Q3.d	Sample	As Method	PFAS-Q3
D3-MeFOSAA -Q3	P2-B9	PFC_MassVerification-D3-MeFOSAA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D3-MeFOSAA -Q3.d	Sample	As Method	PFAS-Q3

D:\MassHunter\Worklists\PFCs\PFAS_MASSVER_IS_170711.wkl

Worklist Report

Maxxim Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
42	D5-EtFOSA -Q3	P2-C1	PFC_MassVerification-D5-EtFOSA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\170711-D5-EtFOSA -Q3.d	Sample	As Method	PFAS-Q3
43	M2-6:2FTS -Q3	P2-C2	PFC_MassVerification-M26-2FTS-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\M2-62FTS -Q3.d	Sample	As Method	PFAS-Q3
44	M2-8:2FTS -Q3	P2-C3	PFC_MassVerification-M2-8-2FTS-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\M2-82FTS -Q3.d	Sample	As Method	PFAS-Q3
45	13C6-PFHxA -Q3	P2-C4	PFC_MassVerification-13C6-PFHxA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\13C6-PFHxA -Q3.d	Sample	As Method	PFAS-Q3
46	13C9-PFDA -Q3	P2-C5	PFC_MassVerification-13C9-PFDA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\13C9-PFDA -Q3.d	Sample	As Method	PFAS-Q3
47	SCP_InstrumentStandby() {MH_Acq_Scripts.exe }						

557 of 744



5. Initial Calibration

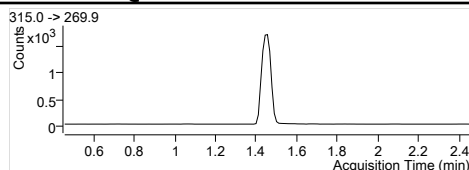
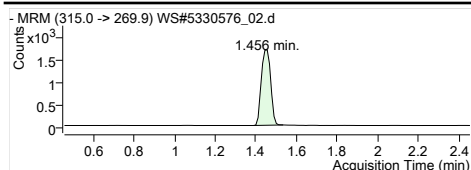
Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Quantitation Results

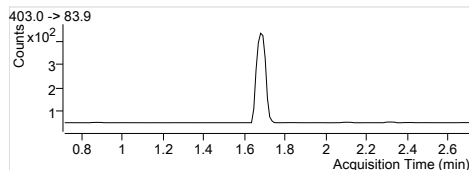
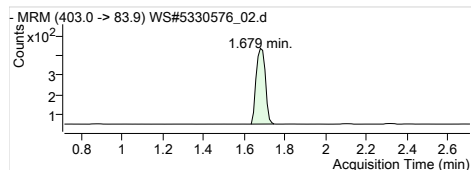
Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	STD 1	Instrument	LCMS04
Data File	WS#5330576_02.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A2
Acq. Date	2018/01/13 1:53:02 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5347	1.46	1 µg/L		
MPFHxS	1227	1.68	1 µg/L		
MPFHpA	6649	1.71	1 µg/L		
MPFOA	7142	1.89	1 µg/L		
MPFOS	1634	1.98	1 µg/L		
MPFNA	7017	2.04	1 µg/L		
MPFDA	5922	2.15	1 µg/L		
MPFUnA	7549	2.25	1 µg/L		
MPFDoA	9336	2.33	1 µg/L		
MPFTeDA	10540	2.47	1 µg/L		
D3-MeFOSA IS	3165	2.83	1 µg/L		
D5-EtFOSA IS	2810	2.90	1 µg/L		
13C6-PFHxA IS	22822	1.46	1 µg/L		
13C9-PFDA IS	27539	2.15	1 µg/L		

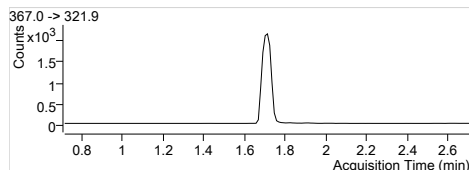
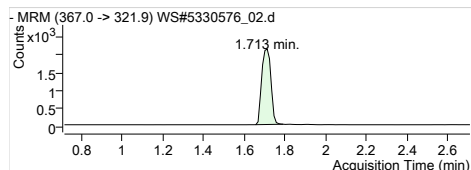
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	528	1.10	0.83	0.81 µg/L	97.41
PFHxA 1	1907	1.46	0.83	0.85 µg/L	102.47
PFHxS 1	607	1.68	0.83	0.92 µg/L	110.53
PFHpA 1	2677	1.71	0.83	0.89 µg/L	107.03
PFOA 1	2760	1.89	0.83	0.90 µg/L	108.59
PFOS 1	490	1.97	0.83	0.89 µg/L	107.13
PFNA 1	2479	2.04	0.83	0.85 µg/L	102.72
PFDA 1	2863	2.15	0.83	0.99 µg/L	119.71
PFUnA 1	2724	2.25	0.83	0.84 µg/L	101.43
PFDaA 1	3632	2.33	0.83	0.92 µg/L	111.03
PFTrDA 1	3596	2.40	0.83	0.84 µg/L	101.45
PFTeDA 1	3112	2.47	0.83	0.84 µg/L	101.26
MeFOSA 1	301	2.83	0.83	0.85 µg/L	102.06
EtFOSA 1	390	2.90	0.83	0.92 µg/L	111.19
13C2-PFHxA	5347	1.46	100.00	93.46 µg/L	93.46
18O2-PFHxS	1227	1.68	100.00	93.04 µg/L	93.04
13C4-PFHpA	6649	1.71	100.00	91.70 µg/L	91.70
13C4-PFOA	7142	1.89	100.00	95.52 µg/L	95.52
13C4-PFOS	1634	1.98	100.00	100.65 µg/L	100.65
13C5-PFNA	6981	2.04	100.00	95.46 µg/L	95.46
13C2-PFDA	5848	2.15	100.00	96.39 µg/L	96.39
13C2-PFUnA	7549	2.25	100.00	97.88 µg/L	97.88
13C2-PFDoA	9336	2.33	100.00	95.86 µg/L	95.86
13C2-PFTeDA	10763	2.47	100.00	98.39 µg/L	98.39
D3-MeFOSA	3190	2.83	100.00	87.00 µg/L	87.00
D5-EtFOSA	2829	2.90	100.00	94.87 µg/L	94.87
13C6-PFHxA	22822	1.46	100.00	107.03 µg/L	107.03
13C9-PFDA	27539	2.15	100.00	105.26 µg/L	105.26



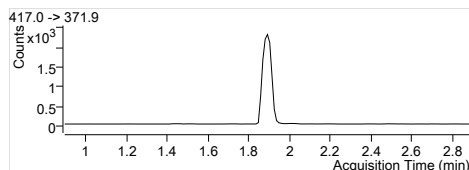
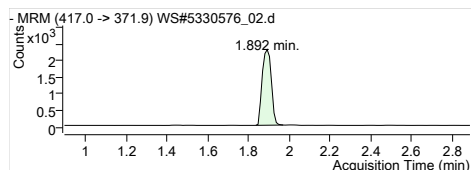
MPFHxA
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



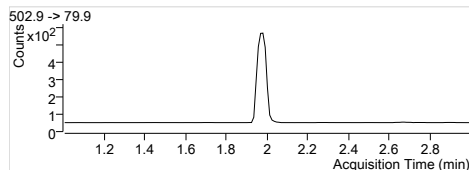
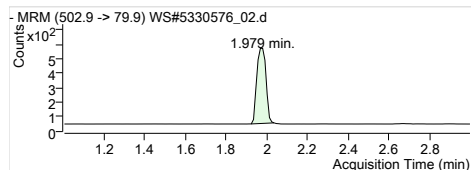
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



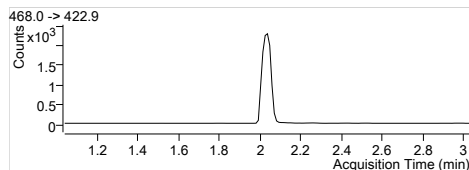
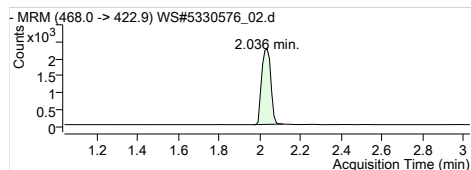
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



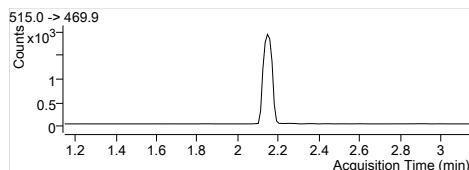
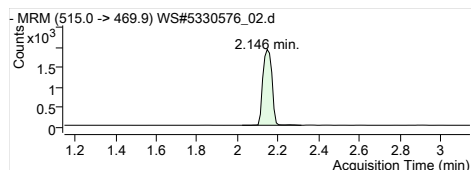
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



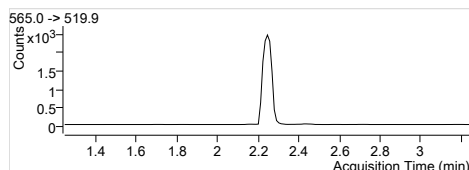
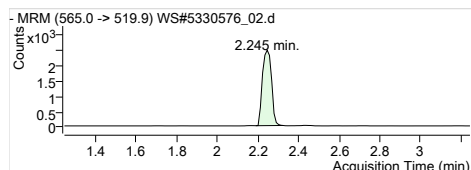
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: Calibration



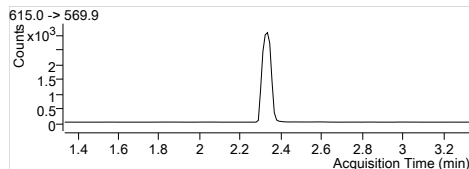
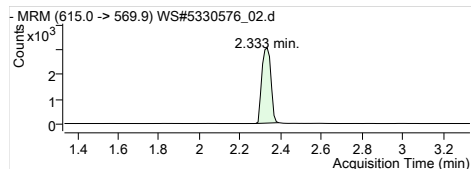
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



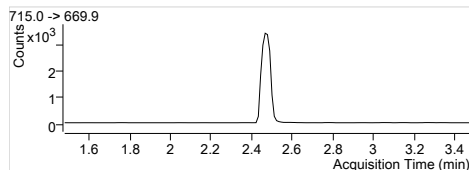
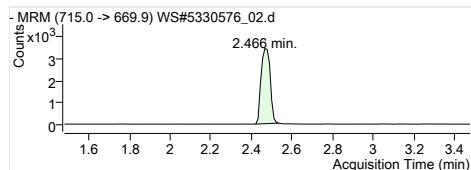
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



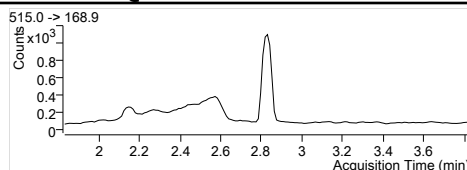
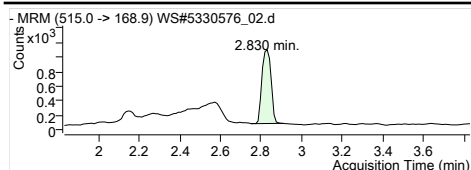
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



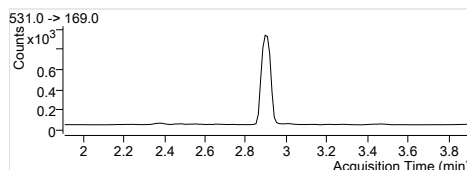
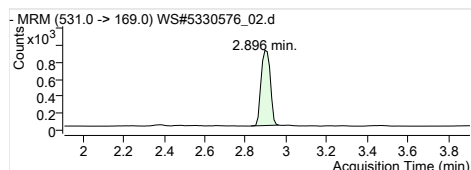
MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Calibration



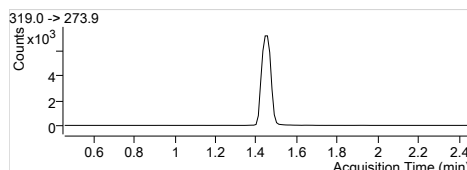
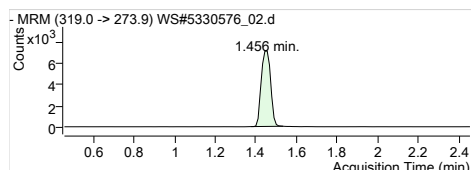
MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



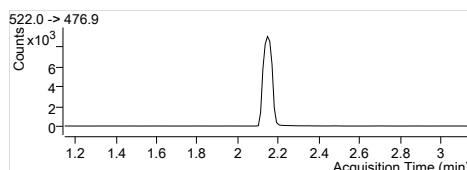
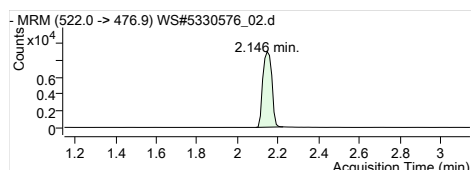
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



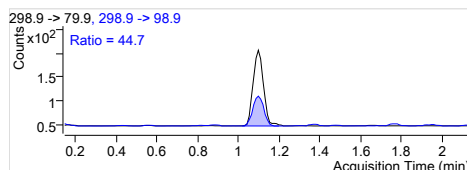
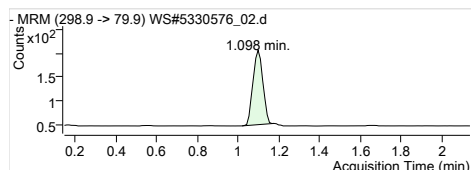
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Calibration



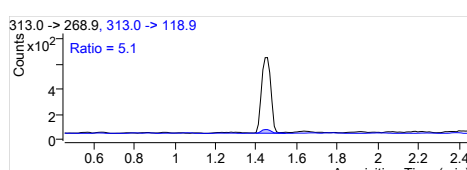
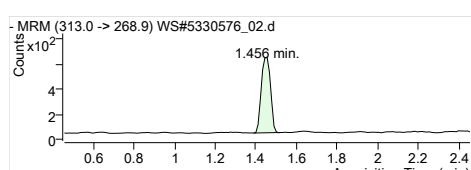
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Calibration



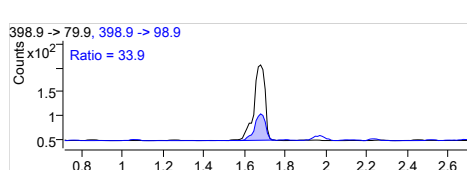
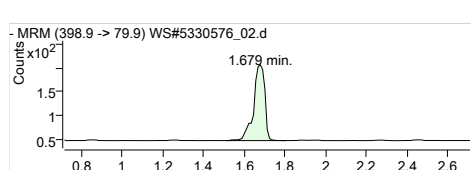
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



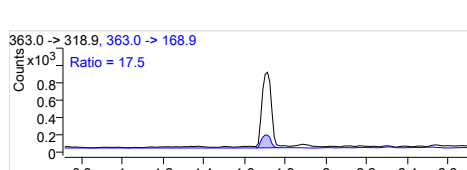
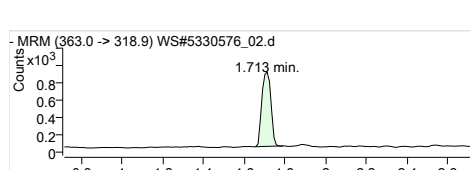
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.143)
 Area ratio: 0.81 µg/L
 0.43032
 Sample type: Calibration



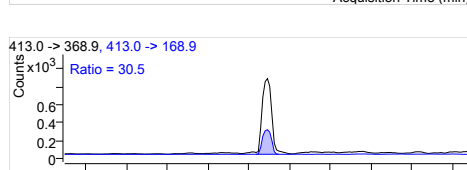
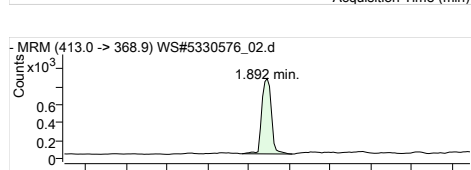
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 0.85 µg/L
 0.35665
 Sample type: Calibration



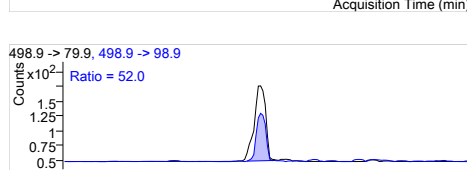
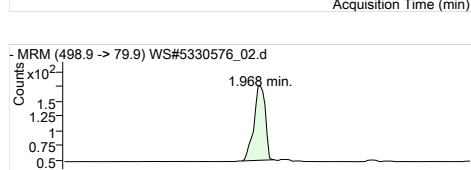
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 0.92 µg/L
 0.49470
 Sample type: Calibration



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 0.89 µg/L
 0.40262
 Sample type: Calibration

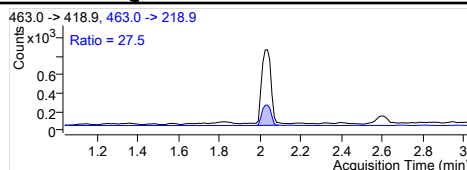
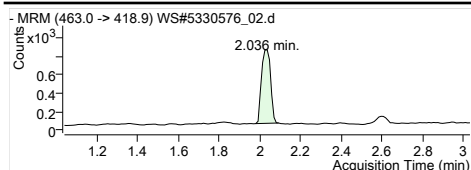


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.90 µg/L
 0.38645
 Sample type: Calibration

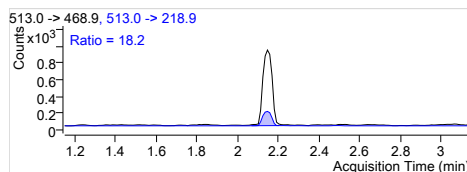
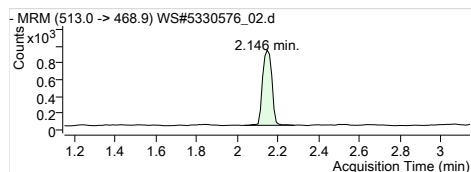


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 0.89 µg/L
 0.29988
 Sample type: Calibration

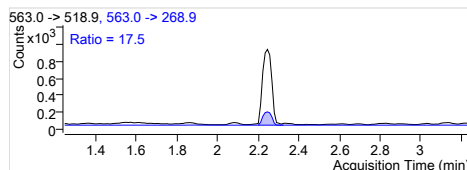
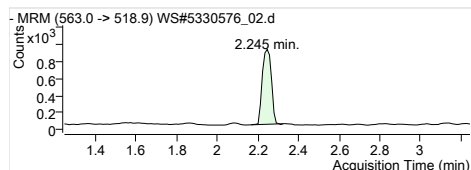
Quantitation Results



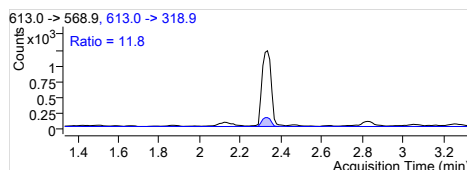
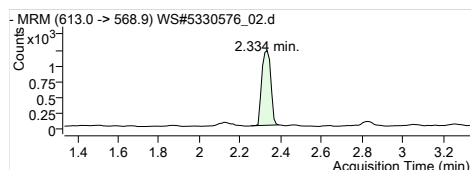
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 0.85 µg/L
 Sample type: 0.35328
 Calibration



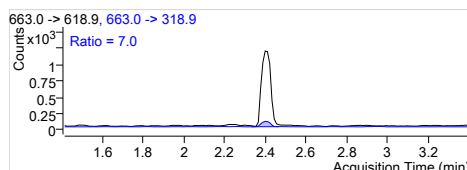
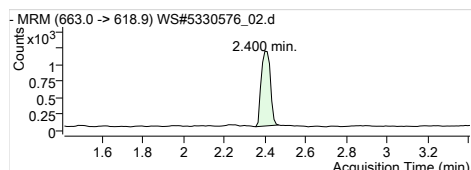
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 0.99 µg/L
 Sample type: 0.48345
 Calibration



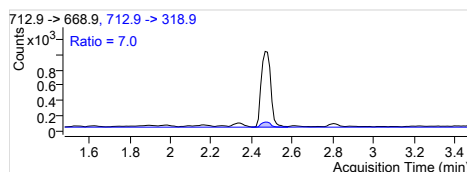
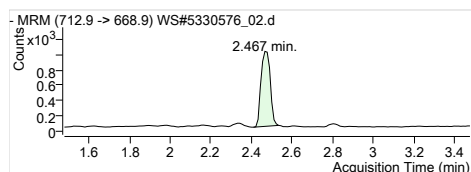
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 0.84 µg/L
 Sample type: 0.36084
 Calibration



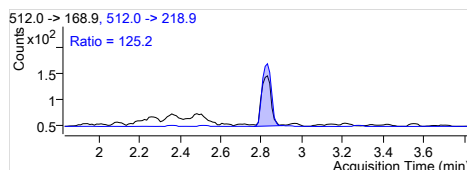
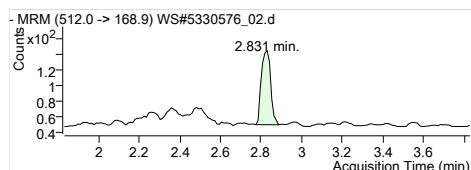
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 0.92 µg/L
 Sample type: 0.38903
 Calibration



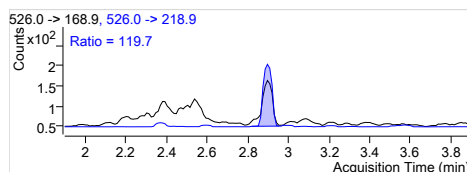
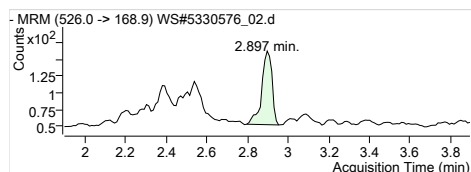
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.411)
 Area ratio: 0.84 µg/L
 Sample type: 0.34118
 Calibration



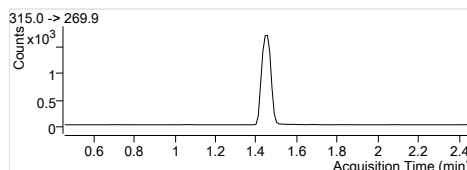
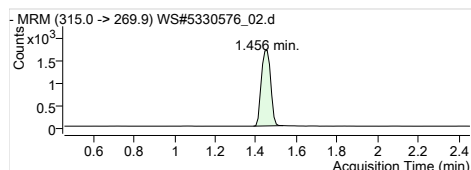
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.478)
 Area ratio: 0.84 µg/L
 Sample type: 0.29526
 Calibration



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.831 (2.831)
 Area ratio: 0.85 µg/L
 Sample type: 0.09510
 Calibration

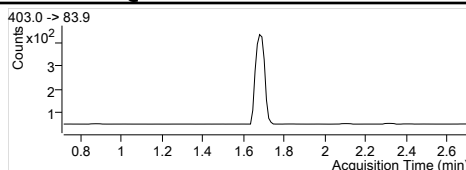
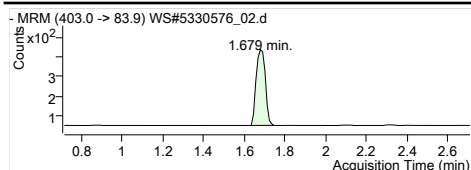


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 0.92 µg/L
 Sample type: 0.13879
 Calibration

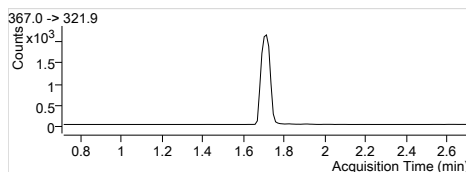
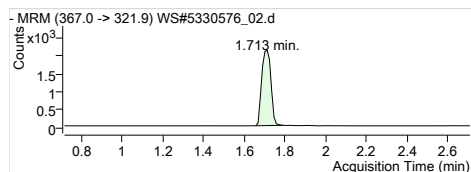


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 93.46 µg/L
 Sample type: 0.23429
 Calibration

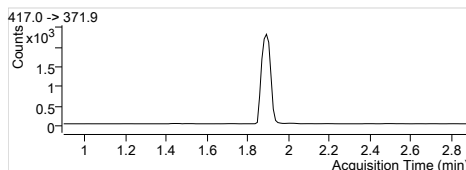
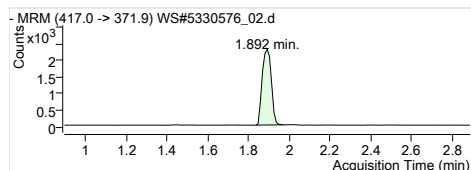
Quantitation Results



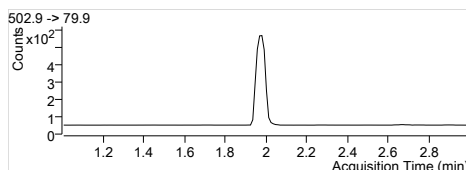
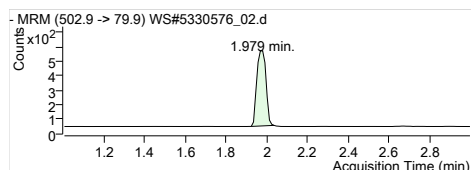
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 93.04 µg/L
Sample type: 0.05376
Calibration



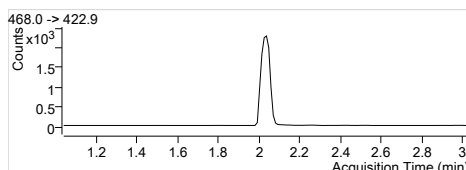
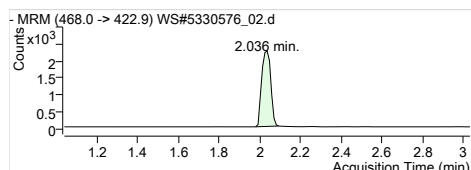
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 91.70 µg/L
Sample type: 0.29134
Calibration



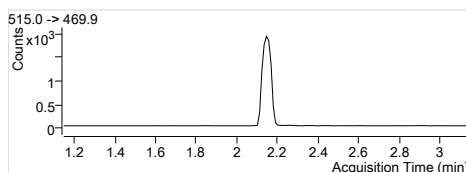
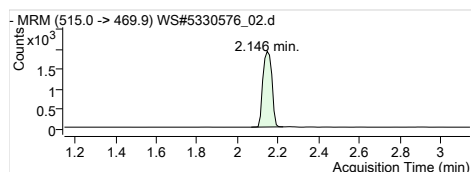
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 95.52 µg/L
Sample type: 0.31294
Calibration



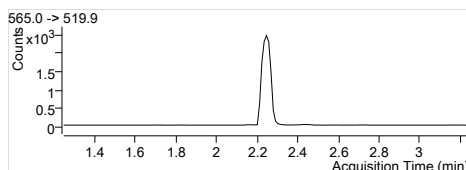
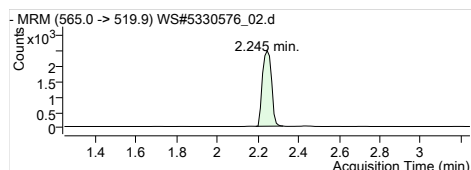
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (2.002)
Area ratio: 100.65 µg/L
Sample type: 0.07160
Calibration



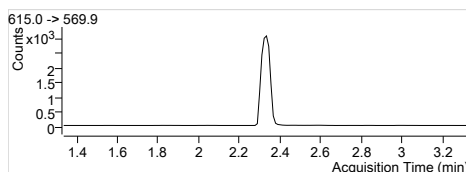
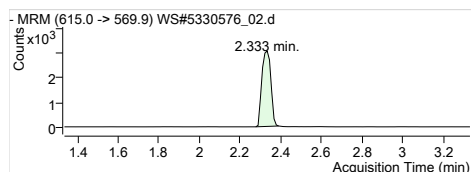
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 95.46 µg/L
Sample type: 0.30589
Calibration



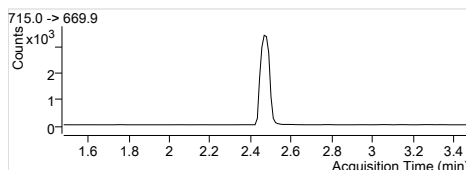
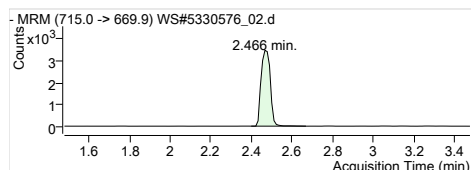
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 96.39 µg/L
Sample type: 0.21235
Calibration



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 97.88 µg/L
Sample type: 0.27412
Calibration

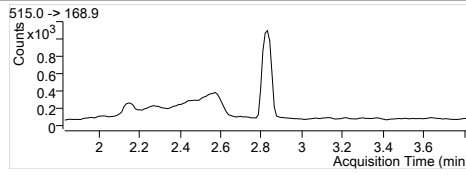
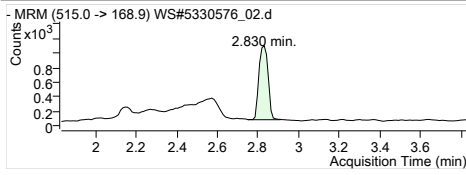


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 95.86 µg/L
Sample type: 0.33901
Calibration

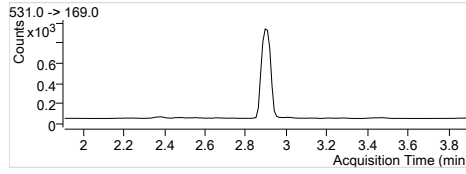
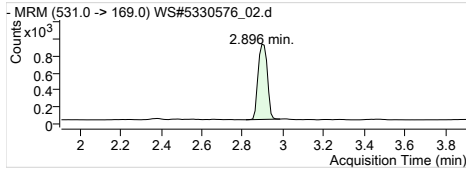


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 98.39 µg/L
Sample type: 0.39083
Calibration

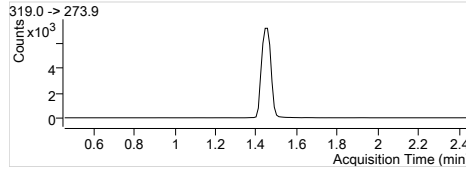
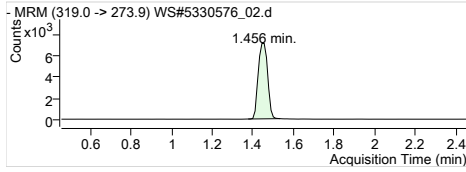
Quantitation Results



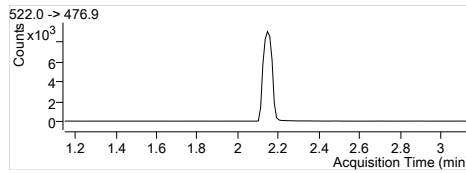
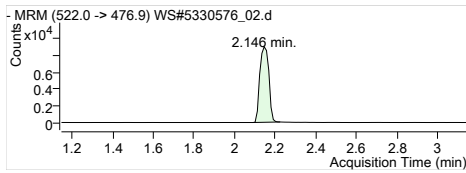
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
RT (2.830)
Calc. conc. 2.830 (2.830)
87.00 µg/L
Area ratio: 0.13978
Sample type: Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
RT (2.896)
Calc. conc. 2.896 (2.907)
94.87 µg/L
Area ratio: 0.12396
Sample type: Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
RT (1.456)
Calc. conc. 1.456 (1.456)
107.03 µg/L
Area ratio: 0
Sample type: Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
RT (2.146)
Calc. conc. 2.146 (2.146)
105.26 µg/L
Area ratio: 0
Sample type: Calibration

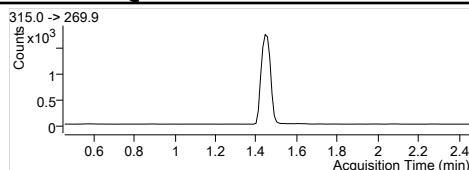
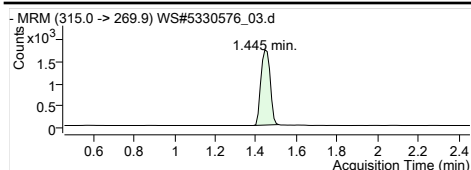
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	STD 2	Instrument	LCMS04
Data File	WS#5330576_03.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A3
Acq. Date	2018/01/13 1:57:58 AM	Injection Volume	Per Method
Sample Annotation	-		

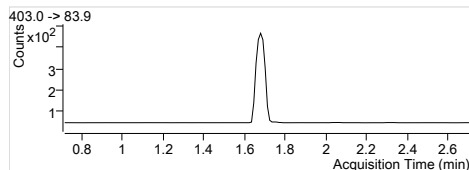
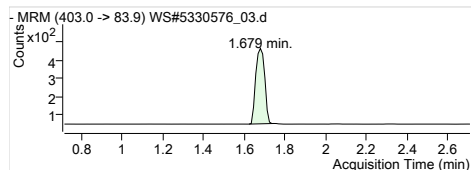
ISTD Compounds	Response	RT	Target conc.
MPFHxA	5451	1.44	1 µg/L
MPFHxS	1278	1.68	1 µg/L
MPFHpA	7289	1.71	1 µg/L
MPFOA	7154	1.89	1 µg/L
MPFOS	1536	1.98	1 µg/L
MPFNA	6754	2.04	1 µg/L
MPFDA	6111	2.15	1 µg/L
MPFUnA	7004	2.25	1 µg/L
MPFDoA	9535	2.33	1 µg/L
MPFTrDA	10228	2.47	1 µg/L
D3-MeFOSA IS	3504	2.83	1 µg/L
D5-EtFOSA IS	2838	2.90	1 µg/L
13C6-PFHxA IS	21084	1.44	1 µg/L
13C9-PFDA IS	27017	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1161	1.10	1.70	1.70 µg/L	99.72
PFHxA 1	3636	1.44	1.70	1.57 µg/L	92.44
PFHxS 1	946	1.68	1.70	1.44 µg/L	84.76
PFHpA 1	4751	1.70	1.70	1.49 µg/L	87.50
PFOA 1	4888	1.89	1.70	1.54 µg/L	90.53
PFOS 1	1000	1.97	1.70	1.73 µg/L	101.55
PFNA 1	4851	2.04	1.70	1.72 µg/L	101.27
PFDA 1	4674	2.15	1.70	1.51 µg/L	89.05
PFUnA 1	5344	2.25	1.70	1.70 µg/L	99.76
PFDoA 1	6161	2.33	1.70	1.49 µg/L	87.75
PFTrDA 1	7096	2.40	1.70	1.60 µg/L	93.97
PFTeDA 1	6167	2.47	1.70	1.68 µg/L	98.68
MeFOSA 1	669	2.82	1.70	1.64 µg/L	96.58
EtFOSA 1	658	2.90	1.70	1.51 µg/L	88.78
13C2-PFHxA	5451	1.44	100.00	103.14 µg/L	103.14
18O2-PFHxS	1278	1.68	100.00	104.90 µg/L	104.90
13C4-PFHpA	7289	1.71	100.00	108.81 µg/L	108.81
13C4-PFOA	7154	1.89	100.00	103.56 µg/L	103.56
13C4-PFOS	1536	1.98	100.00	102.41 µg/L	102.41
13C5-PFNA	6690	2.04	100.00	99.02 µg/L	99.02
13C2-PFDA	5982	2.15	100.00	100.50 µg/L	100.50
13C2-PFUnA	7004	2.25	100.00	92.57 µg/L	92.57
13C2-PFDoA	9535	2.33	100.00	99.80 µg/L	99.80
13C2-PFTeDA	10516	2.47	100.00	97.99 µg/L	97.99
D3-MeFOSA	3584	2.83	100.00	105.81 µg/L	105.81
D5-EtFOSA	2900	2.90	100.00	105.27 µg/L	105.27
13C6-PFHxA	21084	1.44	100.00	98.88 µg/L	98.88
13C9-PFDA	27017	2.15	100.00	103.27 µg/L	103.27

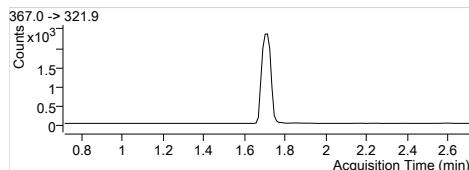
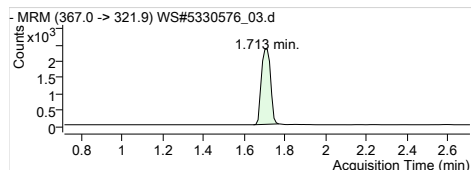
Quantitation Results



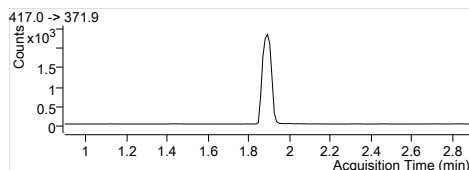
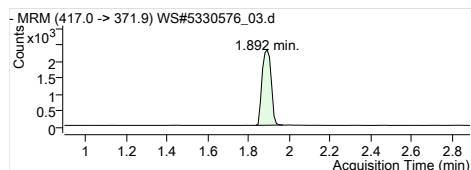
MPFHxA
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Calibration



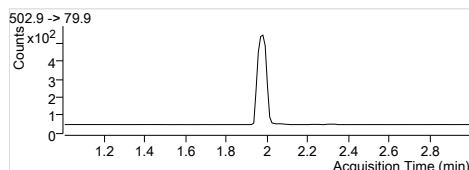
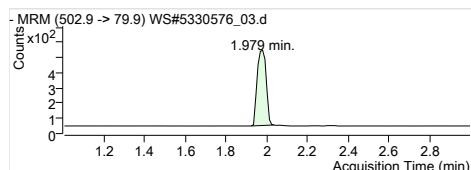
MPFHxS
 RT (Exp. RT): 1.679 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



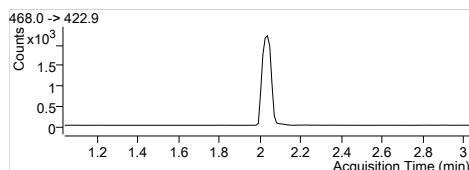
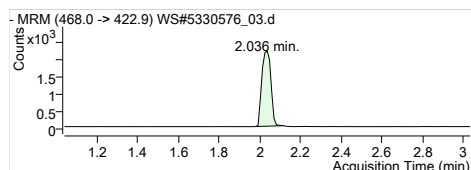
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



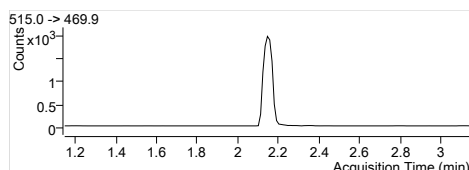
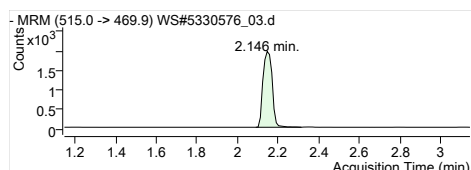
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Calibration



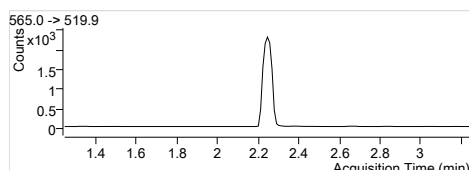
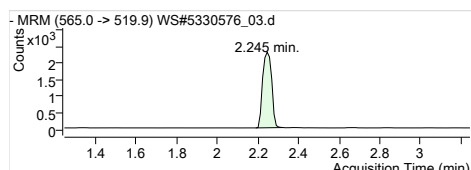
MPFOS
 RT (Exp. RT): 1.979 (2.002)
 Concentration: 1 µg/L
 Sample type: Calibration



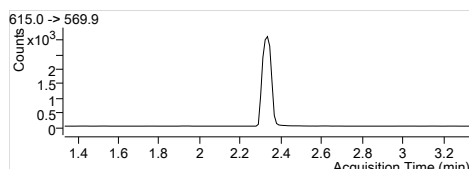
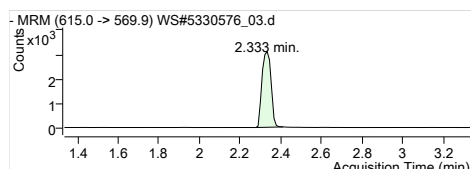
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: Calibration



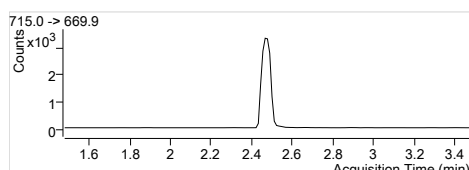
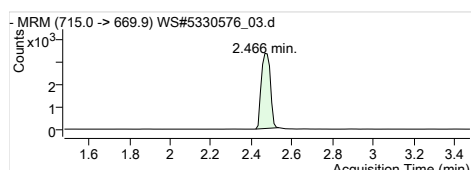
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



MPFUaA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Calibration

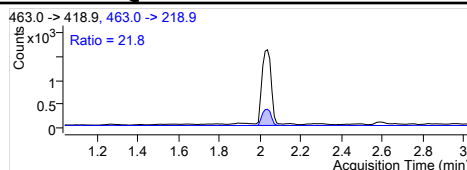
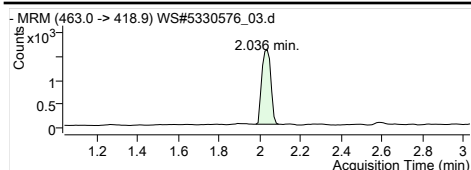


MPFDaA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Calibration

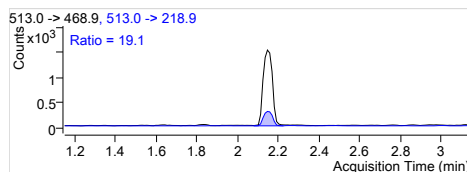
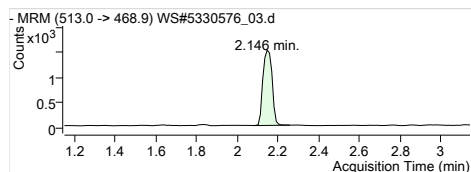


MPFTeDA
 RT (Exp. RT): 2.466 (2.478)
 Concentration: 1 µg/L
 Sample type: Calibration

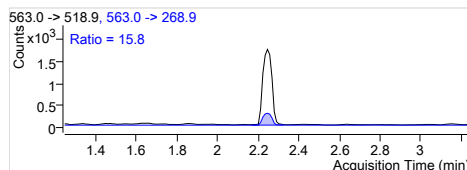
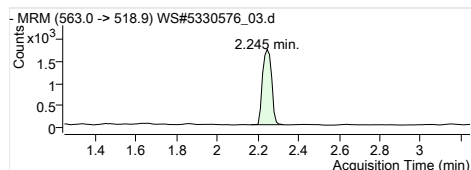
<p>MRM (515.0 -> 168.9) WS#5330576_03.d 2.830 min.</p>	<p>515.0 -> 168.9</p>	<p>D3-MeFOSA IS Internal Standard RT (Exp. RT): 2.830 (2.830) Concentration: 1 µg/L Sample type: Calibration</p>
<p>MRM (531.0 -> 169.0) WS#5330576_03.d 2.896 min.</p>	<p>531.0 -> 169.0</p>	<p>D5-EtFOSA IS Internal Standard RT (Exp. RT): 2.896 (2.907) Concentration: 1 µg/L Sample type: Calibration</p>
<p>MRM (319.0 -> 273.9) WS#5330576_03.d 1.445 min.</p>	<p>319.0 -> 273.9</p>	<p>13C6-PFHxA IS Internal Standard RT (Exp. RT): 1.445 (1.456) Concentration: 1 µg/L Sample type: Calibration</p>
<p>MRM (522.0 -> 476.9) WS#5330576_03.d 2.146 min.</p>	<p>522.0 -> 476.9</p>	<p>13C9-PFDA IS Internal Standard RT (Exp. RT): 2.146 (2.146) Concentration: 1 µg/L Sample type: Calibration</p>
<p>MRM (298.9 -> 79.9) WS#5330576_03.d 1.098 min.</p>	<p>298.9 -> 79.9, 298.9 -> 98.9 Ratio = 42.0</p>	<p>PFBS 1 298.9 -> 79.9 RT (Exp. RT): 1.098 (1.143) Calc. conc. 1.70 µg/L Area ratio: 0.90845 Sample type: Calibration</p>
<p>MRM (313.0 -> 268.9) WS#5330576_03.d 1.445 min.</p>	<p>313.0 -> 268.9, 313.0 -> 118.9 Ratio = 3.4</p>	<p>PFHxA 1 313.0 -> 268.9 RT (Exp. RT): 1.445 (1.456) Calc. conc. 1.57 µg/L Area ratio: 0.66703 Sample type: Calibration</p>
<p>MRM (398.9 -> 79.9) WS#5330576_03.d 1.679 min.</p>	<p>398.9 -> 79.9, 398.9 -> 98.9 Ratio = 44.6</p>	<p>PFHxS 1 398.9 -> 79.9 RT (Exp. RT): 1.679 (1.713) Calc. conc. 1.44 µg/L Area ratio: 0.74022 Sample type: Calibration</p>
<p>MRM (363.0 -> 318.9) WS#5330576_03.d 1.702 min.</p>	<p>363.0 -> 318.9, 363.0 -> 168.9 Ratio = 21.7</p>	<p>PFHpA 1 363.0 -> 318.9 RT (Exp. RT): 1.702 (1.713) Calc. conc. 1.49 µg/L Area ratio: 0.65180 Sample type: Calibration</p>
<p>MRM (413.0 -> 368.9) WS#5330576_03.d 1.892 min.</p>	<p>413.0 -> 368.9, 413.0 -> 168.9 Ratio = 32.1</p>	<p>PFOA 1 413.0 -> 368.9 RT (Exp. RT): 1.892 (1.892) Calc. conc. 1.54 µg/L Area ratio: 0.68325 Sample type: Calibration</p>
<p>MRM (498.9 -> 79.9) WS#5330576_03.d 1.968 min.</p>	<p>498.9 -> 79.9, 498.9 -> 98.9 Ratio = 49.8</p>	<p>PFOS 1 498.9 -> 79.9 RT (Exp. RT): 1.968 (2.002) Calc. conc. 1.73 µg/L Area ratio: 0.65104 Sample type: Calibration</p>



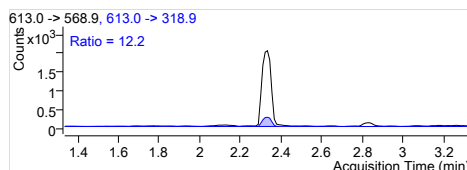
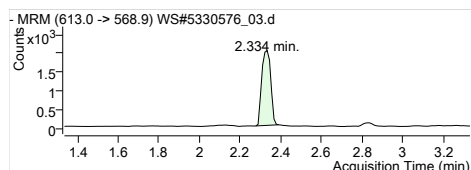
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 1.72 µg/L
 Sample type: 0.71824 Calibration



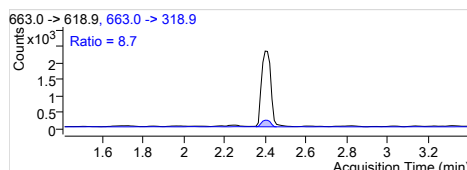
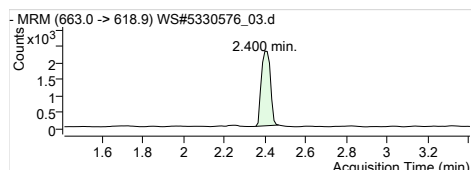
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 1.51 µg/L
 Sample type: 0.76485 Calibration



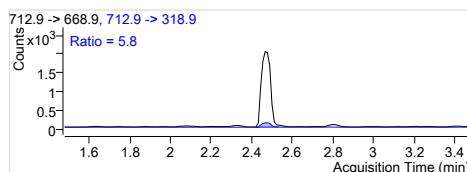
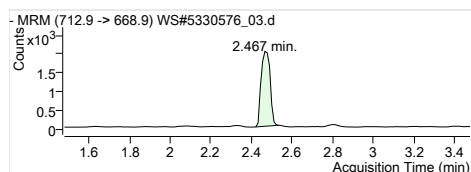
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 1.70 µg/L
 Sample type: 0.76299 Calibration



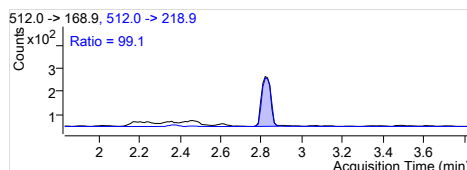
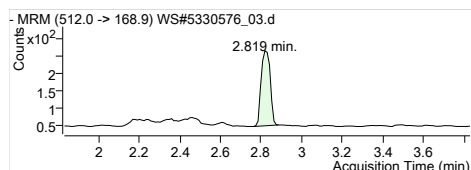
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 1.49 µg/L
 Sample type: 0.64615 Calibration



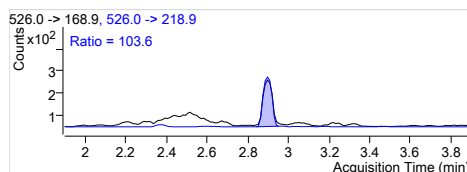
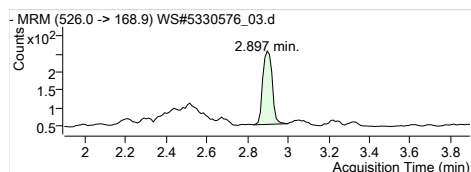
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.411)
 Area ratio: 1.60 µg/L
 Sample type: 0.69378 Calibration



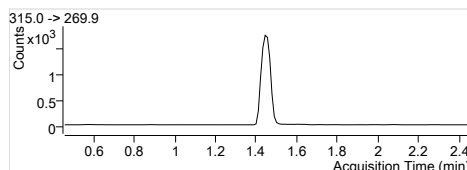
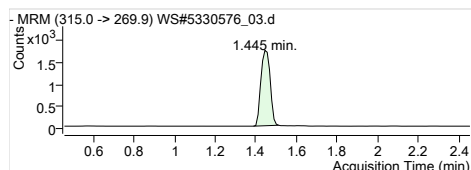
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.478)
 Area ratio: 1.68 µg/L
 Sample type: 0.60295 Calibration



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 1.64 µg/L
 Sample type: 0.19092 Calibration



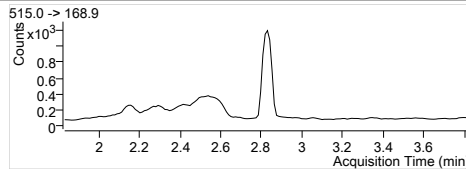
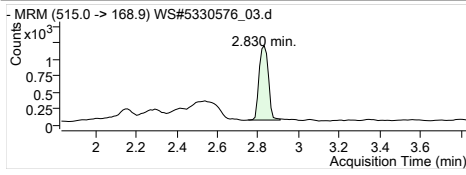
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 1.51 µg/L
 Sample type: 0.23185 Calibration



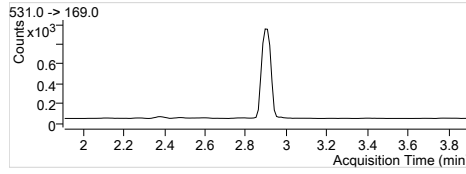
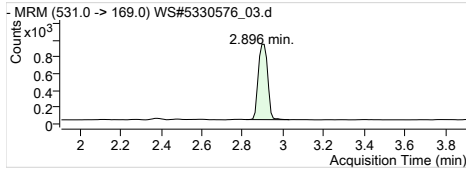
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 103.14 µg/L
 Sample type: 0.25854 Calibration

<p>-MRM (403.0 -> 83.9) WS#5330576_03.d 1.679 min.</p>	<p>403.0 -> 83.9</p>	<p>1802-PFHxS RT (Exp. RT): 1.679 (1.713) Calc. conc. 104.90 µg/L Area ratio: 0.06061 Sample type: Calibration</p>	<p>403.0 -> 83.9 1.679 (1.713) 104.90 µg/L 0.06061 Calibration</p>
<p>-MRM (367.0 -> 321.9) WS#5330576_03.d 1.713 min.</p>	<p>367.0 -> 321.9</p>	<p>13C4-PFHpA RT (Exp. RT): 1.713 (1.713) Calc. conc. 108.81 µg/L Area ratio: 0.34571 Sample type: Calibration</p>	<p>367.0 -> 321.9 1.713 (1.713) 108.81 µg/L 0.34571 Calibration</p>
<p>-MRM (417.0 -> 371.9) WS#5330576_03.d 1.892 min.</p>	<p>417.0 -> 371.9</p>	<p>13C4-PFOA RT (Exp. RT): 1.892 (1.892) Calc. conc. 103.56 µg/L Area ratio: 0.33931 Sample type: Calibration</p>	<p>417.0 -> 371.9 1.892 (1.892) 103.56 µg/L 0.33931 Calibration</p>
<p>-MRM (502.9 -> 79.9) WS#5330576_03.d 1.979 min.</p>	<p>502.9 -> 79.9</p>	<p>13C4-PFOS RT (Exp. RT): 1.979 (2.002) Calc. conc. 102.41 µg/L Area ratio: 0.07285 Sample type: Calibration</p>	<p>502.9 -> 79.9 1.979 (2.002) 102.41 µg/L 0.07285 Calibration</p>
<p>-MRM (468.0 -> 422.9) WS#5330576_03.d 2.036 min.</p>	<p>468.0 -> 422.9</p>	<p>13C5-PFNA RT (Exp. RT): 2.036 (2.036) Calc. conc. 99.02 µg/L Area ratio: 0.31730 Sample type: Calibration</p>	<p>468.0 -> 422.9 2.036 (2.036) 99.02 µg/L 0.31730 Calibration</p>
<p>-MRM (515.0 -> 469.9) WS#5330576_03.d 2.146 min.</p>	<p>515.0 -> 469.9</p>	<p>13C2-PFDA RT (Exp. RT): 2.146 (2.146) Calc. conc. 100.50 µg/L Area ratio: 0.22142 Sample type: Calibration</p>	<p>515.0 -> 469.9 2.146 (2.146) 100.50 µg/L 0.22142 Calibration</p>
<p>-MRM (565.0 -> 519.9) WS#5330576_03.d 2.245 min.</p>	<p>565.0 -> 519.9</p>	<p>13C2-PFUnA RT (Exp. RT): 2.245 (2.245) Calc. conc. 92.57 µg/L Area ratio: 0.25924 Sample type: Calibration</p>	<p>565.0 -> 519.9 2.245 (2.245) 92.57 µg/L 0.25924 Calibration</p>
<p>-MRM (615.0 -> 569.9) WS#5330576_03.d 2.333 min.</p>	<p>615.0 -> 569.9</p>	<p>13C2-PFDoA RT (Exp. RT): 2.333 (2.333) Calc. conc. 99.80 µg/L Area ratio: 0.35293 Sample type: Calibration</p>	<p>615.0 -> 569.9 2.333 (2.333) 99.80 µg/L 0.35293 Calibration</p>
<p>-MRM (715.0 -> 669.9) WS#5330576_03.d 2.466 min.</p>	<p>715.0 -> 669.9</p>	<p>13C2-PFTeDA RT (Exp. RT): 2.466 (2.478) Calc. conc. 97.99 µg/L Area ratio: 0.38924 Sample type: Calibration</p>	<p>715.0 -> 669.9 2.466 (2.478) 97.99 µg/L 0.38924 Calibration</p>

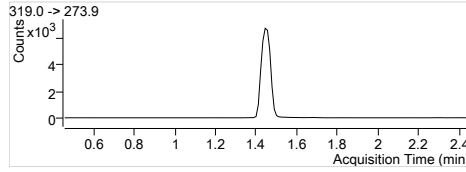
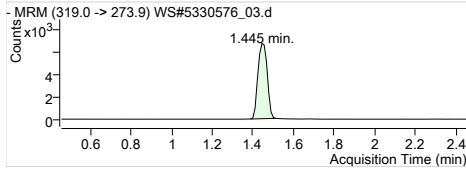
Quantitation Results



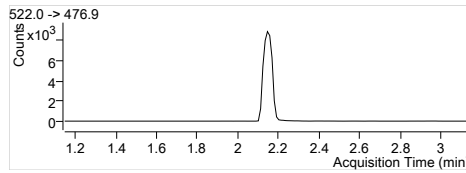
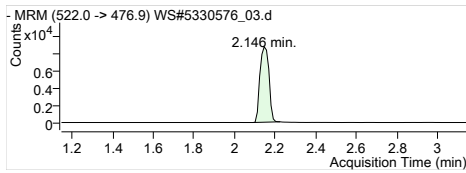
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 105.81 µg/L
Area ratio: 0.16999
Sample type: Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 105.27 µg/L
Area ratio: 0.13755
Sample type: Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.456)
Calc. conc. 98.88 µg/L
Area ratio: 0
Sample type: Calibration



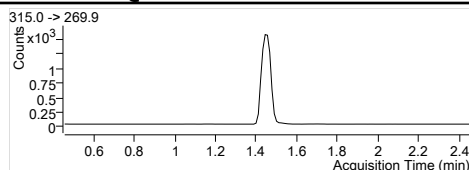
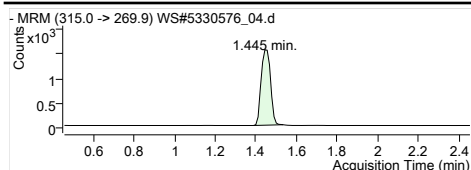
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 103.27 µg/L
Area ratio: 0
Sample type: Calibration

Quantitation Results

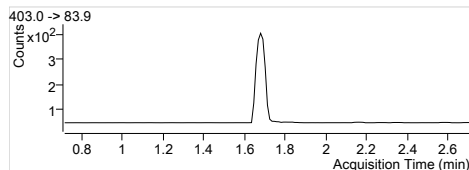
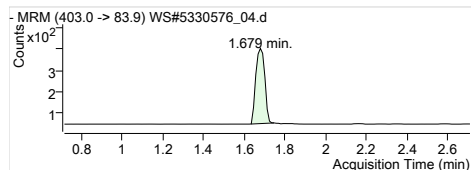
Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	STD 3	Instrument	LCMS04
Data File	WS#5330576_04.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A4
Acq. Date	2018/01/13 2:02:54 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	4917	1.44	1 µg/L
MPFHxS	1083	1.68	1 µg/L
MPFHpA	6081	1.70	1 µg/L
MPFOA	6564	1.89	1 µg/L
MPFOS	1536	1.97	1 µg/L
MPFNA	6502	2.04	1 µg/L
MPFDA	5698	2.15	1 µg/L
MPFUnA	6607	2.25	1 µg/L
MPFDoA	8498	2.33	1 µg/L
MPFTeDA	9331	2.47	1 µg/L
D3-MeFOSA IS	2959	2.83	1 µg/L
D5-EtFOSA IS	2592	2.90	1 µg/L
13C6-PFHxA IS	19569	1.44	1 µg/L
13C9-PFDA IS	22411	2.15	1 µg/L

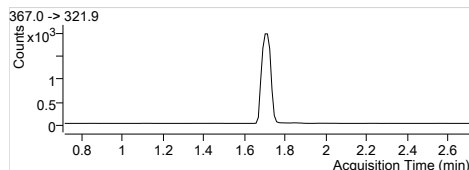
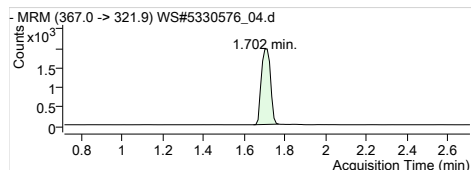
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	3127	1.10	5.00	5.37 µg/L	107.31
PFHxA 1	10763	1.46	5.00	5.11 µg/L	102.12
PFHxS 1	2732	1.68	5.00	5.24 µg/L	104.84
PFHpA 1	12996	1.71	5.00	5.06 µg/L	101.17
PFOA 1	14895	1.89	5.00	4.95 µg/L	98.93
PFOS 1	2877	1.97	5.00	4.64 µg/L	92.79
PFNA 1	13380	2.04	5.00	4.91 µg/L	98.23
PFDA 1	13720	2.15	5.00	4.55 µg/L	91.03
PFUnA 1	15638	2.25	5.00	5.10 µg/L	102.04
PFDaA 1	18583	2.33	5.00	4.91 µg/L	98.17
PFTrDA 1	21648	2.40	5.00	5.08 µg/L	101.63
PFTeDA 1	17120	2.47	5.00	5.03 µg/L	100.57
MeFOSA 1	1744	2.82	5.00	4.95 µg/L	98.93
EtFOSA 1	1881	2.90	5.00	4.62 µg/L	92.42
13C2-PFHxA	4917	1.44	100.00	100.24 µg/L	100.24
18O2-PFHxS	1083	1.68	100.00	95.77 µg/L	95.77
13C4-PFHpA	6081	1.70	100.00	97.81 µg/L	97.81
13C4-PFOA	6564	1.89	100.00	102.38 µg/L	102.38
13C4-PFOS	1536	1.97	100.00	110.34 µg/L	110.34
13C5-PFNA	6463	2.04	100.00	103.07 µg/L	103.07
13C2-PFDA	5628	2.15	100.00	113.99 µg/L	113.99
13C2-PFUnA	6607	2.25	100.00	105.27 µg/L	105.27
13C2-PFDaA	8498	2.33	100.00	107.22 µg/L	107.22
13C2-PFTeDA	9573	2.47	100.00	107.54 µg/L	107.54
D3-MeFOSA	3056	2.83	100.00	97.20 µg/L	97.20
D5-EtFOSA	2696	2.90	100.00	105.44 µg/L	105.44
13C6-PFHxA	19569	1.44	100.00	91.77 µg/L	91.77
13C9-PFDA	22411	2.15	100.00	85.66 µg/L	85.66



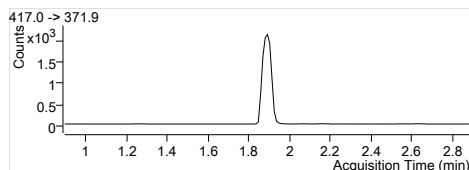
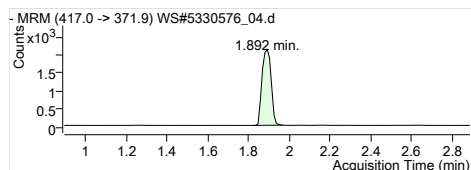
MPFHxA
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Calibration



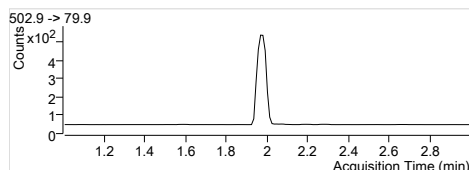
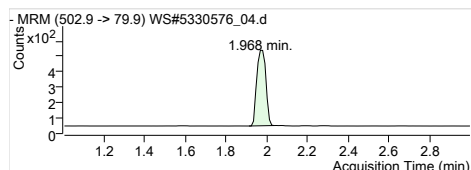
MPFHxS
 RT (Exp. RT): 1.679 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



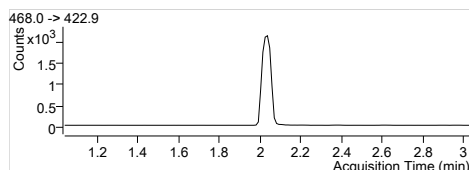
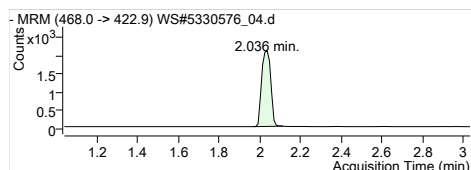
MPFHpA
 RT (Exp. RT): 1.702 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



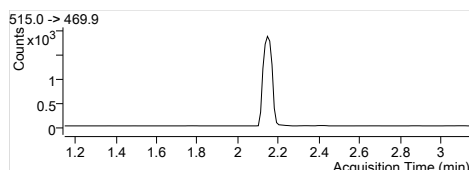
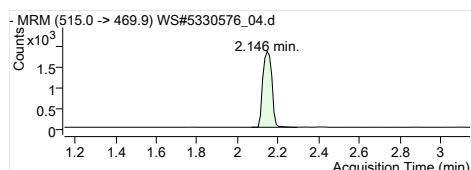
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Calibration



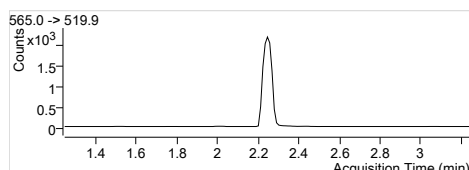
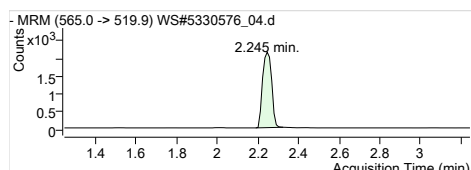
MPFOS
 RT (Exp. RT): 1.968 (2.002)
 Concentration: 1 µg/L
 Sample type: Calibration



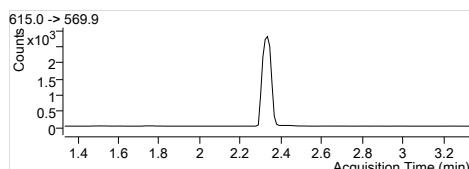
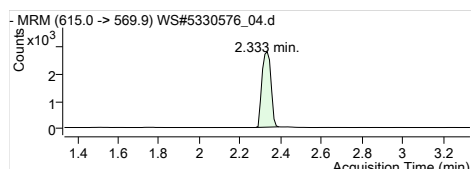
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: Calibration



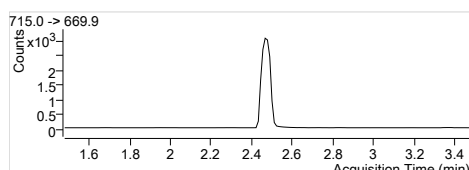
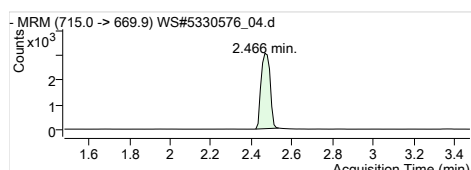
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



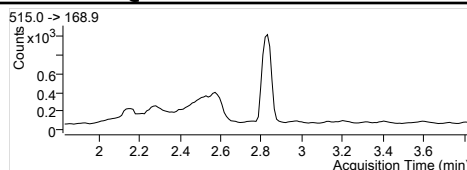
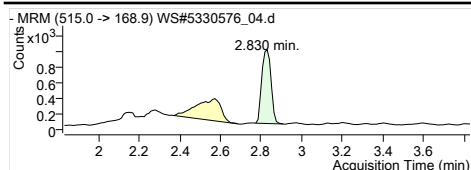
MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Calibration



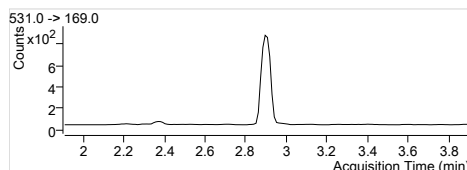
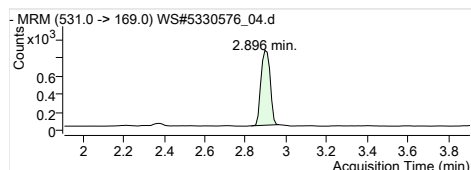
MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Calibration



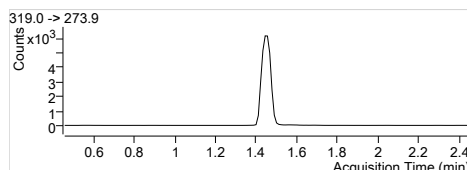
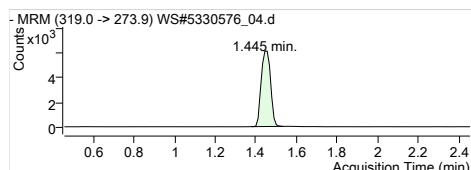
MPFTeDA
 RT (Exp. RT): 2.466 (2.478)
 Concentration: 1 µg/L
 Sample type: Calibration



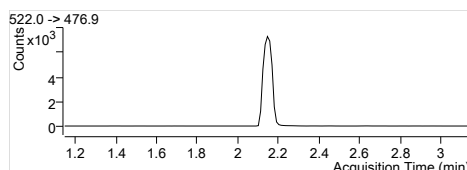
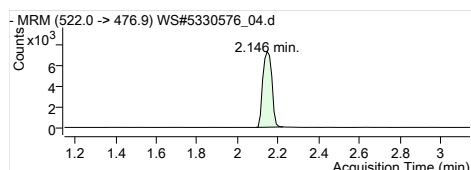
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



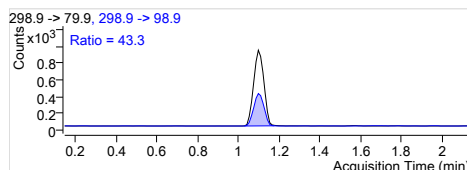
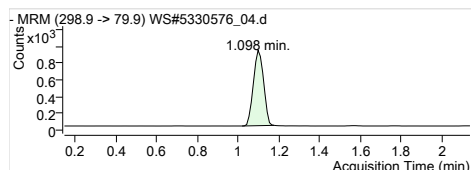
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Calibration



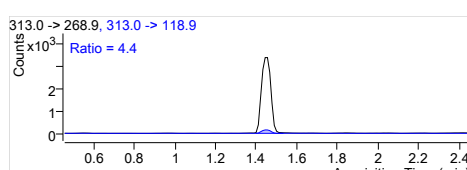
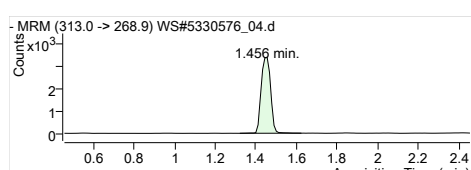
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Calibration



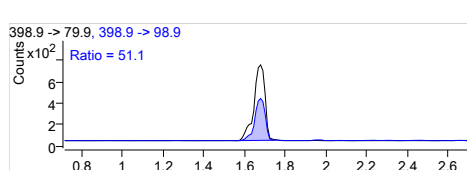
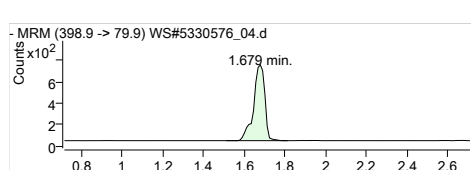
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



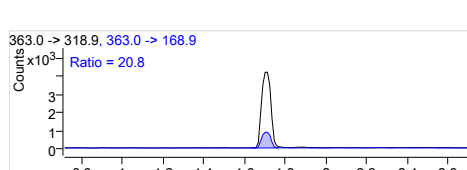
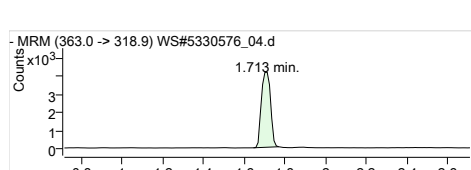
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.098 (1.143)
 Calc. conc. 5.37 µg/L
 Area ratio: 2.88735
 Sample type: Calibration



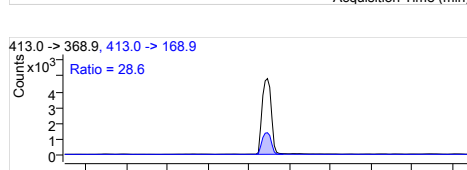
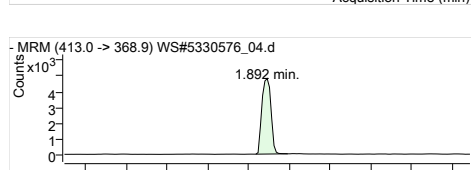
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.456 (1.456)
 Calc. conc. 5.11 µg/L
 Area ratio: 2.18894
 Sample type: Calibration



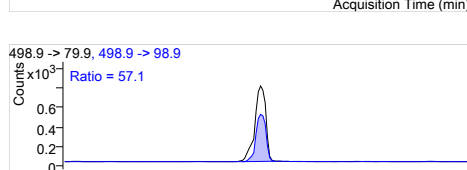
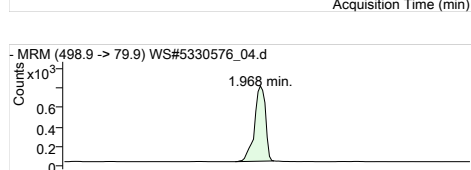
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.713)
 Calc. conc. 5.24 µg/L
 Area ratio: 2.52262
 Sample type: Calibration



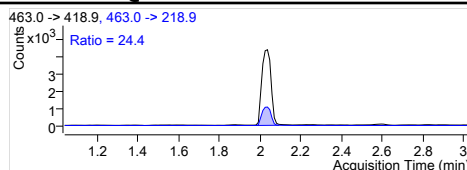
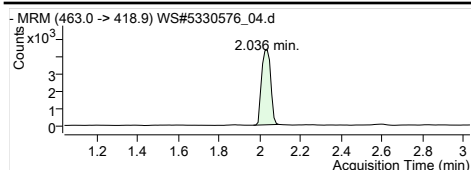
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 5.06 µg/L
 Area ratio: 2.13715
 Sample type: Calibration



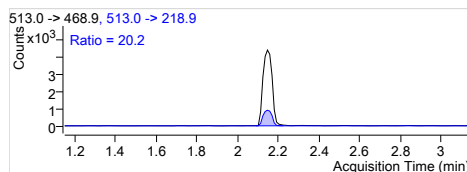
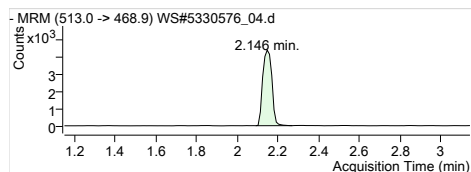
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 4.95 µg/L
 Area ratio: 2.26920
 Sample type: Calibration



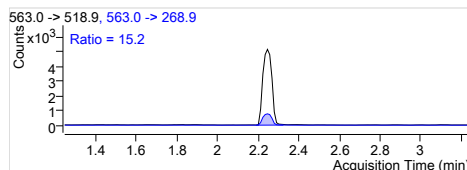
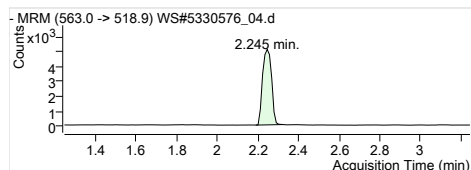
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (2.002)
 Calc. conc. 4.64 µg/L
 Area ratio: 1.87305
 Sample type: Calibration



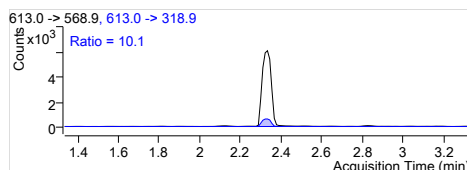
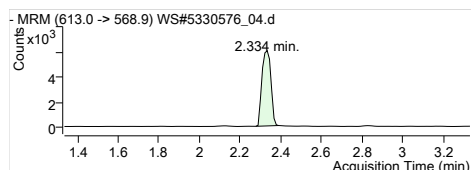
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 4.91 µg/L
 Sample type: 2.05783
 Calibration



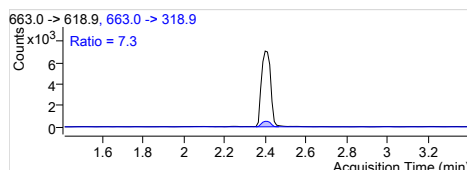
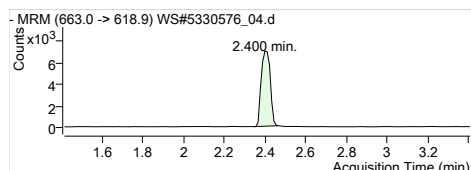
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 4.55 µg/L
 Sample type: 2.40786
 Calibration



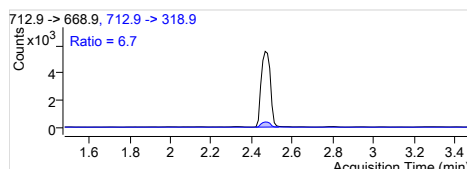
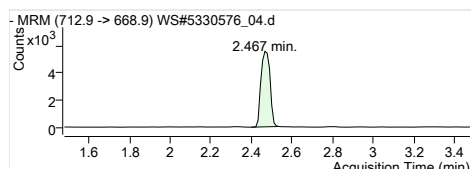
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 5.10 µg/L
 Sample type: 2.36688
 Calibration



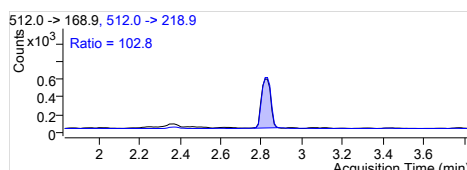
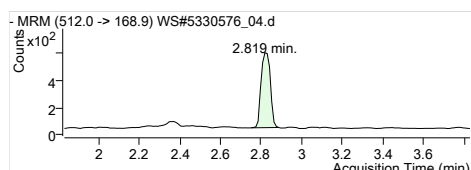
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 4.91 µg/L
 Sample type: 2.18675
 Calibration



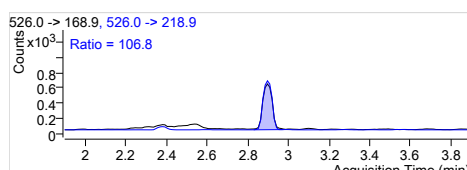
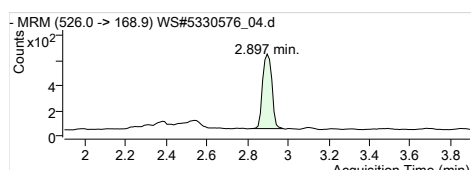
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.411)
 Area ratio: 5.08 µg/L
 Sample type: 2.32001
 Calibration



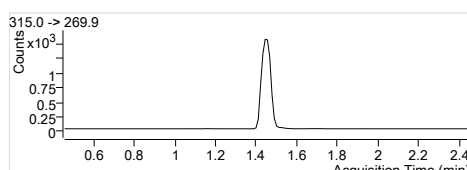
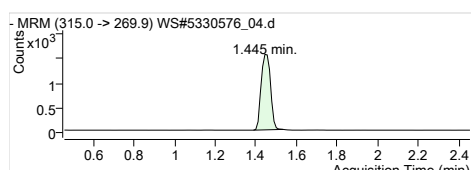
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.478)
 Area ratio: 5.03 µg/L
 Sample type: 1.83474
 Calibration



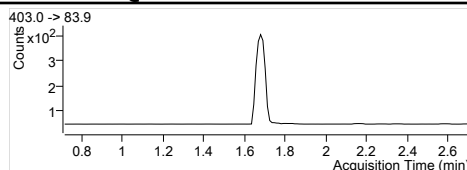
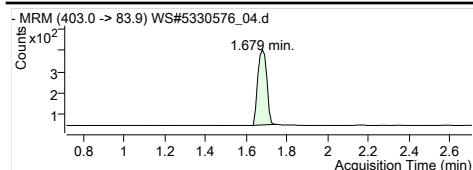
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 4.95 µg/L
 Sample type: 0.58939
 Calibration



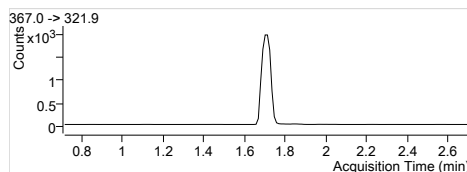
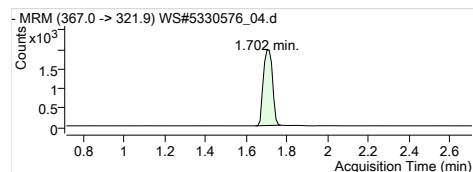
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 4.62 µg/L
 Sample type: 0.72569
 Calibration



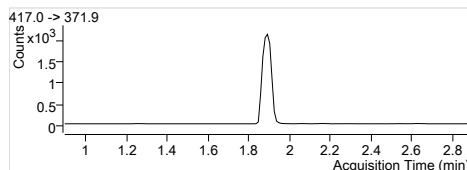
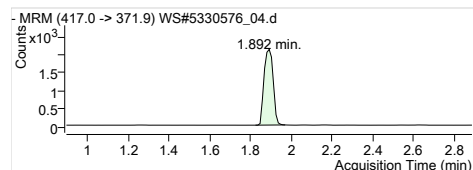
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 100.24 µg/L
 Sample type: 0.25126
 Calibration



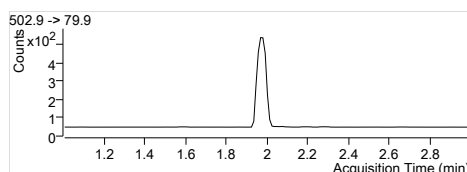
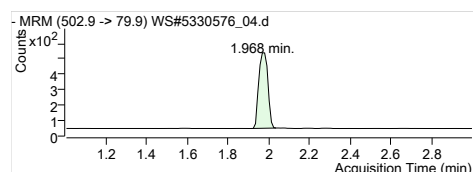
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 95.77 µg/L
 Sample type: 0.05534
 Calibration



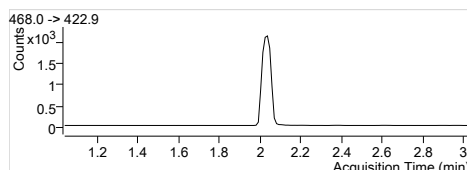
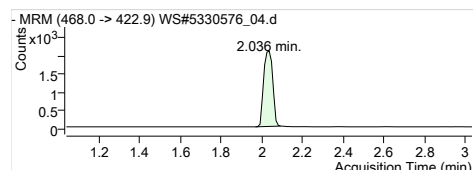
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 97.81 µg/L
 Sample type: 0.31075
 Calibration



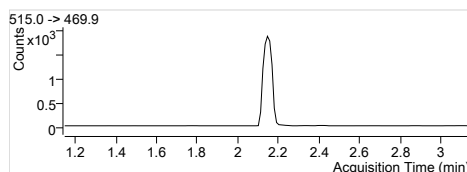
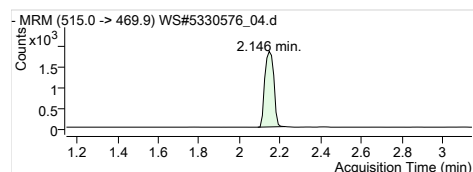
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 102.38 µg/L
 Sample type: 0.33543
 Calibration



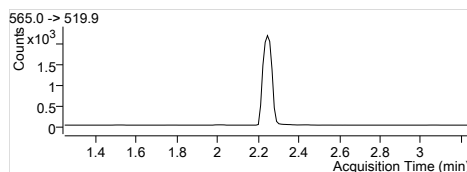
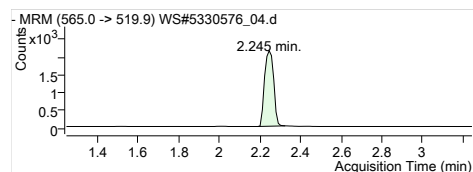
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 110.34 µg/L
 Sample type: 0.07849
 Calibration



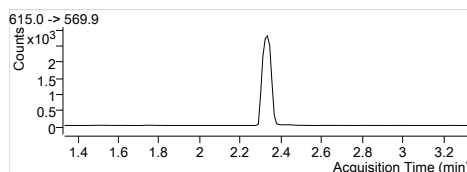
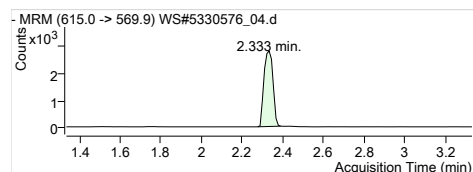
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 103.07 µg/L
 Sample type: 0.33027
 Calibration



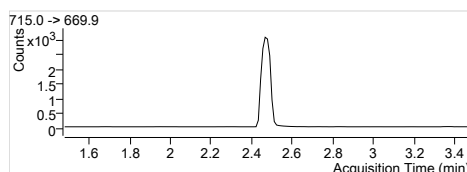
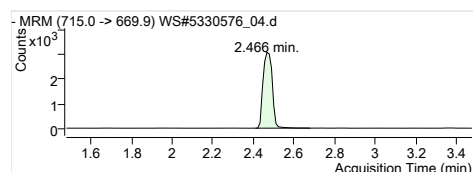
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 113.99 µg/L
 Sample type: 0.25113
 Calibration



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 105.27 µg/L
 Sample type: 0.29481
 Calibration

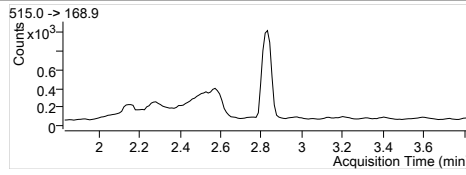
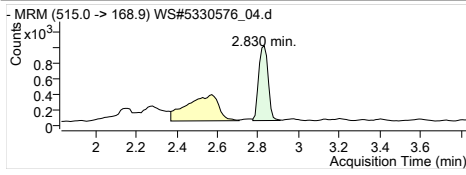


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 107.22 µg/L
 Sample type: 0.37919
 Calibration

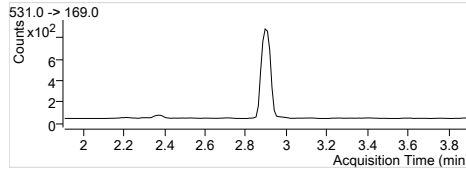
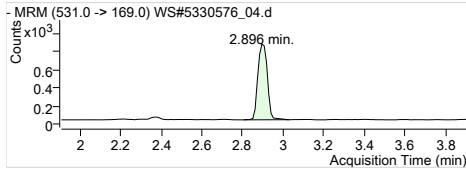


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.478)
 Area ratio: 107.54 µg/L
 Sample type: 0.42716
 Calibration

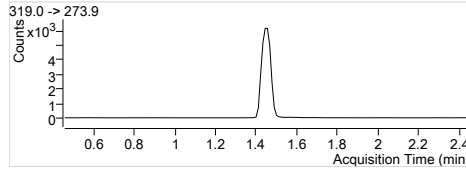
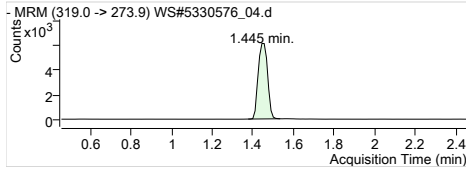
Quantitation Results



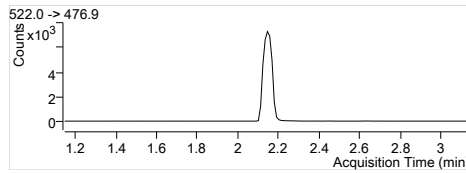
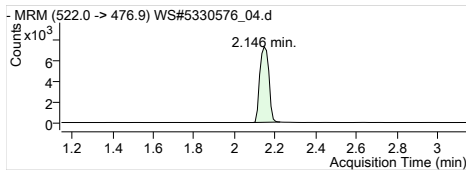
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 97.20 µg/L
Sample type: 0.15617
Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.907)
Area ratio: 105.44 µg/L
Sample type: 0.13777
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.456)
Area ratio: 91.77 µg/L
Sample type: 0
Calibration



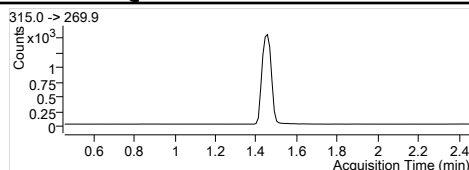
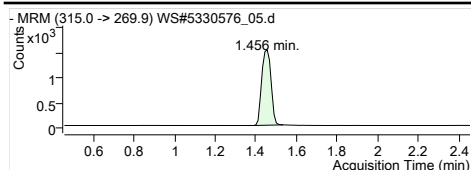
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 85.66 µg/L
Sample type: 0
Calibration

Quantitation Results

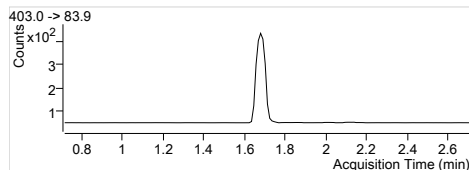
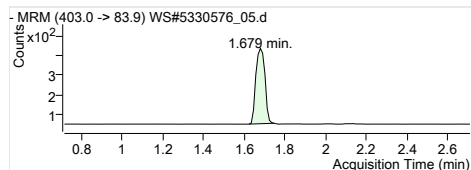
Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	STD 4	Instrument	LCMS04
Data File	WS#5330576_05.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A5
Acq. Date	2018/01/13 2:07:50 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	4784	1.46	1 µg/L
MPFHxS	1206	1.68	1 µg/L
MPFHpA	6055	1.71	1 µg/L
MPFOA	6351	1.89	1 µg/L
MPFOS	1359	1.98	1 µg/L
MPFNA	6265	2.04	1 µg/L
MPFDA	5286	2.15	1 µg/L
MPFUnA	6875	2.25	1 µg/L
MPFDoA	7933	2.33	1 µg/L
MPFTeDA	9103	2.47	1 µg/L
D3-MeFOSA IS	3018	2.83	1 µg/L
D5-EtFOSA IS	2298	2.90	1 µg/L
13C6-PFHxA IS	19966	1.46	1 µg/L
13C9-PFDA IS	24846	2.15	1 µg/L

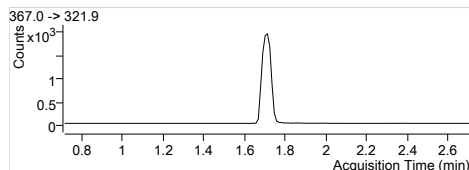
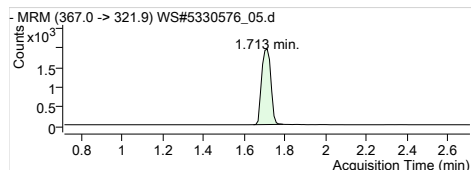
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7360	1.10	12.50	11.33 µg/L	90.63
PFHxA 1	26720	1.46	12.50	12.99 µg/L	103.95
PFHxS 1	6864	1.68	12.50	12.00 µg/L	96.00
PFHpA 1	32906	1.71	12.50	12.99 µg/L	103.89
PFOA 1	37339	1.89	12.50	12.70 µg/L	101.62
PFOS 1	6743	1.97	12.50	12.00 µg/L	96.02
PFNA 1	32588	2.04	12.50	12.40 µg/L	99.18
PFDA 1	35112	2.15	12.50	12.38 µg/L	99.05
PFUnA 1	39936	2.25	12.50	12.41 µg/L	99.29
PFDoA 1	47391	2.33	12.50	13.31 µg/L	106.46
PFTTrDA 1	56477	2.40	12.50	13.40 µg/L	107.22
PFTeDA 1	42577	2.47	12.50	12.76 µg/L	102.09
MeFOSA 1	4635	2.83	12.50	12.80 µg/L	102.36
EtFOSA 1	5192	2.90	12.50	14.28 µg/L	114.28
13C2-PFHxA	4784	1.46	100.00	95.58 µg/L	95.58
18O2-PFHxS	1206	1.68	100.00	104.53 µg/L	104.53
13C4-PFHpA	6055	1.71	100.00	95.45 µg/L	95.45
13C4-PFOA	6351	1.89	100.00	97.09 µg/L	97.09
13C4-PFOS	1359	1.98	100.00	95.69 µg/L	95.69
13C5-PFNA	6220	2.04	100.00	97.22 µg/L	97.22
13C2-PFDA	5188	2.15	100.00	94.78 µg/L	94.78
13C2-PFUnA	6875	2.25	100.00	98.80 µg/L	98.80
13C2-PFDoA	7933	2.33	100.00	90.28 µg/L	90.28
13C2-PFTeDA	9284	2.47	100.00	94.07 µg/L	94.07
D3-MeFOSA	3036	2.83	100.00	94.65 µg/L	94.65
D5-EtFOSA	2384	2.90	100.00	91.38 µg/L	91.38
13C6-PFHxA	19966	1.46	100.00	93.63 µg/L	93.63
13C9-PFDA	24846	2.15	100.00	94.97 µg/L	94.97



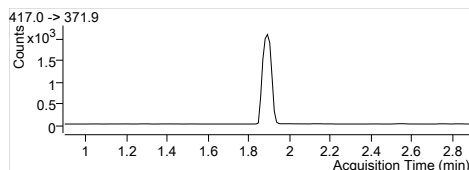
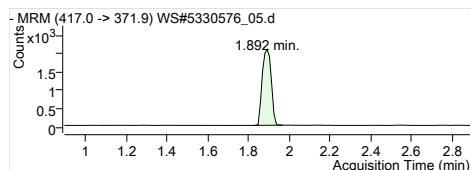
MPFHxA
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Calibration



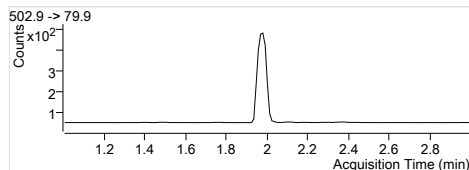
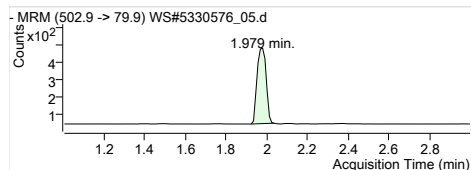
MPFHxS
 RT (Exp. RT): 1.679 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



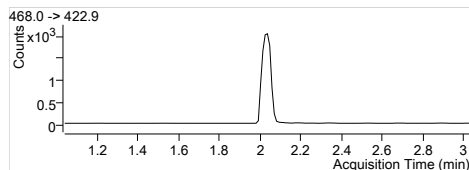
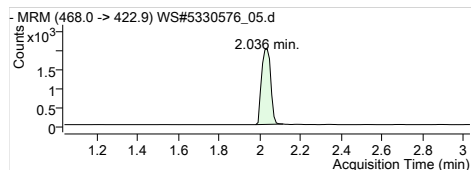
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



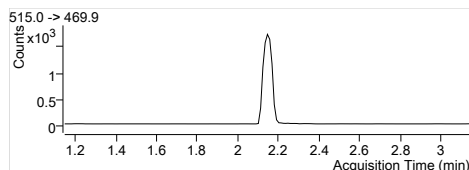
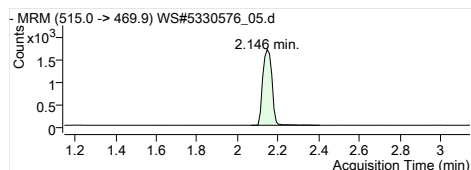
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Calibration



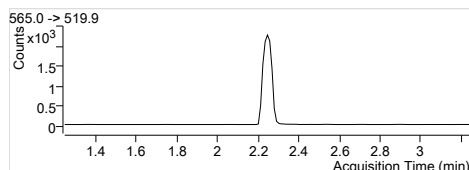
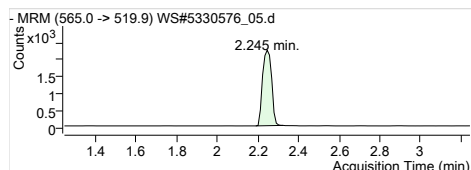
MPFOS
 RT (Exp. RT): 1.979 (2.002)
 Concentration: 1 µg/L
 Sample type: Calibration



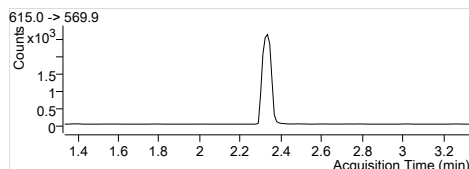
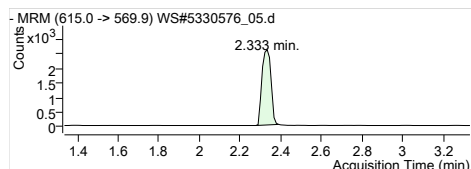
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: Calibration



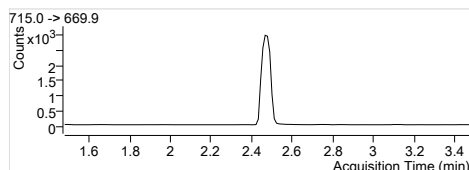
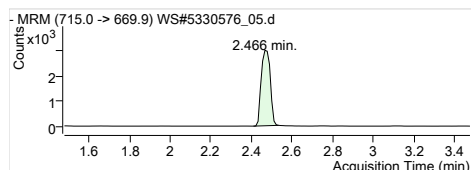
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



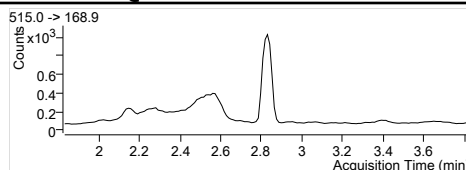
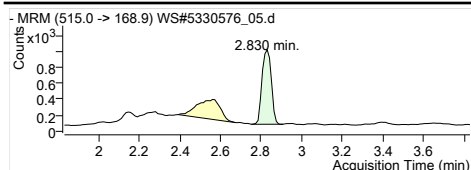
MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Calibration



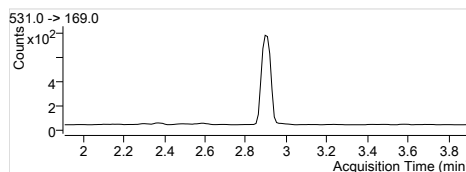
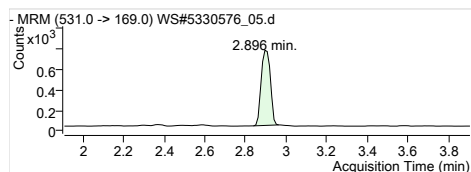
MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Calibration



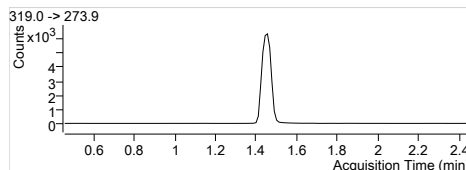
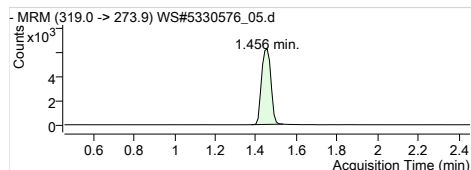
MPFTEA
 RT (Exp. RT): 2.466 (2.478)
 Concentration: 1 µg/L
 Sample type: Calibration



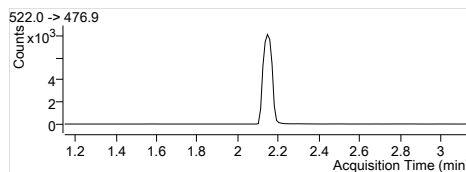
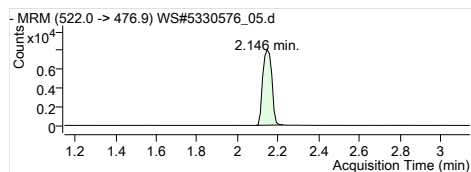
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



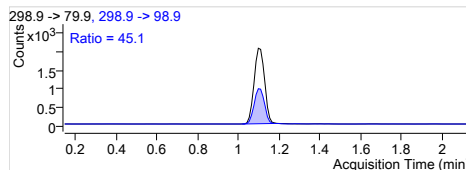
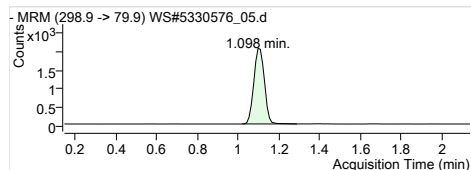
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Calibration



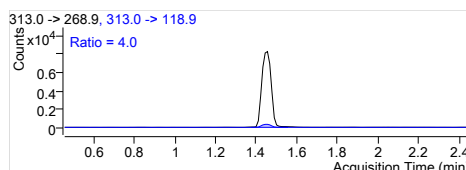
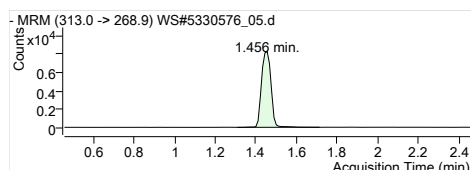
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Calibration



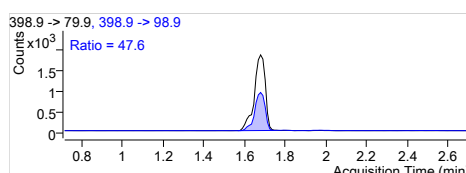
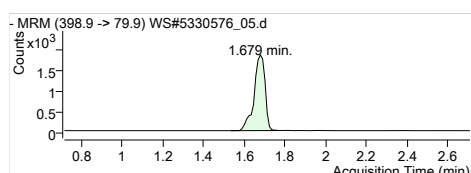
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



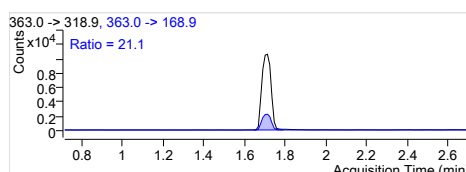
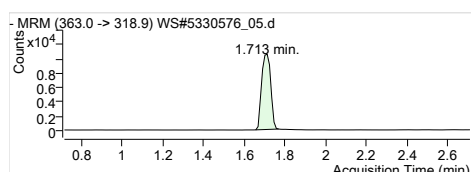
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.143)
 Area ratio: 11.33 µg/L
 6.10282
 Sample type: Calibration



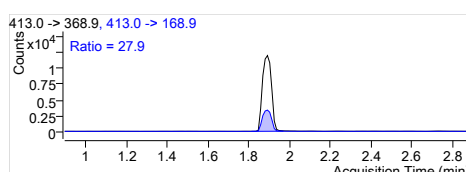
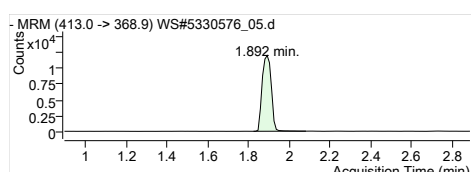
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 12.99 µg/L
 5.58528
 Sample type: Calibration



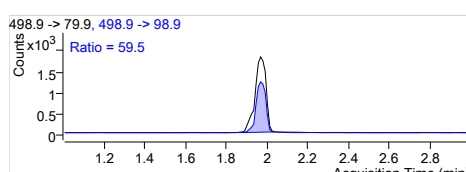
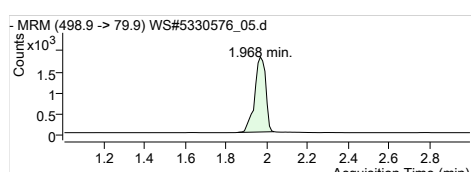
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 12.00 µg/L
 5.69154
 Sample type: Calibration



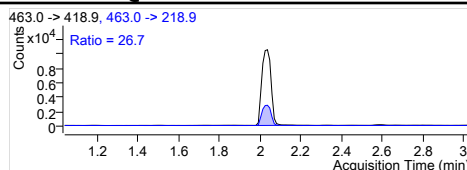
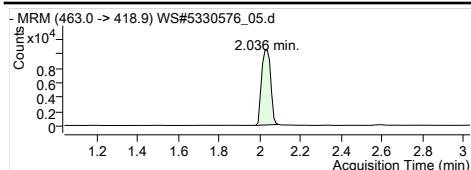
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 12.99 µg/L
 5.43452
 Sample type: Calibration



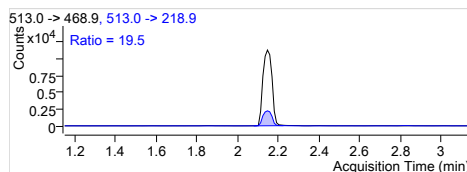
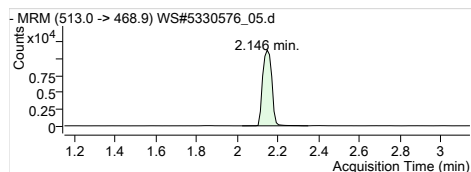
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 12.70 µg/L
 5.87923
 Sample type: Calibration



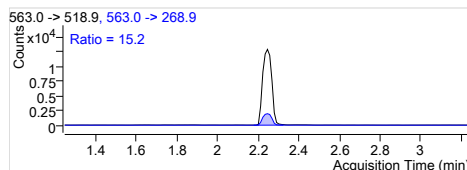
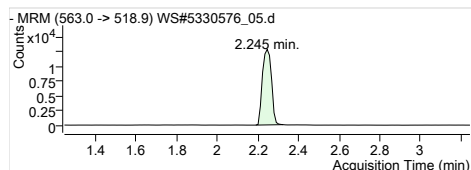
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 12.00 µg/L
 4.96174
 Sample type: Calibration



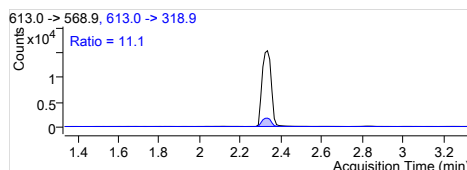
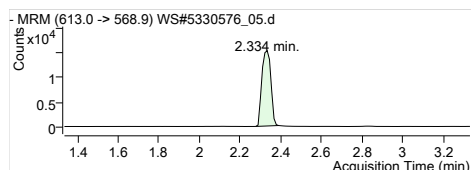
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 2.036 (2.036)
 Area ratio: 12.40 µg/L
 Sample type: 5.20160 Calibration



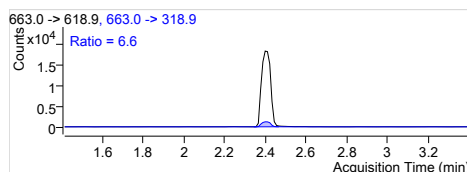
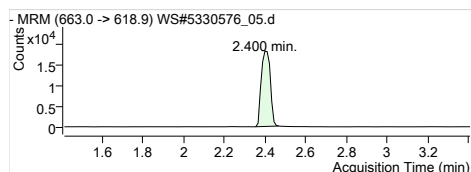
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 12.38 µg/L
 Sample type: 6.64245 Calibration



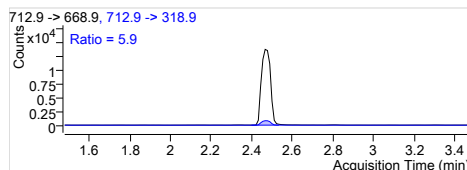
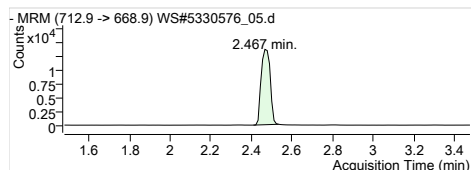
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 2.245 (2.245)
 Area ratio: 12.41 µg/L
 Sample type: 5.80887 Calibration



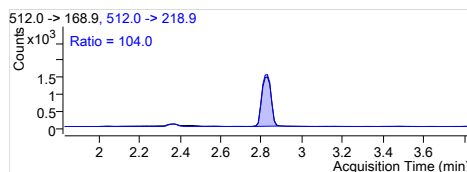
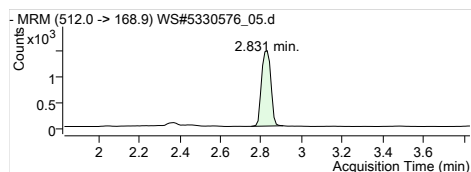
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 2.334 (2.334)
 Area ratio: 13.31 µg/L
 Sample type: 5.97391 Calibration



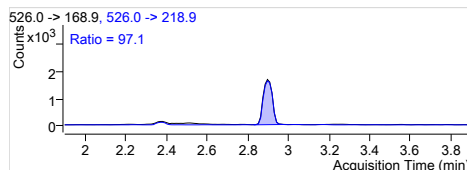
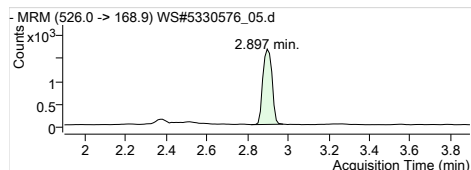
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 2.400 (2.411)
 Area ratio: 13.40 µg/L
 Sample type: 6.20422 Calibration



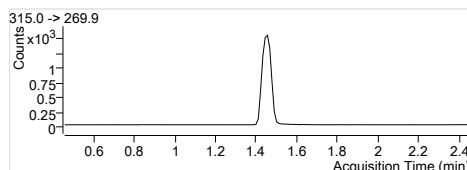
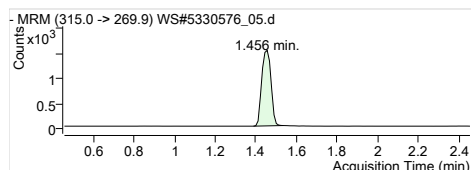
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 2.467 (2.478)
 Area ratio: 12.76 µg/L
 Sample type: 4.67725 Calibration



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 2.831 (2.831)
 Area ratio: 12.80 µg/L
 Sample type: 1.53579 Calibration

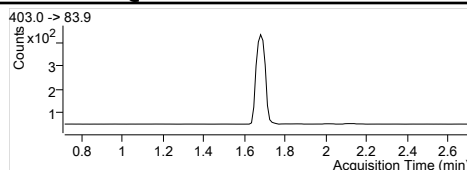
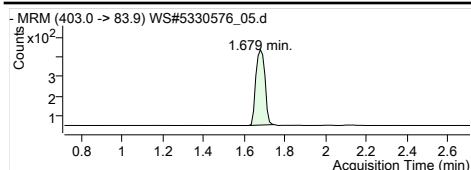


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 2.897 (2.897)
 Area ratio: 14.28 µg/L
 Sample type: 2.25936 Calibration

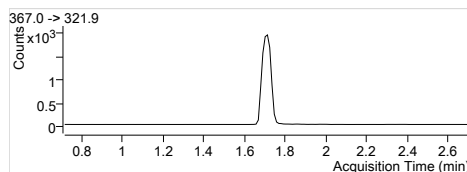
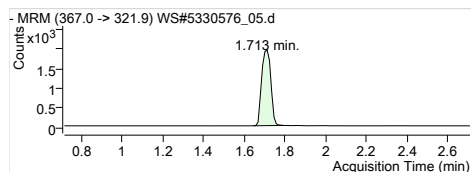


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.456 (1.456)
 Area ratio: 95.58 µg/L
 Sample type: 0.23961 Calibration

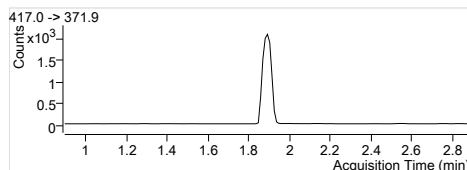
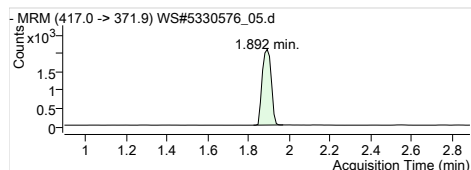
Quantitation Results



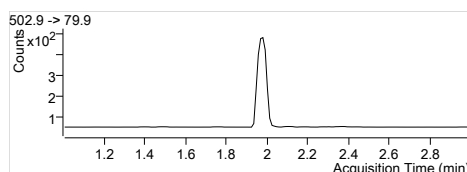
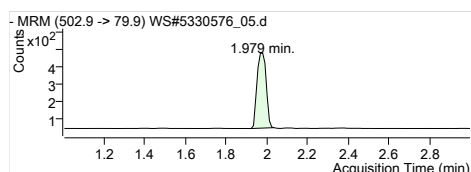
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 104.53 µg/L
Sample type: 0.06040
Calibration



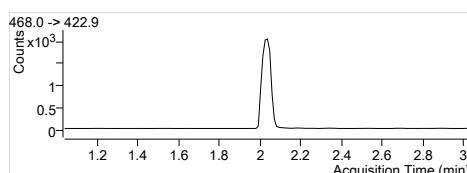
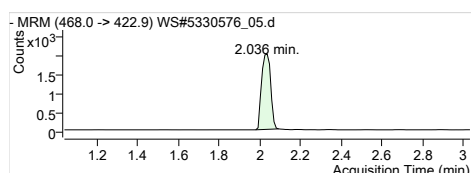
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 95.45 µg/L
Sample type: 0.30327
Calibration



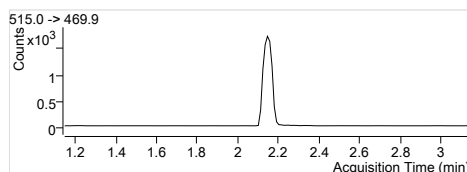
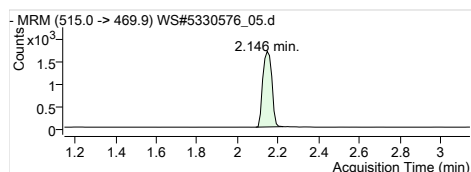
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 97.09 µg/L
Sample type: 0.31809
Calibration



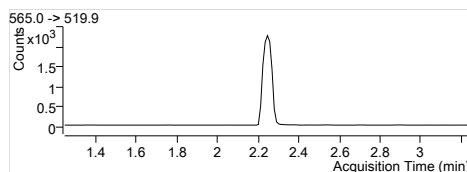
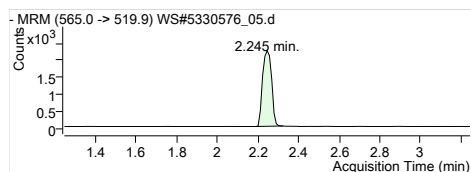
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (2.002)
Area ratio: 95.69 µg/L
Sample type: 0.06807
Calibration



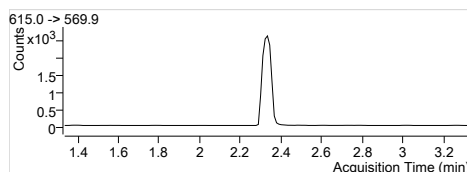
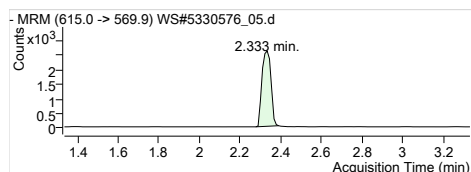
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 97.22 µg/L
Sample type: 0.31153
Calibration



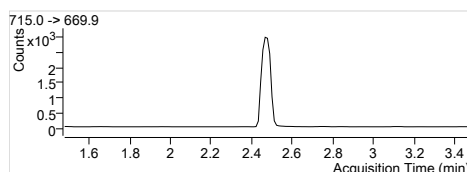
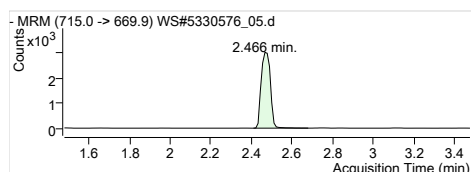
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 94.78 µg/L
Sample type: 0.20881
Calibration



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 98.80 µg/L
Sample type: 0.27670
Calibration

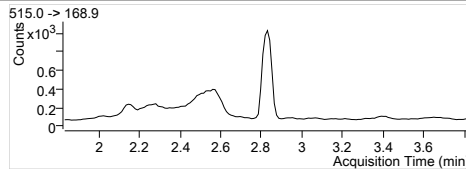
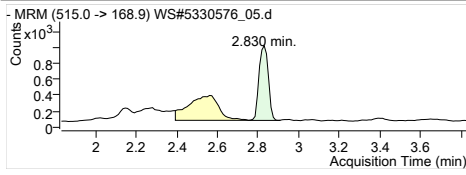


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 90.28 µg/L
Sample type: 0.31929
Calibration

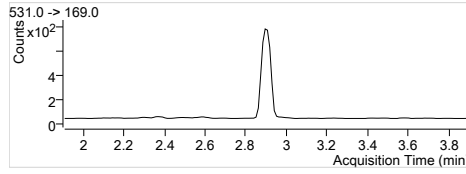
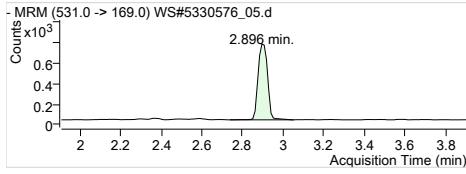


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 94.07 µg/L
Sample type: 0.37366
Calibration

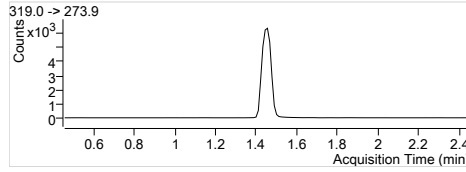
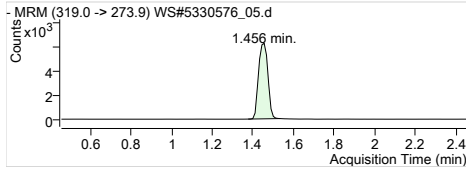
Quantitation Results



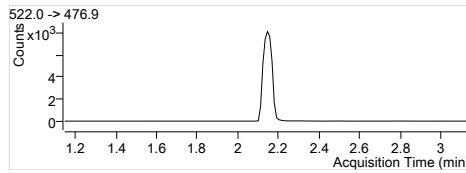
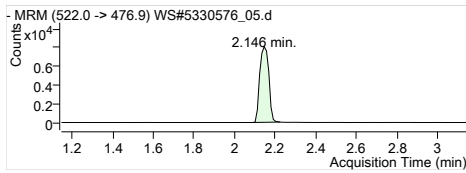
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 94.65 µg/L
Sample type: 0.15206
Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.907)
Area ratio: 91.38 µg/L
Sample type: 0.11940
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.456 (1.456)
Area ratio: 93.63 µg/L
Sample type: 0
Calibration



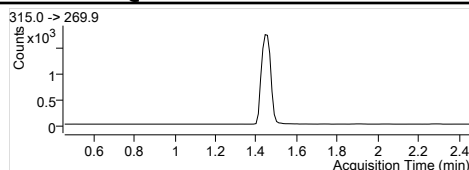
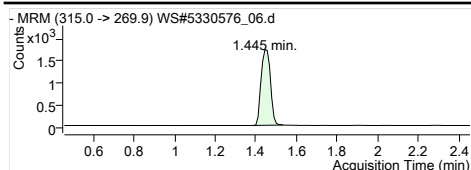
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 94.97 µg/L
Sample type: 0
Calibration

Quantitation Results

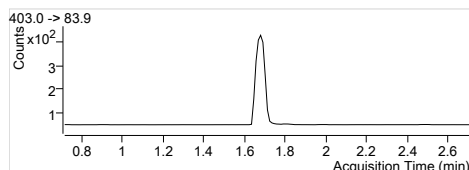
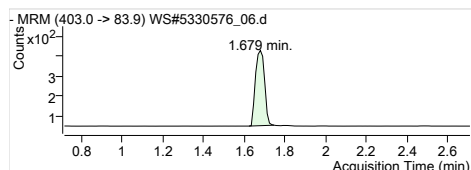
Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	STD 5	Instrument	LCMS04
Data File	WS#5330576_06.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A6
Acq. Date	2018/01/13 2:12:46 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	5459	1.44	1 µg/L
MPFHxS	1181	1.68	1 µg/L
MPFHpA	6832	1.71	1 µg/L
MPFOA	7027	1.89	1 µg/L
MPFOS	1449	1.98	1 µg/L
MPFNA	7398	2.04	1 µg/L
MPFDA	5917	2.15	1 µg/L
MPFUnA	8026	2.25	1 µg/L
MPFDoA	10006	2.33	1 µg/L
MPFTeDA	10953	2.47	1 µg/L
D3-MeFOSA IS	3570	2.83	1 µg/L
D5-EtFOSA IS	2903	2.90	1 µg/L
13C6-PFHxA IS	22593	1.44	1 µg/L
13C9-PFDA IS	27529	2.15	1 µg/L

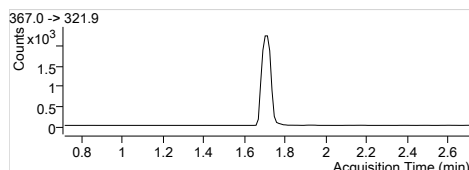
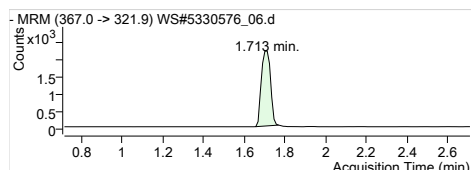
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	17077	1.10	25.00	26.83 µg/L	107.31
PFHxA 1	59003	1.44	25.00	25.12 µg/L	100.50
PFHxS 1	14902	1.68	25.00	26.77 µg/L	107.08
PFHpA 1	73647	1.70	25.00	25.84 µg/L	103.35
PFOA 1	82486	1.89	25.00	25.29 µg/L	101.17
PFOS 1	15343	1.97	25.00	25.42 µg/L	101.66
PFNA 1	74216	2.04	25.00	23.90 µg/L	95.60
PFDA 1	79171	2.15	25.00	24.84 µg/L	99.35
PFUnA 1	88377	2.25	25.00	23.46 µg/L	93.84
PFDaA 1	106968	2.33	25.00	23.77 µg/L	95.07
PFTTrDA 1	120486	2.41	25.00	23.68 µg/L	94.71
PFTeDA 1	95619	2.47	25.00	23.79 µg/L	95.15
MeFOSA 1	10885	2.83	25.00	25.34 µg/L	101.38
EtFOSA 1	10482	2.90	25.00	22.80 µg/L	91.20
13C2-PFHxA	5459	1.44	100.00	96.39 µg/L	96.39
18O2-PFHxS	1181	1.68	100.00	90.46 µg/L	90.46
13C4-PFHpA	6832	1.71	100.00	95.18 µg/L	95.18
13C4-PFOA	7027	1.89	100.00	94.93 µg/L	94.93
13C4-PFOS	1449	1.98	100.00	90.16 µg/L	90.16
13C5-PFNA	7349	2.04	100.00	101.51 µg/L	101.51
13C2-PFDA	5779	2.15	100.00	95.28 µg/L	95.28
13C2-PFUnA	8026	2.25	100.00	104.10 µg/L	104.10
13C2-PFDoA	10006	2.33	100.00	102.78 µg/L	102.78
13C2-PFTeDA	11187	2.47	100.00	102.31 µg/L	102.31
D3-MeFOSA	3764	2.83	100.00	103.70 µg/L	103.70
D5-EtFOSA	2976	2.90	100.00	100.81 µg/L	100.81
13C6-PFHxA	22593	1.44	100.00	105.95 µg/L	105.95
13C9-PFDA	27529	2.15	100.00	105.22 µg/L	105.22



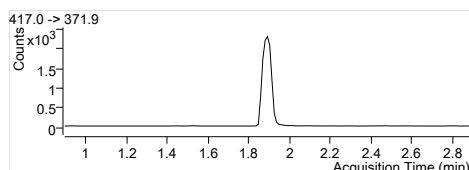
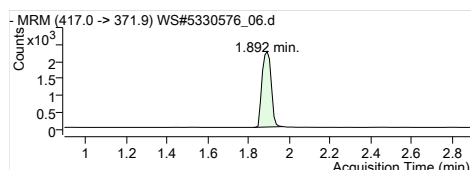
MPFHxA
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



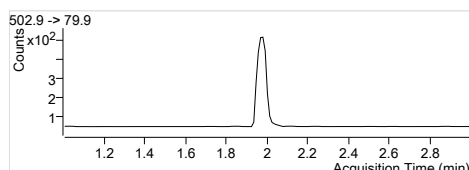
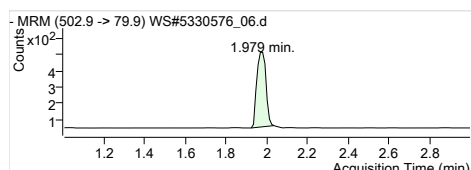
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



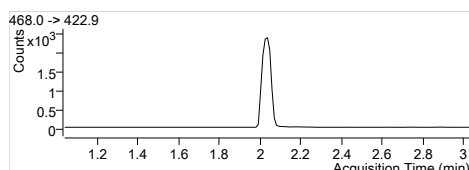
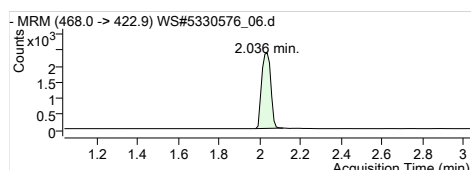
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



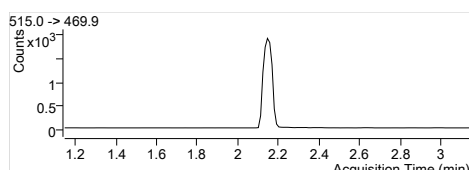
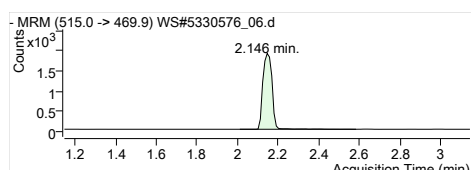
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



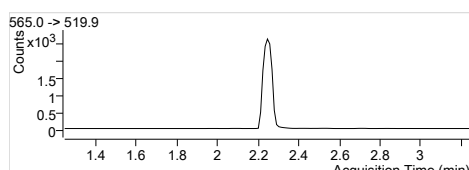
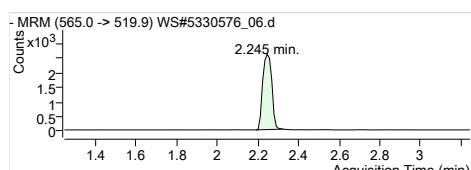
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: Calibration



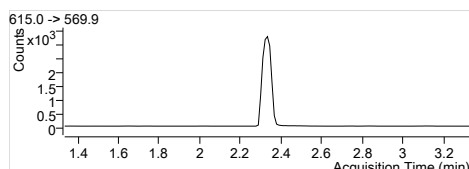
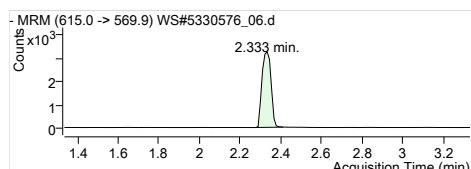
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



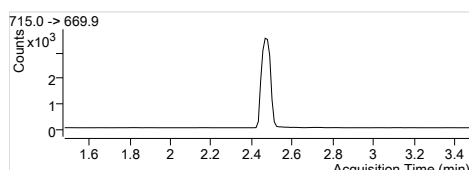
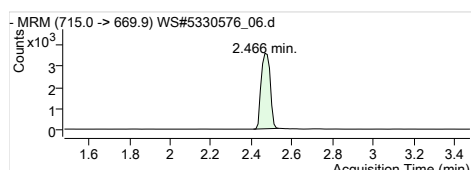
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



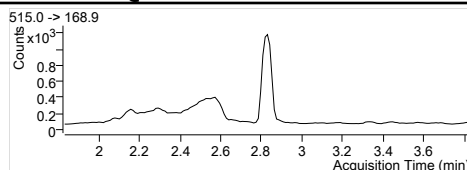
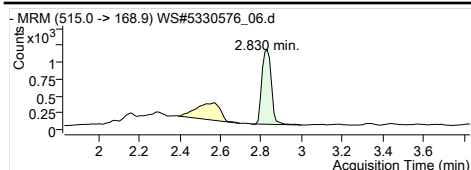
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



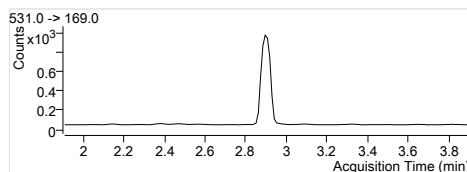
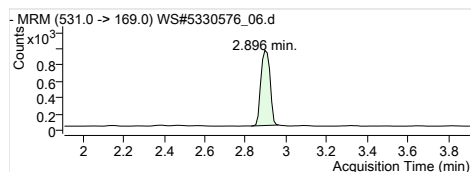
MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Calibration



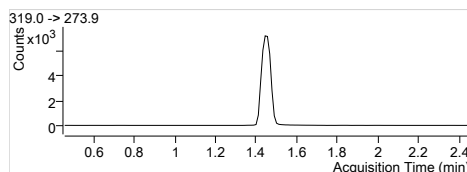
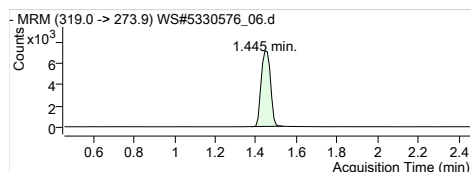
MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



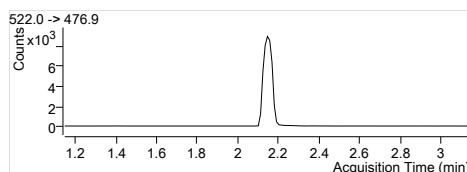
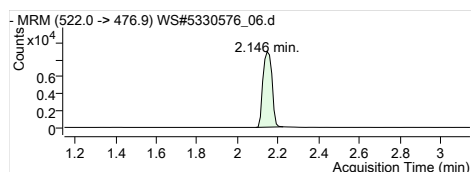
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



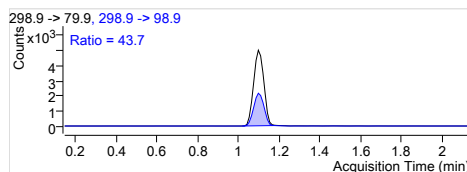
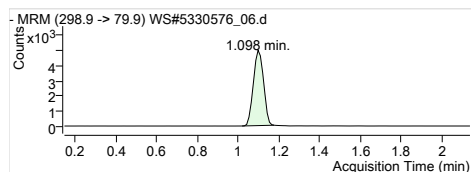
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Calibration



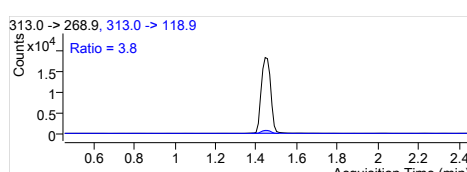
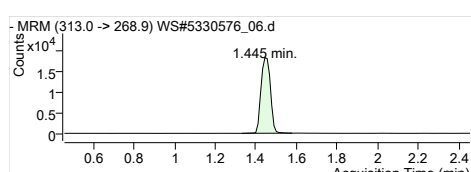
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Calibration



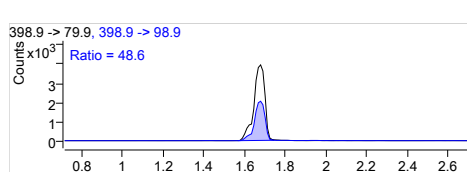
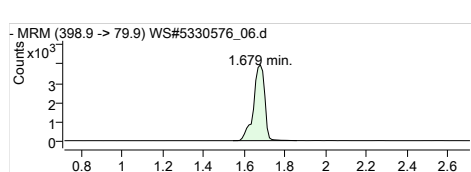
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



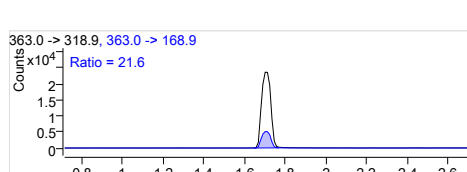
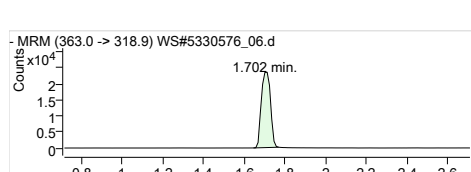
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.143)
 Area ratio: 26.83 µg/L
 14.45978
 Sample type: Calibration



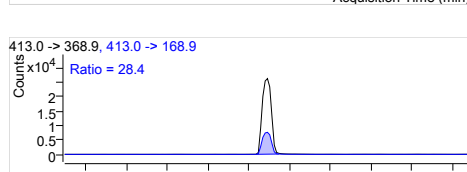
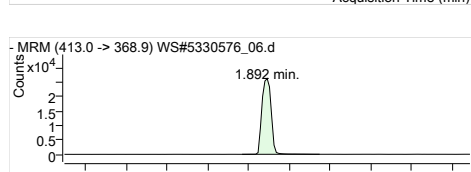
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 25.12 µg/L
 10.80839
 Sample type: Calibration



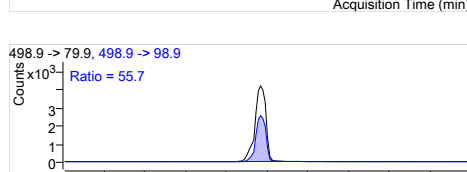
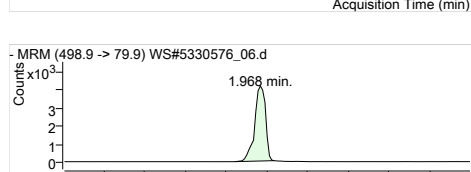
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 26.77 µg/L
 12.61812
 Sample type: Calibration



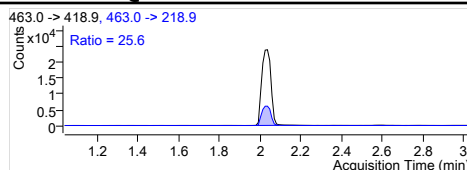
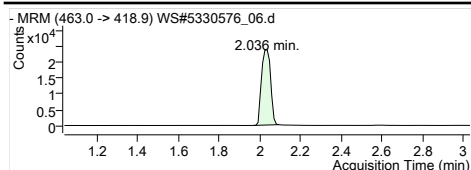
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 25.84 µg/L
 10.77971
 Sample type: Calibration



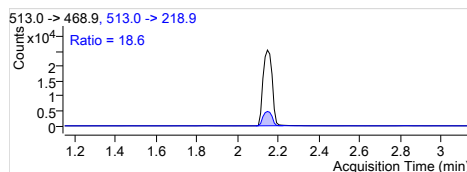
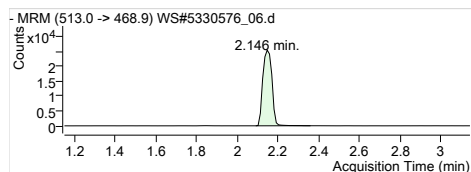
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 25.29 µg/L
 11.73844
 Sample type: Calibration



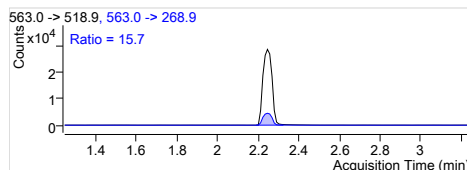
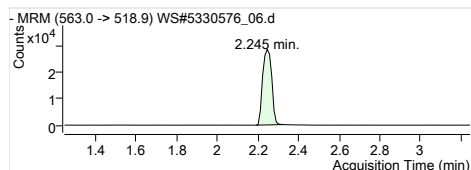
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 25.42 µg/L
 10.58868
 Sample type: Calibration



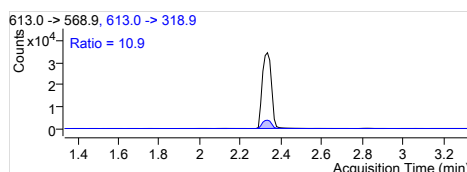
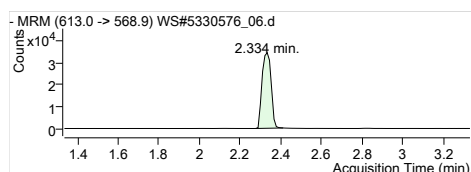
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 23.90 µg/L
 Sample type: 10.03190
 Calibration



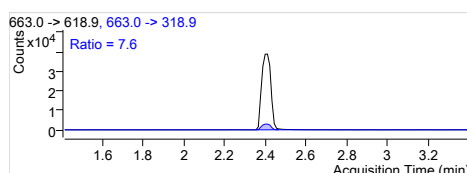
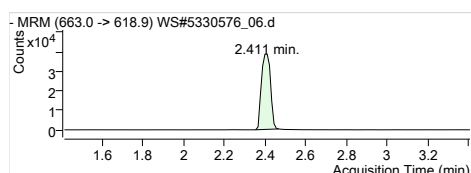
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 24.84 µg/L
 Sample type: 13.38026
 Calibration



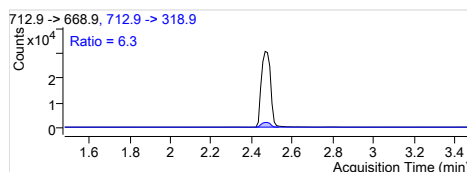
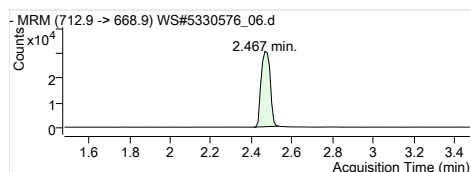
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 23.46 µg/L
 Sample type: 11.01134
 Calibration



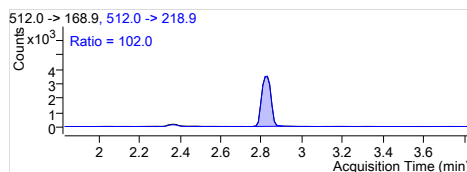
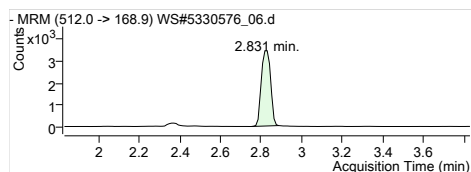
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 23.77 µg/L
 Sample type: 10.69039
 Calibration



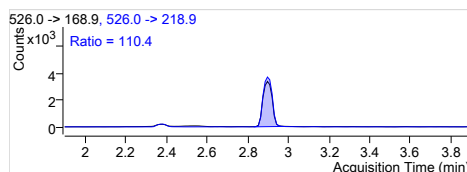
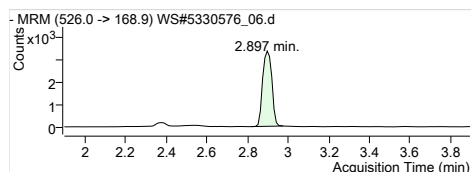
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.411 (2.411)
 Area ratio: 23.68 µg/L
 Sample type: 11.00027
 Calibration



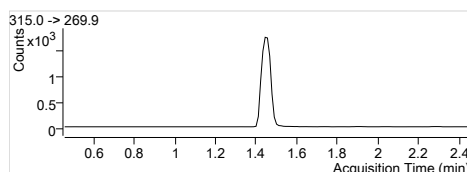
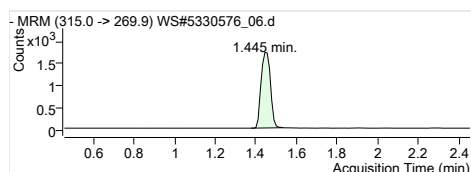
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.478)
 Area ratio: 23.79 µg/L
 Sample type: 8.72994
 Calibration



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.831 (2.831)
 Area ratio: 25.34 µg/L
 Sample type: 3.04902
 Calibration

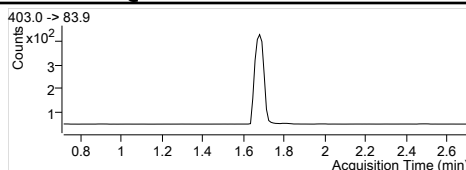
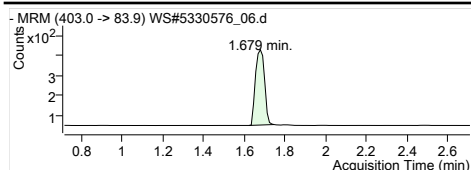


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 22.80 µg/L
 Sample type: 3.61075
 Calibration

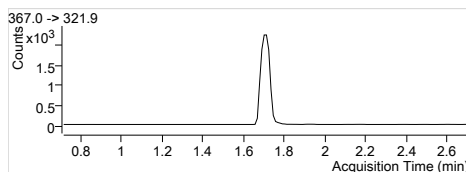
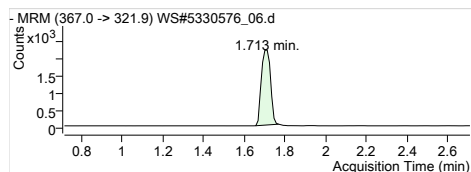


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 96.39 µg/L
 Sample type: 0.24162
 Calibration

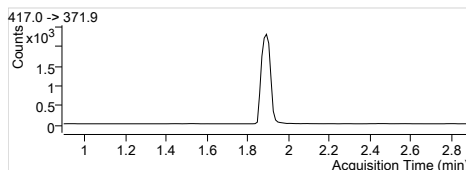
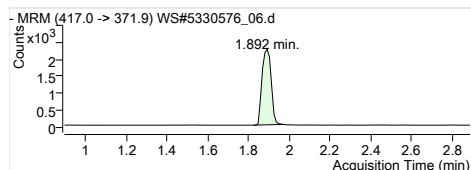
Quantitation Results



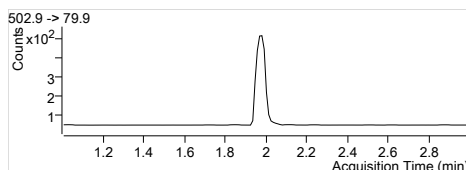
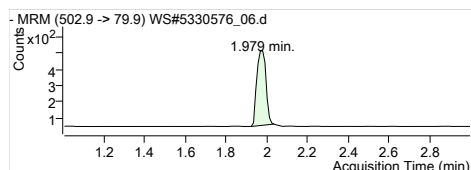
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 90.46 µg/L
 Sample type: 0.05227
 Calibration



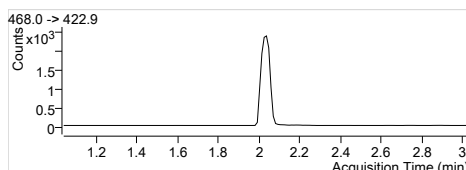
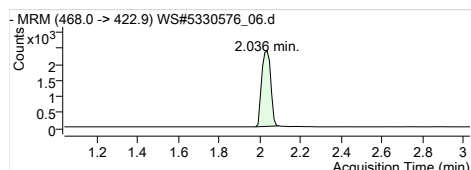
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 95.18 µg/L
 Sample type: 0.30239
 Calibration



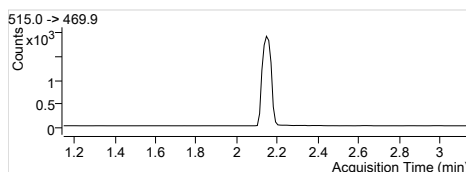
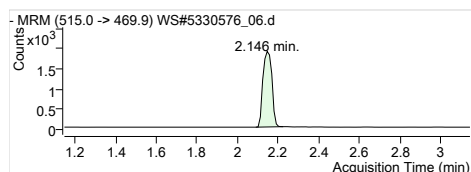
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 94.93 µg/L
 Sample type: 0.31103
 Calibration



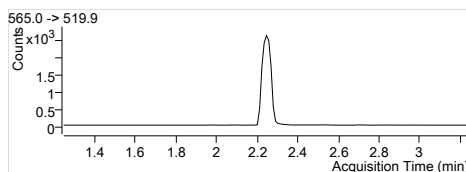
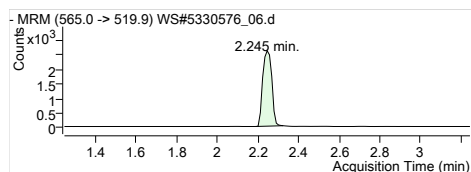
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (2.002)
 Area ratio: 90.16 µg/L
 Sample type: 0.06413
 Calibration



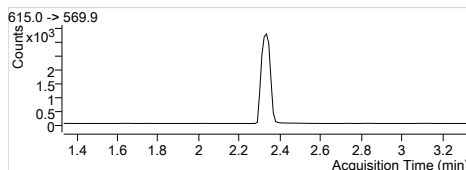
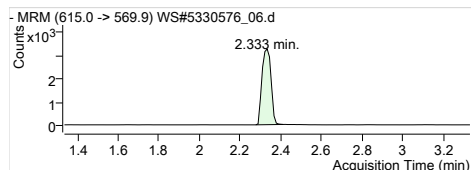
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 101.51 µg/L
 Sample type: 0.32528
 Calibration



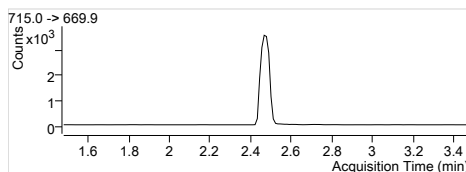
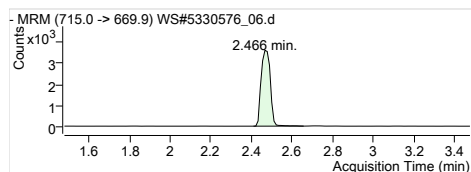
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 95.28 µg/L
 Sample type: 0.20992
 Calibration



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 104.10 µg/L
 Sample type: 0.29155
 Calibration

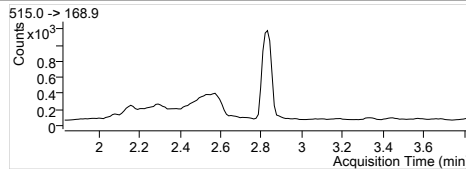
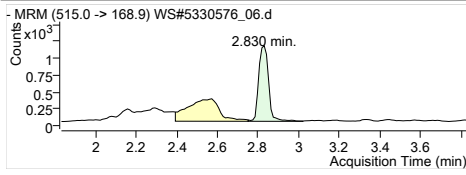


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 102.78 µg/L
 Sample type: 0.36347
 Calibration

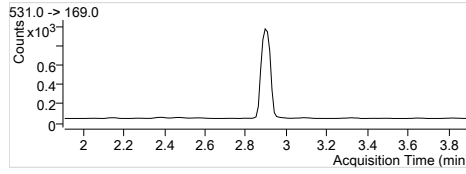
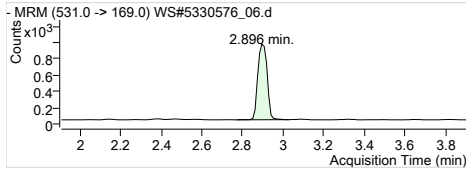


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.478)
 Area ratio: 102.31 µg/L
 Sample type: 0.40637
 Calibration

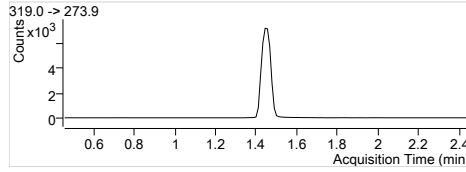
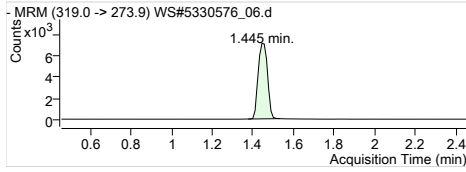
Quantitation Results



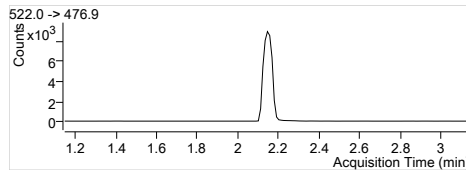
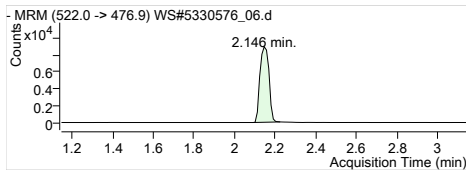
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 103.70 µg/L
Area ratio: 0.16660
Sample type: Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 100.81 µg/L
Area ratio: 0.13172
Sample type: Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.456)
Calc. conc. 105.95 µg/L
Area ratio: 0
Sample type: Calibration



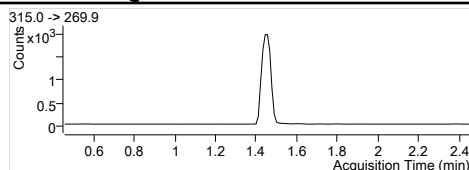
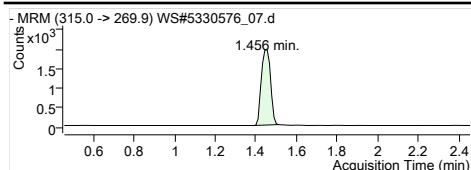
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 105.22 µg/L
Area ratio: 0
Sample type: Calibration

Quantitation Results

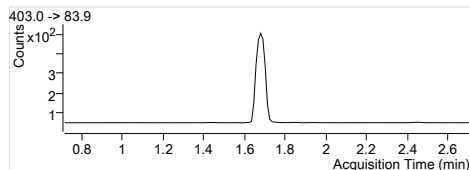
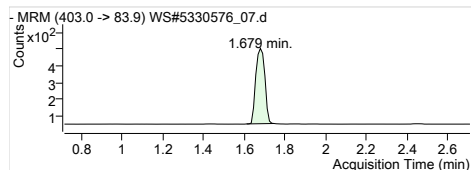
Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	STD 6	Instrument	LCMS04
Data File	WS#5330576_07.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A7
Acq. Date	2018/01/13 2:17:42 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	6106	1.46	1 µg/L
MPFHxS	1409	1.68	1 µg/L
MPFHpA	7729	1.71	1 µg/L
MPFOA	7646	1.89	1 µg/L
MPFOS	1570	1.98	1 µg/L
MPFNA	7333	2.04	1 µg/L
MPFDA	6158	2.15	1 µg/L
MPFUnA	7845	2.25	1 µg/L
MPFDoA	10169	2.33	1 µg/L
MPFTeDA	10744	2.47	1 µg/L
D3-MeFOSA IS	3792	2.83	1 µg/L
D5-EtFOSA IS	2855	2.90	1 µg/L
13C6-PFHxA IS	21907	1.44	1 µg/L
13C9-PFDA IS	27633	2.15	1 µg/L

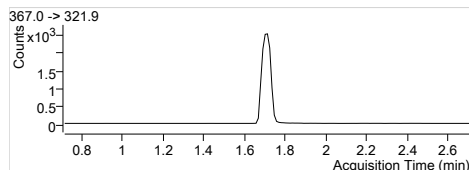
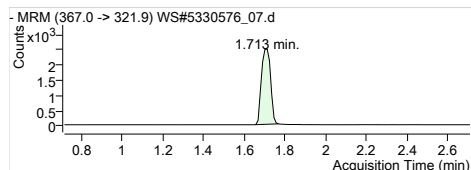
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	30916	1.10	41.70	40.70 µg/L	97.61
PFHxA 1	107955	1.44	41.70	41.08 µg/L	98.52
PFHxS 1	26757	1.68	41.70	40.36 µg/L	96.78
PFHpA 1	130355	1.71	41.70	40.47 µg/L	97.05
PFOA 1	146887	1.89	41.70	41.35 µg/L	99.16
PFOS 1	27584	1.97	41.70	42.06 µg/L	100.86
PFNA 1	132218	2.04	41.70	42.95 µg/L	102.99
PFDA 1	141055	2.15	41.70	42.45 µg/L	101.80
PFUnA 1	159388	2.25	41.70	43.22 µg/L	103.65
PFDoA 1	193841	2.33	41.70	42.33 µg/L	101.52
PFTTrDA 1	210725	2.40	41.70	42.13 µg/L	101.03
PFTeDA 1	168229	2.47	41.70	42.63 µg/L	102.24
MeFOSA 1	18791	2.82	41.70	41.15 µg/L	98.69
EtFOSA 1	19277	2.90	41.70	42.59 µg/L	102.14
13C2-PFHxA	6106	1.46	100.00	111.19 µg/L	111.19
18O2-PFHxS	1409	1.68	100.00	111.30 µg/L	111.30
13C4-PFHpA	7729	1.71	100.00	111.05 µg/L	111.05
13C4-PFOA	7646	1.89	100.00	106.53 µg/L	106.53
13C4-PFOS	1570	1.98	100.00	100.75 µg/L	100.75
13C5-PFNA	7280	2.04	100.00	103.71 µg/L	103.71
13C2-PFDA	6031	2.15	100.00	99.07 µg/L	99.07
13C2-PFUnA	7845	2.25	100.00	101.37 µg/L	101.37
13C2-PFDoA	10169	2.33	100.00	104.06 µg/L	104.06
13C2-PFTeDA	10943	2.47	100.00	99.70 µg/L	99.70
D3-MeFOSA	3929	2.83	100.00	111.64 µg/L	111.64
D5-EtFOSA	2926	2.90	100.00	102.22 µg/L	102.22
13C6-PFHxA	21907	1.44	100.00	102.74 µg/L	102.74
13C9-PFDA	27633	2.15	100.00	105.62 µg/L	105.62



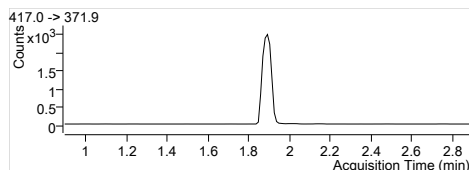
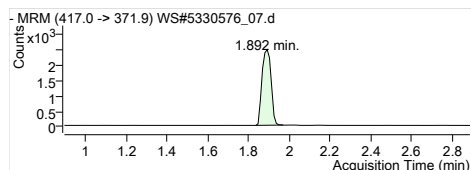
MPFHxA
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: Calibration



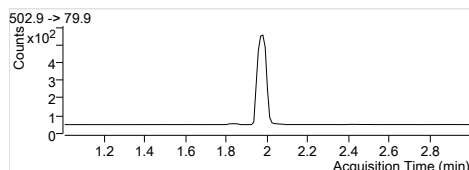
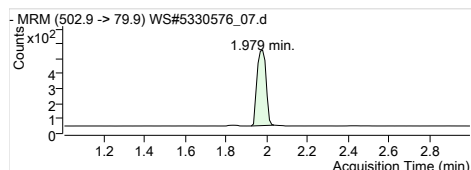
MPFHxS
 RT (Exp. RT): 1.679 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



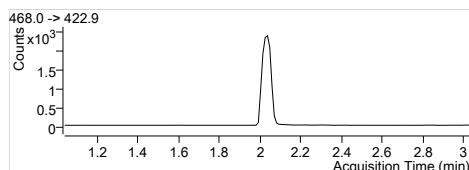
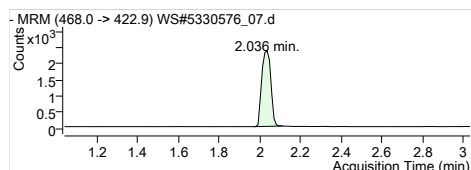
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



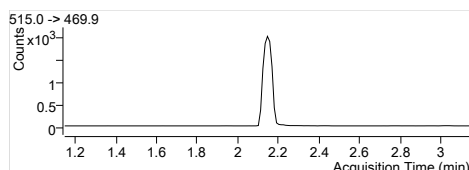
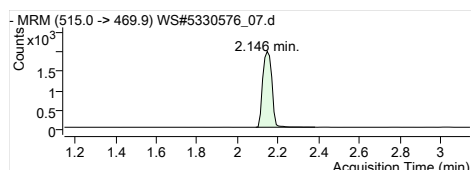
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Calibration



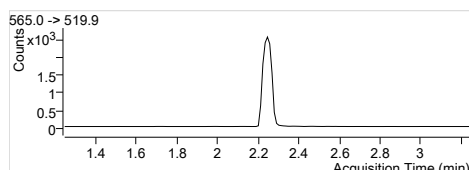
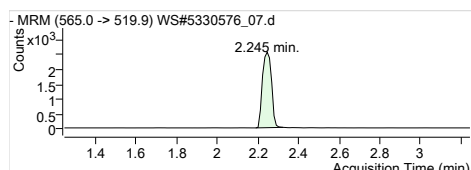
MPFOS
 RT (Exp. RT): 1.979 (2.002)
 Concentration: 1 µg/L
 Sample type: Calibration



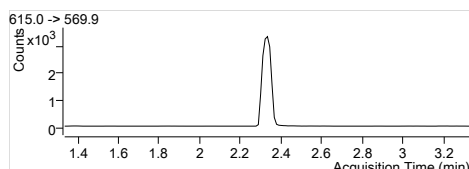
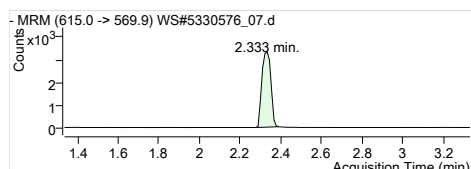
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: Calibration



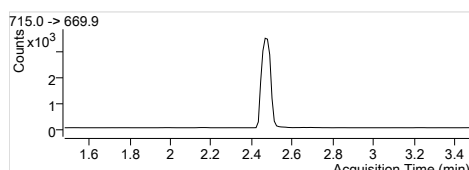
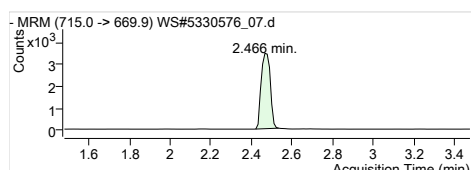
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



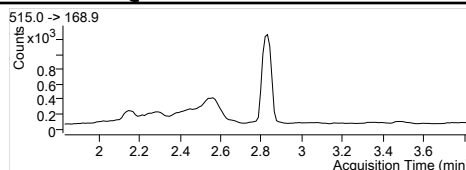
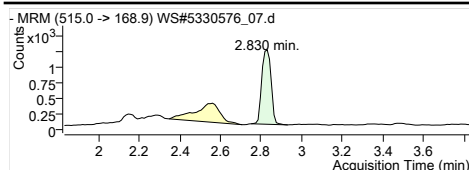
MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Calibration



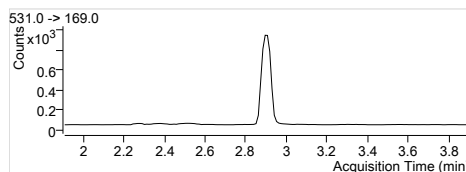
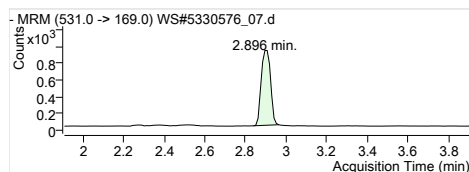
MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Calibration



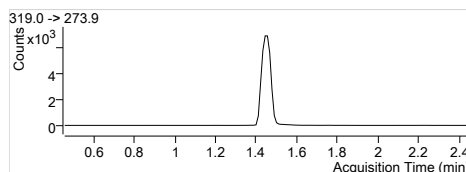
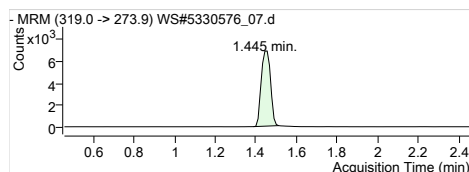
MPFTeDA
 RT (Exp. RT): 2.466 (2.478)
 Concentration: 1 µg/L
 Sample type: Calibration



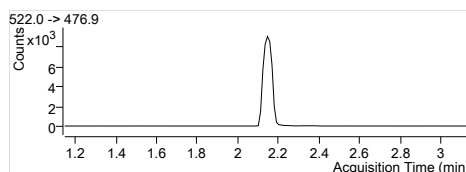
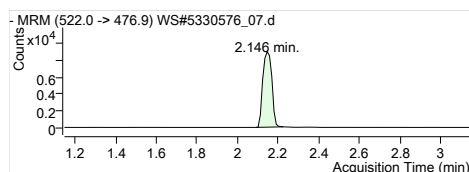
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



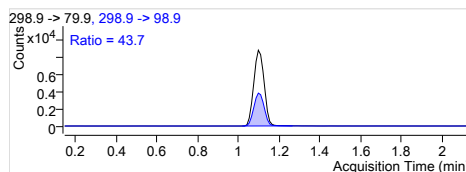
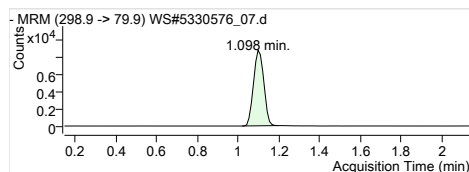
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: Calibration



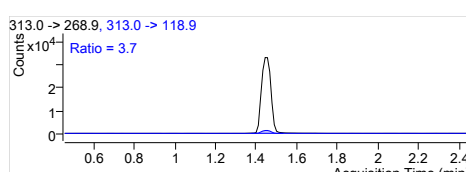
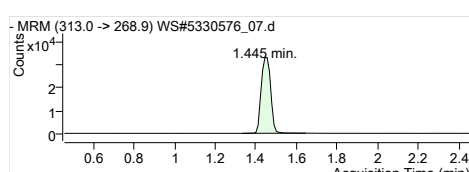
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: Calibration



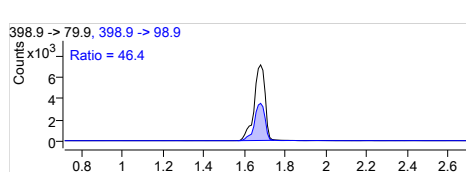
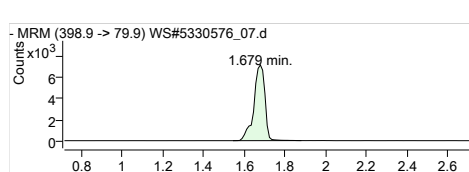
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



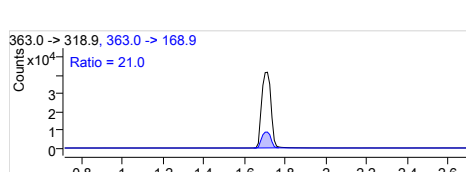
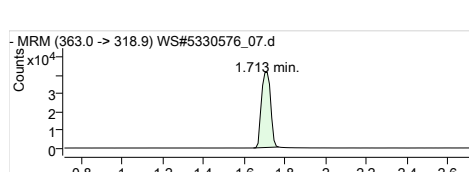
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.143)
 Area ratio: 40.70 µg/L
 21.94180
 Sample type: Calibration



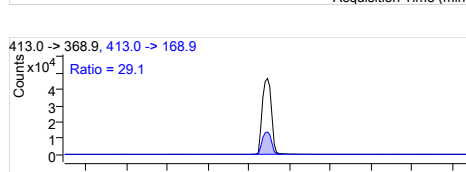
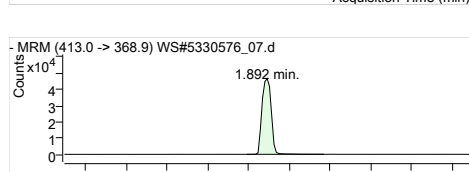
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 41.08 µg/L
 17.68015
 Sample type: Calibration



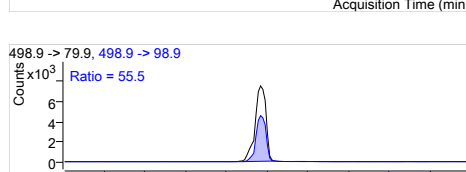
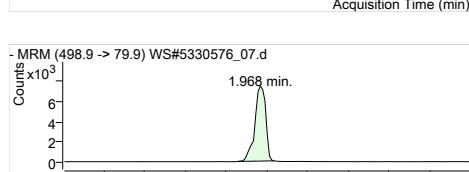
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 40.36 µg/L
 18.99006
 Sample type: Calibration



PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 40.47 µg/L
 16.86570
 Sample type: Calibration

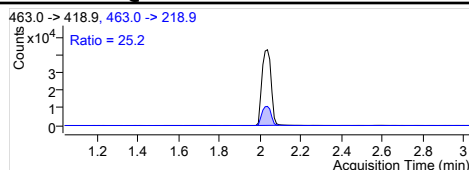
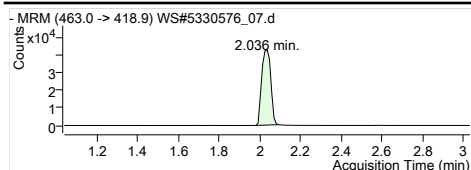


PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 41.35 µg/L
 19.21096
 Sample type: Calibration

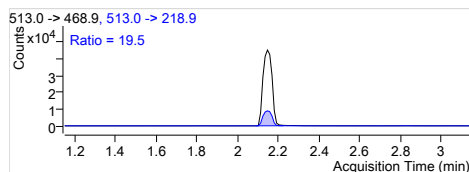
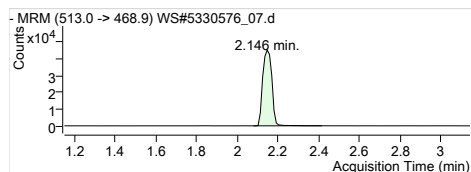


PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 42.06 µg/L
 17.56943
 Sample type: Calibration

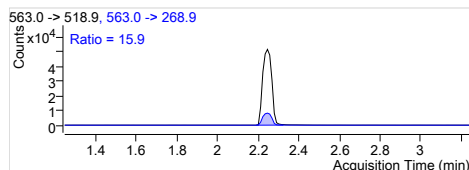
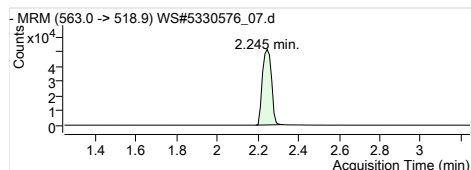
Quantitation Results



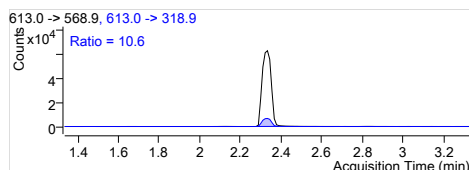
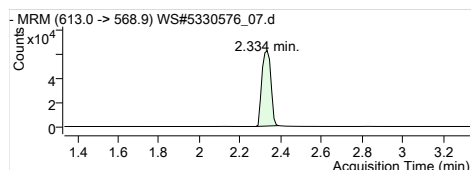
PFNA 1
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 42.95 µg/L
Area ratio: 18.03055
Sample type: Calibration



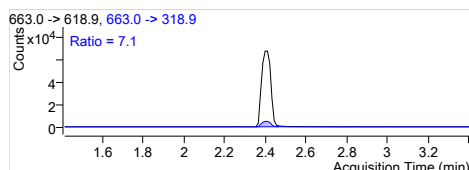
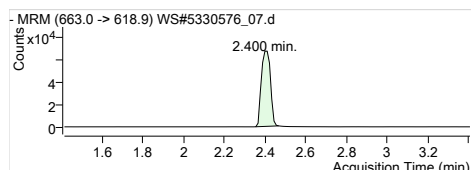
PFDA 1
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 42.45 µg/L
Area ratio: 22.90598
Sample type: Calibration



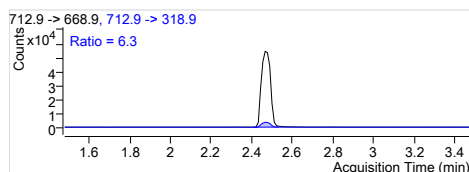
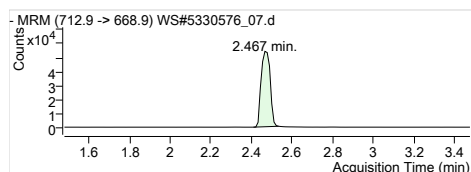
PFUnA 1
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 43.22 µg/L
Area ratio: 20.31714
Sample type: Calibration



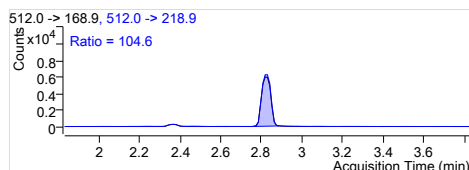
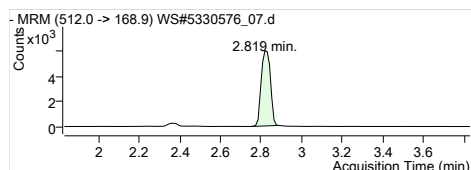
PFDoA 1
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 42.33 µg/L
Area ratio: 19.06195
Sample type: Calibration



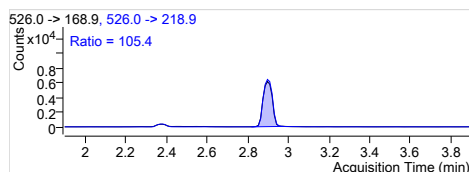
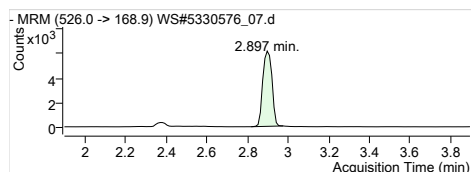
PFTrDA 1
RT (Exp. RT): 2.400 (2.411)
Calc. conc. 42.13 µg/L
Area ratio: 19.61327
Sample type: Calibration



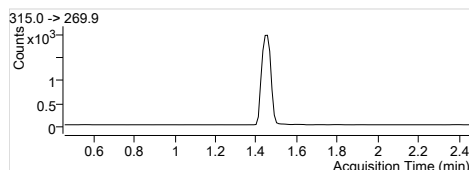
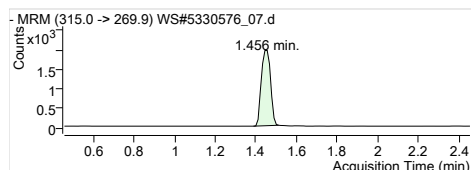
PFTeDA 1
RT (Exp. RT): 2.467 (2.478)
Calc. conc. 42.63 µg/L
Area ratio: 15.65795
Sample type: Calibration



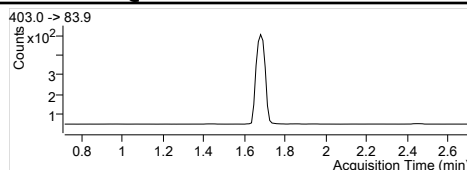
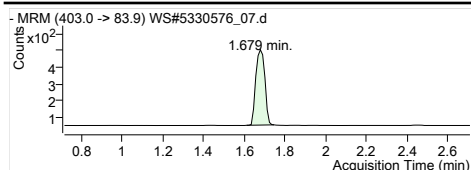
MeFOSA 1
RT (Exp. RT): 2.819 (2.831)
Calc. conc. 41.15 µg/L
Area ratio: 4.95543
Sample type: Calibration



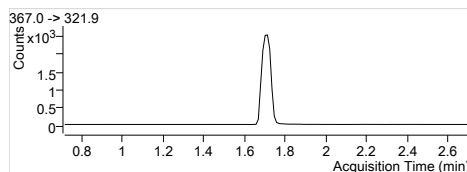
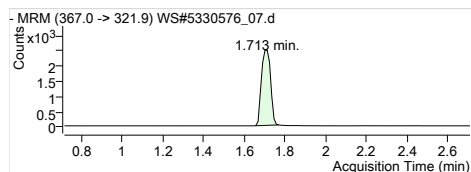
EtFOSA 1
RT (Exp. RT): 2.897 (2.897)
Calc. conc. 42.59 µg/L
Area ratio: 6.75201
Sample type: Calibration



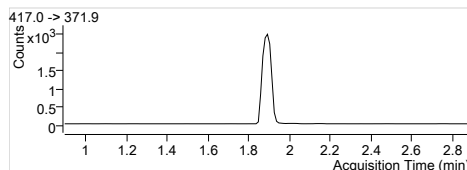
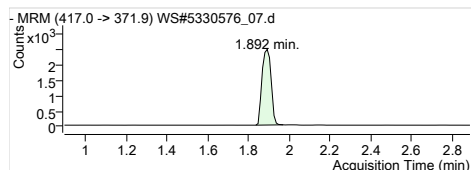
13C2-PFHxA
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 111.19 µg/L
Area ratio: 0.27872
Sample type: Calibration



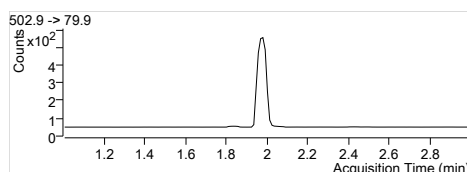
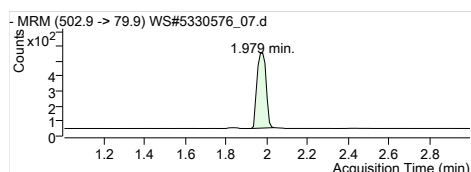
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 111.30 µg/L
 Sample type: 0.06432
 Calibration



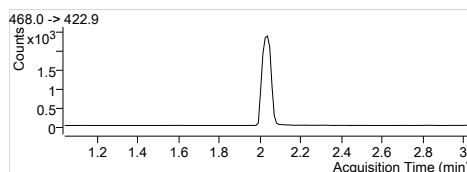
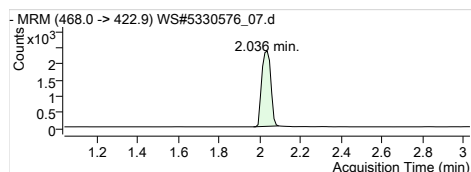
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 111.05 µg/L
 Sample type: 0.35281
 Calibration



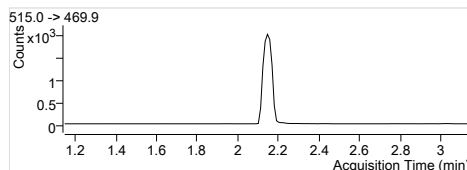
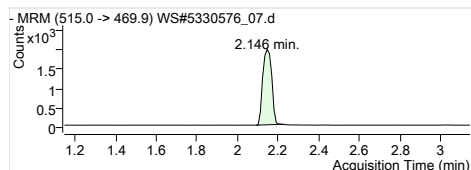
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 106.53 µg/L
 Sample type: 0.34902
 Calibration



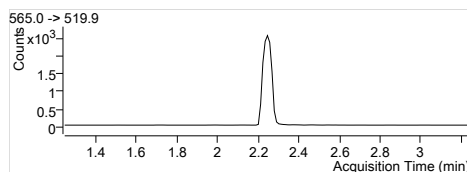
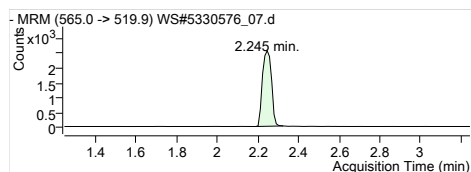
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (2.002)
 Area ratio: 100.75 µg/L
 Sample type: 0.07167
 Calibration



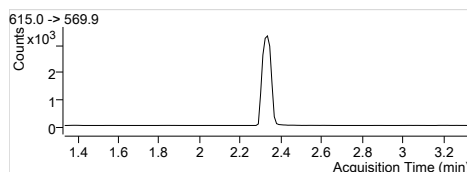
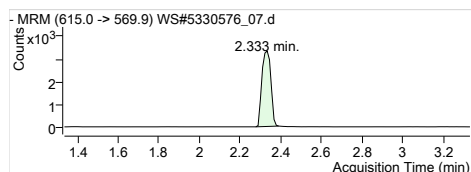
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 103.71 µg/L
 Sample type: 0.33231
 Calibration



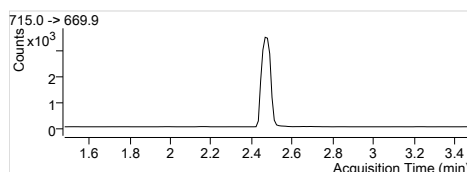
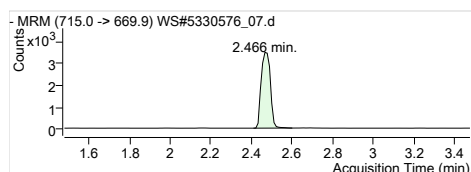
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 99.07 µg/L
 Sample type: 0.21825
 Calibration



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 101.37 µg/L
 Sample type: 0.28390
 Calibration

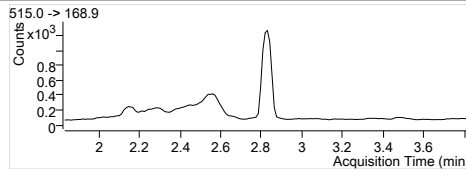
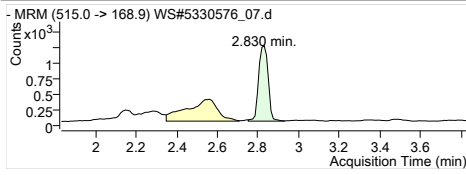


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 104.06 µg/L
 Sample type: 0.36800
 Calibration

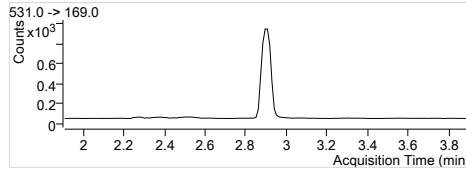
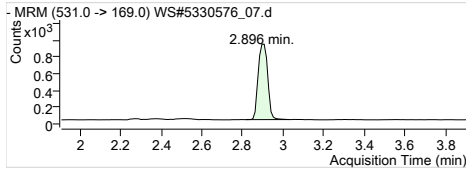


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.478)
 Area ratio: 99.70 µg/L
 Sample type: 0.39601
 Calibration

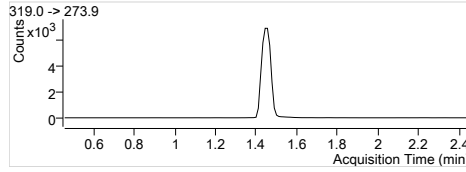
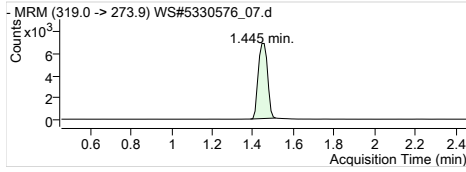
Quantitation Results



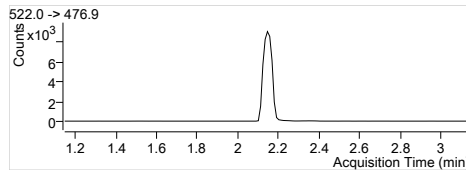
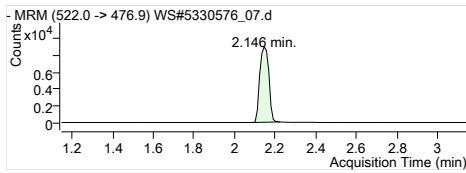
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 111.64 µg/L
Area ratio: 0.17935
Sample type: Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 102.22 µg/L
Area ratio: 0.13356
Sample type: Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.456)
Calc. conc. 102.74 µg/L
Area ratio: 0
Sample type: Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 105.62 µg/L
Area ratio: 0
Sample type: Calibration

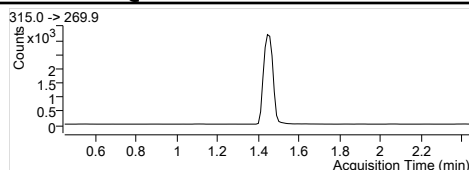
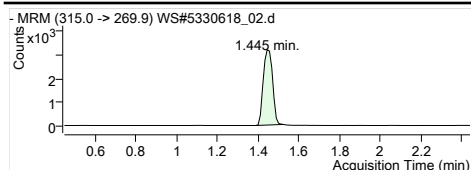
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	STD 1	Instrument	LCMS04
Data File	WS#5330618_02.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-D9
Acq. Date	2018/01/13 5:20:15 AM	Injection Volume	Per Method
Sample Annotation	-		

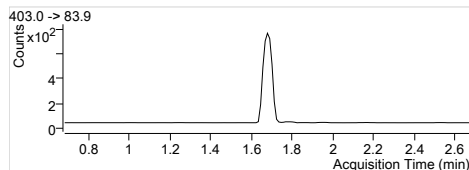
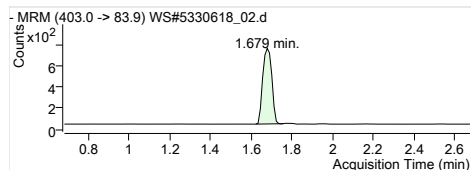
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9991	1.44	1 µg/L		
MPFHxS	2220	1.68	1 µg/L		
MPFHpA	12454	1.71	1 µg/L		
MPFOA	13648	1.89	1 µg/L		
MPFOS	2846	1.98	1 µg/L		
MPFNA	12669	2.04	1 µg/L		
MPFDA	11305	2.15	1 µg/L		
MPFUnA	13080	2.25	1 µg/L		
MPFDoA	17741	2.33	1 µg/L		
MPFTeDA	19820	2.47	1 µg/L		
D3-MeFOSA IS	6178	2.83	1 µg/L		
D5-EtFOSA IS	5198	2.90	1 µg/L		
13C6-PFHxA IS	46152	1.44	1 µg/L		
13C9-PFDA IS	59876	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	948	1.10	0.83	0.88 µg/L	106.53
PFHxA 1	3451	1.44	0.83	0.85 µg/L	102.00
PFHxS 1	932	1.68	0.83	0.86 µg/L	103.68
PFHpA 1	4104	1.71	0.83	0.90 µg/L	108.30
PFOA 1	4912	1.89	0.83	0.85 µg/L	102.05
PFOS 1	954	1.97	0.83	0.94 µg/L	113.44
PFNA 1	4184	2.02	0.83	0.87 µg/L	104.46
PFDA 1	4759	2.15	0.83	0.88 µg/L	106.44
PFUnA 1	4938	2.25	0.83	0.82 µg/L	98.50
PFDoA 1	6297	2.33	0.83	0.84 µg/L	101.18
PFTTrDA 1	6743	2.40	0.83	0.78 µg/L	94.54
PFTeDA 1	5743	2.47	0.83	0.85 µg/L	102.07
MeFOSA 1	682	2.83	0.83	0.87 µg/L	104.54
EtFOSA 1	688	2.90	0.83	0.94 µg/L	112.89
13C2-PFHxA	9991	1.44	100.00	97.76 µg/L	97.76
18O2-PFHxS	2220	1.68	100.00	90.64 µg/L	90.64
13C4-PFHpA	12454	1.71	100.00	97.27 µg/L	97.27
13C4-PFOA	13648	1.89	100.00	98.71 µg/L	98.71
13C4-PFOS	2846	1.98	100.00	95.53 µg/L	95.53
13C5-PFNA	12566	2.04	100.00	97.19 µg/L	97.19
13C2-PFDA	11280	2.15	100.00	98.92 µg/L	98.92
13C2-PFUnA	13080	2.25	100.00	93.03 µg/L	93.03
13C2-PFDoA	17741	2.33	100.00	99.01 µg/L	99.01
13C2-PFTeDA	20208	2.47	100.00	102.75 µg/L	102.75
D3-MeFOSA	6352	2.83	100.00	101.73 µg/L	101.73
D5-EtFOSA	5304	2.90	100.00	100.52 µg/L	100.52
13C6-PFHxA	46152	1.44	100.00	95.44 µg/L	95.44
13C9-PFDA	59876	2.15	100.00	96.71 µg/L	96.71

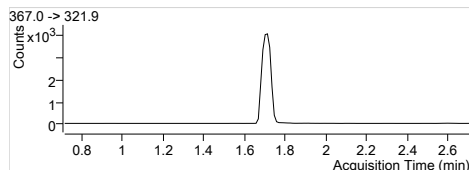
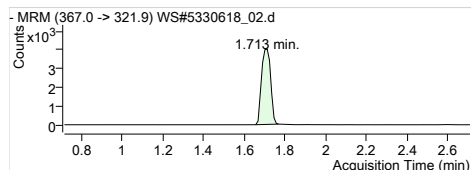
Quantitation Results



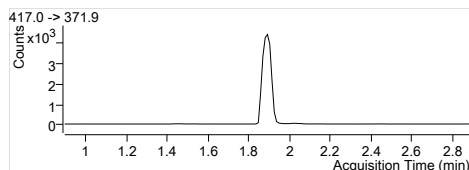
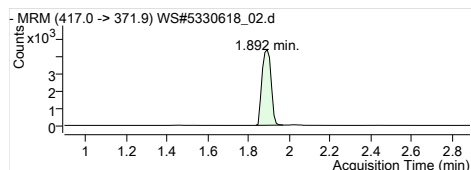
MPFHxA
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Calibration



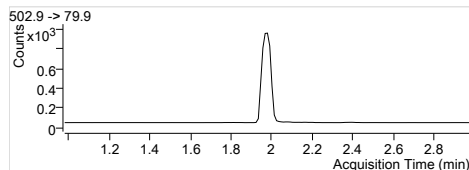
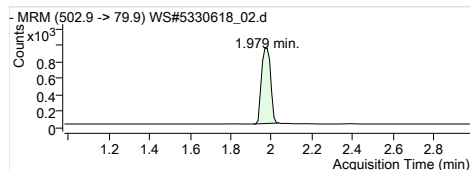
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: Calibration



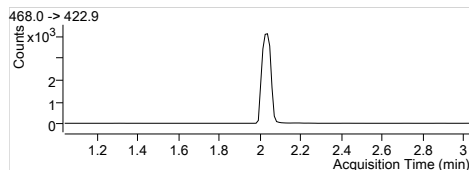
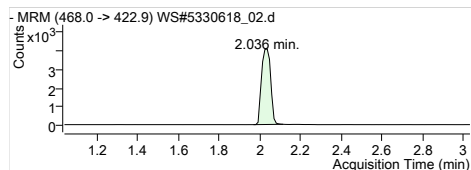
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



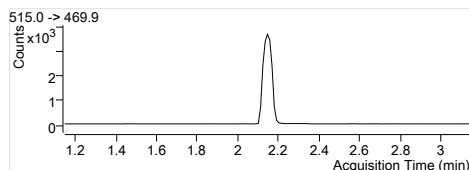
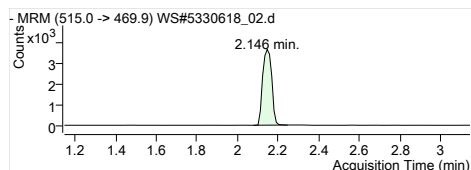
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Calibration



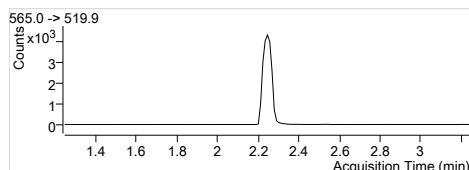
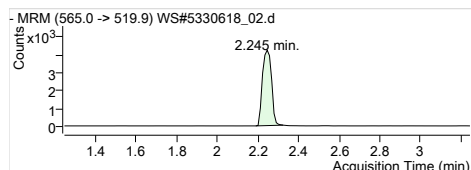
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Calibration



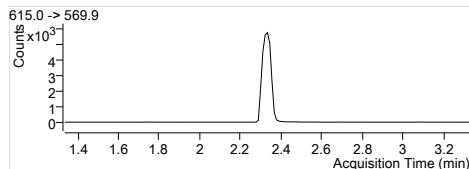
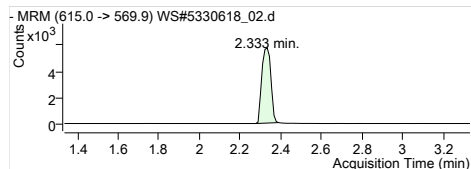
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: Calibration



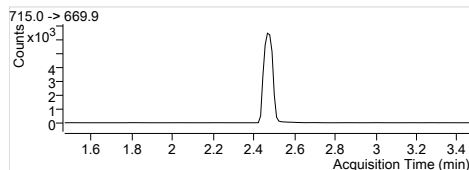
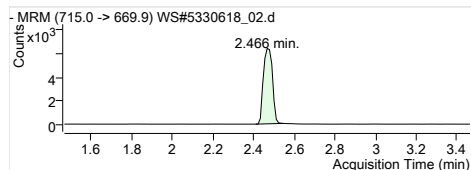
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Calibration

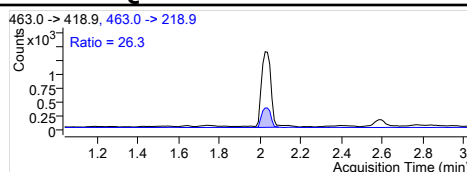
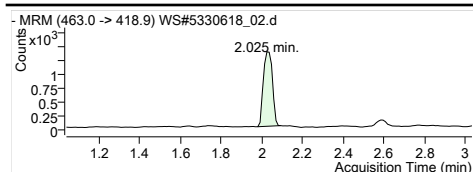


MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Calibration

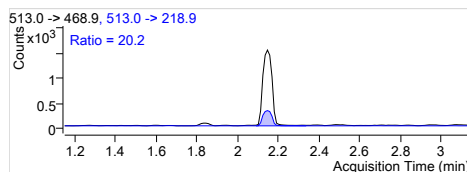
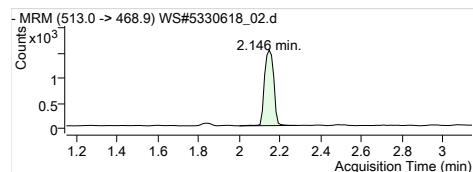


MPFTeDA
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: Calibration

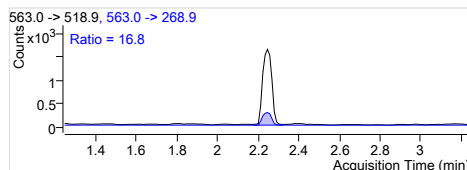
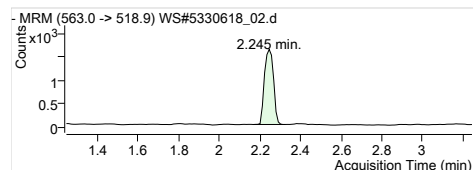
<p>-MRM (515.0 -> 168.9) WS#5330618_02.d 2.830 min.</p>	<p>515.0 -> 168.9 Counts x10³</p>	<p>D3-MeFOSA IS Internal Standard RT (Exp. RT): 2.830 (2.830) Concentration: 1 µg/L Sample type: Calibration</p>
<p>-MRM (531.0 -> 169.0) WS#5330618_02.d 2.896 min.</p>	<p>531.0 -> 169.0 Counts x10³</p>	<p>D5-EtFOSA IS Internal Standard RT (Exp. RT): 2.896 (2.896) Concentration: 1 µg/L Sample type: Calibration</p>
<p>-MRM (319.0 -> 273.9) WS#5330618_02.d 1.445 min.</p>	<p>319.0 -> 273.9 Counts x10⁴</p>	<p>13C6-PFHxA IS Internal Standard RT (Exp. RT): 1.445 (1.445) Concentration: 1 µg/L Sample type: Calibration</p>
<p>-MRM (522.0 -> 476.9) WS#5330618_02.d 2.146 min.</p>	<p>522.0 -> 476.9 Counts x10⁴</p>	<p>13C9-PFDA IS Internal Standard RT (Exp. RT): 2.146 (2.146) Concentration: 1 µg/L Sample type: Calibration</p>
<p>-MRM (298.9 -> 79.9) WS#5330618_02.d 1.098 min.</p>	<p>298.9 -> 79.9, 298.9 -> 98.9 Ratio = 47.6 Counts x10²</p>	<p>PFBS 1 RT (Exp. RT): 298.9 -> 79.9 1.098 (1.098) Calc. conc. 0.88 µg/L Area ratio: 0.42703 Sample type: Calibration</p>
<p>-MRM (313.0 -> 268.9) WS#5330618_02.d 1.445 min.</p>	<p>313.0 -> 268.9, 313.0 -> 118.9 Ratio = 4.4 Counts x10³</p>	<p>PFHxA 1 RT (Exp. RT): 313.0 -> 268.9 1.445 (1.445) Calc. conc. 0.85 µg/L Area ratio: 0.34541 Sample type: Calibration</p>
<p>-MRM (398.9 -> 79.9) WS#5330618_02.d 1.679 min.</p>	<p>398.9 -> 79.9, 398.9 -> 98.9 Ratio = 48.3 Counts x10²</p>	<p>PFHxS 1 RT (Exp. RT): 398.9 -> 79.9 1.679 (1.679) Calc. conc. 0.86 µg/L Area ratio: 0.41982 Sample type: Calibration</p>
<p>-MRM (363.0 -> 318.9) WS#5330618_02.d 1.713 min.</p>	<p>363.0 -> 318.9, 363.0 -> 168.9 Ratio = 23.4 Counts x10³</p>	<p>PFHpA 1 RT (Exp. RT): 363.0 -> 318.9 1.713 (1.713) Calc. conc. 0.90 µg/L Area ratio: 0.32953 Sample type: Calibration</p>
<p>-MRM (413.0 -> 368.9) WS#5330618_02.d 1.892 min.</p>	<p>413.0 -> 368.9, 413.0 -> 168.9 Ratio = 30.4 Counts x10³</p>	<p>PFOA 1 RT (Exp. RT): 413.0 -> 368.9 1.892 (1.892) Calc. conc. 0.85 µg/L Area ratio: 0.35991 Sample type: Calibration</p>
<p>-MRM (498.9 -> 79.9) WS#5330618_02.d 1.968 min.</p>	<p>498.9 -> 79.9, 498.9 -> 98.9 Ratio = 52.6 Counts x10²</p>	<p>PFOS 1 RT (Exp. RT): 498.9 -> 79.9 1.968 (1.968) Calc. conc. 0.94 µg/L Area ratio: 0.33521 Sample type: Calibration</p>



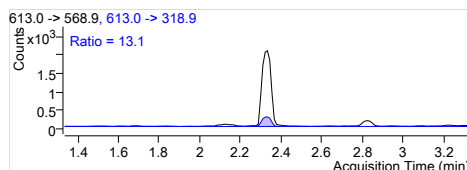
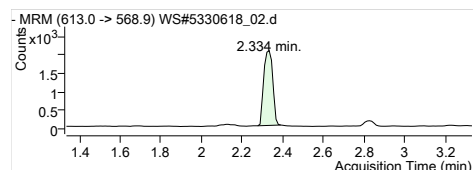
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 0.87 µg/L
 Sample type: 0.33025
 Calibration



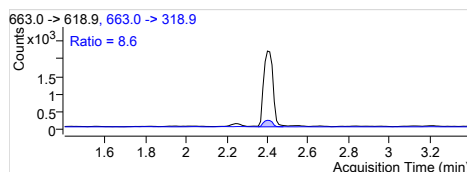
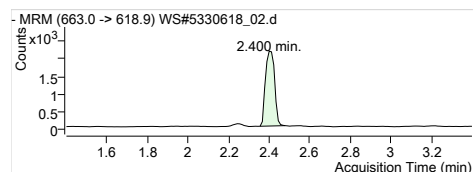
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 0.88 µg/L
 Sample type: 0.42096
 Calibration



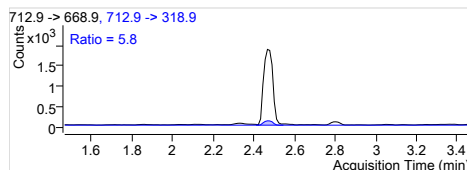
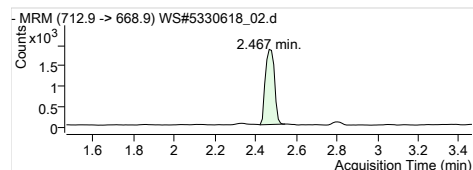
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 0.82 µg/L
 Sample type: 0.37752
 Calibration



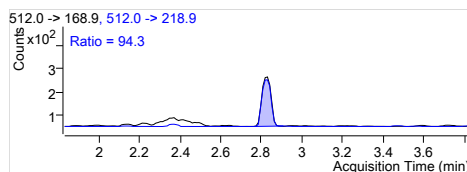
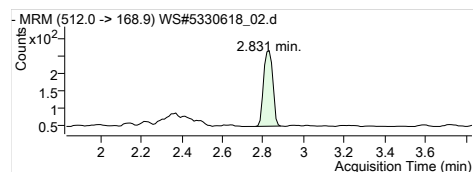
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 0.84 µg/L
 Sample type: 0.35494
 Calibration



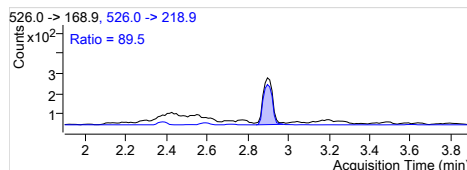
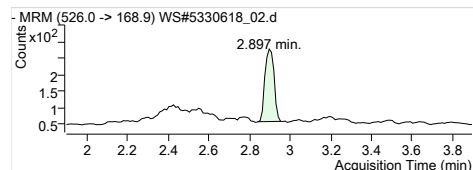
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 0.78 µg/L
 Sample type: 0.34021
 Calibration



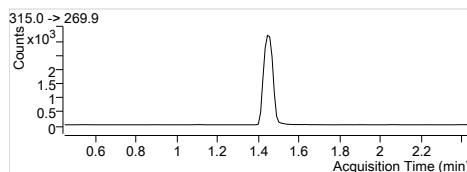
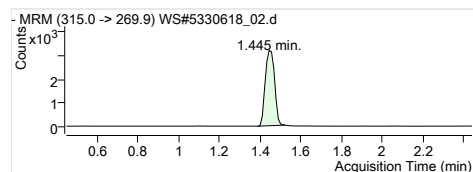
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 0.85 µg/L
 Sample type: 0.28976
 Calibration



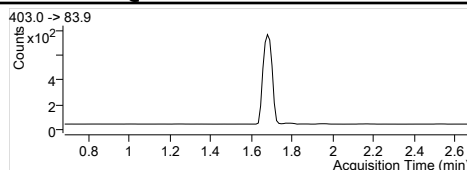
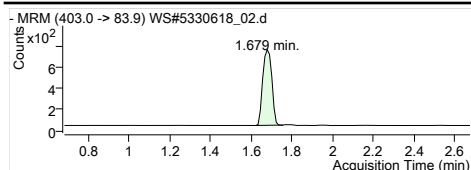
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.831 (2.831)
 Area ratio: 0.87 µg/L
 Sample type: 0.11039
 Calibration



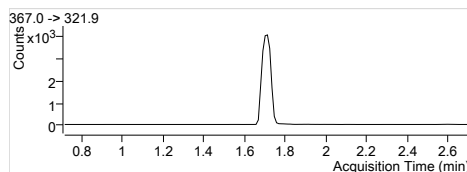
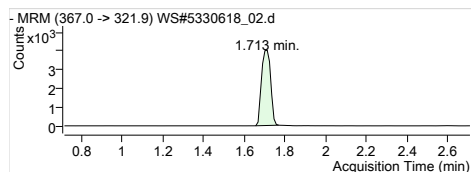
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 0.94 µg/L
 Sample type: 0.13236
 Calibration



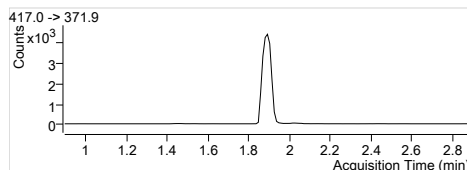
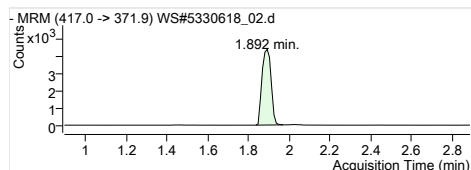
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 97.76 µg/L
 Sample type: 0.21648
 Calibration



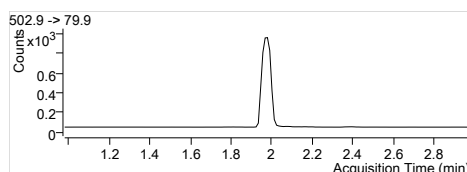
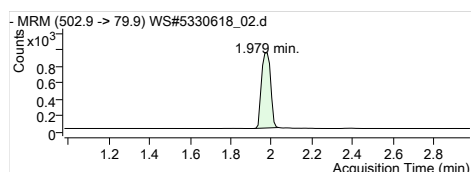
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 90.64 µg/L
 Sample type: 0.04810
 Calibration



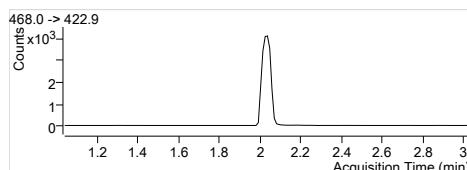
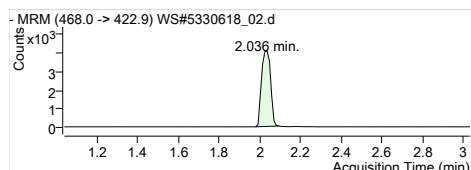
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 97.27 µg/L
 Sample type: 0.26985
 Calibration



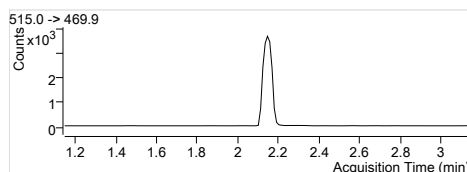
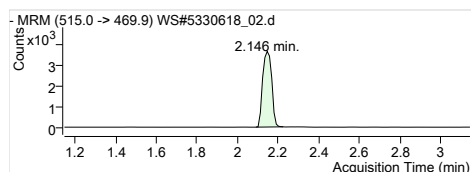
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 98.71 µg/L
 Sample type: 0.29572
 Calibration



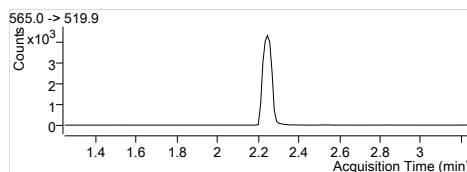
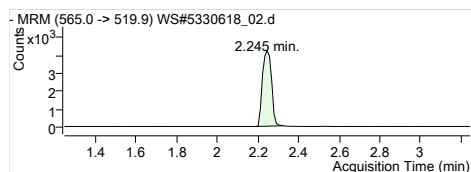
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 95.53 µg/L
 Sample type: 0.06167
 Calibration



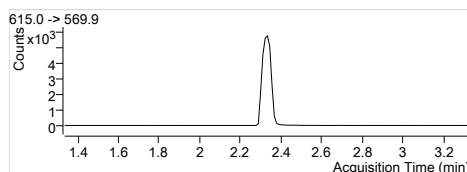
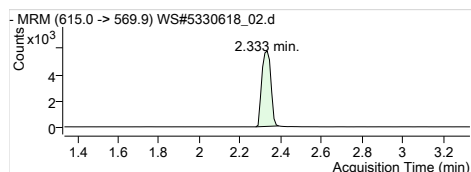
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 97.19 µg/L
 Sample type: 0.27227
 Calibration



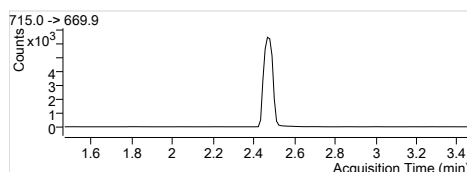
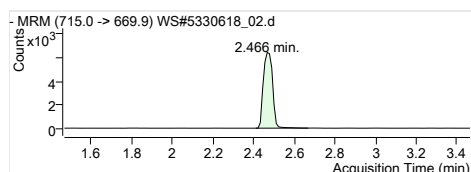
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 98.92 µg/L
 Sample type: 0.18839
 Calibration



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 93.03 µg/L
 Sample type: 0.21845
 Calibration

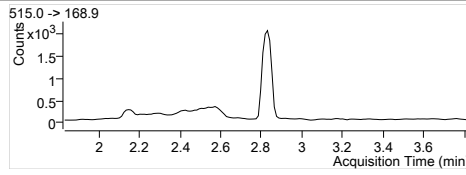
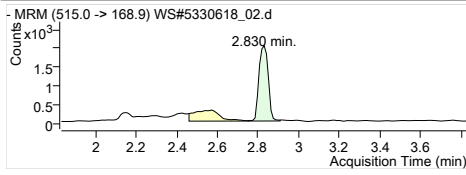


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 99.01 µg/L
 Sample type: 0.29630
 Calibration

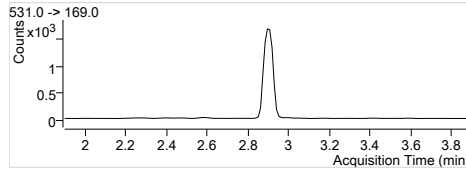
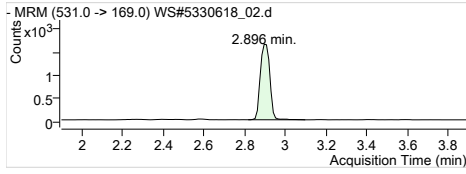


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 102.75 µg/L
 Sample type: 0.33750
 Calibration

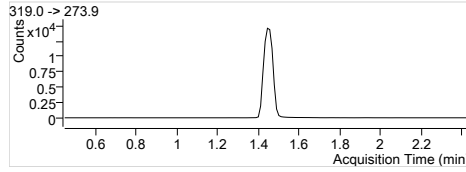
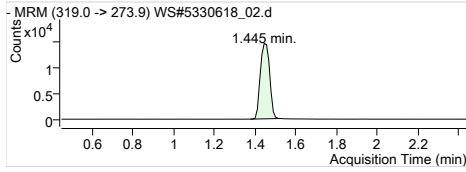
Quantitation Results



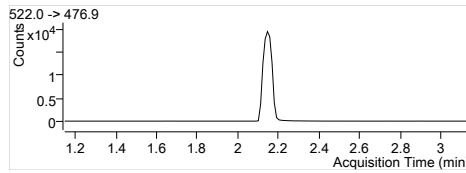
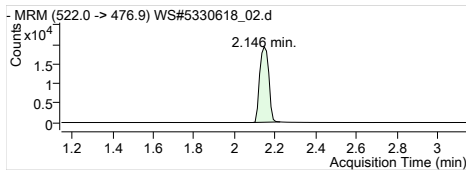
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 101.73 µg/L
Sample type: 0.13763
Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 100.52 µg/L
Sample type: 0.11492
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 95.44 µg/L
Sample type: 0
Calibration



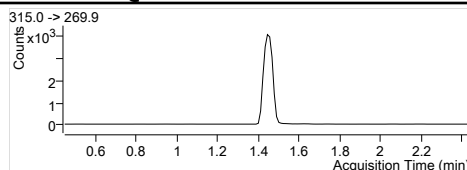
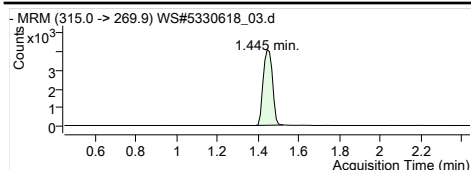
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 96.71 µg/L
Sample type: 0
Calibration

Quantitation Results

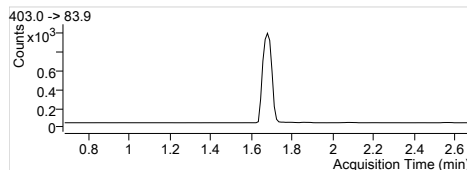
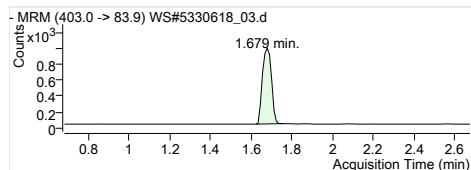
Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	STD 2	Instrument	LCMS04
Data File	WS#5330618_03.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-E1
Acq. Date	2018/01/13 5:25:10 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	12792	1.44	1 µg/L
MPFHxS	2949	1.68	1 µg/L
MPFHpA	16309	1.70	1 µg/L
MPFOA	17227	1.89	1 µg/L
MPFOS	3769	1.98	1 µg/L
MPFNA	16352	2.04	1 µg/L
MPFDA	14162	2.15	1 µg/L
MPFUnA	17395	2.25	1 µg/L
MPFDoA	21498	2.33	1 µg/L
MPFTeDA	23442	2.47	1 µg/L
D3-MeFOSA IS	7702	2.83	1 µg/L
D5-EtFOSA IS	6201	2.90	1 µg/L
13C6-PFHxA IS	59265	1.44	1 µg/L
13C9-PFDA IS	75437	2.15	1 µg/L

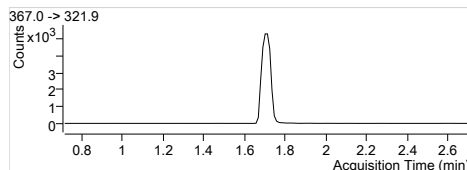
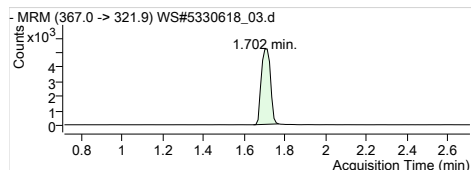
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	2555	1.10	1.70	1.75 µg/L	102.92
PFHxA 1	8637	1.44	1.70	1.62 µg/L	95.33
PFHxS 1	2485	1.68	1.70	1.83 µg/L	107.88
PFHpA 1	10908	1.71	1.70	1.67 µg/L	98.34
PFOA 1	12957	1.89	1.70	1.73 µg/L	101.68
PFOS 1	2260	1.97	1.70	1.60 µg/L	94.24
PFNA 1	11612	2.04	1.70	1.76 µg/L	103.77
PFDA 1	11803	2.15	1.70	1.68 µg/L	98.72
PFUnA 1	14235	2.25	1.70	1.76 µg/L	103.63
PFDoA 1	15467	2.33	1.70	1.69 µg/L	99.25
PFTTrDA 1	18256	2.40	1.70	1.76 µg/L	103.49
PFTeDA 1	13859	2.47	1.70	1.66 µg/L	97.75
MeFOSA 1	1573	2.82	1.70	1.59 µg/L	93.77
EtFOSA 1	1517	2.90	1.70	1.64 µg/L	96.61
13C2-PFHxA	12792	1.44	100.00	97.47 µg/L	97.47
18O2-PFHxS	2949	1.68	100.00	93.76 µg/L	93.76
13C4-PFHpA	16309	1.70	100.00	99.19 µg/L	99.19
13C4-PFOA	17227	1.89	100.00	97.03 µg/L	97.03
13C4-PFOS	3769	1.98	100.00	98.52 µg/L	98.52
13C5-PFNA	16150	2.04	100.00	97.28 µg/L	97.28
13C2-PFDA	13901	2.15	100.00	96.75 µg/L	96.75
13C2-PFUnA	17395	2.25	100.00	98.20 µg/L	98.20
13C2-PFDoA	21498	2.33	100.00	95.22 µg/L	95.22
13C2-PFTeDA	23709	2.47	100.00	95.69 µg/L	95.69
D3-MeFOSA	7860	2.83	100.00	98.03 µg/L	98.03
D5-EtFOSA	6309	2.90	100.00	93.11 µg/L	93.11
13C6-PFHxA	59265	1.44	100.00	122.55 µg/L	122.55
13C9-PFDA	75437	2.15	100.00	121.84 µg/L	121.84



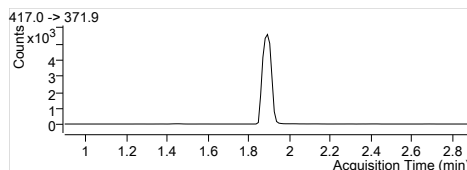
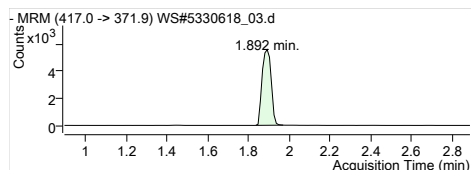
MPFHxA
Internal Standard
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Calibration



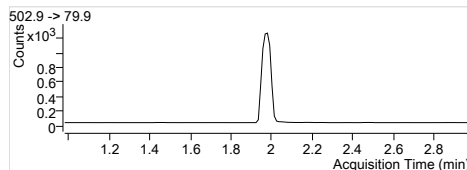
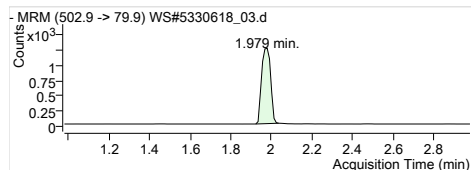
MPFHxS
Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



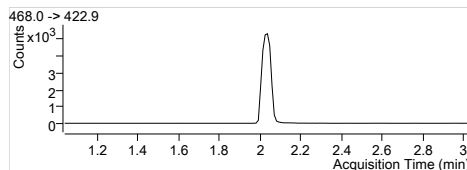
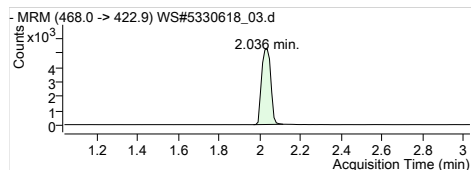
MPFHpA
Internal Standard
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



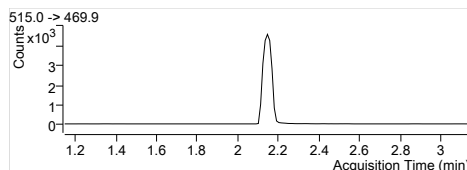
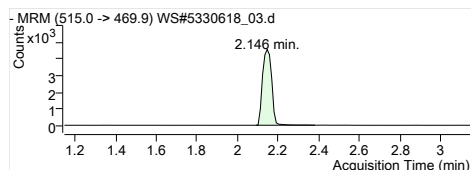
MPFOA
Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



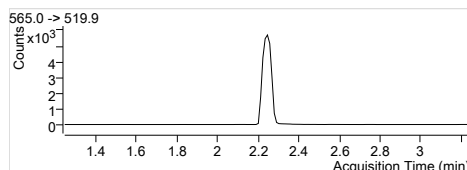
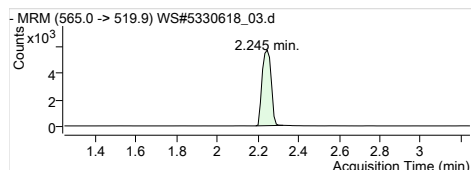
MPFOS
Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



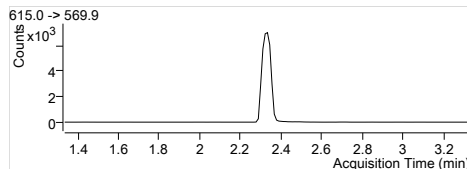
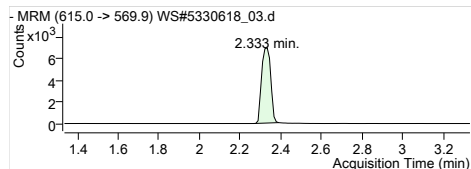
MPFNA
Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



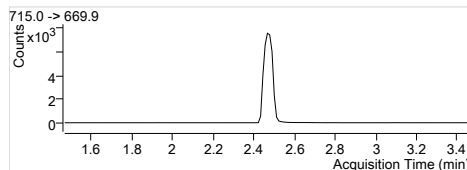
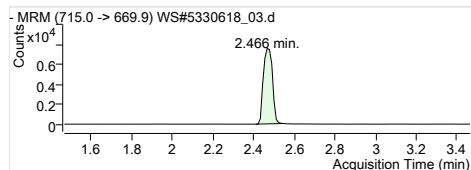
MPFDA
Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



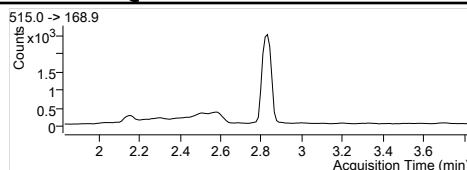
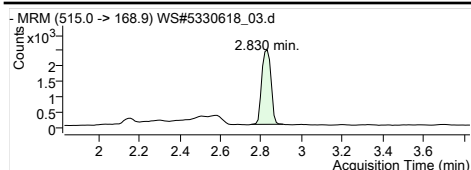
MPFUaA
Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



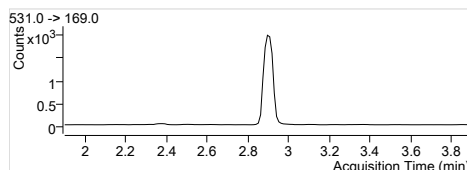
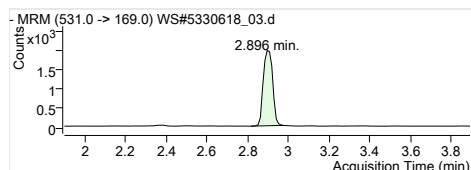
MPFDaA
Internal Standard
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Calibration



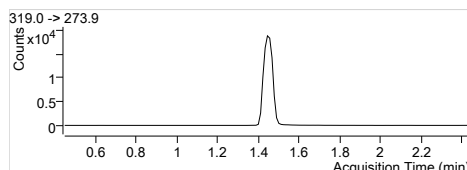
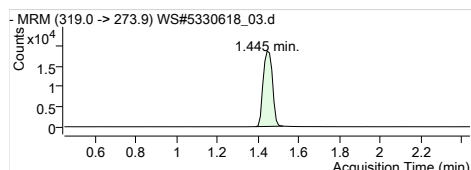
MPFTeDA
Internal Standard
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Calibration



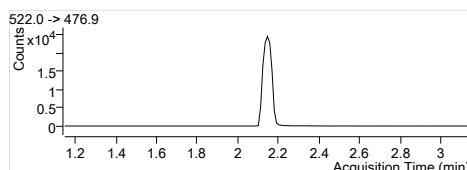
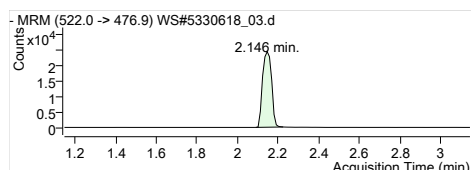
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



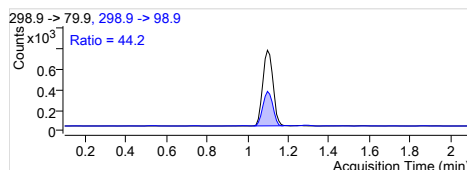
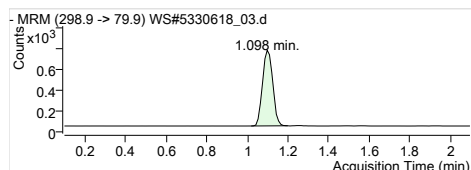
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Calibration



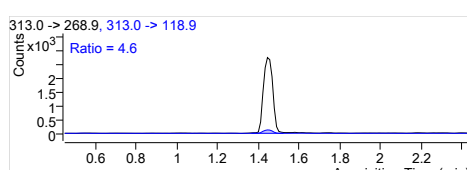
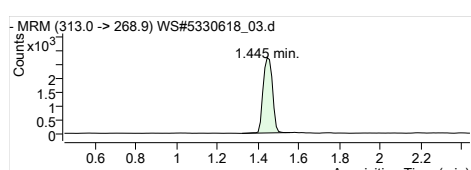
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Calibration



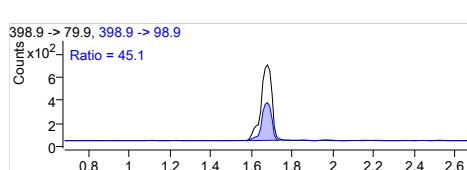
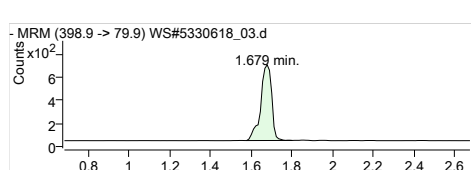
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



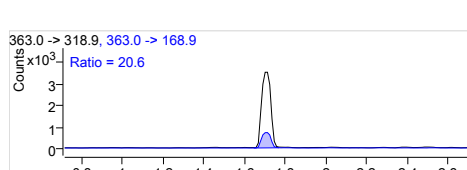
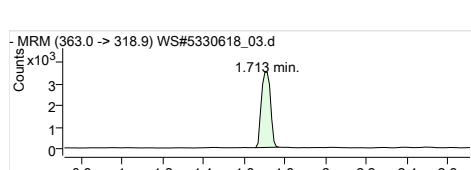
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.098 (1.098)
 Calc. conc. 1.75 µg/L
 Area ratio: 0.86640
 Sample type: Calibration



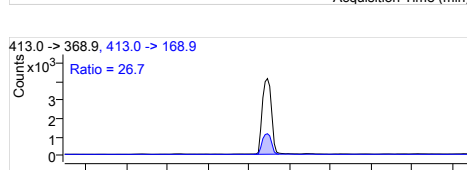
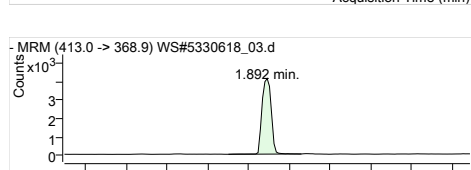
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.445 (1.445)
 Calc. conc. 1.62 µg/L
 Area ratio: 0.67519
 Sample type: Calibration



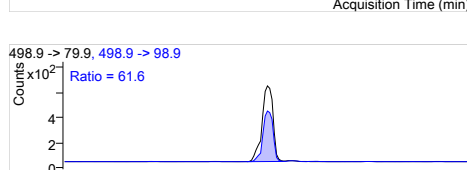
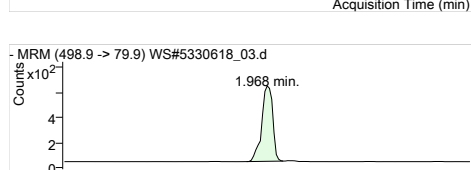
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.679)
 Calc. conc. 1.83 µg/L
 Area ratio: 0.84266
 Sample type: Calibration



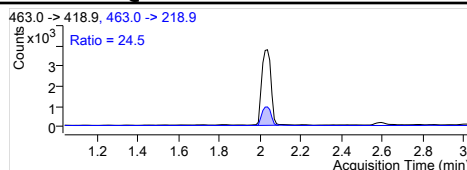
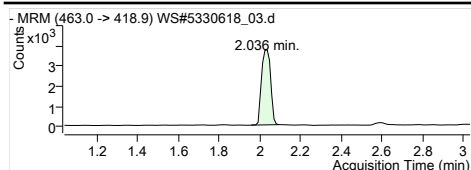
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 1.67 µg/L
 Area ratio: 0.66883
 Sample type: Calibration



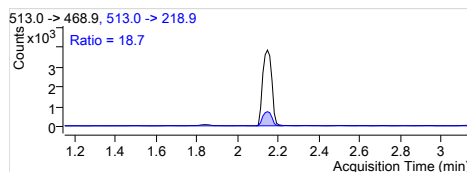
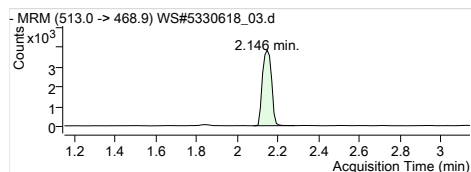
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 1.73 µg/L
 Area ratio: 0.75213
 Sample type: Calibration



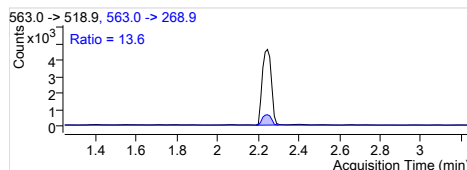
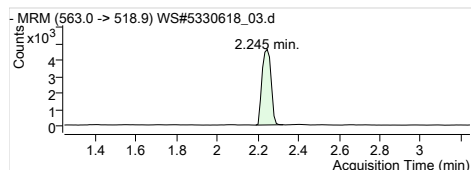
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (1.968)
 Calc. conc. 1.60 µg/L
 Area ratio: 0.59963
 Sample type: Calibration



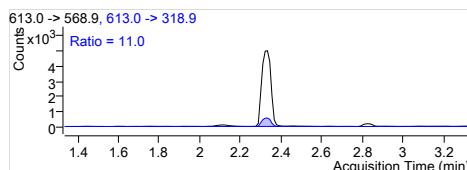
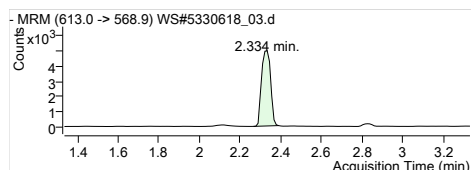
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 1.76 µg/L
 Sample type: 0.71013
 Calibration



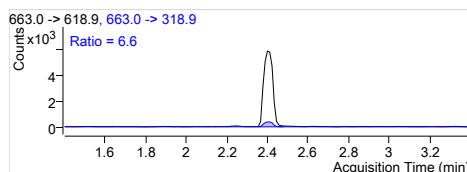
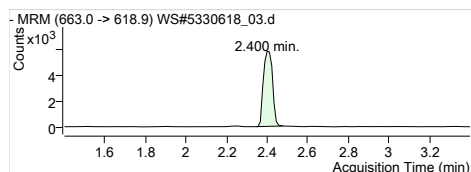
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 1.68 µg/L
 Sample type: 0.83343
 Calibration



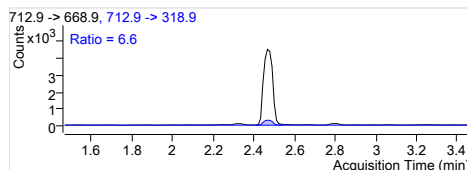
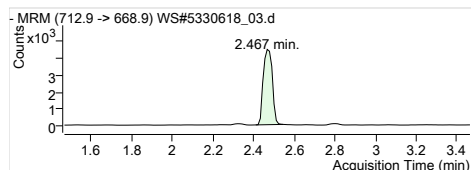
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 1.76 µg/L
 Sample type: 0.81834
 Calibration



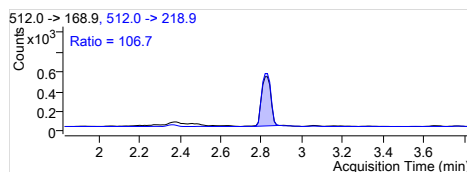
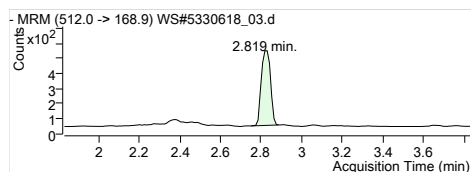
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 1.69 µg/L
 Sample type: 0.71946
 Calibration



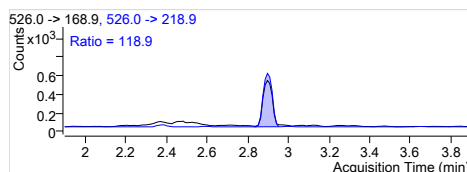
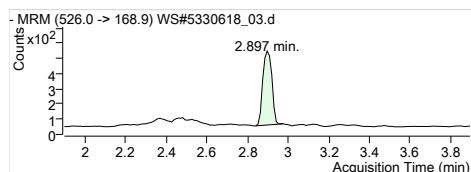
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 1.76 µg/L
 Sample type: 0.77877
 Calibration



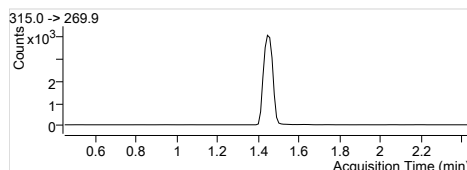
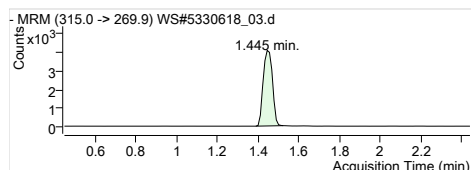
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 1.66 µg/L
 Sample type: 0.59120
 Calibration



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 1.59 µg/L
 Sample type: 0.20423
 Calibration

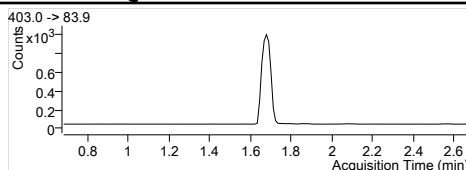
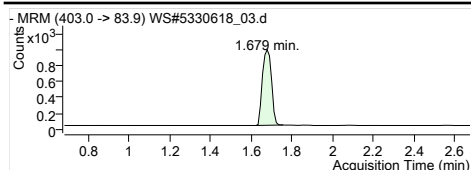


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 1.64 µg/L
 Sample type: 0.24464
 Calibration

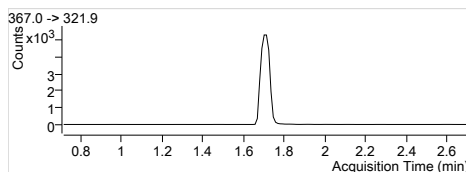
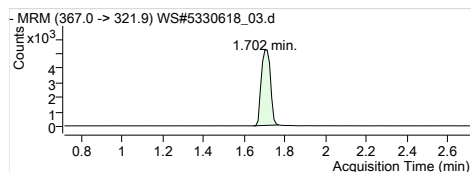


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 97.47 µg/L
 Sample type: 0.21584
 Calibration

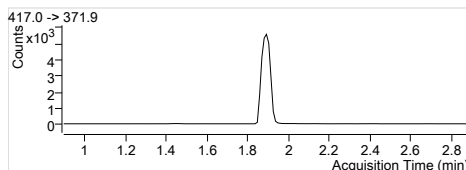
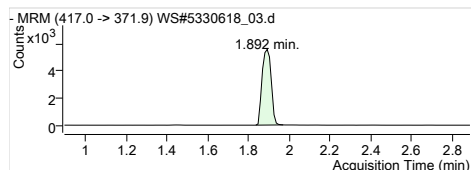
Quantitation Results



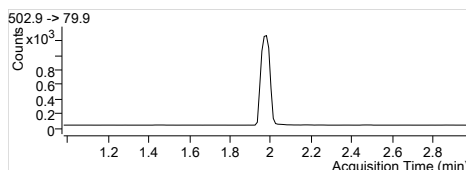
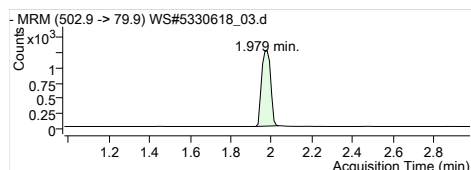
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 93.76 µg/L
 Sample type: 0.04976
 Calibration



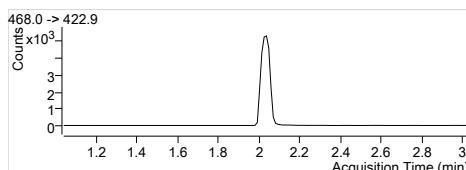
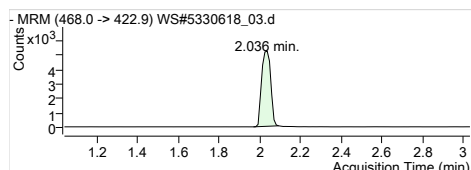
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 99.19 µg/L
 Sample type: 0.27519
 Calibration



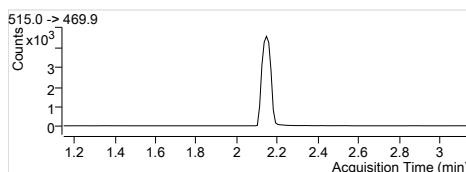
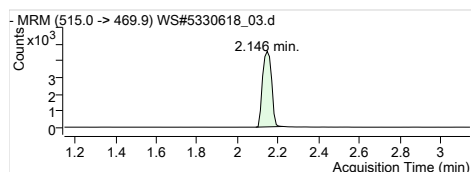
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 97.03 µg/L
 Sample type: 0.29068
 Calibration



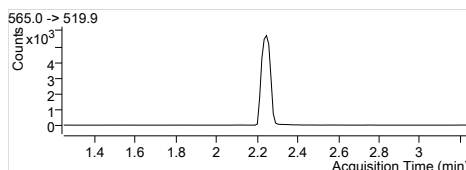
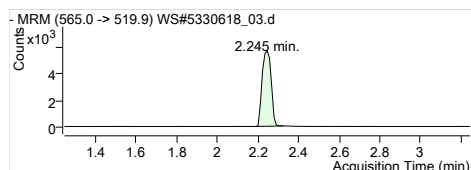
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 98.52 µg/L
 Sample type: 0.06360
 Calibration



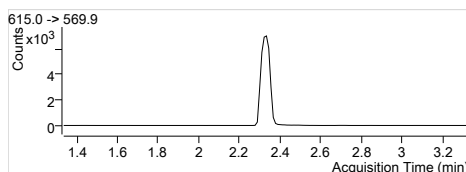
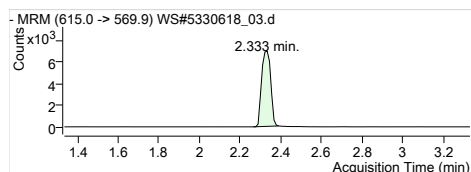
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 97.28 µg/L
 Sample type: 0.27250
 Calibration



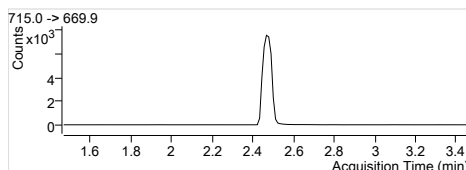
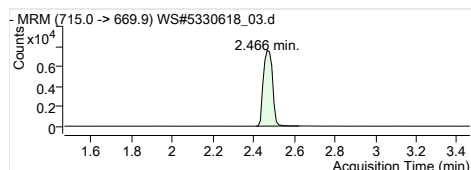
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 96.75 µg/L
 Sample type: 0.18427
 Calibration



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 98.20 µg/L
 Sample type: 0.23059
 Calibration

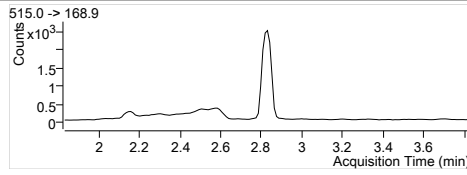
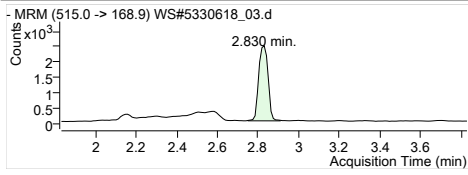


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 95.22 µg/L
 Sample type: 0.28498
 Calibration

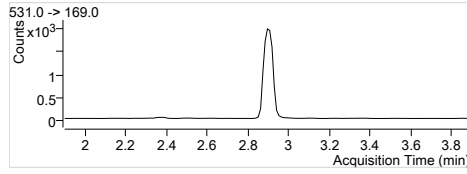
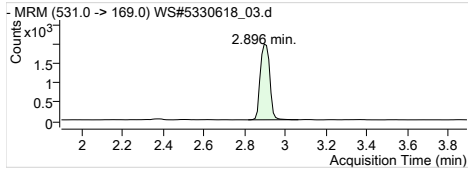


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 95.69 µg/L
 Sample type: 0.31429
 Calibration

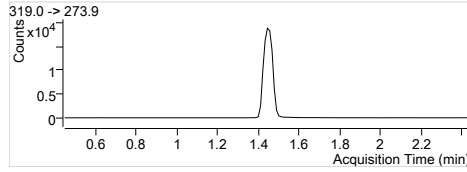
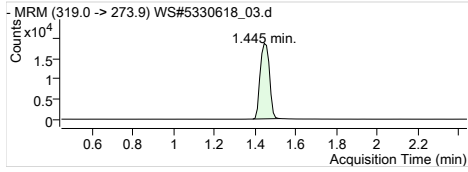
Quantitation Results



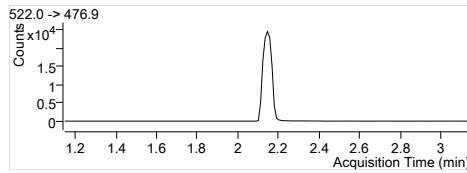
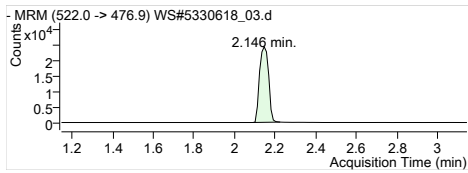
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 98.03 µg/L
Sample type: 0.13262
Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 93.11 µg/L
Sample type: 0.10645
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 122.55 µg/L
Sample type: 0
Calibration



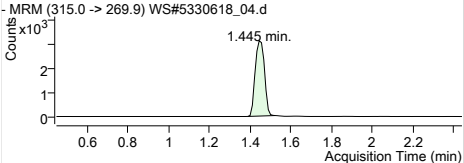
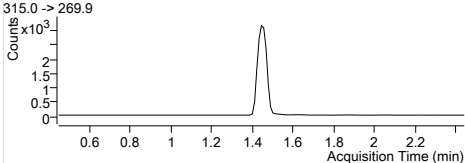
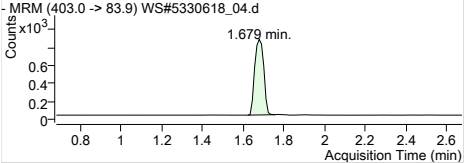
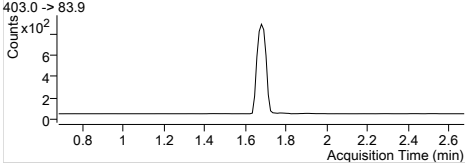
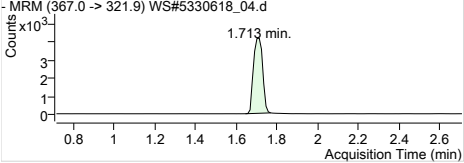
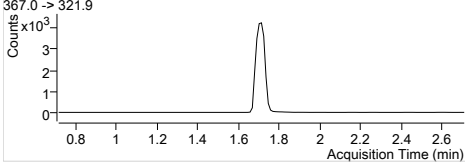
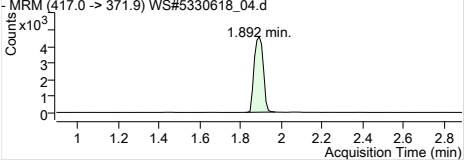
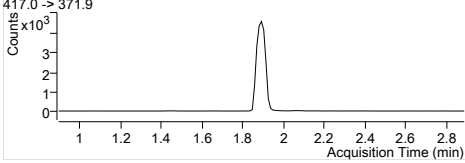
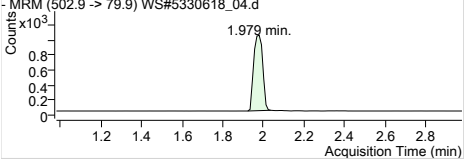
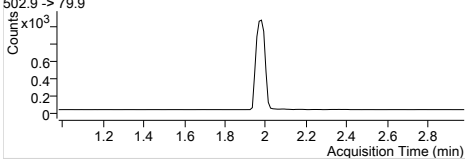
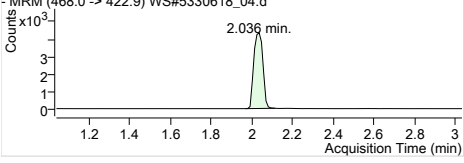
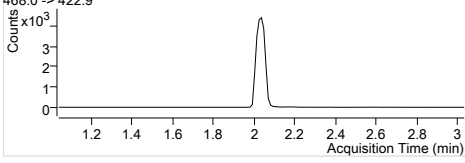
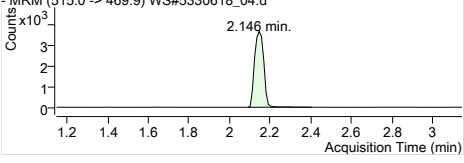
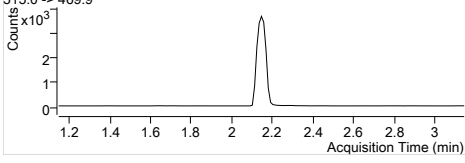
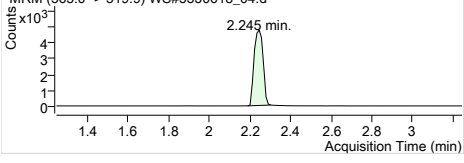
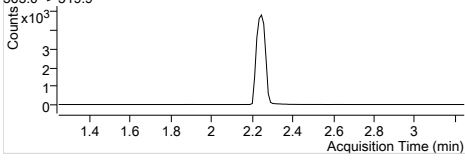
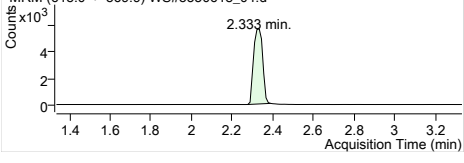
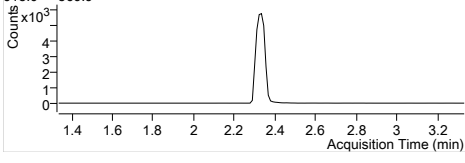
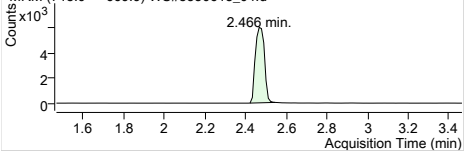
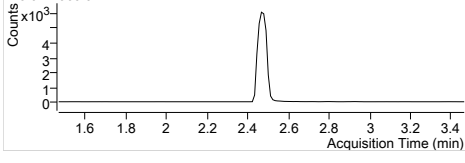
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 121.84 µg/L
Sample type: 0
Calibration

Quantitation Results

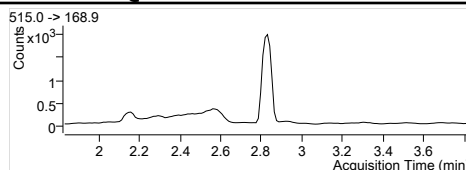
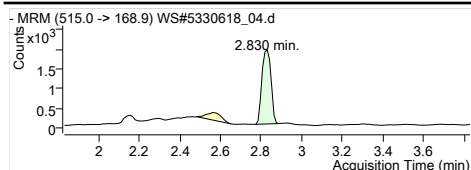
Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	STD 3	Instrument	LCMS04
Data File	WS#5330618_04.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-E2
Acq. Date	2018/01/13 5:30:06 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.
MPFHxA	9847	1.44	1 µg/L
MPFHxS	2607	1.68	1 µg/L
MPFHpA	12992	1.71	1 µg/L
MPFOA	14069	1.89	1 µg/L
MPFOS	3145	1.98	1 µg/L
MPFNA	13460	2.04	1 µg/L
MPFDA	11532	2.15	1 µg/L
MPFUnA	14468	2.25	1 µg/L
MPFDoA	17703	2.33	1 µg/L
MPFTeDA	18725	2.47	1 µg/L
D3-MeFOSA IS	5872	2.83	1 µg/L
D5-EtFOSA IS	5435	2.90	1 µg/L
13C6-PFHxA IS	47053	1.44	1 µg/L
13C9-PFDA IS	59173	2.15	1 µg/L

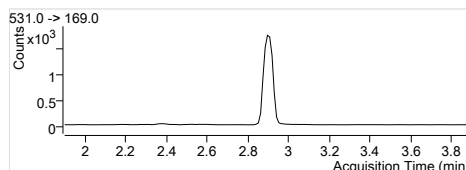
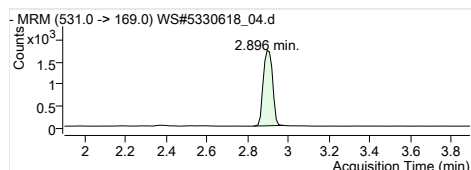
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	6093	1.10	5.00	4.65 µg/L	92.93
PFHxA 1	21374	1.44	5.00	5.13 µg/L	102.60
PFHxS 1	5198	1.68	5.00	4.48 µg/L	89.68
PFHpA 1	26552	1.71	5.00	4.80 µg/L	96.07
PFOA 1	29244	1.89	5.00	4.71 µg/L	94.20
PFOS 1	5619	1.97	5.00	4.57 µg/L	91.35
PFNA 1	26125	2.04	5.00	4.67 µg/L	93.41
PFDA 1	27783	2.15	5.00	4.71 µg/L	94.29
PFUnA 1	31703	2.25	5.00	4.70 µg/L	94.04
PFDoA 1	36618	2.33	5.00	4.82 µg/L	96.47
PFTTrDA 1	42469	2.40	5.00	5.07 µg/L	101.38
PFTeDA 1	34500	2.47	5.00	5.04 µg/L	100.87
MeFOSA 1	3704	2.82	5.00	4.90 µg/L	97.92
EtFOSA 1	3849	2.90	5.00	4.55 µg/L	91.10
13C2-PFHxA	9847	1.44	100.00	94.51 µg/L	94.51
18O2-PFHxS	2607	1.68	100.00	104.40 µg/L	104.40
13C4-PFHpA	12992	1.71	100.00	99.53 µg/L	99.53
13C4-PFOA	14069	1.89	100.00	99.81 µg/L	99.81
13C4-PFOS	3145	1.98	100.00	103.55 µg/L	103.55
13C5-PFNA	13346	2.04	100.00	101.25 µg/L	101.25
13C2-PFDA	11356	2.15	100.00	100.77 µg/L	100.77
13C2-PFUnA	14468	2.25	100.00	104.13 µg/L	104.13
13C2-PFDoA	17703	2.33	100.00	99.97 µg/L	99.97
13C2-PFTeDA	19054	2.47	100.00	98.04 µg/L	98.04
D3-MeFOSA	5987	2.83	100.00	94.05 µg/L	94.05
D5-EtFOSA	5568	2.90	100.00	103.50 µg/L	103.50
13C6-PFHxA	47053	1.44	100.00	97.30 µg/L	97.30
13C9-PFDA	59173	2.15	100.00	95.57 µg/L	95.57

 <p style="font-size: small;">-MRM (315.0 -> 269.9) WS#5330618_04.d 1.445 min.</p>	 <p style="font-size: small;">315.0 -> 269.9</p>	<p>MPFHxA Internal Standard RT (Exp. RT): 1.445 (1.445) Concentration: 1 µg/L Sample type: Calibration</p>
 <p style="font-size: small;">-MRM (403.0 -> 83.9) WS#5330618_04.d 1.679 min.</p>	 <p style="font-size: small;">403.0 -> 83.9</p>	<p>MPFHxS Internal Standard RT (Exp. RT): 1.679 (1.679) Concentration: 1 µg/L Sample type: Calibration</p>
 <p style="font-size: small;">-MRM (367.0 -> 321.9) WS#5330618_04.d 1.713 min.</p>	 <p style="font-size: small;">367.0 -> 321.9</p>	<p>MPFHpA Internal Standard RT (Exp. RT): 1.713 (1.713) Concentration: 1 µg/L Sample type: Calibration</p>
 <p style="font-size: small;">-MRM (417.0 -> 371.9) WS#5330618_04.d 1.892 min.</p>	 <p style="font-size: small;">417.0 -> 371.9</p>	<p>MPFOA Internal Standard RT (Exp. RT): 1.892 (1.892) Concentration: 1 µg/L Sample type: Calibration</p>
 <p style="font-size: small;">-MRM (502.9 -> 79.9) WS#5330618_04.d 1.979 min.</p>	 <p style="font-size: small;">502.9 -> 79.9</p>	<p>MPFOS Internal Standard RT (Exp. RT): 1.979 (1.979) Concentration: 1 µg/L Sample type: Calibration</p>
 <p style="font-size: small;">-MRM (468.0 -> 422.9) WS#5330618_04.d 2.036 min.</p>	 <p style="font-size: small;">468.0 -> 422.9</p>	<p>MPFNA Internal Standard RT (Exp. RT): 2.036 (2.036) Concentration: 1 µg/L Sample type: Calibration</p>
 <p style="font-size: small;">-MRM (515.0 -> 469.9) WS#5330618_04.d 2.146 min.</p>	 <p style="font-size: small;">515.0 -> 469.9</p>	<p>MPFDA Internal Standard RT (Exp. RT): 2.146 (2.146) Concentration: 1 µg/L Sample type: Calibration</p>
 <p style="font-size: small;">-MRM (565.0 -> 519.9) WS#5330618_04.d 2.245 min.</p>	 <p style="font-size: small;">565.0 -> 519.9</p>	<p>MPFUaA Internal Standard RT (Exp. RT): 2.245 (2.245) Concentration: 1 µg/L Sample type: Calibration</p>
 <p style="font-size: small;">-MRM (615.0 -> 569.9) WS#5330618_04.d 2.333 min.</p>	 <p style="font-size: small;">615.0 -> 569.9</p>	<p>MPFDaA Internal Standard RT (Exp. RT): 2.333 (2.333) Concentration: 1 µg/L Sample type: Calibration</p>
 <p style="font-size: small;">-MRM (715.0 -> 669.9) WS#5330618_04.d 2.466 min.</p>	 <p style="font-size: small;">715.0 -> 669.9</p>	<p>MPFTeDA Internal Standard RT (Exp. RT): 2.466 (2.466) Concentration: 1 µg/L Sample type: Calibration</p>

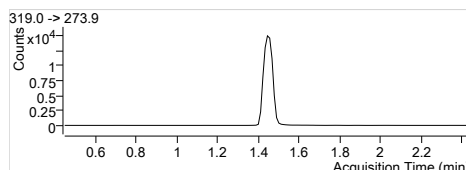
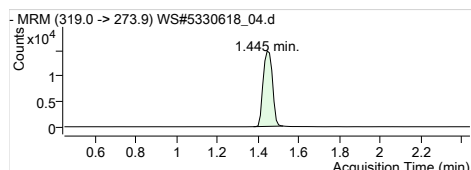
Quantitation Results



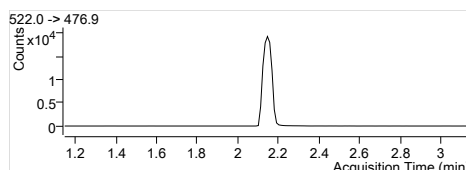
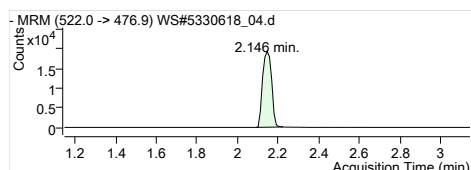
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



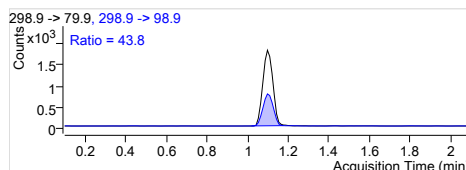
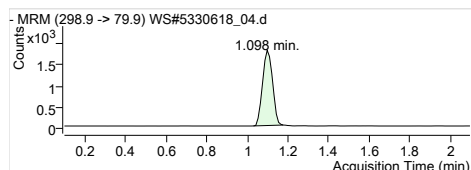
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Calibration



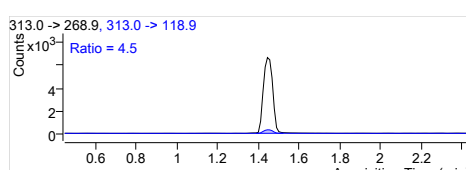
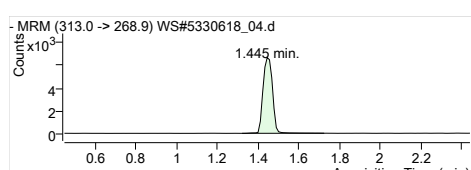
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Calibration



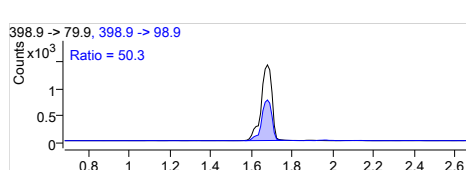
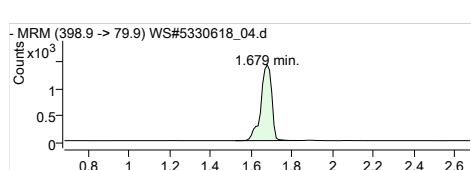
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



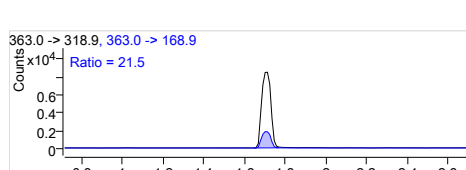
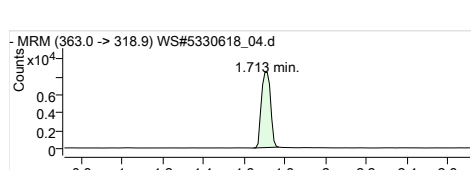
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 4.65 µg/L
 2.33717
 Sample type: Calibration



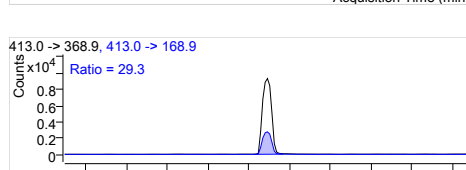
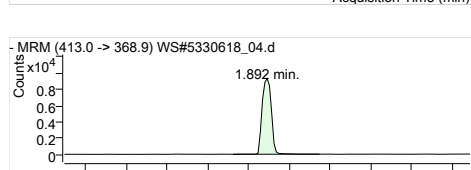
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 5.13 µg/L
 2.17061
 Sample type: Calibration



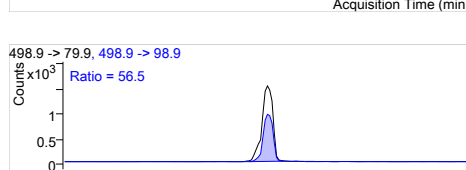
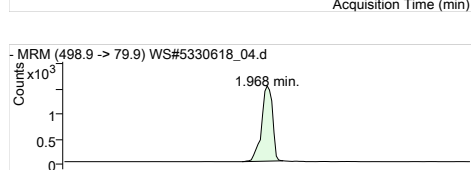
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 4.48 µg/L
 1.99386
 Sample type: Calibration



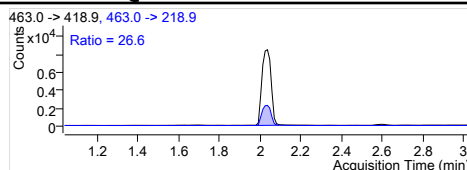
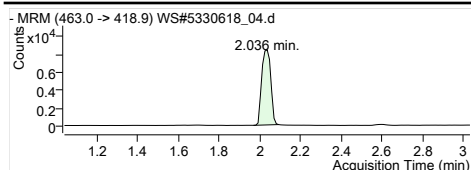
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 4.80 µg/L
 2.04372
 Sample type: Calibration



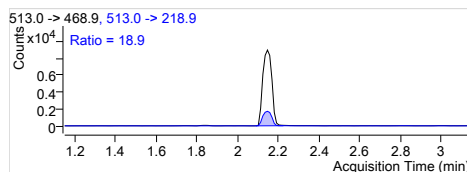
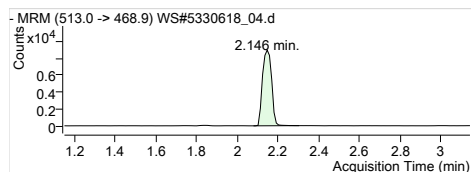
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 4.71 µg/L
 2.07861
 Sample type: Calibration



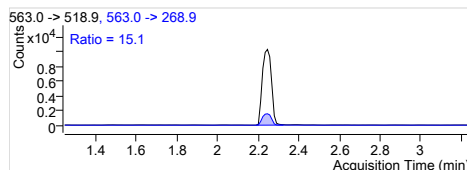
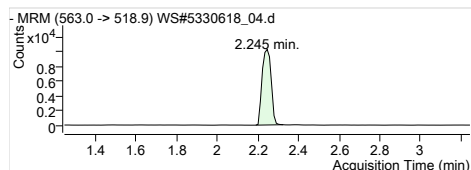
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 4.57 µg/L
 1.78665
 Sample type: Calibration



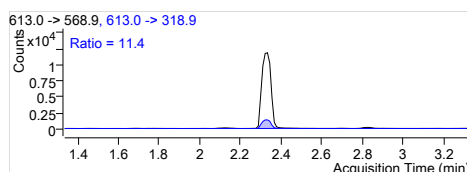
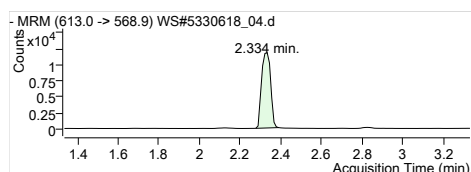
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 4.67 µg/L
 Sample type: 1.94094
 Calibration



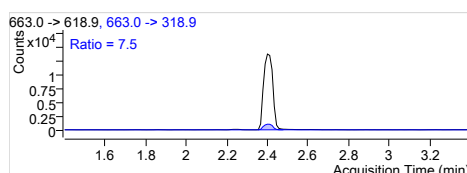
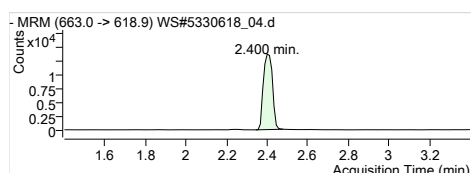
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 4.71 µg/L
 Sample type: 2.40921
 Calibration



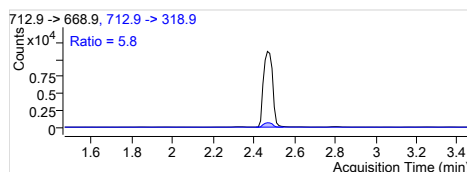
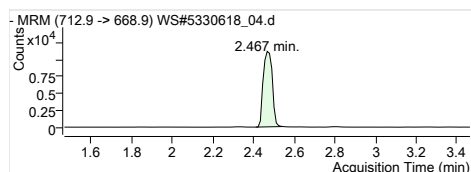
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 4.70 µg/L
 Sample type: 2.19125
 Calibration



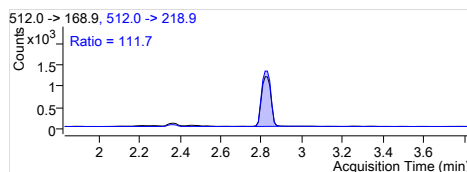
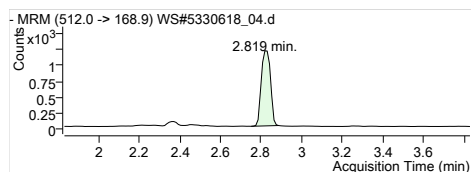
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 4.82 µg/L
 Sample type: 2.06846
 Calibration



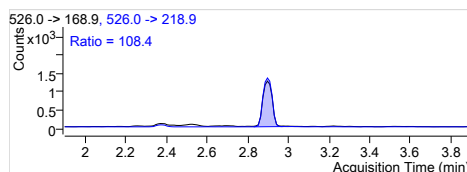
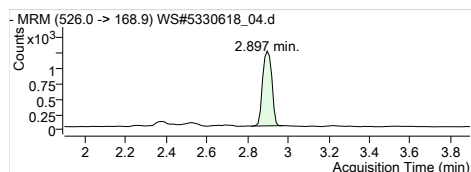
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 5.07 µg/L
 Sample type: 2.26804
 Calibration



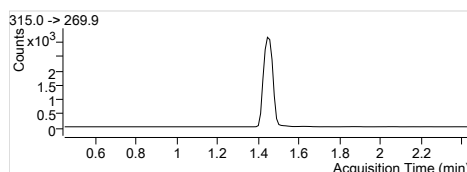
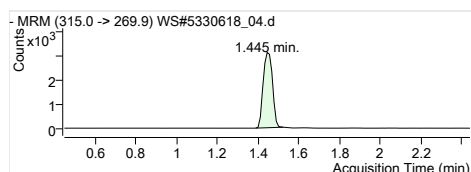
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 5.04 µg/L
 Sample type: 1.84246
 Calibration



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 4.90 µg/L
 Sample type: 0.63079
 Calibration

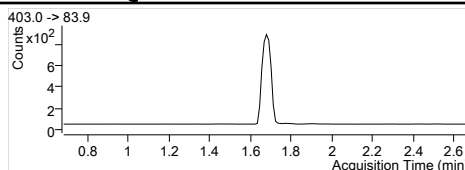
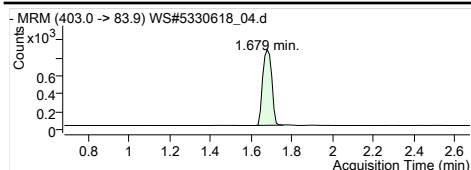


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 4.55 µg/L
 Sample type: 0.70819
 Calibration

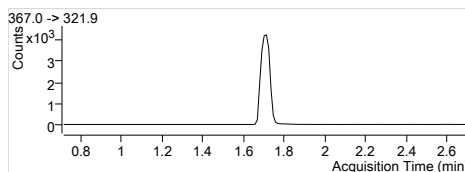
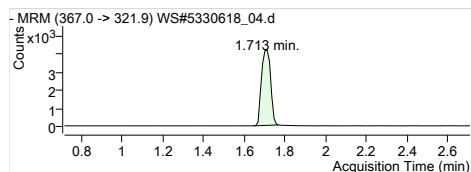


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 94.51 µg/L
 Sample type: 0.20927
 Calibration

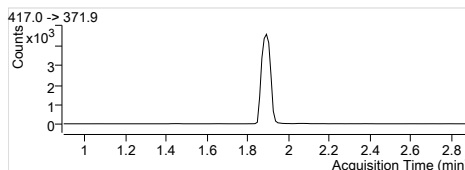
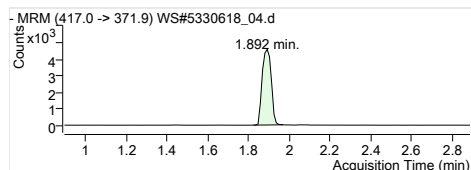
Quantitation Results



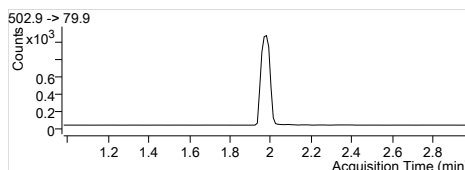
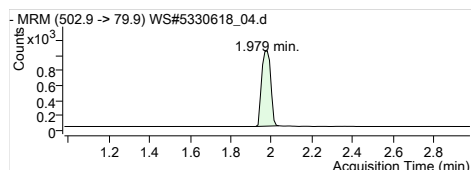
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 104.40 µg/L
 Sample type: 0.05541
 Calibration



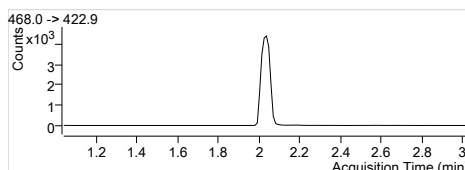
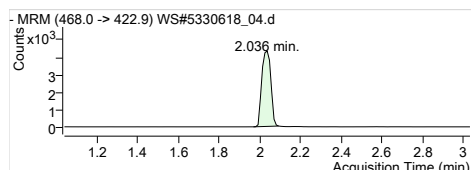
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 99.53 µg/L
 Sample type: 0.27611
 Calibration



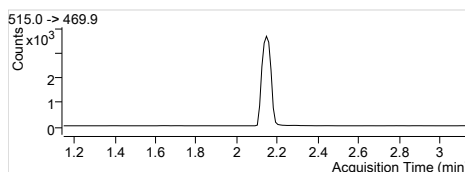
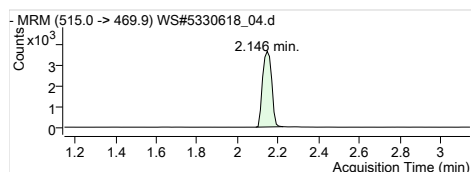
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 99.81 µg/L
 Sample type: 0.29900
 Calibration



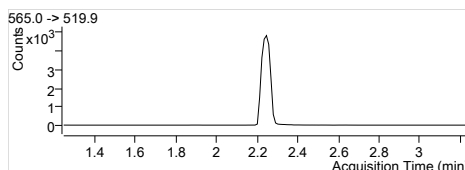
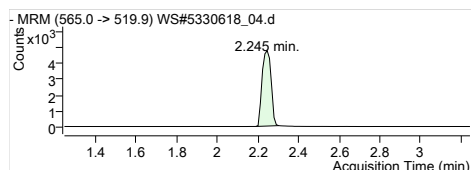
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 103.55 µg/L
 Sample type: 0.06684
 Calibration



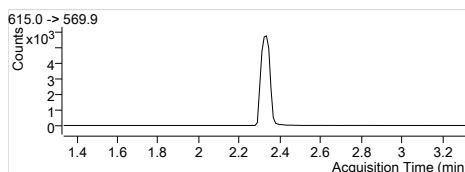
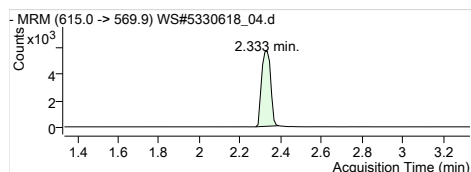
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 101.25 µg/L
 Sample type: 0.28364
 Calibration



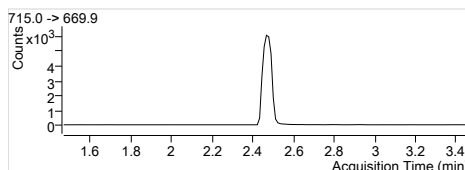
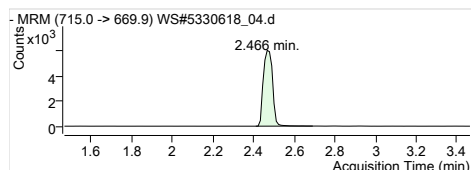
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 100.77 µg/L
 Sample type: 0.19191
 Calibration



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 104.13 µg/L
 Sample type: 0.24450
 Calibration

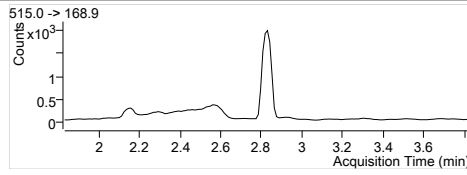
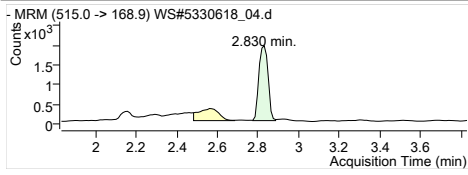


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 99.97 µg/L
 Sample type: 0.29917
 Calibration

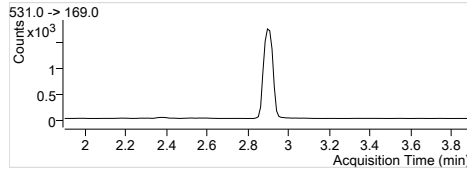
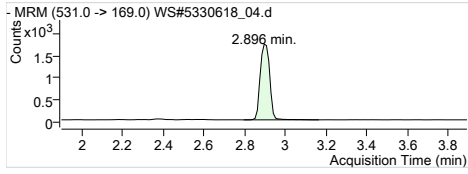


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 98.04 µg/L
 Sample type: 0.32200
 Calibration

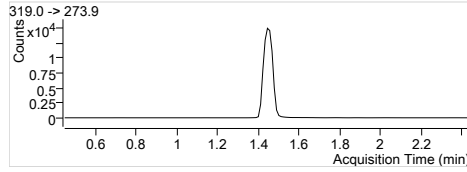
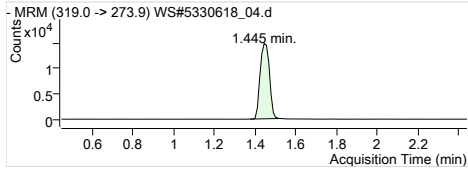
Quantitation Results



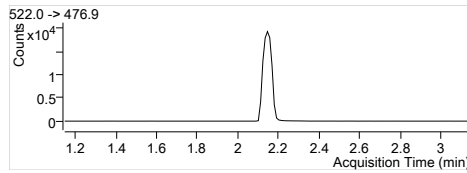
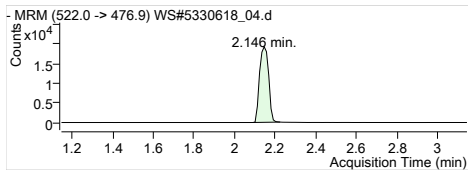
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 94.05 µg/L
Sample type: 0.12724
Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 103.50 µg/L
Sample type: 0.11833
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 97.30 µg/L
Sample type: 0
Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 95.57 µg/L
Sample type: 0
Calibration

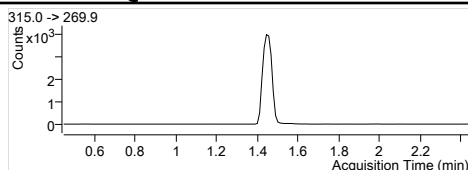
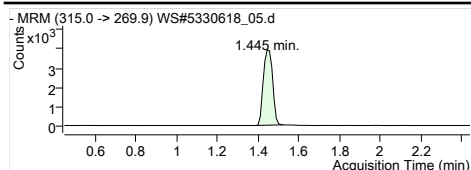
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	STD 4	Instrument	LCMS04
Data File	WS#5330618_05.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-E3
Acq. Date	2018/01/13 5:35:02 AM	Injection Volume	Per Method
Sample Annotation	-		

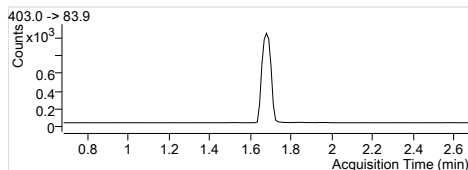
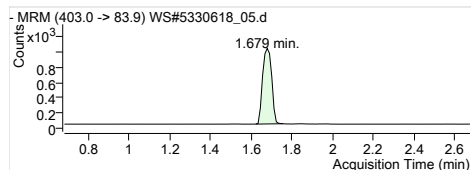
ISTD Compounds	Response	RT	Target conc.
MPFHxA	12356	1.44	1 µg/L
MPFHxS	3101	1.68	1 µg/L
MPFHpA	15805	1.71	1 µg/L
MPFOA	16789	1.89	1 µg/L
MPFOS	3457	1.98	1 µg/L
MPFNA	16491	2.04	1 µg/L
MPFDA	14033	2.15	1 µg/L
MPFUnA	16400	2.25	1 µg/L
MPFDoA	21546	2.33	1 µg/L
MPFTeDA	23449	2.47	1 µg/L
D3-MeFOSA IS	7481	2.83	1 µg/L
D5-EtFOSA IS	6252	2.90	1 µg/L
13C6-PFHxA IS	53781	1.44	1 µg/L
13C9-PFDA IS	70195	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	18389	1.10	12.50	11.72 µg/L	93.79
PFHxA 1	66338	1.44	12.50	12.64 µg/L	101.09
PFHxS 1	16362	1.68	12.50	12.04 µg/L	96.32
PFHpA 1	84266	1.71	12.50	12.29 µg/L	98.34
PFOA 1	92066	1.89	12.50	12.36 µg/L	98.91
PFOS 1	17880	1.97	12.50	13.02 µg/L	104.19
PFNA 1	83003	2.04	12.50	11.97 µg/L	95.78
PFDA 1	88247	2.15	12.50	12.19 µg/L	97.51
PFUnA 1	99657	2.25	12.50	13.02 µg/L	104.19
PFDoA 1	117911	2.33	12.50	12.74 µg/L	101.90
PFTTrDA 1	131000	2.40	12.50	12.44 µg/L	99.56
PFTeDA 1	104042	2.47	12.50	12.05 µg/L	96.44
MeFOSA 1	12200	2.83	12.50	12.64 µg/L	101.10
EtFOSA 1	11978	2.90	12.50	12.14 µg/L	97.14
13C2-PFHxA	12356	1.44	100.00	103.75 µg/L	103.75
18O2-PFHxS	3101	1.68	100.00	108.65 µg/L	108.65
13C4-PFHpA	15805	1.71	100.00	105.93 µg/L	105.93
13C4-PFOA	16789	1.89	100.00	104.20 µg/L	104.20
13C4-PFOS	3457	1.98	100.00	99.58 µg/L	99.58
13C5-PFNA	16340	2.04	100.00	108.46 µg/L	108.46
13C2-PFDA	13764	2.15	100.00	102.96 µg/L	102.96
13C2-PFUnA	16400	2.25	100.00	99.50 µg/L	99.50
13C2-PFDoA	21546	2.33	100.00	102.56 µg/L	102.56
13C2-PFTeDA	23618	2.47	100.00	102.44 µg/L	102.44
D3-MeFOSA	7524	2.83	100.00	103.40 µg/L	103.40
D5-EtFOSA	6434	2.90	100.00	104.64 µg/L	104.64
13C6-PFHxA	53781	1.44	100.00	111.21 µg/L	111.21
13C9-PFDA	70195	2.15	100.00	113.38 µg/L	113.38

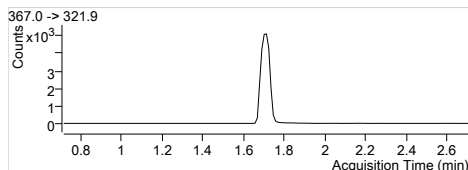
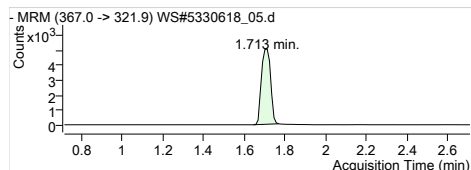
Quantitation Results



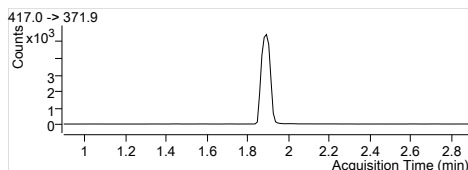
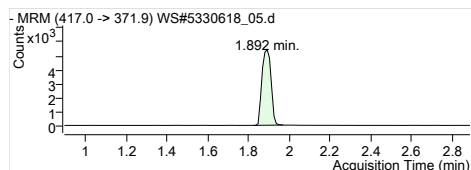
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Calibration



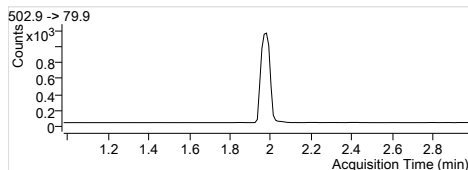
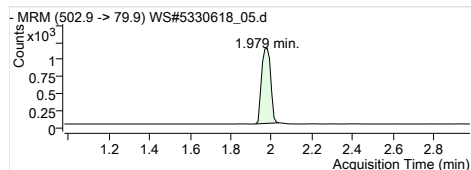
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



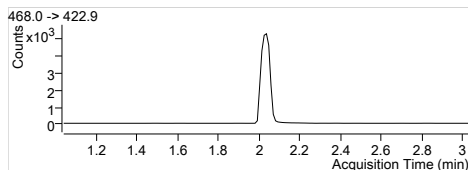
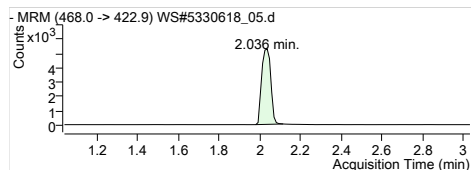
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



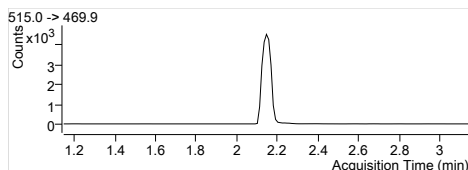
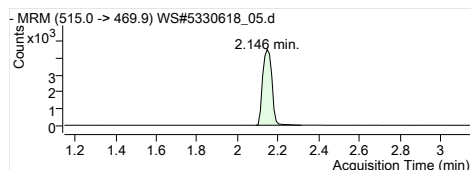
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



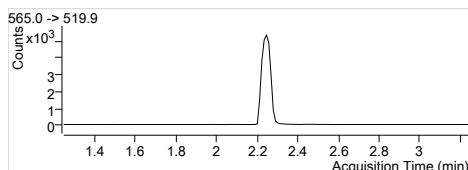
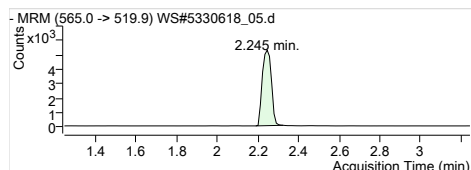
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



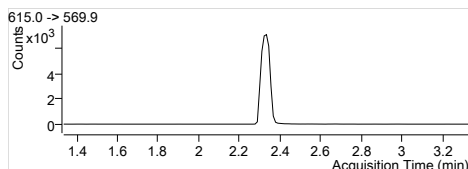
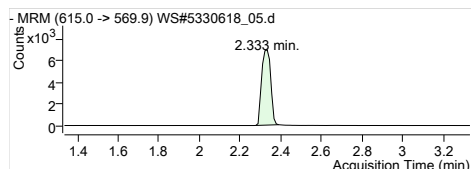
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



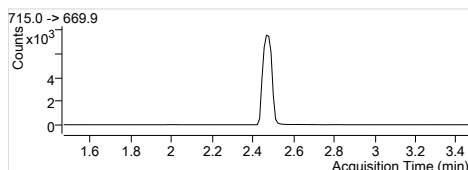
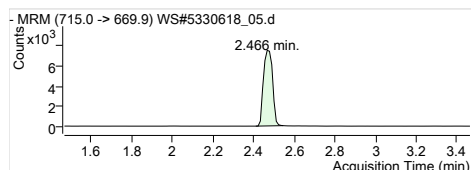
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration

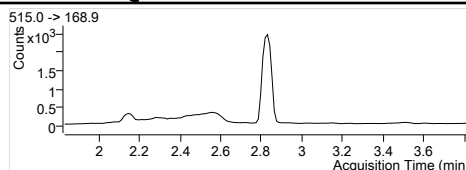
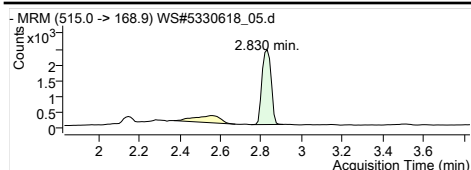


MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: Calibration

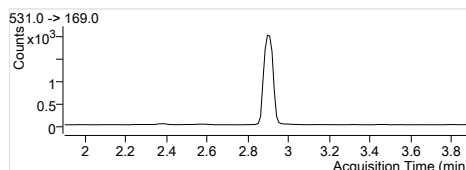
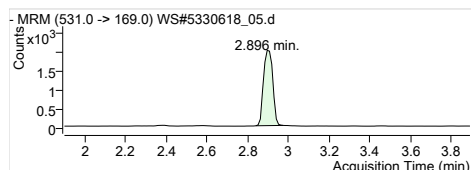


MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: Calibration

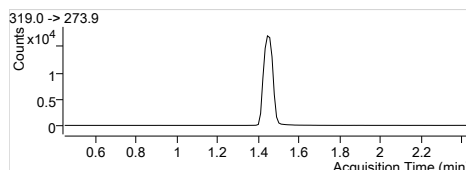
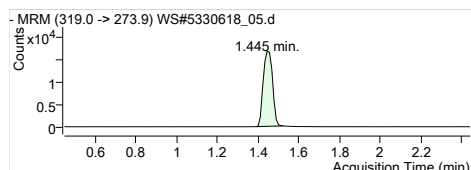
Quantitation Results



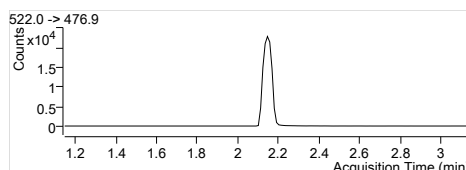
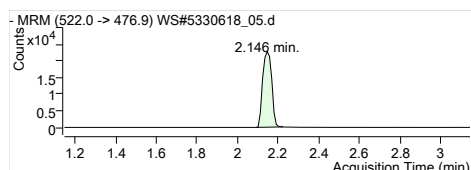
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



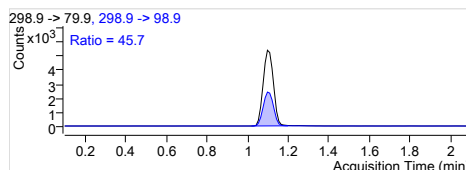
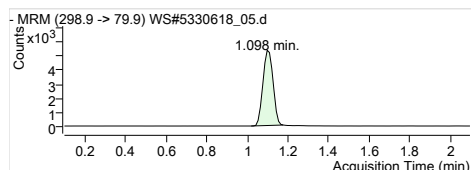
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Calibration



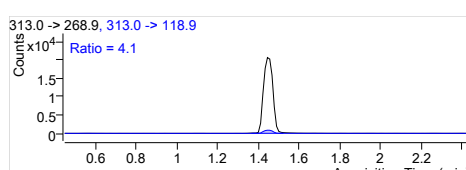
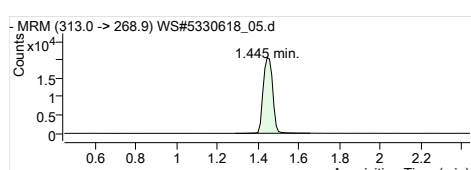
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Calibration



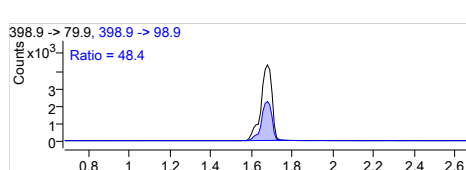
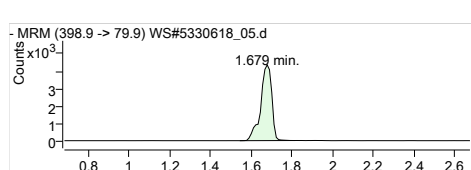
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



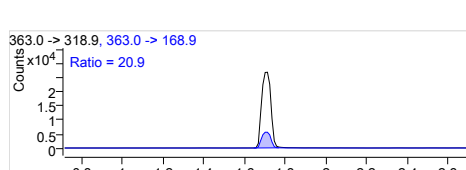
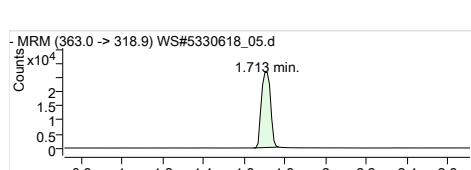
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 11.72 µg/L
 5.93002
 Sample type: Calibration



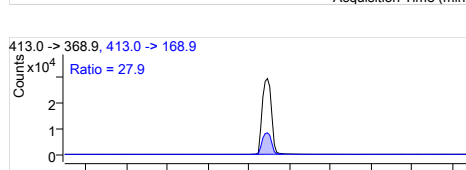
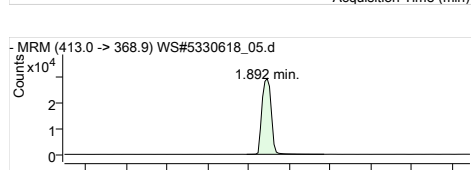
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 12.64 µg/L
 5.36889
 Sample type: Calibration



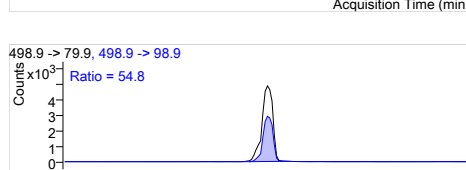
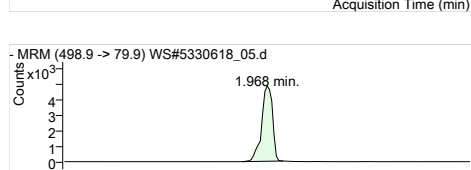
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 12.04 µg/L
 5.27636
 Sample type: Calibration



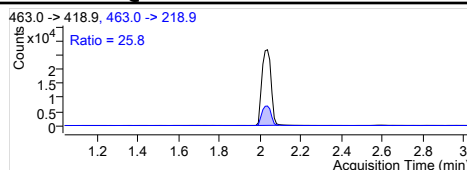
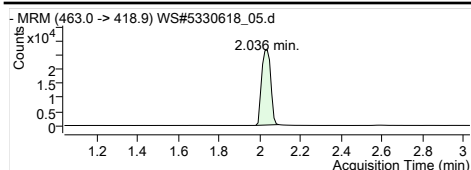
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 12.29 µg/L
 5.33160
 Sample type: Calibration



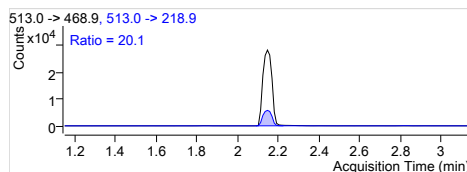
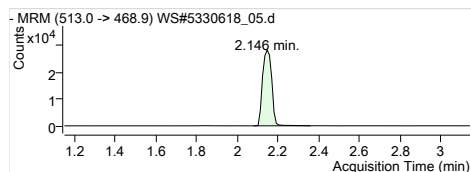
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 12.36 µg/L
 5.48371
 Sample type: Calibration



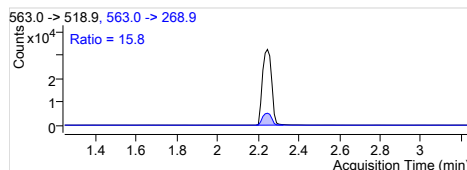
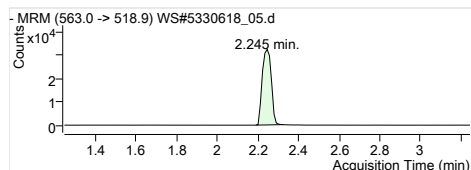
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 13.02 µg/L
 5.17211
 Sample type: Calibration



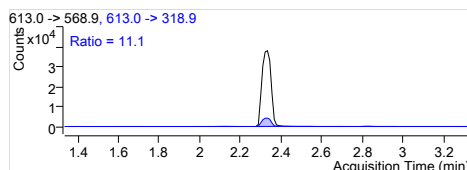
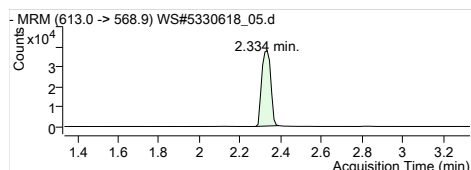
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 11.97 µg/L
 Sample type: 5.03323
 Calibration



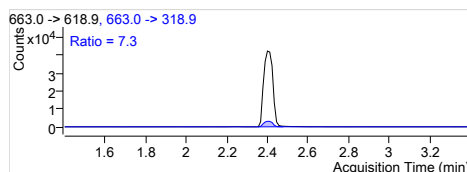
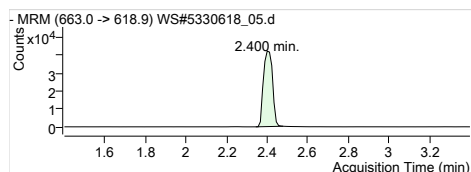
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 12.19 µg/L
 Sample type: 6.28853
 Calibration



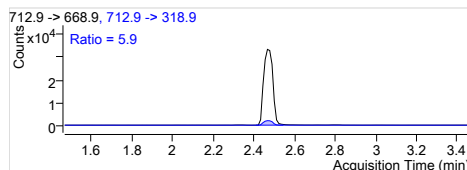
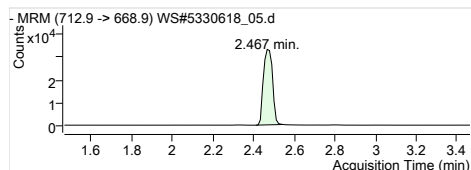
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 13.02 µg/L
 Sample type: 6.07665
 Calibration



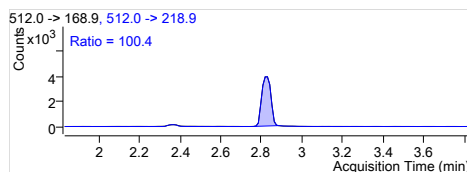
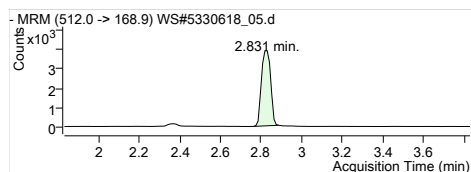
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 12.74 µg/L
 Sample type: 5.47252
 Calibration



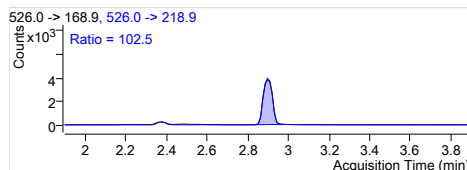
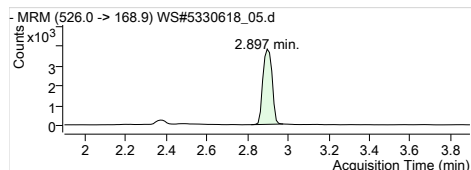
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 12.44 µg/L
 Sample type: 5.58659
 Calibration



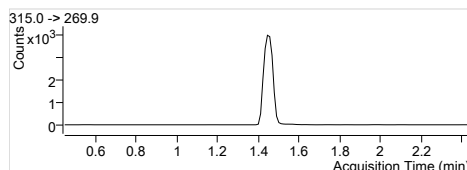
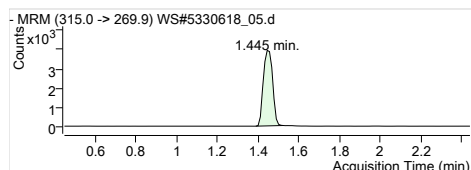
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 12.05 µg/L
 Sample type: 4.43695
 Calibration



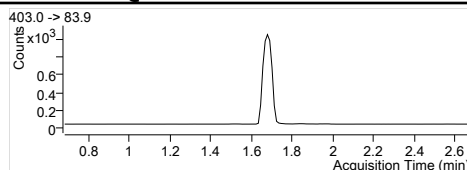
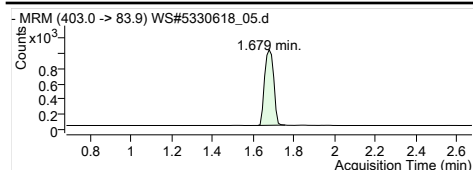
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.831 (2.831)
 Area ratio: 12.64 µg/L
 Sample type: 1.63080
 Calibration



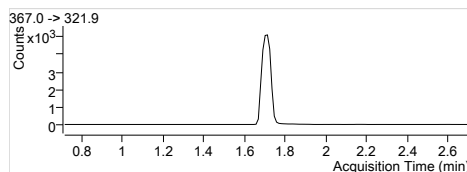
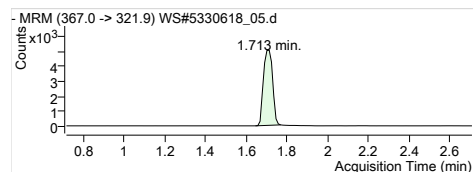
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 12.14 µg/L
 Sample type: 1.91587
 Calibration



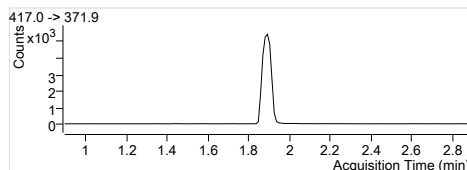
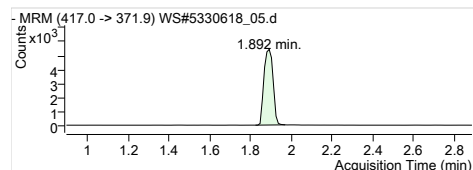
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 103.75 µg/L
 Sample type: 0.22975
 Calibration



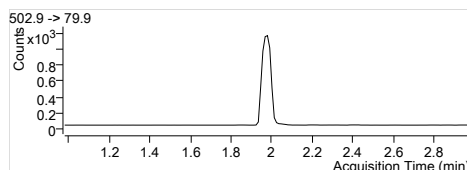
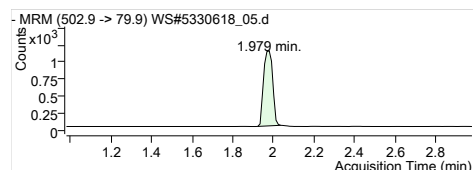
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 108.65 µg/L
 Sample type: 0.05766
 Calibration



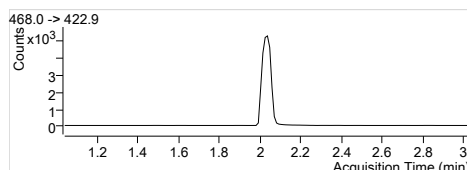
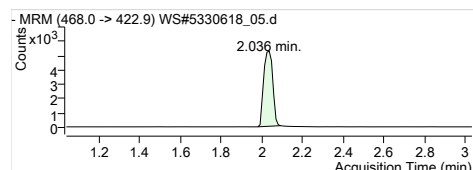
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 105.93 µg/L
 Sample type: 0.29388
 Calibration



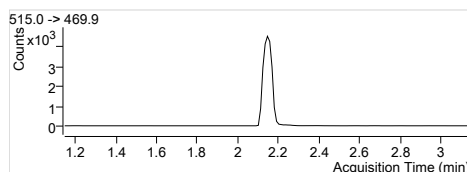
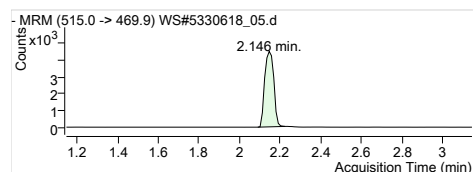
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 104.20 µg/L
 Sample type: 0.31217
 Calibration



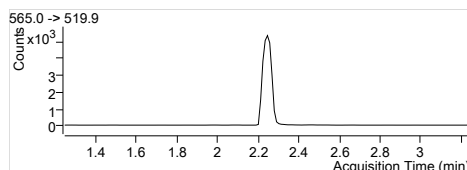
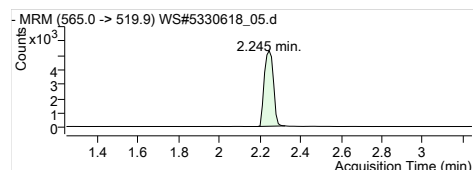
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 99.58 µg/L
 Sample type: 0.06428
 Calibration



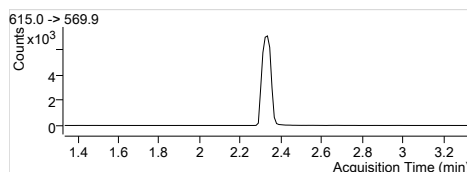
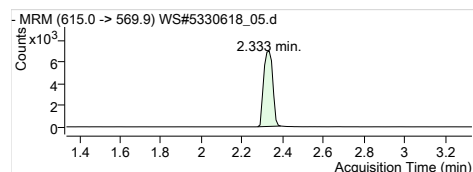
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 108.46 µg/L
 Sample type: 0.30382
 Calibration



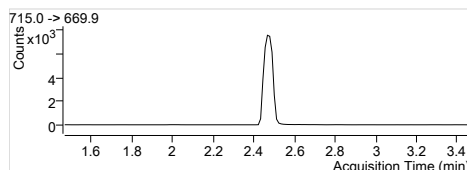
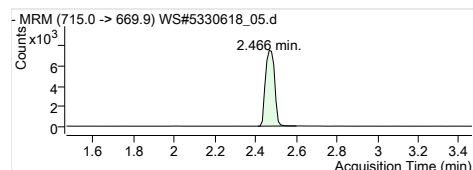
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 102.96 µg/L
 Sample type: 0.19608
 Calibration



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 99.50 µg/L
 Sample type: 0.23363
 Calibration

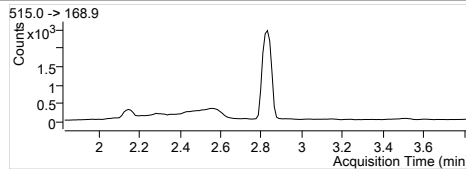
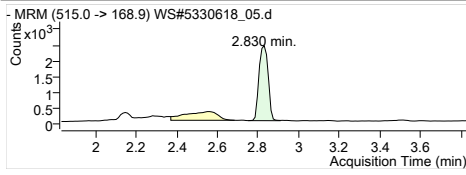


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 102.56 µg/L
 Sample type: 0.30694
 Calibration

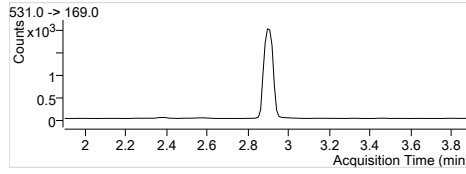
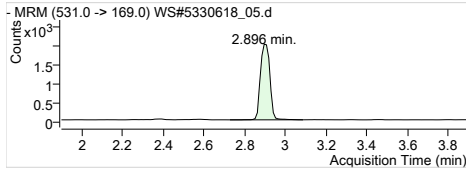


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 102.44 µg/L
 Sample type: 0.33646
 Calibration

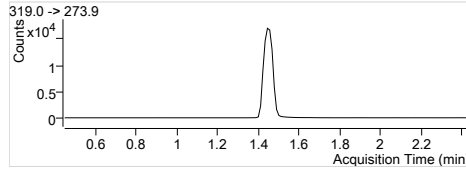
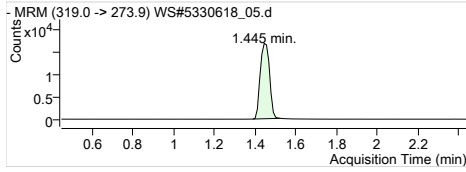
Quantitation Results



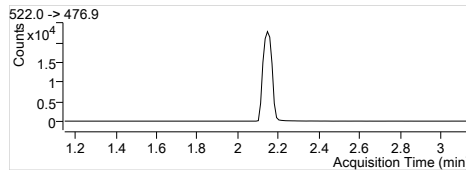
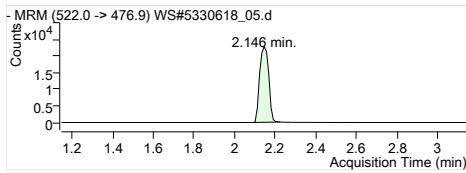
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 103.40 µg/L
Sample type: 0.13990
Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 104.64 µg/L
Sample type: 0.11963
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 111.21 µg/L
Sample type: 0
Calibration



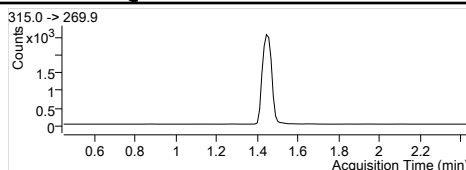
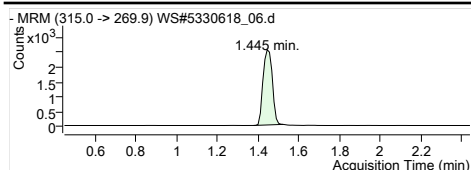
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 113.38 µg/L
Sample type: 0
Calibration

Quantitation Results

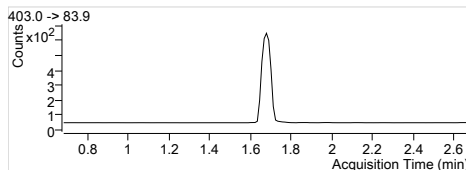
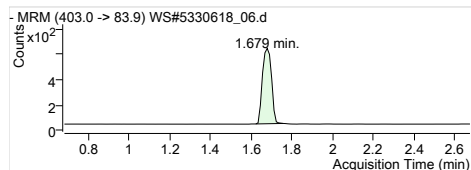
Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	STD 5	Instrument	LCMS04
Data File	WS#5330618_06.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-E4
Acq. Date	2018/01/13 5:39:58 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8010	1.44	1 µg/L		
MPFHxS	1855	1.68	1 µg/L		
MPFHpA	9925	1.70	1 µg/L		
MPFOA	9976	1.89	1 µg/L		
MPFOS	2417	1.97	1 µg/L		
MPFNA	9497	2.04	1 µg/L		
MPFDA	8460	2.15	1 µg/L		
MPFUnA	10367	2.25	1 µg/L		
MPFDoA	13093	2.33	1 µg/L		
MPFTeDA	14043	2.47	1 µg/L		
D3-MeFOSA IS	4501	2.83	1 µg/L		
D5-EtFOSA IS	3859	2.90	1 µg/L		
13C6-PFHxA IS	34886	1.44	1 µg/L		
13C9-PFDA IS	45454	2.15	1 µg/L		

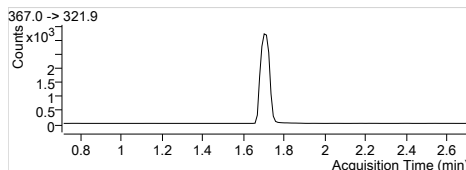
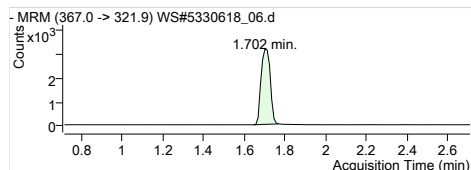
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	24311	1.10	25.00	25.86 µg/L	103.43
PFHxA 1	84075	1.44	25.00	24.67 µg/L	98.68
PFHxS 1	20483	1.68	25.00	25.31 µg/L	101.25
PFHpA 1	103053	1.70	25.00	23.80 µg/L	95.20
PFOA 1	116991	1.89	25.00	26.40 µg/L	105.59
PFOS 1	22296	1.97	25.00	23.15 µg/L	92.59
PFNA 1	102101	2.02	25.00	25.48 µg/L	101.90
PFDA 1	114058	2.15	25.00	26.05 µg/L	104.20
PFUnA 1	121856	2.25	25.00	25.18 µg/L	100.74
PFDoA 1	145418	2.33	25.00	25.84 µg/L	103.35
PFTTrDA 1	162114	2.40	25.00	25.68 µg/L	102.74
PFTeDA 1	135593	2.47	25.00	26.16 µg/L	104.63
MeFOSA 1	15471	2.83	25.00	26.62 µg/L	106.48
EtFOSA 1	15464	2.90	25.00	25.28 µg/L	101.13
13C2-PFHxA	8010	1.44	100.00	103.69 µg/L	103.69
18O2-PFHxS	1855	1.68	100.00	100.20 µg/L	100.20
13C4-PFHpA	9925	1.70	100.00	102.55 µg/L	102.55
13C4-PFOA	9976	1.89	100.00	95.45 µg/L	95.45
13C4-PFOS	2417	1.97	100.00	107.33 µg/L	107.33
13C5-PFNA	9453	2.04	100.00	96.73 µg/L	96.73
13C2-PFDA	8312	2.15	100.00	96.02 µg/L	96.02
13C2-PFUnA	10367	2.25	100.00	97.13 µg/L	97.13
13C2-PFDoA	13093	2.33	100.00	96.25 µg/L	96.25
13C2-PFTeDA	14220	2.47	100.00	95.25 µg/L	95.25
D3-MeFOSA	4533	2.83	100.00	96.04 µg/L	96.04
D5-EtFOSA	3924	2.90	100.00	98.38 µg/L	98.38
13C6-PFHxA	34886	1.44	100.00	72.14 µg/L	72.14
13C9-PFDA	45454	2.15	100.00	73.42 µg/L	73.42



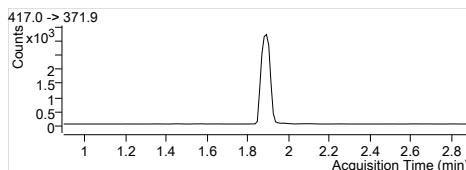
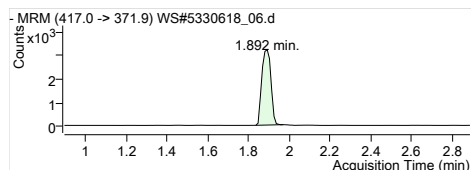
MPFHxA
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Calibration



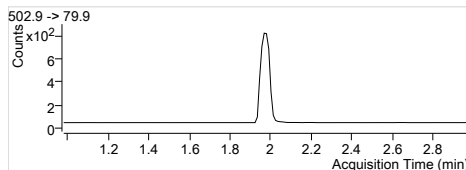
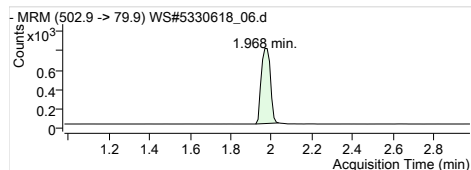
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: Calibration



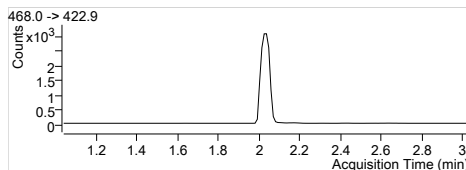
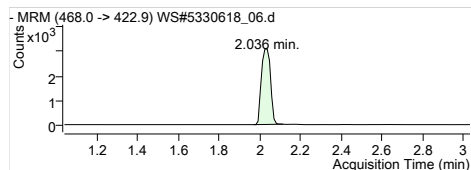
MPFHpA
 RT (Exp. RT): 1.702 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



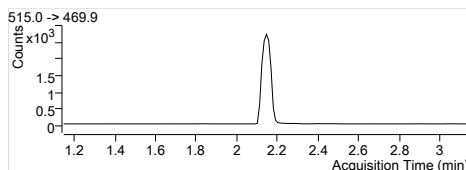
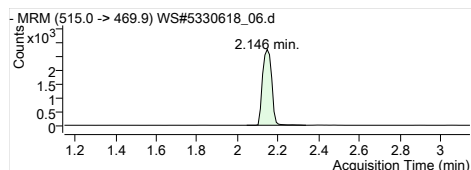
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Calibration



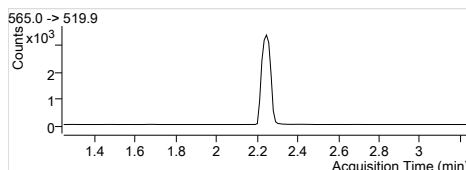
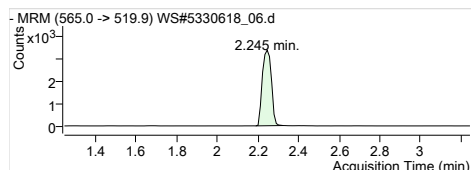
MPFOS
 RT (Exp. RT): 1.968 (1.979)
 Concentration: 1 µg/L
 Sample type: Calibration



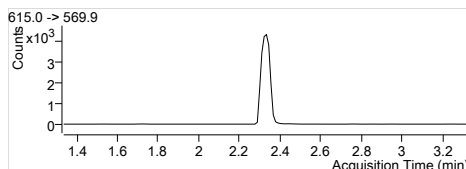
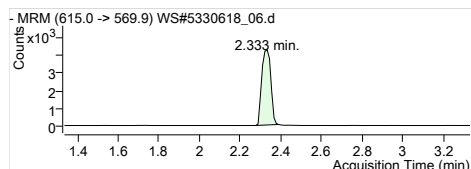
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: Calibration



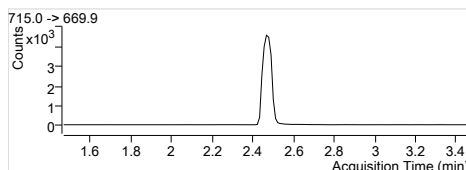
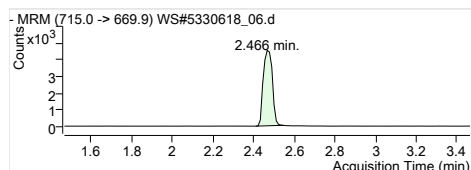
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



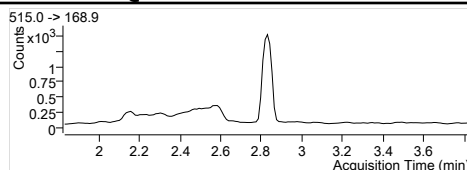
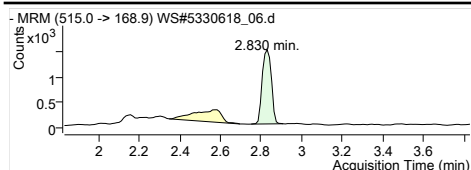
MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Calibration



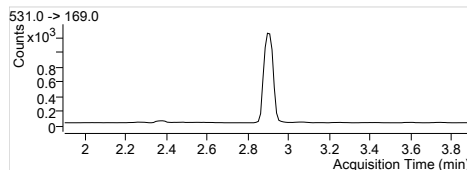
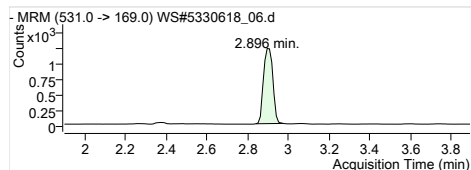
MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Calibration



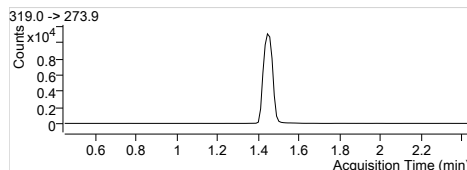
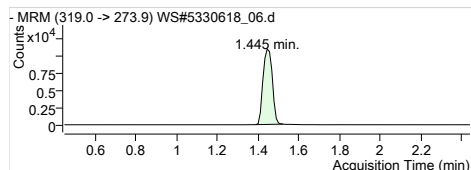
MPFTxDA
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: Calibration



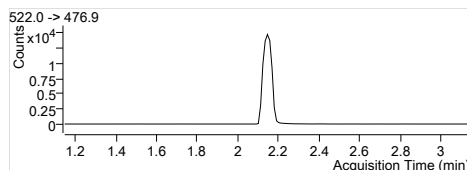
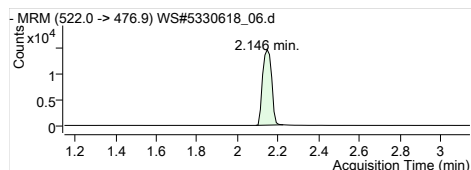
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



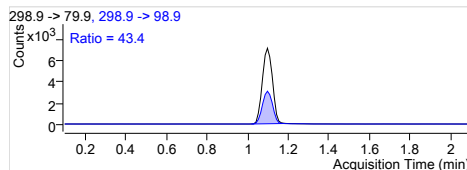
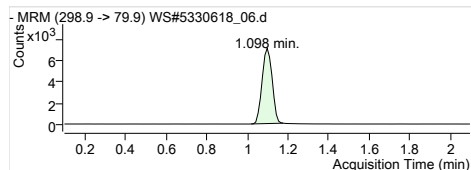
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Calibration



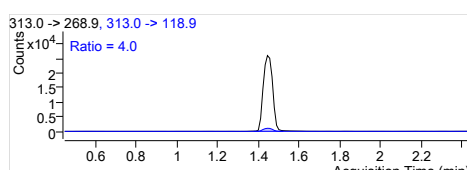
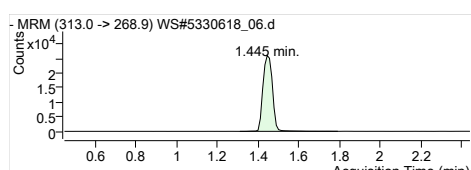
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Calibration



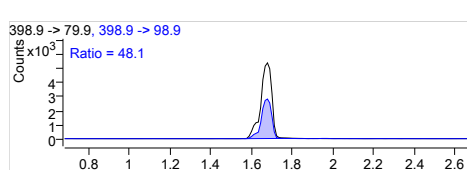
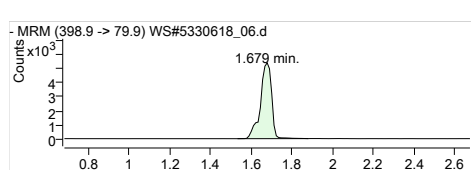
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



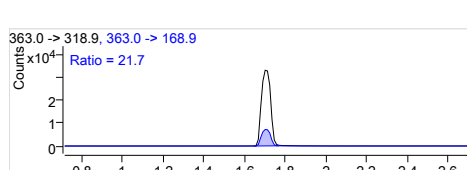
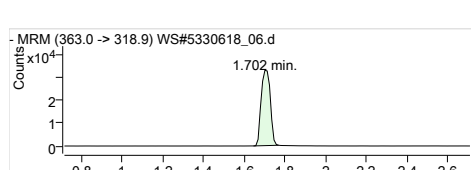
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 25.86 µg/L
 13.10566
 Sample type: Calibration



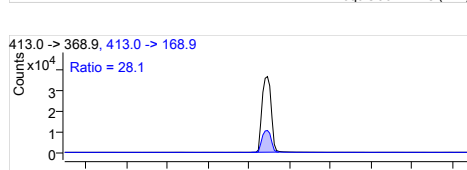
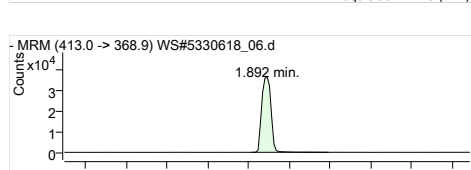
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 24.67 µg/L
 10.49625
 Sample type: Calibration



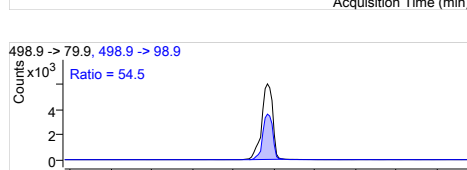
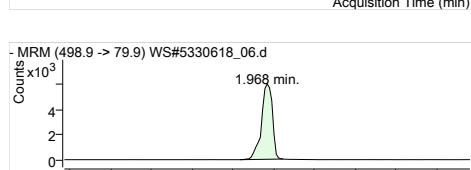
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 25.31 µg/L
 11.04205
 Sample type: Calibration



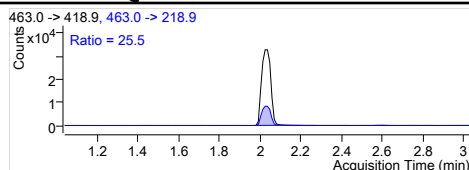
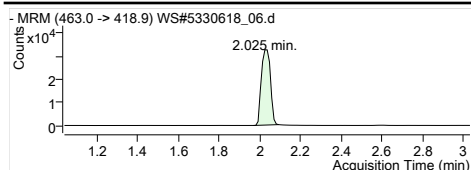
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 23.80 µg/L
 10.38317
 Sample type: Calibration



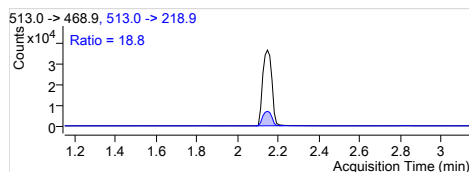
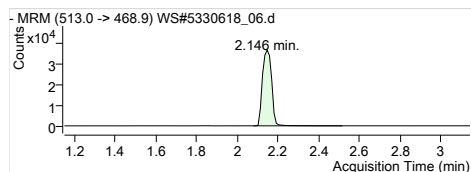
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 26.40 µg/L
 11.72725
 Sample type: Calibration



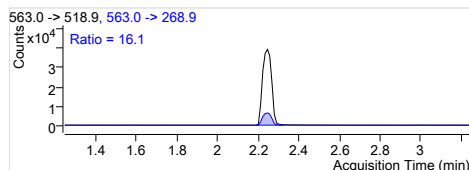
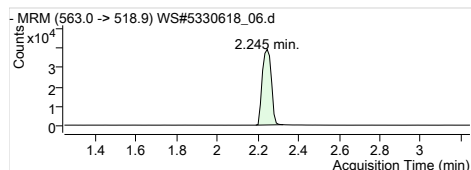
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 23.15 µg/L
 9.22466
 Sample type: Calibration



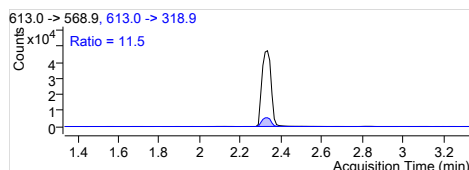
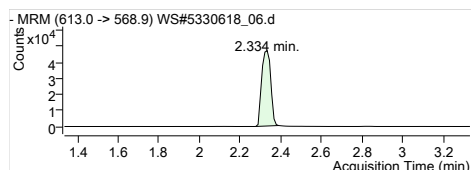
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 25.48 µg/L
 Sample type: 10.75087
 Calibration



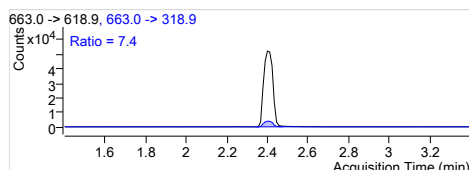
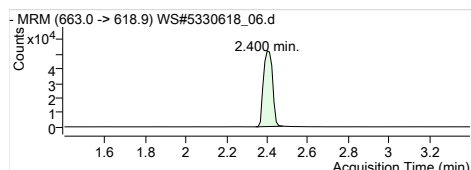
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 26.05 µg/L
 Sample type: 13.48203
 Calibration



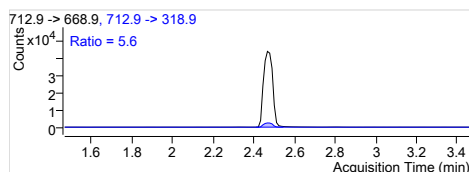
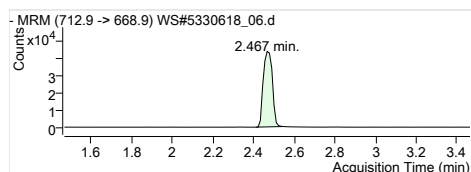
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 25.18 µg/L
 Sample type: 11.75422
 Calibration



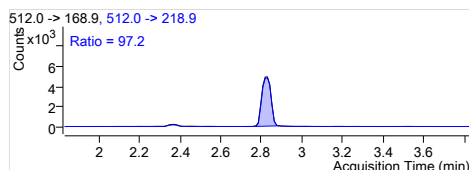
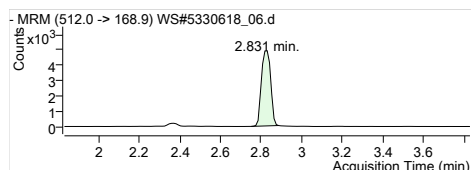
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 25.84 µg/L
 Sample type: 11.10655
 Calibration



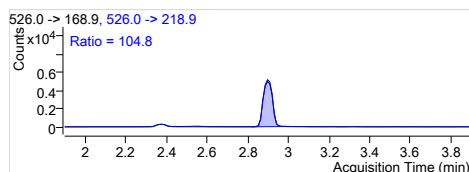
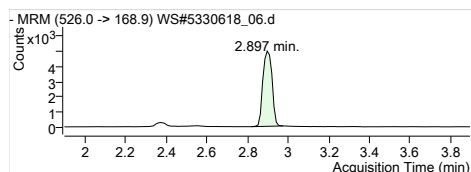
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 25.68 µg/L
 Sample type: 11.54411
 Calibration



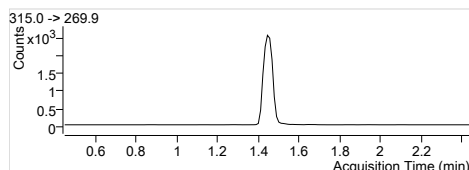
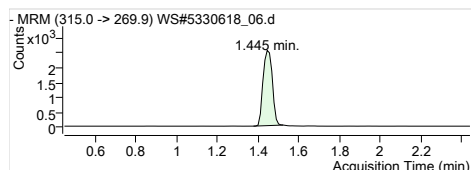
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 26.16 µg/L
 Sample type: 9.65556
 Calibration



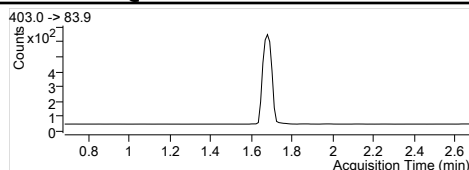
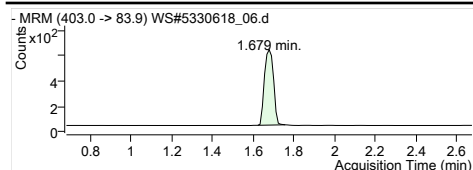
MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.831 (2.831)
 Area ratio: 26.62 µg/L
 Sample type: 3.43724
 Calibration



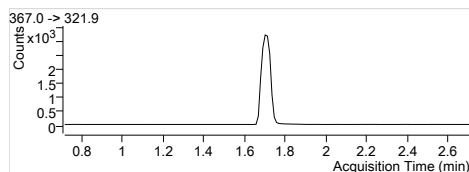
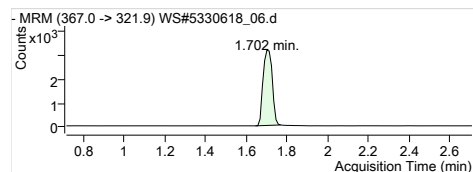
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 25.28 µg/L
 Sample type: 4.00726
 Calibration



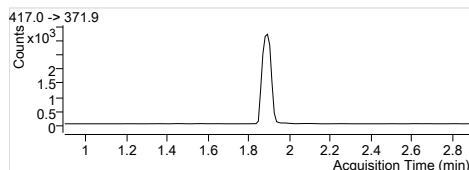
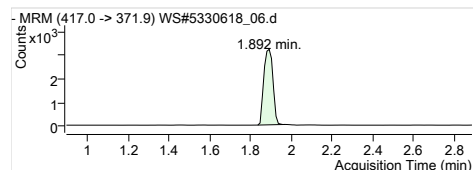
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 103.69 µg/L
 Sample type: 0.22960
 Calibration



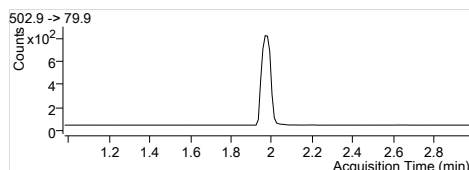
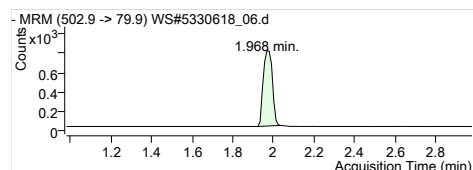
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 100.20 µg/L
 Sample type: 0.05317
 Calibration



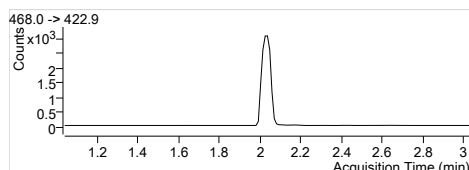
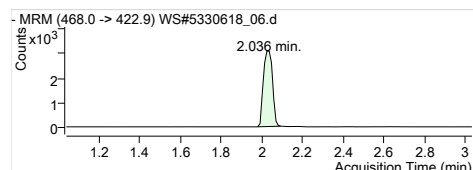
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 102.55 µg/L
 Sample type: 0.28450
 Calibration



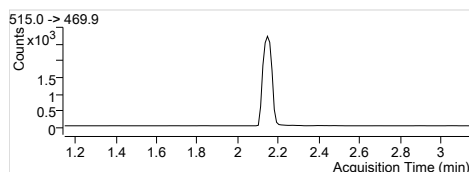
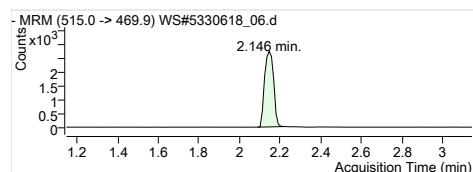
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 95.45 µg/L
 Sample type: 0.28596
 Calibration



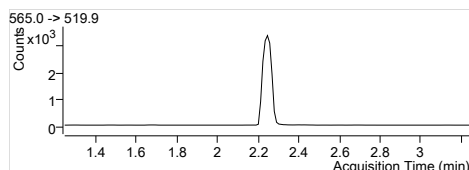
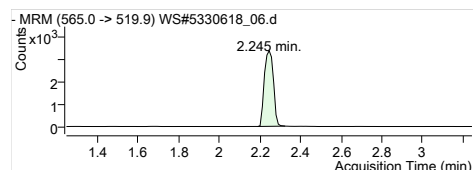
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 107.33 µg/L
 Sample type: 0.06928
 Calibration



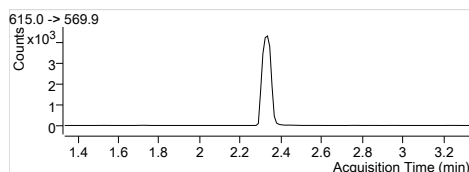
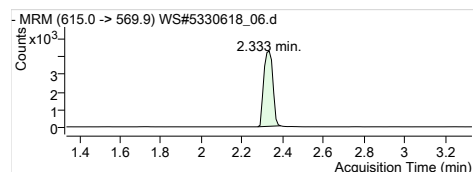
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 96.73 µg/L
 Sample type: 0.27097
 Calibration



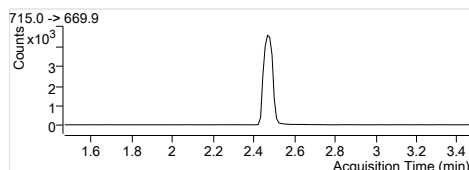
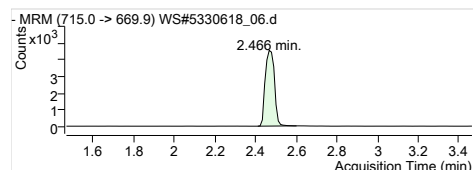
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 96.02 µg/L
 Sample type: 0.18287
 Calibration



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 97.13 µg/L
 Sample type: 0.22808
 Calibration

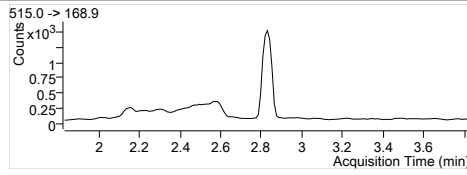
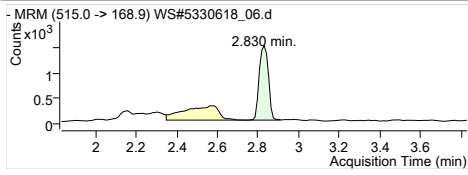


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 96.25 µg/L
 Sample type: 0.28805
 Calibration

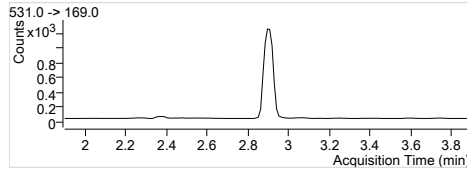
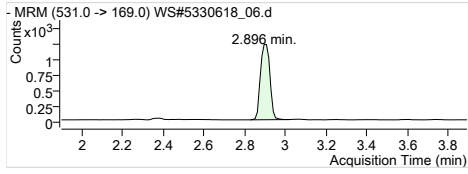


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 95.25 µg/L
 Sample type: 0.31284
 Calibration

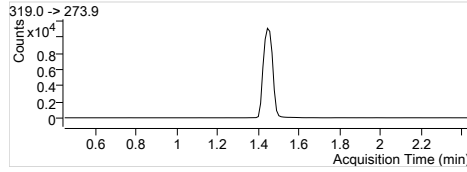
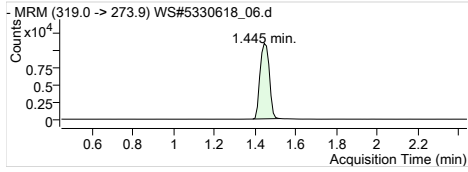
Quantitation Results



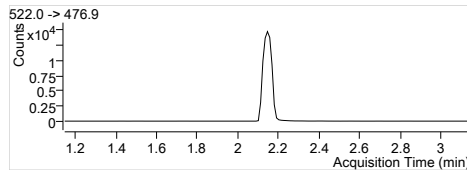
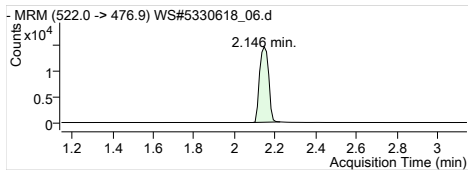
D3-MeFOSA
 RT (Exp. RT): 515.0 -> 168.9
 Calc. conc: 2.830 (2.830)
 Area ratio: 96.04 µg/L
 Sample type: 0.12994
 Calibration



D5-EtFOSA
 RT (Exp. RT): 531.0 -> 169.0
 Calc. conc: 2.896 (2.896)
 Area ratio: 98.38 µg/L
 Sample type: 0.11248
 Calibration



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc: 1.445 (1.445)
 Area ratio: 72.14 µg/L
 Sample type: 0
 Calibration



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 73.42 µg/L
 Sample type: 0
 Calibration

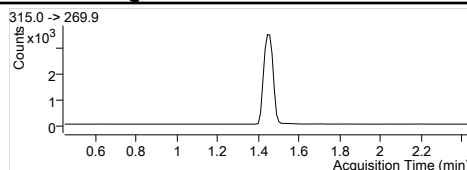
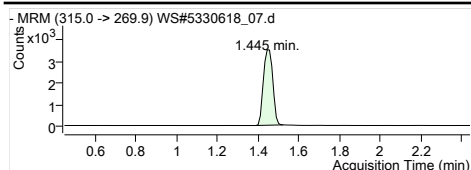
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	STD 6	Instrument	LCMS04
Data File	WS#5330618_07.d	Operator	
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-E5
Acq. Date	2018/01/13 5:44:55 AM	Injection Volume	Per Method
Sample Annotation	-		

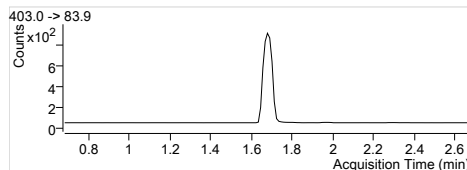
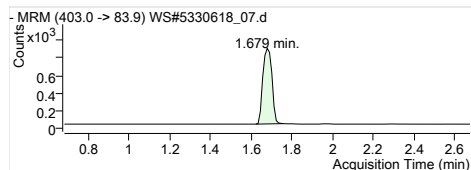
ISTD Compounds	Response	RT	Target conc.
MPFHxA	11160	1.44	1 µg/L
MPFHxS	2662	1.68	1 µg/L
MPFHpA	12990	1.71	1 µg/L
MPFOA	15386	1.89	1 µg/L
MPFOS	3021	1.97	1 µg/L
MPFNA	13709	2.04	1 µg/L
MPFDA	12271	2.15	1 µg/L
MPFUnA	15556	2.25	1 µg/L
MPFDoA	19642	2.33	1 µg/L
MPFTeDA	20829	2.47	1 µg/L
D3-MeFOSA IS	6962	2.83	1 µg/L
D5-EtFOSA IS	5483	2.90	1 µg/L
13C6-PFHxA IS	49011	1.44	1 µg/L
13C9-PFDA IS	61346	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	56526	1.10	41.70	41.87 µg/L	100.40
PFHxA 1	198720	1.44	41.70	41.83 µg/L	100.30
PFHxS 1	48926	1.68	41.70	42.20 µg/L	101.20
PFHpA 1	245871	1.71	41.70	43.26 µg/L	103.75
PFOA 1	278229	1.89	41.70	40.68 µg/L	97.56
PFOS 1	52418	1.97	41.70	43.45 µg/L	104.19
PFNA 1	243196	2.04	41.70	41.98 µg/L	100.67
PFDA 1	262015	2.15	41.70	41.21 µg/L	98.84
PFUnA 1	299463	2.25	41.70	41.24 µg/L	98.90
PFDoA 1	344618	2.33	41.70	40.81 µg/L	97.85
PFTTrDA 1	383867	2.40	41.70	40.99 µg/L	98.29
PFTeDA 1	315232	2.47	41.70	40.96 µg/L	98.24
MeFOSA 1	36067	2.83	41.70	40.12 µg/L	96.20
EtFOSA 1	36711	2.90	41.70	42.17 µg/L	101.13
13C2-PFHxA	11160	1.44	100.00	102.83 µg/L	102.83
18O2-PFHxS	2662	1.68	100.00	102.35 µg/L	102.35
13C4-PFHpA	12990	1.71	100.00	95.54 µg/L	95.54
13C4-PFOA	15386	1.89	100.00	104.79 µg/L	104.79
13C4-PFOS	3021	1.97	100.00	95.49 µg/L	95.49
13C5-PFNA	13605	2.04	100.00	99.09 µg/L	99.09
13C2-PFDA	12220	2.15	100.00	104.59 µg/L	104.59
13C2-PFUnA	15556	2.25	100.00	107.99 µg/L	107.99
13C2-PFDoA	19642	2.33	100.00	106.99 µg/L	106.99
13C2-PFTeDA	21325	2.47	100.00	105.84 µg/L	105.84
D3-MeFOSA	7079	2.83	100.00	106.76 µg/L	106.76
D5-EtFOSA	5595	2.90	100.00	99.85 µg/L	99.85
13C6-PFHxA	49011	1.44	100.00	101.35 µg/L	101.35
13C9-PFDA	61346	2.15	100.00	99.08 µg/L	99.08

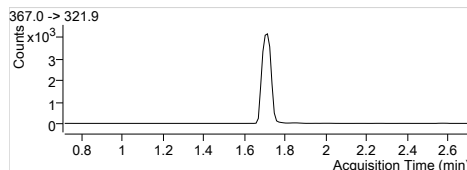
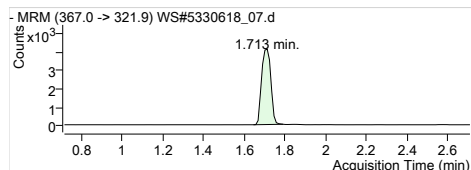
Quantitation Results



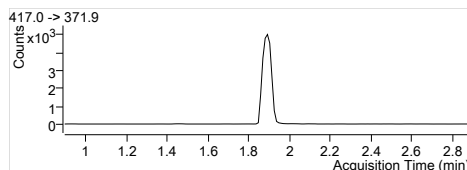
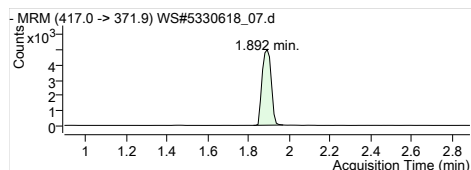
MPFHxA
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Calibration



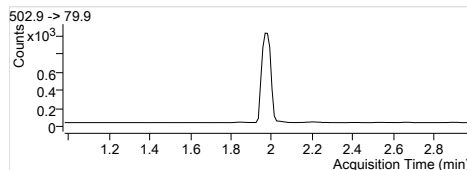
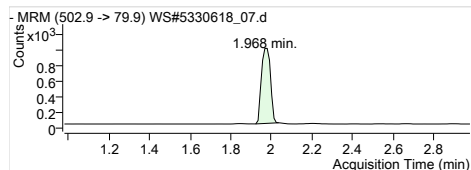
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: Calibration



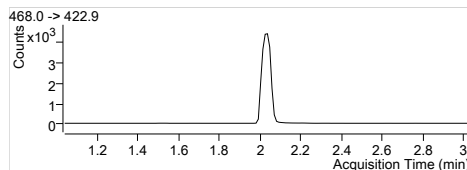
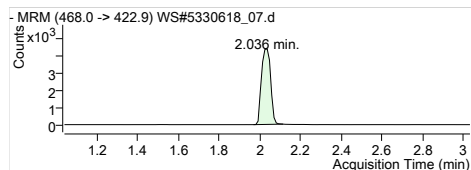
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: Calibration



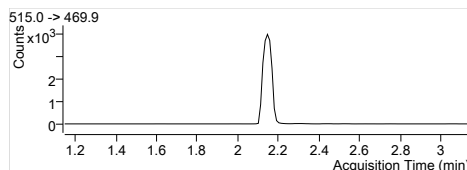
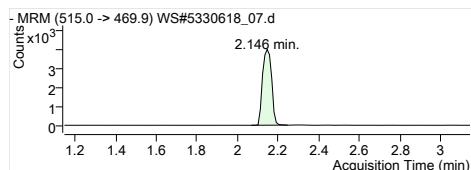
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: Calibration



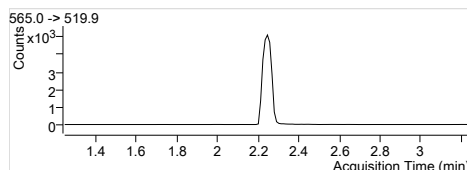
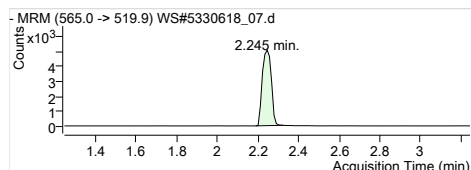
MPFOS
 RT (Exp. RT): 1.968 (1.979)
 Concentration: 1 µg/L
 Sample type: Calibration



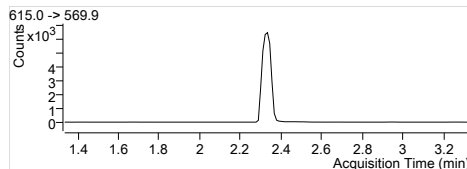
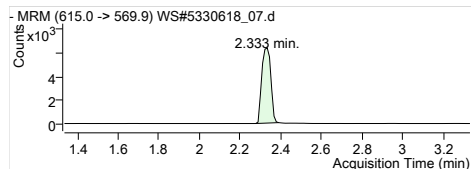
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: Calibration



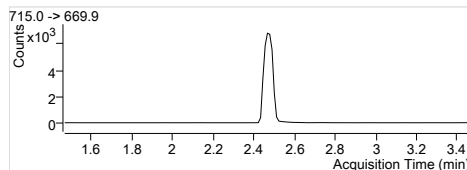
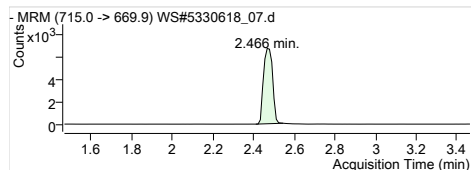
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: Calibration

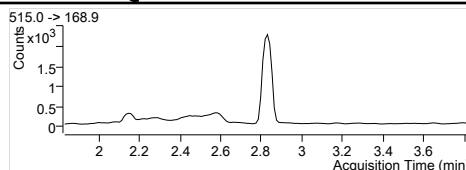
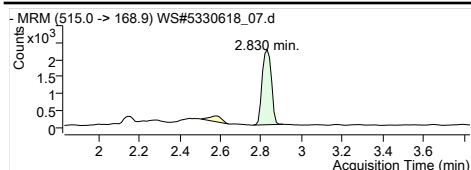


MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: Calibration

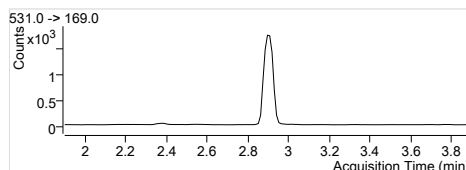
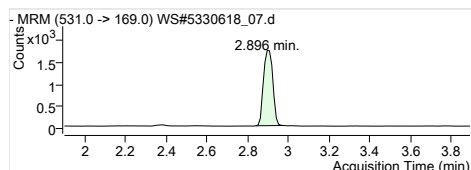


MPFTeDA
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: Calibration

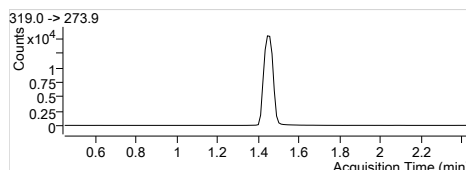
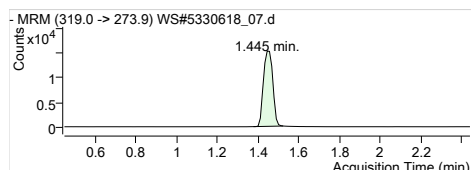
Quantitation Results



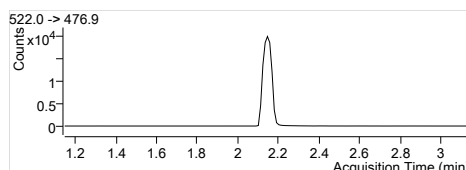
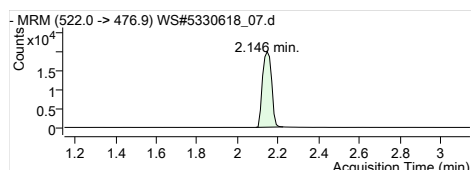
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: Calibration



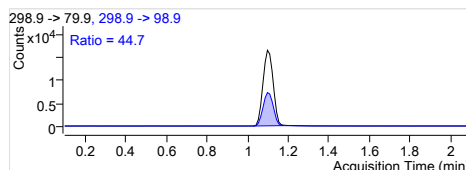
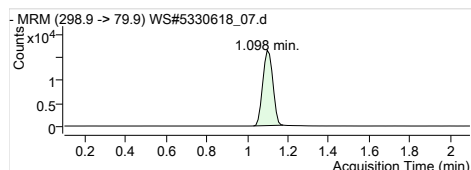
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: Calibration



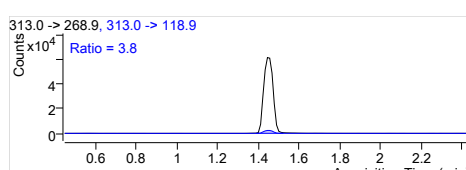
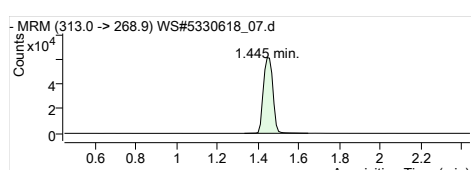
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: Calibration



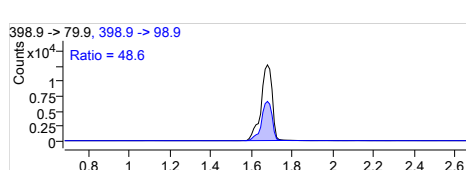
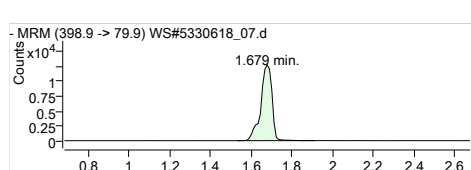
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: Calibration



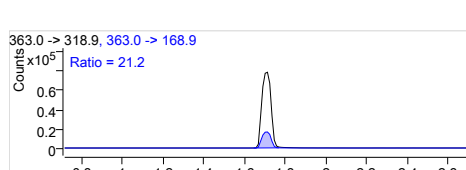
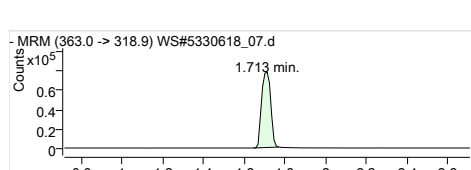
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 41.87 µg/L
 21.23441
 Sample type: Calibration



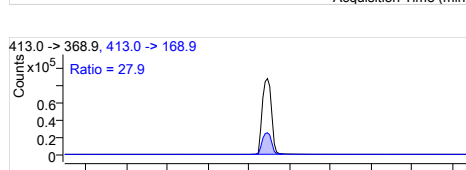
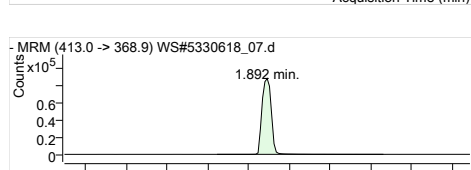
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 41.83 µg/L
 17.80645
 Sample type: Calibration



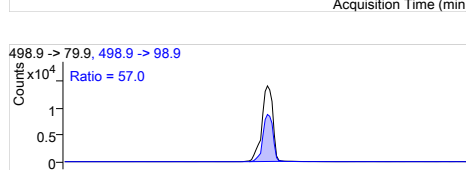
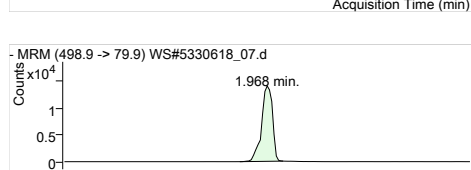
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 42.20 µg/L
 18.37941
 Sample type: Calibration



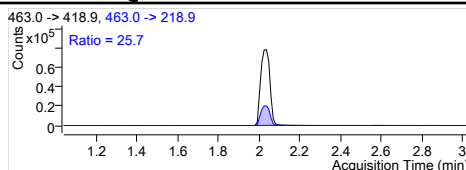
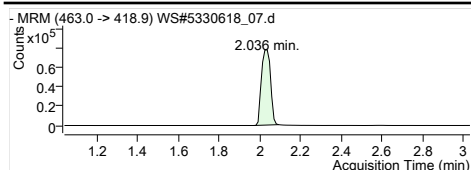
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 43.26 µg/L
 18.92771
 Sample type: Calibration



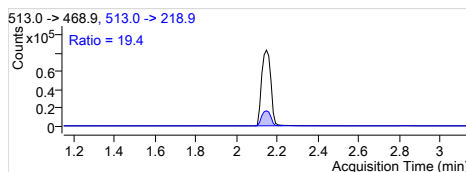
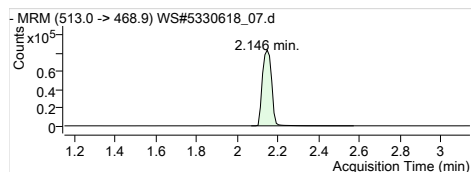
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 40.68 µg/L
 18.08326
 Sample type: Calibration



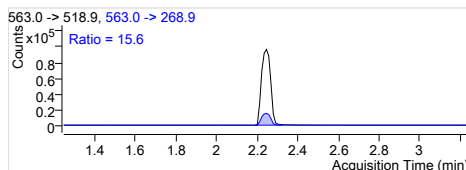
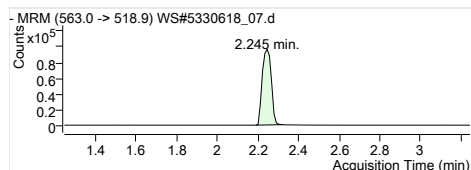
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 43.45 µg/L
 17.35121
 Sample type: Calibration



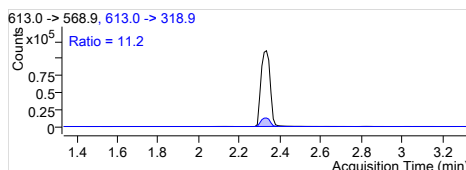
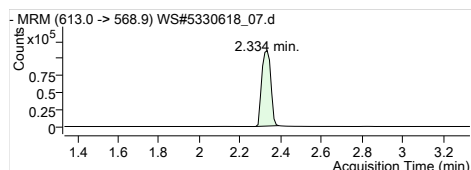
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 41.98 µg/L
 Sample type: 17.73988
 Calibration



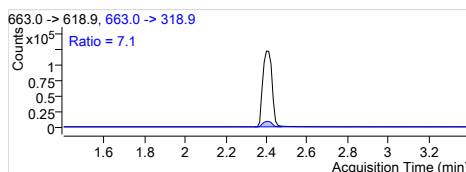
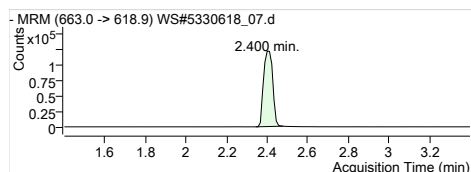
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 41.21 µg/L
 Sample type: 21.35238
 Calibration



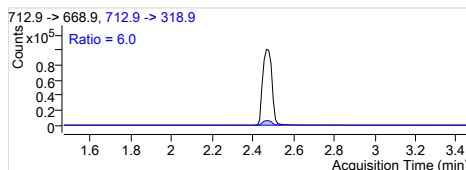
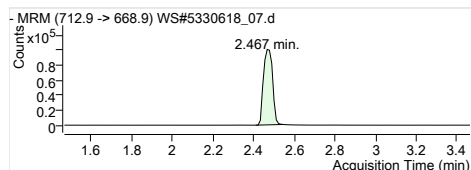
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 41.24 µg/L
 Sample type: 19.25064
 Calibration



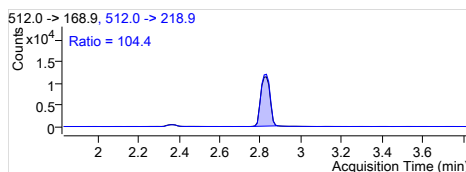
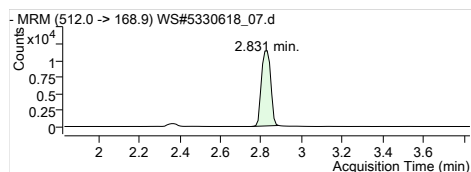
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 40.81 µg/L
 Sample type: 17.54495
 Calibration



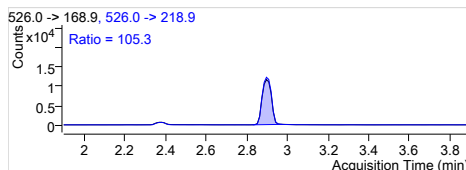
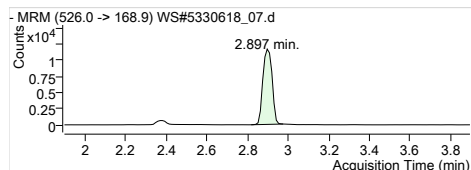
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 40.99 µg/L
 Sample type: 18.42945
 Calibration



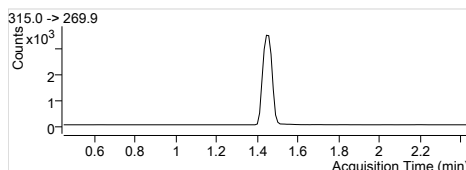
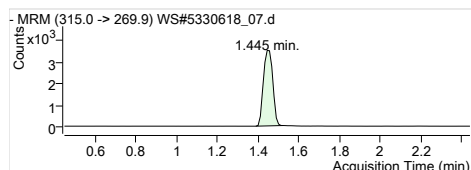
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 40.96 µg/L
 Sample type: 15.13428
 Calibration



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.831 (2.831)
 Area ratio: 40.12 µg/L
 Sample type: 5.18055
 Calibration

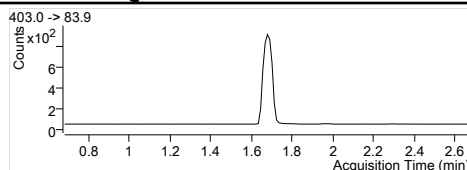
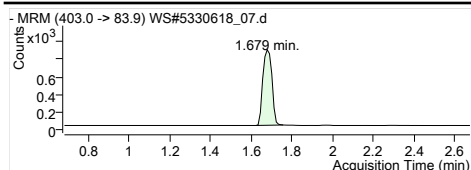


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 42.17 µg/L
 Sample type: 6.69542
 Calibration

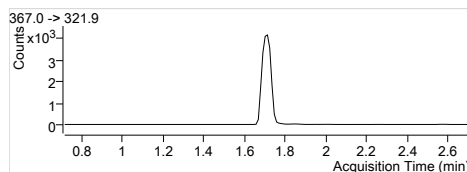
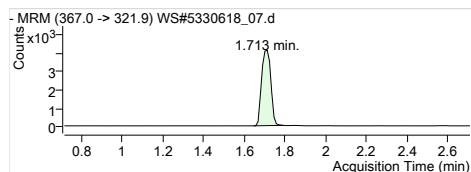


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 102.83 µg/L
 Sample type: 0.22770
 Calibration

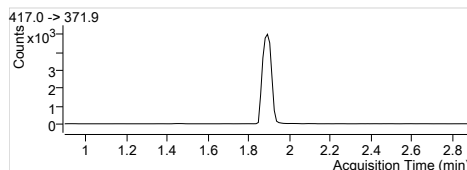
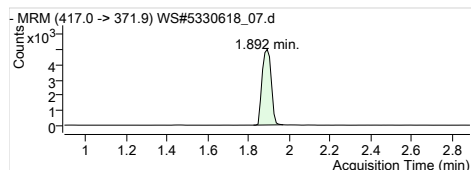
Quantitation Results



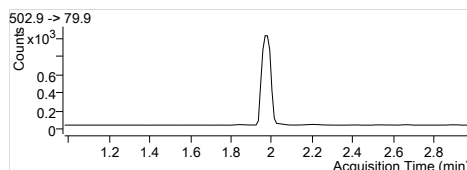
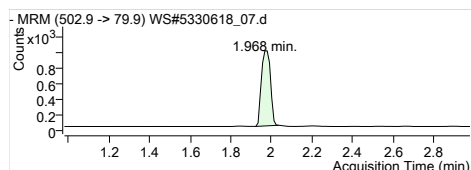
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 102.35 µg/L
 Sample type: 0.05431
 Calibration



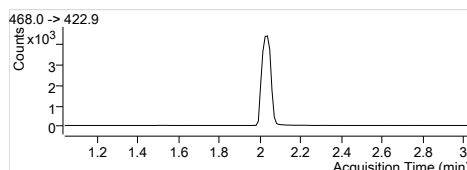
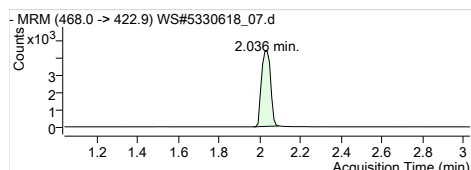
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 95.54 µg/L
 Sample type: 0.26504
 Calibration



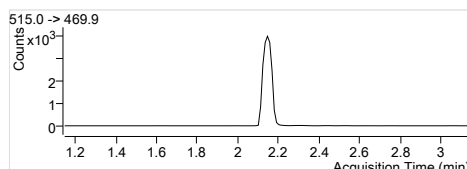
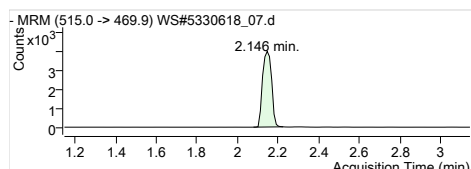
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 104.79 µg/L
 Sample type: 0.31393
 Calibration



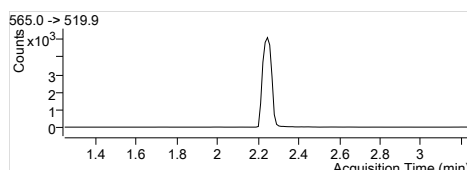
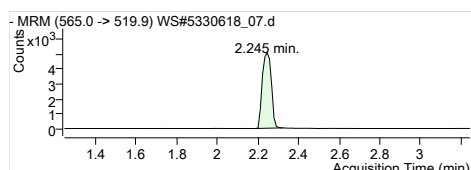
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 95.49 µg/L
 Sample type: 0.06164
 Calibration



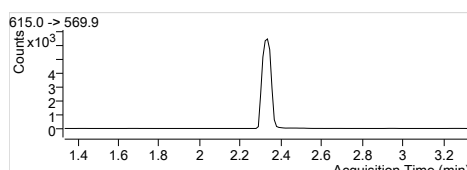
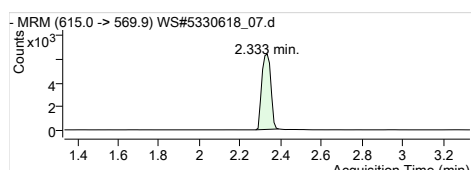
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 99.09 µg/L
 Sample type: 0.27759
 Calibration



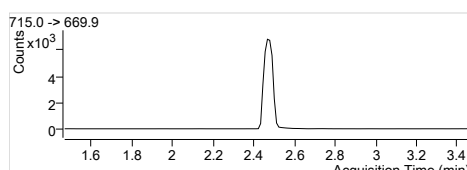
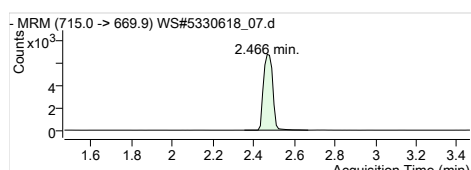
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 104.59 µg/L
 Sample type: 0.19920
 Calibration



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 107.99 µg/L
 Sample type: 0.25358
 Calibration

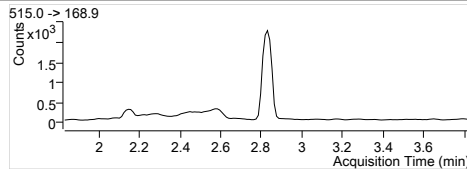
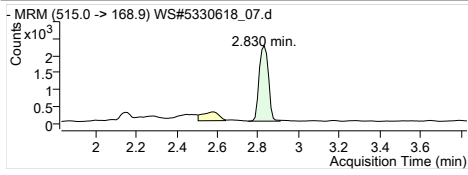


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 106.99 µg/L
 Sample type: 0.32018
 Calibration

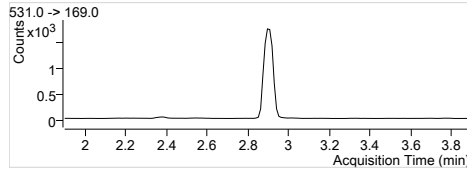
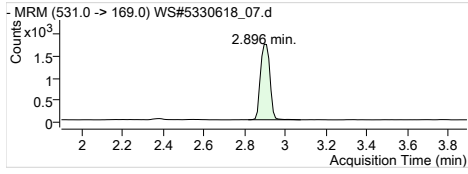


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 105.84 µg/L
 Sample type: 0.34762
 Calibration

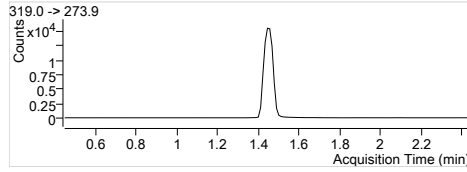
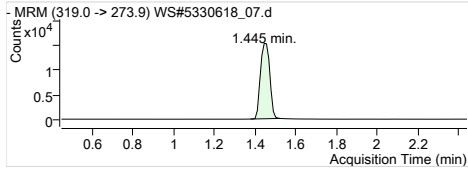
Quantitation Results



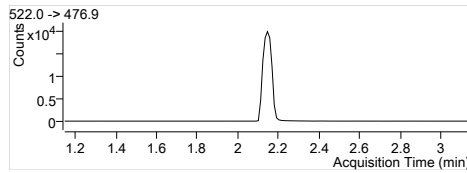
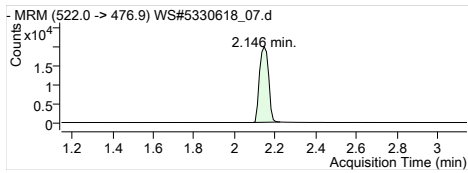
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 106.76 µg/L
Sample type: 0.14444
Calibration



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.896)
Area ratio: 99.85 µg/L
Sample type: 0.11416
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.445)
Area ratio: 101.35 µg/L
Sample type: 0
Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 99.08 µg/L
Sample type: 0
Calibration

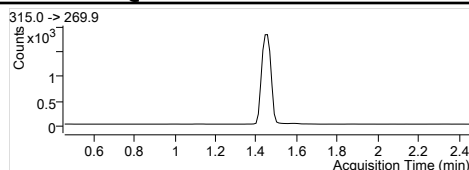
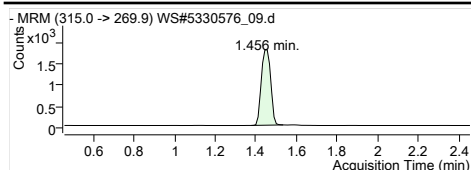
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	ICV	Instrument	LCMS04
Data File	WS#5330576_09.d	Operator	
Sample Type	QC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A9
Acq. Date	2018/01/13 2:27:35 AM	Injection Volume	Per Method
Sample Annotation	-		

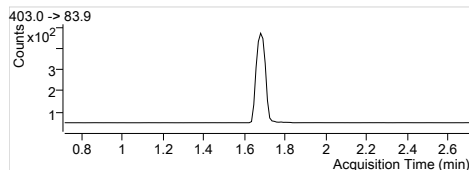
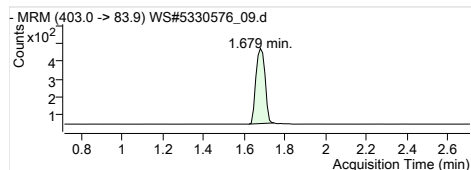
ISTD Compounds	Response	RT	Target conc.
MPFHxA	5747	1.46	1 µg/L
MPFHxS	1311	1.68	1 µg/L
MPFHpA	7107	1.71	1 µg/L
MPFOA	7409	1.89	1 µg/L
MPFOS	1677	1.98	1 µg/L
MPFNA	7197	2.04	1 µg/L
MPFDA	6039	2.15	1 µg/L
MPFUnA	7956	2.25	1 µg/L
MPFDoA	10195	2.33	1 µg/L
MPFTeDA	11155	2.47	1 µg/L
D3-MeFOSA IS	3510	2.83	1 µg/L
D5-EtFOSA IS	2677	2.90	1 µg/L
13C6-PFHxA IS	22296	1.44	1 µg/L
13C9-PFDA IS	27728	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	15778	1.10	20.80	22.33 µg/L	107.36
PFHxA 1	61795	1.46	20.80	24.99 µg/L	120.17
PFHxS 1	15049	1.68	20.80	24.34 µg/L	117.03
PFHpA 1	74230	1.71	20.80	25.03 µg/L	120.35
PFOA 1	85514	1.89	20.80	24.87 µg/L	119.57
PFOS 1	15267	1.97	20.80	21.88 µg/L	105.17
PFNA 1	74196	2.04	20.80	24.56 µg/L	118.08
PFDA 1	80195	2.15	20.80	24.65 µg/L	118.52
PFUnA 1	87645	2.25	20.80	23.47 µg/L	112.83
PFDaA 1	104809	2.33	20.80	22.86 µg/L	109.90
PFTTrDA 1	121137	2.40	20.80	23.38 µg/L	112.38
PFTeDA 1	98213	2.47	20.80	23.99 µg/L	115.33
MeFOSA 1	10804	2.83	20.80	25.59 µg/L	123.01
EtFOSA 1	10307	2.90	20.80	24.31 µg/L	116.87
13C2-PFHxA	5747	1.46	100.00	102.83 µg/L	102.83
18O2-PFHxS	1311	1.68	100.00	101.75 µg/L	101.75
13C4-PFHpA	7107	1.71	100.00	100.33 µg/L	100.33
13C4-PFOA	7409	1.89	100.00	101.42 µg/L	101.42
13C4-PFOS	1677	1.98	100.00	105.74 µg/L	105.74
13C5-PFNA	7173	2.04	100.00	100.40 µg/L	100.40
13C2-PFDA	5909	2.15	100.00	96.73 µg/L	96.73
13C2-PFUnA	7956	2.25	100.00	102.46 µg/L	102.46
13C2-PFDoA	10195	2.33	100.00	103.97 µg/L	103.97
13C2-PFTeDA	11387	2.47	100.00	103.39 µg/L	103.39
D3-MeFOSA	3598	2.83	100.00	100.45 µg/L	100.45
D5-EtFOSA	2739	2.90	100.00	94.02 µg/L	94.02
13C6-PFHxA	22296	1.44	100.00	104.56 µg/L	104.56
13C9-PFDA	27728	2.15	100.00	105.98 µg/L	105.98

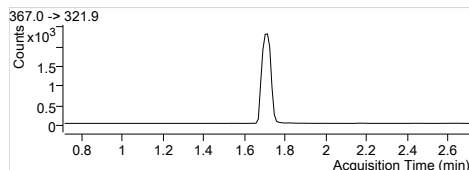
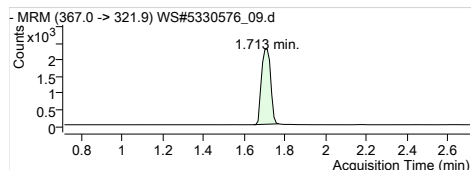
Quantitation Results



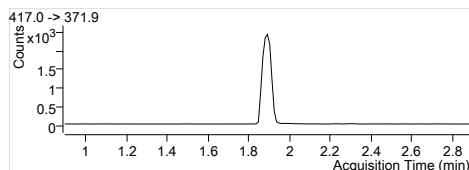
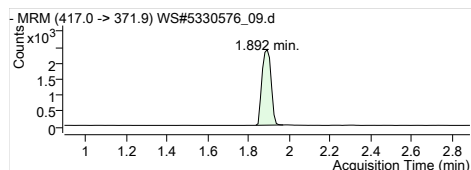
MPFHxA
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: QC



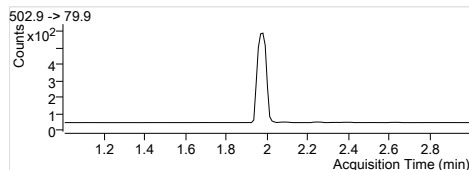
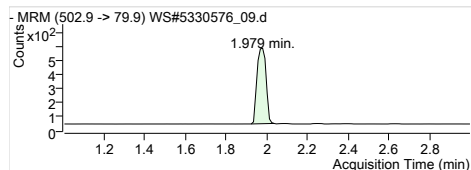
MPFHxS
 RT (Exp. RT): 1.679 (1.713)
 Concentration: 1 µg/L
 Sample type: QC



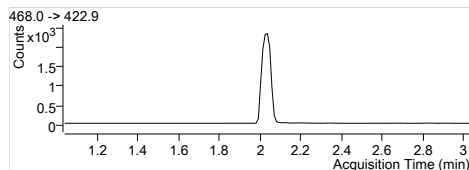
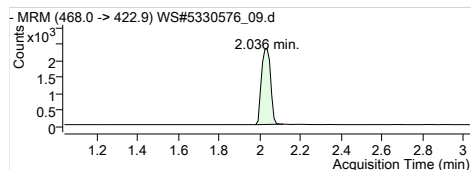
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: QC



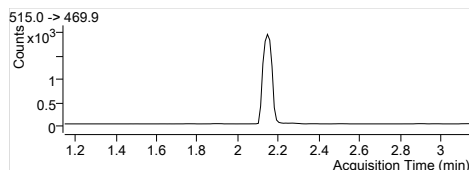
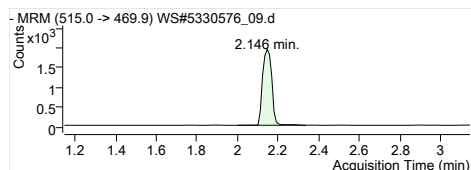
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: QC



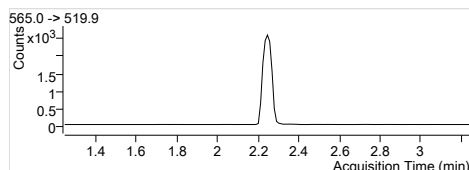
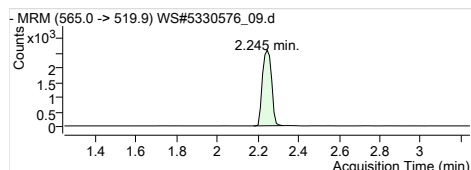
MPFOS
 RT (Exp. RT): 1.979 (2.002)
 Concentration: 1 µg/L
 Sample type: QC



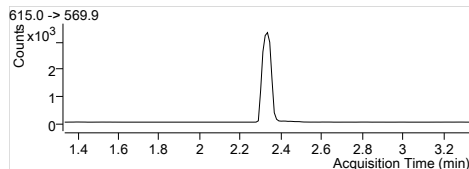
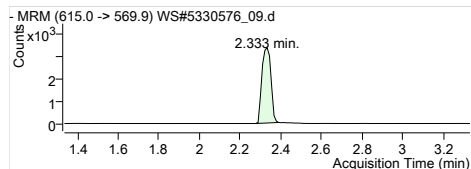
MPFNA
 RT (Exp. RT): 2.036 (2.036)
 Concentration: 1 µg/L
 Sample type: QC



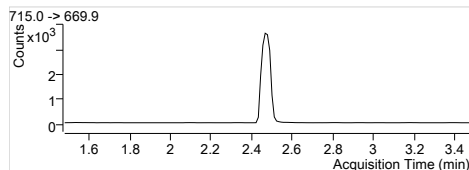
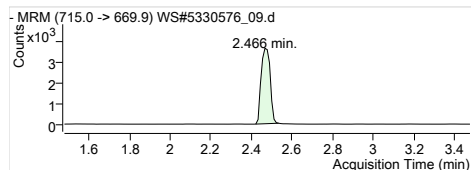
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: QC



MPFUxA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: QC

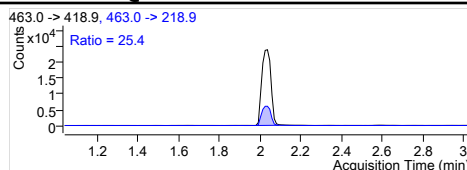
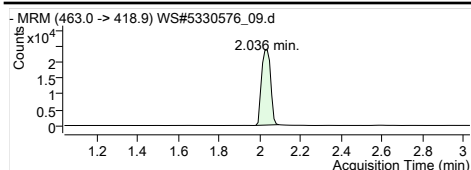


MPFDxA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: QC

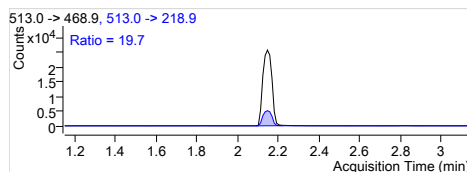
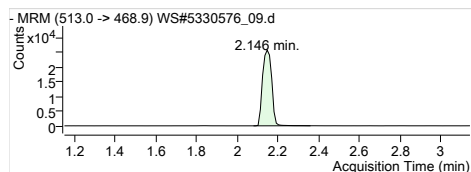


MPFTeDA
 RT (Exp. RT): 2.466 (2.478)
 Concentration: 1 µg/L
 Sample type: QC

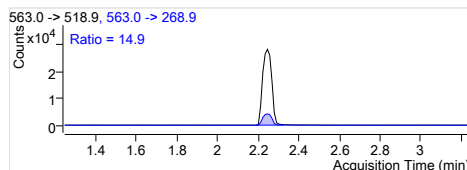
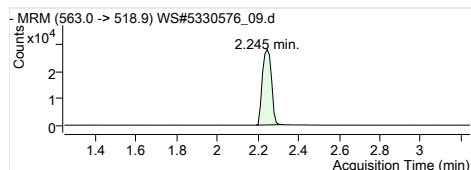
<p>MRM (515.0 -> 168.9) WS#5330576_09.d 2.830 min.</p>	<p>515.0 -> 168.9</p>	<p>D3-MeFOSA IS Internal Standard RT (Exp. RT): 2.830 (2.830) Concentration: 1 µg/L Sample type: QC</p>
<p>MRM (531.0 -> 169.0) WS#5330576_09.d 2.896 min.</p>	<p>531.0 -> 169.0</p>	<p>D5-EtFOSA IS Internal Standard RT (Exp. RT): 2.896 (2.907) Concentration: 1 µg/L Sample type: QC</p>
<p>MRM (319.0 -> 273.9) WS#5330576_09.d 1.445 min.</p>	<p>319.0 -> 273.9</p>	<p>13C6-PFHxA IS Internal Standard RT (Exp. RT): 1.445 (1.456) Concentration: 1 µg/L Sample type: QC</p>
<p>MRM (522.0 -> 476.9) WS#5330576_09.d 2.146 min.</p>	<p>522.0 -> 476.9</p>	<p>13C9-PFDA IS Internal Standard RT (Exp. RT): 2.146 (2.146) Concentration: 1 µg/L Sample type: QC</p>
<p>MRM (298.9 -> 79.9) WS#5330576_09.d 1.098 min.</p>	<p>298.9 -> 79.9, 298.9 -> 98.9 Ratio = 45.1</p>	<p>PFBS 1 RT (Exp. RT): 298.9 -> 79.9 Calc. conc. 1.098 (1.143) Area ratio: 22.33 µg/L 12.03509 Sample type: QC</p>
<p>MRM (313.0 -> 268.9) WS#5330576_09.d 1.456 min.</p>	<p>313.0 -> 268.9, 313.0 -> 118.9 Ratio = 4.1</p>	<p>PFHxA 1 RT (Exp. RT): 313.0 -> 268.9 Calc. conc. 1.456 (1.456) Area ratio: 24.99 µg/L 10.75257 Sample type: QC</p>
<p>MRM (398.9 -> 79.9) WS#5330576_09.d 1.679 min.</p>	<p>398.9 -> 79.9, 398.9 -> 98.9 Ratio = 49.3</p>	<p>PFHxS 1 RT (Exp. RT): 398.9 -> 79.9 Calc. conc. 1.679 (1.713) Area ratio: 24.34 µg/L 11.47902 Sample type: QC</p>
<p>MRM (363.0 -> 318.9) WS#5330576_09.d 1.713 min.</p>	<p>363.0 -> 318.9, 363.0 -> 168.9 Ratio = 20.9</p>	<p>PFHpA 1 RT (Exp. RT): 363.0 -> 318.9 Calc. conc. 1.713 (1.713) Area ratio: 25.03 µg/L 10.44463 Sample type: QC</p>
<p>MRM (413.0 -> 368.9) WS#5330576_09.d 1.892 min.</p>	<p>413.0 -> 368.9, 413.0 -> 168.9 Ratio = 27.7</p>	<p>PFOA 1 RT (Exp. RT): 413.0 -> 368.9 Calc. conc. 1.892 (1.892) Area ratio: 24.87 µg/L 11.54191 Sample type: QC</p>
<p>MRM (498.9 -> 79.9) WS#5330576_09.d 1.968 min.</p>	<p>498.9 -> 79.9, 498.9 -> 98.9 Ratio = 57.7</p>	<p>PFOS 1 RT (Exp. RT): 498.9 -> 79.9 Calc. conc. 1.968 (2.002) Area ratio: 21.88 µg/L 9.10376 Sample type: QC</p>



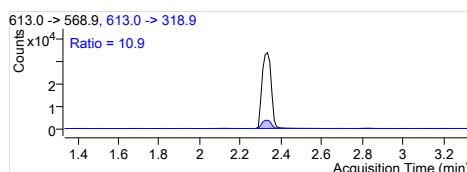
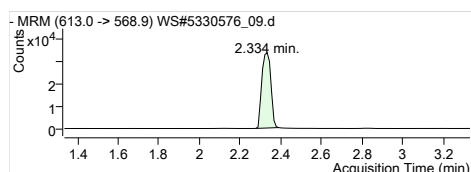
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 24.56 µg/L
 Sample type: 10.30930
 QC



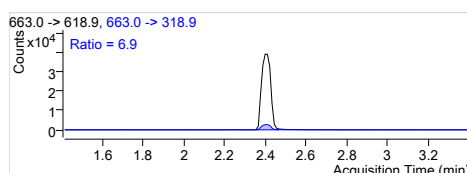
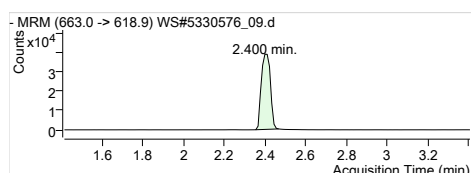
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 24.65 µg/L
 Sample type: 13.27952
 QC



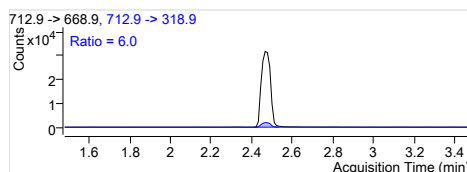
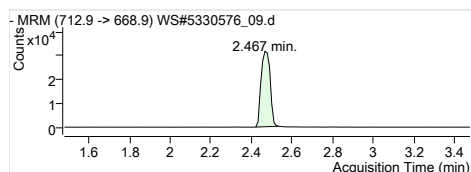
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 23.47 µg/L
 Sample type: 11.01621
 QC



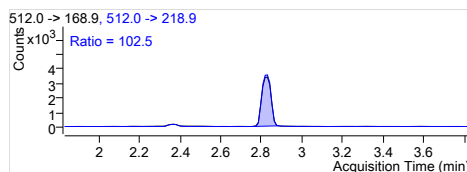
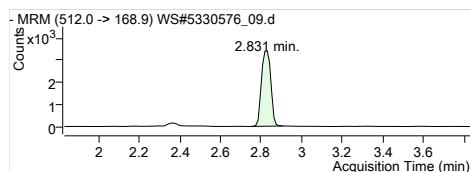
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 22.86 µg/L
 Sample type: 10.28043
 QC



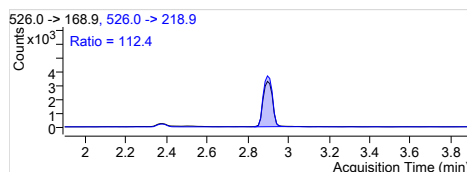
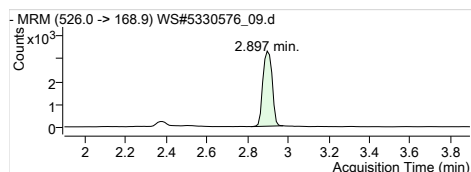
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.411)
 Area ratio: 23.38 µg/L
 Sample type: 10.85944
 QC



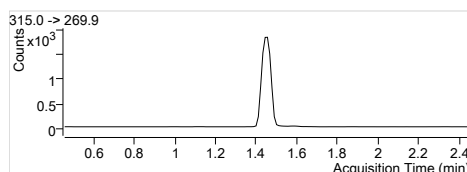
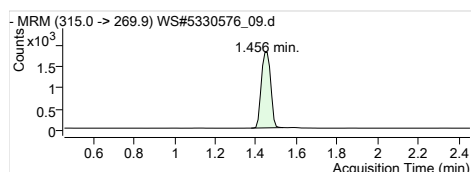
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.478)
 Area ratio: 23.99 µg/L
 Sample type: 8.80439
 QC



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.831 (2.831)
 Area ratio: 25.59 µg/L
 Sample type: 3.07806
 QC

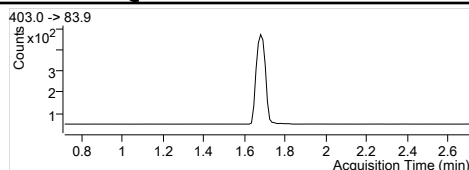
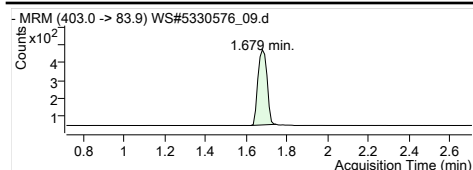


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 24.31 µg/L
 Sample type: 3.85021
 QC

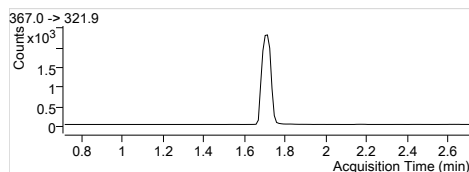
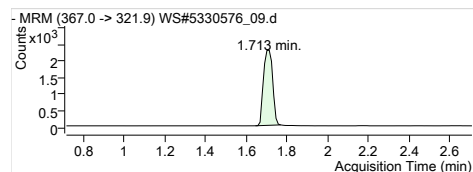


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 102.83 µg/L
 Sample type: 0.25776
 QC

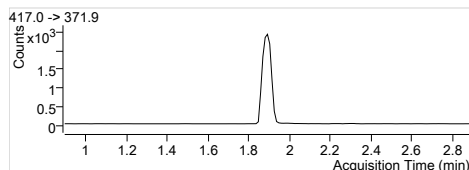
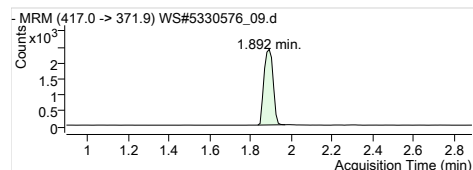
Quantitation Results



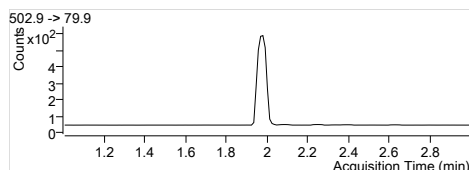
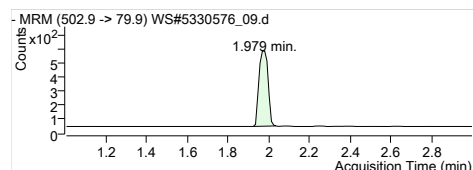
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 101.75 µg/L
 Sample type: 0.05880
 QC



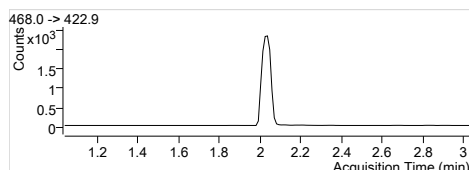
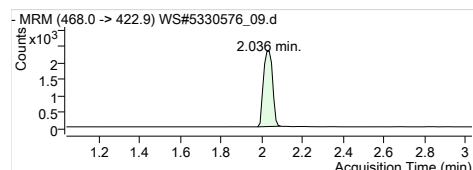
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 100.33 µg/L
 Sample type: 0.31876
 QC



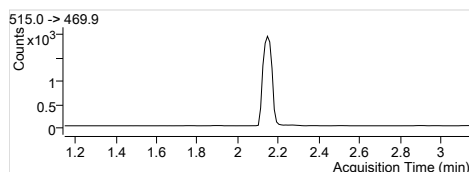
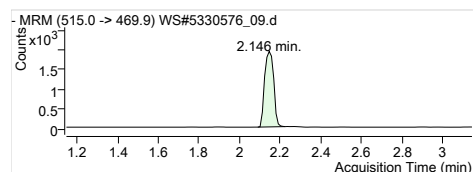
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 101.42 µg/L
 Sample type: 0.33230
 QC



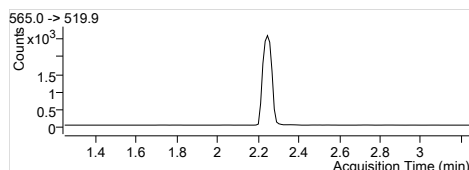
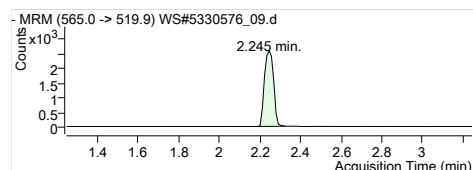
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (2.002)
 Area ratio: 105.74 µg/L
 Sample type: 0.07522
 QC



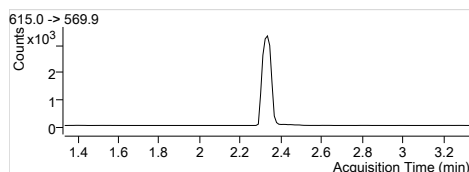
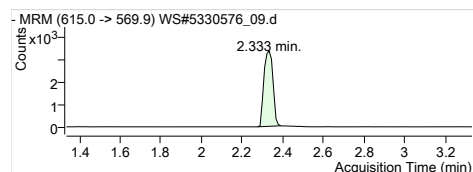
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 100.40 µg/L
 Sample type: 0.32172
 QC



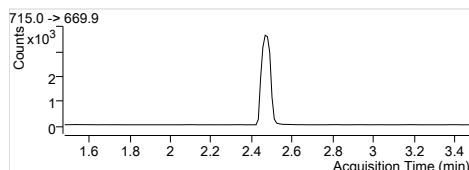
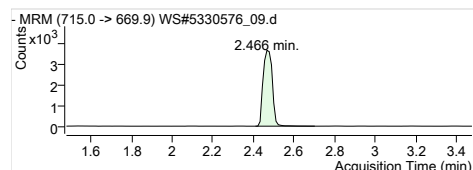
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 96.73 µg/L
 Sample type: 0.21311
 QC



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 102.46 µg/L
 Sample type: 0.28693
 QC

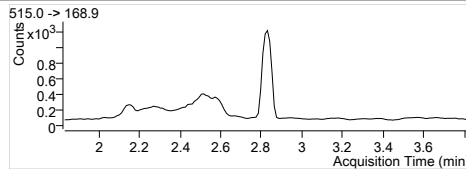
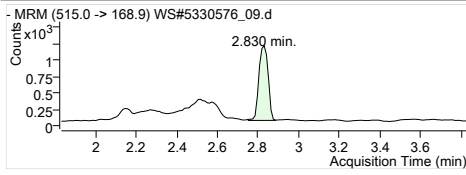


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 103.97 µg/L
 Sample type: 0.36768
 QC

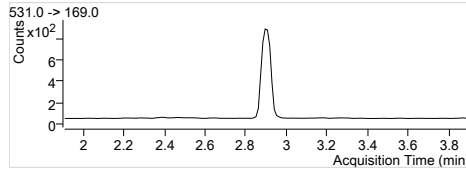
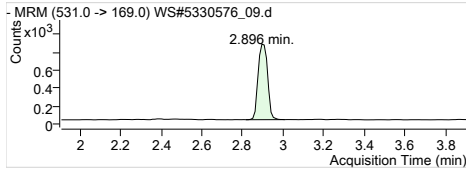


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.478)
 Area ratio: 103.39 µg/L
 Sample type: 0.41067
 QC

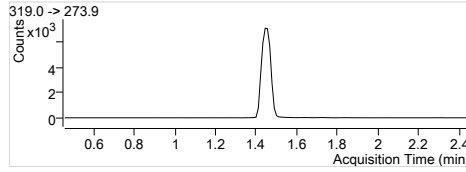
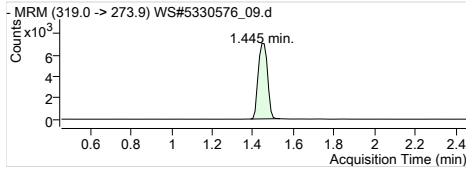
Quantitation Results



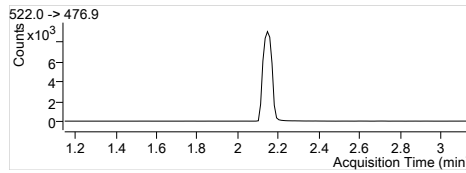
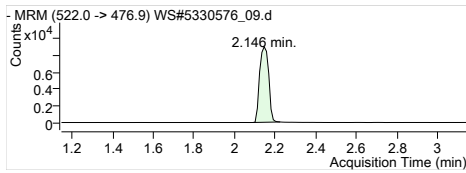
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 100.45 µg/L
Area ratio: 0.16137
Sample type: QC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.907)
Calc. conc. 94.02 µg/L
Area ratio: 0.12285
Sample type: QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.456)
Calc. conc. 104.56 µg/L
Area ratio: 0
Sample type: QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 105.98 µg/L
Area ratio: 0
Sample type: QC

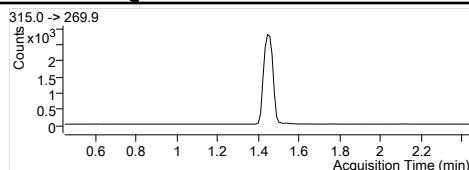
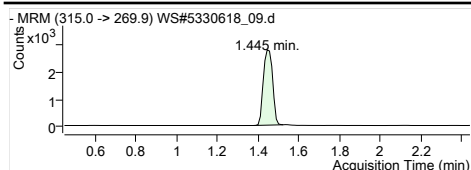
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	ICV	Instrument	LCMS04
Data File	WS#5330618_09.d	Operator	
Sample Type	QC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-E7
Acq. Date	2018/01/13 5:54:46 AM	Injection Volume	Per Method
Sample Annotation	-		

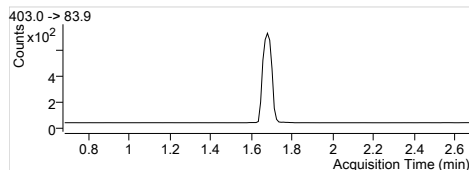
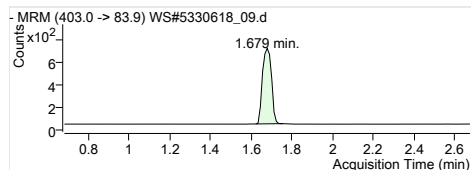
ISTD Compounds	Response	RT	Target conc.	
MPFHxA	8739	1.44	1 µg/L	
MPFHxS	2086	1.68	1 µg/L	
MPFHpA	10634	1.70	1 µg/L	
MPFOA	11528	1.89	1 µg/L	
MPFOS	2773	1.97	1 µg/L	
MPFNA	11086	2.04	1 µg/L	
MPFDA	9558	2.15	1 µg/L	
MPFUnA	11667	2.25	1 µg/L	
MPFDoA	14748	2.33	1 µg/L	
MPFTeDA	15656	2.47	1 µg/L	
D3-MeFOSA IS	5231	2.83	1 µg/L	
D5-EtFOSA IS	4185	2.90	1 µg/L	
13C6-PFHxA IS	39438	1.44	1 µg/L	
13C9-PFDA IS	49484	2.15	1 µg/L	

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	24776	1.10	20.80	23.44 µg/L	112.68
PFHxA 1	90179	1.44	20.80	24.25 µg/L	116.61
PFHxS 1	21854	1.68	20.80	24.01 µg/L	115.43
PFHpA 1	107425	1.70	20.80	23.16 µg/L	111.34
PFOA 1	121082	1.89	20.80	23.65 µg/L	113.68
PFOS 1	21475	1.97	20.80	19.45 µg/L	93.51
PFNA 1	105761	2.04	20.80	22.62 µg/L	108.73
PFDA 1	113091	2.15	20.80	22.87 µg/L	109.96
PFUnA 1	128010	2.25	20.80	23.51 µg/L	113.02
PFDoA 1	156432	2.33	20.80	24.68 µg/L	118.63
PFTrDA 1	172707	2.40	20.80	24.55 µg/L	118.01
PFTeDA 1	138361	2.47	20.80	23.95 µg/L	115.13
MeFOSA 1	15007	2.83	20.80	22.22 µg/L	106.83
EtFOSA 1	15509	2.90	20.80	23.39 µg/L	112.44
13C2-PFHxA	8739	1.44	100.00	100.07 µg/L	100.07
18O2-PFHxS	2086	1.68	100.00	99.67 µg/L	99.67
13C4-PFHpA	10634	1.70	100.00	97.19 µg/L	97.19
13C4-PFOA	11528	1.89	100.00	97.57 µg/L	97.57
13C4-PFOS	2773	1.97	100.00	108.93 µg/L	108.93
13C5-PFNA	10994	2.04	100.00	99.51 µg/L	99.51
13C2-PFDA	9342	2.15	100.00	99.13 µg/L	99.13
13C2-PFUnA	11667	2.25	100.00	100.41 µg/L	100.41
13C2-PFDoA	14748	2.33	100.00	99.59 µg/L	99.59
13C2-PFTeDA	15897	2.47	100.00	97.81 µg/L	97.81
D3-MeFOSA	5387	2.83	100.00	100.96 µg/L	100.96
D5-EtFOSA	4275	2.90	100.00	94.81 µg/L	94.81
13C6-PFHxA	39438	1.44	100.00	81.55 µg/L	81.55
13C9-PFDA	49484	2.15	100.00	79.92 µg/L	79.92

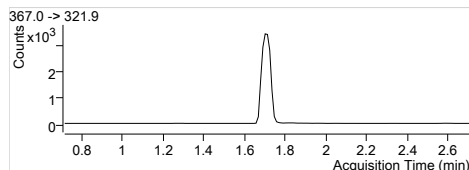
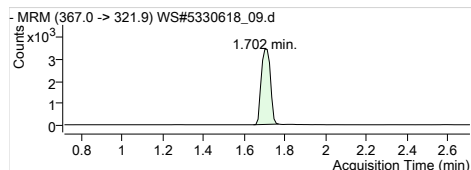
Quantitation Results



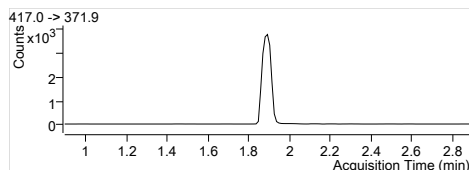
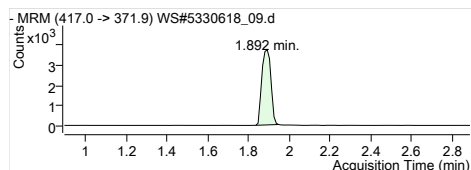
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: QC



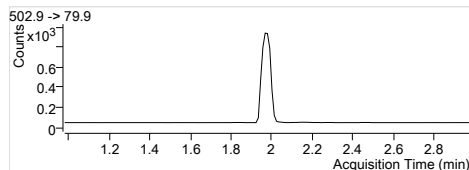
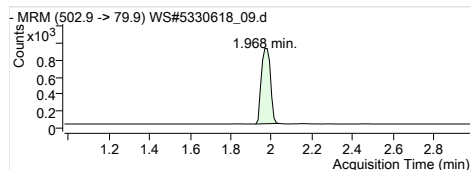
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



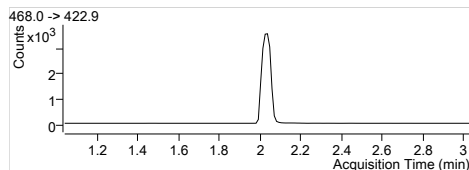
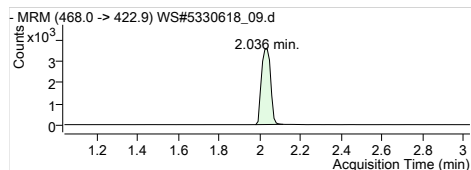
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: QC



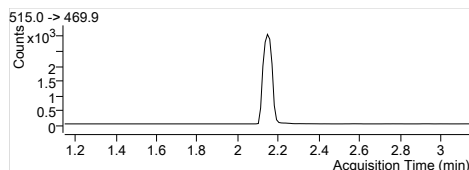
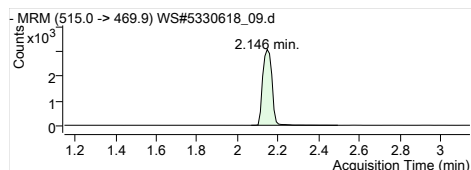
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



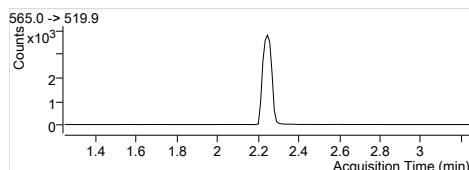
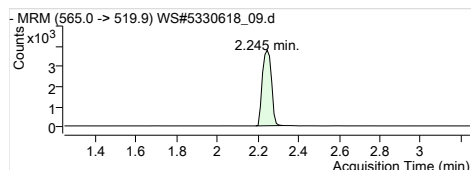
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: QC



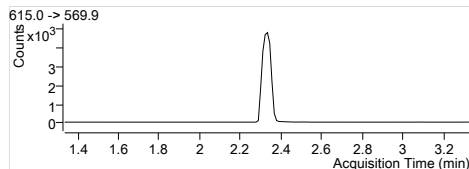
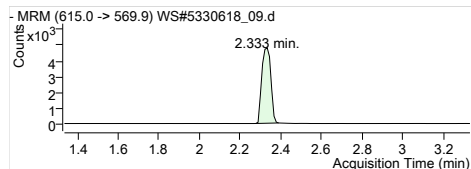
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC



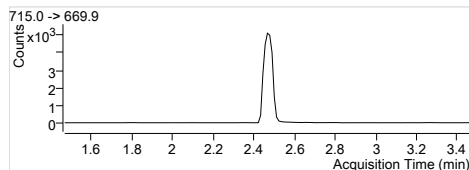
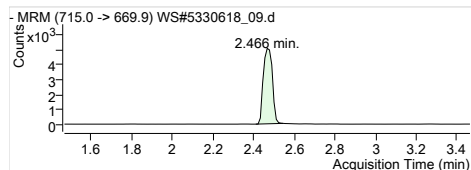
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



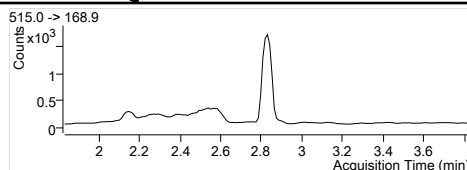
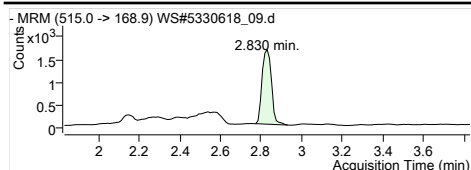
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



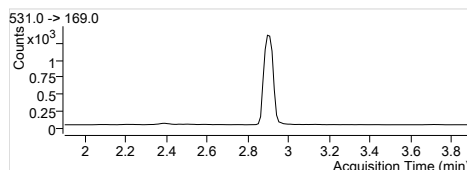
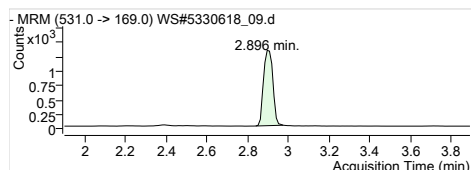
MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: QC



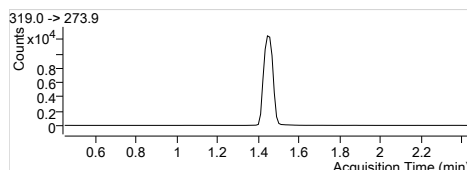
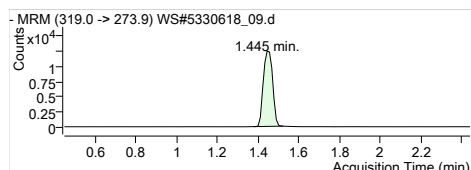
MPFTEA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: QC



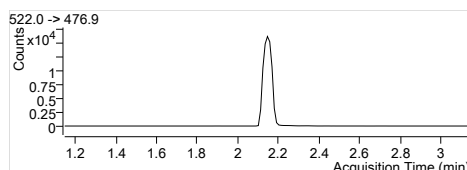
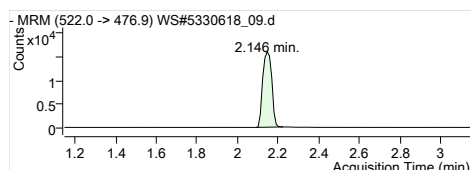
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: QC



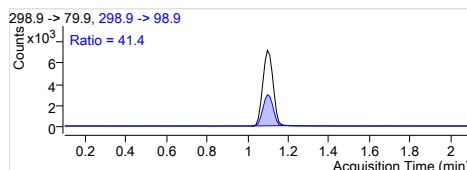
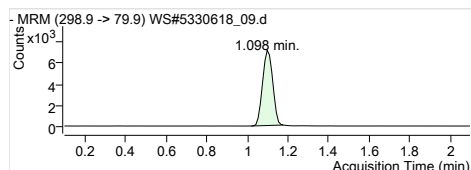
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: QC



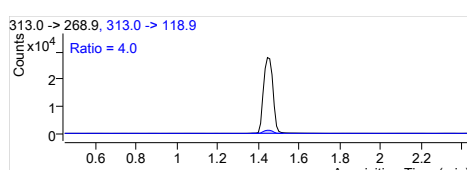
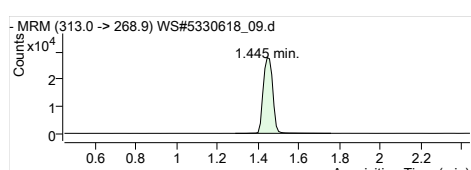
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: QC



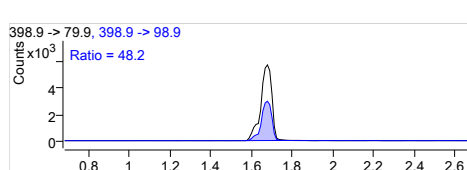
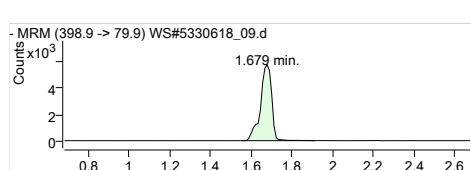
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: QC



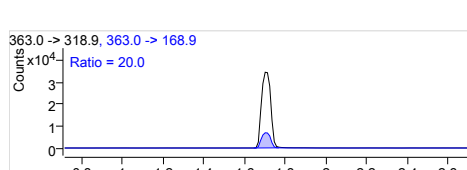
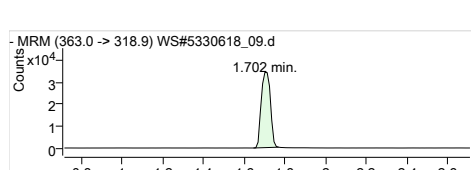
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 23.44 µg/L
 11.87728
 Sample type: QC



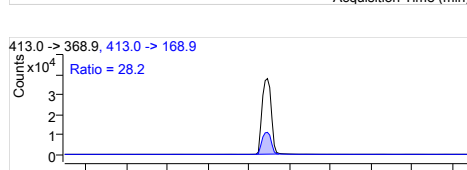
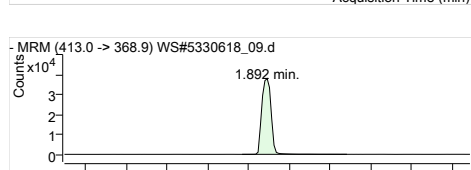
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 24.25 µg/L
 10.31914
 Sample type: QC



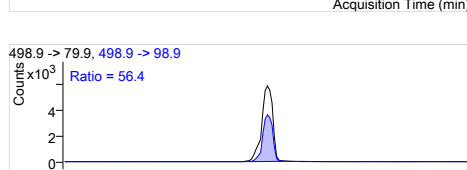
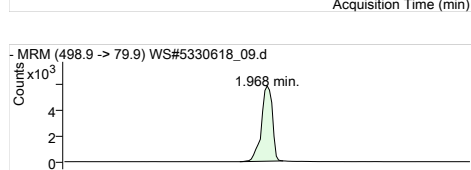
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 24.01 µg/L
 10.47651
 Sample type: QC



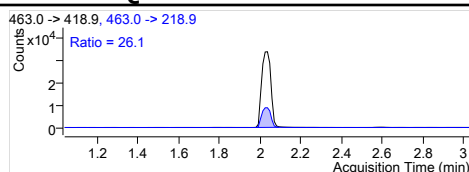
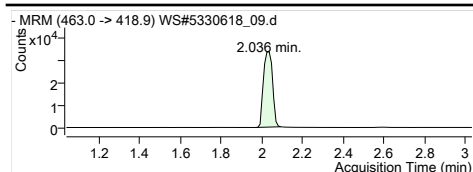
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 23.16 µg/L
 10.10203
 Sample type: QC



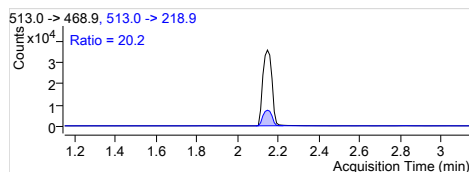
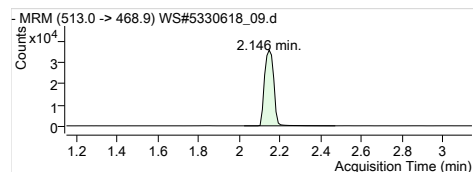
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 23.65 µg/L
 10.50330
 Sample type: QC



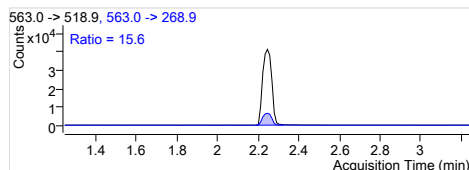
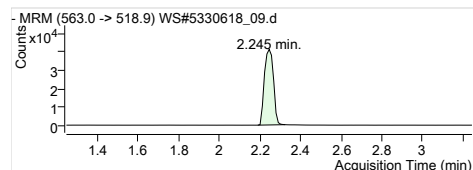
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 19.45 µg/L
 7.74432
 Sample type: QC



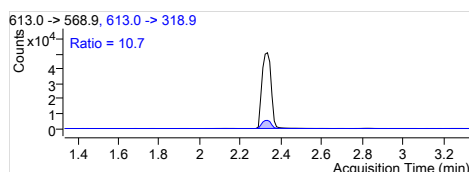
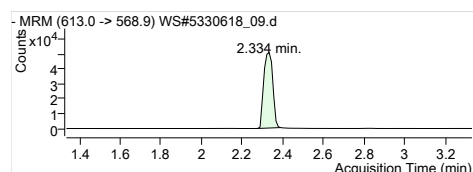
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 22.62 µg/L
 Sample type: 9.54005
 QC



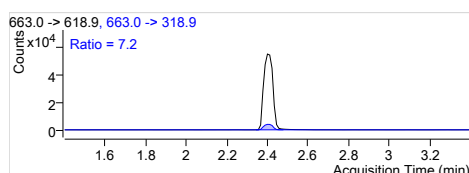
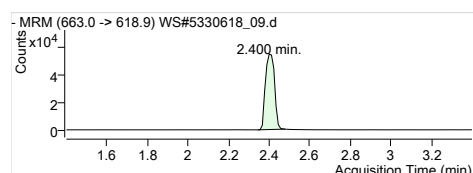
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 22.87 µg/L
 Sample type: 11.83208
 QC



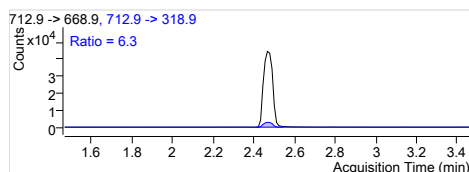
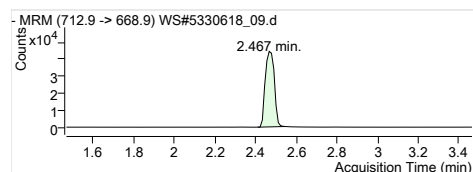
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 23.51 µg/L
 Sample type: 10.97197
 QC



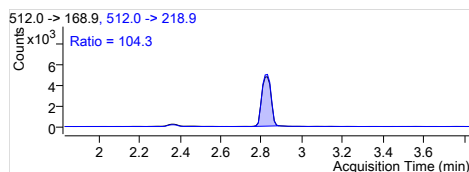
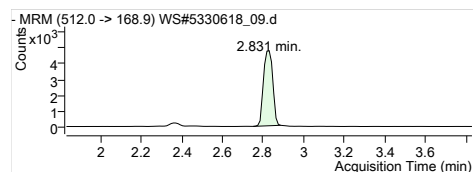
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 24.68 µg/L
 Sample type: 10.60700
 QC



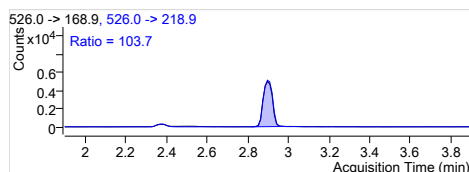
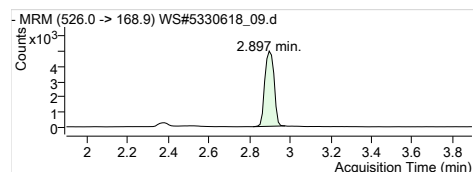
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 24.55 µg/L
 Sample type: 11.03136
 QC



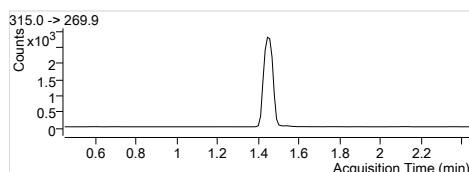
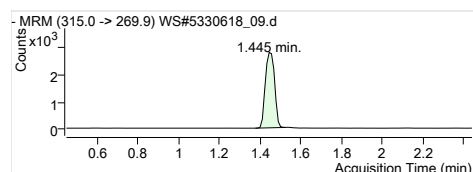
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 23.95 µg/L
 Sample type: 8.83757
 QC



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.831 (2.831)
 Area ratio: 22.22 µg/L
 Sample type: 2.86886
 QC

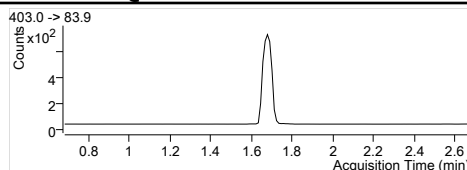
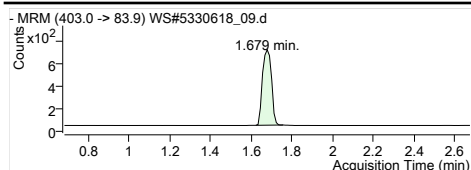


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 23.39 µg/L
 Sample type: 3.70585
 QC

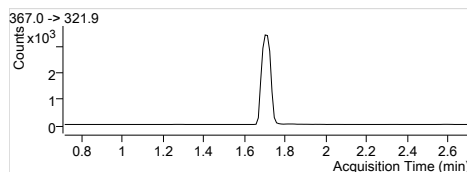
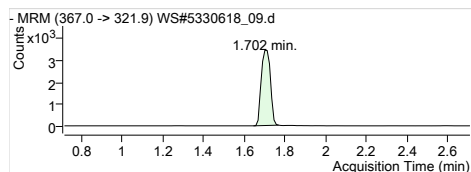


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 100.07 µg/L
 Sample type: 0.22159
 QC

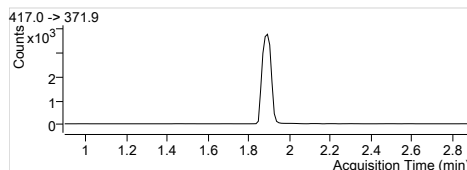
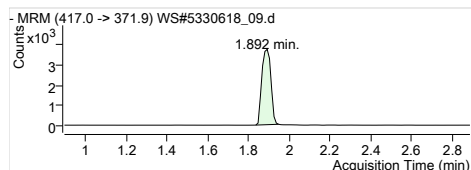
Quantitation Results



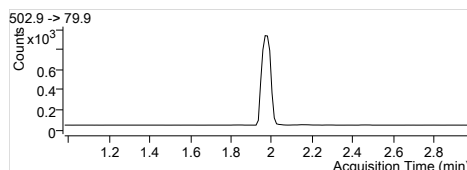
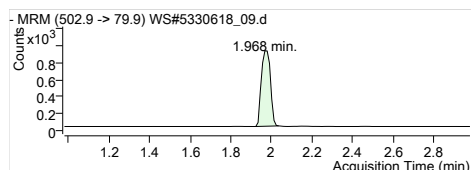
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 99.67 µg/L
 Sample type: 0.05289
 QC



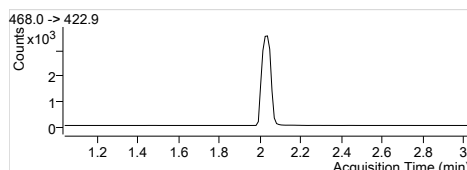
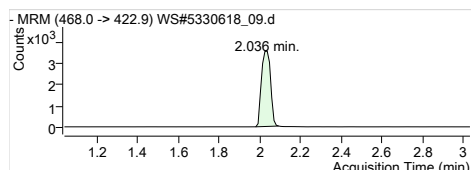
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 97.19 µg/L
 Sample type: 0.26964
 QC



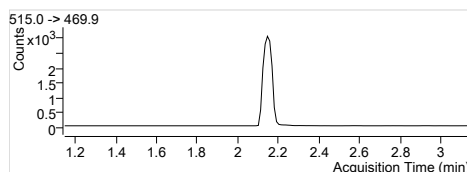
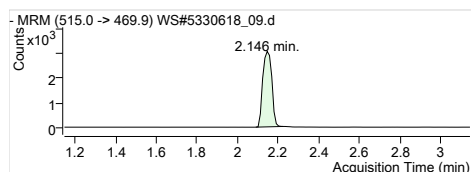
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 97.57 µg/L
 Sample type: 0.29231
 QC



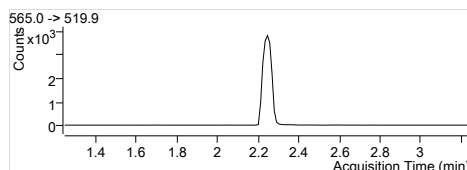
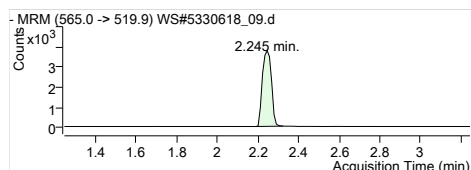
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 108.93 µg/L
 Sample type: 0.07031
 QC



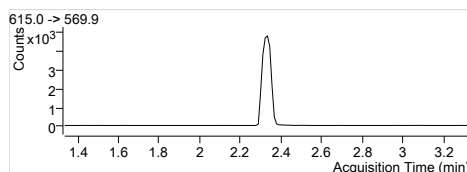
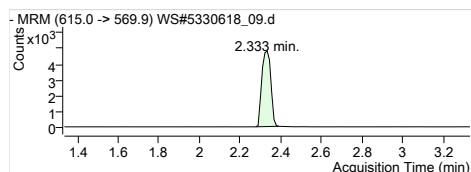
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 99.51 µg/L
 Sample type: 0.27877
 QC



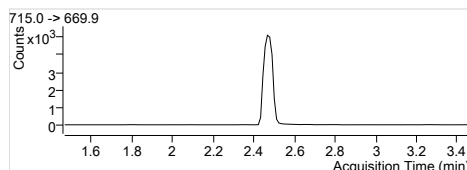
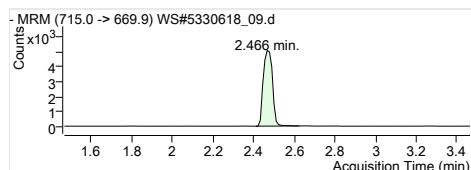
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 99.13 µg/L
 Sample type: 0.18879
 QC



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 100.41 µg/L
 Sample type: 0.23577
 QC

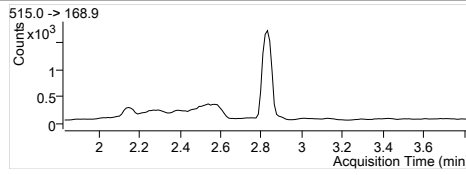
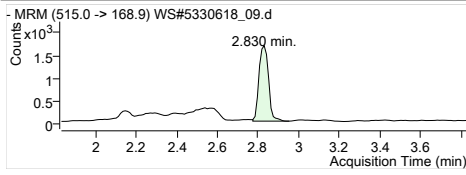


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 99.59 µg/L
 Sample type: 0.29804
 QC

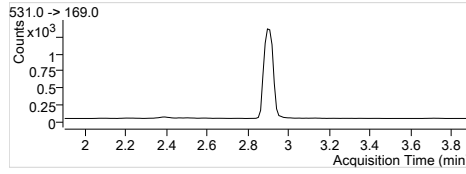
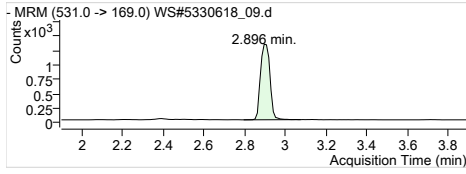


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 97.81 µg/L
 Sample type: 0.32126
 QC

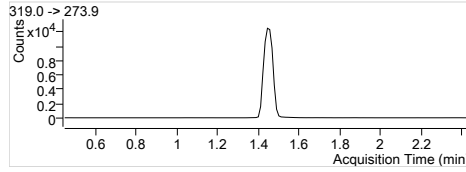
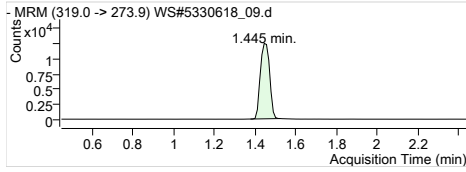
Quantitation Results



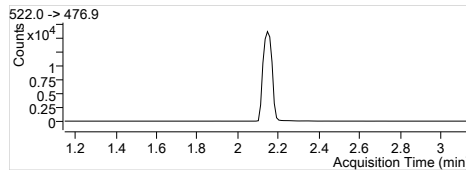
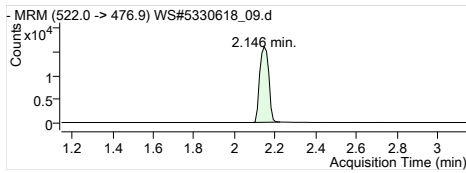
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 100.96 µg/L
Area ratio: 0.13659
Sample type: QC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 94.81 µg/L
Area ratio: 0.10840
Sample type: QC



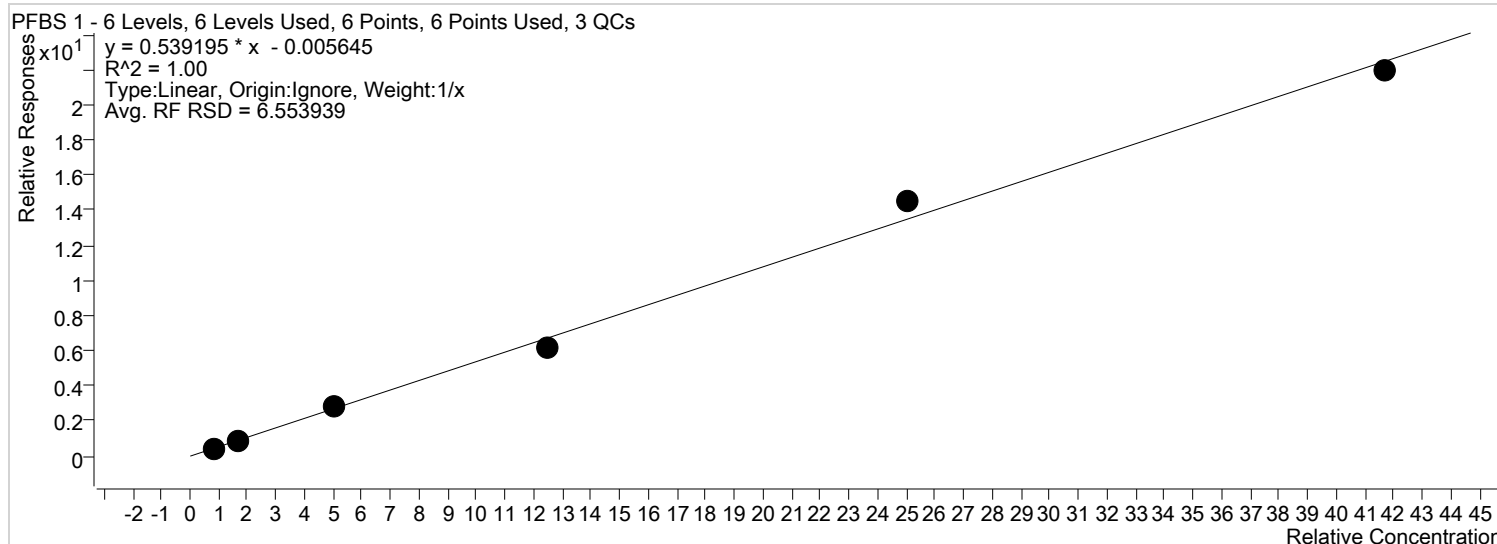
13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 81.55 µg/L
Area ratio: 0
Sample type: QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 79.92 µg/L
Area ratio: 0
Sample type: QC

By Compound Report

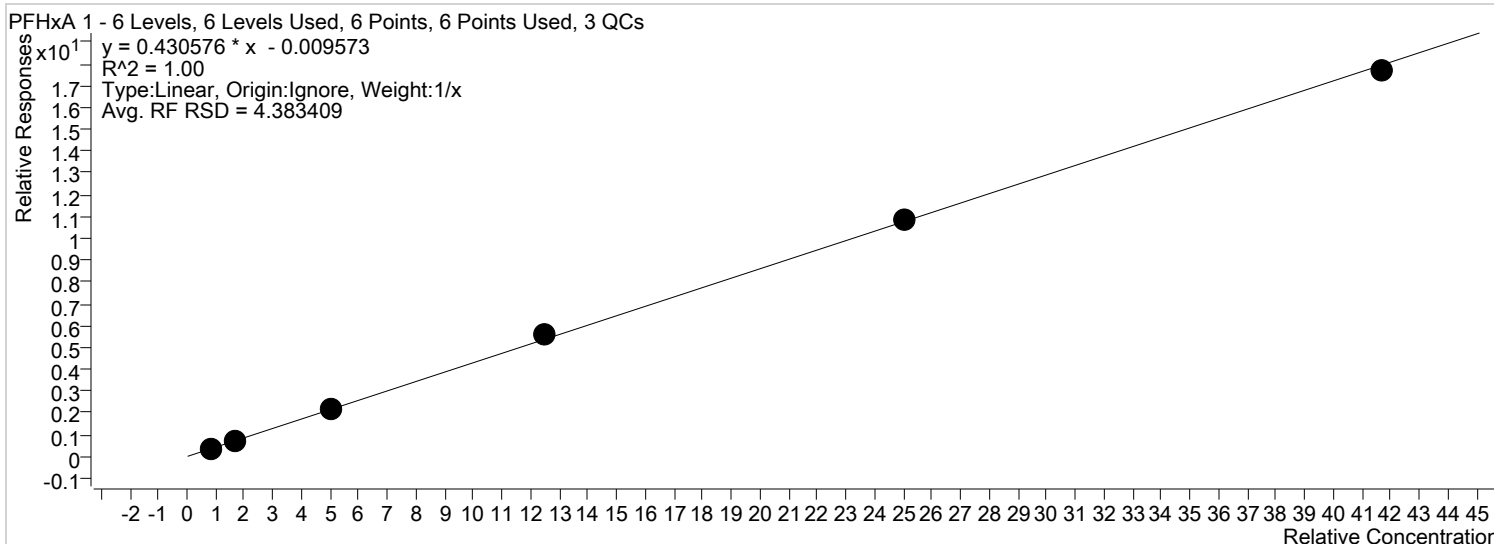
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.81	528	0.5185	42	97.4
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.70	1161	0.5344	159	99.7
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	5.37	3127	0.5775	210	107.3
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	11.33	7360	0.4882	514	90.6
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	26.83	17077	0.5784	205	107.3
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	40.70	30916	0.5262	386	97.6

By Compound Report

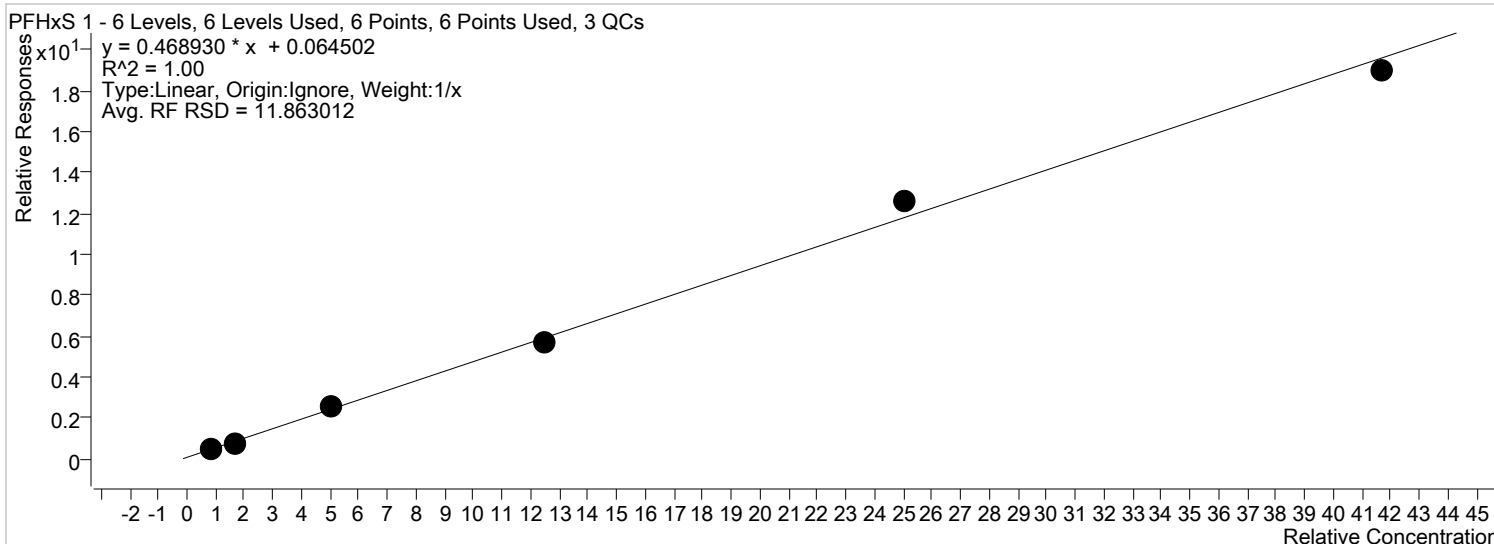
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.85	1907	0.4297	121	102.5
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.57	3636	0.3924	159	92.4
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	5.11	10763	0.4378	597	102.1
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.99	26720	0.4468	1747	104.0
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	25.12	59003	0.4323	2348	100.5
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	41.08	107955	0.4240	5406	98.5

By Compound Report

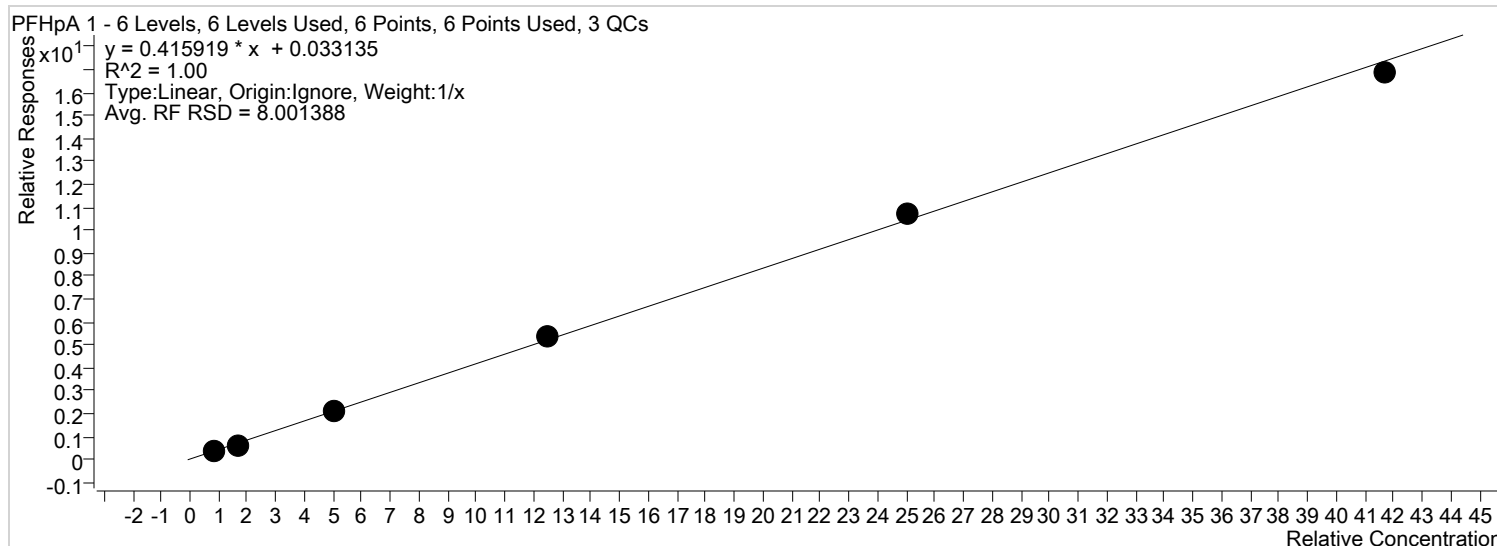
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.92	607	0.5960	97	110.5
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.44	946	0.4354	103	84.8
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	5.24	2732	0.5045	459	104.8
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.00	6864	0.4553	496	96.0
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	26.77	14902	0.5047	1360	107.1
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	40.36	26757	0.4554	1344	96.8

By Compound Report

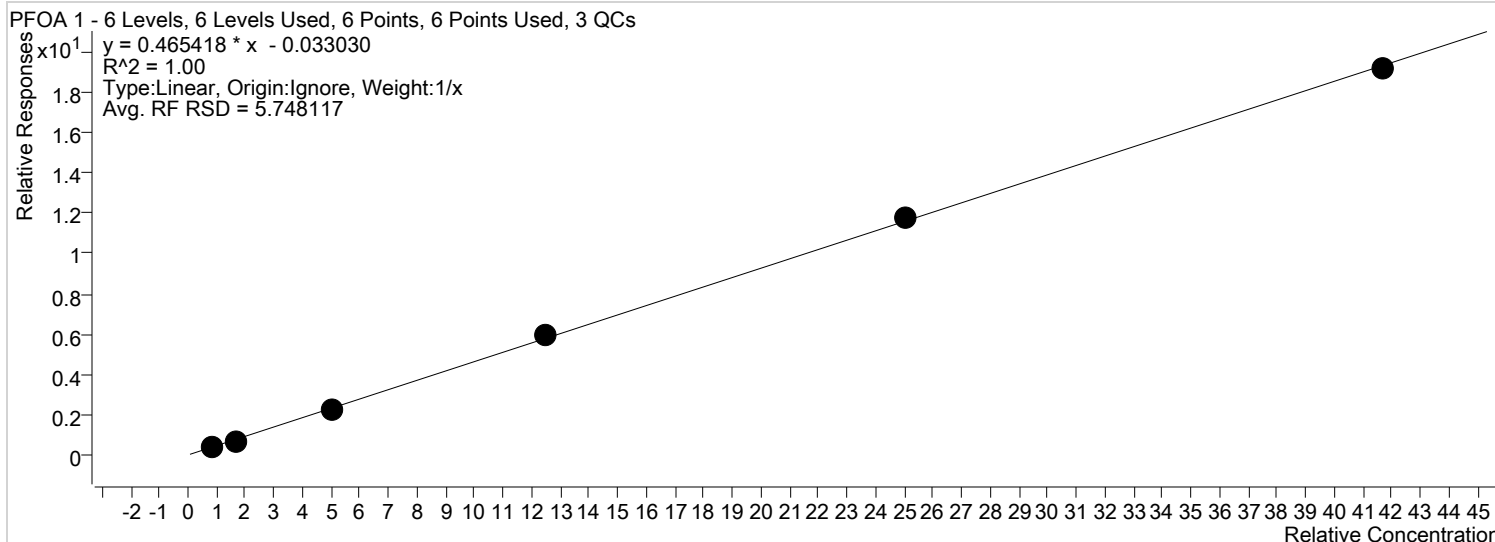
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.89	2677	0.4851	35	107.0
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.49	4751	0.3834	60	87.5
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	5.06	12996	0.4274	113	101.2
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.99	32906	0.4348	154	103.9
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	25.84	73647	0.4312	213	103.4
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	40.47	130355	0.4045	162	97.1

By Compound Report

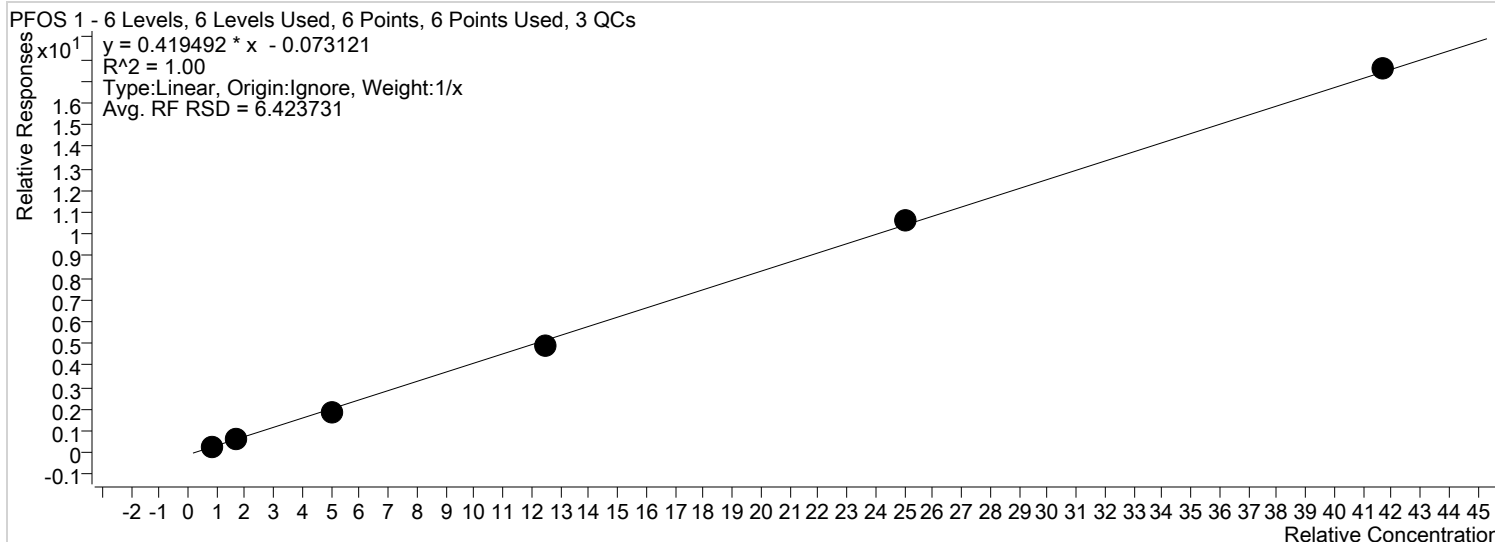
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.90	2760	0.4656	40	108.6
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.54	4888	0.4019	66	90.5
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	4.95	14895	0.4538	183	98.9
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.70	37339	0.4703	426	101.6
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	25.29	82486	0.4695	1063	101.2
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	41.35	146887	0.4607	1884	99.2

By Compound Report

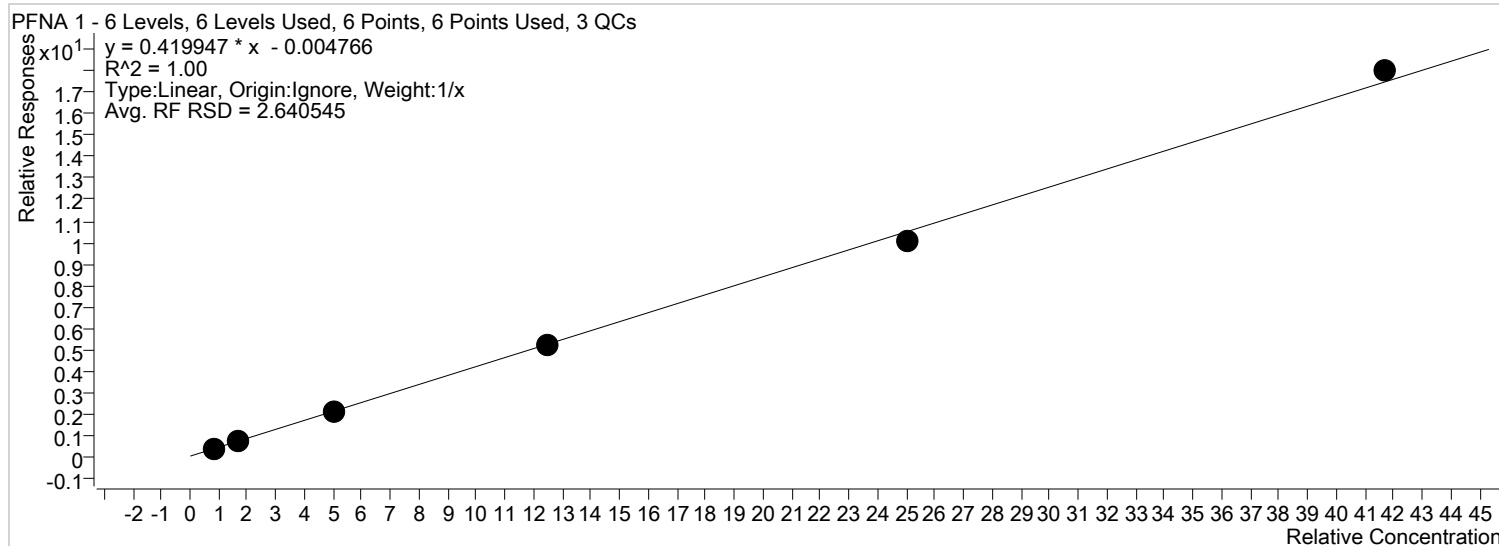
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.89	490	0.3613	56	107.1
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.73	1000	0.3830	165	101.5
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	4.64	2877	0.3746	153	92.8
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.00	6743	0.3969	144	96.0
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	25.42	15343	0.4235	155	101.7
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	42.06	27584	0.4213	157	100.9

By Compound Report

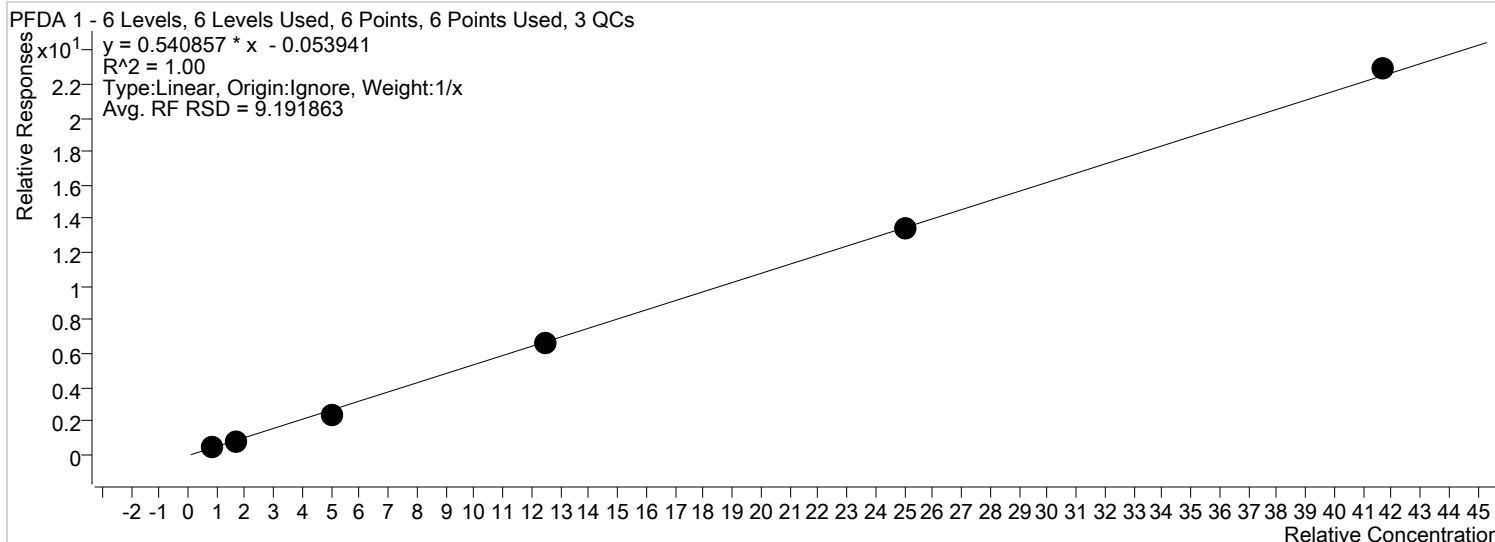
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.85	2479	0.4256	67	102.7
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.72	4851	0.4225	168	101.3
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	4.91	13380	0.4116	287	98.2
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.40	32588	0.4161	519	99.2
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	23.90	74216	0.4013	3110	95.6
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	42.95	132218	0.4324	2440	103.0

By Compound Report

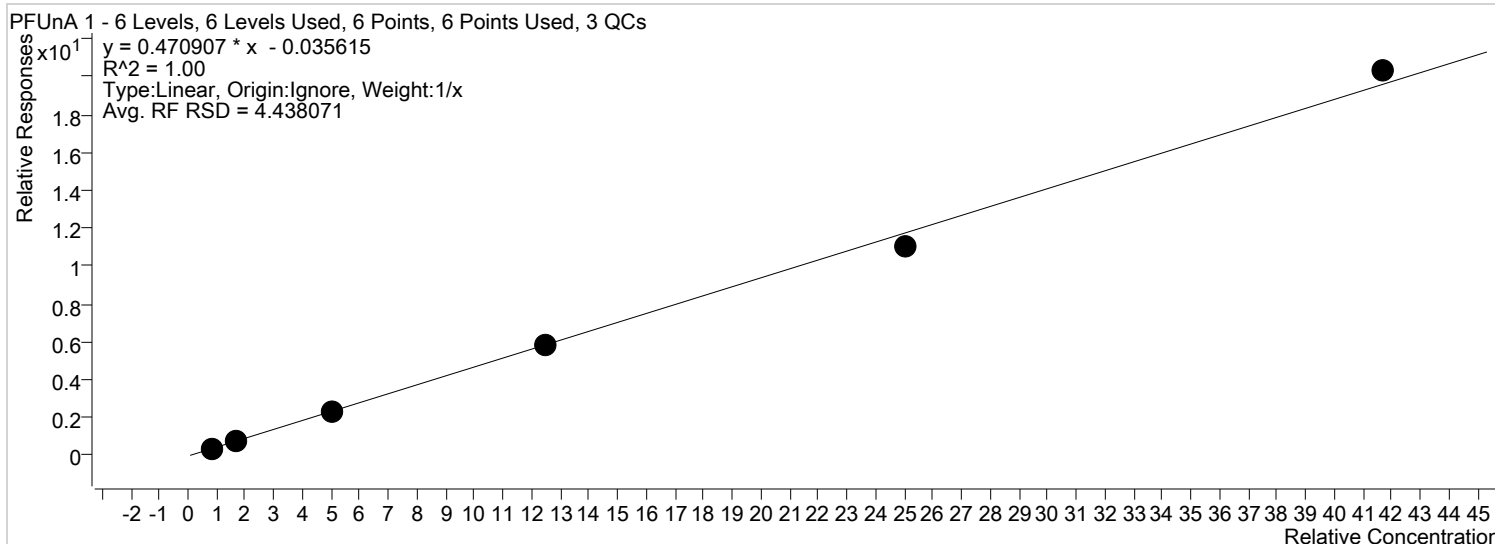
Batch Path T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.99	2863	0.5825	54	119.7
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.51	4674	0.4499	76	89.1
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	4.55	13720	0.4816	256	91.0
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.38	35112	0.5314	421	99.0
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	24.84	79171	0.5352	684	99.4
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	42.45	141055	0.5493	1322	101.8

By Compound Report

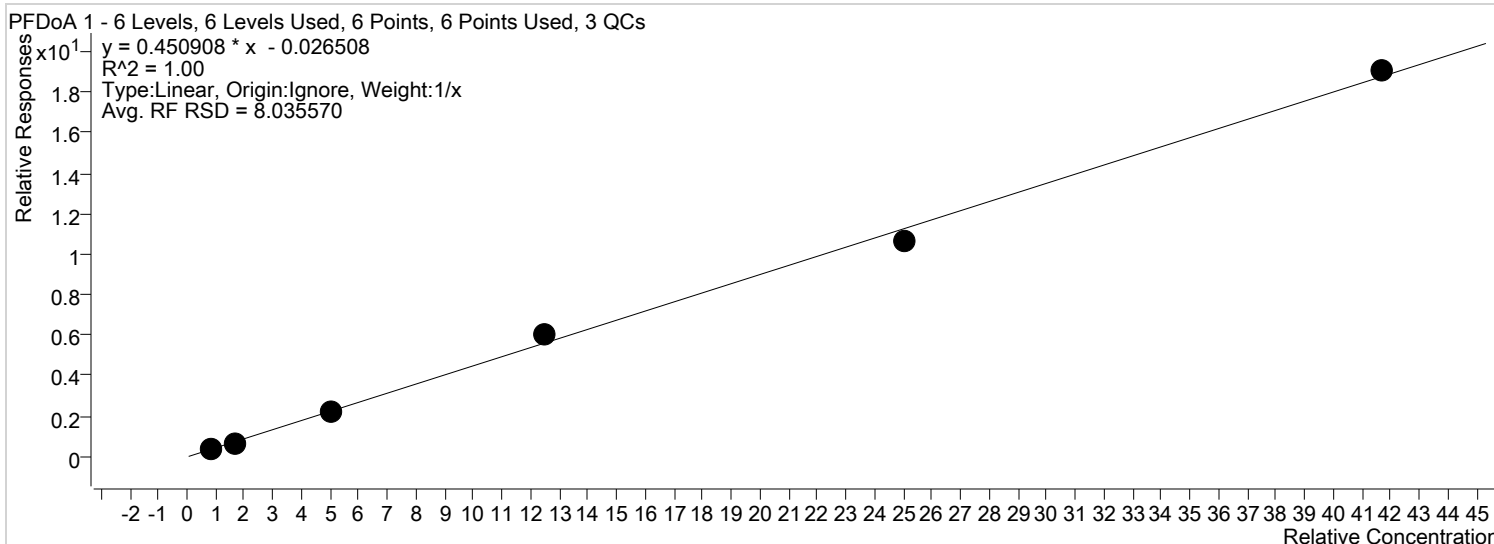
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.84	2724	0.4347	36	101.4
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.70	5344	0.4488	52	99.8
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	5.10	15638	0.4734	158	102.0
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.41	39936	0.4647	247	99.3
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	23.46	88377	0.4405	252	93.8
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	43.22	159388	0.4872	308	103.6

By Compound Report

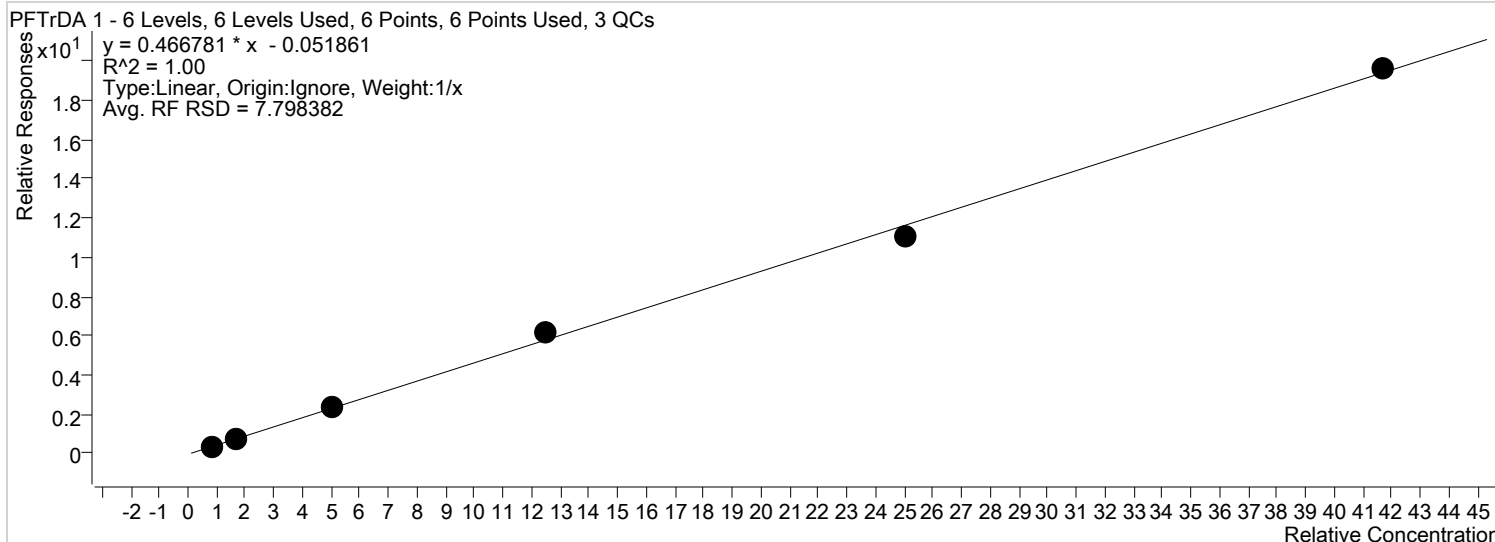
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFDa 1
Internal Standard: MPFDaA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.92	3632	0.4687	71	111.0
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.49	6161	0.3801	206	87.8
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	4.91	18583	0.4373	426	98.2
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	13.31	47391	0.4779	1348	106.5
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	23.77	106968	0.4276	2807	95.1
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	42.33	193841	0.4571	6876	101.5

By Compound Report

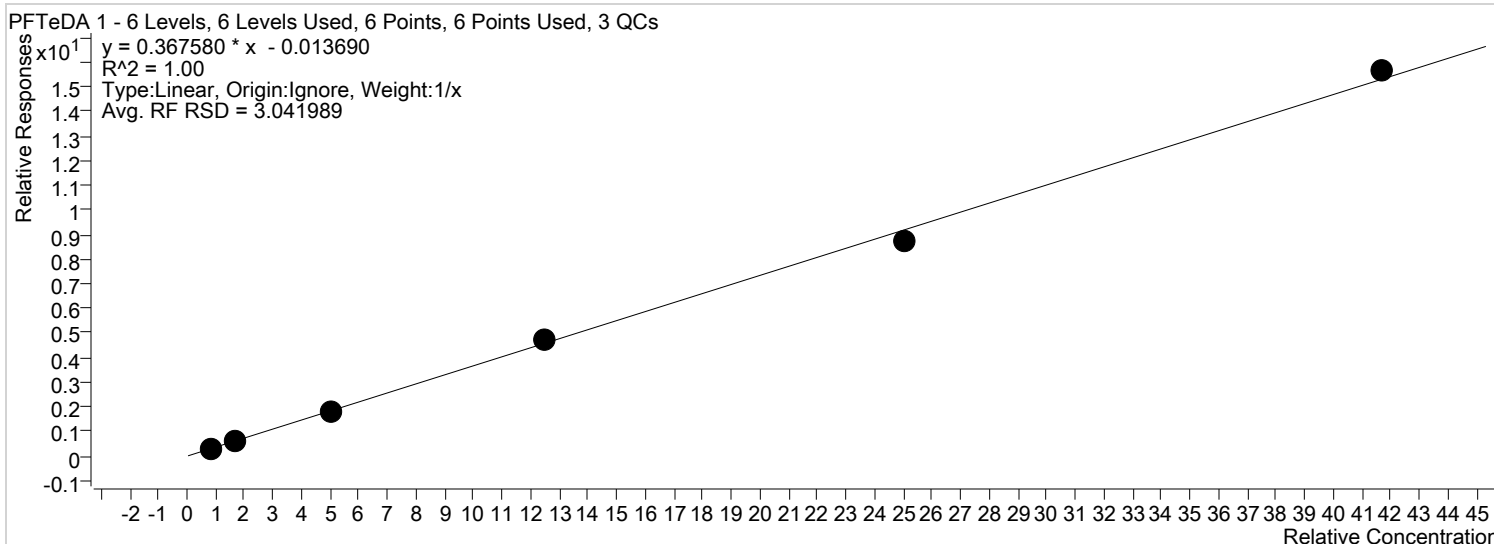
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFTTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.84	3596	0.4111	38	101.4
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.60	7096	0.4081	47	94.0
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	5.08	21648	0.4640	109	101.6
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	13.40	56477	0.4963	169	107.2
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	23.68	120486	0.4400	171	94.7
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	42.13	210725	0.4703	162	101.0

By Compound Report

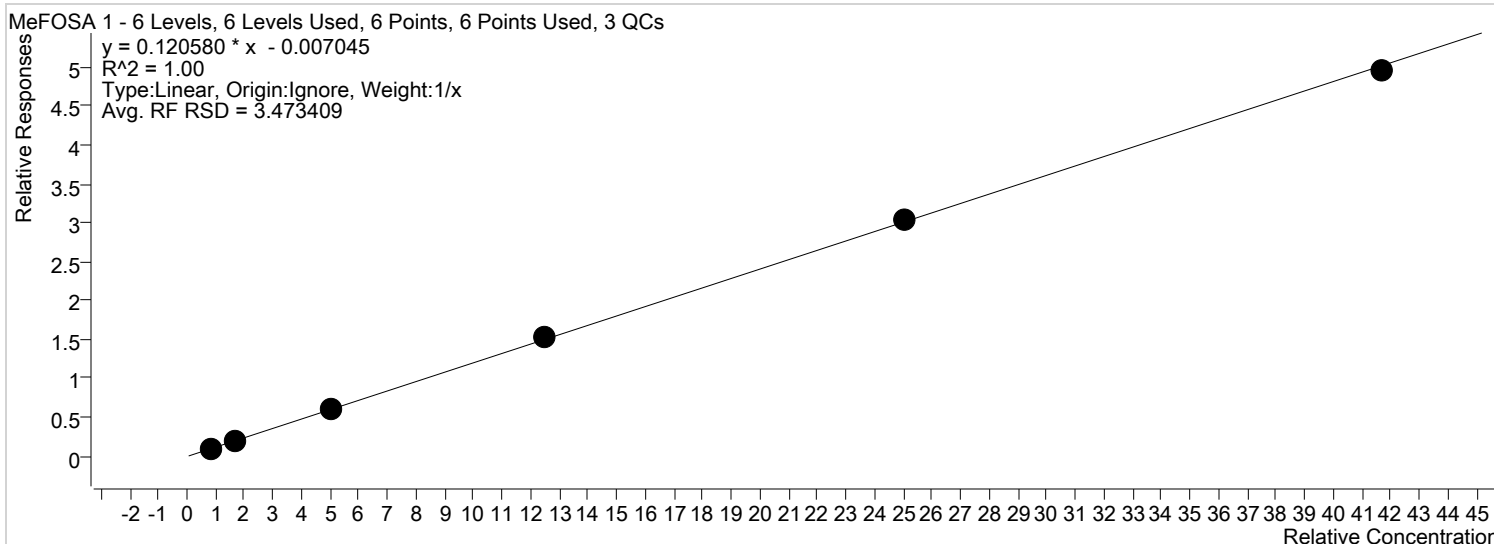
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.84	3112	0.3557	21	101.3
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.68	6167	0.3547	37	98.7
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	5.03	17120	0.3669	132	100.6
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.76	42577	0.3742	162	102.1
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	23.79	95619	0.3492	158	95.1
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	42.63	168229	0.3755	174	102.2

By Compound Report

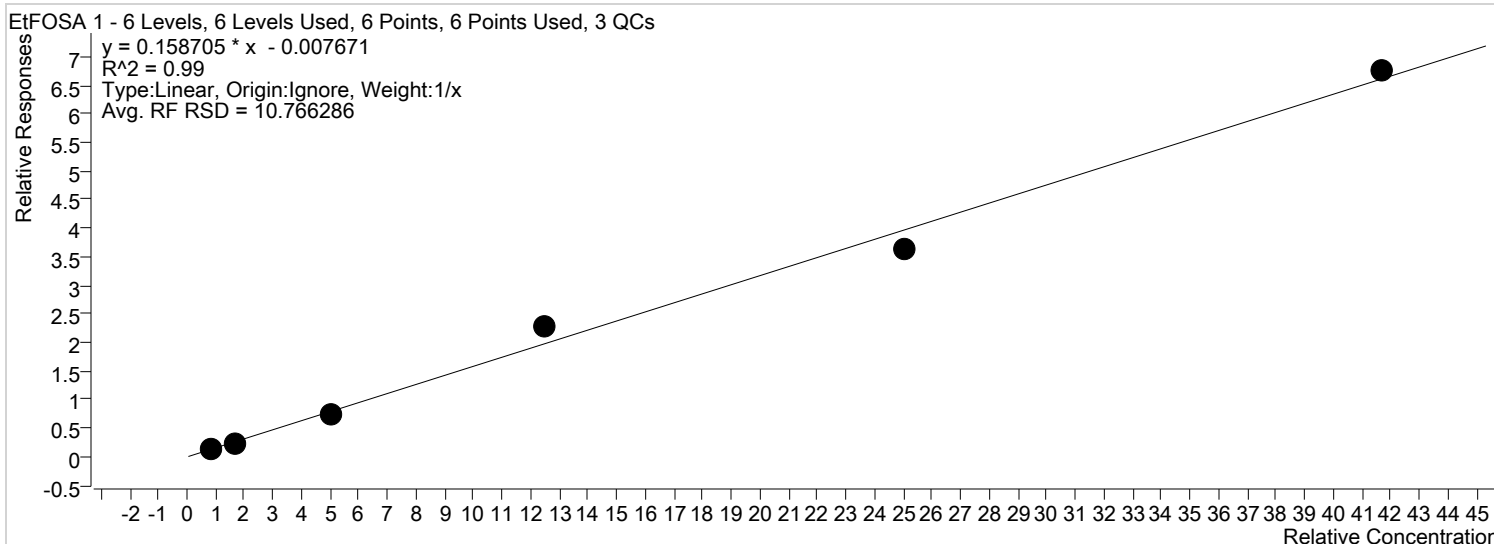
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: MeFOSA 1
Internal Standard: D3-MeFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.85	301	0.1146	22	102.1
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.64	669	0.1123	97	96.6
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	4.95	1744	0.1179	105	98.9
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	12.80	4635	0.1229	821	102.4
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	25.34	10885	0.1220	487	101.4
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	41.15	18791	0.1188	1099	98.7

By Compound Report

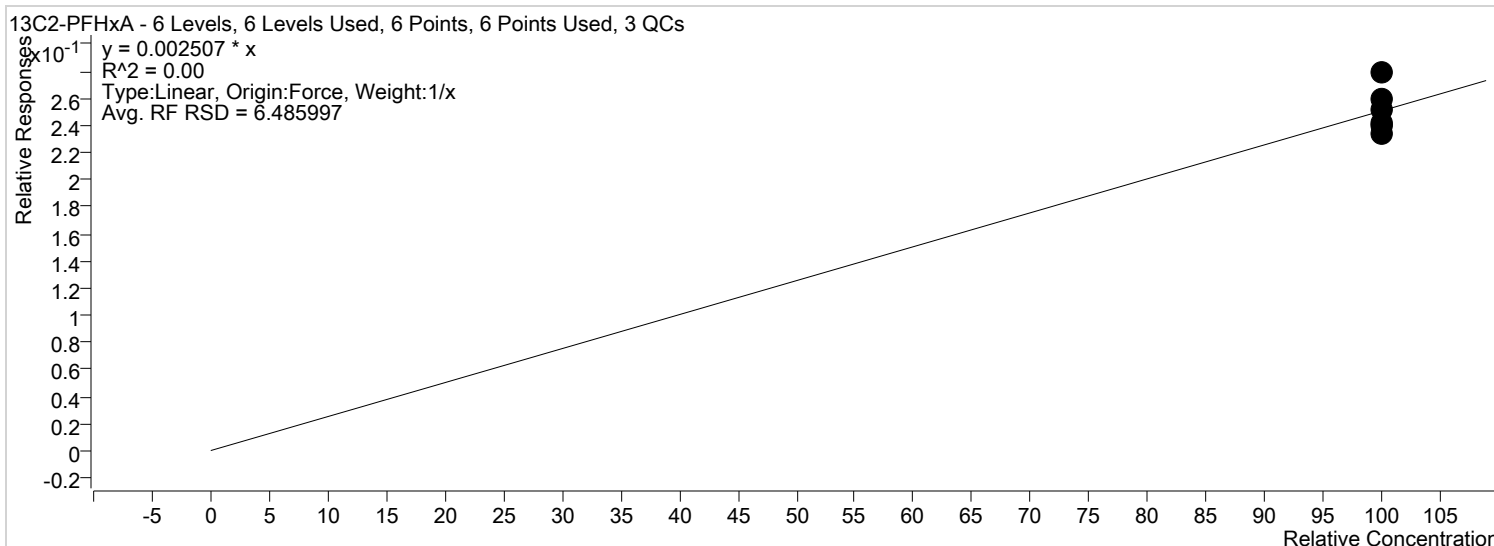
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: EtFOSA 1
Internal Standard: D5-EtFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	0.83	0.92	390	0.1672	19	111.2
STD 2	STD 2	x	2018/01/13 1:57:58 AM	1.70	1.51	658	0.1364	49	88.8
STD 3	STD 3	x	2018/01/13 2:02:54 AM	5.00	4.62	1881	0.1451	53	92.4
STD 4	STD 4	x	2018/01/13 2:07:50 AM	12.50	14.28	5192	0.1807	227	114.3
STD 5	STD 5	x	2018/01/13 2:12:46 AM	25.00	22.80	10482	0.1444	404	91.2
STD 6	STD 6	x	2018/01/13 2:17:42 AM	41.70	42.59	19277	0.1619	1399	102.1

By Compound Report

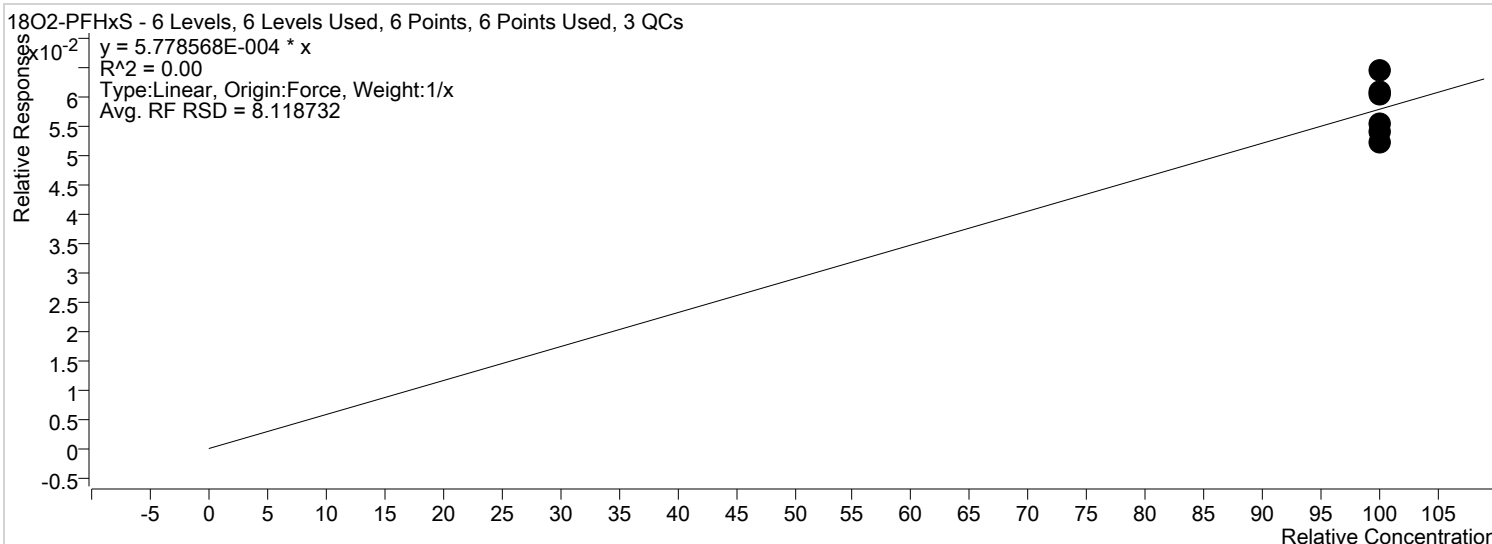
Batch Path T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	93.46	5347	0.0023	244	93.5
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	103.14	5451	0.0026	144	103.1
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	100.24	4917	0.0025	182	100.2
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	95.58	4784	0.0024	231	95.6
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	96.39	5459	0.0024	347	96.4
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	111.19	6106	0.0028	159	111.2

By Compound Report

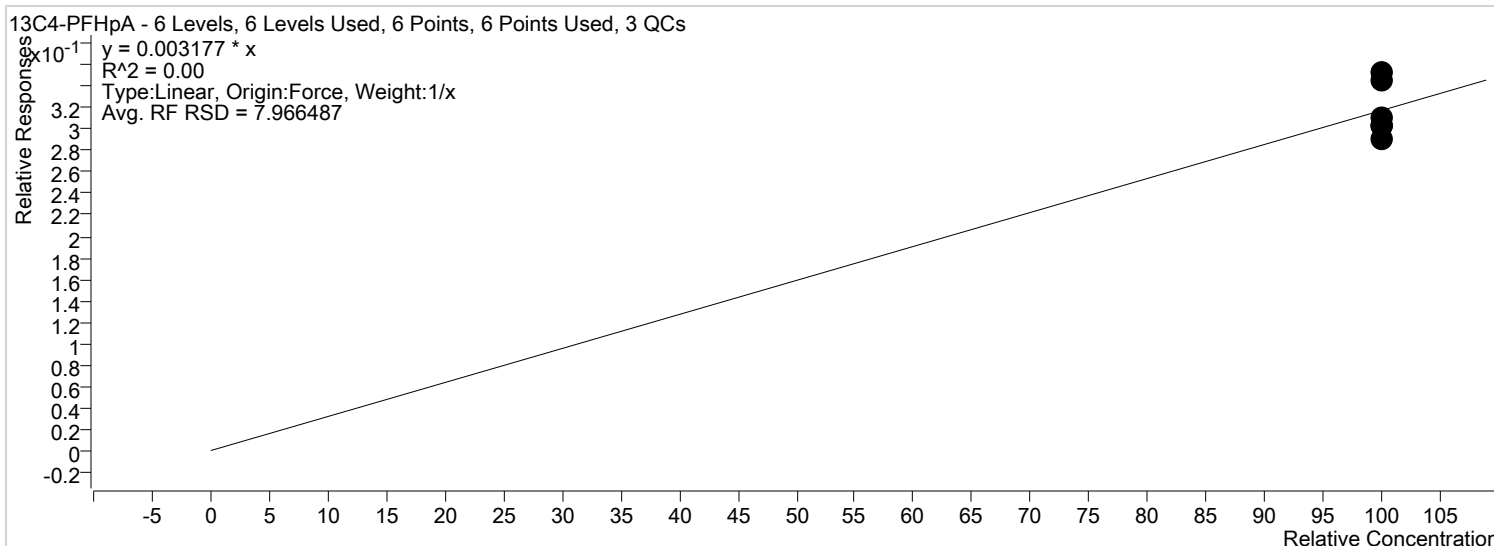
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	93.04	1227	0.0005	161	93.0
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	104.90	1278	0.0006	220	104.9
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	95.77	1083	0.0006	121	95.8
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	104.53	1206	0.0006	153	104.5
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	90.46	1181	0.0005	147	90.5
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	111.30	1409	0.0006	187	111.3

By Compound Report

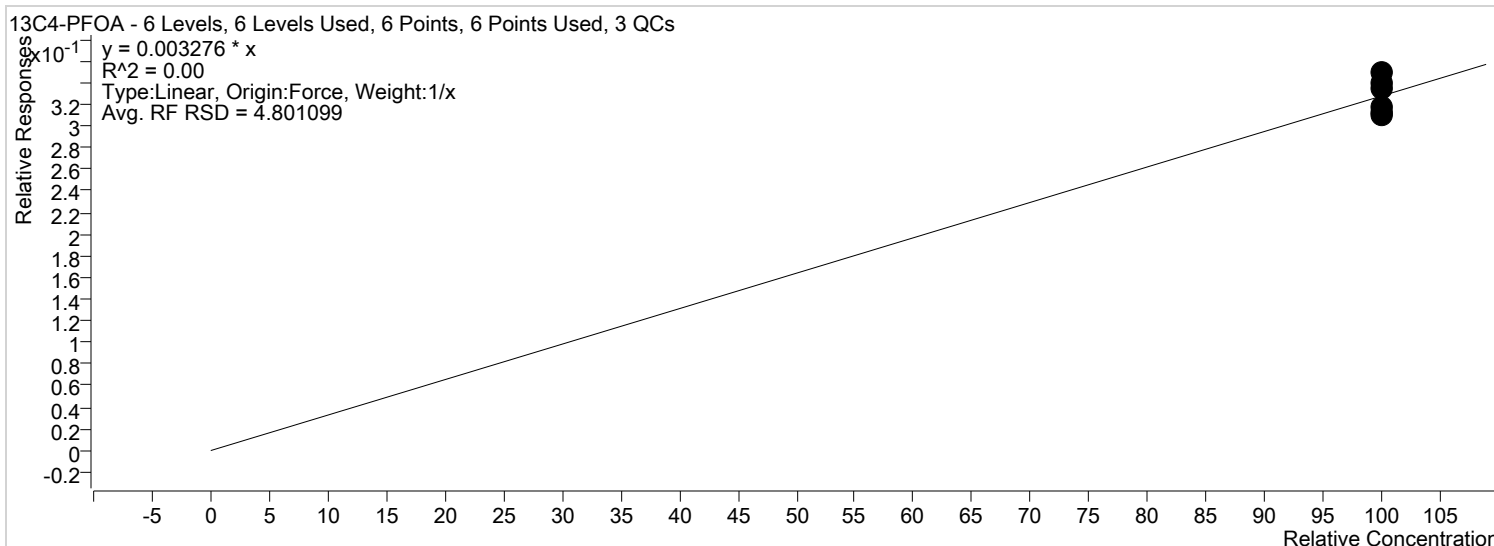
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	91.70	6649	0.0029	283	91.7
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	108.81	7289	0.0035	180	108.8
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	97.81	6081	0.0031	245	97.8
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	95.45	6055	0.0030	362	95.5
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	95.18	6832	0.0030	89	95.2
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	111.05	7729	0.0035	166	111.0

By Compound Report

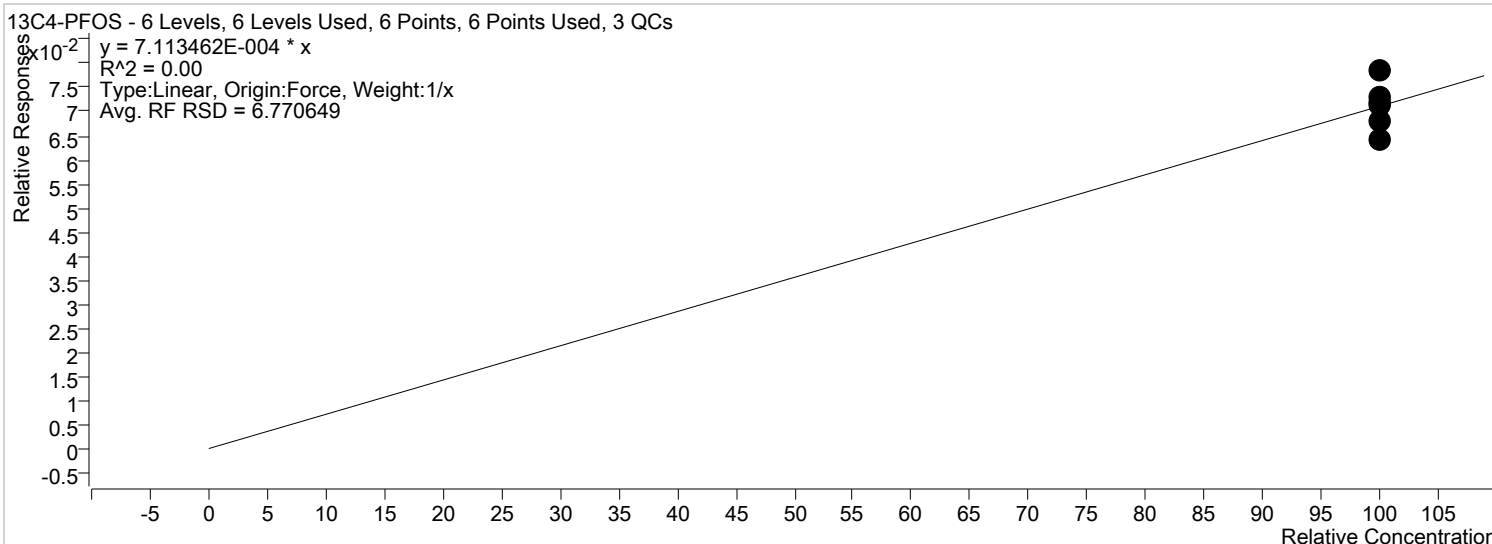
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	95.52	7142	0.0031	216	95.5
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	103.56	7154	0.0034	297	103.6
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	102.38	6564	0.0034	371	102.4
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	97.09	6351	0.0032	341	97.1
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	94.93	7027	0.0031	170	94.9
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	106.53	7646	0.0035	452	106.5

By Compound Report

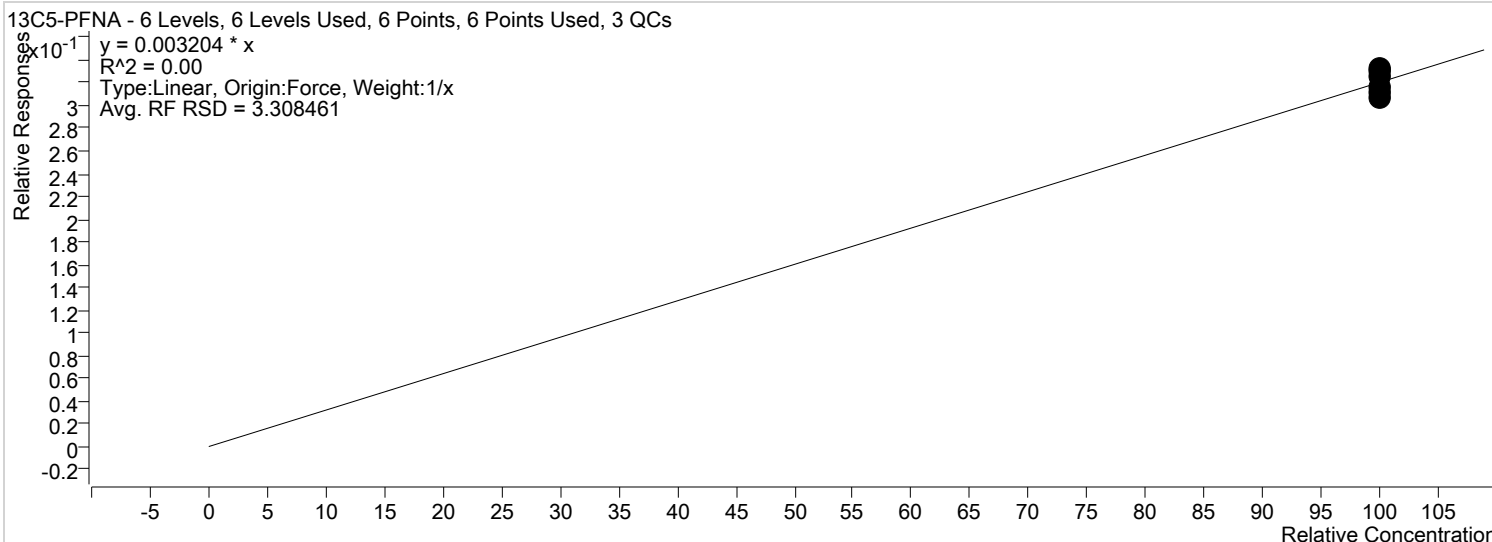
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	100.65	1634	0.0007	126	100.7
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	102.41	1536	0.0007	143	102.4
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	110.34	1536	0.0008	218	110.3
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	95.69	1359	0.0007	136	95.7
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	90.16	1449	0.0006	57	90.2
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	100.75	1570	0.0007	94	100.7

By Compound Report

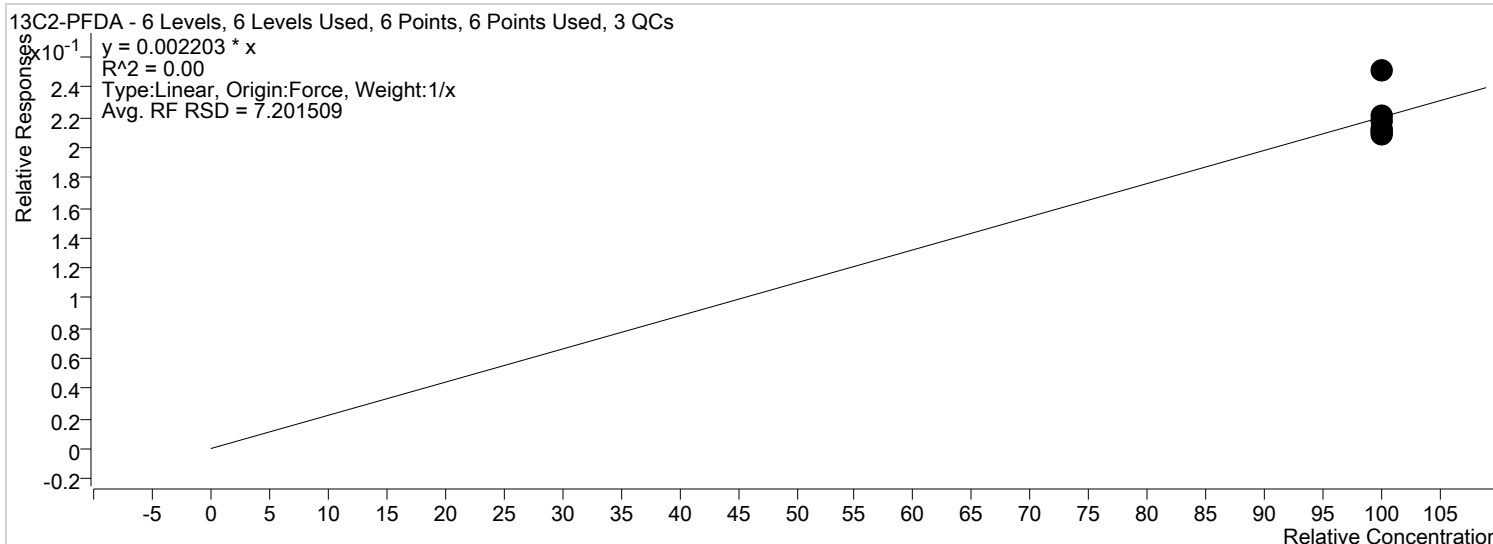
Batch Path T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	95.46	6981	0.0031	189	95.5
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	99.02	6690	0.0032	104	99.0
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	103.07	6463	0.0033	210	103.1
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	97.22	6220	0.0031	158	97.2
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	101.51	7349	0.0033	165	101.5
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	103.71	7280	0.0033	168	103.7

By Compound Report

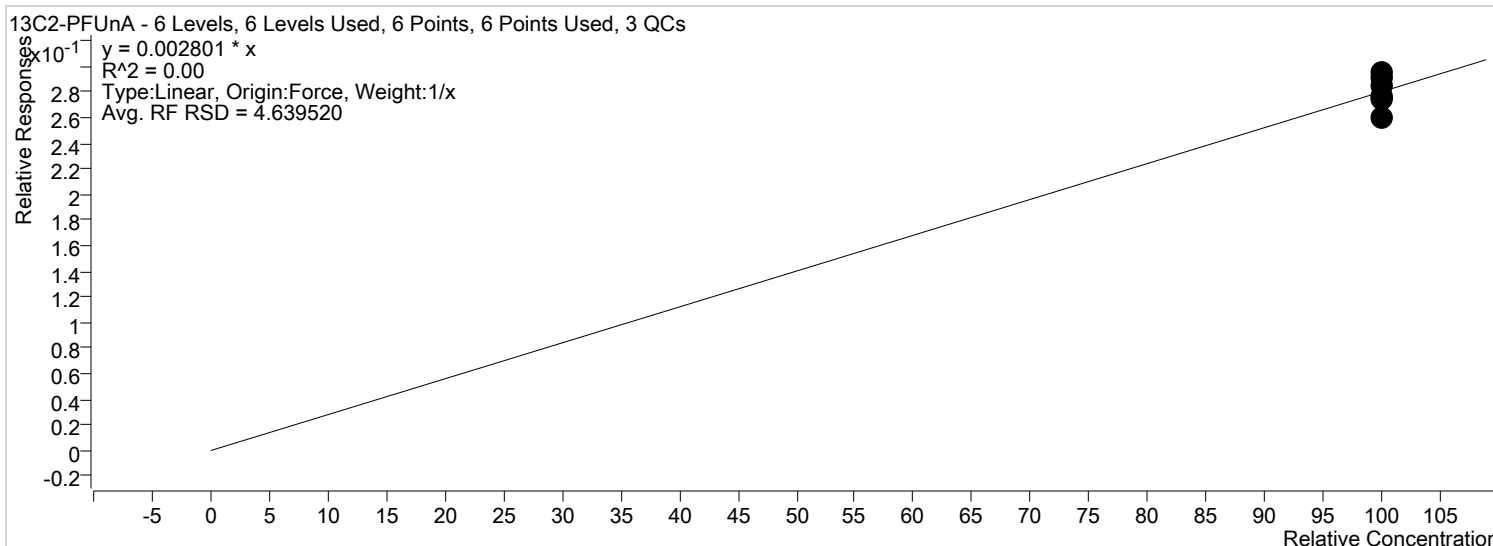
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 13C2-PFDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	96.39	5848	0.0021	282	96.4
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	100.50	5982	0.0022	160	100.5
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	113.99	5628	0.0025	231	114.0
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	94.78	5188	0.0021	231	94.8
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	95.28	5779	0.0021	317	95.3
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	99.07	6031	0.0022	164	99.1

By Compound Report

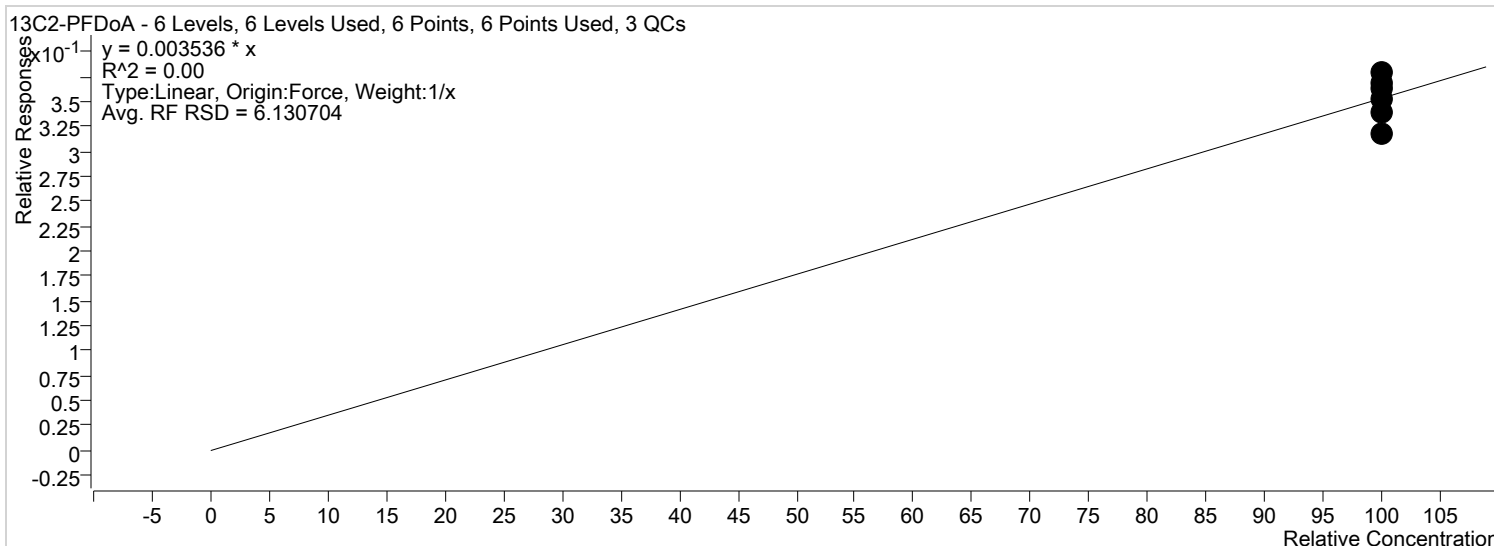
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	97.88	7549	0.0027	191	97.9
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	92.57	7004	0.0026	294	92.6
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	105.27	6607	0.0029	176	105.3
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	98.80	6875	0.0028	278	98.8
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	104.10	8026	0.0029	188	104.1
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	101.37	7845	0.0028	269	101.4

By Compound Report

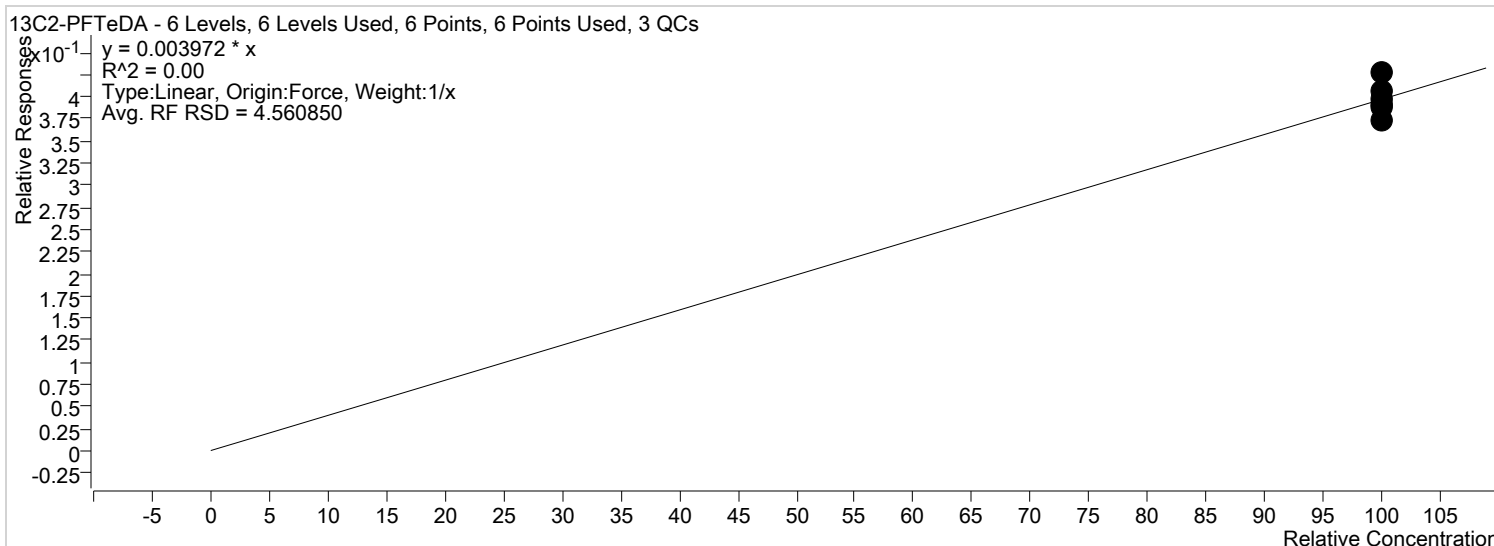
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	95.86	9336	0.0034	176	95.9
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	99.80	9535	0.0035	235	99.8
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	107.22	8498	0.0038	175	107.2
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	90.28	7933	0.0032	116	90.3
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	102.78	10006	0.0036	305	102.8
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	104.06	10169	0.0037	173	104.1

By Compound Report

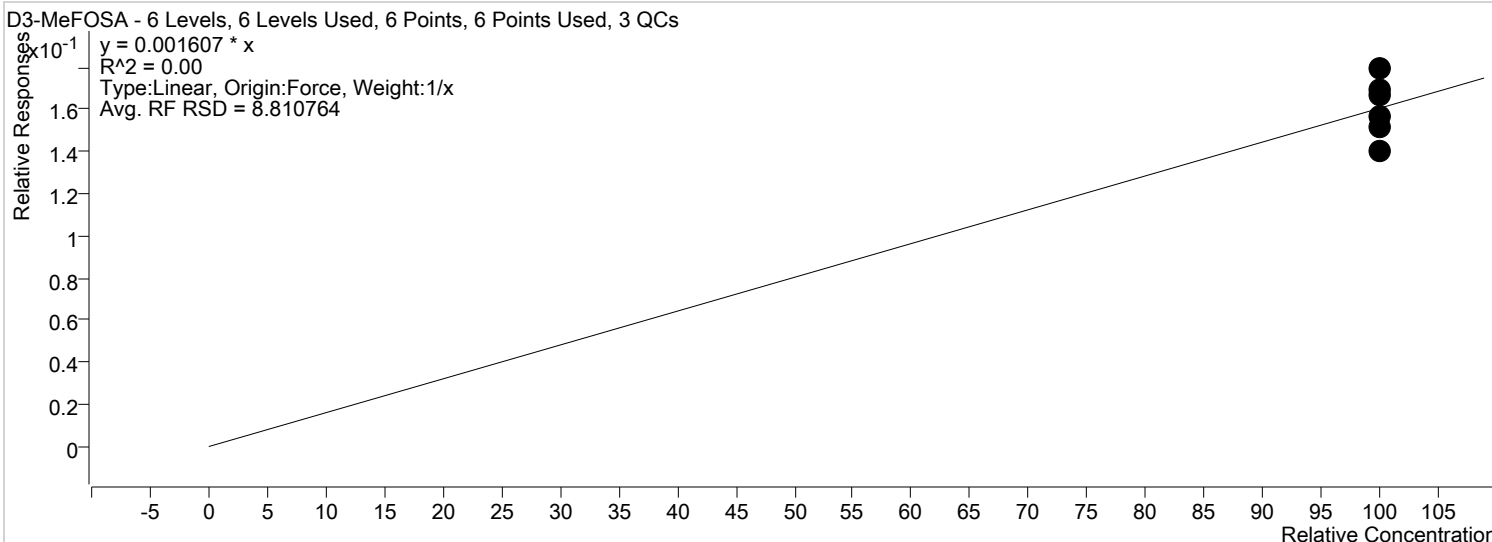
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	98.39	10763	0.0039	621	98.4
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	97.99	10516	0.0039	554	98.0
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	107.54	9573	0.0043	581	107.5
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	94.07	9284	0.0037	316	94.1
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	102.31	11187	0.0041	414	102.3
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	99.70	10943	0.0040	358	99.7

By Compound Report

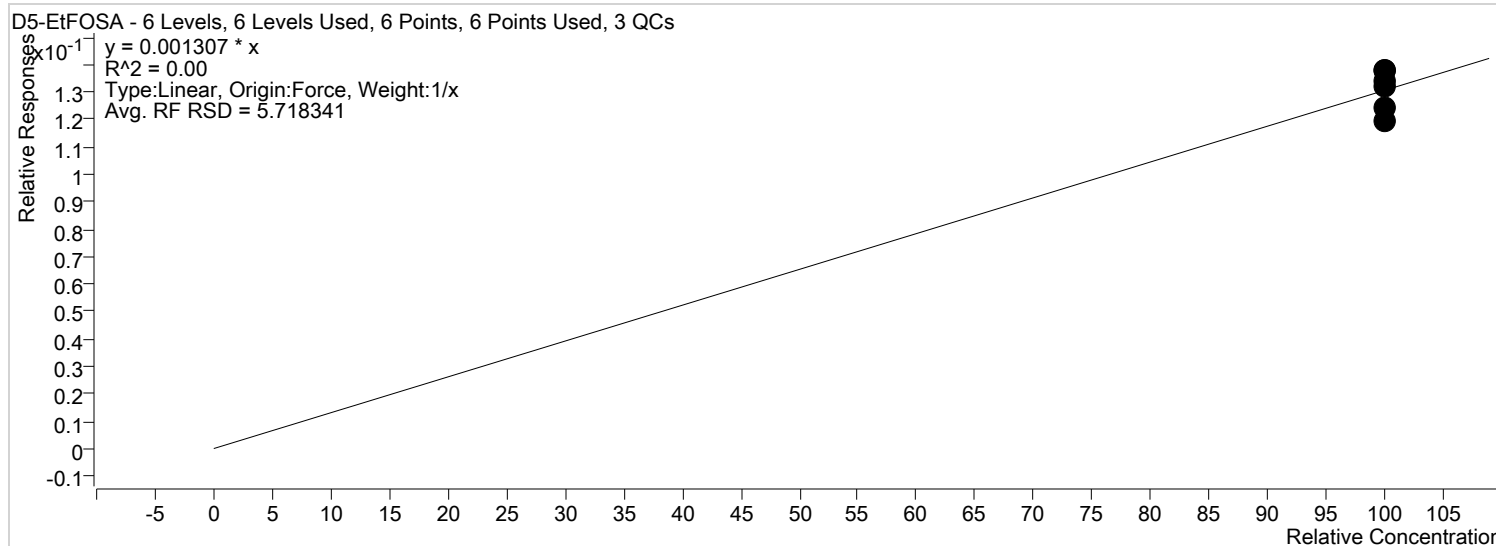
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: D3-MeFOSA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	87.00	3190	0.0014	34	87.0
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	105.81	3584	0.0017	49	105.8
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	97.20	3056	0.0016	25	97.2
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	94.65	3036	0.0015	53	94.6
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	103.70	3764	0.0017	49	103.7
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	111.64	3929	0.0018	88	111.6

By Compound Report

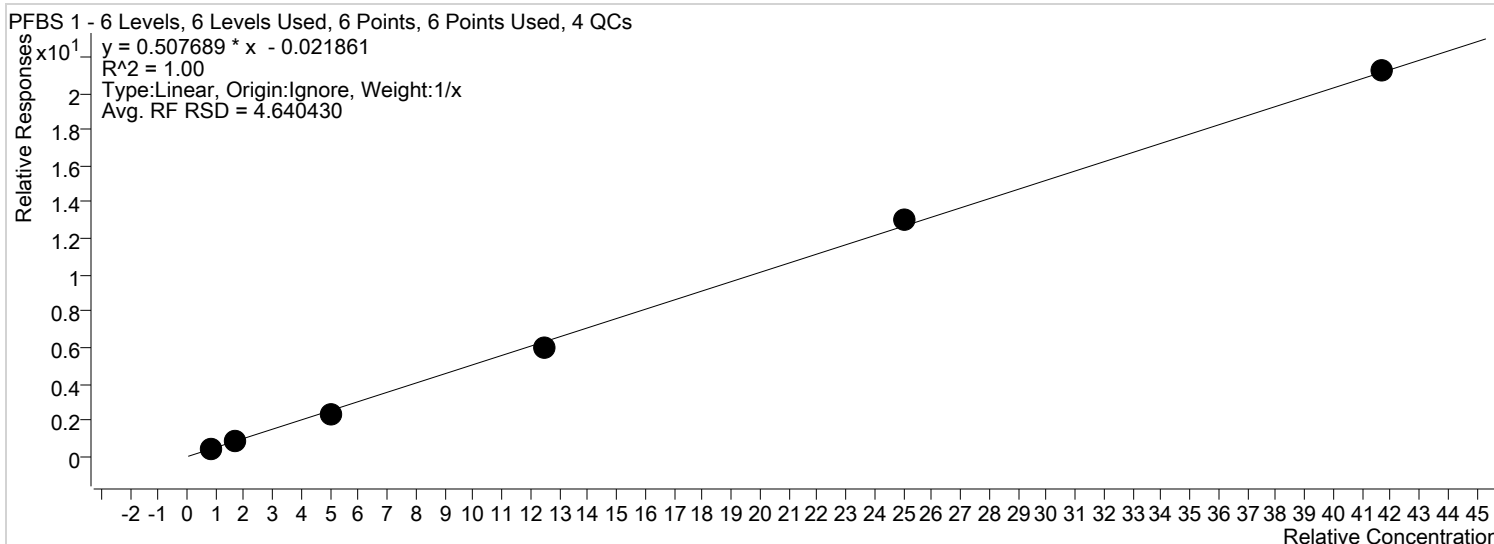
Batch Path T:\lcms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX.batch.bin
Last Calib Update 2018/01/17 10:34:57 AM
Instrument: LCMS04
Analyte: D5-EtFOSA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 1:53:02 AM	100.00	94.87	2829	0.0012	102	94.9
STD 2	STD 2	x	2018/01/13 1:57:58 AM	100.00	105.27	2900	0.0014	252	105.3
STD 3	STD 3	x	2018/01/13 2:02:54 AM	100.00	105.44	2696	0.0014	182	105.4
STD 4	STD 4	x	2018/01/13 2:07:50 AM	100.00	91.38	2384	0.0012	132	91.4
STD 5	STD 5	x	2018/01/13 2:12:46 AM	100.00	100.81	2976	0.0013	76	100.8
STD 6	STD 6	x	2018/01/13 2:17:42 AM	100.00	102.22	2926	0.0013	161	102.2

By Compound Report

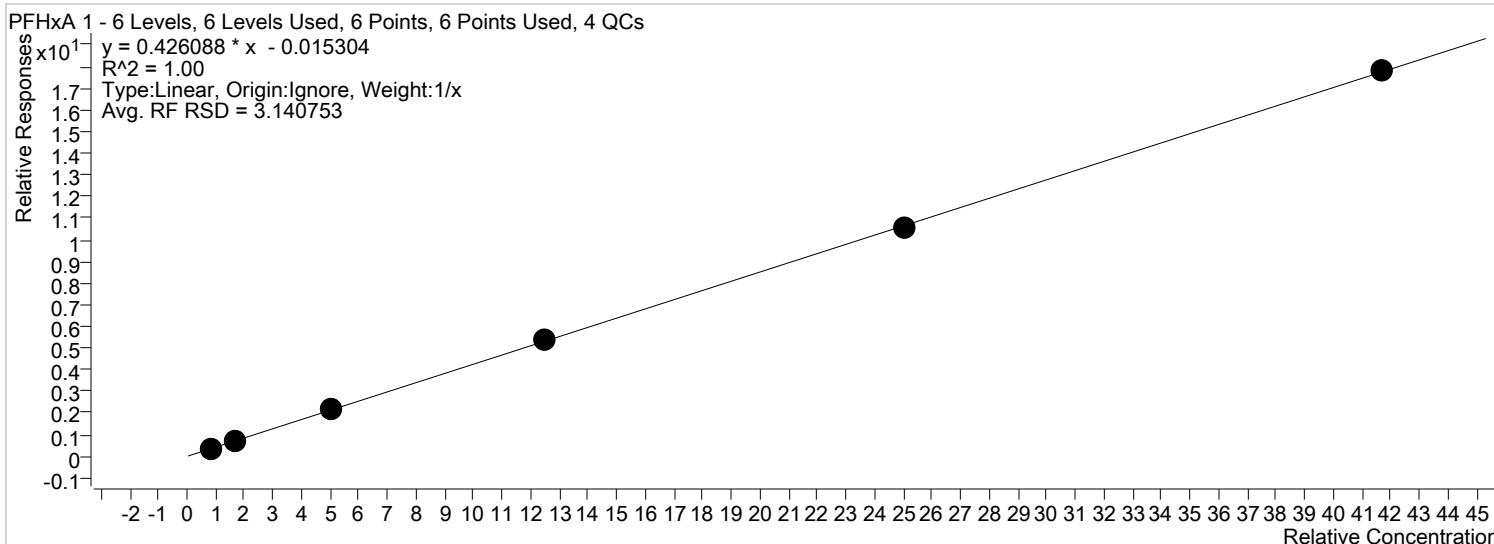
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.88	948	0.5145	116	106.5
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.75	2555	0.5096	362	102.9
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.65	6093	0.4674	150	92.9
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	11.72	18389	0.4744	170	93.8
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	25.86	24311	0.5242	187	103.4
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	41.87	56526	0.5092	195	100.4

By Compound Report

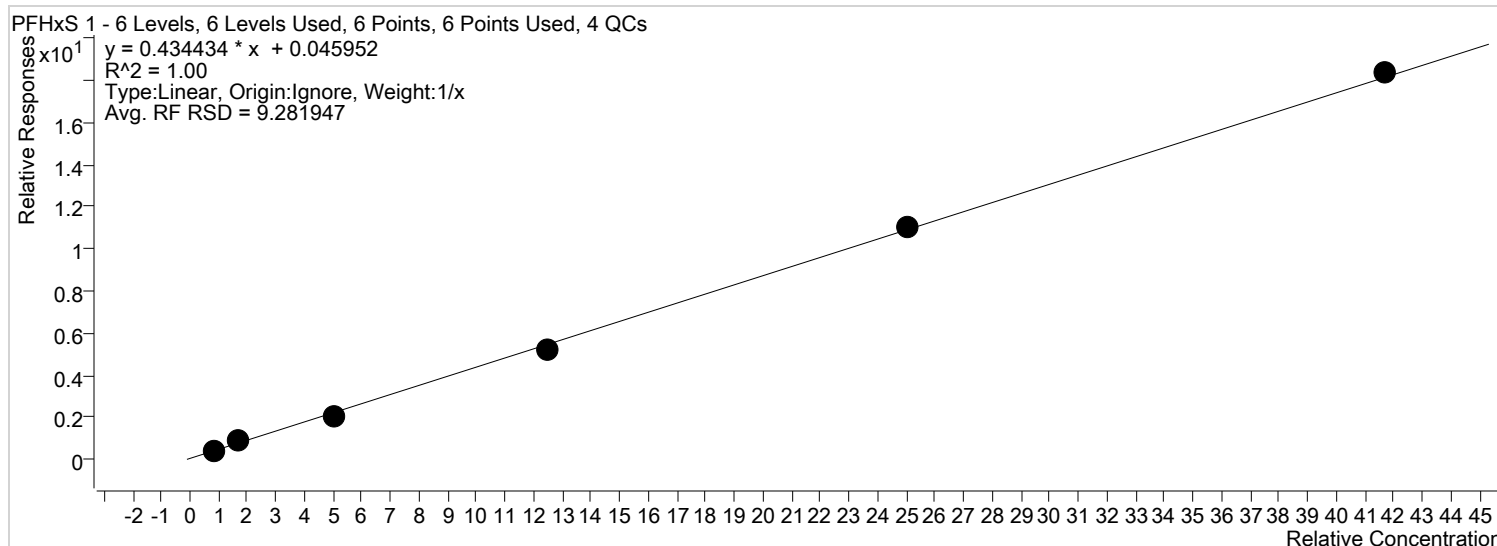
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.85	3451	0.4162	159	102.0
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.62	8637	0.3972	486	95.3
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	5.13	21374	0.4341	1978	102.6
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.64	66338	0.4295	6614	101.1
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	24.67	84075	0.4199	6775	98.7
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	41.83	198720	0.4270	9204	100.3

By Compound Report

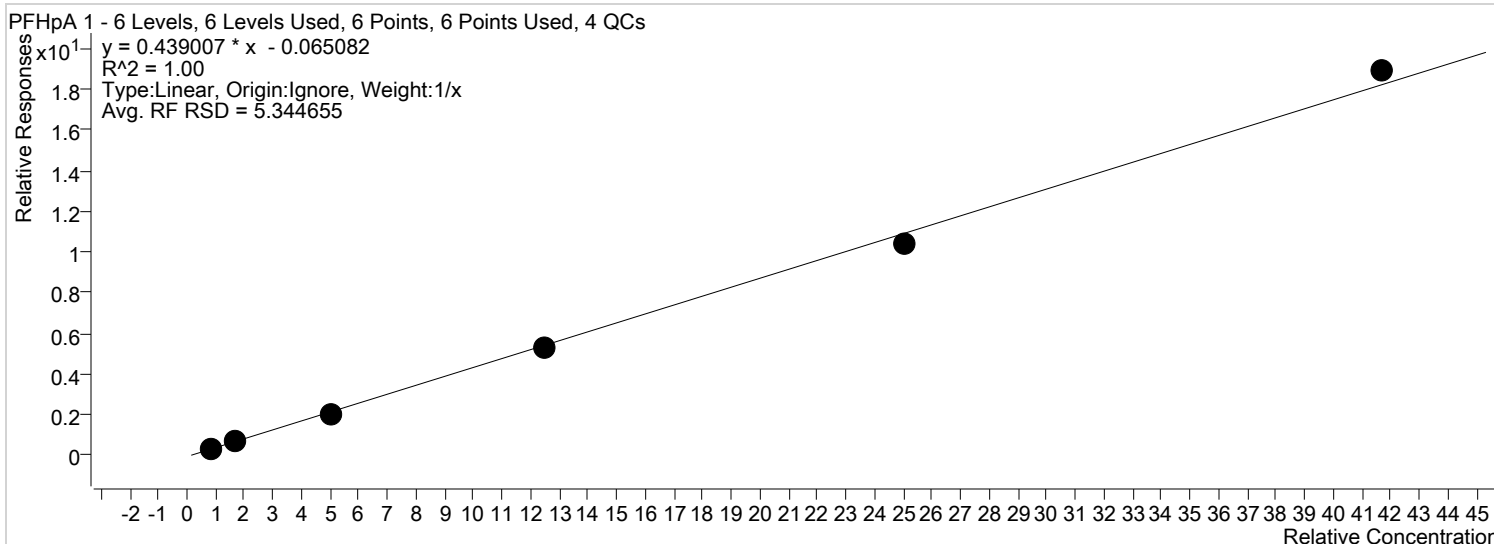
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.86	932	0.5058	111	103.7
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.83	2485	0.4957	212	107.9
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.48	5198	0.3988	321	89.7
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.04	16362	0.4221	678	96.3
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	25.31	20483	0.4417	967	101.2
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	42.20	48926	0.4408	1649	101.2

By Compound Report

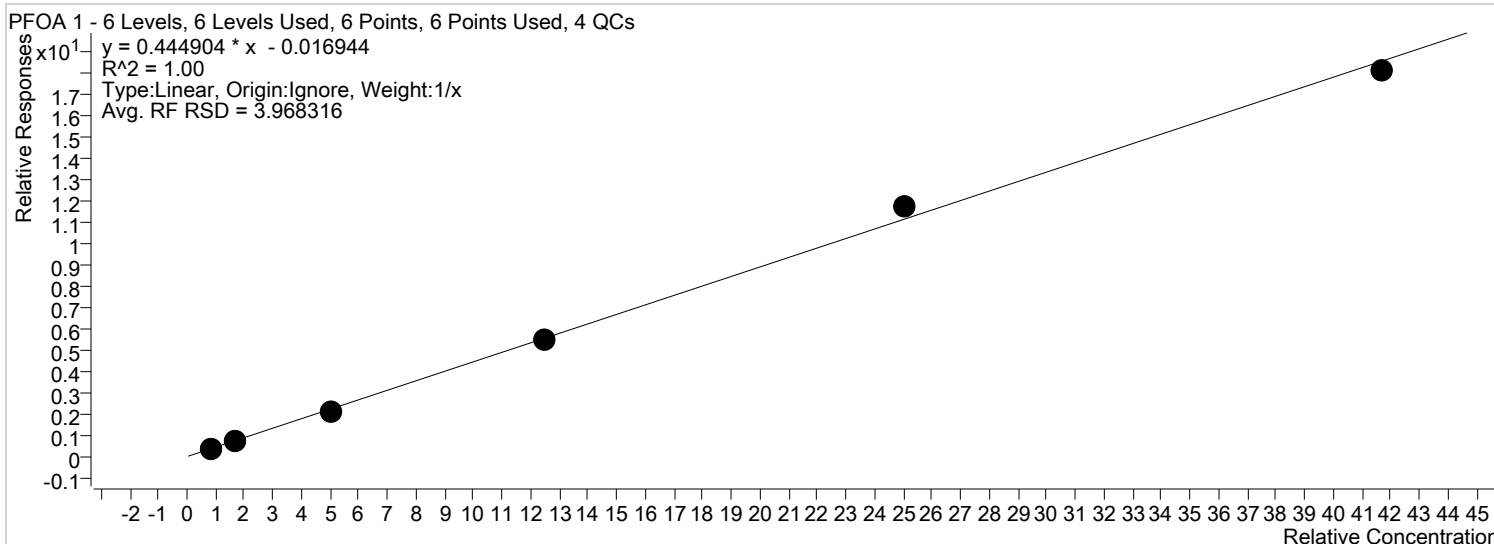
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.90	4104	0.3970	65	108.3
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.67	10908	0.3934	116	98.3
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.80	26552	0.4087	167	96.1
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.29	84266	0.4265	176	98.3
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	23.80	103053	0.4153	218	95.2
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	43.26	245871	0.4539	180	103.7

By Compound Report

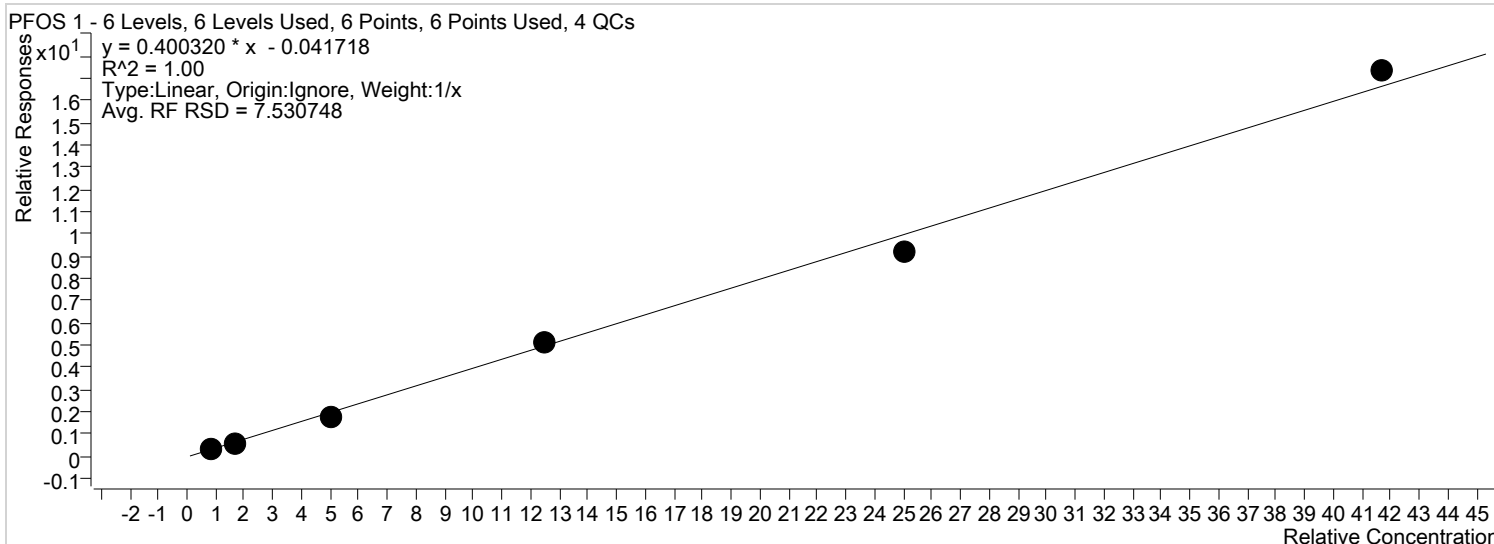
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.85	4912	0.4336	63	102.1
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.73	12957	0.4424	149	101.7
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.71	29244	0.4157	409	94.2
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.36	92066	0.4387	1373	98.9
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	26.40	116991	0.4691	1104	105.6
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	40.68	278229	0.4337	3176	97.6

By Compound Report

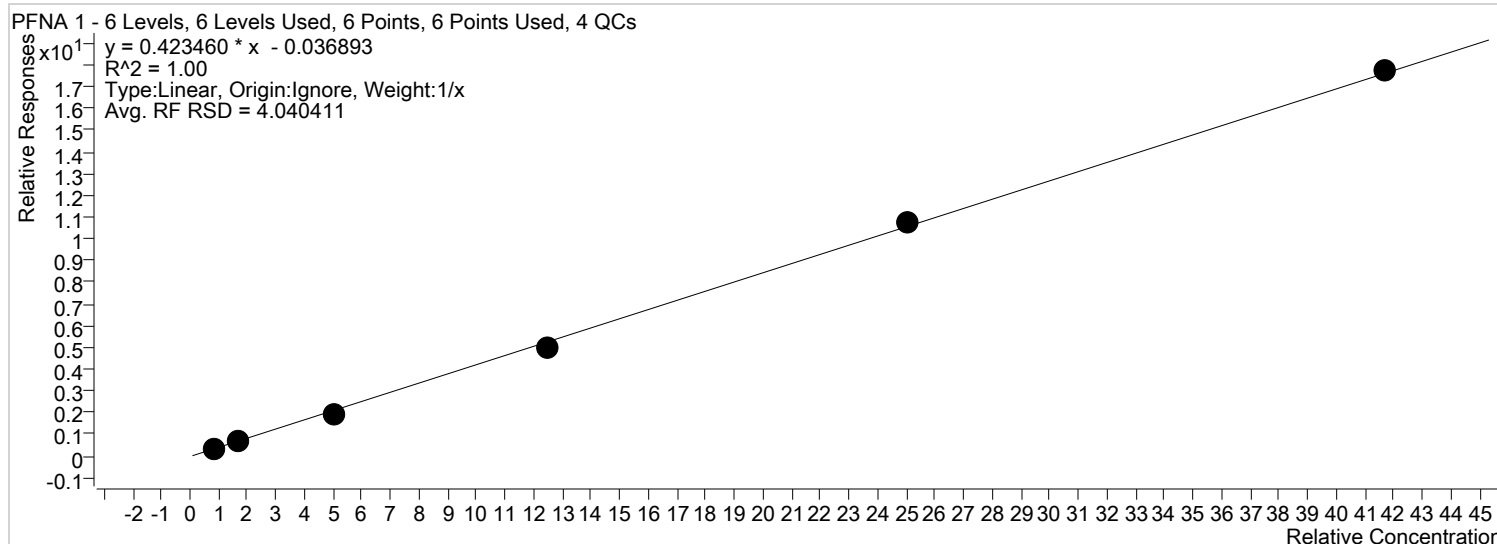
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.94	954	0.4039	137	113.4
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.60	2260	0.3527	133	94.2
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.57	5619	0.3573	173	91.3
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	13.02	17880	0.4138	247	104.2
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	23.15	22296	0.3690	251	92.6
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	43.45	52418	0.4161	307	104.2

By Compound Report

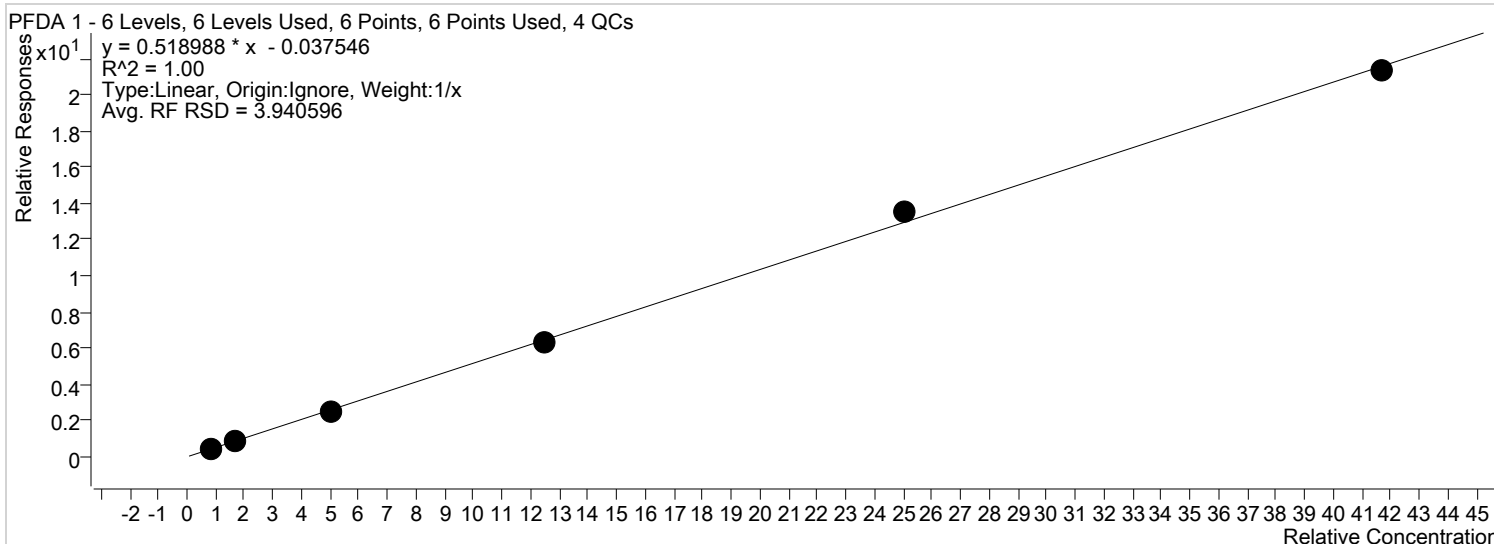
Batch Path T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.87	4184	0.3979	104	104.5
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.76	11612	0.4177	326	103.8
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.67	26125	0.3882	512	93.4
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	11.97	83003	0.4027	2214	95.8
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	25.48	102101	0.4300	2801	101.9
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	41.98	243196	0.4254	6046	100.7

By Compound Report

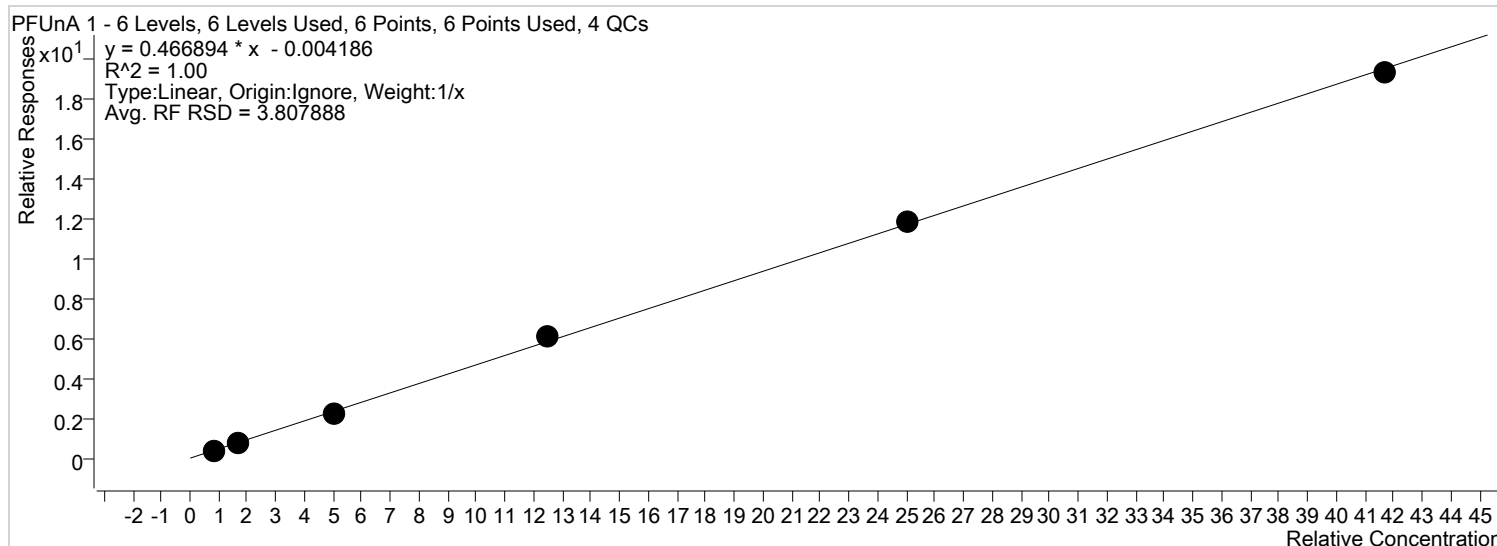
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.88	4759	0.5072	39	106.4
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.68	11803	0.4903	99	98.7
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.71	27783	0.4818	233	94.3
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.19	88247	0.5031	654	97.5
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	26.05	114058	0.5393	1157	104.2
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	41.21	262015	0.5120	2467	98.8

By Compound Report

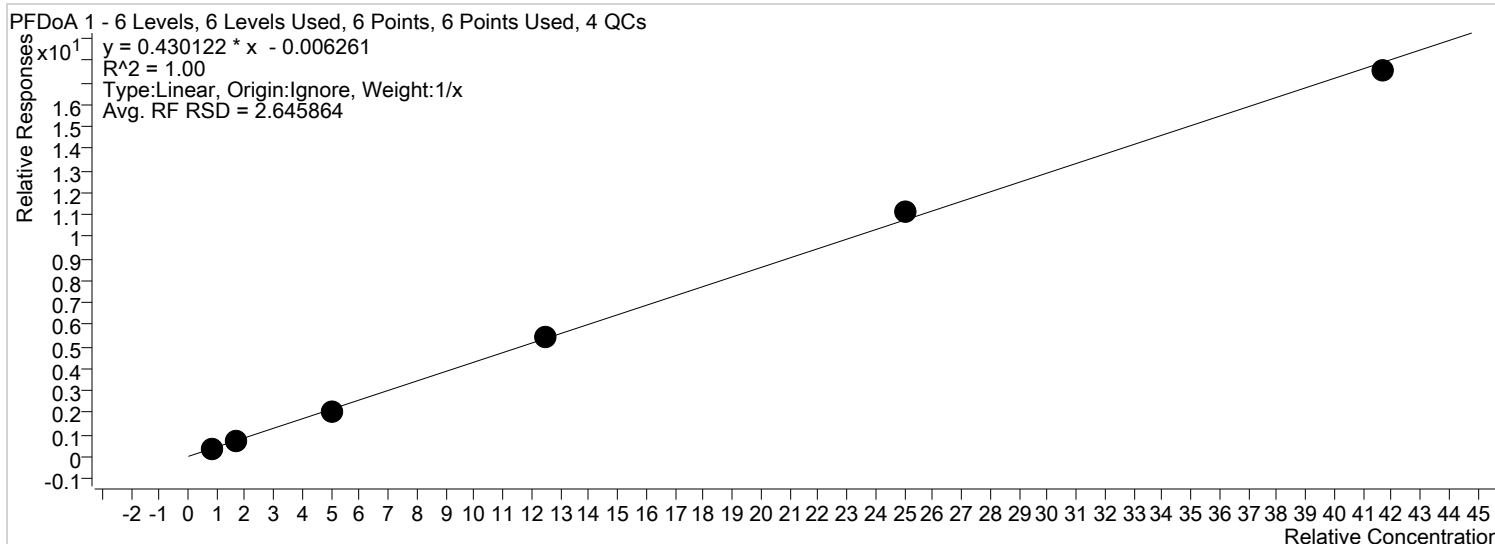
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.82	4938	0.4548	51	98.5
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.76	14235	0.4814	137	103.6
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.70	31703	0.4382	249	94.0
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	13.02	99657	0.4861	278	104.2
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	25.18	121856	0.4702	338	100.7
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	41.24	299463	0.4616	339	98.9

By Compound Report

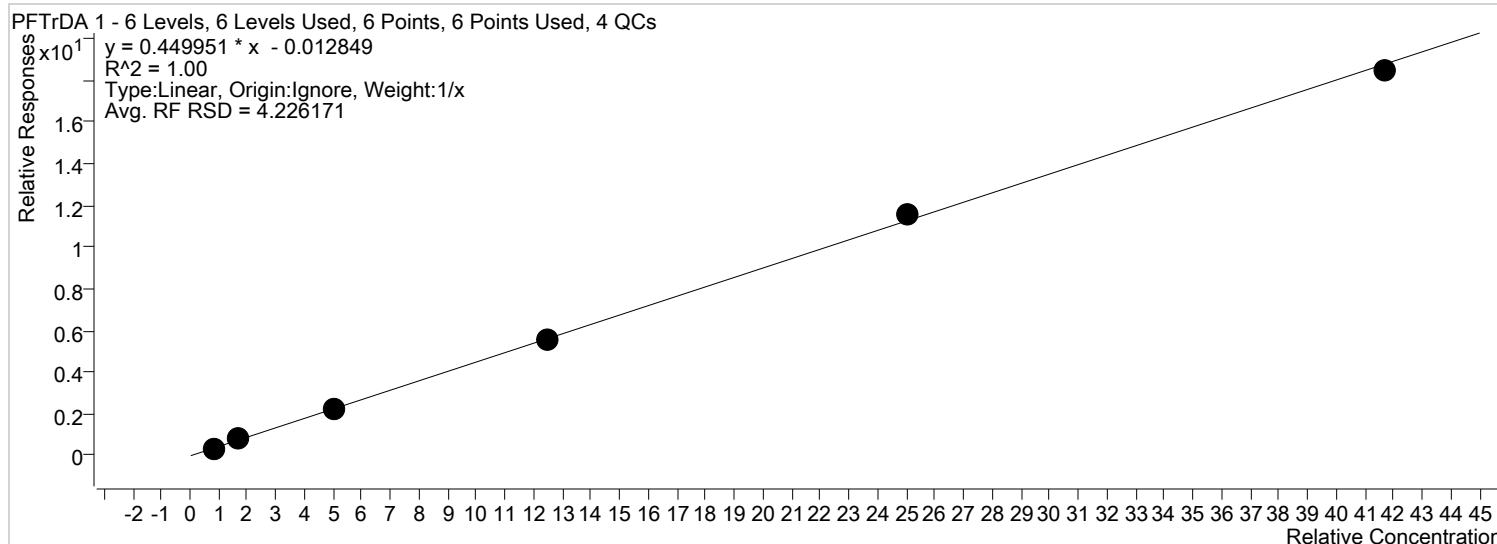
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFDa 1
Internal Standard: MPFDaA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.84	6297	0.4276	207	101.2
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.69	15467	0.4232	466	99.3
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.82	36618	0.4137	1066	96.5
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.74	117911	0.4378	3529	101.9
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	25.84	145418	0.4443	5382	103.3
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	40.81	344618	0.4207	11059	97.9

By Compound Report

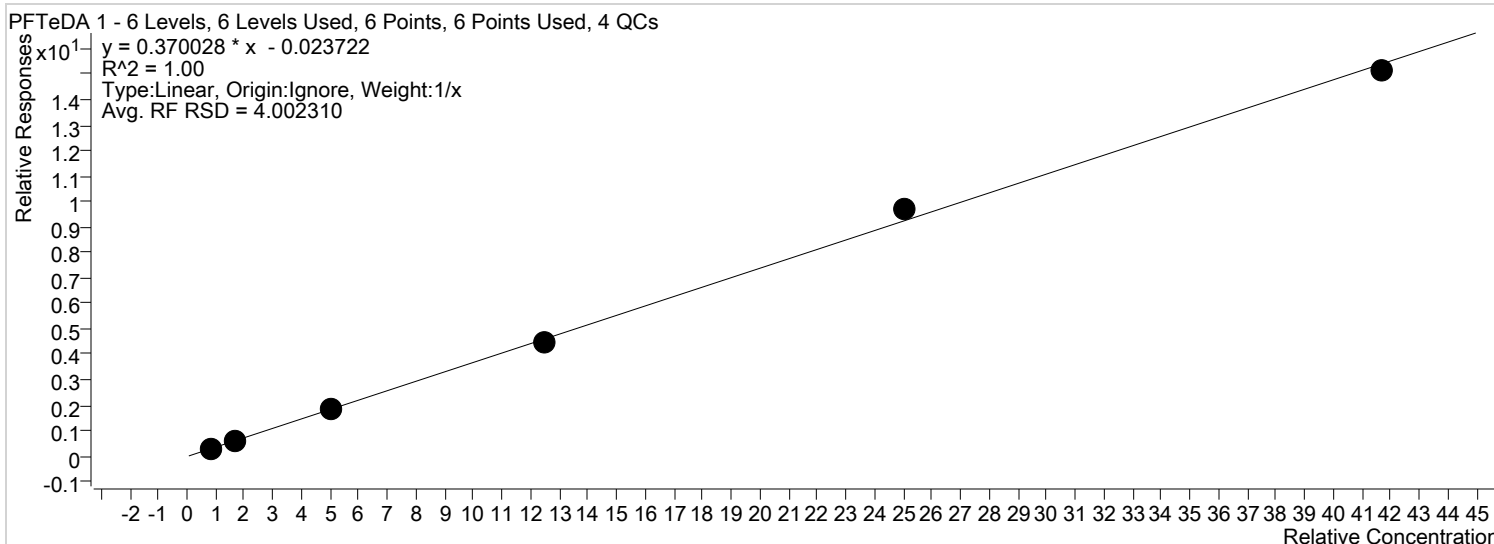
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFTTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.78	6743	0.4099	38	94.5
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.76	18256	0.4581	102	103.5
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	5.07	42469	0.4536	154	101.4
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.44	131000	0.4469	232	99.6
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	25.68	162114	0.4618	231	102.7
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	40.99	383867	0.4420	257	98.3

By Compound Report

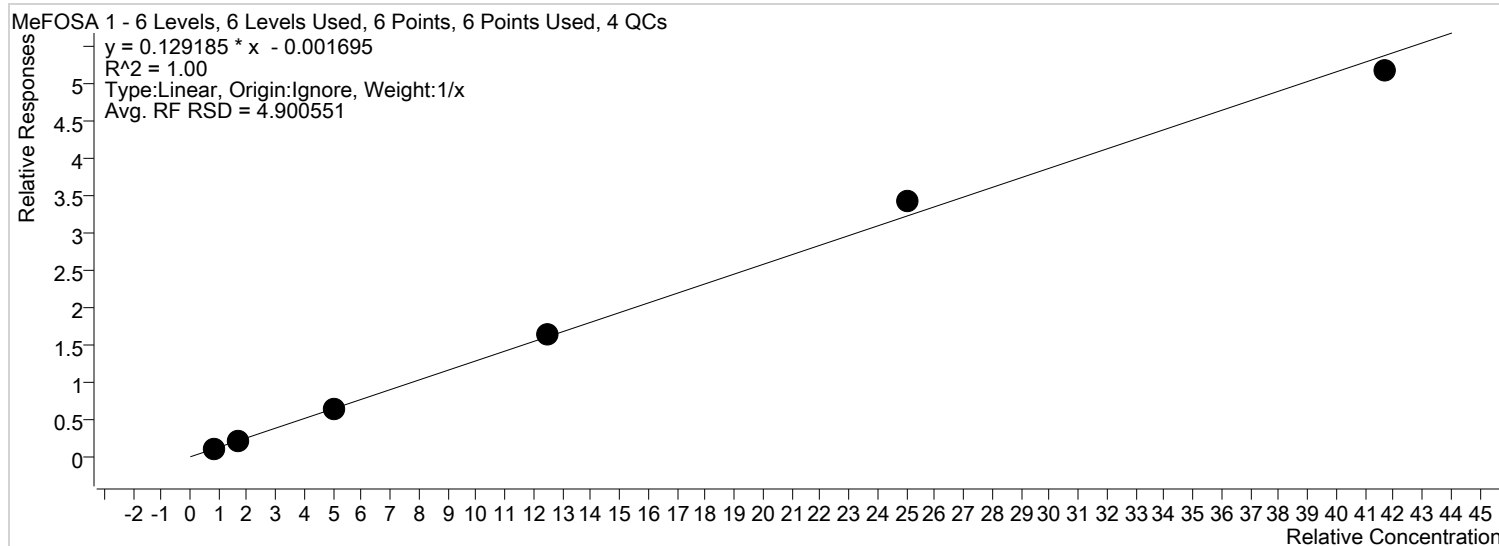
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.85	5743	0.3491	31	102.1
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.66	13859	0.3478	54	97.8
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	5.04	34500	0.3685	175	100.9
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.05	104042	0.3550	200	96.4
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	26.16	135593	0.3862	238	104.6
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	40.96	315232	0.3629	234	98.2

By Compound Report

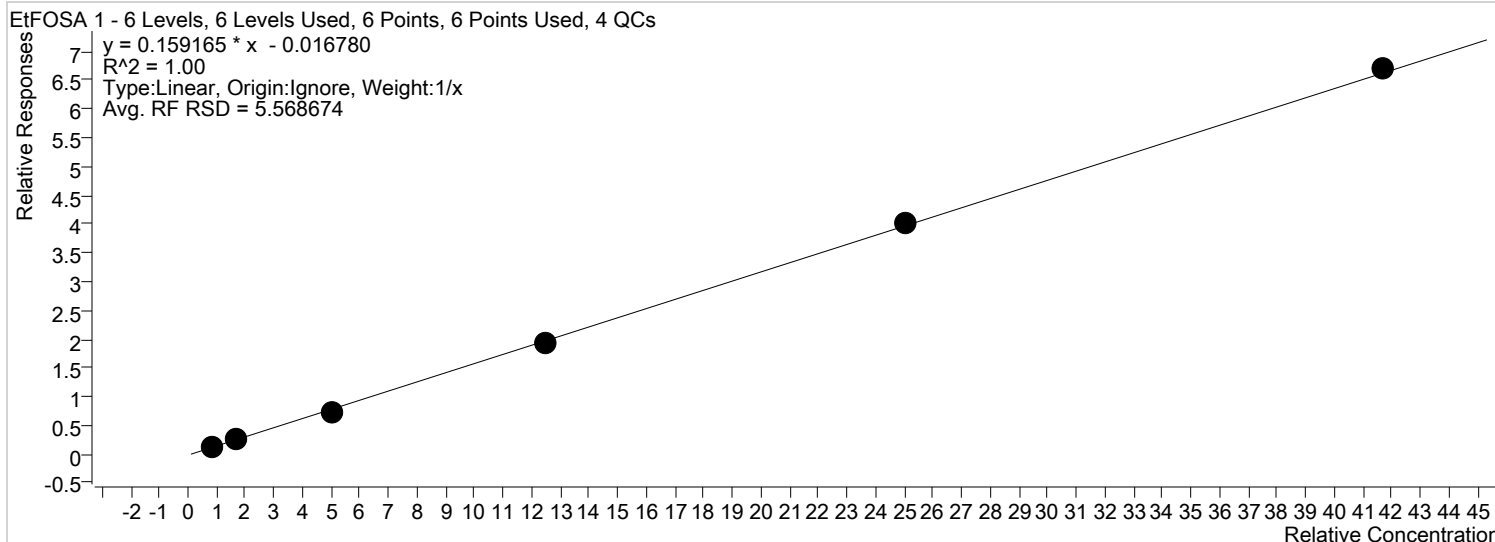
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: MeFOSA 1
Internal Standard: D3-MeFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.87	682	0.1330	90	104.5
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.59	1573	0.1201	120	93.8
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.90	3704	0.1262	144	97.9
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.64	12200	0.1305	2065	101.1
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	26.62	15471	0.1375	769	106.5
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	40.12	36067	0.1242	1233	96.2

By Compound Report

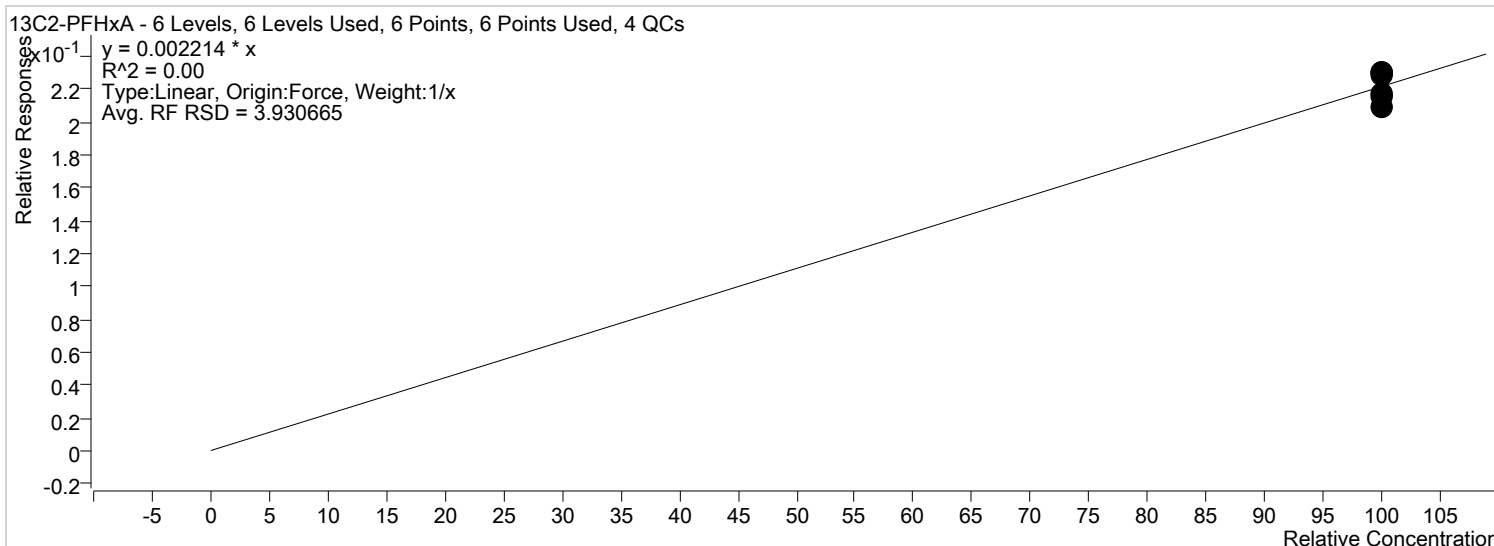
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: EtFOSA 1
Internal Standard: D5-EtFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	0.83	0.94	688	0.1595	26	112.9
STD 2	STD 2	x	2018/01/13 5:25:10 AM	1.70	1.64	1517	0.1439	143	96.6
STD 3	STD 3	x	2018/01/13 5:30:06 AM	5.00	4.55	3849	0.1416	235	91.1
STD 4	STD 4	x	2018/01/13 5:35:02 AM	12.50	12.14	11978	0.1533	389	97.1
STD 5	STD 5	x	2018/01/13 5:39:58 AM	25.00	25.28	15464	0.1603	566	101.1
STD 6	STD 6	x	2018/01/13 5:44:55 AM	41.70	42.17	36711	0.1606	1234	101.1

By Compound Report

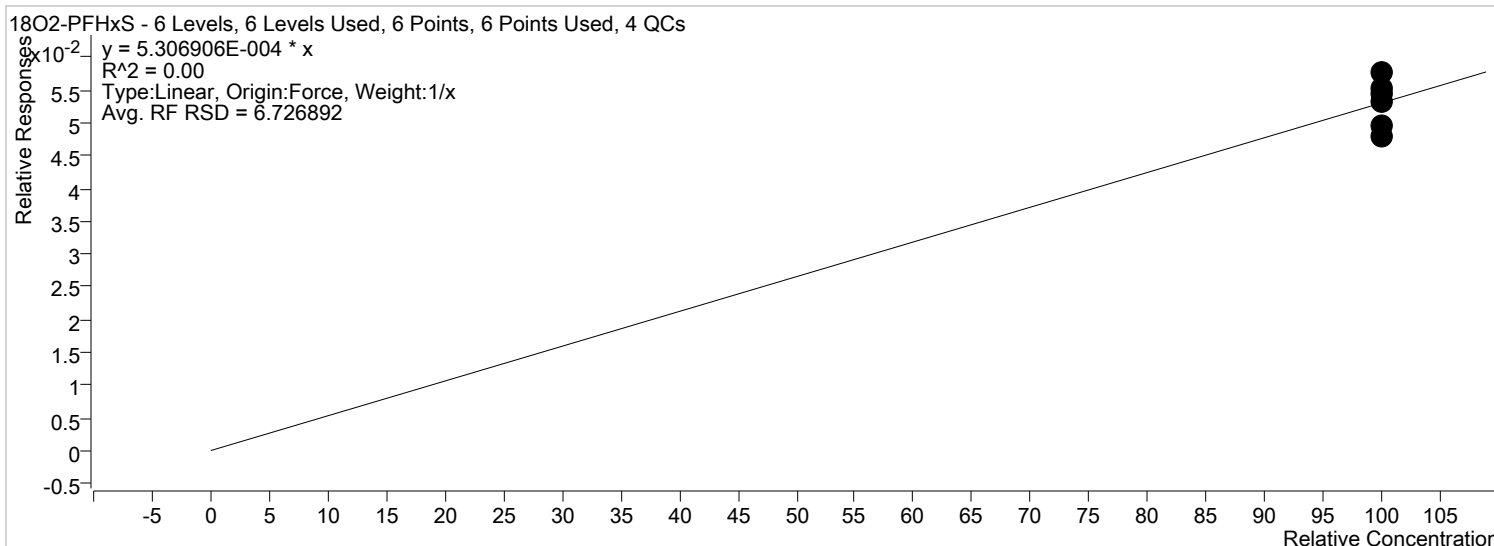
Batch Path T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	97.76	9991	0.0022	136	97.8
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	97.47	12792	0.0022	309	97.5
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	94.51	9847	0.0021	162	94.5
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	103.75	12356	0.0023	223	103.8
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	103.69	8010	0.0023	133	103.7
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	102.83	11160	0.0023	262	102.8

By Compound Report

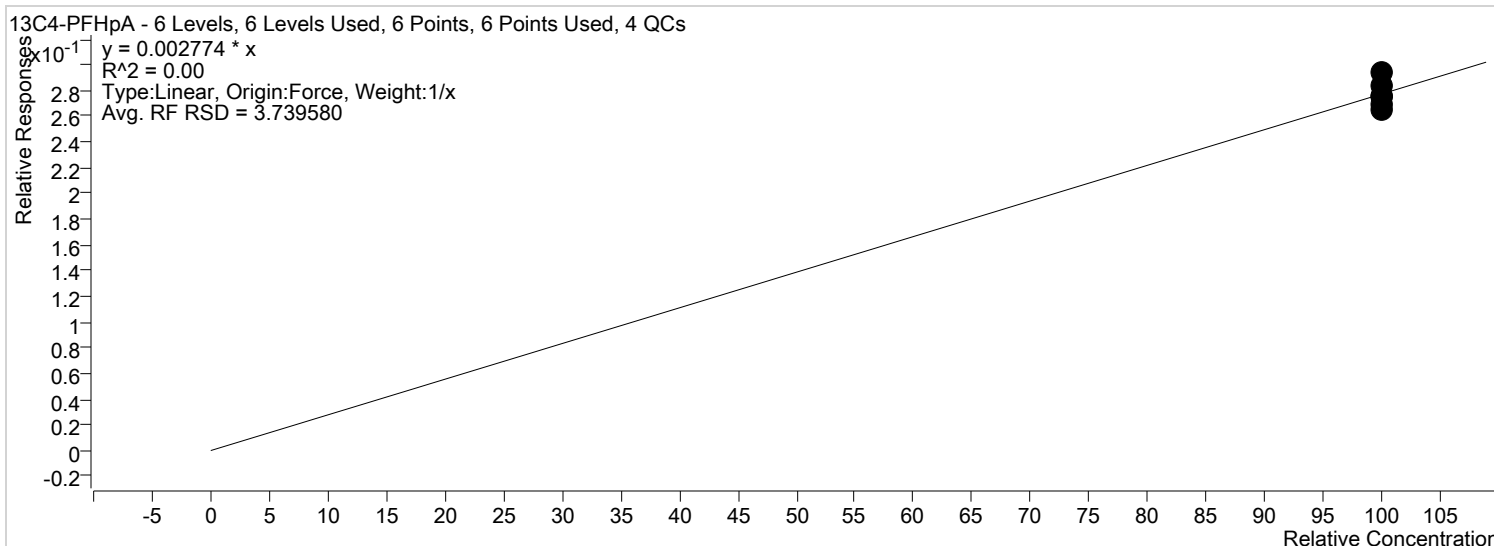
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	90.64	2220	0.0005	173	90.6
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	93.76	2949	0.0005	300	93.8
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	104.40	2607	0.0006	199	104.4
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	108.65	3101	0.0006	316	108.7
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	100.20	1855	0.0005	172	100.2
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	102.35	2662	0.0005	307	102.3

By Compound Report

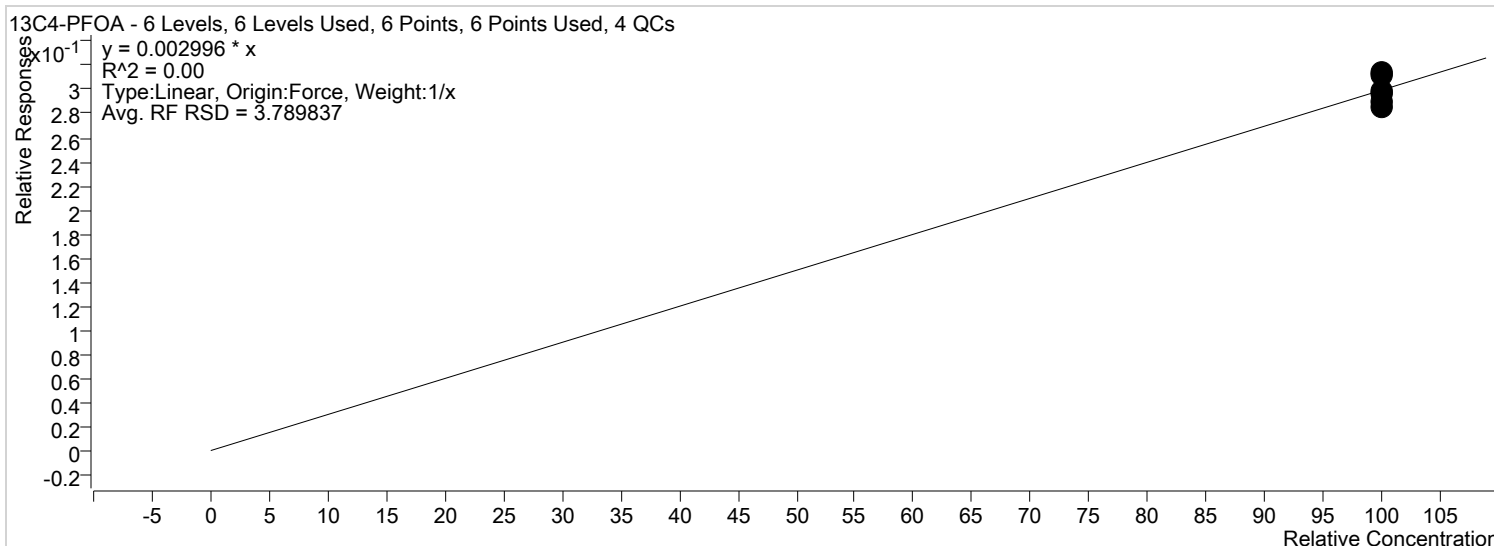
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	97.27	12454	0.0027	239	97.3
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	99.19	16309	0.0028	180	99.2
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	99.53	12992	0.0028	181	99.5
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	105.93	15805	0.0029	169	105.9
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	102.55	9925	0.0028	179	102.5
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	95.54	12990	0.0027	333	95.5

By Compound Report

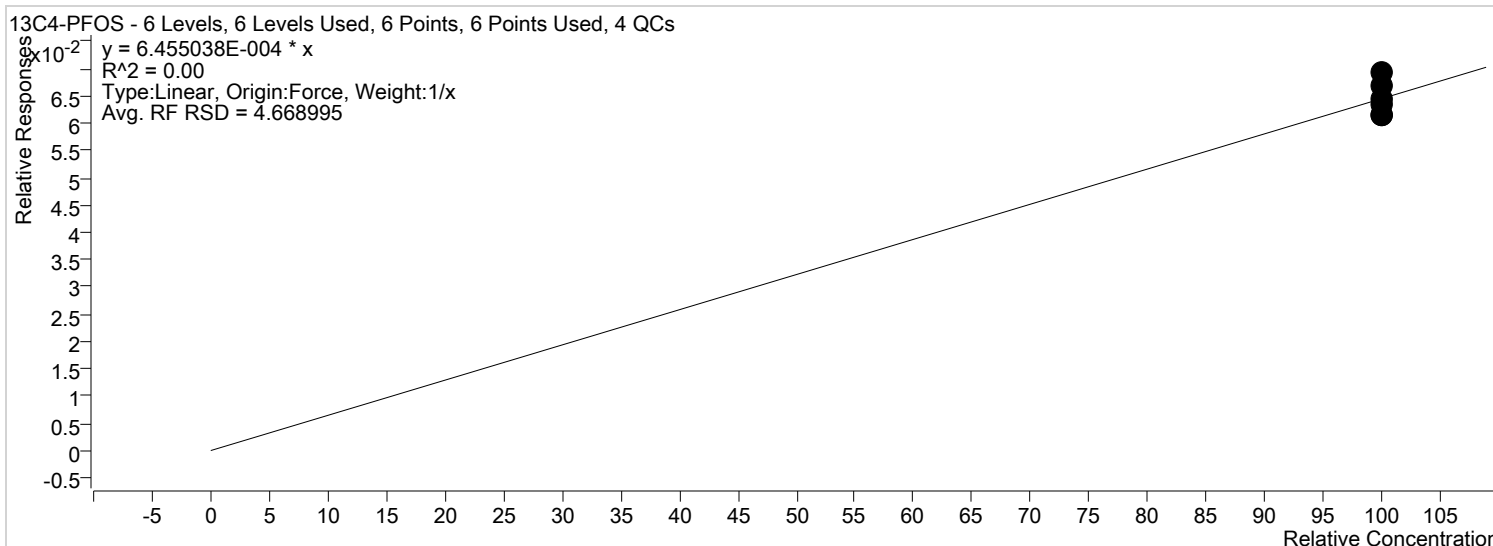
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	98.71	13648	0.0030	200	98.7
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	97.03	17227	0.0029	375	97.0
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	99.81	14069	0.0030	366	99.8
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	104.20	16789	0.0031	441	104.2
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	95.45	9976	0.0029	178	95.5
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	104.79	15386	0.0031	298	104.8

By Compound Report

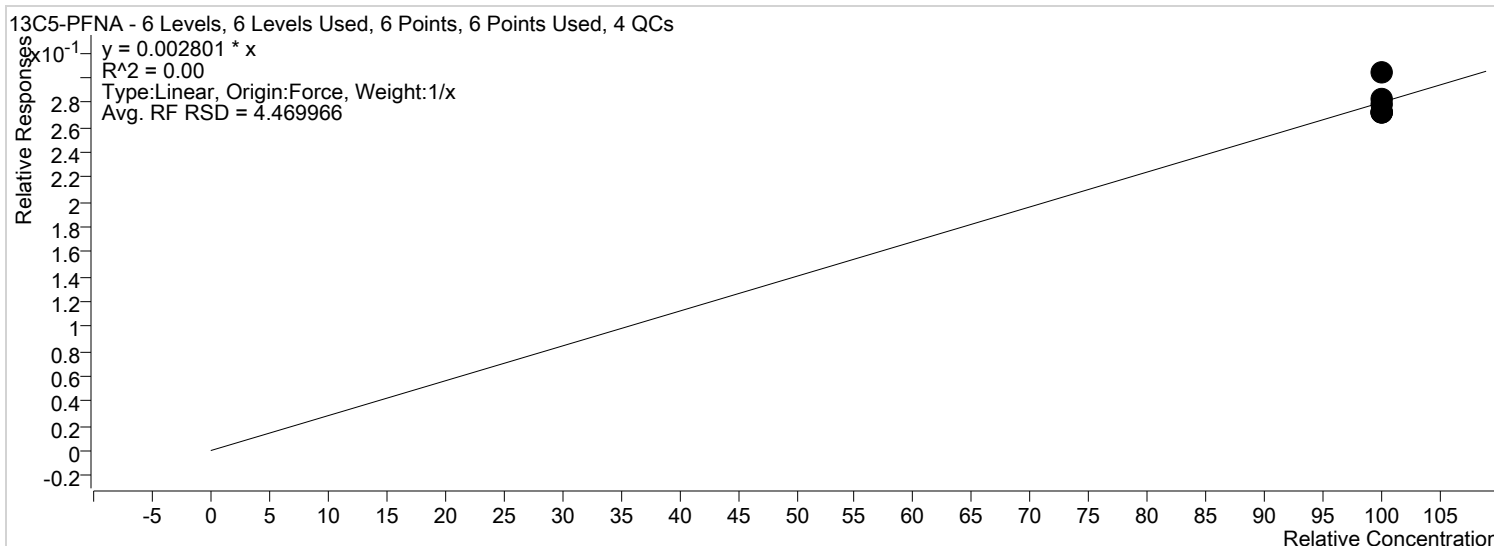
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	95.53	2846	0.0006	154	95.5
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	98.52	3769	0.0006	183	98.5
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	103.55	3145	0.0007	218	103.5
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	99.58	3457	0.0006	119	99.6
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	107.33	2417	0.0007	141	107.3
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	95.49	3021	0.0006	96	95.5

By Compound Report

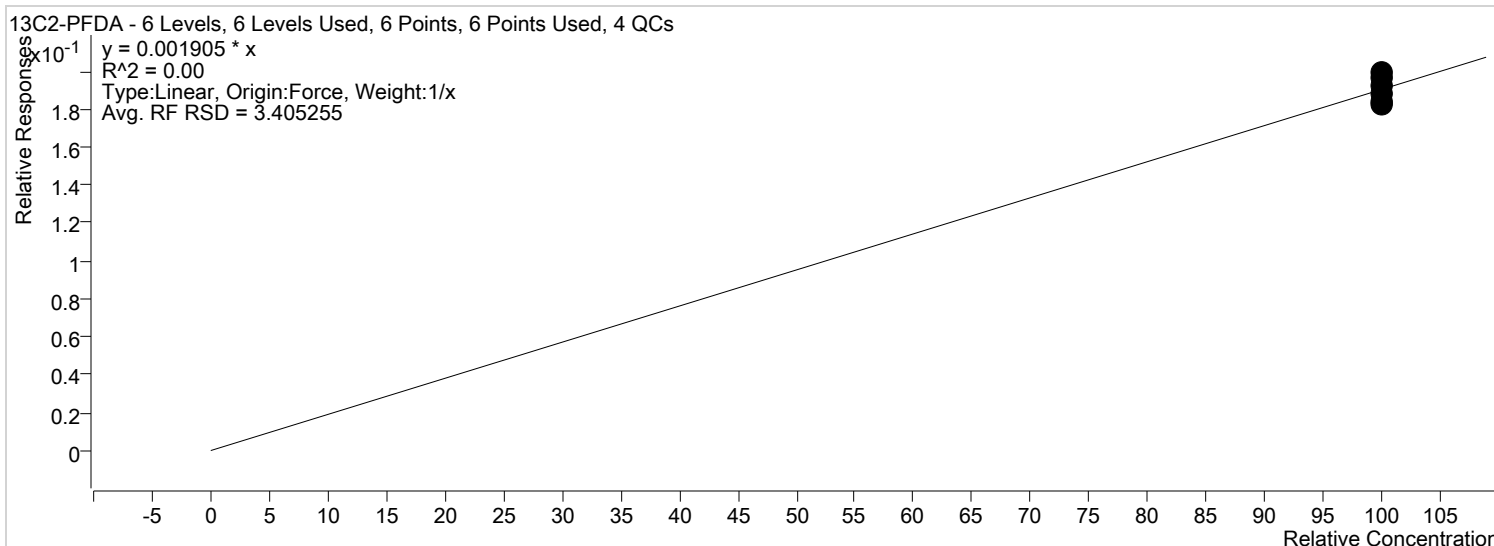
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	97.19	12566	0.0027	182	97.2
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	97.28	16150	0.0027	153	97.3
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	101.25	13346	0.0028	193	101.3
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	108.46	16340	0.0030	137	108.5
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	96.73	9453	0.0027	233	96.7
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	99.09	13605	0.0028	167	99.1

By Compound Report

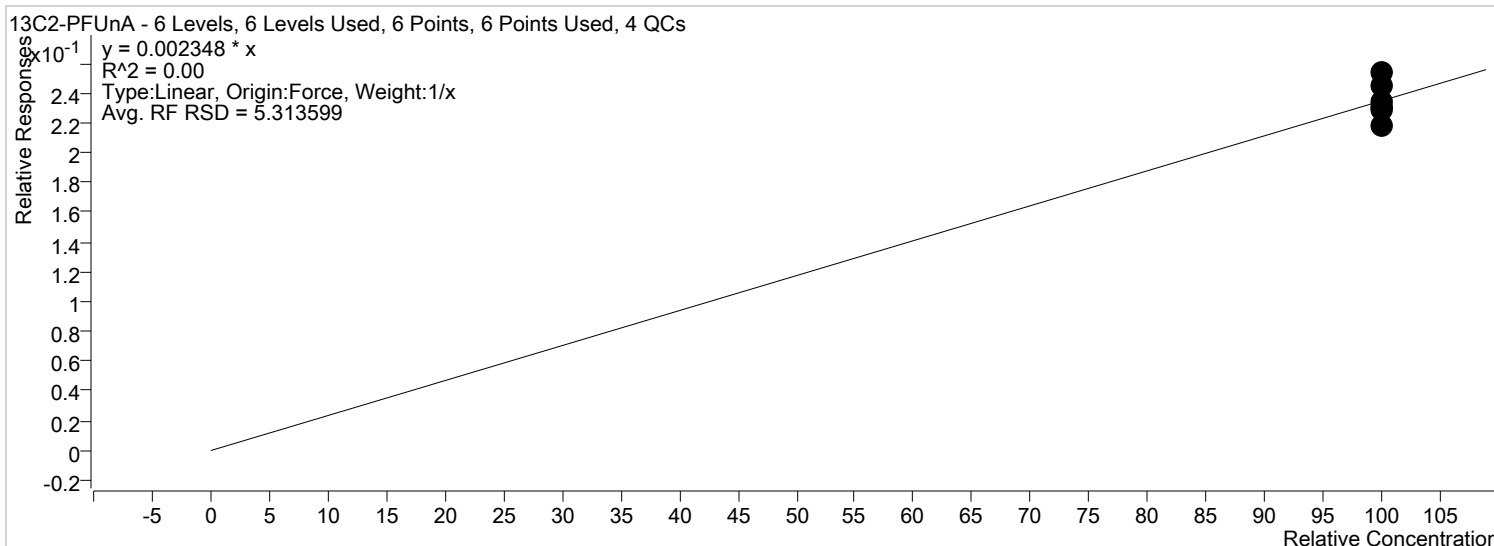
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 13C2-PFDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	98.92	11280	0.0019	390	98.9
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	96.75	13901	0.0018	232	96.8
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	100.77	11356	0.0019	293	100.8
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	102.96	13764	0.0020	205	103.0
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	96.02	8312	0.0018	240	96.0
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	104.59	12220	0.0020	483	104.6

By Compound Report

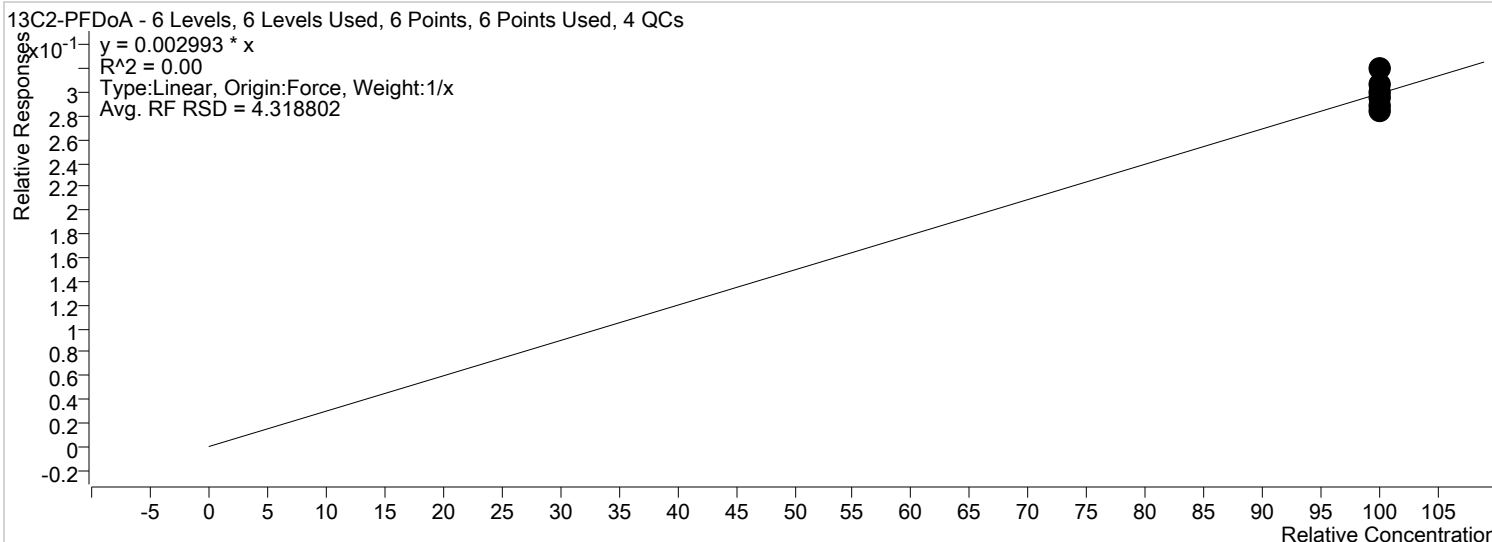
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	93.03	13080	0.0022	196	93.0
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	98.20	17395	0.0023	266	98.2
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	104.13	14468	0.0024	179	104.1
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	99.50	16400	0.0023	239	99.5
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	97.13	10367	0.0023	303	97.1
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	107.99	15556	0.0025	243	108.0

By Compound Report

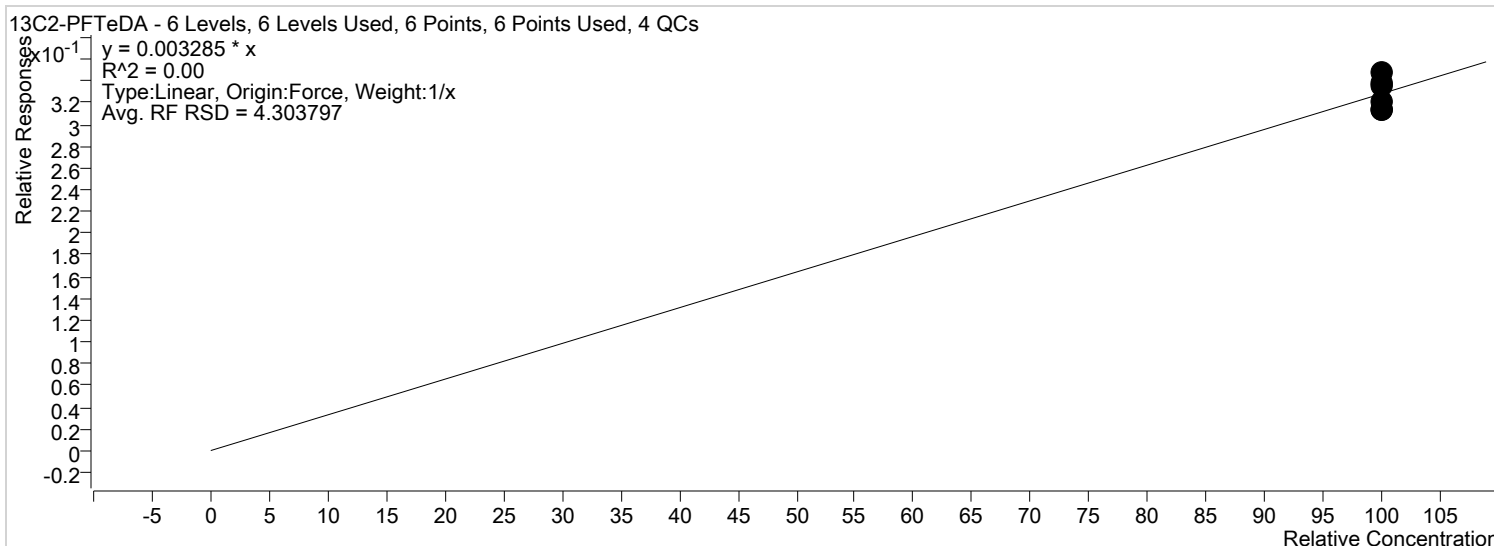
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	99.01	17741	0.0030	165	99.0
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	95.22	21498	0.0028	176	95.2
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	99.97	17703	0.0030	136	100.0
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	102.56	21546	0.0031	190	102.6
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	96.25	13093	0.0029	133	96.3
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	106.99	19642	0.0032	175	107.0

By Compound Report

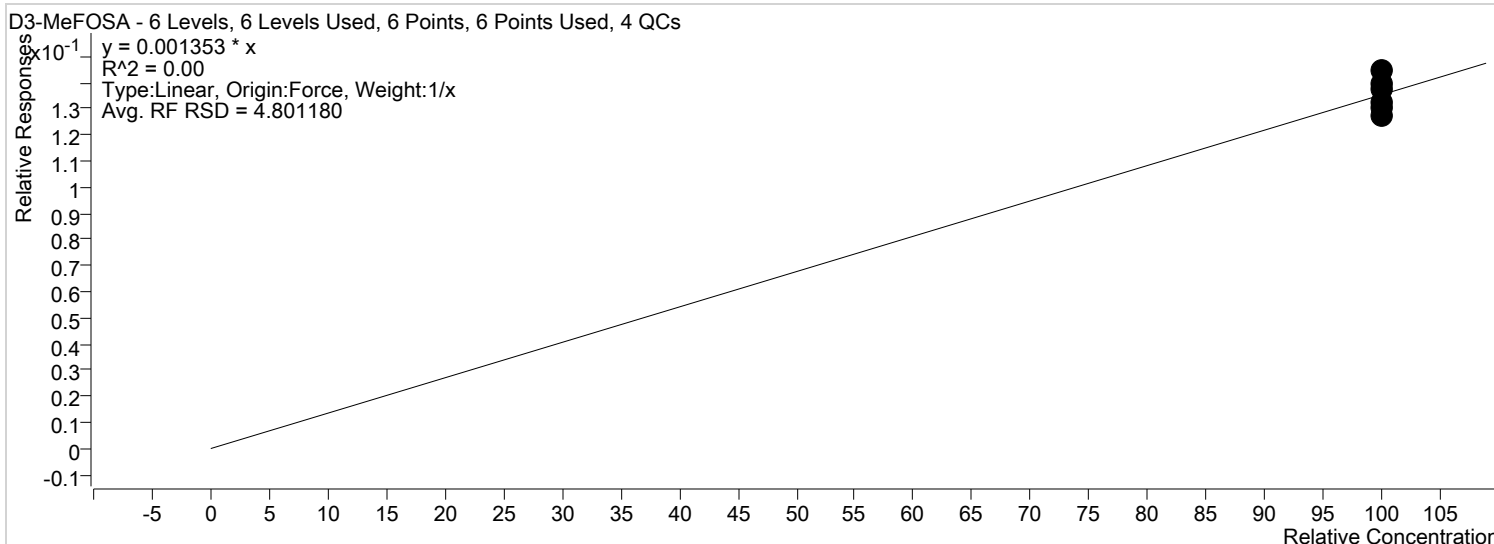
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	102.75	20208	0.0034	764	102.8
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	95.69	23709	0.0031	776	95.7
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	98.04	19054	0.0032	924	98.0
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	102.44	23618	0.0034	508	102.4
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	95.25	14220	0.0031	448	95.2
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	105.84	21325	0.0035	1025	105.8

By Compound Report

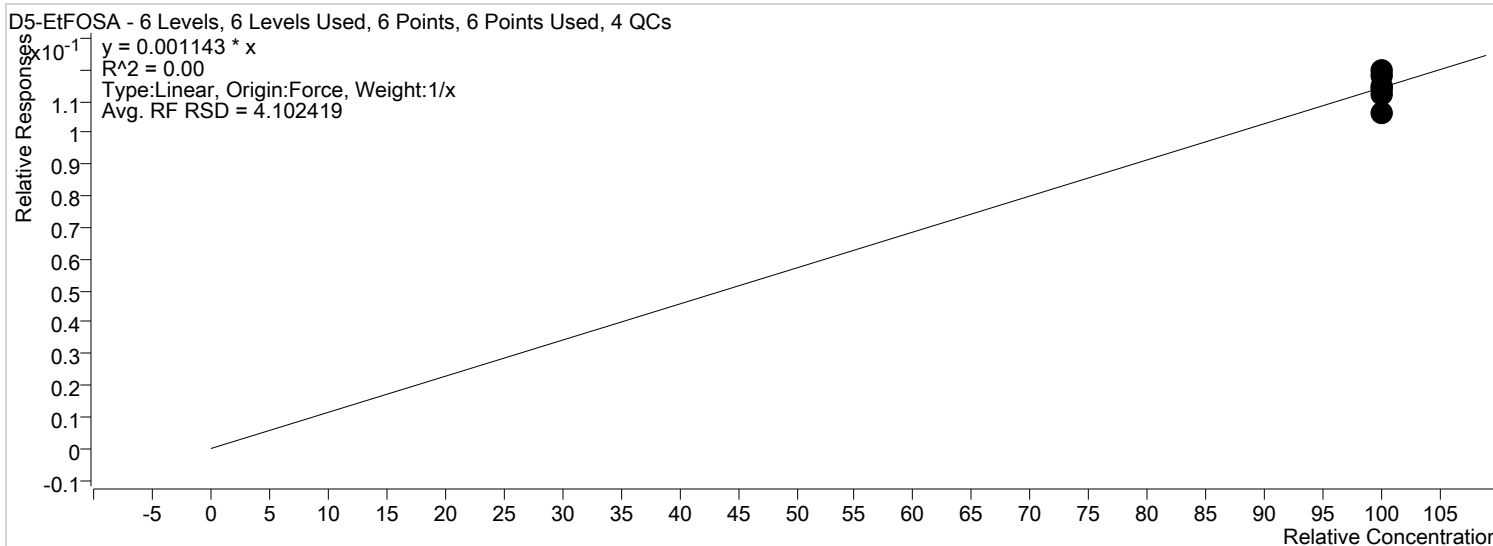
Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: D3-MeFOSA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	101.73	6352	0.0014	58	101.7
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	98.03	7860	0.0013	87	98.0
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	94.05	5987	0.0013	74	94.0
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	103.40	7524	0.0014	72	103.4
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	96.04	4533	0.0013	42	96.0
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	106.76	7079	0.0014	60	106.8

By Compound Report

Batch Path T:\lcms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX.batch.bin
Last Calib Update 2018/01/17 11:45:53 AM
Instrument: LCMS04
Analyte: D5-EtFOSA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/01/13 5:20:15 AM	100.00	100.52	5304	0.0011	469	100.5
STD 2	STD 2	x	2018/01/13 5:25:10 AM	100.00	93.11	6309	0.0011	271	93.1
STD 3	STD 3	x	2018/01/13 5:30:06 AM	100.00	103.50	5568	0.0012	430	103.5
STD 4	STD 4	x	2018/01/13 5:35:02 AM	100.00	104.64	6434	0.0012	292	104.6
STD 5	STD 5	x	2018/01/13 5:39:58 AM	100.00	98.38	3924	0.0011	167	98.4
STD 6	STD 6	x	2018/01/13 5:44:55 AM	100.00	99.85	5595	0.0011	229	99.8



6. Continuing Calibration

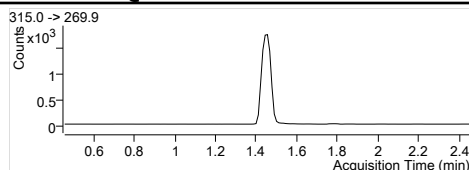
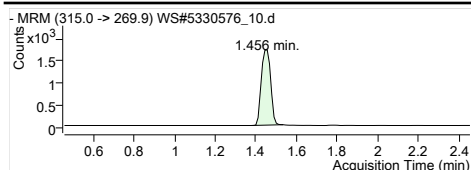
Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	ISC	Instrument	LCMS04
Data File	WS#5330576_10.d	Operator	
Sample Type	CC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A2
Acq. Date	2018/01/13 2:32:30 AM	Injection Volume	Per Method
Sample Annotation	-		

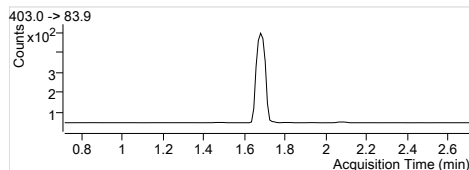
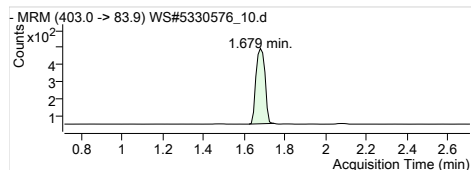
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5436	1.46	1 µg/L		
MPFHxS	1371	1.68	1 µg/L		
MPFHpA	6963	1.71	1 µg/L		
MPFOA	7231	1.89	1 µg/L		
MPFOS	1723	1.97	1 µg/L		
MPFNA	7304	2.04	1 µg/L		
MPFDA	6227	2.15	1 µg/L		
MPFUnA	7902	2.25	1 µg/L		
MPFDoA	10127	2.33	1 µg/L		
MPFTeDA	10516	2.47	1 µg/L		
D3-MeFOSA IS	3384	2.83	1 µg/L		
D5-EtFOSA IS	2804	2.91	1 µg/L		
13C6-PFHxA IS	22745	1.46	1 µg/L		
13C9-PFDA IS	29199	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	576	1.10	0.83	0.79 µg/L	95.14
PFHxA 1	2278	1.44	0.83	1.00 µg/L	119.94
PFHxS 1	586	1.68	0.83	0.77 µg/L	93.25
PFHpA 1	2562	1.71	0.83	0.80 µg/L	96.99
PFOA 1	3382	1.89	0.83	1.08 µg/L	129.63
PFOS 1	590	1.97	0.83	0.99 µg/L	119.35
PFNA 1	2632	2.04	0.83	0.87 µg/L	104.75
PFDA 1	2511	2.15	0.83	0.85 µg/L	101.84
PFUnA 1	3160	2.25	0.83	0.92 µg/L	111.43
PFDaA 1	3542	2.33	0.83	0.83 µg/L	100.54
PFTrDA 1	4258	2.40	0.83	0.98 µg/L	117.90
PFTeDA 1	3607	2.47	0.83	0.97 µg/L	116.91
MeFOSA 1	386	2.82	0.83	1.00 µg/L	121.01
EtFOSA 1	453	2.90	0.83	1.07 µg/L	128.47
13C2-PFHxA	5436	1.46	100.00	95.34 µg/L	95.34
18O2-PFHxS	1371	1.68	100.00	104.31 µg/L	104.31
13C4-PFHpA	6963	1.71	100.00	96.36 µg/L	96.36
13C4-PFOA	7231	1.89	100.00	97.03 µg/L	97.03
13C4-PFOS	1723	1.97	100.00	106.49 µg/L	106.49
13C5-PFNA	7249	2.04	100.00	99.46 µg/L	99.46
13C2-PFDA	6099	2.15	100.00	94.81 µg/L	94.81
13C2-PFUnA	7902	2.25	100.00	96.63 µg/L	96.63
13C2-PFDoA	10127	2.33	100.00	98.07 µg/L	98.07
13C2-PFTeDA	10721	2.47	100.00	92.44 µg/L	92.44
D3-MeFOSA	3435	2.83	100.00	94.00 µg/L	94.00
D5-EtFOSA	2848	2.91	100.00	95.83 µg/L	95.83
13C6-PFHxA	22745	1.46	100.00	106.67 µg/L	106.67
13C9-PFDA	29199	2.15	100.00	111.61 µg/L	111.61



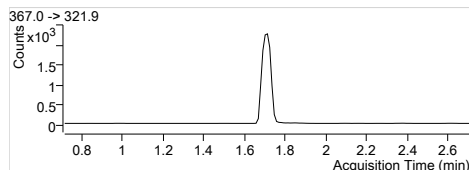
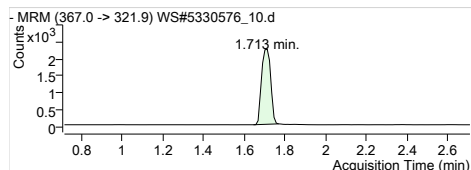
MPFHxA
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.456 (1.456)
1 µg/L
CC



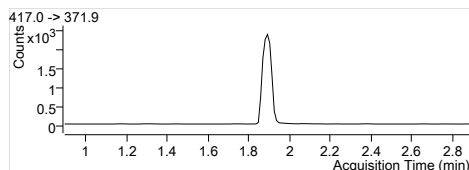
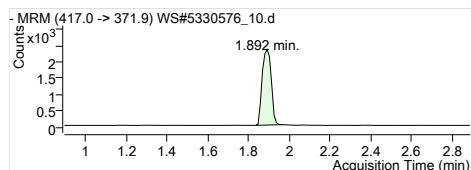
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.679 (1.713)
1 µg/L
CC



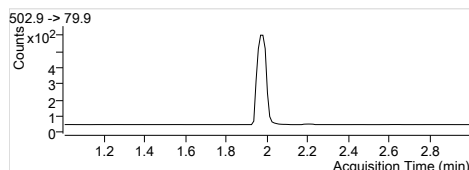
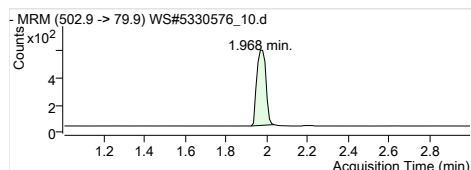
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.713 (1.713)
1 µg/L
CC



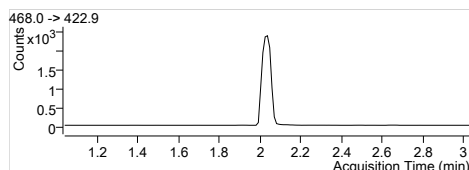
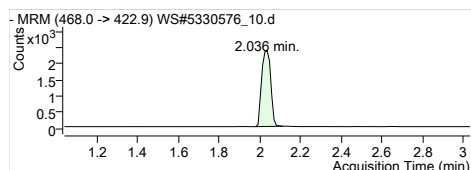
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.892 (1.892)
1 µg/L
CC



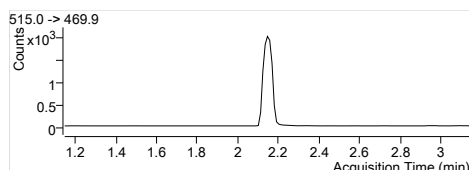
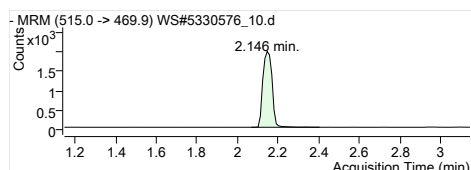
MPFOS
RT (Exp. RT): 1.968 (2.002)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.968 (2.002)
1 µg/L
CC



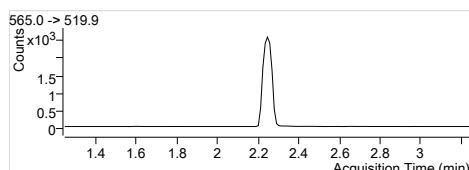
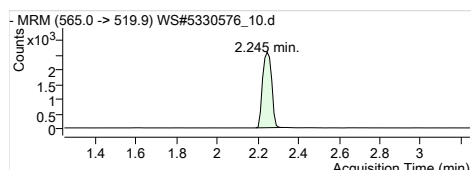
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.036 (2.036)
1 µg/L
CC



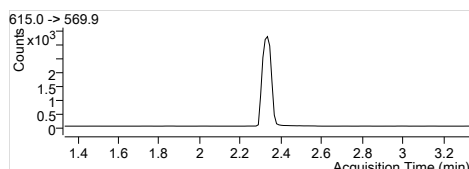
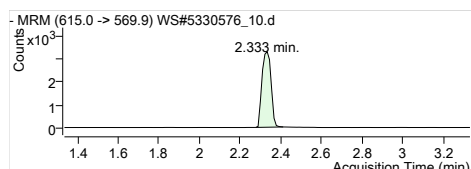
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.146 (2.146)
1 µg/L
CC



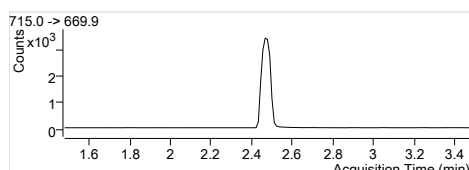
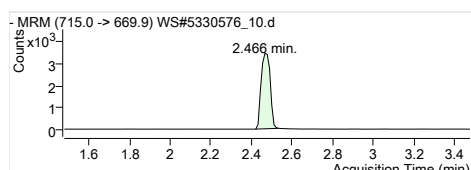
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.245 (2.245)
1 µg/L
CC



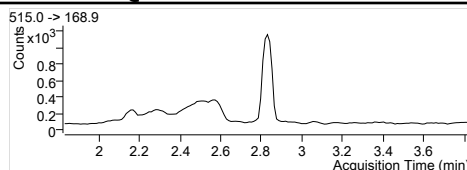
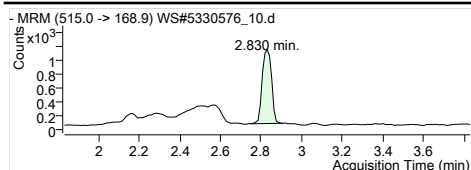
MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.333 (2.333)
1 µg/L
CC

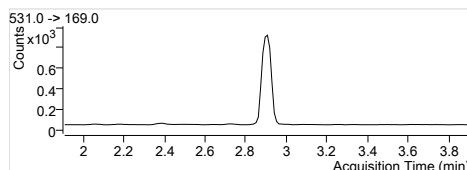
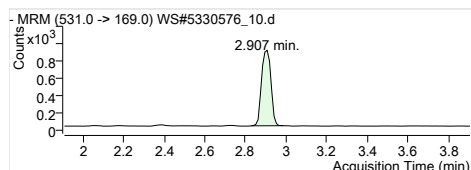


MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: CC

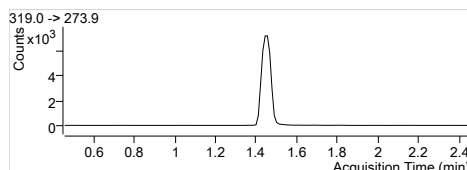
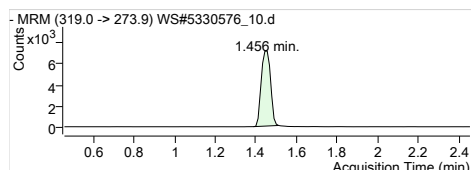
Internal Standard
2.466 (2.478)
1 µg/L
CC



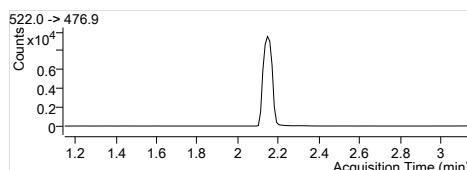
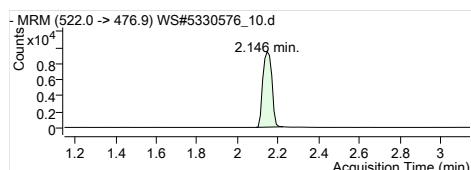
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: CC



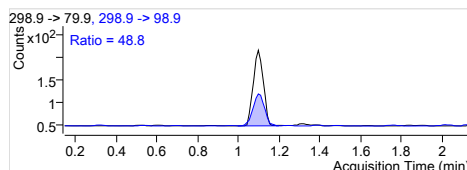
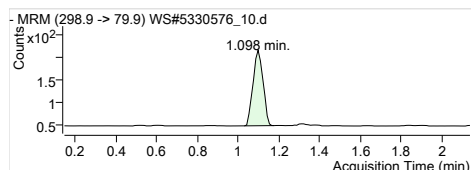
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.907 (2.907)
 Concentration: 1 µg/L
 Sample type: CC



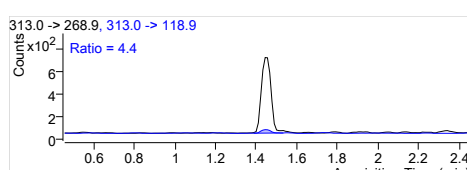
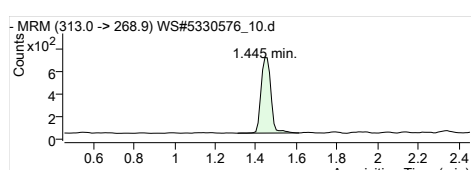
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.456 (1.456)
 Concentration: 1 µg/L
 Sample type: CC



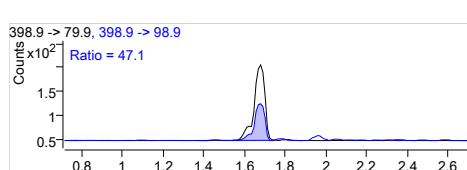
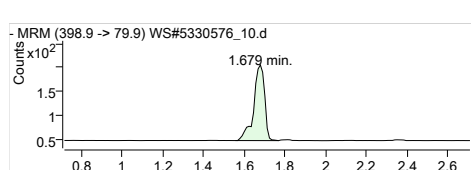
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: CC



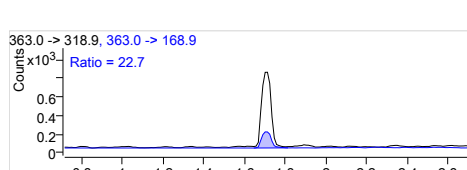
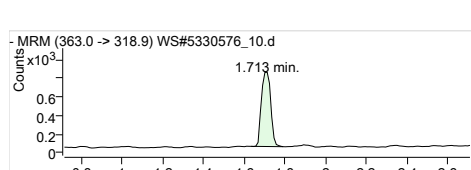
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.143)
 Area ratio: 0.79 µg/L
 0.42013
 Sample type: CC



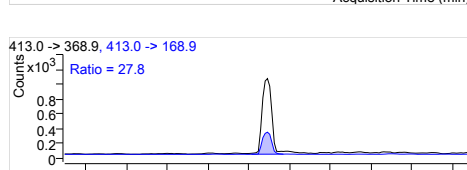
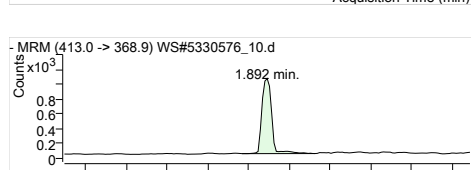
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.456)
 Area ratio: 1.00 µg/L
 0.41906
 Sample type: CC



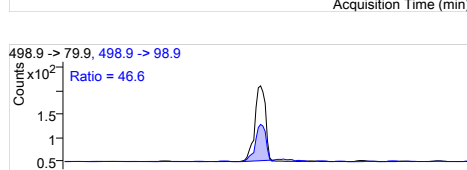
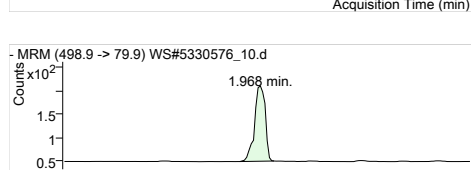
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 0.77 µg/L
 0.42743
 Sample type: CC



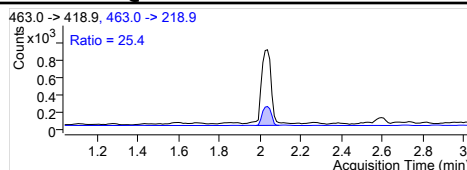
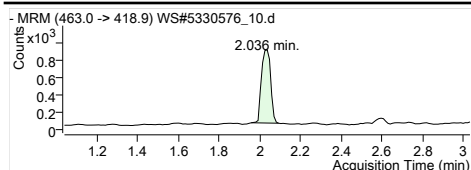
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 0.80 µg/L
 0.36794
 Sample type: CC



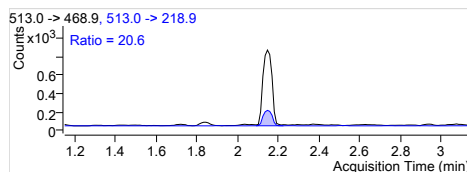
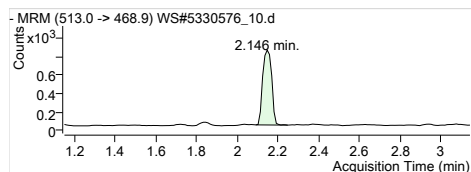
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 1.08 µg/L
 0.46771
 Sample type: CC



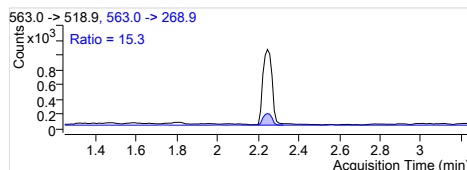
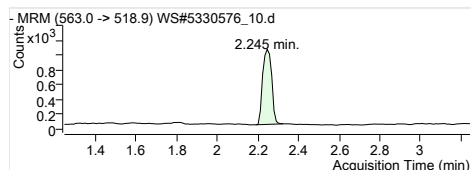
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 0.99 µg/L
 0.34243
 Sample type: CC



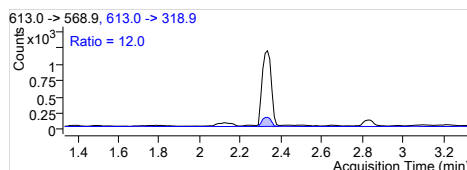
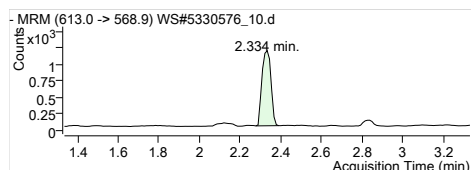
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 0.87 µg/L
 Sample type: 0.36035
 CC



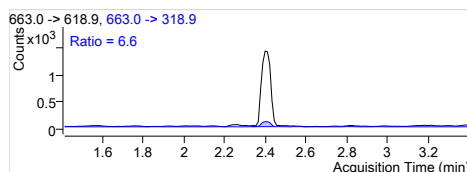
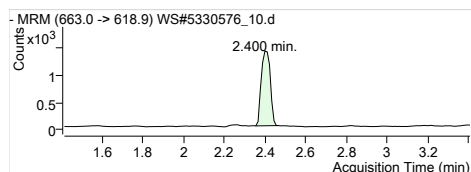
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 0.85 µg/L
 Sample type: 0.40324
 CC



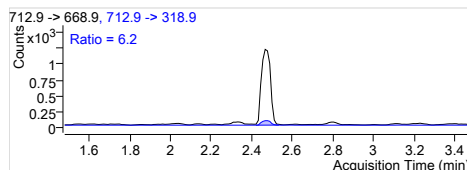
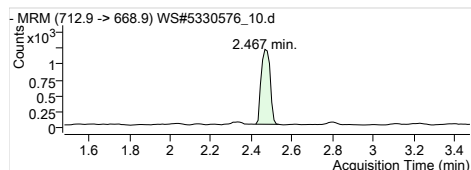
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 0.92 µg/L
 Sample type: 0.39990
 CC



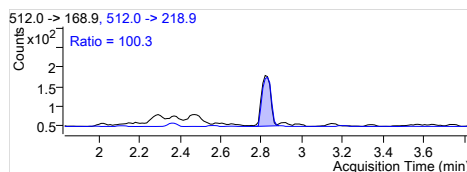
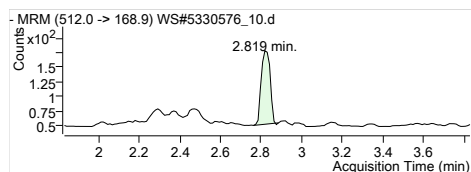
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 0.83 µg/L
 Sample type: 0.34976
 CC



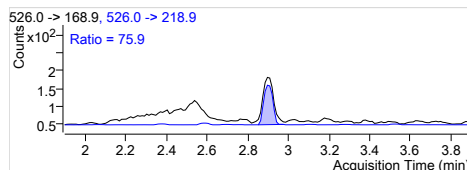
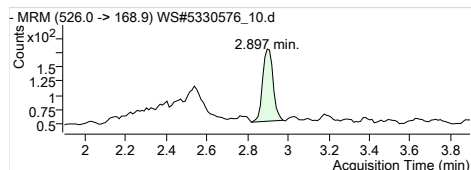
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.411)
 Area ratio: 0.98 µg/L
 Sample type: 0.40491
 CC



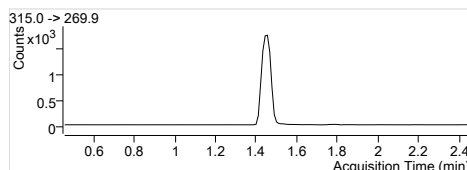
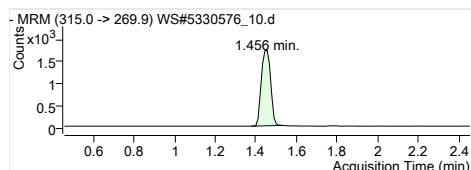
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.478)
 Area ratio: 0.97 µg/L
 Sample type: 0.34300
 CC



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 1.00 µg/L
 Sample type: 0.11407
 CC



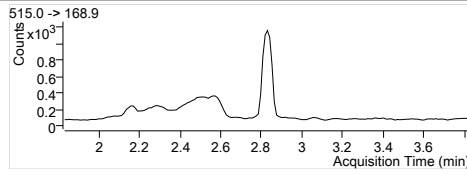
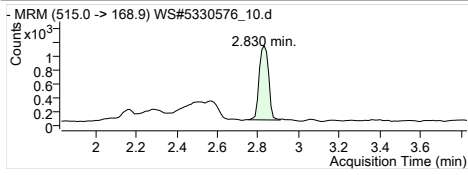
EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 1.07 µg/L
 Sample type: 0.16155
 CC



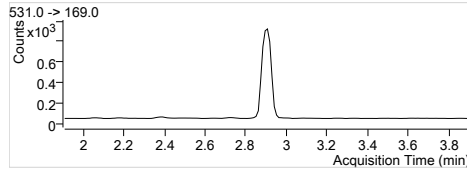
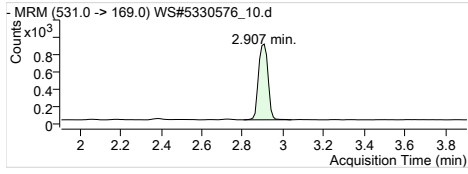
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.456 (1.456)
 Area ratio: 95.34 µg/L
 Sample type: 0.23900
 CC

<p>-MRM (403.0 -> 83.9) WS#5330576_10.d Counts x10² 1.679 min. Acquisition Time (min)</p>	<p>403.0 -> 83.9 Counts x10² Acquisition Time (min)</p>	<p>1802-PFHxS RT (Exp. RT): 403.0 -> 83.9 Calc. conc. 1.679 (1.713) Area ratio: 104.31 µg/L Sample type: 0.06028 CC</p>
<p>-MRM (367.0 -> 321.9) WS#5330576_10.d Counts x10³ 1.713 min. Acquisition Time (min)</p>	<p>367.0 -> 321.9 Counts x10³ Acquisition Time (min)</p>	<p>13C4-PFHpA RT (Exp. RT): 367.0 -> 321.9 Calc. conc. 1.713 (1.713) Area ratio: 96.36 µg/L Sample type: 0.30613 CC</p>
<p>-MRM (417.0 -> 371.9) WS#5330576_10.d Counts x10³ 1.892 min. Acquisition Time (min)</p>	<p>417.0 -> 371.9 Counts x10³ Acquisition Time (min)</p>	<p>13C4-PFOA RT (Exp. RT): 417.0 -> 371.9 Calc. conc. 1.892 (1.892) Area ratio: 97.03 µg/L Sample type: 0.31792 CC</p>
<p>-MRM (502.9 -> 79.9) WS#5330576_10.d Counts x10² 1.968 min. Acquisition Time (min)</p>	<p>502.9 -> 79.9 Counts x10² Acquisition Time (min)</p>	<p>13C4-PFOS RT (Exp. RT): 502.9 -> 79.9 Calc. conc. 1.968 (2.002) Area ratio: 106.49 µg/L Sample type: 0.07575 CC</p>
<p>-MRM (468.0 -> 422.9) WS#5330576_10.d Counts x10³ 2.036 min. Acquisition Time (min)</p>	<p>468.0 -> 422.9 Counts x10³ Acquisition Time (min)</p>	<p>13C5-PFNA RT (Exp. RT): 468.0 -> 422.9 Calc. conc. 2.036 (2.036) Area ratio: 99.46 µg/L Sample type: 0.31871 CC</p>
<p>-MRM (515.0 -> 469.9) WS#5330576_10.d Counts x10³ 2.146 min. Acquisition Time (min)</p>	<p>515.0 -> 469.9 Counts x10³ Acquisition Time (min)</p>	<p>13C2-PFDA RT (Exp. RT): 515.0 -> 469.9 Calc. conc. 2.146 (2.146) Area ratio: 94.81 µg/L Sample type: 0.20888 CC</p>
<p>-MRM (565.0 -> 519.9) WS#5330576_10.d Counts x10³ 2.245 min. Acquisition Time (min)</p>	<p>565.0 -> 519.9 Counts x10³ Acquisition Time (min)</p>	<p>13C2-PFUnA RT (Exp. RT): 565.0 -> 519.9 Calc. conc. 2.245 (2.245) Area ratio: 96.63 µg/L Sample type: 0.27063 CC</p>
<p>-MRM (615.0 -> 569.9) WS#5330576_10.d Counts x10³ 2.333 min. Acquisition Time (min)</p>	<p>615.0 -> 569.9 Counts x10³ Acquisition Time (min)</p>	<p>13C2-PFDoA RT (Exp. RT): 615.0 -> 569.9 Calc. conc. 2.333 (2.333) Area ratio: 98.07 µg/L Sample type: 0.34683 CC</p>
<p>-MRM (715.0 -> 669.9) WS#5330576_10.d Counts x10³ 2.466 min. Acquisition Time (min)</p>	<p>715.0 -> 669.9 Counts x10³ Acquisition Time (min)</p>	<p>13C2-PFTeDA RT (Exp. RT): 715.0 -> 669.9 Calc. conc. 2.466 (2.478) Area ratio: 92.44 µg/L Sample type: 0.36717 CC</p>

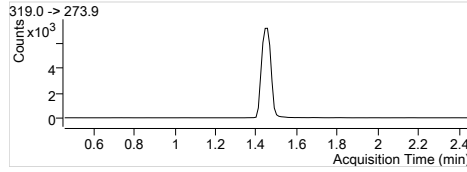
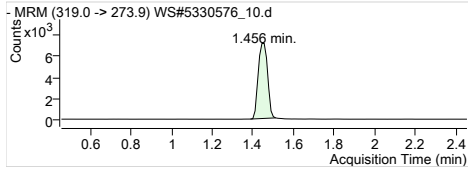
Quantitation Results



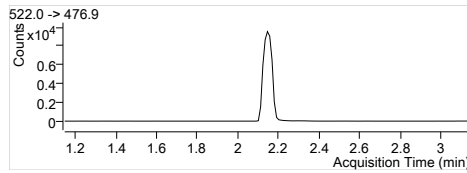
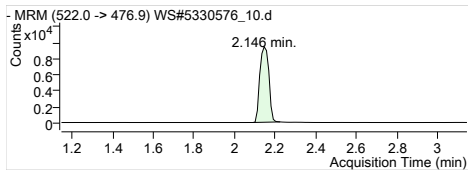
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
RT (2.830)
Calc. conc. 2.830 (2.830)
94.00 µg/L
Area ratio: 0.15102
Sample type: CC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
RT (2.907)
Calc. conc. 2.907 (2.907)
95.83 µg/L
Area ratio: 0.12521
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
RT (1.456)
Calc. conc. 1.456 (1.456)
106.67 µg/L
Area ratio: 0
Sample type: CC



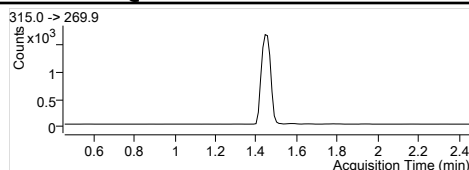
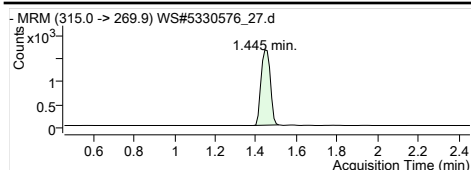
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
RT (2.146)
Calc. conc. 2.146 (2.146)
111.61 µg/L
Area ratio: 0
Sample type: CC

Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#5330576_27.d	Operator	
Sample Type	CC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A5
Acq. Date	2018/01/13 3:56:22 AM	Injection Volume	Per Method
Sample Annotation	-		

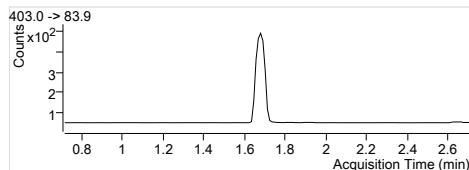
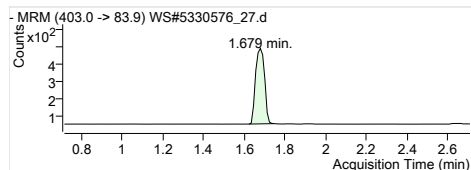
ISTD Compounds	Response	RT	Target conc.
MPFHxA	5201	1.44	1 µg/L
MPFHxS	1366	1.68	1 µg/L
MPFHpA	6283	1.71	1 µg/L
MPFOA	6630	1.89	1 µg/L
MPFOS	1598	1.97	1 µg/L
MPFNA	6438	2.04	1 µg/L
MPFDA	5215	2.15	1 µg/L
MPFUnA	7101	2.25	1 µg/L
MPFDoA	8758	2.33	1 µg/L
MPFTeDA	9288	2.47	1 µg/L
D3-MeFOSA IS	2940	2.83	1 µg/L
D5-EtFOSA IS	2320	2.91	1 µg/L
13C6-PFHxA IS	20373	1.44	1 µg/L
13C9-PFDA IS	25901	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8668	1.10	12.50	11.78 µg/L	94.23
PFHxA 1	28517	1.44	12.50	12.76 µg/L	102.05
PFHxS 1	7842	1.68	12.50	12.10 µg/L	96.84
PFHpA 1	35514	1.71	12.50	13.51 µg/L	108.08
PFOA 1	39783	1.89	12.50	12.96 µg/L	103.71
PFOS 1	7780	1.97	12.50	11.78 µg/L	94.24
PFNA 1	35594	2.04	12.50	13.18 µg/L	105.41
PFDA 1	36101	2.15	12.50	12.90 µg/L	103.19
PFUnA 1	41708	2.25	12.50	12.55 µg/L	100.39
PFDoA 1	49285	2.33	12.50	12.54 µg/L	100.31
PFTrDA 1	54919	2.40	12.50	12.78 µg/L	102.23
PFTeDA 1	45178	2.47	12.50	13.27 µg/L	106.16
MeFOSA 1	4883	2.83	12.50	13.83 µg/L	110.66
EtFOSA 1	4646	2.90	12.50	12.67 µg/L	101.33
13C2-PFHxA	5201	1.44	100.00	101.84 µg/L	101.84
18O2-PFHxS	1366	1.68	100.00	116.03 µg/L	116.03
13C4-PFHpA	6283	1.71	100.00	97.07 µg/L	97.07
13C4-PFOA	6630	1.89	100.00	99.33 µg/L	99.33
13C4-PFOS	1598	1.97	100.00	110.27 µg/L	110.27
13C5-PFNA	6380	2.04	100.00	97.73 µg/L	97.73
13C2-PFDA	5098	2.15	100.00	89.34 µg/L	89.34
13C2-PFUnA	7101	2.25	100.00	97.90 µg/L	97.90
13C2-PFDoA	8758	2.33	100.00	95.61 µg/L	95.61
13C2-PFTeDA	9467	2.47	100.00	92.02 µg/L	92.02
D3-MeFOSA	2956	2.83	100.00	90.31 µg/L	90.31
D5-EtFOSA	2370	2.91	100.00	89.03 µg/L	89.03
13C6-PFHxA	20373	1.44	100.00	95.54 µg/L	95.54
13C9-PFDA	25901	2.15	100.00	99.00 µg/L	99.00



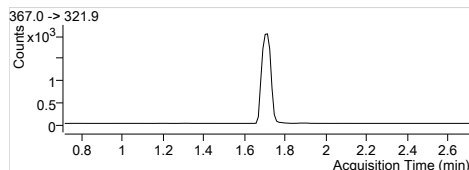
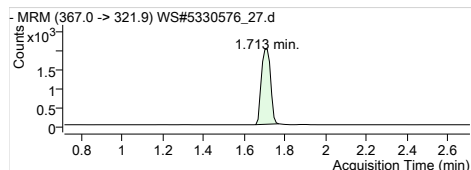
MPFHxA
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.445 (1.456)
1 µg/L
CC



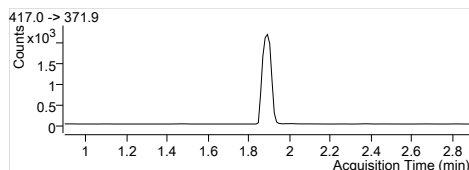
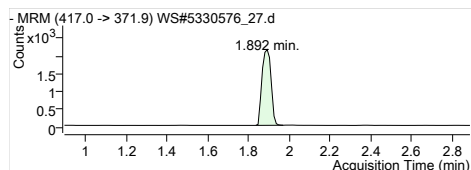
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.679 (1.713)
1 µg/L
CC



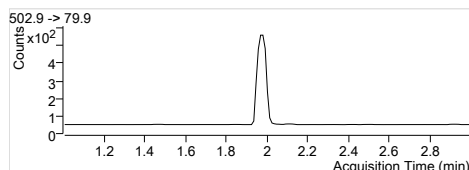
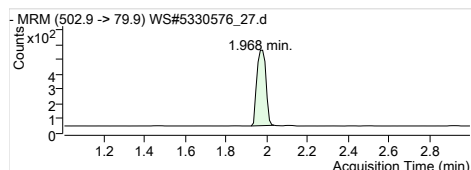
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.713 (1.713)
1 µg/L
CC



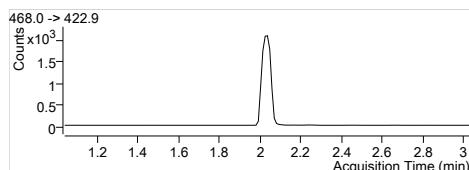
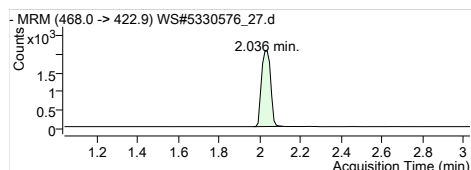
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.892 (1.892)
1 µg/L
CC



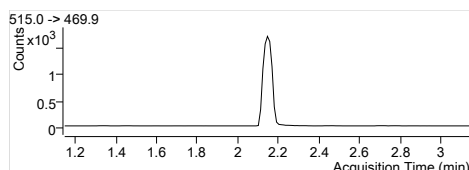
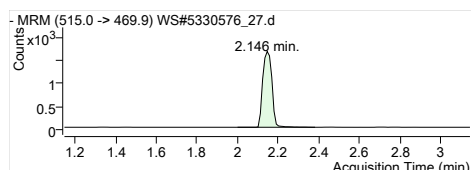
MPFOS
RT (Exp. RT): 1.968 (2.002)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.968 (2.002)
1 µg/L
CC



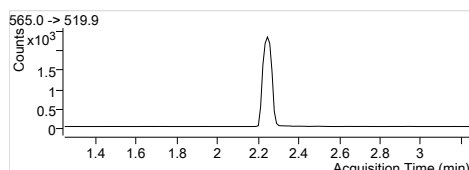
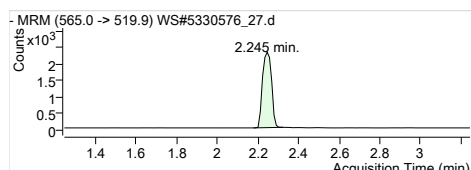
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.036 (2.036)
1 µg/L
CC



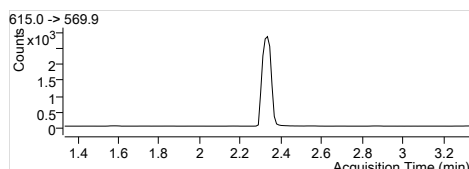
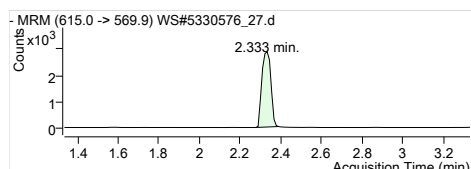
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.146 (2.146)
1 µg/L
CC



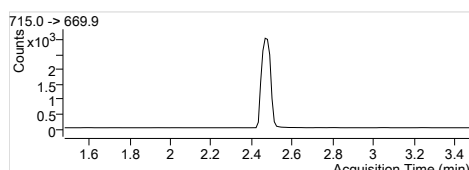
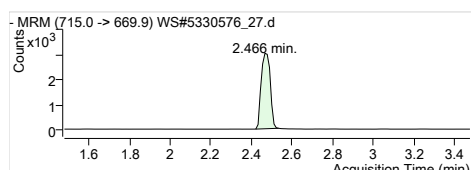
MPFUxA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.245 (2.245)
1 µg/L
CC



MPFDxA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: CC

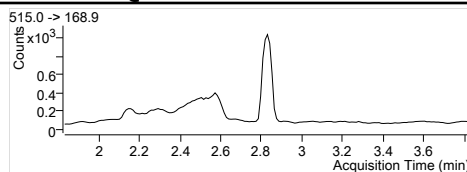
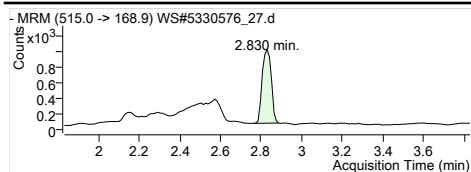
Internal Standard
2.333 (2.333)
1 µg/L
CC



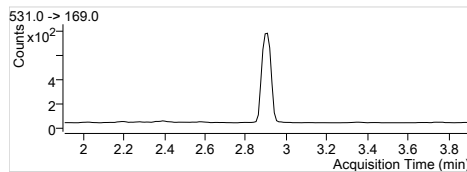
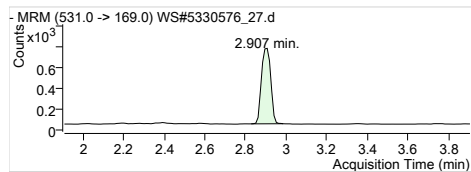
MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.466 (2.478)
1 µg/L
CC

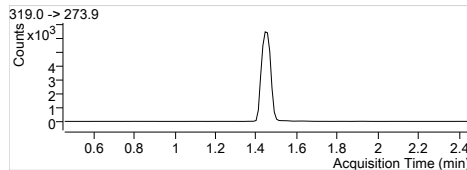
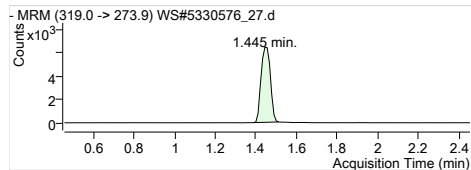
Quantitation Results



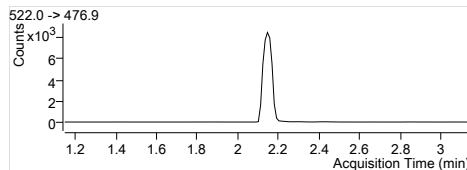
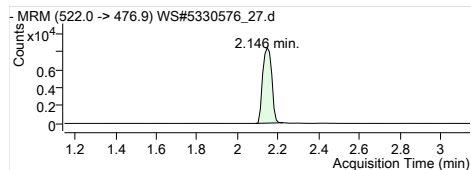
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: CC



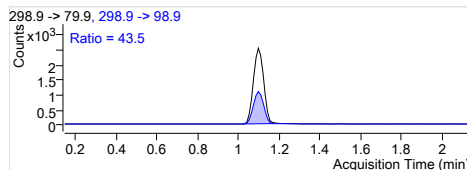
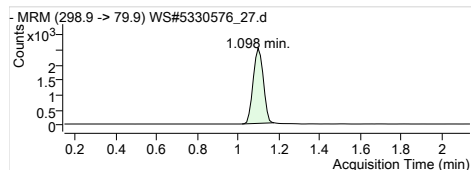
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.907 (2.907)
 Concentration: 1 µg/L
 Sample type: CC



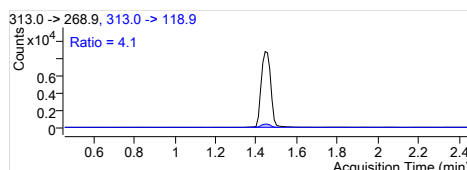
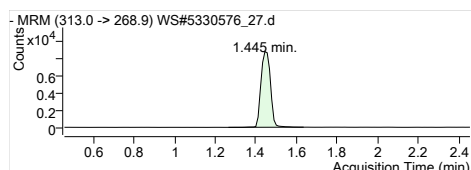
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: CC



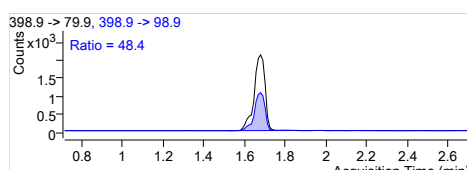
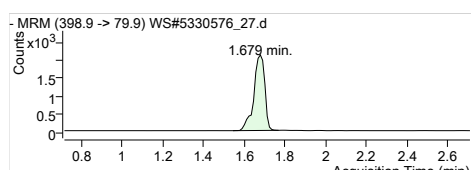
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: CC



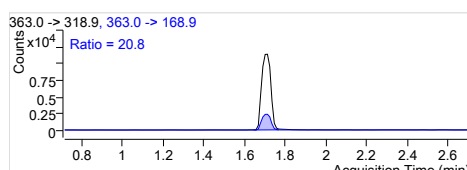
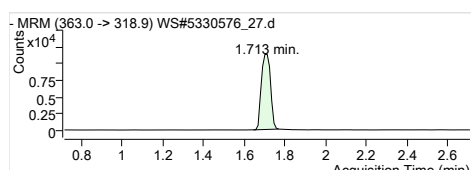
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.098 (1.143)
 Calc. conc. 11.78 µg/L
 Area ratio: 6.34553
 Sample type: CC



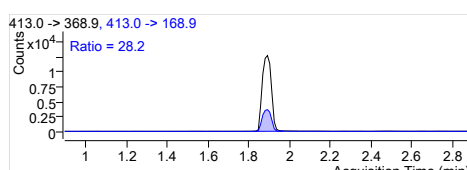
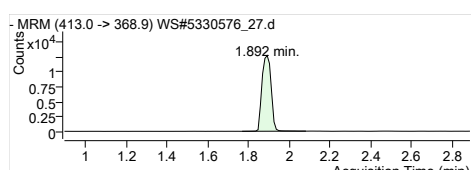
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.445 (1.456)
 Calc. conc. 12.76 µg/L
 Area ratio: 5.48298
 Sample type: CC



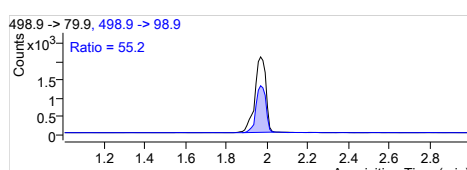
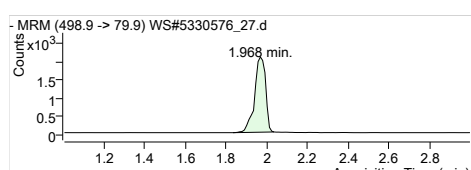
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.713)
 Calc. conc. 12.10 µg/L
 Area ratio: 5.74085
 Sample type: CC



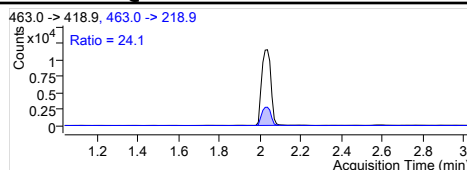
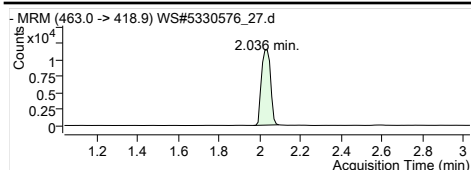
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 13.51 µg/L
 Area ratio: 5.65240
 Sample type: CC



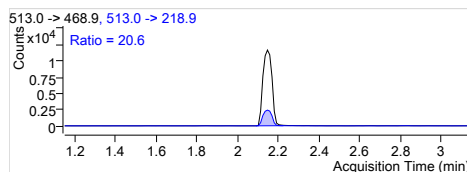
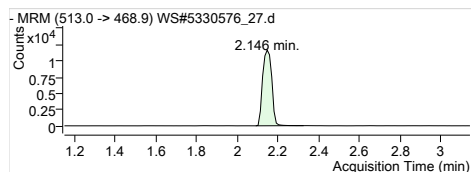
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 12.96 µg/L
 Area ratio: 6.00045
 Sample type: CC



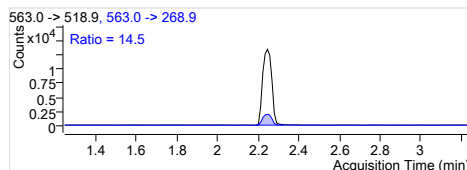
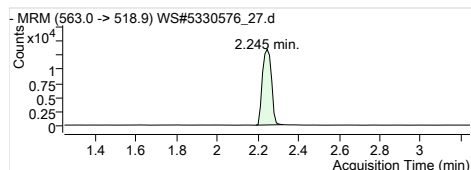
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (2.002)
 Calc. conc. 11.78 µg/L
 Area ratio: 4.86859
 Sample type: CC



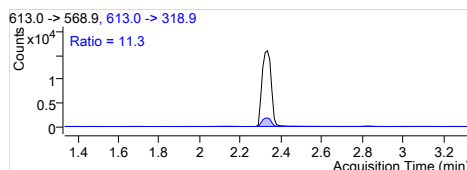
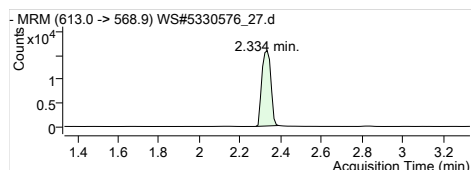
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc: 2.036 (2.036)
 Area ratio: 13.18 µg/L
 Sample type: 5.52874
 CC



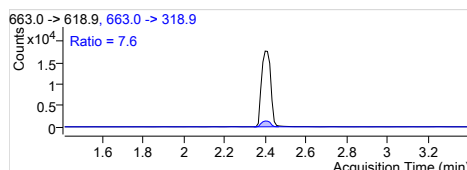
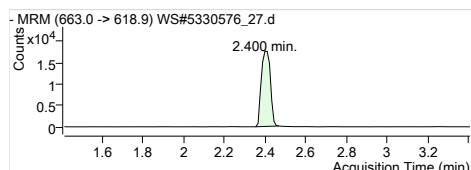
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 12.90 µg/L
 Sample type: 6.92253
 CC



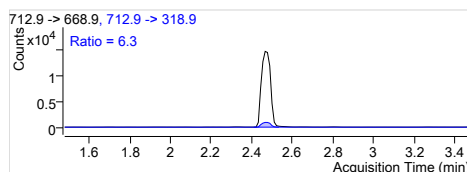
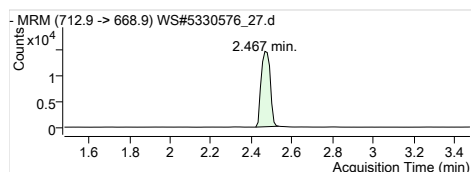
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc: 2.245 (2.245)
 Area ratio: 12.55 µg/L
 Sample type: 5.87354
 CC



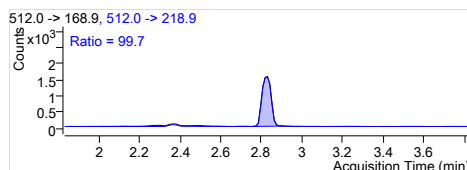
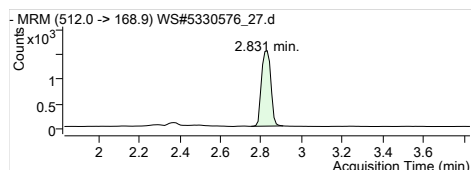
PFDoA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc: 2.334 (2.334)
 Area ratio: 12.54 µg/L
 Sample type: 5.62743
 CC



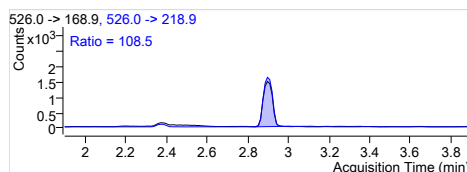
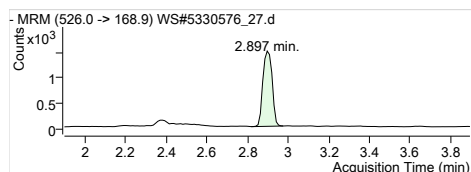
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc: 2.400 (2.411)
 Area ratio: 12.78 µg/L
 Sample type: 5.91290
 CC



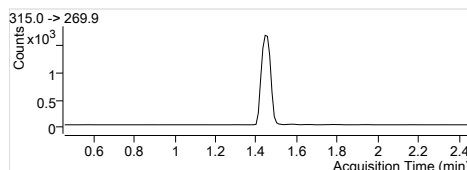
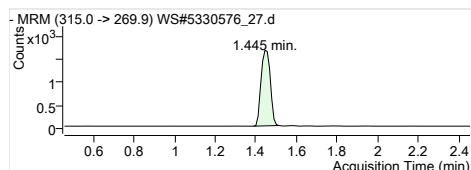
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc: 2.467 (2.478)
 Area ratio: 13.27 µg/L
 Sample type: 4.86413
 CC



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc: 2.831 (2.831)
 Area ratio: 13.83 µg/L
 Sample type: 1.66088
 CC

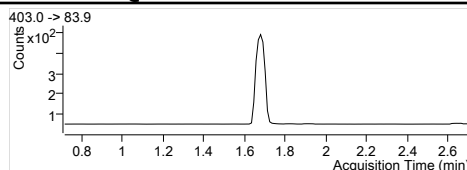
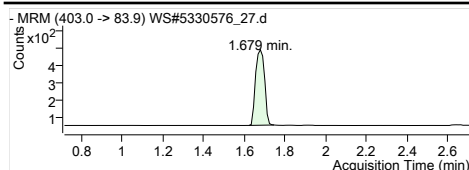


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc: 2.897 (2.897)
 Area ratio: 12.67 µg/L
 Sample type: 2.00259
 CC

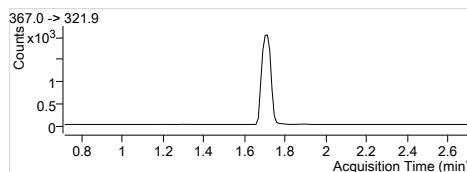
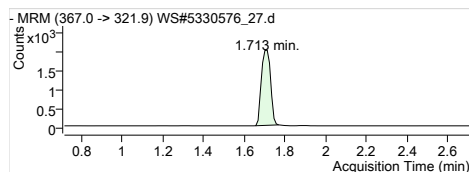


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc: 1.445 (1.456)
 Area ratio: 101.84 µg/L
 Sample type: 0.25529
 CC

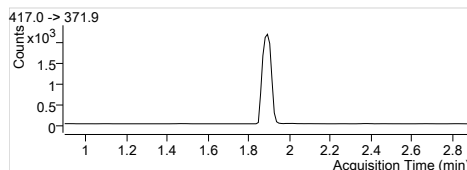
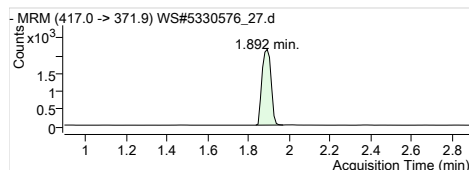
Quantitation Results



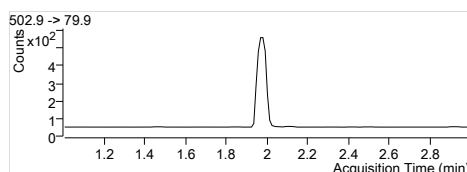
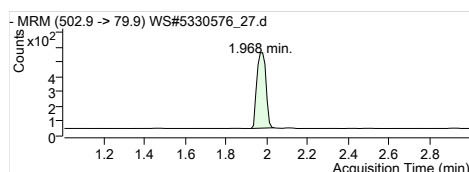
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.713)
Area ratio: 116.03 µg/L
Sample type: 0.06705
CC



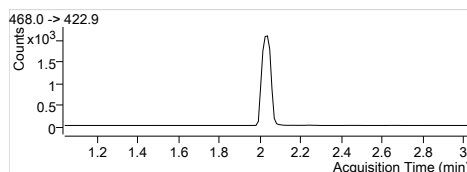
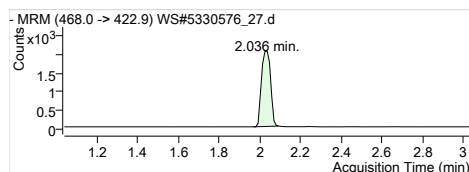
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 97.07 µg/L
Sample type: 0.30840
CC



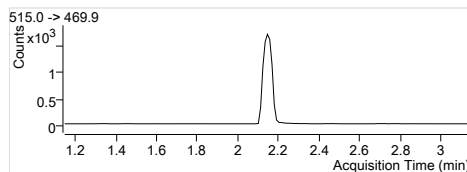
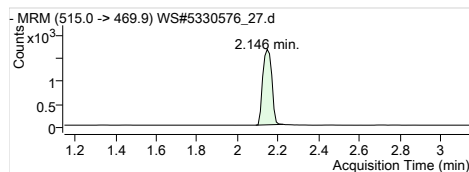
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 99.33 µg/L
Sample type: 0.32543
CC



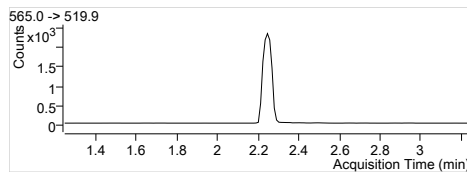
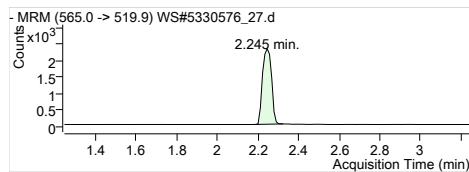
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.968 (2.002)
Area ratio: 110.27 µg/L
Sample type: 0.07844
CC



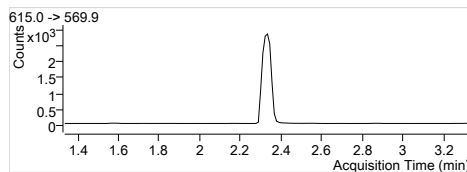
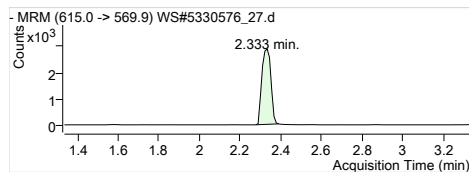
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.036 (2.036)
Area ratio: 97.73 µg/L
Sample type: 0.31316
CC



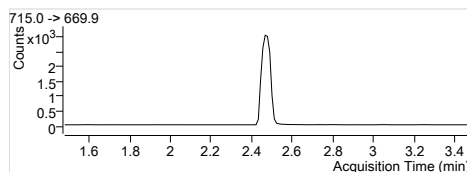
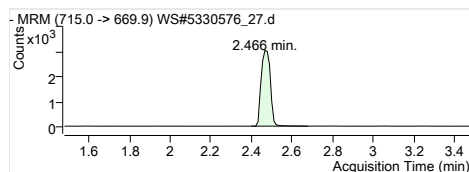
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 89.34 µg/L
Sample type: 0.19683
CC



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 97.90 µg/L
Sample type: 0.27416
CC

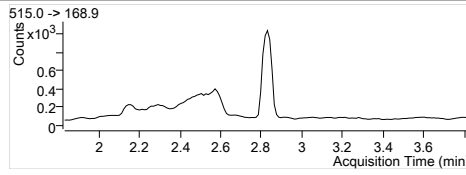
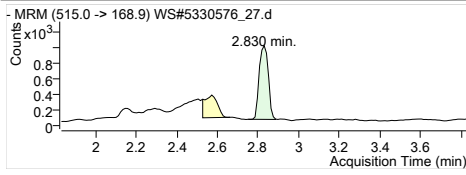


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 95.61 µg/L
Sample type: 0.33813
CC

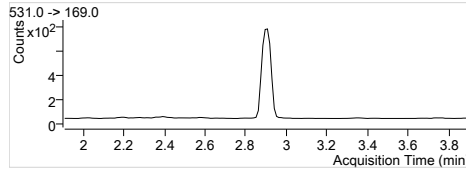
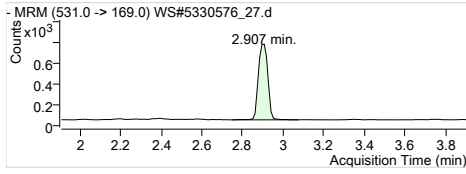


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.478)
Area ratio: 92.02 µg/L
Sample type: 0.36551
CC

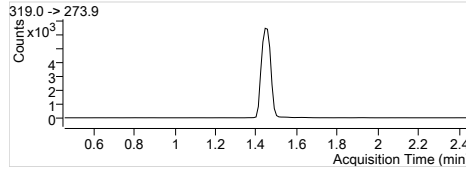
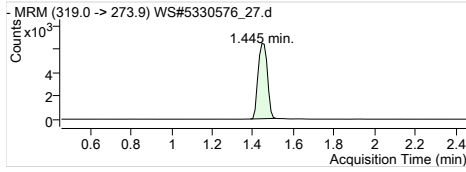
Quantitation Results



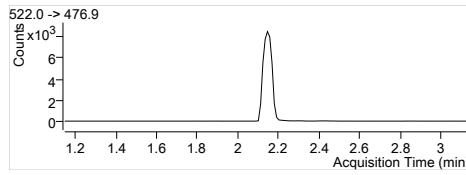
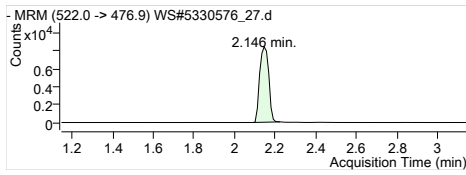
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 90.31 µg/L
Area ratio: 0.14509
Sample type: CC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.907 (2.907)
Calc. conc. 89.03 µg/L
Area ratio: 0.11633
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.456)
Calc. conc. 95.54 µg/L
Area ratio: 0
Sample type: CC



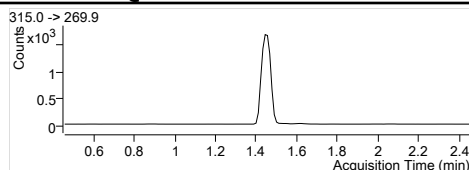
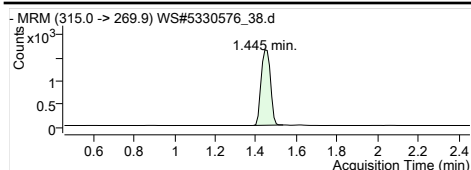
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 99.00 µg/L
Area ratio: 0
Sample type: CC

Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#5330576_38.d	Operator	
Sample Type	CC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A5
Acq. Date	2018/01/13 4:50:39 AM	Injection Volume	Per Method
Sample Annotation	-		

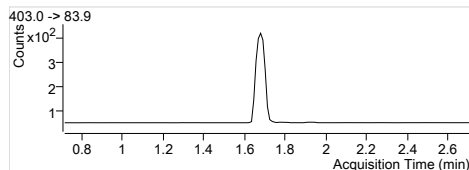
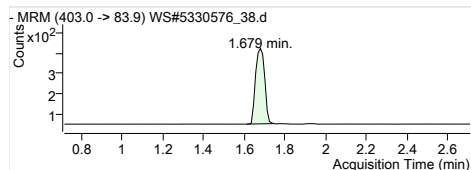
ISTD Compounds	Response	RT	Target conc.
MPFHxA	5195	1.44	1 µg/L
MPFHxS	1169	1.68	1 µg/L
MPFHpA	6043	1.70	1 µg/L
MPFOA	6885	1.89	1 µg/L
MPFOS	1512	1.98	1 µg/L
MPFNA	6426	2.04	1 µg/L
MPFDA	5405	2.15	1 µg/L
MPFUnA	7261	2.25	1 µg/L
MPFDoA	8579	2.33	1 µg/L
MPFTeDA	9362	2.47	1 µg/L
D3-MeFOSA IS	3131	2.83	1 µg/L
D5-EtFOSA IS	2665	2.90	1 µg/L
13C6-PFHxA IS	20082	1.44	1 µg/L
13C9-PFDA IS	24702	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7781	1.10	12.50	12.36 µg/L	98.84
PFHxA 1	26995	1.44	12.50	12.09 µg/L	96.72
PFHxS 1	6405	1.68	12.50	11.55 µg/L	92.37
PFHpA 1	33369	1.70	12.50	13.20 µg/L	105.57
PFOA 1	37775	1.89	12.50	11.86 µg/L	94.88
PFOS 1	6998	1.97	12.50	11.21 µg/L	89.66
PFNA 1	34069	2.04	12.50	12.64 µg/L	101.09
PFDA 1	36588	2.15	12.50	12.62 µg/L	100.92
PFUnA 1	40569	2.25	12.50	11.94 µg/L	95.52
PFDoA 1	47571	2.33	12.50	12.36 µg/L	98.85
PFTTrDA 1	56604	2.40	12.50	13.06 µg/L	104.51
PFTeDA 1	42959	2.47	12.50	12.52 µg/L	100.17
MeFOSA 1	4786	2.83	12.50	12.74 µg/L	101.88
EtFOSA 1	4737	2.90	12.50	11.25 µg/L	89.99
13C2-PFHxA	5195	1.44	100.00	103.20 µg/L	103.20
18O2-PFHxS	1169	1.68	100.00	100.74 µg/L	100.74
13C4-PFHpA	6043	1.70	100.00	94.71 µg/L	94.71
13C4-PFOA	6885	1.89	100.00	104.64 µg/L	104.64
13C4-PFOS	1512	1.98	100.00	105.84 µg/L	105.84
13C5-PFNA	6389	2.04	100.00	99.29 µg/L	99.29
13C2-PFDA	5361	2.15	100.00	98.51 µg/L	98.51
13C2-PFUnA	7261	2.25	100.00	104.96 µg/L	104.96
13C2-PFDoA	8579	2.33	100.00	98.21 µg/L	98.21
13C2-PFTeDA	9533	2.47	100.00	97.16 µg/L	97.16
D3-MeFOSA	3146	2.83	100.00	97.51 µg/L	97.51
D5-EtFOSA	2687	2.90	100.00	102.40 µg/L	102.40
13C6-PFHxA	20082	1.44	100.00	94.18 µg/L	94.18
13C9-PFDA	24702	2.15	100.00	94.42 µg/L	94.42



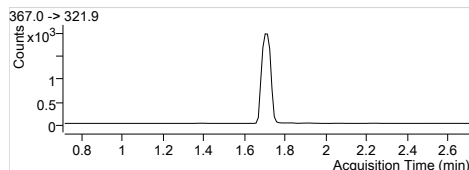
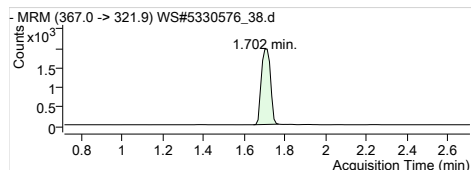
MPFHxA
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.445 (1.456)
1 µg/L
CC



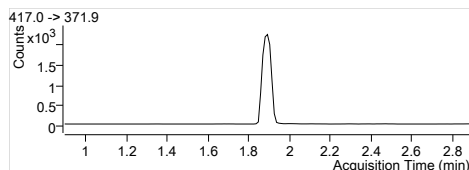
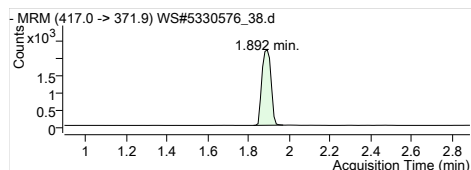
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.679 (1.713)
1 µg/L
CC



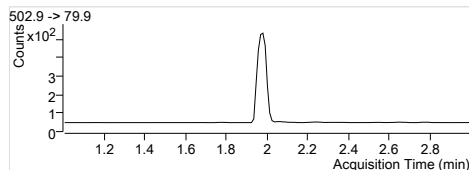
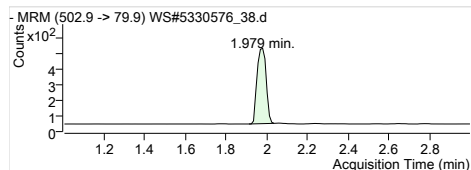
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.702 (1.713)
1 µg/L
CC



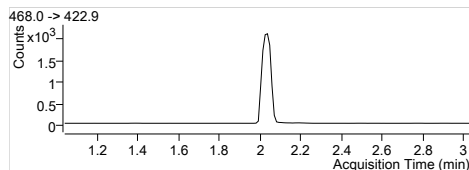
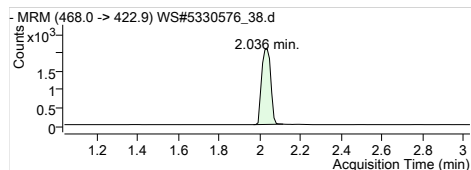
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.892 (1.892)
1 µg/L
CC



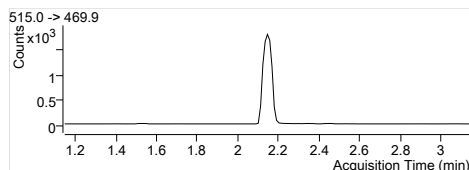
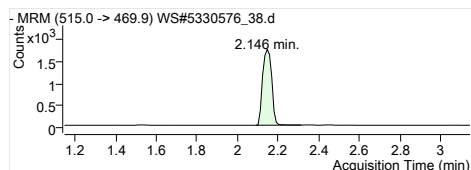
MPFOS
RT (Exp. RT): 1.979 (2.002)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.979 (2.002)
1 µg/L
CC



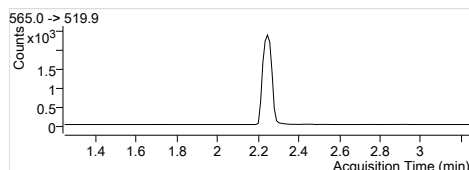
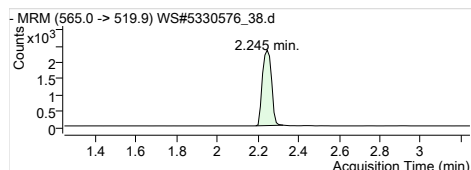
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.036 (2.036)
1 µg/L
CC



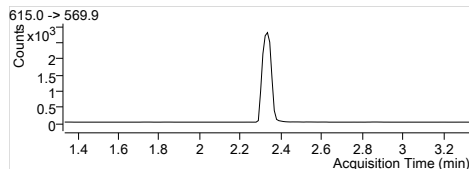
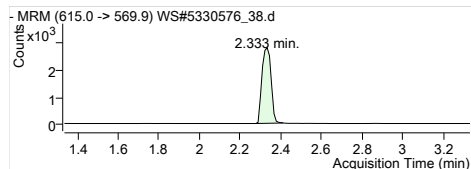
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.146 (2.146)
1 µg/L
CC



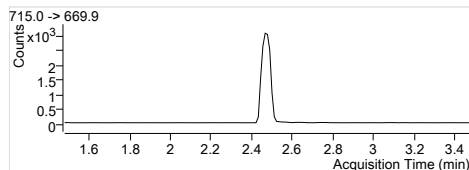
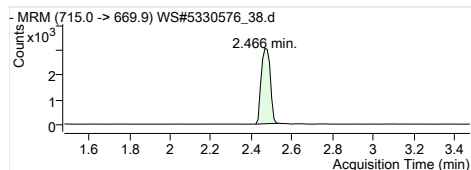
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.245 (2.245)
1 µg/L
CC



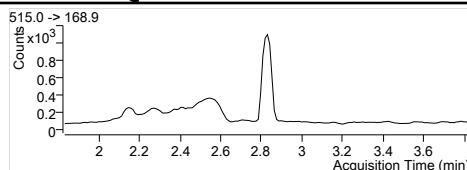
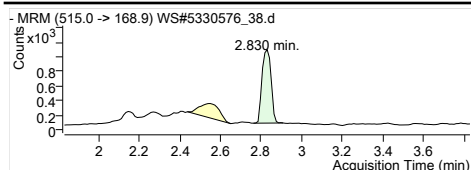
MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.333 (2.333)
1 µg/L
CC

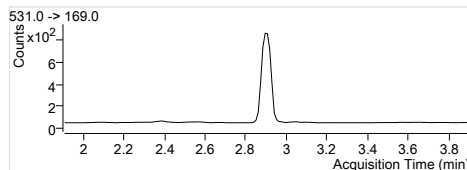
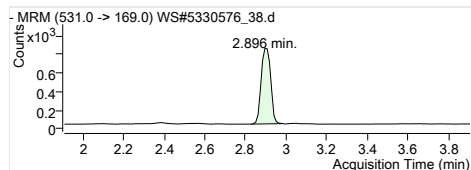


MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: CC

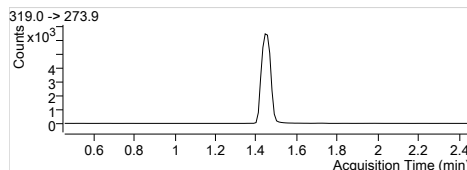
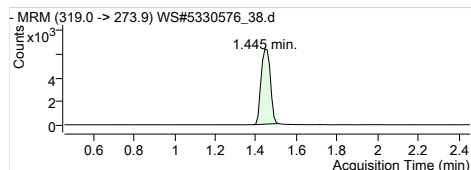
Internal Standard
2.466 (2.478)
1 µg/L
CC



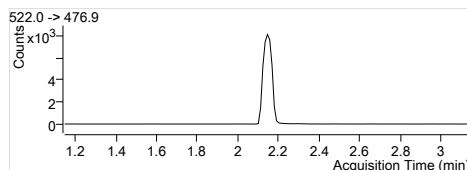
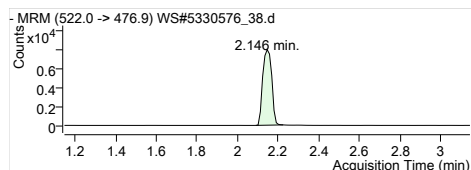
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: CC



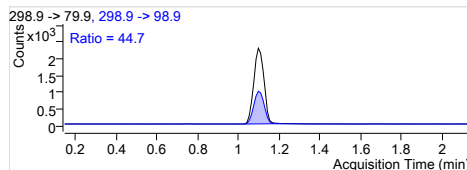
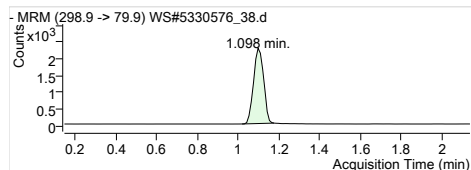
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: CC



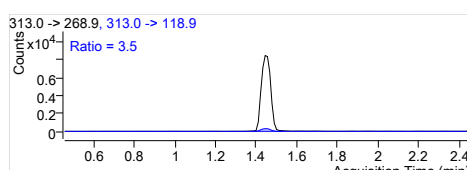
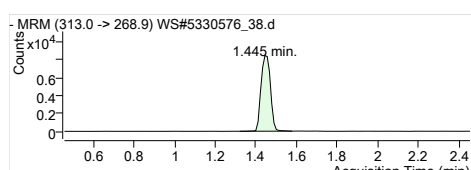
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: CC



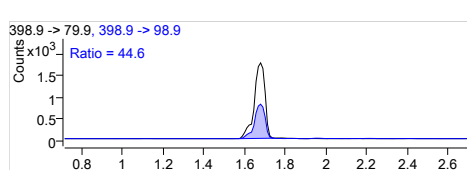
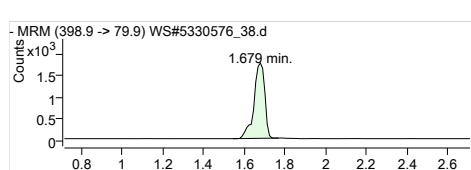
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: CC



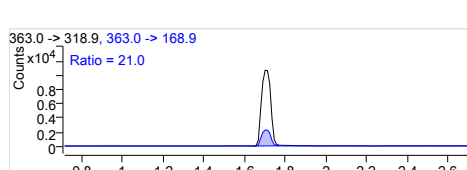
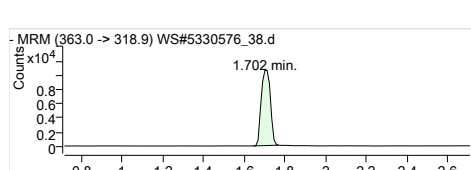
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.098 (1.143)
 Calc. conc. 12.36 µg/L
 Area ratio: 6.65612
 Sample type: CC



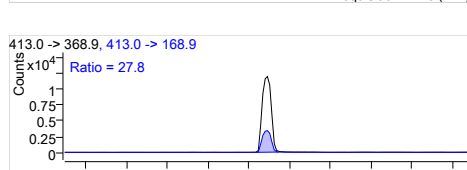
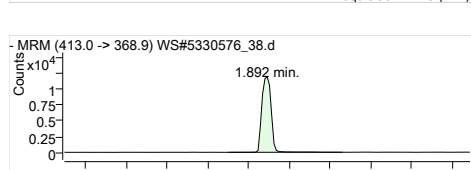
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.445 (1.456)
 Calc. conc. 12.09 µg/L
 Area ratio: 5.19634
 Sample type: CC



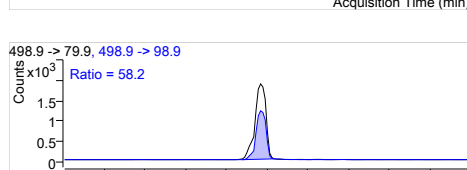
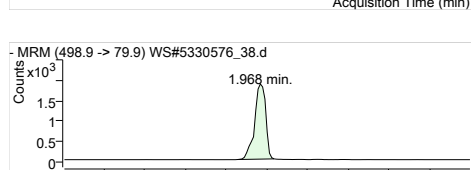
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.713)
 Calc. conc. 11.55 µg/L
 Area ratio: 5.47904
 Sample type: CC



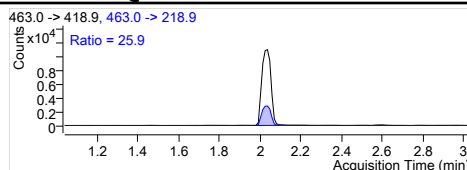
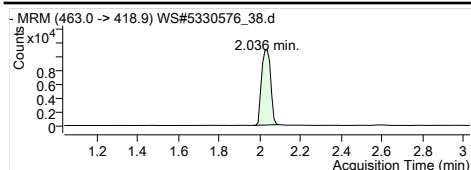
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.702 (1.713)
 Calc. conc. 13.20 µg/L
 Area ratio: 5.52193
 Sample type: CC



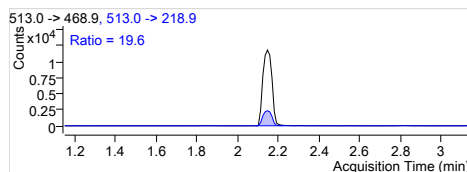
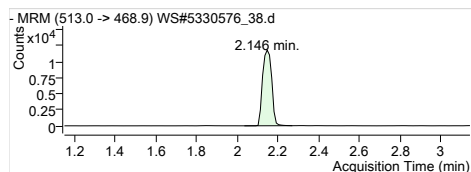
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 11.86 µg/L
 Area ratio: 5.48656
 Sample type: CC



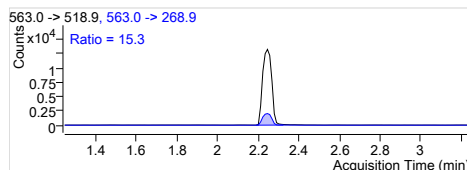
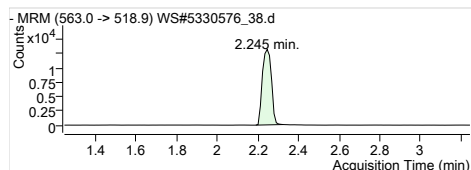
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (2.002)
 Calc. conc. 11.21 µg/L
 Area ratio: 4.62831
 Sample type: CC



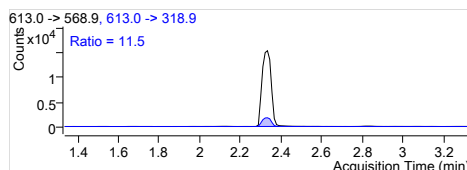
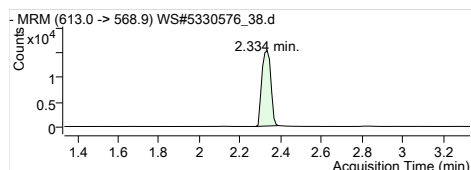
PFNA 1
 RT (Exp. RT): 2.036 (2.036)
 Calc. conc. 12.64 µg/L
 Area ratio: 5.30174
 Sample type: CC



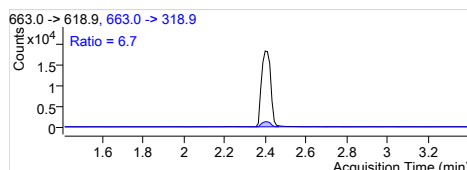
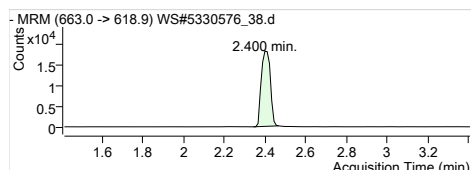
PFDA 1
 RT (Exp. RT): 2.146 (2.146)
 Calc. conc. 12.62 µg/L
 Area ratio: 6.76929
 Sample type: CC



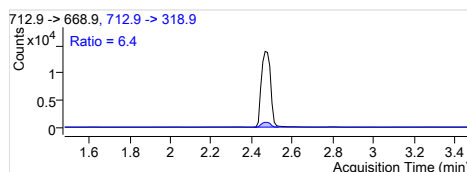
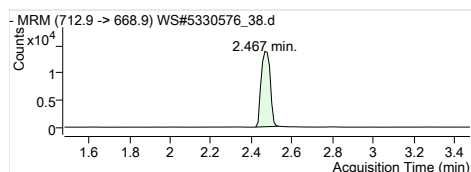
PFUnA 1
 RT (Exp. RT): 2.245 (2.245)
 Calc. conc. 11.94 µg/L
 Area ratio: 5.58725
 Sample type: CC



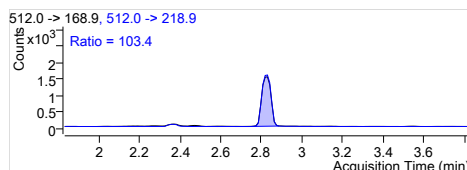
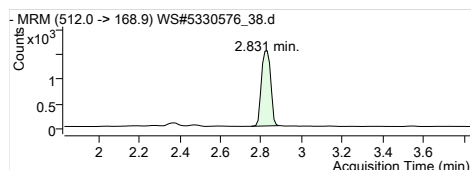
PFDoA 1
 RT (Exp. RT): 2.334 (2.334)
 Calc. conc. 12.36 µg/L
 Area ratio: 5.54505
 Sample type: CC



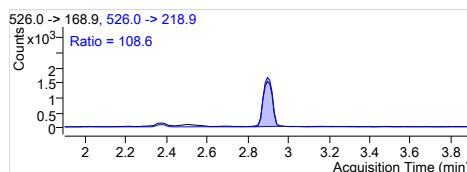
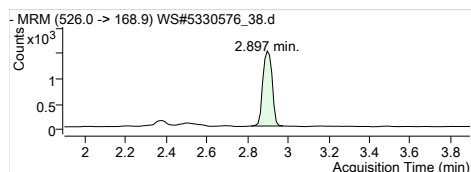
PFTrDA 1
 RT (Exp. RT): 2.400 (2.411)
 Calc. conc. 13.06 µg/L
 Area ratio: 6.04614
 Sample type: CC



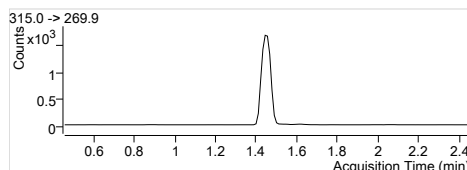
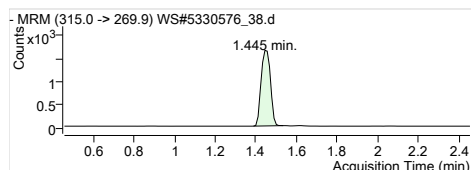
PFTeDA 1
 RT (Exp. RT): 2.467 (2.478)
 Calc. conc. 12.52 µg/L
 Area ratio: 4.58866
 Sample type: CC



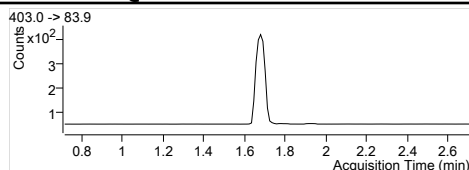
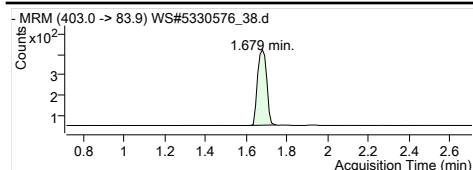
MeFOSA 1
 RT (Exp. RT): 2.831 (2.831)
 Calc. conc. 12.74 µg/L
 Area ratio: 1.52859
 Sample type: CC



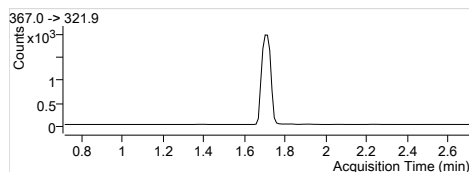
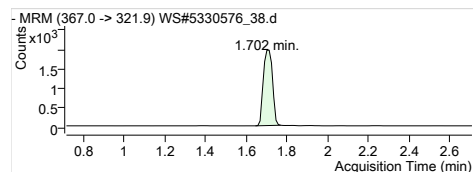
EtFOSA 1
 RT (Exp. RT): 2.897 (2.897)
 Calc. conc. 11.25 µg/L
 Area ratio: 1.77749
 Sample type: CC



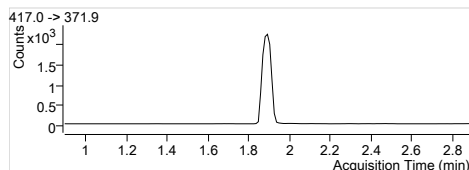
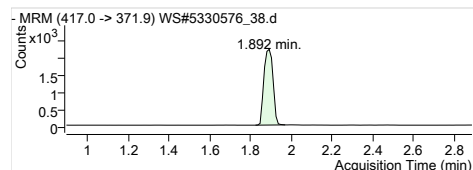
13C2-PFHxA
 RT (Exp. RT): 1.445 (1.456)
 Calc. conc. 103.20 µg/L
 Area ratio: 0.25869
 Sample type: CC



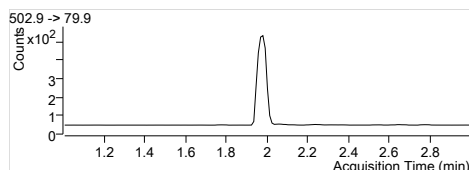
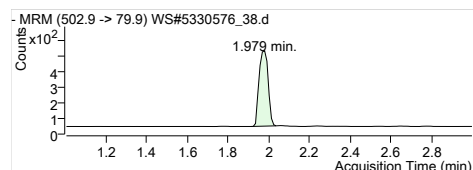
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 100.74 µg/L
 Sample type: 0.05821
 CC



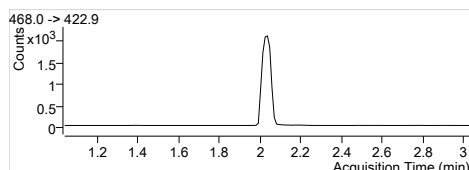
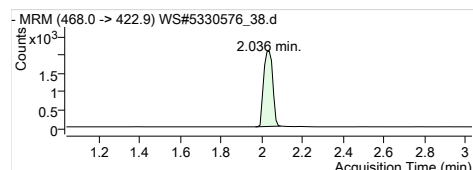
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 94.71 µg/L
 Sample type: 0.30092
 CC



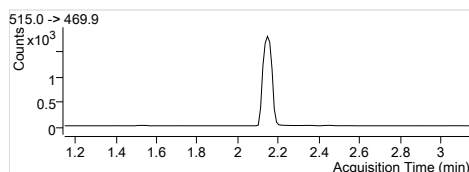
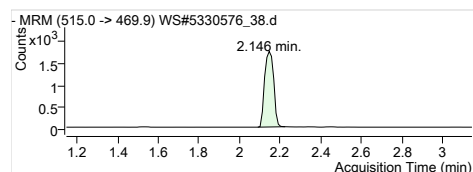
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 104.64 µg/L
 Sample type: 0.34284
 CC



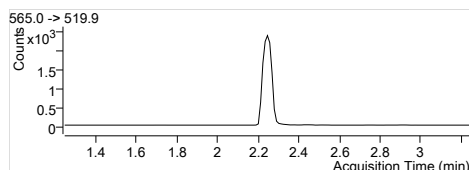
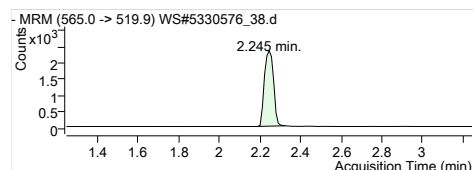
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (2.002)
 Area ratio: 105.84 µg/L
 Sample type: 0.07529
 CC



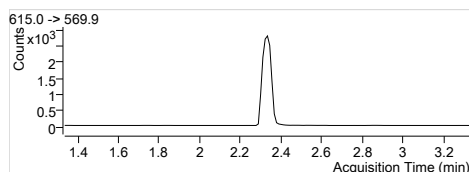
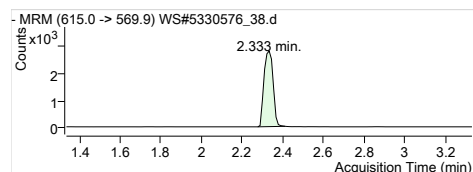
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 99.29 µg/L
 Sample type: 0.31815
 CC



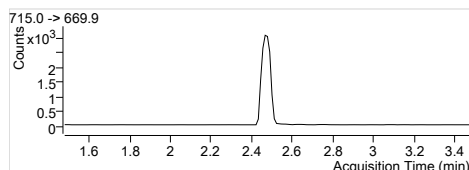
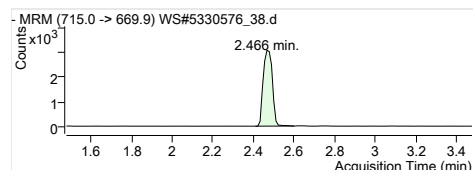
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 98.51 µg/L
 Sample type: 0.21703
 CC



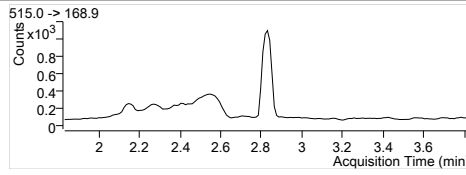
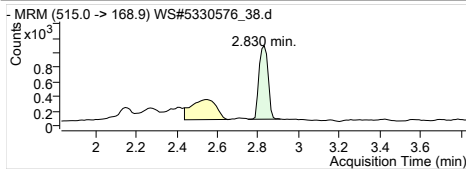
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 104.96 µg/L
 Sample type: 0.29394
 CC



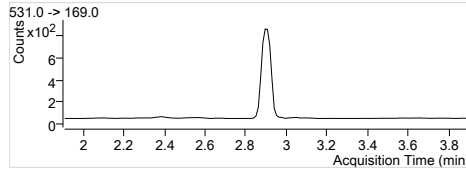
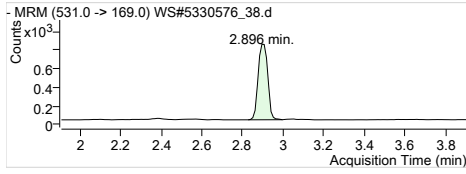
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 98.21 µg/L
 Sample type: 0.34730
 CC



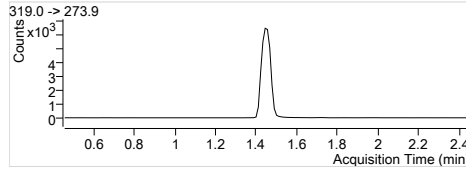
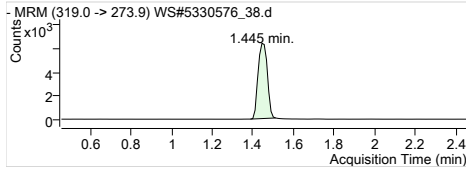
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.478)
 Area ratio: 97.16 µg/L
 Sample type: 0.38592
 CC



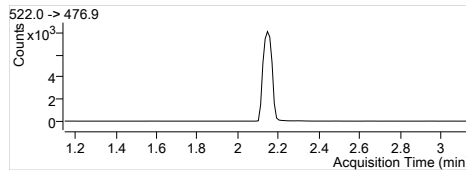
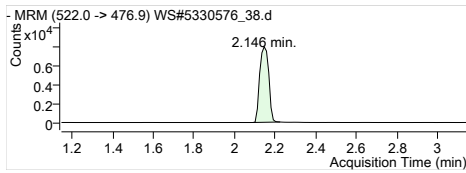
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
Calc. conc: 2.830 (2.830)
Area ratio: 97.51 µg/L
Sample type: 0.15666
CC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
Calc. conc: 2.896 (2.907)
Area ratio: 102.40 µg/L
Sample type: 0.13380
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc: 1.445 (1.456)
Area ratio: 94.18 µg/L
Sample type: 0
CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc: 2.146 (2.146)
Area ratio: 94.42 µg/L
Sample type: 0
CC

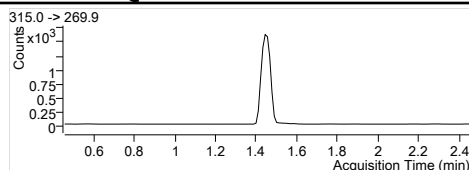
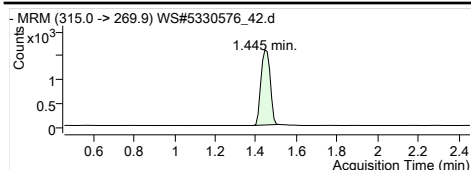
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330576\QuantResults\PFC_Water_Low_180112_WS#5330576_EMAX		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#5330576_42.d	Operator	
Sample Type	CC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-A5
Acq. Date	2018/01/13 5:10:22 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4954	1.44	1 µg/L		
MPFHxS	1218	1.68	1 µg/L		
MPFHpA	6303	1.71	1 µg/L		
MPFOA	6554	1.89	1 µg/L		
MPFOS	1573	1.97	1 µg/L		
MPFNA	6399	2.04	1 µg/L		
MPFDA	5755	2.15	1 µg/L		
MPFUnA	6759	2.25	1 µg/L		
MPFDoA	8557	2.33	1 µg/L		
MPFTeDA	9363	2.47	1 µg/L		
D3-MeFOSA IS	2876	2.83	1 µg/L		
D5-EtFOSA IS	2545	2.90	1 µg/L		
13C6-PFHxA IS	19856	1.44	1 µg/L		
13C9-PFDA IS	24721	2.15	1 µg/L		

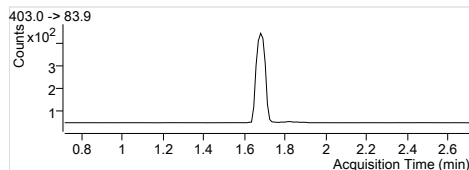
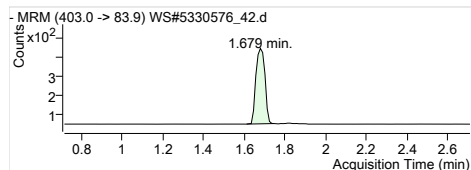
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7666	1.10	12.50	11.68 µg/L	93.47
PFHxA 1	26164	1.44	12.50	12.29 µg/L	98.30
PFHxS 1	6820	1.68	12.50	11.80 µg/L	94.43
PFHpA 1	35080	1.71	12.50	13.30 µg/L	106.41
PFOA 1	37630	1.89	12.50	12.41 µg/L	99.26
PFOS 1	6946	1.97	12.50	10.70 µg/L	85.61
PFNA 1	32832	2.04	12.50	12.23 µg/L	97.83
PFDA 1	36031	2.15	12.50	11.68 µg/L	93.40
PFUnA 1	41300	2.25	12.50	13.05 µg/L	104.41
PFDaA 1	49450	2.33	12.50	12.87 µg/L	103.00
PFTTrDA 1	55006	2.40	12.50	12.70 µg/L	101.58
PFTeDA 1	43793	2.47	12.50	12.76 µg/L	102.09
MeFOSA 1	4480	2.83	12.50	12.98 µg/L	103.82
EtFOSA 1	4667	2.90	12.50	11.60 µg/L	92.82
13C2-PFHxA	4954	1.44	100.00	99.53 µg/L	99.53
18O2-PFHxS	1218	1.68	100.00	106.15 µg/L	106.15
13C4-PFHpA	6303	1.71	100.00	99.91 µg/L	99.91
13C4-PFOA	6554	1.89	100.00	100.74 µg/L	100.74
13C4-PFOS	1573	1.97	100.00	111.37 µg/L	111.37
13C5-PFNA	6345	2.04	100.00	99.73 µg/L	99.73
13C2-PFDA	5659	2.15	100.00	103.90 µg/L	103.90
13C2-PFUnA	6759	2.25	100.00	97.63 µg/L	97.63
13C2-PFDoA	8557	2.33	100.00	97.88 µg/L	97.88
13C2-PFTeDA	9492	2.47	100.00	96.67 µg/L	96.67
D3-MeFOSA	2984	2.83	100.00	93.54 µg/L	93.54
D5-EtFOSA	2551	2.90	100.00	98.33 µg/L	98.33
13C6-PFHxA	19856	1.44	100.00	93.12 µg/L	93.12
13C9-PFDA	24721	2.15	100.00	94.49 µg/L	94.49

Quantitation Results



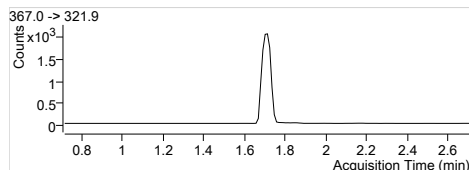
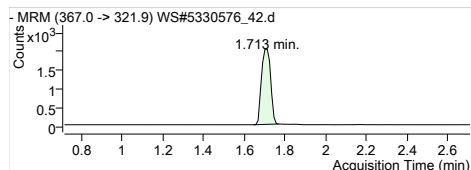
MPFHxA
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.445 (1.456)
1 µg/L
CC



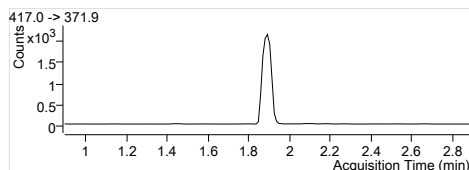
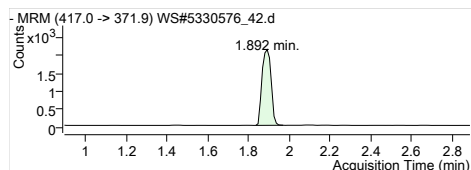
MPFHxS
RT (Exp. RT): 1.679 (1.713)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.679 (1.713)
1 µg/L
CC



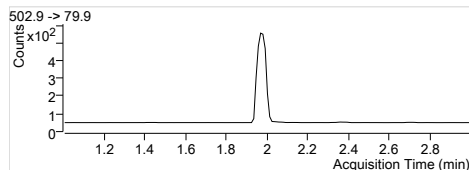
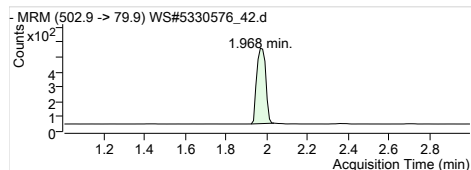
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.713 (1.713)
1 µg/L
CC



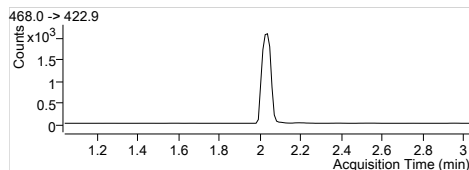
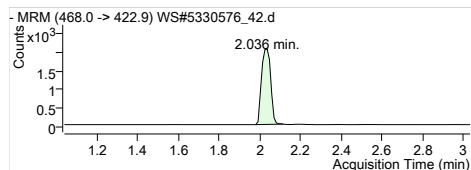
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.892 (1.892)
1 µg/L
CC



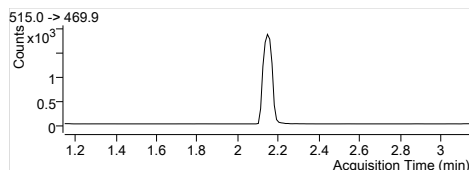
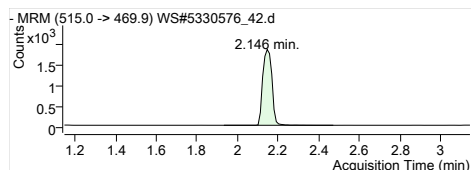
MPFOS
RT (Exp. RT): 1.968 (2.002)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.968 (2.002)
1 µg/L
CC



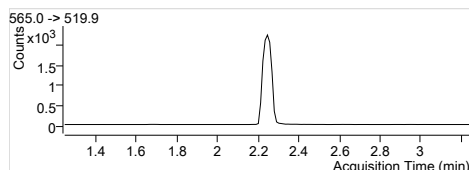
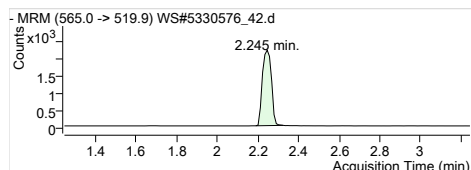
MPFNA
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.036 (2.036)
1 µg/L
CC



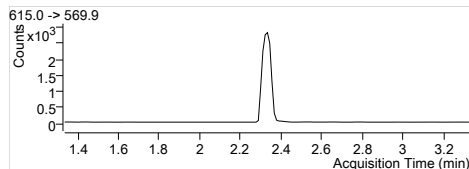
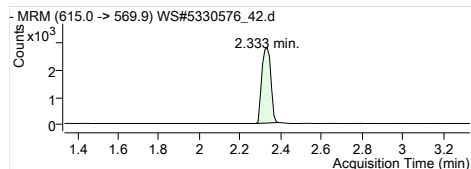
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.146 (2.146)
1 µg/L
CC



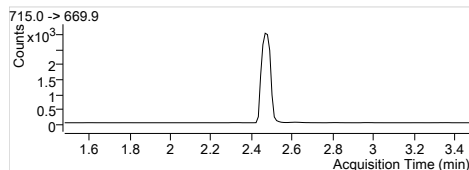
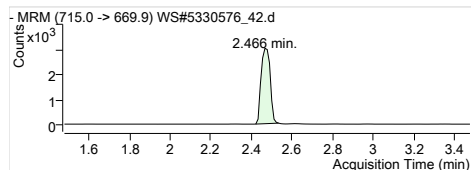
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.245 (2.245)
1 µg/L
CC



MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: CC

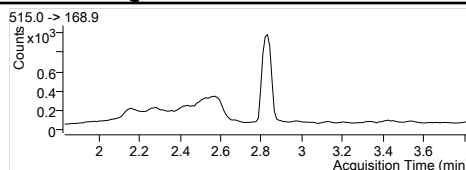
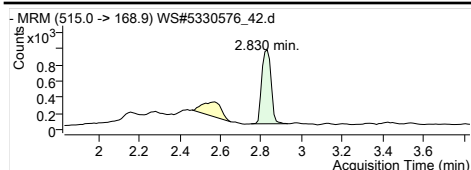
Internal Standard
2.333 (2.333)
1 µg/L
CC



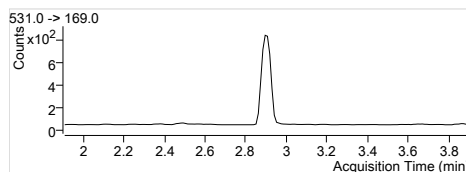
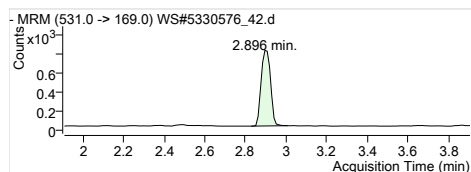
MPFTeDA
RT (Exp. RT): 2.466 (2.478)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.466 (2.478)
1 µg/L
CC

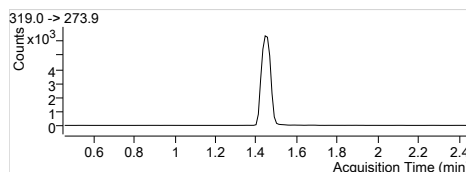
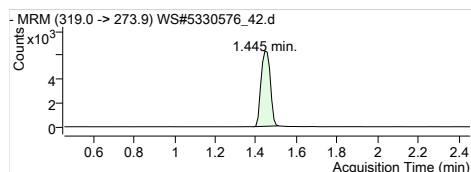
Quantitation Results



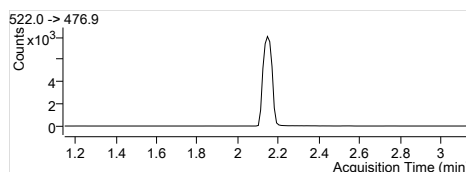
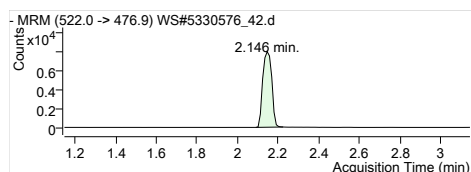
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: CC



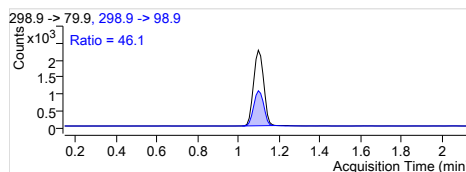
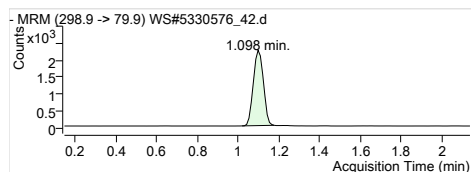
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.907)
 Concentration: 1 µg/L
 Sample type: CC



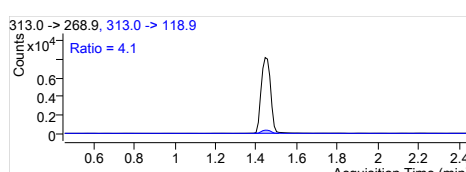
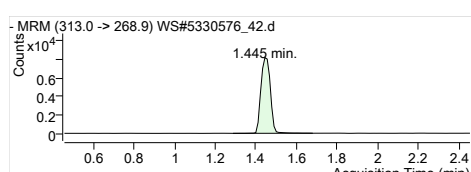
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.456)
 Concentration: 1 µg/L
 Sample type: CC



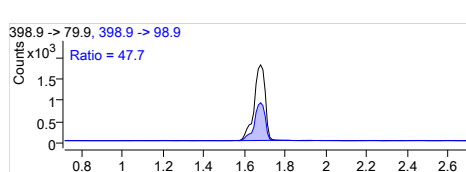
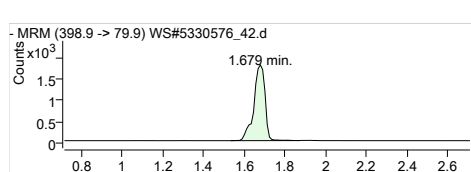
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: CC



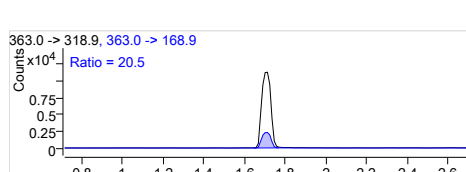
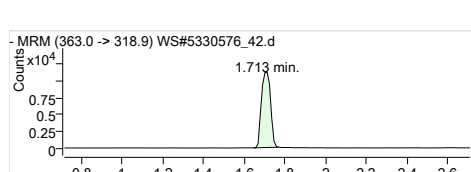
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.098 (1.143)
 Calc. conc. 11.68 µg/L
 Area ratio: 6.29392
 Sample type: CC



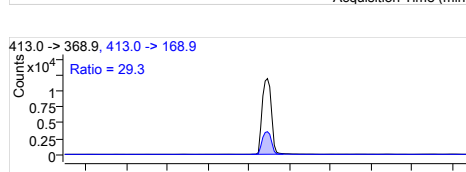
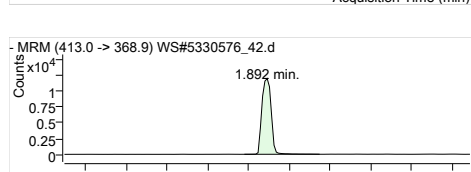
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.445 (1.456)
 Calc. conc. 12.29 µg/L
 Area ratio: 5.28139
 Sample type: CC



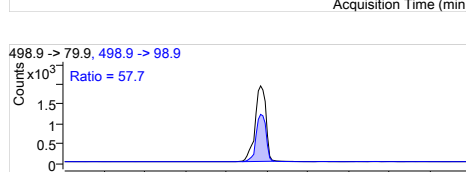
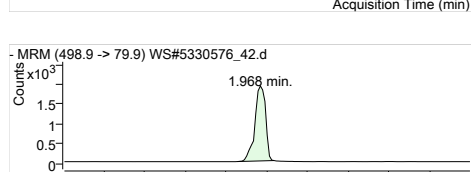
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.713)
 Calc. conc. 11.80 µg/L
 Area ratio: 5.59934
 Sample type: CC



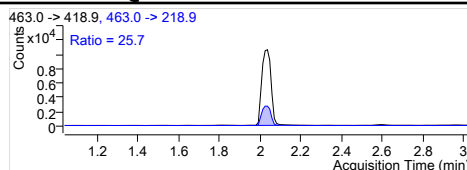
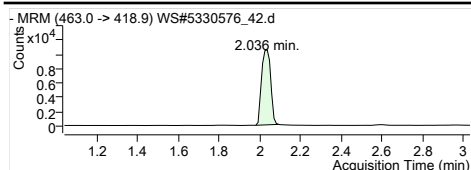
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 13.30 µg/L
 Area ratio: 5.56560
 Sample type: CC



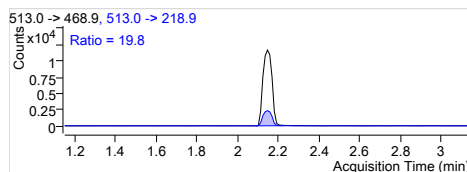
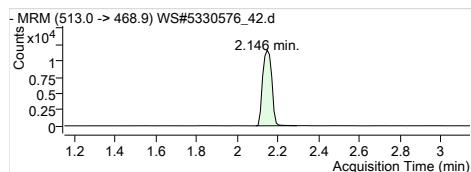
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 12.41 µg/L
 Area ratio: 5.74153
 Sample type: CC



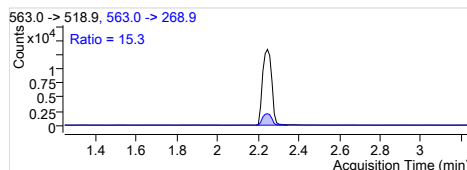
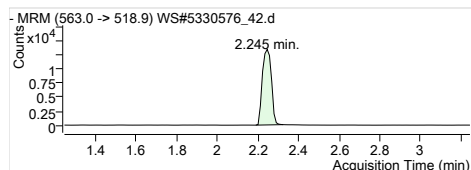
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (2.002)
 Calc. conc. 10.70 µg/L
 Area ratio: 4.41577
 Sample type: CC



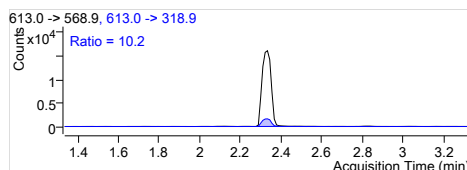
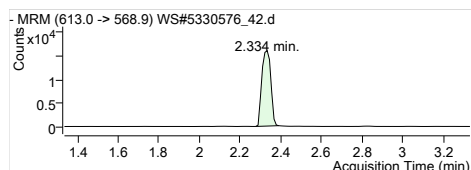
PFNA 1
 RT (Exp. RT): 2.036 (2.036)
 Calc. conc. 12.23 µg/L
 Area ratio: 5.13080
 Sample type: CC



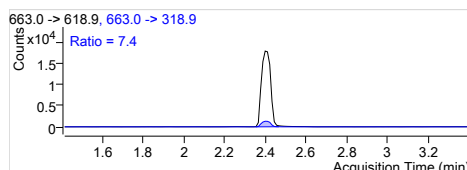
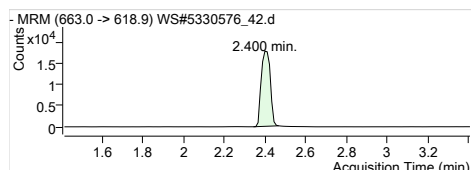
PFDA 1
 RT (Exp. RT): 2.146 (2.146)
 Calc. conc. 11.68 µg/L
 Area ratio: 6.26082
 Sample type: CC



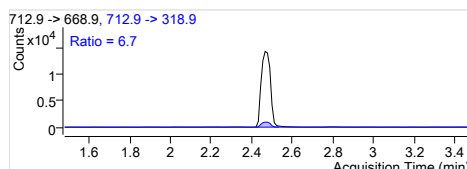
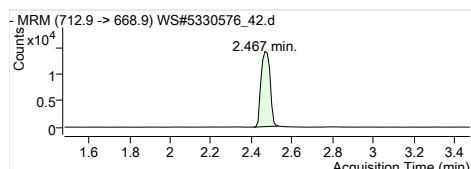
PFUnA 1
 RT (Exp. RT): 2.245 (2.245)
 Calc. conc. 13.05 µg/L
 Area ratio: 6.11037
 Sample type: CC



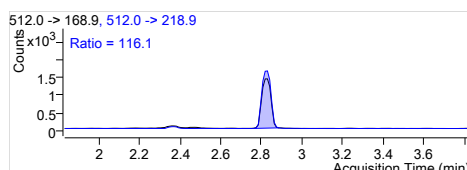
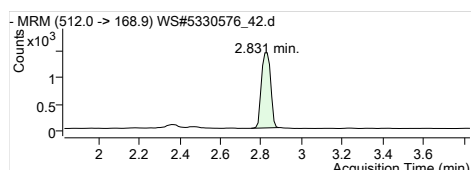
PFDoA 1
 RT (Exp. RT): 2.334 (2.334)
 Calc. conc. 12.87 µg/L
 Area ratio: 5.77889
 Sample type: CC



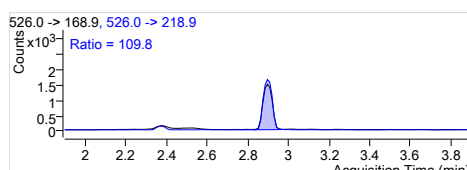
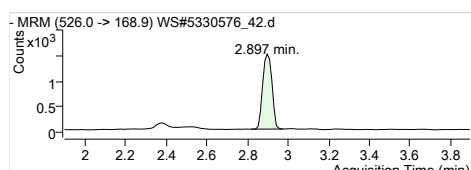
PFTrDA 1
 RT (Exp. RT): 2.400 (2.411)
 Calc. conc. 12.70 µg/L
 Area ratio: 5.87483
 Sample type: CC



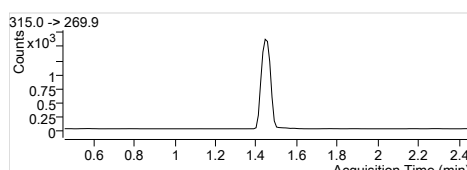
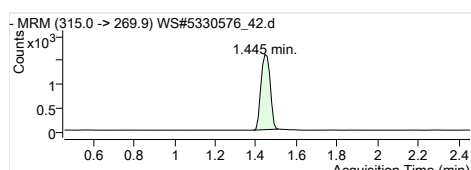
PFTeDA 1
 RT (Exp. RT): 2.467 (2.478)
 Calc. conc. 12.76 µg/L
 Area ratio: 4.67724
 Sample type: CC



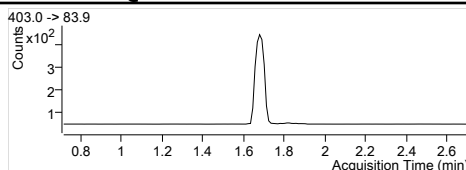
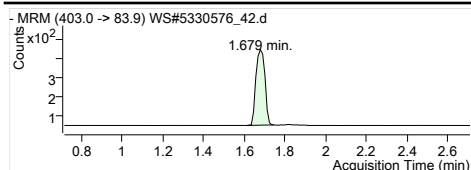
MeFOSA 1
 RT (Exp. RT): 2.831 (2.831)
 Calc. conc. 12.98 µg/L
 Area ratio: 1.55772
 Sample type: CC



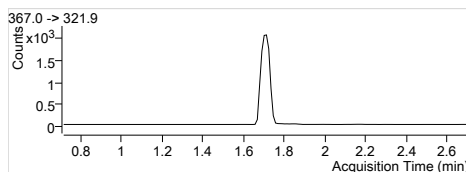
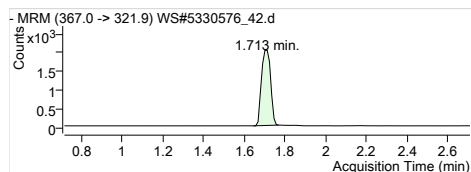
EtFOSA 1
 RT (Exp. RT): 2.897 (2.897)
 Calc. conc. 11.60 µg/L
 Area ratio: 1.83379
 Sample type: CC



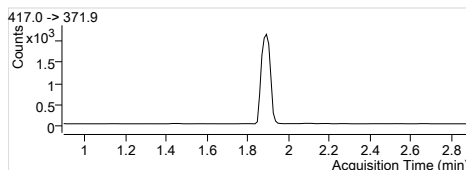
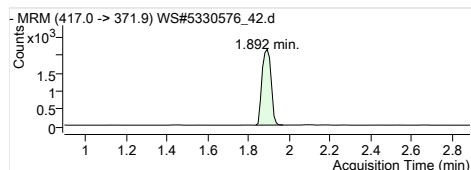
13C2-PFHxA
 RT (Exp. RT): 1.445 (1.456)
 Calc. conc. 99.53 µg/L
 Area ratio: 0.24950
 Sample type: CC



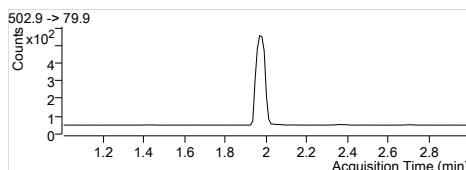
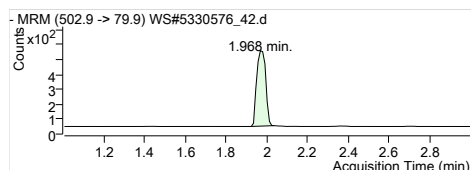
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.713)
 Area ratio: 106.15 µg/L
 Sample type: 0.06134
 CC



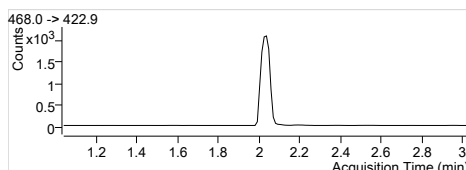
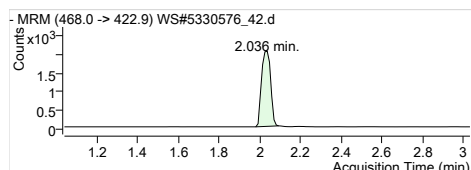
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 99.91 µg/L
 Sample type: 0.31744
 CC



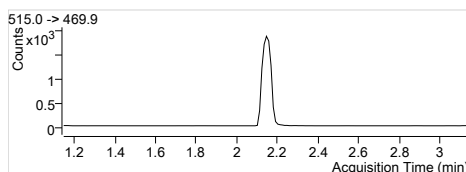
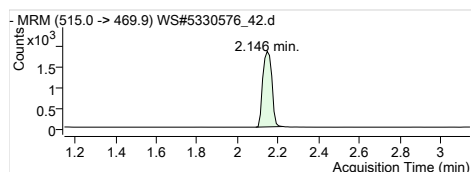
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 100.74 µg/L
 Sample type: 0.33008
 CC



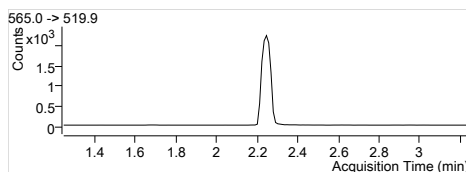
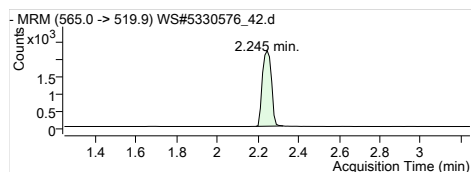
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (2.002)
 Area ratio: 111.37 µg/L
 Sample type: 0.07922
 CC



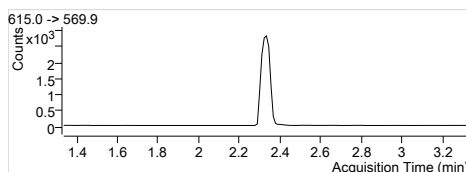
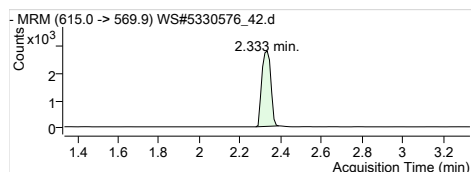
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 99.73 µg/L
 Sample type: 0.31955
 CC



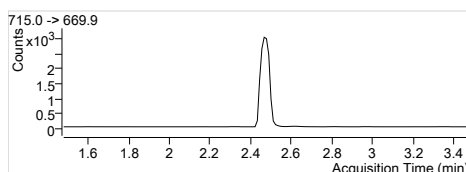
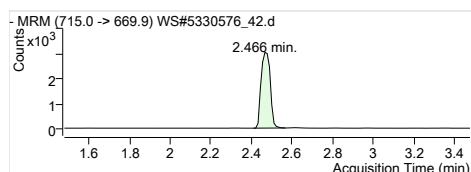
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 103.90 µg/L
 Sample type: 0.22891
 CC



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 97.63 µg/L
 Sample type: 0.27341
 CC

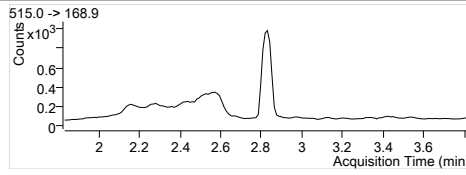
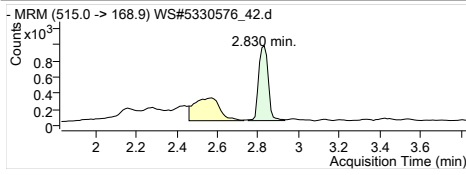


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 97.88 µg/L
 Sample type: 0.34614
 CC

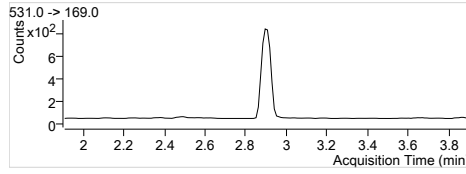
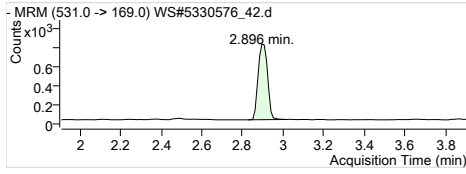


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.478)
 Area ratio: 96.67 µg/L
 Sample type: 0.38397
 CC

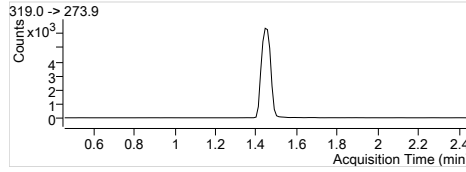
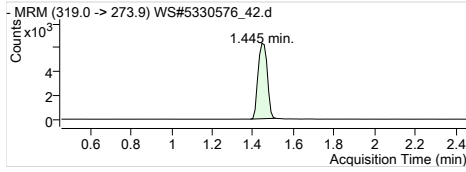
Quantitation Results



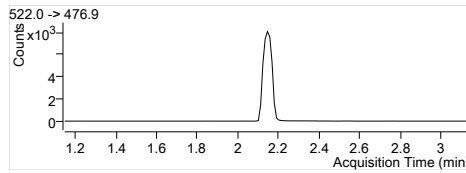
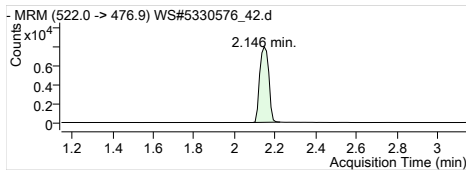
D3-MeFOSA
 RT (Exp. RT): 515.0 -> 168.9
 Calc. conc: 2.830 (2.830)
 Area ratio: 93.54 µg/L
 Sample type: 0.15028
 CC



D5-EtFOSA
 RT (Exp. RT): 531.0 -> 169.0
 Calc. conc: 2.896 (2.907)
 Area ratio: 98.33 µg/L
 Sample type: 0.12848
 CC



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc: 1.445 (1.456)
 Area ratio: 93.12 µg/L
 Sample type: 0
 CC



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc: 2.146 (2.146)
 Area ratio: 94.49 µg/L
 Sample type: 0
 CC

Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	ISC	Instrument	LCMS04
Data File	WS#5330618_10.d	Operator	
Sample Type	CC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-D9
Acq. Date	2018/01/13 5:59:43 AM	Injection Volume	Per Method
Sample Annotation	-		

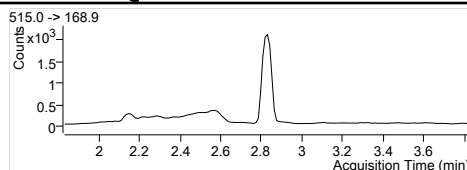
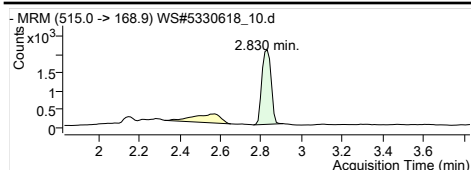
ISTD Compounds	Response	RT	Target conc.	
MPFHxA	9792	1.44	1 µg/L	
MPFHxS	2289	1.68	1 µg/L	
MPFHpA	12887	1.70	1 µg/L	
MPFOA	13362	1.89	1 µg/L	
MPFOS	3077	1.98	1 µg/L	
MPFNA	13105	2.04	1 µg/L	
MPFDA	10769	2.15	1 µg/L	
MPFUnA	13994	2.25	1 µg/L	
MPFDoA	17684	2.33	1 µg/L	
MPFTeDA	18566	2.47	1 µg/L	
D3-MeFOSA IS	6448	2.83	1 µg/L	
D5-EtFOSA IS	5290	2.90	1 µg/L	
13C6-PFHxA IS	47599	1.44	1 µg/L	
13C9-PFDA IS	62024	2.15	1 µg/L	

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1010	1.10	0.83	0.91 µg/L	109.90
PFHxA 1	3343	1.44	0.83	0.84 µg/L	100.86
PFHxS 1	931	1.68	0.83	0.83 µg/L	100.05
PFHpA 1	4608	1.70	0.83	0.96 µg/L	115.99
PFOA 1	4875	1.89	0.83	0.86 µg/L	103.39
PFOS 1	836	1.97	0.83	0.78 µg/L	94.33
PFNA 1	4350	2.04	0.83	0.87 µg/L	104.94
PFDA 1	4557	2.15	0.83	0.89 µg/L	106.95
PFUnA 1	4841	2.25	0.83	0.75 µg/L	90.35
PFDaA 1	6379	2.33	0.83	0.85 µg/L	102.80
PFTTrDA 1	6813	2.40	0.83	0.84 µg/L	101.70
PFTeDA 1	5927	2.47	0.83	0.93 µg/L	111.67
MeFOSA 1	554	2.82	0.83	0.68 µg/L	81.71
EtFOSA 1	726	2.90	0.83	0.97 µg/L	116.59
13C2-PFHxA	9792	1.44	100.00	92.90 µg/L	92.90
18O2-PFHxS	2289	1.68	100.00	90.62 µg/L	90.62
13C4-PFHpA	12887	1.70	100.00	97.59 µg/L	97.59
13C4-PFOA	13362	1.89	100.00	93.71 µg/L	93.71
13C4-PFOS	3077	1.98	100.00	100.15 µg/L	100.15
13C5-PFNA	13024	2.04	100.00	97.67 µg/L	97.67
13C2-PFDA	10621	2.15	100.00	89.91 µg/L	89.91
13C2-PFUnA	13994	2.25	100.00	96.09 µg/L	96.09
13C2-PFDoA	17684	2.33	100.00	95.27 µg/L	95.27
13C2-PFTeDA	18642	2.47	100.00	91.51 µg/L	91.51
D3-MeFOSA	6536	2.83	100.00	101.49 µg/L	101.49
D5-EtFOSA	5296	2.90	100.00	97.32 µg/L	97.32
13C6-PFHxA	47599	1.44	100.00	98.43 µg/L	98.43
13C9-PFDA	62024	2.15	100.00	100.18 µg/L	100.18

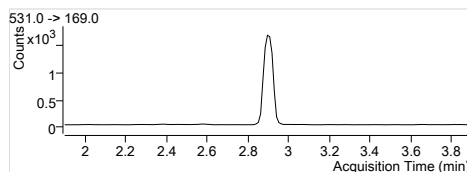
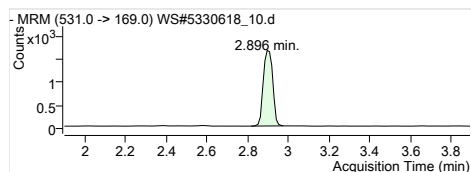
Quantitation Results

<p>-MRM (315.0 -> 269.9) WS#5330618_10.d 1.445 min.</p>	<p>315.0 -> 269.9</p>	<p>MPFHxA RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 1.445 (1.445) 1 µg/L CC</p>
<p>-MRM (403.0 -> 83.9) WS#5330618_10.d 1.679 min.</p>	<p>403.0 -> 83.9</p>	<p>MPFHxS RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 1.679 (1.679) 1 µg/L CC</p>
<p>-MRM (367.0 -> 321.9) WS#5330618_10.d 1.702 min.</p>	<p>367.0 -> 321.9</p>	<p>MPFHpA RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 1.702 (1.713) 1 µg/L CC</p>
<p>-MRM (417.0 -> 371.9) WS#5330618_10.d 1.892 min.</p>	<p>417.0 -> 371.9</p>	<p>MPFOA RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 1.892 (1.892) 1 µg/L CC</p>
<p>-MRM (502.9 -> 79.9) WS#5330618_10.d 1.979 min.</p>	<p>502.9 -> 79.9</p>	<p>MPFOS RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 1.979 (1.979) 1 µg/L CC</p>
<p>-MRM (468.0 -> 422.9) WS#5330618_10.d 2.036 min.</p>	<p>468.0 -> 422.9</p>	<p>MPFNA RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 2.036 (2.036) 1 µg/L CC</p>
<p>-MRM (515.0 -> 469.9) WS#5330618_10.d 2.146 min.</p>	<p>515.0 -> 469.9</p>	<p>MPFDA RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 2.146 (2.146) 1 µg/L CC</p>
<p>-MRM (565.0 -> 519.9) WS#5330618_10.d 2.245 min.</p>	<p>565.0 -> 519.9</p>	<p>MPFUa RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 2.245 (2.245) 1 µg/L CC</p>
<p>-MRM (615.0 -> 569.9) WS#5330618_10.d 2.333 min.</p>	<p>615.0 -> 569.9</p>	<p>MPFDa RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 2.333 (2.333) 1 µg/L CC</p>
<p>-MRM (715.0 -> 669.9) WS#5330618_10.d 2.466 min.</p>	<p>715.0 -> 669.9</p>	<p>MPFTeDA RT (Exp. RT): Concentration: Sample type:</p>	<p>Internal Standard 2.466 (2.466) 1 µg/L CC</p>

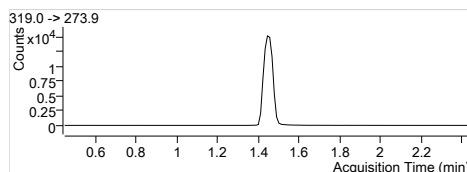
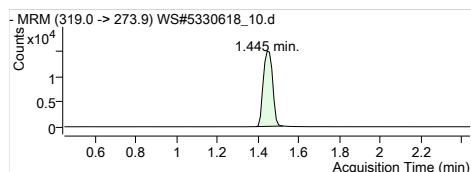
Quantitation Results



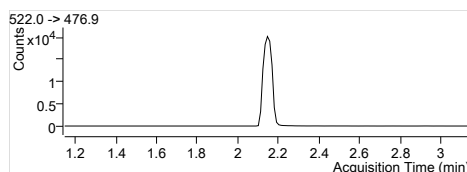
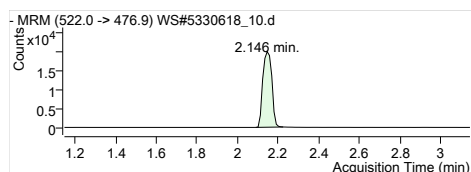
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: CC



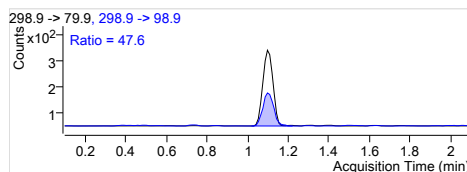
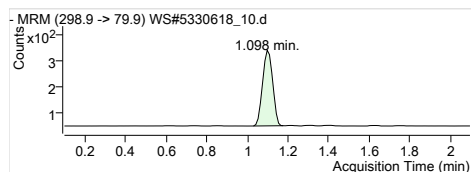
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: CC



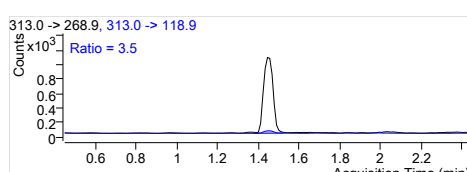
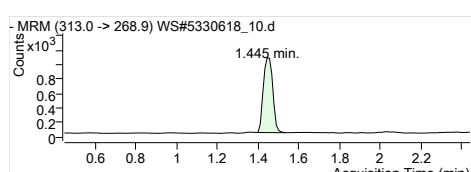
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: CC



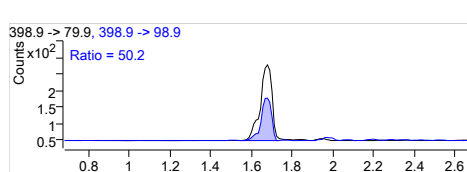
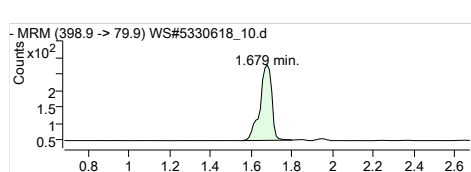
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: CC



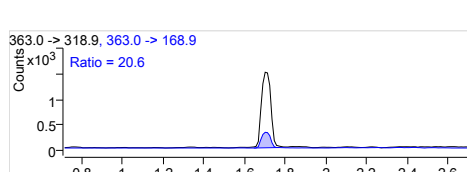
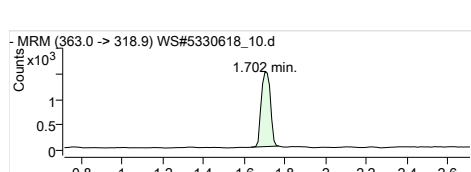
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 0.91 µg/L
 0.44124
 Sample type: CC



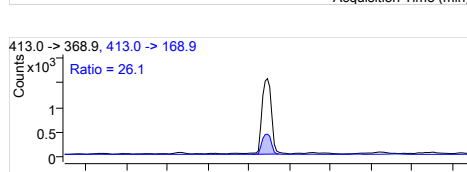
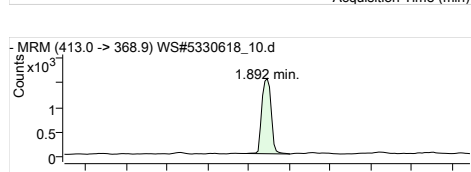
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 0.84 µg/L
 0.34140
 Sample type: CC



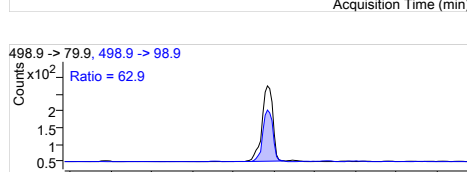
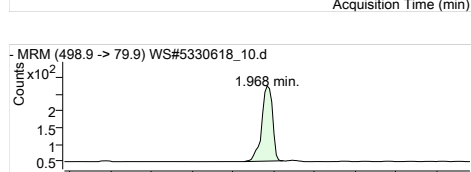
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 0.83 µg/L
 0.40673
 Sample type: CC



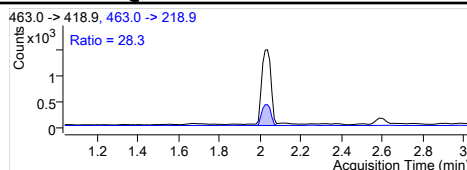
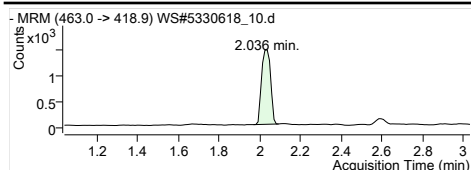
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 0.96 µg/L
 0.35757
 Sample type: CC



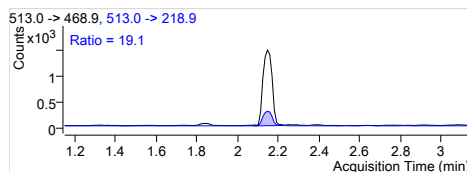
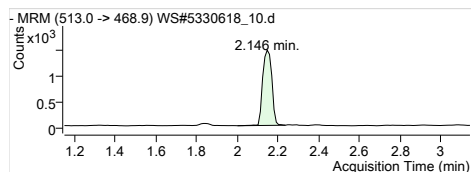
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 0.86 µg/L
 0.36484
 Sample type: CC



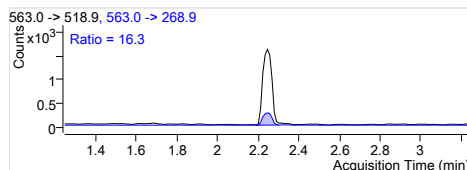
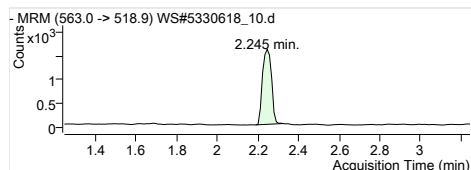
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 0.78 µg/L
 0.27169
 Sample type: CC



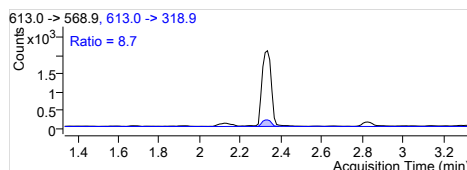
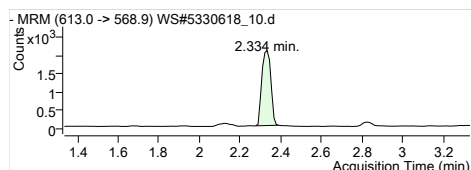
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 0.87 µg/L
 Sample type: 0.33193
 CC



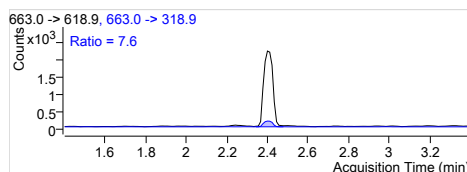
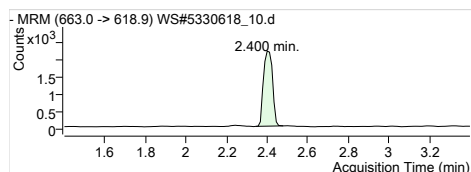
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 0.89 µg/L
 Sample type: 0.42316
 CC



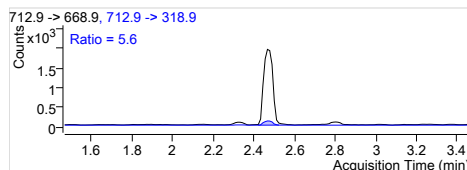
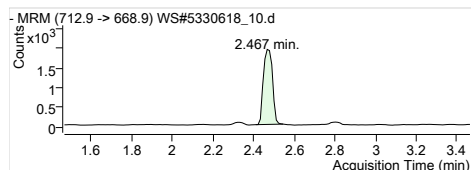
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 0.75 µg/L
 Sample type: 0.34593
 CC



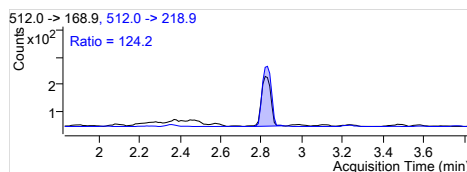
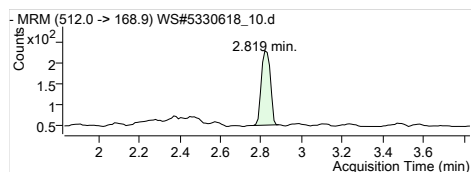
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 0.85 µg/L
 Sample type: 0.36072
 CC



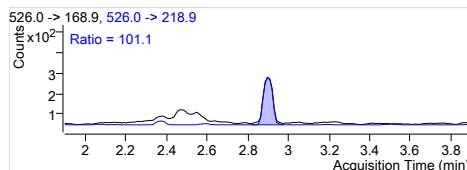
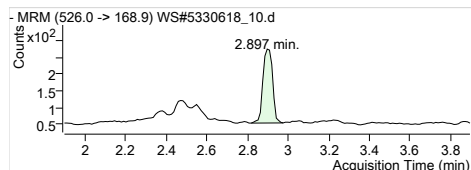
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 0.84 µg/L
 Sample type: 0.36696
 CC



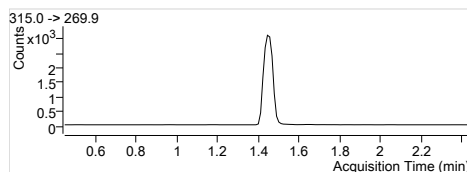
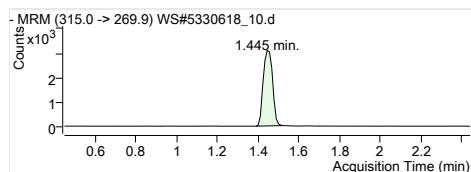
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 0.93 µg/L
 Sample type: 0.31924
 CC



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 0.68 µg/L
 Sample type: 0.08592
 CC

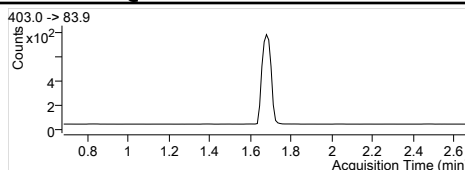
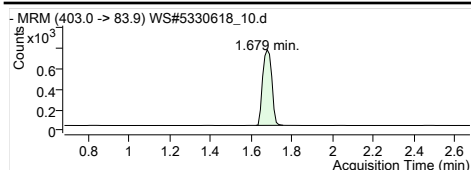


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 0.97 µg/L
 Sample type: 0.13724
 CC

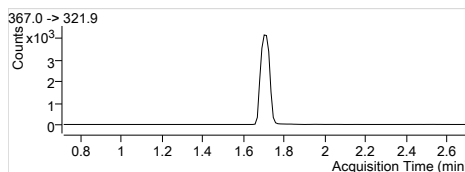
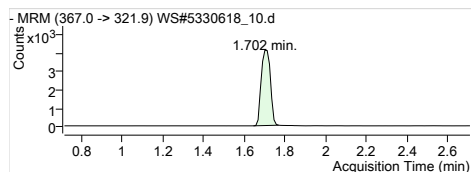


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 92.90 µg/L
 Sample type: 0.20572
 CC

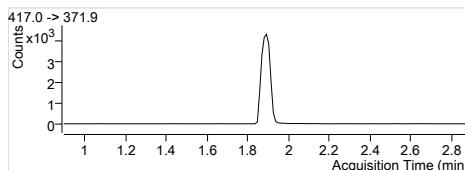
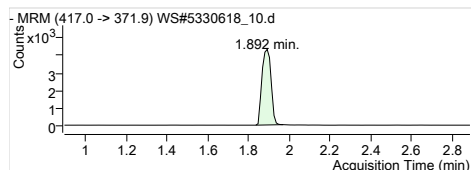
Quantitation Results



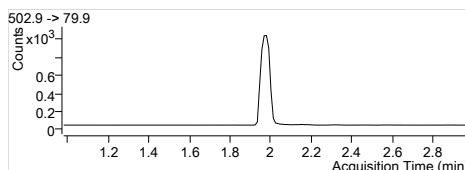
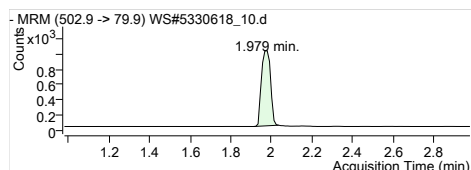
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 90.62 µg/L
 Sample type: 0.04809
 CC



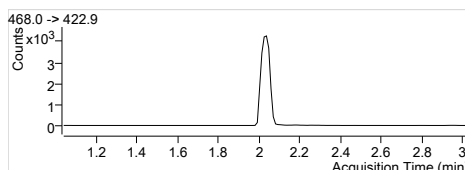
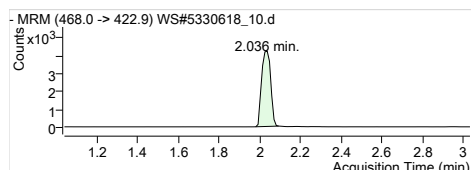
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 97.59 µg/L
 Sample type: 0.27074
 CC



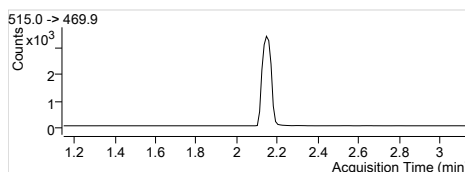
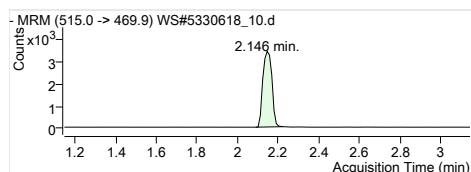
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 93.71 µg/L
 Sample type: 0.28072
 CC



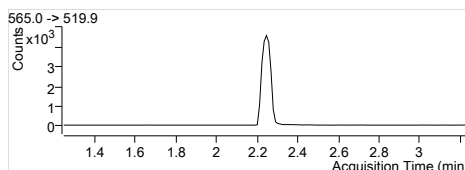
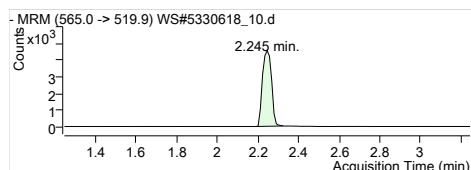
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 100.15 µg/L
 Sample type: 0.06464
 CC



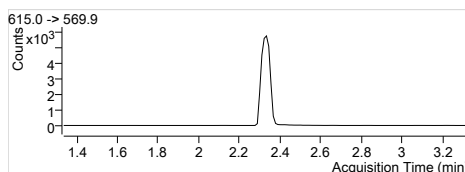
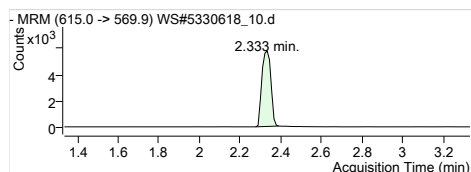
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 97.67 µg/L
 Sample type: 0.27362
 CC



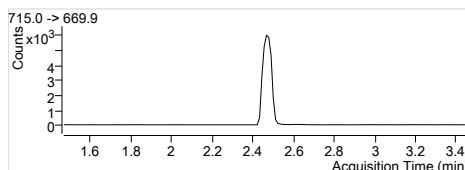
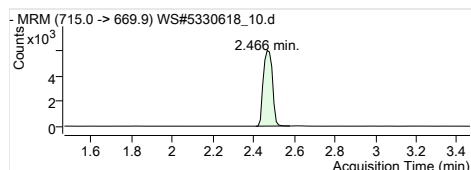
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 89.91 µg/L
 Sample type: 0.17124
 CC



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 96.09 µg/L
 Sample type: 0.22562
 CC

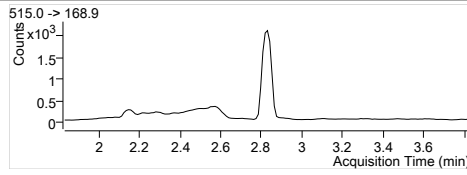
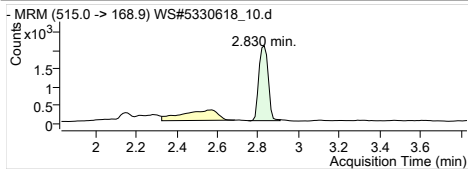


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 95.27 µg/L
 Sample type: 0.28512
 CC

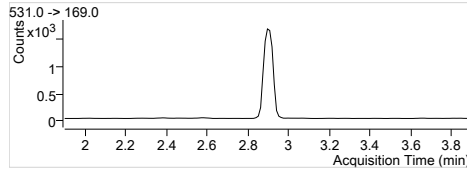
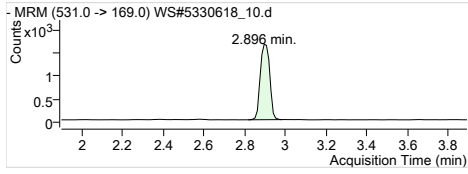


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 91.51 µg/L
 Sample type: 0.30056
 CC

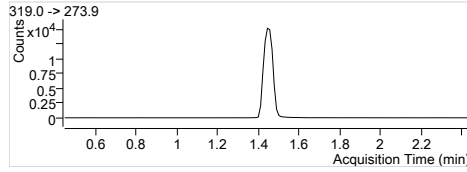
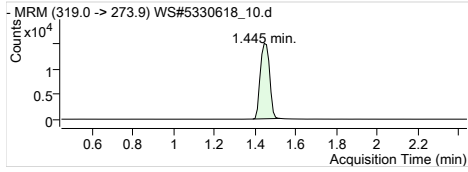
Quantitation Results



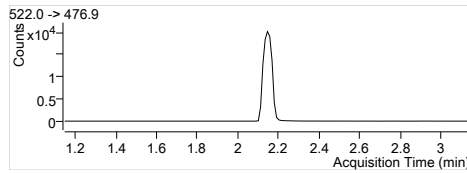
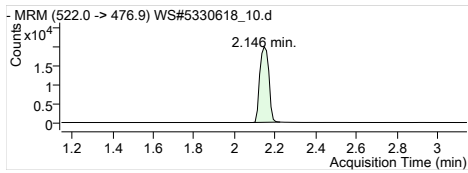
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 101.49 µg/L
Area ratio: 0.13731
Sample type: CC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 97.32 µg/L
Area ratio: 0.11126
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 98.43 µg/L
Area ratio: 0
Sample type: CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 100.18 µg/L
Area ratio: 0
Sample type: CC

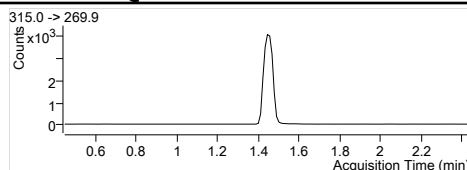
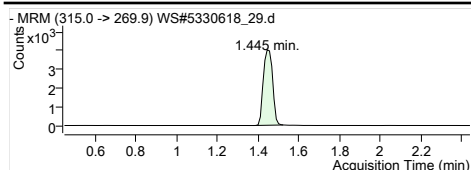
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#5330618_29.d	Operator	
Sample Type	CC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-E3
Acq. Date	2018/01/13 7:33:58 AM	Injection Volume	Per Method
Sample Annotation	-		

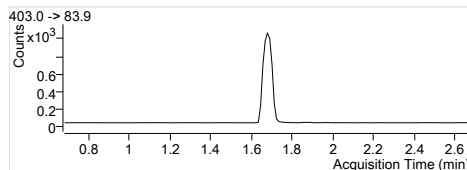
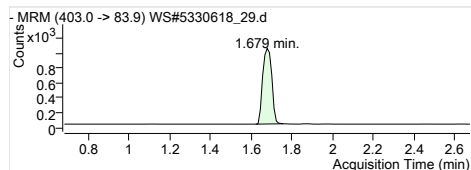
ISTD Compounds	Response	RT	Target conc.
MPFHxA	12665	1.44	1 µg/L
MPFHxS	3148	1.68	1 µg/L
MPFHpA	16173	1.71	1 µg/L
MPFOA	16398	1.89	1 µg/L
MPFOS	3947	1.97	1 µg/L
MPFNA	17181	2.02	1 µg/L
MPFDA	14307	2.15	1 µg/L
MPFUnA	19366	2.25	1 µg/L
MPFDoA	23422	2.33	1 µg/L
MPFTeDA	24685	2.47	1 µg/L
D3-MeFOSA IS	7544	2.83	1 µg/L
D5-EtFOSA IS	6656	2.90	1 µg/L
13C6-PFHxA IS	54612	1.44	1 µg/L
13C9-PFDA IS	73623	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	20284	1.10	12.50	12.73 µg/L	101.88
PFHxA 1	66893	1.44	12.50	12.43 µg/L	99.45
PFHxS 1	18010	1.68	12.50	13.06 µg/L	104.51
PFHpA 1	81193	1.71	12.50	11.58 µg/L	92.67
PFOA 1	94373	1.89	12.50	12.97 µg/L	103.79
PFOS 1	18529	1.97	12.50	11.83 µg/L	94.65
PFNA 1	84009	2.04	12.50	11.63 µg/L	93.07
PFDA 1	91353	2.15	12.50	12.38 µg/L	99.00
PFUnA 1	105180	2.25	12.50	11.64 µg/L	93.13
PFDaA 1	125660	2.33	12.50	12.49 µg/L	99.90
PFTTrDA 1	142349	2.40	12.50	12.84 µg/L	102.76
PFTeDA 1	115197	2.47	12.50	12.68 µg/L	101.41
MeFOSA 1	11871	2.82	12.50	12.19 µg/L	97.55
EtFOSA 1	11641	2.90	12.50	11.09 µg/L	88.75
13C2-PFHxA	12665	1.44	100.00	104.73 µg/L	104.73
18O2-PFHxS	3148	1.68	100.00	108.62 µg/L	108.62
13C4-PFHpA	16173	1.71	100.00	106.75 µg/L	106.75
13C4-PFOA	16398	1.89	100.00	100.23 µg/L	100.23
13C4-PFOS	3947	1.97	100.00	111.96 µg/L	111.96
13C5-PFNA	17034	2.02	100.00	111.34 µg/L	111.34
13C2-PFDA	14057	2.15	100.00	100.25 µg/L	100.25
13C2-PFUnA	19366	2.25	100.00	112.03 µg/L	112.03
13C2-PFDoA	23422	2.33	100.00	106.30 µg/L	106.30
13C2-PFTeDA	25160	2.47	100.00	104.05 µg/L	104.05
D3-MeFOSA	7638	2.83	100.00	103.37 µg/L	103.37
D5-EtFOSA	6656	2.90	100.00	106.60 µg/L	106.60
13C6-PFHxA	54612	1.44	100.00	112.93 µg/L	112.93
13C9-PFDA	73623	2.15	100.00	118.91 µg/L	118.91

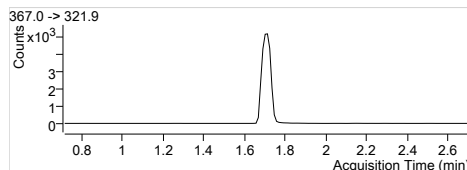
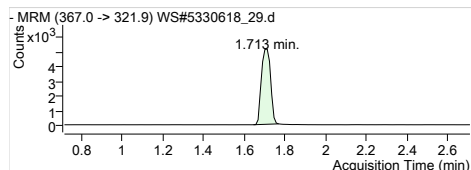
Quantitation Results



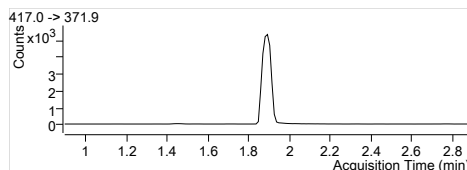
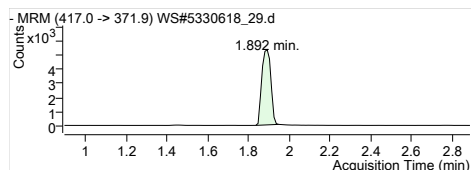
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: CC



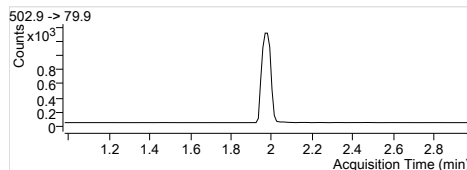
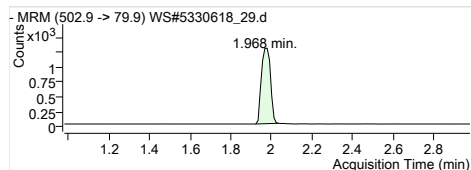
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



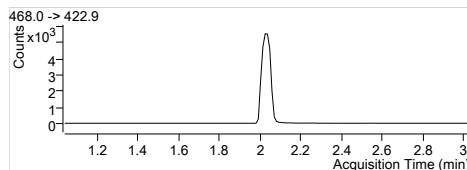
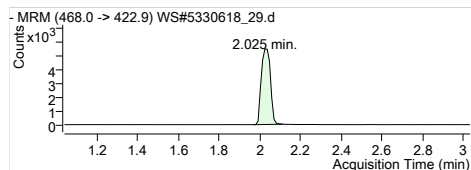
MPFHpA
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC



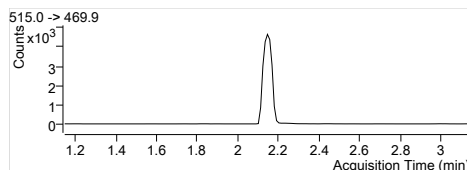
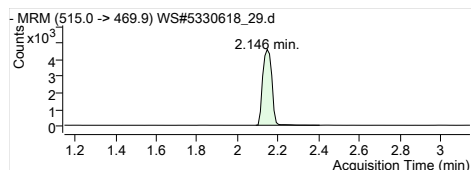
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC



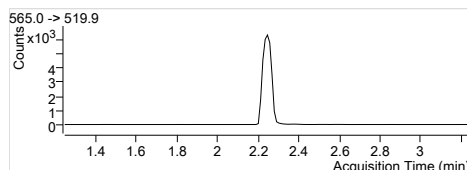
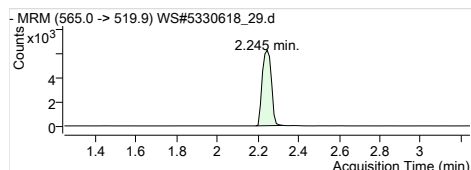
MPFOS
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: CC



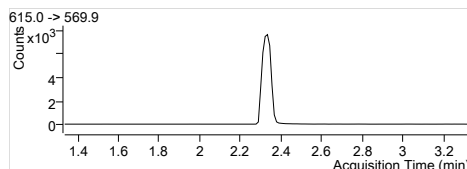
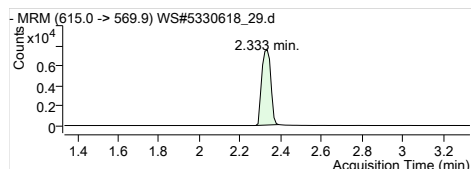
MPFNA
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: CC



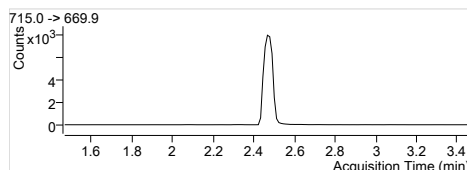
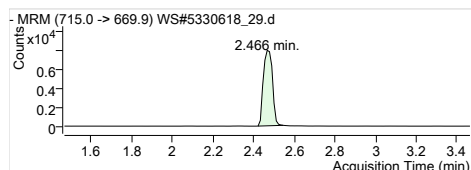
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



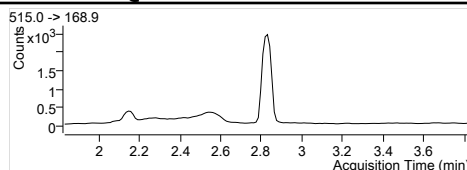
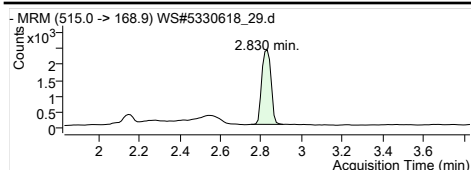
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC



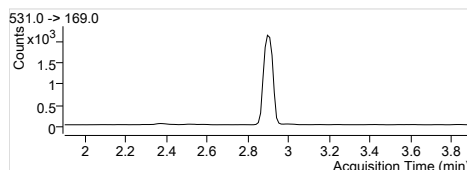
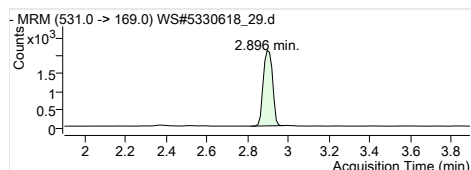
MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: CC



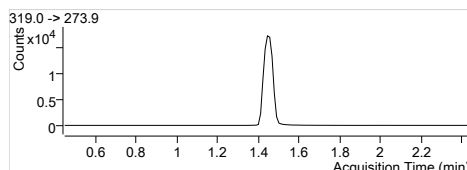
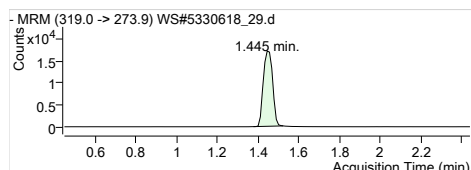
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: CC



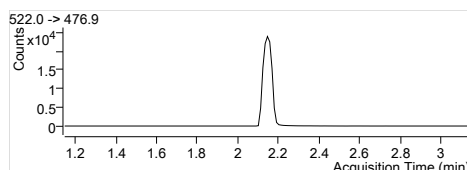
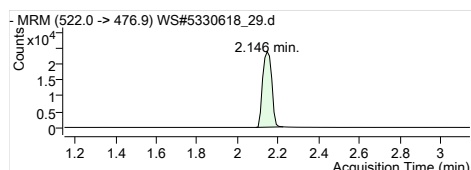
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: CC



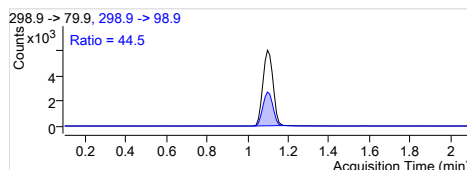
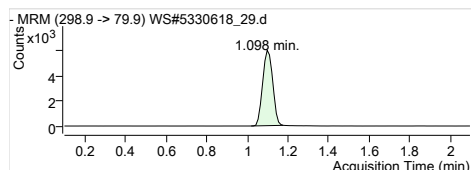
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: CC



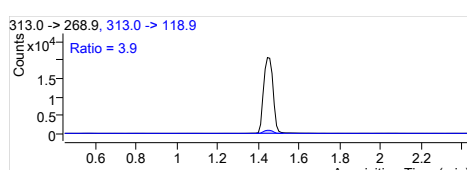
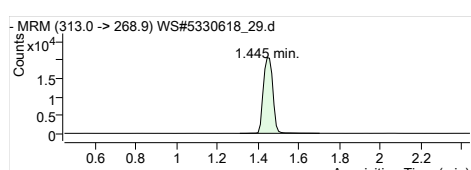
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: CC



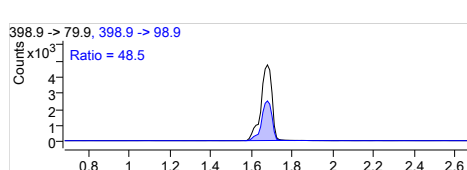
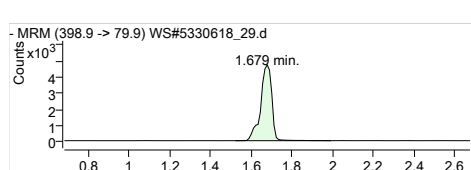
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: CC



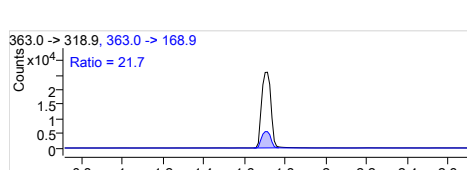
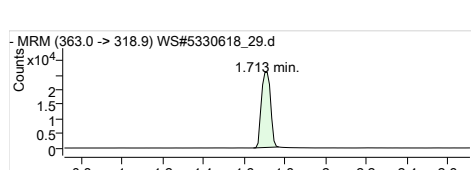
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 RT (Exp. RT): 1.098 (1.098)
 Calc. conc. 12.73 µg/L
 Area ratio: 6.44346
 Sample type: CC



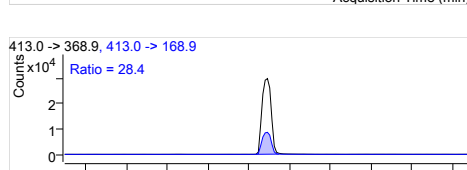
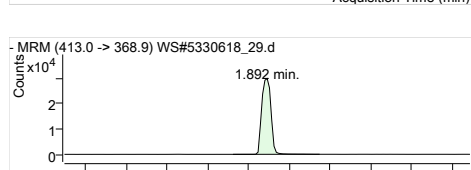
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 RT (Exp. RT): 1.445 (1.445)
 Calc. conc. 12.43 µg/L
 Area ratio: 5.28172
 Sample type: CC



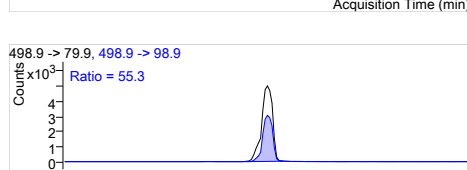
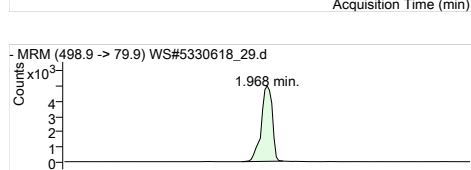
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 RT (Exp. RT): 1.679 (1.679)
 Calc. conc. 13.06 µg/L
 Area ratio: 5.72109
 Sample type: CC



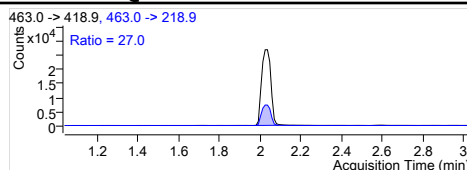
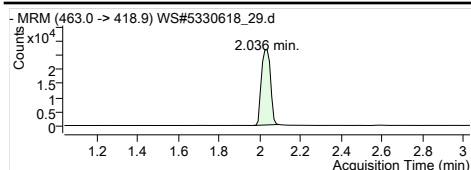
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 RT (Exp. RT): 1.713 (1.713)
 Calc. conc. 11.58 µg/L
 Area ratio: 5.02028
 Sample type: CC



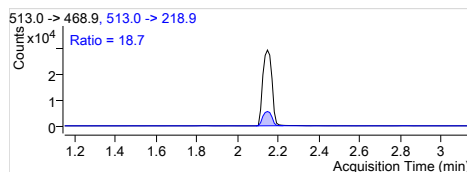
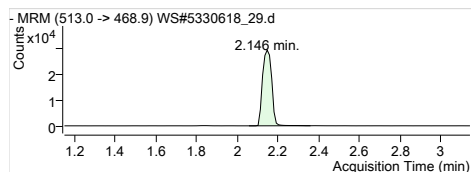
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 RT (Exp. RT): 1.892 (1.892)
 Calc. conc. 12.97 µg/L
 Area ratio: 5.75515
 Sample type: CC



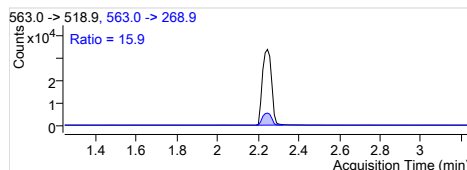
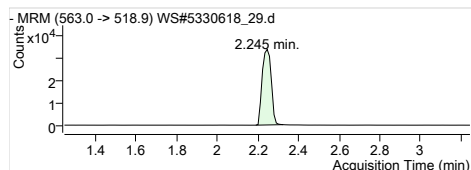
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 RT (Exp. RT): 1.968 (1.968)
 Calc. conc. 11.83 µg/L
 Area ratio: 4.69445
 Sample type: CC



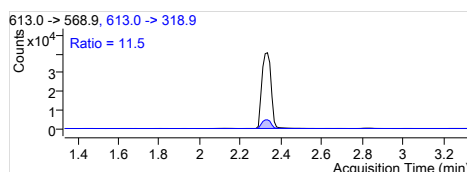
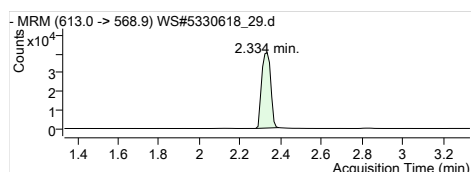
PFNA 1
 RT (Exp. RT): 463.0 -> 418.9
 Calc. conc. 2.036 (2.036)
 Area ratio: 11.63 µg/L
 Sample type: 4.88965
 CC



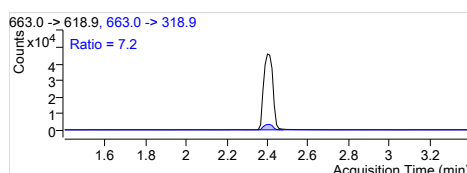
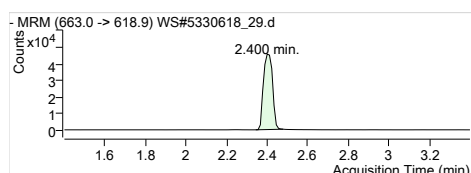
PFDA 1
 RT (Exp. RT): 513.0 -> 468.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 12.38 µg/L
 Sample type: 6.38520
 CC



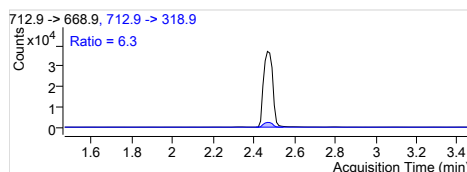
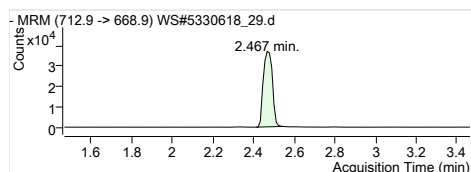
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 11.64 µg/L
 Sample type: 5.43117
 CC



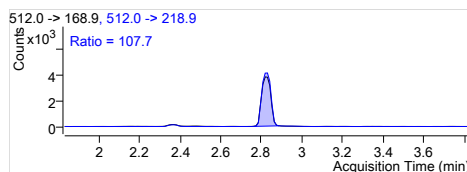
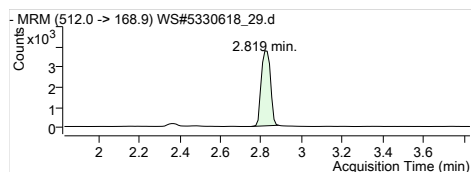
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.334 (2.334)
 Area ratio: 12.49 µg/L
 Sample type: 5.36504
 CC



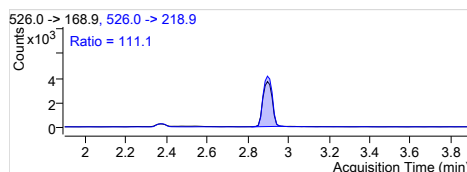
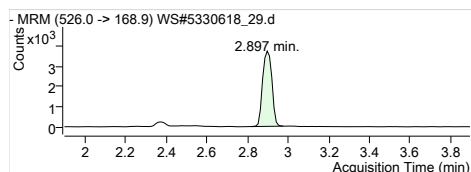
PFTrDA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.400 (2.400)
 Area ratio: 12.84 µg/L
 Sample type: 5.76662
 CC



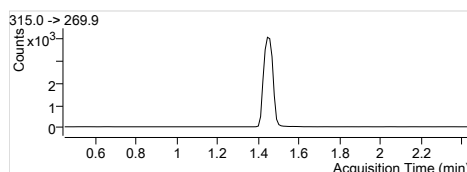
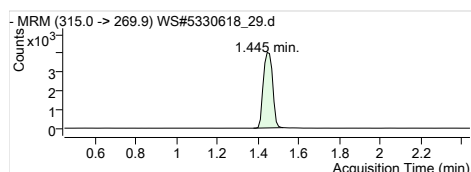
PFTeDA 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.467 (2.467)
 Area ratio: 12.68 µg/L
 Sample type: 4.66668
 CC



MeFOSA 1
 RT (Exp. RT): 512.0 -> 168.9
 Calc. conc. 2.819 (2.831)
 Area ratio: 12.19 µg/L
 Sample type: 1.57357
 CC

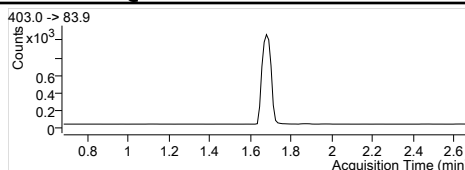
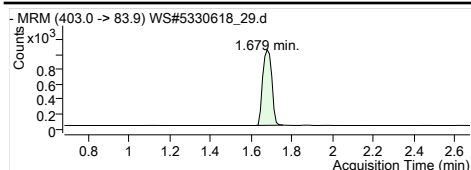


EtFOSA 1
 RT (Exp. RT): 526.0 -> 168.9
 Calc. conc. 2.897 (2.897)
 Area ratio: 11.09 µg/L
 Sample type: 1.74895
 CC

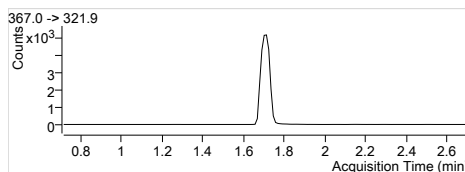
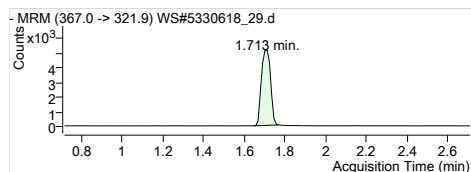


13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 104.73 µg/L
 Sample type: 0.23191
 CC

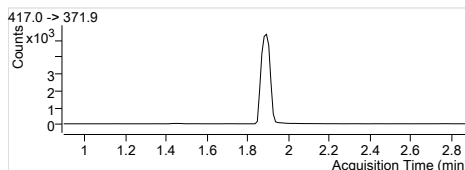
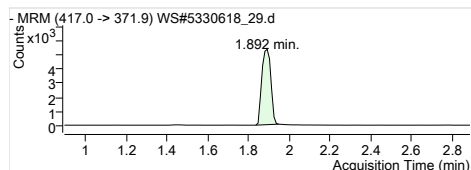
Quantitation Results



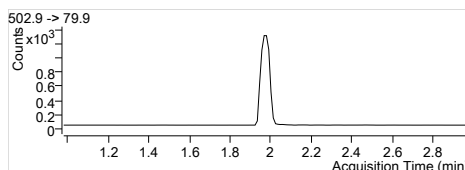
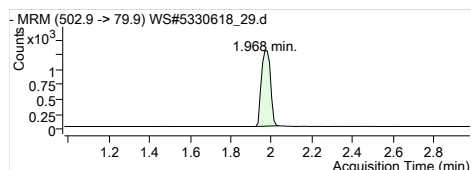
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 108.62 µg/L
 Sample type: 0.05764
 CC



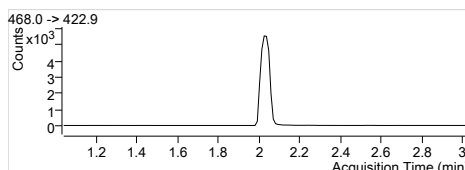
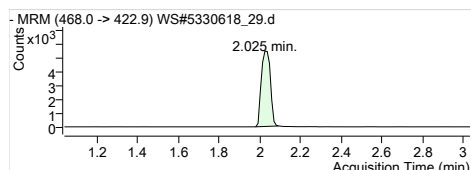
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 106.75 µg/L
 Sample type: 0.29614
 CC



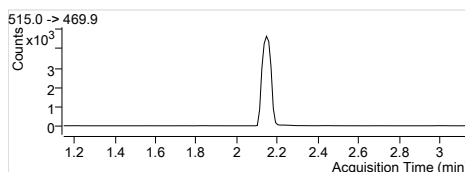
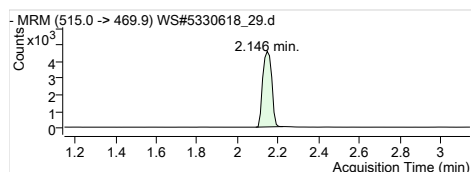
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 100.23 µg/L
 Sample type: 0.30026
 CC



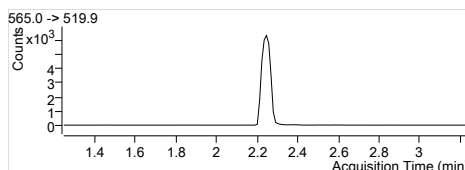
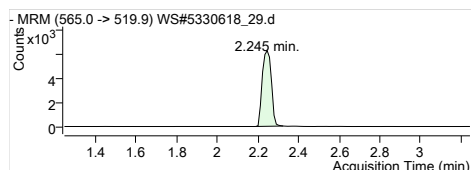
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.968 (1.979)
 Area ratio: 111.96 µg/L
 Sample type: 0.07227
 CC



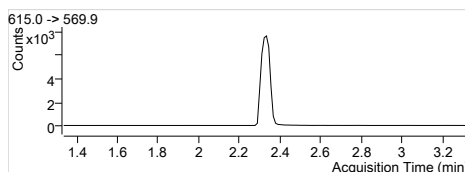
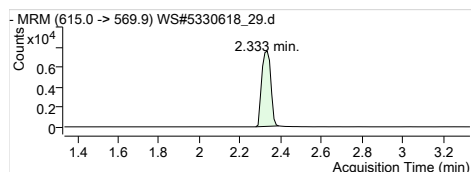
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 111.34 µg/L
 Sample type: 0.31191
 CC



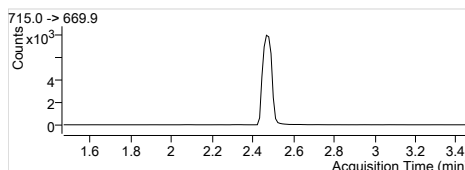
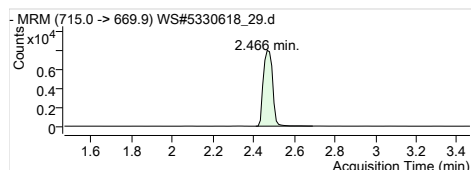
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 100.25 µg/L
 Sample type: 0.19093
 CC



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 112.03 µg/L
 Sample type: 0.26304
 CC

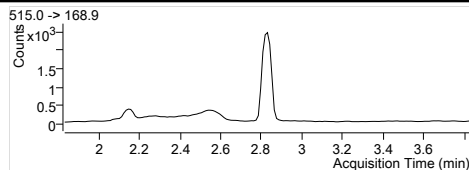
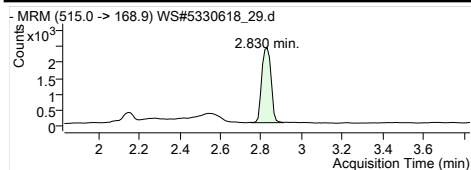


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 106.30 µg/L
 Sample type: 0.31813
 CC

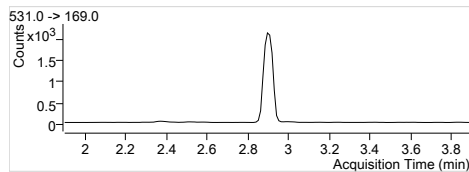
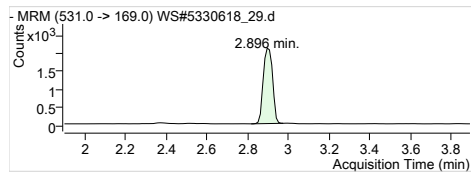


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 104.05 µg/L
 Sample type: 0.34174
 CC

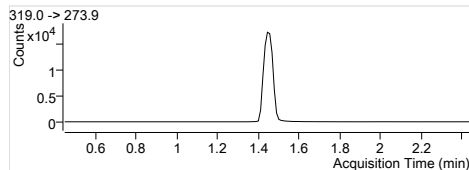
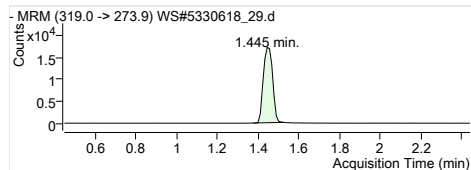
Quantitation Results



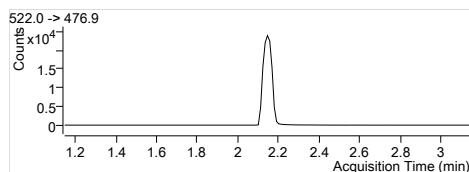
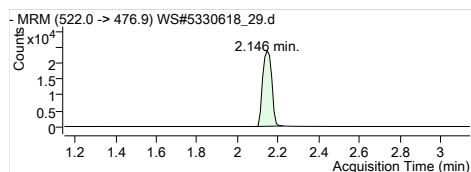
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 103.37 µg/L
Area ratio: 0.13986
Sample type: CC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 106.60 µg/L
Area ratio: 0.12188
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 112.93 µg/L
Area ratio: 0
Sample type: CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 118.91 µg/L
Area ratio: 0
Sample type: CC

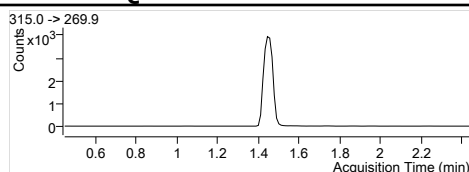
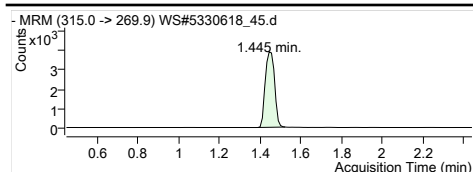
Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#5330618_45.d	Operator	
Sample Type	CC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-E3
Acq. Date	2018/01/13 8:55:42 AM	Injection Volume	Per Method
Sample Annotation	-		

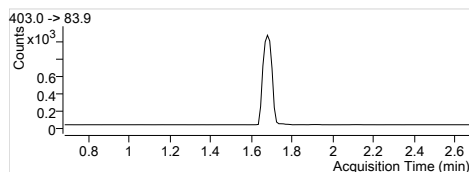
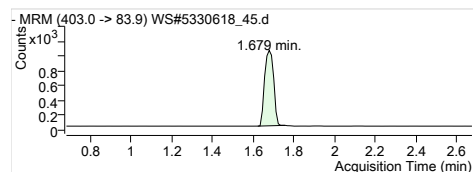
ISTD Compounds	Response	RT	Target conc.
MPFHxA	12339	1.44	1 µg/L
MPFHxS	3144	1.68	1 µg/L
MPFHpA	15630	1.71	1 µg/L
MPFOA	15995	1.89	1 µg/L
MPFOS	3558	1.97	1 µg/L
MPFNA	16795	2.02	1 µg/L
MPFDA	14293	2.15	1 µg/L
MPFUnA	17897	2.25	1 µg/L
MPFDoA	22253	2.33	1 µg/L
MPFTeDA	24694	2.47	1 µg/L
D3-MeFOSA IS	7689	2.83	1 µg/L
D5-EtFOSA IS	6589	2.90	1 µg/L
13C6-PFHxA IS	57232	1.44	1 µg/L
13C9-PFDA IS	71376	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	18885	1.10	12.50	11.87 µg/L	95.00
PFHxA 1	67555	1.44	12.50	12.89 µg/L	103.08
PFHxS 1	17612	1.68	12.50	12.79 µg/L	102.31
PFHpA 1	82291	1.71	12.50	12.14 µg/L	97.13
PFOA 1	96286	1.89	12.50	13.57 µg/L	108.55
PFOS 1	18360	1.97	12.50	12.99 µg/L	103.96
PFNA 1	86081	2.02	12.50	12.19 µg/L	97.53
PFDA 1	90597	2.15	12.50	12.29 µg/L	98.29
PFUnA 1	104090	2.25	12.50	12.47 µg/L	99.73
PFDoA 1	120088	2.33	12.50	12.56 µg/L	100.49
PFTTrDA 1	134807	2.40	12.50	12.16 µg/L	97.29
PFTeDA 1	110320	2.47	12.50	12.14 µg/L	97.10
MeFOSA 1	12172	2.82	12.50	12.27 µg/L	98.14
EtFOSA 1	11851	2.90	12.50	11.41 µg/L	91.25
13C2-PFHxA	12339	1.44	100.00	97.36 µg/L	97.36
18O2-PFHxS	3144	1.68	100.00	103.51 µg/L	103.51
13C4-PFHpA	15630	1.71	100.00	98.44 µg/L	98.44
13C4-PFOA	15995	1.89	100.00	93.29 µg/L	93.29
13C4-PFOS	3558	1.97	100.00	96.31 µg/L	96.31
13C5-PFNA	16681	2.02	100.00	104.04 µg/L	104.04
13C2-PFDA	14141	2.15	100.00	104.03 µg/L	104.03
13C2-PFUnA	17897	2.25	100.00	106.79 µg/L	106.79
13C2-PFDoA	22253	2.33	100.00	104.18 µg/L	104.18
13C2-PFTeDA	25025	2.47	100.00	106.75 µg/L	106.75
D3-MeFOSA	7762	2.83	100.00	100.24 µg/L	100.24
D5-EtFOSA	6718	2.90	100.00	102.67 µg/L	102.67
13C6-PFHxA	57232	1.44	100.00	118.35 µg/L	118.35
13C9-PFDA	71376	2.15	100.00	115.28 µg/L	115.28

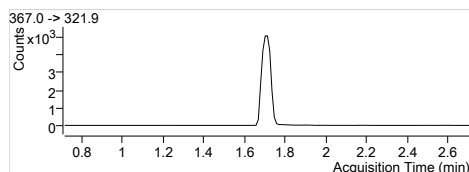
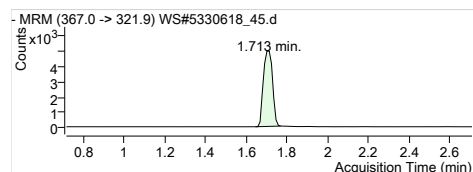
Quantitation Results



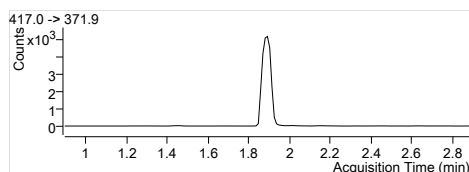
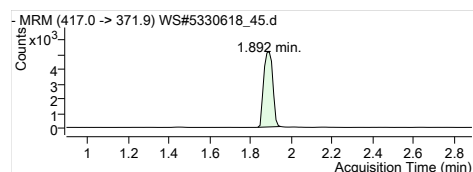
MPFHxA
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: CC



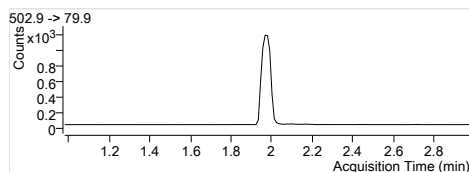
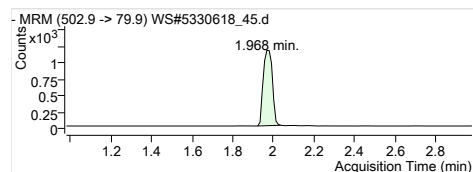
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/L
 Sample type: CC



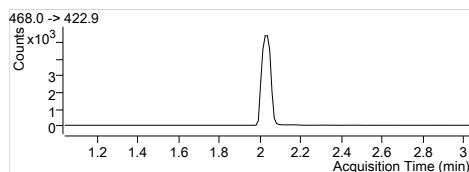
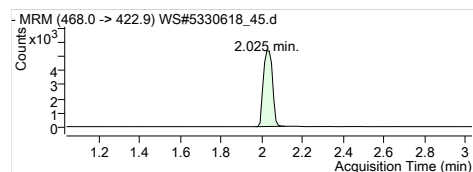
MPFHpA
 RT (Exp. RT): 1.713 (1.713)
 Concentration: 1 µg/L
 Sample type: CC



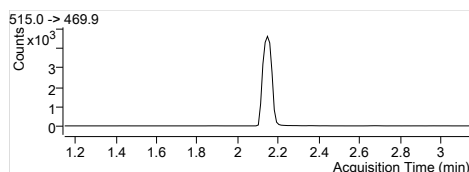
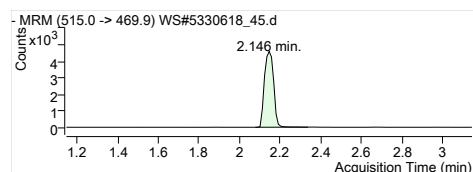
MPFOA
 RT (Exp. RT): 1.892 (1.892)
 Concentration: 1 µg/L
 Sample type: CC



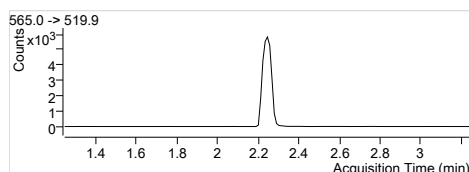
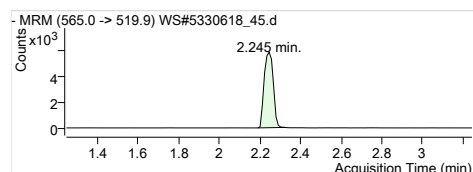
MPFOS
 RT (Exp. RT): 1.968 (1.979)
 Concentration: 1 µg/L
 Sample type: CC



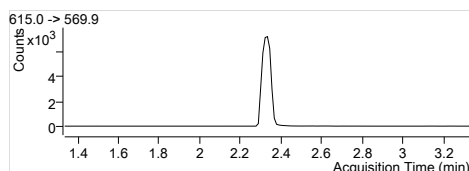
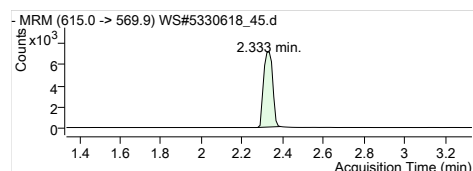
MPFNA
 RT (Exp. RT): 2.025 (2.036)
 Concentration: 1 µg/L
 Sample type: CC



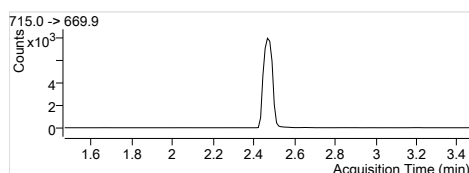
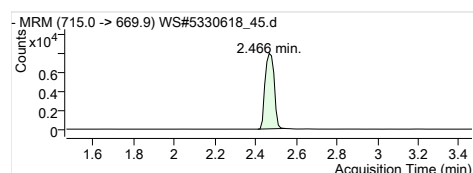
MPFDA
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: CC



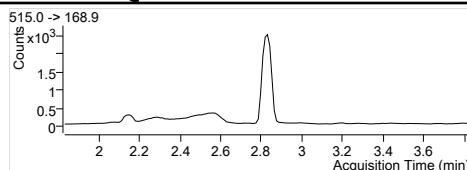
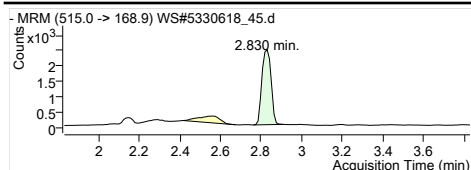
MPFUaA
 RT (Exp. RT): 2.245 (2.245)
 Concentration: 1 µg/L
 Sample type: CC



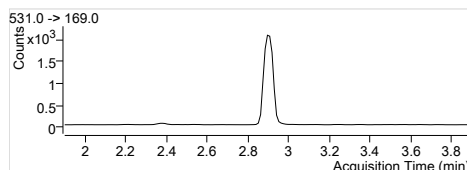
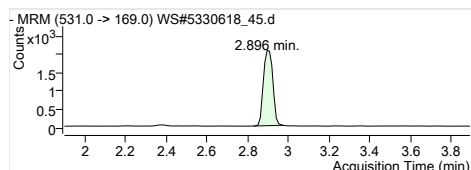
MPFDaA
 RT (Exp. RT): 2.333 (2.333)
 Concentration: 1 µg/L
 Sample type: CC



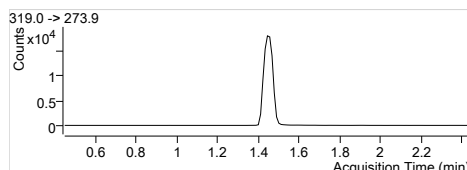
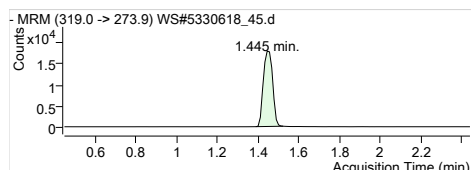
MPFTeDA
 RT (Exp. RT): 2.466 (2.466)
 Concentration: 1 µg/L
 Sample type: CC



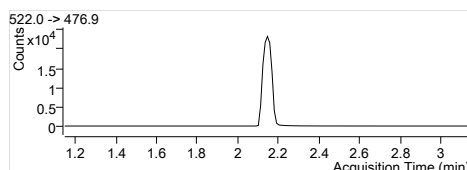
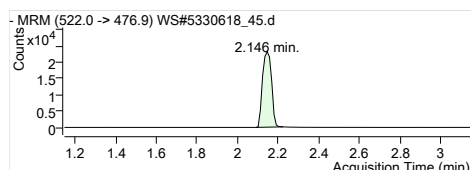
D3-MeFOSA IS
 Internal Standard
 RT (Exp. RT): 2.830 (2.830)
 Concentration: 1 µg/L
 Sample type: CC



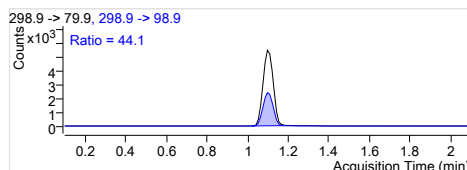
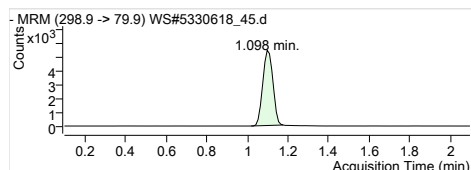
D5-EtFOSA IS
 Internal Standard
 RT (Exp. RT): 2.896 (2.896)
 Concentration: 1 µg/L
 Sample type: CC



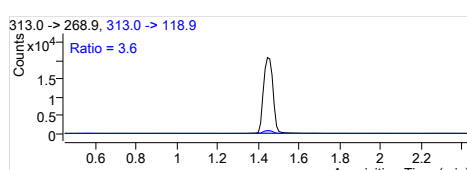
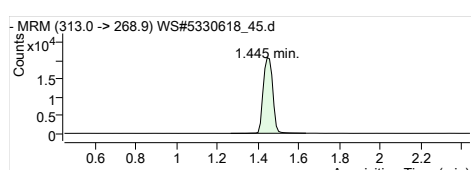
13C6-PFHxA IS
 Internal Standard
 RT (Exp. RT): 1.445 (1.445)
 Concentration: 1 µg/L
 Sample type: CC



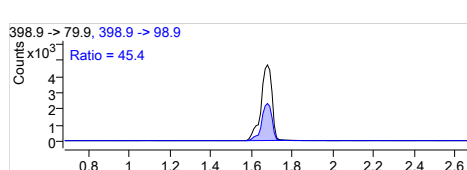
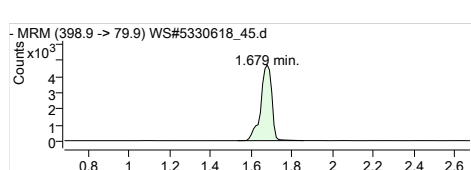
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 2.146 (2.146)
 Concentration: 1 µg/L
 Sample type: CC



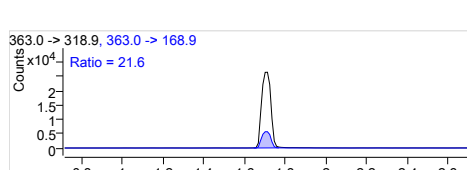
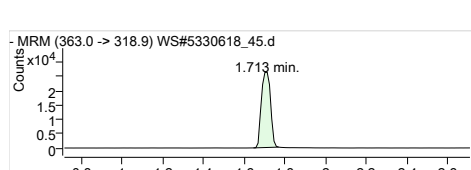
PFBS 1
 RT (Exp. RT): 298.9 -> 79.9
 Calc. conc. 1.098 (1.098)
 Area ratio: 11.87 µg/L
 6.00668
 Sample type: CC



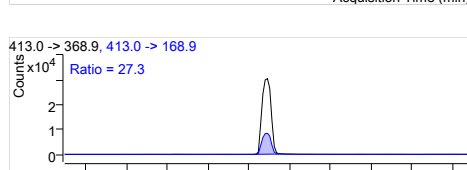
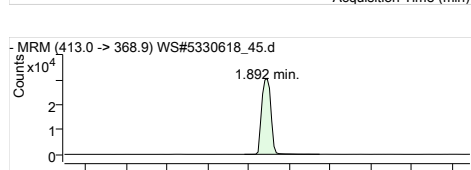
PFHxA 1
 RT (Exp. RT): 313.0 -> 268.9
 Calc. conc. 1.445 (1.445)
 Area ratio: 12.89 µg/L
 5.47492
 Sample type: CC



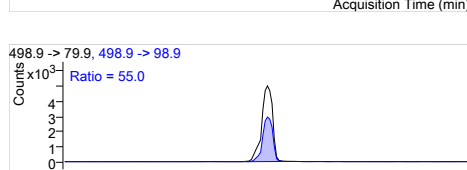
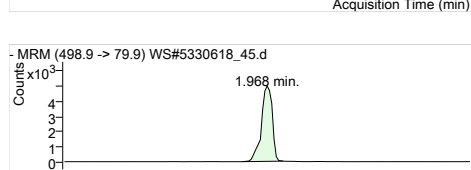
PFHxS 1
 RT (Exp. RT): 398.9 -> 79.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 12.79 µg/L
 5.60178
 Sample type: CC



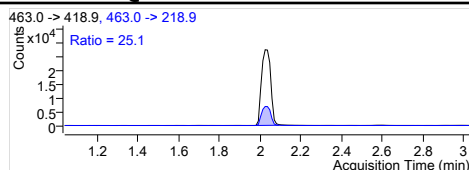
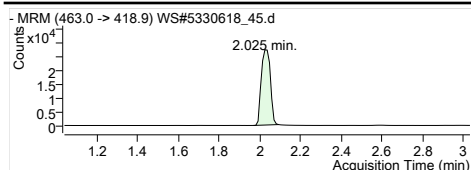
PFHpA 1
 RT (Exp. RT): 363.0 -> 318.9
 Calc. conc. 1.713 (1.713)
 Area ratio: 12.14 µg/L
 5.26494
 Sample type: CC



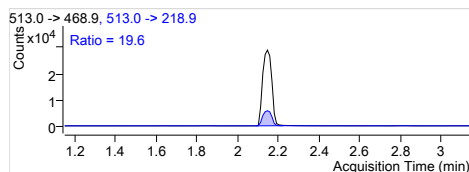
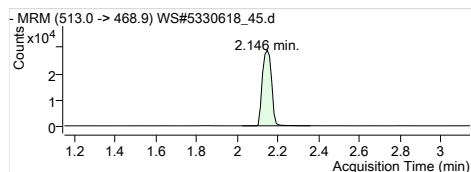
PFOA 1
 RT (Exp. RT): 413.0 -> 368.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 13.57 µg/L
 6.01976
 Sample type: CC



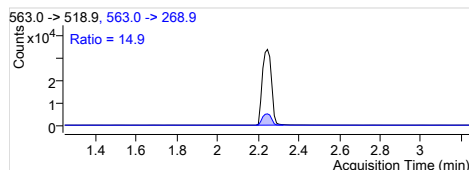
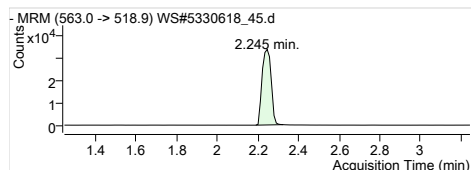
PFOS 1
 RT (Exp. RT): 498.9 -> 79.9
 Calc. conc. 1.968 (1.968)
 Area ratio: 12.99 µg/L
 5.16020
 Sample type: CC



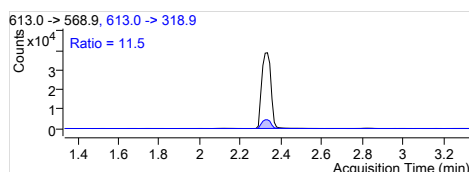
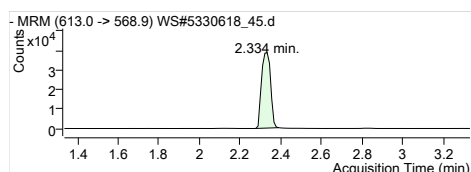
PFNA 1
RT (Exp. RT): 463.0 -> 418.9
2.025 (2.036)
Calc. conc. 12.19 µg/L
Area ratio: 5.12539
Sample type: CC



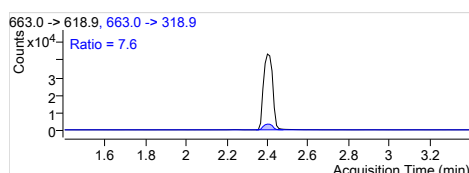
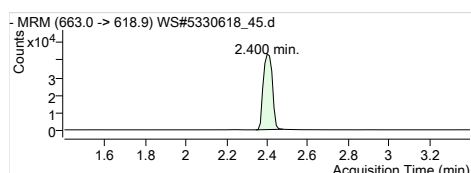
PFDA 1
RT (Exp. RT): 513.0 -> 468.9
2.146 (2.146)
Calc. conc. 12.29 µg/L
Area ratio: 6.33856
Sample type: CC



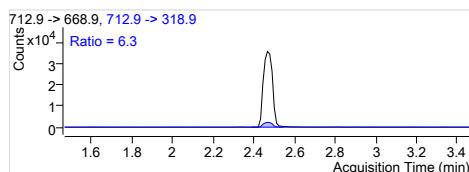
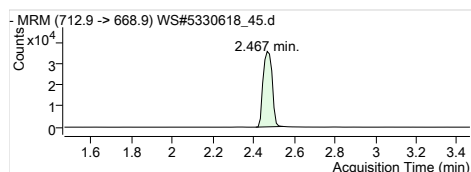
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
2.245 (2.245)
Calc. conc. 12.47 µg/L
Area ratio: 5.81606
Sample type: CC



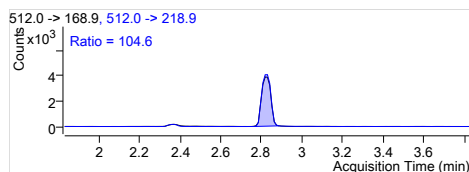
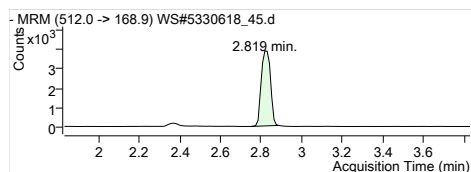
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
2.334 (2.334)
Calc. conc. 12.56 µg/L
Area ratio: 5.39649
Sample type: CC



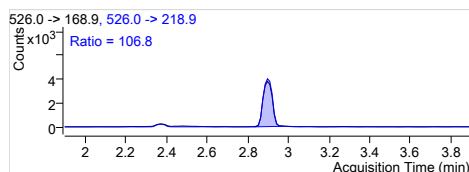
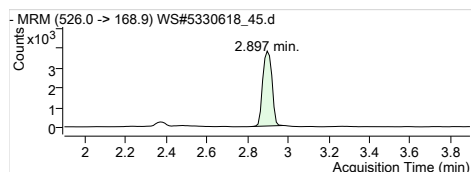
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
2.400 (2.400)
Calc. conc. 12.16 µg/L
Area ratio: 5.45910
Sample type: CC



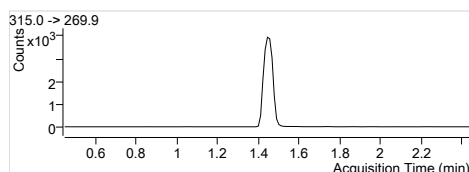
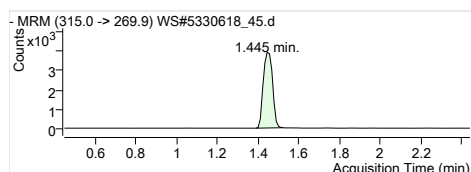
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
2.467 (2.467)
Calc. conc. 12.14 µg/L
Area ratio: 4.46748
Sample type: CC



MeFOSA 1
RT (Exp. RT): 512.0 -> 168.9
2.819 (2.831)
Calc. conc. 12.27 µg/L
Area ratio: 1.58304
Sample type: CC

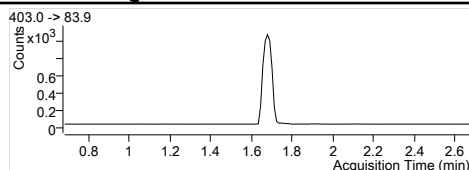
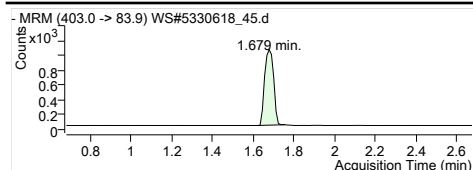


EtFOSA 1
RT (Exp. RT): 526.0 -> 168.9
2.897 (2.897)
Calc. conc. 11.41 µg/L
Area ratio: 1.79860
Sample type: CC

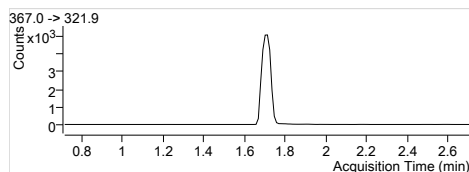
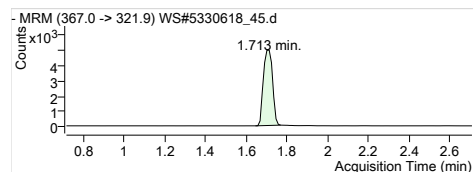


13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
1.445 (1.445)
Calc. conc. 97.36 µg/L
Area ratio: 0.21560
Sample type: CC

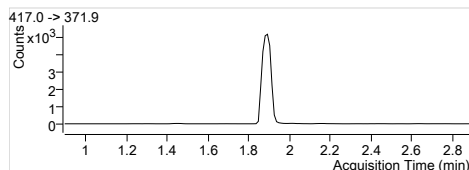
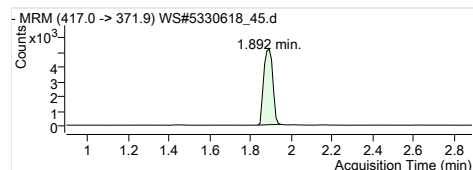
Quantitation Results



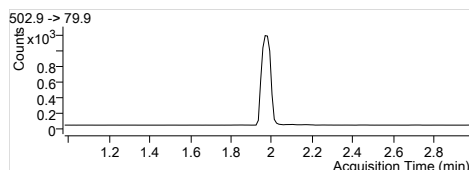
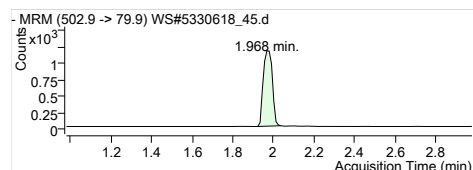
1802-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 103.51 µg/L
Sample type: 0.05493
CC



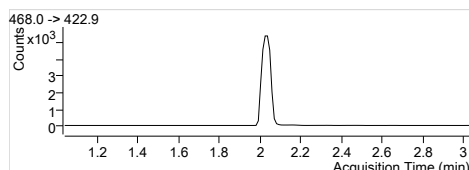
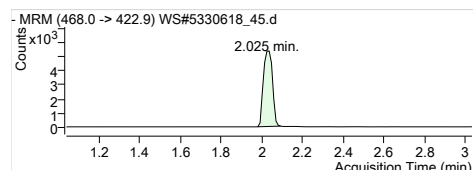
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.713 (1.713)
Area ratio: 98.44 µg/L
Sample type: 0.27310
CC



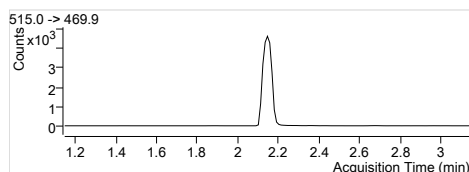
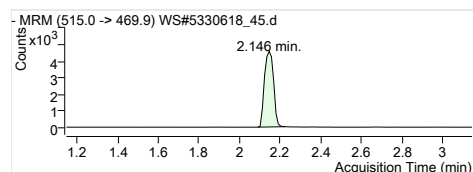
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.892 (1.892)
Area ratio: 93.29 µg/L
Sample type: 0.27948
CC



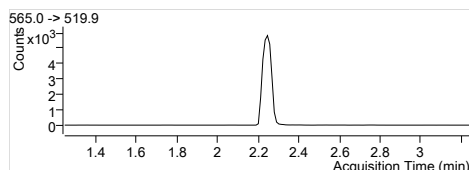
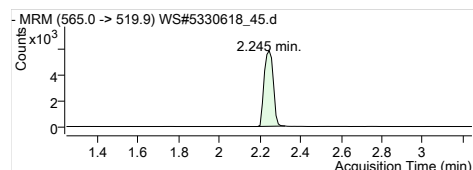
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.968 (1.979)
Area ratio: 96.31 µg/L
Sample type: 0.06217
CC



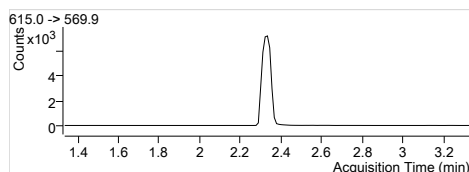
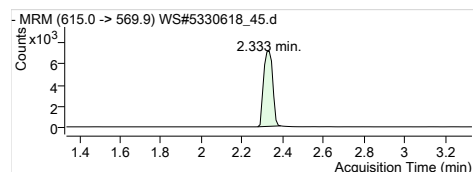
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.025 (2.036)
Area ratio: 104.04 µg/L
Sample type: 0.29146
CC



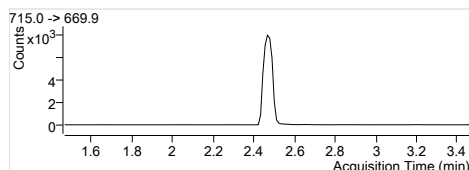
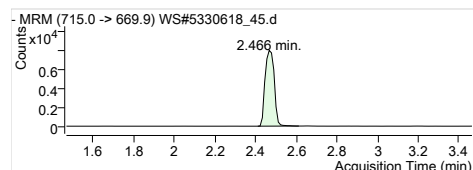
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.146 (2.146)
Area ratio: 104.03 µg/L
Sample type: 0.19812
CC



13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.245 (2.245)
Area ratio: 106.79 µg/L
Sample type: 0.25074
CC

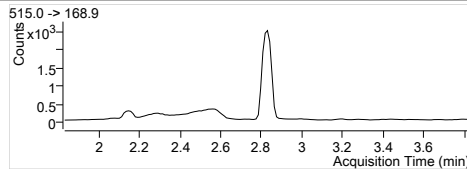
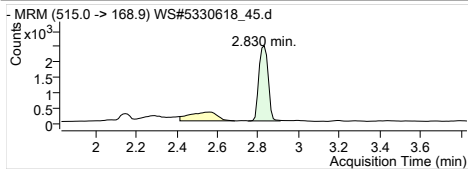


13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.333 (2.333)
Area ratio: 104.18 µg/L
Sample type: 0.31177
CC

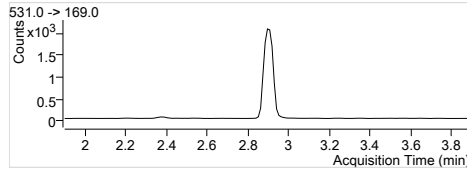
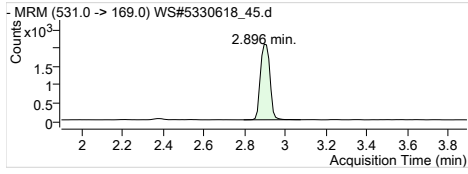


13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.466 (2.466)
Area ratio: 106.75 µg/L
Sample type: 0.35061
CC

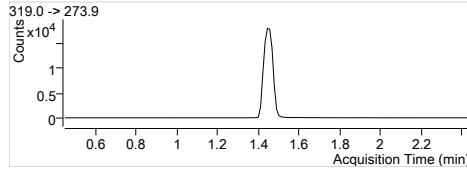
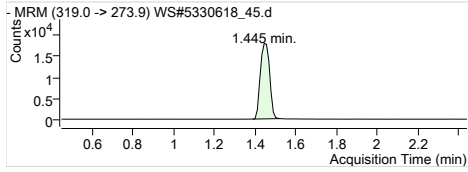
Quantitation Results



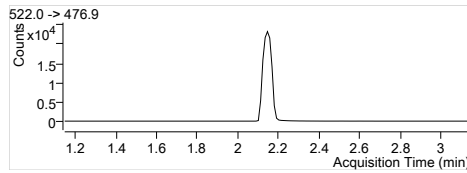
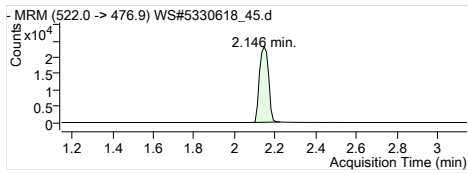
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 100.24 µg/L
Area ratio: 0.13562
Sample type: CC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 102.67 µg/L
Area ratio: 0.11738
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 118.35 µg/L
Area ratio: 0
Sample type: CC



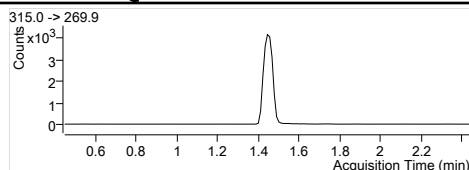
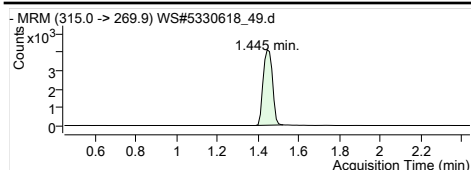
13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 115.28 µg/L
Area ratio: 0
Sample type: CC

Quantitation Results

Batch Path	T:\cms4\PFC\20180112\WS#5330618\QuantResults\PFC_Water_Low_180112_WS#5330618_EMAX		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#5330618_49.d	Operator	
Sample Type	CC	Dilution	1
Acq. Method	PFC_Water_Low.m	Position	P3-E3
Acq. Date	2018/01/13 9:15:58 AM	Injection Volume	Per Method
Sample Annotation	-		

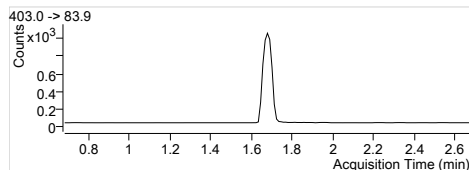
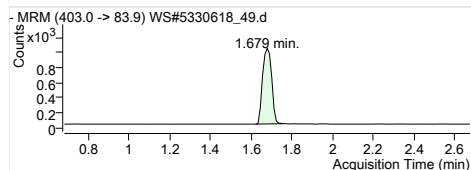
ISTD Compounds	Response	RT	Target conc.
MPFHxA	12974	1.44	1 µg/L
MPFHxS	3127	1.68	1 µg/L
MPFHpA	15760	1.70	1 µg/L
MPFOA	16804	1.89	1 µg/L
MPFOS	3639	1.98	1 µg/L
MPFNA	17116	2.02	1 µg/L
MPFDA	14371	2.15	1 µg/L
MPFUnA	18294	2.25	1 µg/L
MPFDoA	22351	2.33	1 µg/L
MPFTeDA	24273	2.47	1 µg/L
D3-MeFOSA IS	7808	2.83	1 µg/L
D5-EtFOSA IS	6448	2.90	1 µg/L
13C6-PFHxA IS	58034	1.44	1 µg/L
13C9-PFDA IS	73689	2.15	1 µg/L

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	19656	1.10	12.50	12.42 µg/L	99.40
PFHxA 1	68943	1.44	12.50	12.51 µg/L	100.06
PFHxS 1	17117	1.68	12.50	12.49 µg/L	99.96
PFHpA 1	82651	1.70	12.50	12.09 µg/L	96.75
PFOA 1	97160	1.89	12.50	13.03 µg/L	104.27
PFOS 1	18728	1.97	12.50	12.96 µg/L	103.68
PFNA 1	88426	2.02	12.50	12.29 µg/L	98.30
PFDA 1	90433	2.15	12.50	12.20 µg/L	97.58
PFUnA 1	104731	2.25	12.50	12.27 µg/L	98.16
PFDoA 1	120363	2.33	12.50	12.53 µg/L	100.28
PFTTrDA 1	139872	2.40	12.50	12.84 µg/L	102.68
PFTeDA 1	109605	2.47	12.50	12.27 µg/L	98.14
MeFOSA 1	12627	2.82	12.50	12.53 µg/L	100.25
EtFOSA 1	12675	2.90	12.50	12.46 µg/L	99.65
13C2-PFHxA	12974	1.44	100.00	100.96 µg/L	100.96
18O2-PFHxS	3127	1.68	100.00	101.53 µg/L	101.53
13C4-PFHpA	15760	1.70	100.00	97.89 µg/L	97.89
13C4-PFOA	16804	1.89	100.00	96.65 µg/L	96.65
13C4-PFOS	3639	1.98	100.00	97.14 µg/L	97.14
13C5-PFNA	16953	2.02	100.00	104.28 µg/L	104.28
13C2-PFDA	14112	2.15	100.00	100.55 µg/L	100.55
13C2-PFUnA	18294	2.25	100.00	105.73 µg/L	105.73
13C2-PFDoA	22351	2.33	100.00	101.35 µg/L	101.35
13C2-PFTeDA	24548	2.47	100.00	101.42 µg/L	101.42
D3-MeFOSA	7839	2.83	100.00	99.84 µg/L	99.84
D5-EtFOSA	6544	2.90	100.00	98.63 µg/L	98.63
13C6-PFHxA	58034	1.44	100.00	120.01 µg/L	120.01
13C9-PFDA	73689	2.15	100.00	119.02 µg/L	119.02



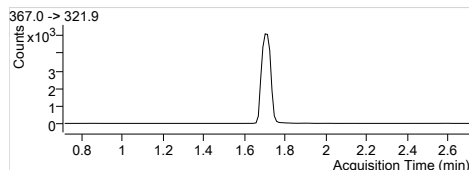
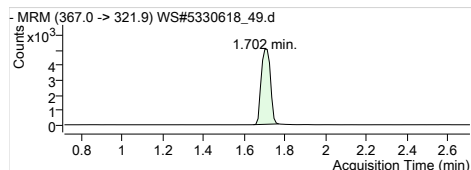
MPFHxA
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.445 (1.445)
1 µg/L
CC



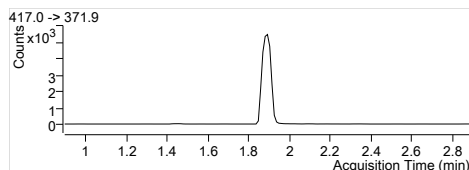
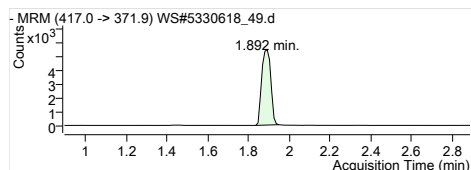
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.679 (1.679)
1 µg/L
CC



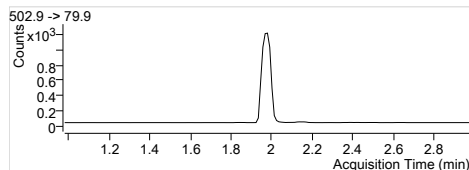
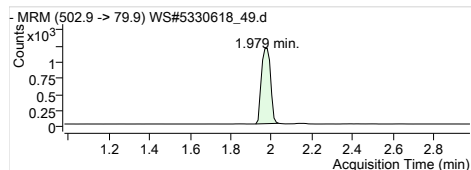
MPFHpA
RT (Exp. RT): 1.702 (1.713)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.702 (1.713)
1 µg/L
CC



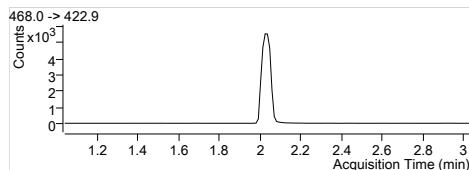
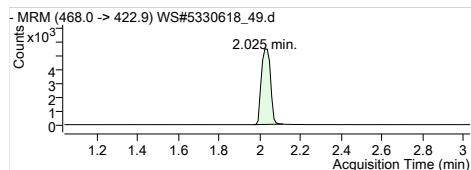
MPFOA
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.892 (1.892)
1 µg/L
CC



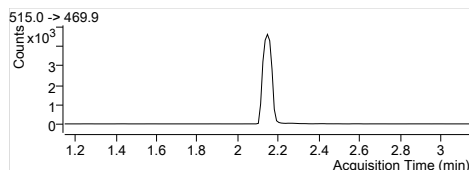
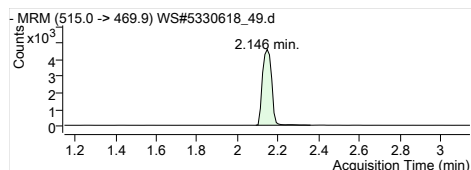
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
1.979 (1.979)
1 µg/L
CC



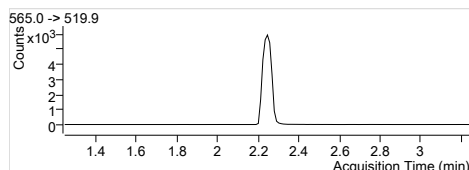
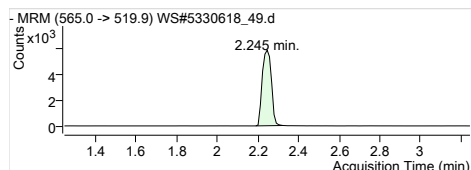
MPFNA
RT (Exp. RT): 2.025 (2.036)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.025 (2.036)
1 µg/L
CC



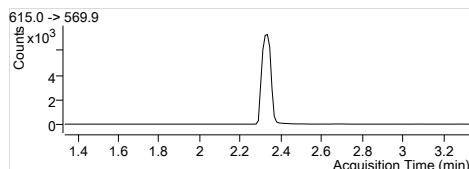
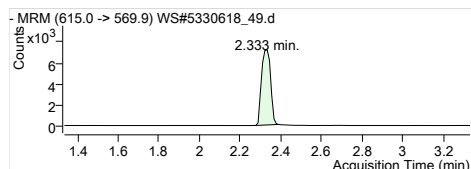
MPFDA
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.146 (2.146)
1 µg/L
CC



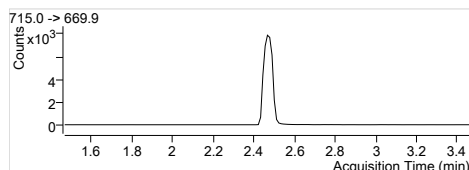
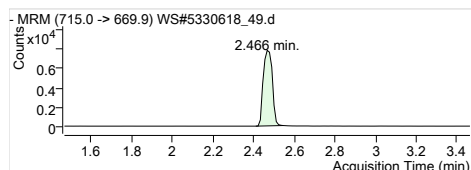
MPFUaA
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.245 (2.245)
1 µg/L
CC



MPFDaA
RT (Exp. RT): 2.333 (2.333)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.333 (2.333)
1 µg/L
CC



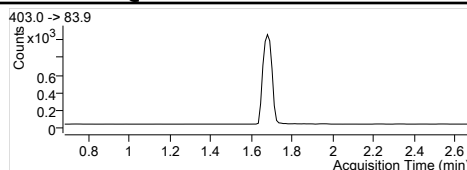
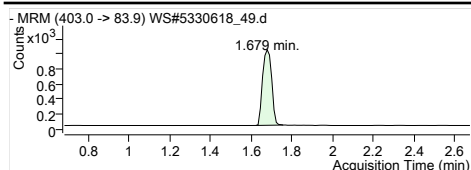
MPFTeDA
RT (Exp. RT): 2.466 (2.466)
Concentration: 1 µg/L
Sample type: CC

Internal Standard
2.466 (2.466)
1 µg/L
CC

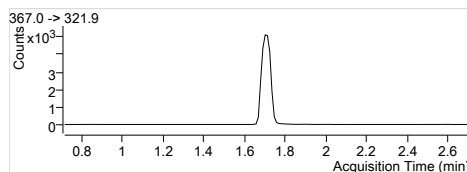
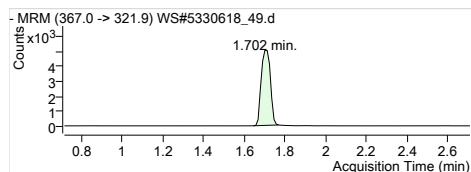
<p>-MRM (515.0 -> 168.9) WS#5330618_49.d Counts x10³ 2.830 min. Acquisition Time (min)</p>	<p>515.0 -> 168.9 Counts x10³ Acquisition Time (min)</p>	<p>D3-MeFOSA IS RT (Exp. RT): 2.830 (2.830) Concentration: 1 µg/L Sample type: CC</p>	<p>Internal Standard 2.830 (2.830) 1 µg/L CC</p>
<p>-MRM (531.0 -> 169.0) WS#5330618_49.d Counts x10³ 2.896 min. Acquisition Time (min)</p>	<p>531.0 -> 169.0 Counts x10³ Acquisition Time (min)</p>	<p>D5-EtFOSA IS RT (Exp. RT): 2.896 (2.896) Concentration: 1 µg/L Sample type: CC</p>	<p>Internal Standard 2.896 (2.896) 1 µg/L CC</p>
<p>-MRM (319.0 -> 273.9) WS#5330618_49.d Counts x10⁴ 1.445 min. Acquisition Time (min)</p>	<p>319.0 -> 273.9 Counts x10⁴ Acquisition Time (min)</p>	<p>13C6-PFHxA IS RT (Exp. RT): 1.445 (1.445) Concentration: 1 µg/L Sample type: CC</p>	<p>Internal Standard 1.445 (1.445) 1 µg/L CC</p>
<p>-MRM (522.0 -> 476.9) WS#5330618_49.d Counts x10⁴ 2.146 min. Acquisition Time (min)</p>	<p>522.0 -> 476.9 Counts x10⁴ Acquisition Time (min)</p>	<p>13C9-PFDA IS RT (Exp. RT): 2.146 (2.146) Concentration: 1 µg/L Sample type: CC</p>	<p>Internal Standard 2.146 (2.146) 1 µg/L CC</p>
<p>-MRM (298.9 -> 79.9) WS#5330618_49.d Counts x10³ 1.098 min. Acquisition Time (min)</p>	<p>298.9 -> 79.9, 298.9 -> 98.9 Ratio = 42.4 Counts x10³ Acquisition Time (min)</p>	<p>PFBS 1 RT (Exp. RT): 1.098 (1.098) Calc. conc. 12.42 µg/L Area ratio: 6.28590 Sample type: CC</p>	<p>298.9 -> 79.9 1.098 (1.098) 12.42 µg/L 6.28590 CC</p>
<p>-MRM (313.0 -> 268.9) WS#5330618_49.d Counts x10⁴ 1.445 min. Acquisition Time (min)</p>	<p>313.0 -> 268.9, 313.0 -> 118.9 Ratio = 3.6 Counts x10⁴ Acquisition Time (min)</p>	<p>PFHxA 1 RT (Exp. RT): 1.445 (1.445) Calc. conc. 12.51 µg/L Area ratio: 5.31394 Sample type: CC</p>	<p>313.0 -> 268.9 1.445 (1.445) 12.51 µg/L 5.31394 CC</p>
<p>-MRM (398.9 -> 79.9) WS#5330618_49.d Counts x10³ 1.679 min. Acquisition Time (min)</p>	<p>398.9 -> 79.9, 398.9 -> 98.9 Ratio = 50.7 Counts x10³ Acquisition Time (min)</p>	<p>PFHxS 1 RT (Exp. RT): 1.679 (1.679) Calc. conc. 12.49 µg/L Area ratio: 5.47394 Sample type: CC</p>	<p>398.9 -> 79.9 1.679 (1.679) 12.49 µg/L 5.47394 CC</p>
<p>-MRM (363.0 -> 318.9) WS#5330618_49.d Counts x10⁴ 1.702 min. Acquisition Time (min)</p>	<p>363.0 -> 318.9, 363.0 -> 168.9 Ratio = 21.6 Counts x10⁴ Acquisition Time (min)</p>	<p>PFHpA 1 RT (Exp. RT): 1.702 (1.713) Calc. conc. 12.09 µg/L Area ratio: 5.24435 Sample type: CC</p>	<p>363.0 -> 318.9 1.702 (1.713) 12.09 µg/L 5.24435 CC</p>
<p>-MRM (413.0 -> 368.9) WS#5330618_49.d Counts x10⁴ 1.892 min. Acquisition Time (min)</p>	<p>413.0 -> 368.9, 413.0 -> 168.9 Ratio = 28.3 Counts x10⁴ Acquisition Time (min)</p>	<p>PFOA 1 RT (Exp. RT): 1.892 (1.892) Calc. conc. 13.03 µg/L Area ratio: 5.78196 Sample type: CC</p>	<p>413.0 -> 368.9 1.892 (1.892) 13.03 µg/L 5.78196 CC</p>
<p>-MRM (498.9 -> 79.9) WS#5330618_49.d Counts x10³ 1.968 min. Acquisition Time (min)</p>	<p>498.9 -> 79.9, 498.9 -> 98.9 Ratio = 54.1 Counts x10³ Acquisition Time (min)</p>	<p>PFOS 1 RT (Exp. RT): 1.968 (1.968) Calc. conc. 12.96 µg/L Area ratio: 5.14647 Sample type: CC</p>	<p>498.9 -> 79.9 1.968 (1.968) 12.96 µg/L 5.14647 CC</p>

<p>-MRM (463.0 -> 418.9) WS#5330618_49.d</p> <p>2.025 min.</p>	<p>463.0 -> 418.9, 463.0 -> 218.9</p> <p>Ratio = 25.0</p>	<p>PFNA 1</p> <p>RT (Exp. RT): 2.025 (2.036)</p> <p>Calc. conc. 12.29 µg/L</p> <p>Area ratio: 5.16628</p> <p>Sample type: CC</p>	<p>463.0 -> 418.9</p>
<p>-MRM (513.0 -> 468.9) WS#5330618_49.d</p> <p>2.146 min.</p>	<p>513.0 -> 468.9, 513.0 -> 218.9</p> <p>Ratio = 18.7</p>	<p>PFDA 1</p> <p>RT (Exp. RT): 2.146 (2.146)</p> <p>Calc. conc. 12.20 µg/L</p> <p>Area ratio: 6.29274</p> <p>Sample type: CC</p>	<p>513.0 -> 468.9</p>
<p>-MRM (563.0 -> 518.9) WS#5330618_49.d</p> <p>2.245 min.</p>	<p>563.0 -> 518.9, 563.0 -> 268.9</p> <p>Ratio = 15.4</p>	<p>PFUnA 1</p> <p>RT (Exp. RT): 2.245 (2.245)</p> <p>Calc. conc. 12.27 µg/L</p> <p>Area ratio: 5.72488</p> <p>Sample type: CC</p>	<p>563.0 -> 518.9</p>
<p>-MRM (613.0 -> 568.9) WS#5330618_49.d</p> <p>2.334 min.</p>	<p>613.0 -> 568.9, 613.0 -> 318.9</p> <p>Ratio = 11.2</p>	<p>PFDoA 1</p> <p>RT (Exp. RT): 2.334 (2.334)</p> <p>Calc. conc. 12.53 µg/L</p> <p>Area ratio: 5.38513</p> <p>Sample type: CC</p>	<p>613.0 -> 568.9</p>
<p>-MRM (663.0 -> 618.9) WS#5330618_49.d</p> <p>2.400 min.</p>	<p>663.0 -> 618.9, 663.0 -> 318.9</p> <p>Ratio = 7.3</p>	<p>PFTrDA 1</p> <p>RT (Exp. RT): 2.400 (2.400)</p> <p>Calc. conc. 12.84 µg/L</p> <p>Area ratio: 5.76245</p> <p>Sample type: CC</p>	<p>663.0 -> 618.9</p>
<p>-MRM (712.9 -> 668.9) WS#5330618_49.d</p> <p>2.467 min.</p>	<p>712.9 -> 668.9, 712.9 -> 318.9</p> <p>Ratio = 6.4</p>	<p>PFTeDA 1</p> <p>RT (Exp. RT): 2.467 (2.467)</p> <p>Calc. conc. 12.27 µg/L</p> <p>Area ratio: 4.51551</p> <p>Sample type: CC</p>	<p>712.9 -> 668.9</p>
<p>-MRM (512.0 -> 168.9) WS#5330618_49.d</p> <p>2.819 min.</p>	<p>512.0 -> 168.9, 512.0 -> 218.9</p> <p>Ratio = 104.6</p>	<p>MeFOSA 1</p> <p>RT (Exp. RT): 2.819 (2.831)</p> <p>Calc. conc. 12.53 µg/L</p> <p>Area ratio: 1.61719</p> <p>Sample type: CC</p>	<p>512.0 -> 168.9</p>
<p>-MRM (526.0 -> 168.9) WS#5330618_49.d</p> <p>2.897 min.</p>	<p>526.0 -> 168.9, 526.0 -> 218.9</p> <p>Ratio = 105.6</p>	<p>EtFOSA 1</p> <p>RT (Exp. RT): 2.897 (2.897)</p> <p>Calc. conc. 12.46 µg/L</p> <p>Area ratio: 1.96573</p> <p>Sample type: CC</p>	<p>526.0 -> 168.9</p>
<p>-MRM (315.0 -> 269.9) WS#5330618_49.d</p> <p>1.445 min.</p>	<p>315.0 -> 269.9</p>	<p>13C2-PFHxA</p> <p>RT (Exp. RT): 1.445 (1.445)</p> <p>Calc. conc. 100.96 µg/L</p> <p>Area ratio: 0.22356</p> <p>Sample type: CC</p>	<p>315.0 -> 269.9</p>

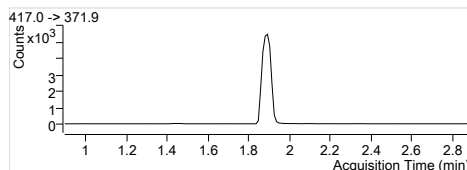
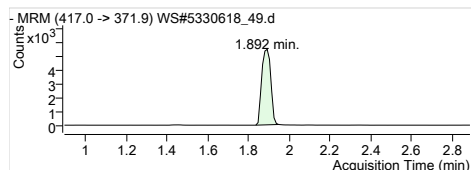
Quantitation Results



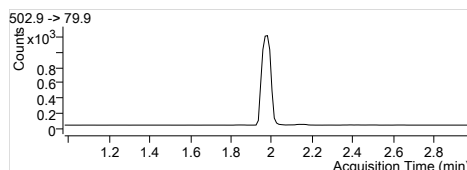
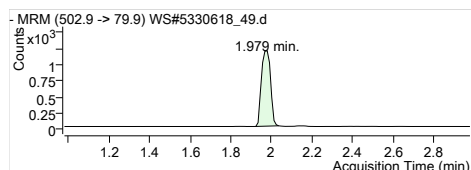
1802-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 101.53 µg/L
 Sample type: 0.05388
 CC



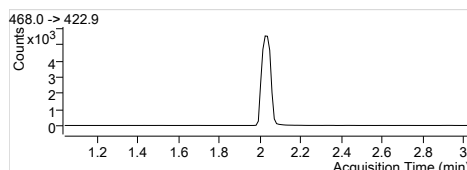
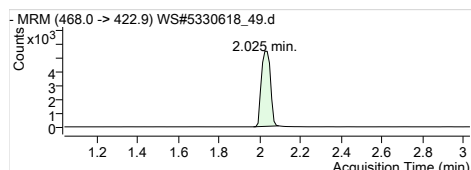
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.702 (1.713)
 Area ratio: 97.89 µg/L
 Sample type: 0.27156
 CC



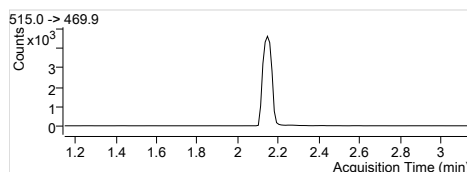
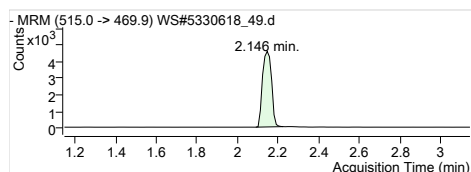
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.892 (1.892)
 Area ratio: 96.65 µg/L
 Sample type: 0.28955
 CC



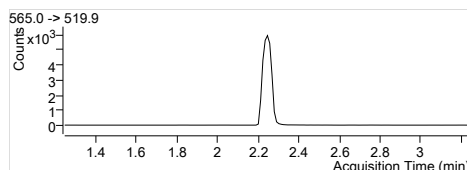
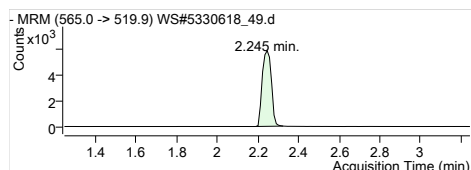
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 97.14 µg/L
 Sample type: 0.06270
 CC



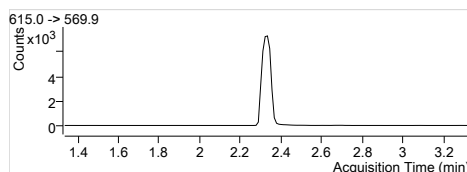
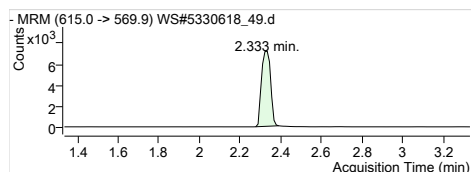
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.025 (2.036)
 Area ratio: 104.28 µg/L
 Sample type: 0.29212
 CC



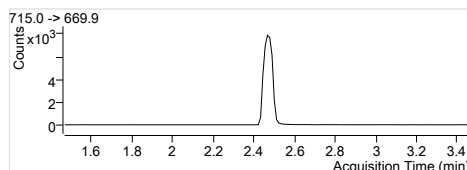
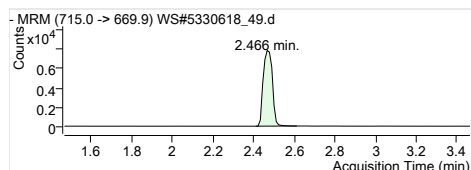
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.146 (2.146)
 Area ratio: 100.55 µg/L
 Sample type: 0.19151
 CC



13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.245 (2.245)
 Area ratio: 105.73 µg/L
 Sample type: 0.24826
 CC

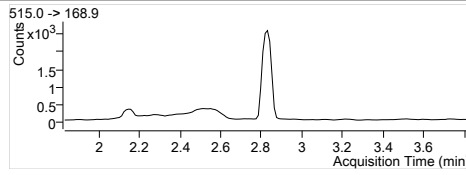
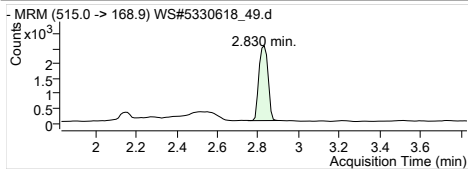


13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.333 (2.333)
 Area ratio: 101.35 µg/L
 Sample type: 0.30332
 CC

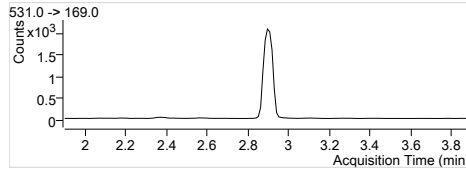
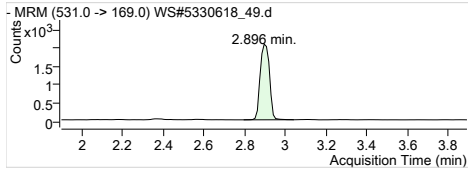


13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.466 (2.466)
 Area ratio: 101.42 µg/L
 Sample type: 0.33313
 CC

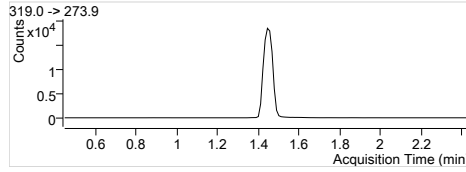
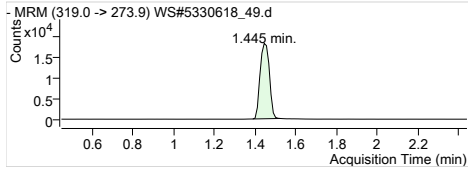
Quantitation Results



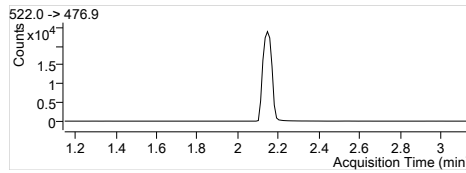
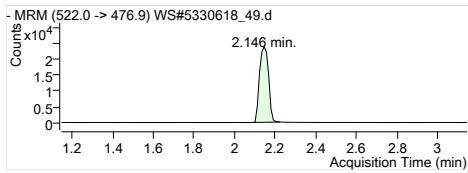
D3-MeFOSA
RT (Exp. RT): 515.0 -> 168.9
2.830 (2.830)
Calc. conc. 99.84 µg/L
Area ratio: 0.13508
Sample type: CC



D5-EtFOSA
RT (Exp. RT): 531.0 -> 169.0
2.896 (2.896)
Calc. conc. 98.63 µg/L
Area ratio: 0.11276
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
1.445 (1.445)
Calc. conc. 120.01 µg/L
Area ratio: 0
Sample type: CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
2.146 (2.146)
Calc. conc. 119.02 µg/L
Area ratio: 0
Sample type: CC



This is the last page of the report and is intentionally left blank

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

**LABORATORY DATA CONSULTANTS, INC.**

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

NOREAS, Inc.
16501 Scientific Way
Irvine, CA 92618
ATTN: Ms. Sevda Aleckson

February 8, 2018

SUBJECT: Treasure Island, IR Site 6, Data Validation

Dear Ms. Aleckson,

Enclosed is the final validation report for the fraction listed below. This SDG was received on January 18, 2018. Attachment 1 is a summary of the samples that were reviewed for analysis.

LDC Project #40257:**SDG #**

17L143/B7S7424

Fraction:

Perfluorinated Alkyl Acids

The data validation was performed under Level III & IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- Final SAP, Field Sampling Plan and Quality Assurance Project Plan, Basewide Groundwater and Soil Gas Monitoring at Installation Restoration Sites 6, 12, 21, 24, Former Naval Station Treasure Island, San Francisco, CA, April 2017
- U.S. Department of Defense Quality Systems Manual for Environmental Laboratories, Version 5.0, July 2013
- USEPA, National Functional Guidelines for Superfund Organic Methods Data Review, August 2014

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
Project Manager/Senior Chemist

NEDD/NIRIS Client Select LDC #40257 (Noreas, Inc.-Irvine, CA/ Treasure Island, IR Site 6)

LDC	SDG#	DATE REC'D	(3) DATE DUE	PFAs (537M)		W		S		W		S		W		S		W		S		W		S		W		S		W		S		W		S	
				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S		
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S		
A	17L143/B7S742 4	01/18/18	02/08/18	9	0																																
A	17L143/B7S742 4	01/18/18	02/08/18	1	0																																

LDC Report# 40257A96

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Treasure Island, IR Site 6

LDC Report Date: February 6, 2018

Parameters: Perfluorinated Alkyl Acids

Validation Level: Level III & IV

Laboratory: EMAX Laboratories, Inc./Maxxam

Sample Delivery Group (SDG): 17L143/B7S7424

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
06-MW25-1217	FUH125	Water	12/12/17
06-MW26-1217	FUH126	Water	12/12/17
06-MW30-1217	FUH127	Water	12/12/17
06-MW31-1217	FUH128	Water	12/12/17
06-MW32-1217**	FUH129**	Water	12/12/17
06-MW32-1217 DUP	FUH130	Water	12/12/17
06-MW33-1217	FUH131	Water	12/12/17
06-MW34-1217	FUH132	Water	12/12/17
06-MW35-1217	FUH133	Water	12/12/17
06-MW36-1217	FUH134	Water	12/12/17
06-MW35-1217MS	FUH133MS	Water	12/12/17
06-MW35-1217MSD	FUH133MSD	Water	12/12/17

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), Basewide Groundwater and Soil Gas Monitoring at Installation Restoration Sites 6, 12, 21, and 24, Former Naval Station Treasure Island, San Francisco, California (April 2017), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.0 (July 2013), and a modified outline of the USEPA National Functional Guidelines (NFG) for Superfund Organic Methods Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Perfluorinated Alkyl Acids by Environmental Protection Agency (EPA) Method 537 Modified

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Level IV data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Qualification Codes

- 1 Holding Times Exceeded
- 2 Sample Preservation / Cooler Temperature Exceeded Acceptance Criteria
- 3 Sample Custody Potentially Compromised Sample Integrity
- 4 Missing/Incomplete Deliverables
- 5 Calibration Did Not Meet Method Criteria
- 6 Equipment/Field Blank Contamination
- 7 Laboratory Method or Calibration Blank Contamination
- 8 Matrix Spike % Recovery Exceeded Acceptance Criteria
- 9 Matrix Spike Duplicate (RPD or Duplicate Sample Analysis) Exceeded Acceptance Criteria
- 10A Laboratory Control Sample % Recovery Exceeded Acceptance Criteria
- 10B Laboratory Control Sample Duplicate (RPD) Exceeded Acceptance Criteria
- 11 ICP Interference Check Analysis Exceeded Method Criteria
- 12 RPD Between Two Columns (Pesticides/PCBs only)
- 13 Surrogate Recoveries Exceeded Acceptance Criteria
- 14 Field Duplicates RPD Exceeded Project Criteria
- 15 Peak Resolution did not meet method criteria
- 16 Serial Dilution Analysis Exceeded Method Criteria
- 17 Chemical Recoveries Exceeded Acceptance Criteria
- 18 Trip Blank Contamination
- 19 Internal Standards Did Not Meet Method Criteria
- 20 Calibration Range exceeded Method Criteria
- 21 Potential False Positives
- 22 Do not use, other result more technically sound (overall assessment)
- 23 Estimated Maximum Possible Concentration
- 24 Trace Detection Below the LOQ (RL) and Above the DL (MDL)
- 25 Other

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. LC/MS Instrument Performance Check

Instrument performance was checked as applicable.

All ion abundance requirements were met.

III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 25.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 25.0% for all compounds.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were not within the QC limits for 06-06-MW35-1217MS/MSD. No data were qualified since the parent sample results were greater than 4X the spiked concentration. Relative percent differences (RPD) were within QC limits.

IX. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

X. Field Duplicates

Samples 06-MW32-1217** and 06-MW32-1217 DUP were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	06-MW32-1217**	06-MW32-1217 DUP			
Perfluorobutane sulfonate (PFBS)	0.13	0.15	14 (≤30)	-	-
Perfluoroheptanoic acid (PFHpA)	0.89	0.86	3 (≤30)	-	-
Perfluorohexanoic acid (PFHxA)	2.2	2.2	0 (≤30)	-	-
Perfluorohexane sulfonate (PFHxS)	7.0	6.6	6 (≤30)	-	-
Perfluorononanoic acid (PFNA)	0.11	0.12	9 (≤30)	-	-
Perfluorodecanoic acid (PFDA)	0.033	0.075U	Not calculable	-	-
Perfluorooctanoic acid (PFOA)	1.2	1.1	9 (≤30)	-	-
Perfluorooctane sulfonate (PFOS)	19	18	5 (≤30)	-	-

XI. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

XII. Compound Quantitation

All compound quantitations met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

XIII. Target Compound Identifications

All target compound identifications met validation criteria for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

XIV. System Performance

The system performance was acceptable for samples which underwent Level IV validation. Raw data were not reviewed for Level III validation.

XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

**Treasure Island, IR Site 6
Perfluorinated Alkyl Acids - Data Qualification Summary - SDG 17L143/B7S7424**

No Sample Data Qualified in this SDG

**Treasure Island, IR Site 6
Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG
17L143/B7S7424**

No Sample Data Qualified in this SDG

**Treasure Island, IR Site 6
Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG
17L143/B7S7424**

No Sample Data Qualified in this SDG

LDC #: 40257A96 **VALIDATION COMPLETENESS WORKSHEET**
 SDG #: 17L143/B7S7424 **Level III/IV**
 Laboratory: EMAX/Maxxam

Date: 02/02/18
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: LC/MS Perfluorinated Alkyl Acids (EPA Method 537 Modified)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	A	10V = 25%
III.	Initial calibration/ICV	A/A	GEN 6 25% IV 10V = 25%
IV.	Continuing calibration	A	COV = 25%
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	SW	% R out > 4x SA
IX.	Laboratory control samples	A	LCS D
X.	Field duplicates	SW	D = 5/6
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	Not reviewed for Level III validation.
XIII.	Target compound identification	A	Not reviewed for Level III validation.
XIV.	System performance	A	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	

Note: A = Acceptable ND = No compounds detected D = Duplicate SB=Source blank
 N = Not provided/applicable R = Rinsate TB = Trip blank OTHER:
 SW = See worksheet FB = Field blank EB = Equipment blank

** Indicates sample was underwent Level IV review

	Client ID	EMAX ID	Lab ID	Matrix	Date
1	06-MW25-1217	17L143-01	FUH125	Water	12/12/17
2	06-MW26-1217	-02	FUH126	Water	12/12/17
3	06-MW30-1217	-04	FUH127	Water	12/12/17
4	06-MW31-1217	-05	FUH128	Water	12/12/17
5	06-MW32-1217** D	-06	FUH129**	Water	12/12/17
6	06-MW32-1217 DUP D	-14	FUH130	Water	12/12/17
7	06-MW33-1217	-07	FUH131	Water	12/12/17
8	06-MW34-1217	-08	FUH132	Water	12/12/17
9	06-MW35-1217	-09	FUH133	Water	12/12/17
10	06-MW36-1217	-10	FUH134	Water	12/12/17
11	06-MW35-1217MS	-09 MS	FUH133MS	Water	12/12/17
12	06-MW35-1217MSD	↓ -09 MSD	FUH133MSD	Water	12/12/17
13					
14	5330576 MB				
	- 2 5330618 ↓				

LDC #: 40257A96

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
 Reviewer: JVG
 2nd Reviewer: [Signature]

Method: LCMS (EPA Method 537M)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was cooler temperature criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
II. LC/MS Instrument performance check				
Were the instrument performance reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IIIa. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 25%?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit criteria of > 0.990?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all analytes within 70-130% or percent differences (%D) ≤30% of their true value for the lowest standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IIIb. Initial Calibration Verification				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 25%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) of the continuing calibration < 25%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a laboratory blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
VI. Field blanks				
Were field blanks identified in this SDG?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were target compounds detected in the field blanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
VIII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IX. Laboratory control samples				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LDC #: 40257 A 96

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
 Reviewer: JYS
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			
X. Field duplicates				
Were field duplicate pairs identified in this SDG?	/			
Were target compounds detected in the field duplicates?.	/			
XI. Internal standards				
Were internal standard area counts within $\pm 50\%$ of the associated calibration standard?	/			
XII. Compound quantitation				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XIII. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	/			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
XIV. System performance				
System performance was found to be acceptable.	/			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	/			

LDC#: 40257A96

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1

Reviewer: JYG

2nd Reviewer: **METHOD:** LC/MS PFCs (EPA Method 537M)Y N NA Were field duplicate pairs identified in this SDG?Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD (≤30%)	Qualifications (Parent only)
	5	6		
Perfluorobutane sulfonate (PFBS)	0.13	0.15	14	
Perfluoroheptanoic acid (PFHpA)	0.89	0.86	3	
Perfluorohexanoic acid (PFHxA)	2.2	2.2	0	
Perfluorohexane sulfonate (PFHxS)	7.0	6.6	6	
Perfluorononanoic acid (PFNA)	0.11	0.12	9	
Perfluorodecanoic acid (PFDA)	0.033	0.075U	NC	
Perfluorooctanoic acid (PFOA)	1.2	1.1	9	
Perfluorooctane sulfonate (PFOS)	19	18	5	

NC = Not calculated

V:\Josephine\FIELD DUPLICATES\40257A96 noreas treasure is.wpd

LDC#: 40257A96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
 Reviewer: JVG
 2nd Reviewer: AK

METHOD: LCMS PFCs (EPA Method 537M)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
1/13/2017	LCMS04	PFOS	1	0.33521	0.830
			2	0.59963	1.700
			3	1.78665	5.000
			4	5.17211	12.500
			5	9.22466	25.000
			7	17.35121	41.700

Regression Output	Calculated	Reported WLR
Constant	-0.179663	-0.041718
Std Err of Y Est		
R Squared	0.997	1.000
Degrees of Freedom		
X Coefficient(s)	0.40986328	0.400320
Std Err of Coef.		
Correlation Coefficient	0.998682	
Coefficient of Determination (r ²)	0.997366	0.999800

LDC #: 46257 A 96

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1 of 1

Reviewer: JYG

2nd reviewer: [Signature]

METHOD: LC/MS PFCs (EPA Method 537M)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: $SF/SS * 100$

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 5

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
(13C-PFDA) = 13C-Perfluodecanoic acid ^(from 5x)	100	87.38	87	87	0
(13C-PFOS) = 13C-Perfluooctane sulfonate ^(50x)	↓	93.95	94	99	↓
(13C-PFHxA) = 13C-Perfluorohexanoic acid ^(5x)	↓	87.72	88	88	↓

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
(13C-PFDA) = 13C-Perfluodecanoic acid					
(13C-PFOS) = 13C-Perfluooctane sulfonate					
(13C-PFHxA) = 13C-Perfluorohexanoic acid					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
(13C-PFDA) = 13C-Perfluodecanoic acid					
(13C-PFOS) = 13C-Perfluooctane sulfonate					
(13C-PFHxA) = 13C-Perfluorohexanoic acid					

LDC #: 90257 A96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
 Reviewer: JVG
 2nd Reviewer: 9

METHOD: LC/MS PFCs (EPA Method 537Mod)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked sample concentration
 SA = Spike added

SC = Sample concentration

RPD = |MSC - MSC| * 2 / (MSC + MSDC)

MSC = Matrix spike concentration

MSDC = Matrix spike duplicate concentration

MS/MSD samples: 11/12

Compound	Spike Added (ug/L)		Sample Conc (ug/L)	Spiked Sample Concentration (ug/L)		Matrix Spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD		MS	MSD	Percent Recovery		Percent Recovery		RPD	
						Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
PFOA	0.4992	0.4992	0.25	0.78	0.79	105	106	108	108	30	1.3

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SA = 20.8 (0.024) = 0.4992 (RPD recalcd based on conc.)

LDC #: 40257 A96

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1

Reviewer: JVG
 2nd Reviewer: [Signature]

METHOD: LC/MS PFCs (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA)

Where: SSC = Spike concentration
 SA = Spike added

RPD = | LCSC - LCSDC | * 2 / (LCSC + LCSDC)

LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 5330618 Spike

Compound	Spike Added (µg/L)		Spike Concentration (µg/L)		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery		Percent Recovery		RPD	
					Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
PFOA	0.992	NA	0.58	NA	116.47	116.7				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 40257 A96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
 Reviewer: JVG
 2nd reviewer: [Signature]

METHOD: LC/MS PFCs (EPA Method 537M)

(Y) N N/A
(Y) N N/A

Were all reported results recalculated and verified for all level IV samples?
 Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$$

- A_x = Area of the characteristic ion (EICP) for the compound to be measured
- A_{is} = Area of the characteristic ion (EICP) for the specific internal standard
- I_s = Amount of internal standard added in nanograms (ng)
- V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).
- V_i = Volume of extract injected in microliters (ul)
- V_t = Volume of the concentrated extract in microliters (ul)
- Df = Dilution Factor.
- %S = Percent solids, applicable to soil and solid matrices only.
- 2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 5, PFOS:

$$\text{Conc.} = \frac{\left[\left(\frac{14092}{2240} \right) - (-0.041718) \right] (3) (50)}{(0.40032) (125)}$$

= 18.98
 ≈ 19 ug/L

#	Sample ID	Compound	Reported Concentration (ug/L)	Calculated Concentration ()	Qualification
			19		

Treasure Island, IR Site 6 - LDC 40257

SDG: B7S7424

Sample ID	06-MW25-1217									
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION	20171212	20180113	18	UG_L				0.75	0.30
537_MOD	N-ETHYL PERFLUOROACTANESULFONAMIDOACETIC ACID (ETFOSAA)	20171212	20180113	0.15	UG_L	U	U		0.15	0.050
537_MOD	N-METHYL PERFLUOROACTANESULFONAMIDOACETIC ACID (MEFOSAA)	20171212	20180113	0.15	UG_L	U	U		0.15	0.065
537_MOD	PERFLUROBUTANESULFONIC ACID (PFBS)	20171212	20180113	0.084	UG_L	J	J		0.075	0.027
537_MOD	PERFLURODECANOIC ACID (PFDA)	20171212	20180113	0.075	UG_L	U	U		0.075	0.031
537_MOD	PERFLURODODECANOIC ACID (PFDOA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.025
537_MOD	PERFLUROHEPTANOIC ACID (PFHPA)	20171212	20180113	0.52	UG_L				0.075	0.037
537_MOD	PERFLUROHEXANESULFONIC ACID (PFHXS)	20171212	20180113	2.6	UG_L				0.075	0.028
537_MOD	PERFLUROHEXANOIC ACID (PFHXA)	20171212	20180113	1.8	UG_L				0.050	0.018
537_MOD	PERFLURONONANOIC ACID (PFNA)	20171212	20180113	0.084	UG_L	J	J		0.090	0.044
537_MOD	PERFLUROOCTANOIC ACID (PFOA)	20171212	20180113	4.1	UG_L				0.050	0.017
537_MOD	PERFLUROTETRADECANOIC ACID (PFTEDA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.014
537_MOD	PERFLUROUNDECANOIC ACID (PFUNA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.013
537_MOD	PERLUOROTRIDECANOIC ACID (PFTRA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.019

Sample ID	06-MW26-1217									
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION	20171212	20180113	3.8	UG_L				0.15	0.060
537_MOD	N-ETHYL PERFLUOROACTANESULFONAMIDOACETIC ACID (ETFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.010
537_MOD	N-METHYL PERFLUOROACTANESULFONAMIDOACETIC ACID (MEFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.013
537_MOD	PERFLUROBUTANESULFONIC ACID (PFBS)	20171212	20180113	0.028	UG_L				0.015	0.0054
537_MOD	PERFLURODECANOIC ACID (PFDA)	20171212	20180113	0.014	UG_L	J	J		0.015	0.0061
537_MOD	PERFLURODODECANOIC ACID (PFDOA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0050
537_MOD	PERFLUROHEPTANOIC ACID (PFHPA)	20171212	20180113	0.16	UG_L				0.015	0.0074
537_MOD	PERFLUROHEXANESULFONIC ACID (PFHXS)	20171212	20180113	0.83	UG_L				0.015	0.0056

SDG: B7S7424

Sample ID		06-MW26-1217								
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	PERFLUOROHEXANOIC ACID (PFHXA)	20171212	20180113	0.41	UG_L				0.010	0.0035
537_MOD	PERFLUORONONANOIC ACID (PFNA)	20171212	20180113	0.017	UG_L	J	J		0.018	0.0087
537_MOD	PERFLUOROOCTANOIC ACID (PFOA)	20171212	20180113	0.96	UG_L				0.10	0.033
537_MOD	PERFLUOROTETRADECANOIC ACID (PFTEDA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0027
537_MOD	PERFLUOROUNDECANOIC ACID (PFUNA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0025
537_MOD	PERLUOROTRIDECANOIC ACID (PFTRA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0038
Sample ID		06-MW30-1217								
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION	20171212	20180113	0.097	UG_L				0.015	0.0060
537_MOD	N-ETHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (ETFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.010
537_MOD	N-METHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (MEFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.013
537_MOD	PERFLUOROBUTANESULFONIC ACID (PFBS)	20171212	20180113	0.015	UG_L	U	U		0.015	0.0054
537_MOD	PERFLUORODECANOIC ACID (PFDA)	20171212	20180113	0.015	UG_L	U	U		0.015	0.0061
537_MOD	PERFLUORODODECANOIC ACID (PFDOA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0050
537_MOD	PERFLUOROHEPTANOIC ACID (PFHPA)	20171212	20180113	0.015	UG_L	U	U		0.015	0.0074
537_MOD	PERFLUOROHEXANESULFONIC ACID (PFHXS)	20171212	20180113	0.059	UG_L				0.015	0.0056
537_MOD	PERFLUOROHEXANOIC ACID (PFHXA)	20171212	20180113	0.0093	UG_L	J	J		0.010	0.0035
537_MOD	PERFLUORONONANOIC ACID (PFNA)	20171212	20180113	0.018	UG_L	U	U		0.018	0.0087
537_MOD	PERFLUOROOCTANOIC ACID (PFOA)	20171212	20180113	0.027	UG_L				0.010	0.0033
537_MOD	PERFLUOROTETRADECANOIC ACID (PFTEDA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0027
537_MOD	PERFLUOROUNDECANOIC ACID (PFUNA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0025
537_MOD	PERLUOROTRIDECANOIC ACID (PFTRA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0038
Sample ID		06-MW31-1217								
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION	20171212	20180113	1.2	UG_L				0.15	0.060
537_MOD	N-ETHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (ETFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.010

SDG: B7S7424

Sample ID	06-MW31-1217		Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
Method	Chemical Name										
537_MOD	N-METHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (MEFOSAA)		20171212	20180113	0.030	UG_L	U	U		0.030	0.013
537_MOD	PERFLUOROBUTANESULFONIC ACID (PFBS)		20171212	20180113	0.061	UG_L				0.015	0.0054
537_MOD	PERFLUORODECANOIC ACID (PFDA)		20171212	20180113	0.013	UG_L	J	J		0.015	0.0061
537_MOD	PERFLUORODODECANOIC ACID (PFDOA)		20171212	20180113	0.010	UG_L	U	U		0.010	0.0050
537_MOD	PERFLUOROHEPTANOIC ACID (PFHPA)		20171212	20180113	0.30	UG_L				0.015	0.0074
537_MOD	PERFLUOROHEXANESULFONIC ACID (PFHXS)		20171212	20180113	1.8	UG_L				0.15	0.056
537_MOD	PERFLUOROHEXANOIC ACID (PFHXA)		20171212	20180113	0.66	UG_L				0.010	0.0035
537_MOD	PERFLUORONONANOIC ACID (PFNA)		20171212	20180113	0.047	UG_L				0.018	0.0087
537_MOD	PERFLUOROOCTANOIC ACID (PFOA)		20171212	20180113	0.27	UG_L				0.010	0.0033
537_MOD	PERFLUOROTETRADECANOIC ACID (PFTEDA)		20171212	20180113	0.10	UG_L	U	U		0.10	0.027
537_MOD	PERFLUOROUNDECANOIC ACID (PFUNA)		20171212	20180113	0.010	UG_L	U	U		0.010	0.0025
537_MOD	PERLUOROTRIDECANOIC ACID (PFTRA)		20171212	20180113	0.10	UG_L	U	U		0.10	0.038

Sample ID	06-MW32-1217		Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
Method	Chemical Name										
537_MOD	HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION		20171212	20180113	19	UG_L				0.75	0.30
537_MOD	N-ETHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (ETFOSAA)		20171212	20180113	0.15	UG_L	U	U		0.15	0.050
537_MOD	N-METHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (MEFOSAA)		20171212	20180113	0.15	UG_L	U	U		0.15	0.065
537_MOD	PERFLUOROBUTANESULFONIC ACID (PFBS)		20171212	20180113	0.13	UG_L				0.075	0.027
537_MOD	PERFLUORODECANOIC ACID (PFDA)		20171212	20180113	0.033	UG_L	J	J		0.075	0.031
537_MOD	PERFLUORODODECANOIC ACID (PFDOA)		20171212	20180113	0.050	UG_L	U	U		0.050	0.025
537_MOD	PERFLUOROHEPTANOIC ACID (PFHPA)		20171212	20180113	0.89	UG_L				0.075	0.037
537_MOD	PERFLUOROHEXANESULFONIC ACID (PFHXS)		20171212	20180113	7.0	UG_L				0.75	0.28
537_MOD	PERFLUOROHEXANOIC ACID (PFHXA)		20171212	20180113	2.2	UG_L				0.050	0.018
537_MOD	PERFLUORONONANOIC ACID (PFNA)		20171212	20180113	0.11	UG_L				0.090	0.044
537_MOD	PERFLUOROOCTANOIC ACID (PFOA)		20171212	20180113	1.2	UG_L				0.050	0.017
537_MOD	PERFLUOROTETRADECANOIC ACID (PFTEDA)		20171212	20180113	0.050	UG_L	U	U		0.050	0.014

SDG: B7S7424

Sample ID		06-MW32-1217								
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	PERFLUOROUNDECANOIC ACID (PFUNA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.013
537_MOD	PERLUOROTRIDECANOIC ACID (PFTRA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.019
Sample ID		06-MW32-1217 DUP								
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION	20171212	20180113	18	UG_L				0.75	0.30
537_MOD	N-ETHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (ETFOSAA)	20171212	20180113	0.15	UG_L	U	U		0.15	0.050
537_MOD	N-METHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (MEFOSAA)	20171212	20180113	0.15	UG_L	U	U		0.15	0.065
537_MOD	PERFLUOROBUTANESULFONIC ACID (PFBS)	20171212	20180113	0.15	UG_L				0.075	0.027
537_MOD	PERFLUORODECANOIC ACID (PFDA)	20171212	20180113	0.075	UG_L	U	U		0.075	0.031
537_MOD	PERFLUORODODECANOIC ACID (PFDOA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.025
537_MOD	PERFLUOROHEPTANOIC ACID (PFHPA)	20171212	20180113	0.86	UG_L				0.075	0.037
537_MOD	PERFLUOROHEXANESULFONIC ACID (PFHXS)	20171212	20180113	6.6	UG_L				0.75	0.28
537_MOD	PERFLUOROHEXANOIC ACID (PFHXA)	20171212	20180113	2.2	UG_L				0.050	0.018
537_MOD	PERFLUORONONANOIC ACID (PFNA)	20171212	20180113	0.12	UG_L				0.090	0.044
537_MOD	PERFLUOROOCTANOIC ACID (PFOA)	20171212	20180113	1.1	UG_L				0.050	0.017
537_MOD	PERFLUOROTETRADECANOIC ACID (PFTEDA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.014
537_MOD	PERFLUOROUNDECANOIC ACID (PFUNA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.013
537_MOD	PERLUOROTRIDECANOIC ACID (PFTRA)	20171212	20180113	0.050	UG_L	U	U		0.050	0.019
Sample ID		06-MW33-1217								
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION	20171212	20180113	6.1	UG_L				0.15	0.060
537_MOD	N-ETHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (ETFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.010
537_MOD	N-METHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (MEFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.013
537_MOD	PERFLUOROBUTANESULFONIC ACID (PFBS)	20171212	20180113	0.064	UG_L				0.015	0.0054
537_MOD	PERFLUORODECANOIC ACID (PFDA)	20171212	20180113	0.010	UG_L	J	J		0.015	0.0061

SDG: B7S7424

Sample ID		06-MW33-1217								
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	PERFLUORODODECANOIC ACID (PFDOA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0050
537_MOD	PERFLUOROHEPTANOIC ACID (PFHPA)	20171212	20180113	0.39	UG_L				0.015	0.0074
537_MOD	PERFLUOROHEXANESULFONIC ACID (PFHXS)	20171212	20180113	2.0	UG_L				0.15	0.056
537_MOD	PERFLUOROHEXANOIC ACID (PFHXA)	20171212	20180113	1.2	UG_L				0.10	0.035
537_MOD	PERFLUORONONANOIC ACID (PFNA)	20171212	20180113	0.031	UG_L				0.018	0.0087
537_MOD	PERFLUOROOCTANOIC ACID (PFOA)	20171212	20180113	1.3	UG_L				0.10	0.033
537_MOD	PERFLUOROTETRADECANOIC ACID (PFTEDA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0027
537_MOD	PERFLUOROUNDECANOIC ACID (PFUNA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0025
537_MOD	PERLUOROTRIDECANOIC ACID (PFTRA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0038

Sample ID		06-MW34-1217								
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION	20171212	20180113	3.1	UG_L				0.15	0.060
537_MOD	N-ETHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (ETFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.010
537_MOD	N-METHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (MEFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.013
537_MOD	PERFLUOROBUTANESULFONIC ACID (PFBS)	20171212	20180113	0.065	UG_L				0.015	0.0054
537_MOD	PERFLUORODECANOIC ACID (PFDA)	20171212	20180113	0.0071	UG_L	J	J		0.015	0.0061
537_MOD	PERFLUORODODECANOIC ACID (PFDOA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0050
537_MOD	PERFLUOROHEPTANOIC ACID (PFHPA)	20171212	20180113	0.13	UG_L				0.015	0.0074
537_MOD	PERFLUOROHEXANESULFONIC ACID (PFHXS)	20171212	20180113	1.6	UG_L				0.15	0.056
537_MOD	PERFLUOROHEXANOIC ACID (PFHXA)	20171212	20180113	0.50	UG_L				0.010	0.0035
537_MOD	PERFLUORONONANOIC ACID (PFNA)	20171212	20180113	0.017	UG_L	J	J		0.018	0.0087
537_MOD	PERFLUOROOCTANOIC ACID (PFOA)	20171212	20180113	0.38	UG_L				0.010	0.0033
537_MOD	PERFLUOROTETRADECANOIC ACID (PFTEDA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0027
537_MOD	PERFLUOROUNDECANOIC ACID (PFUNA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0025
537_MOD	PERLUOROTRIDECANOIC ACID (PFTRA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0038

SDG: B7S7424

Sample ID	06-MW35-1217									
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION	20171212	20180113	3.8	UG_L				0.15	0.060
537_MOD	N-ETHYL PERFLUOROOC TANESULFONAMIDOACETIC ACID (ETFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.010
537_MOD	N-METHYL PERFLUOROOC TANESULFONAMIDOACETIC ACID (MEFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.013
537_MOD	PERFLUOROBUTANESULFONIC ACID (PFBS)	20171212	20180113	0.048	UG_L				0.015	0.0054
537_MOD	PERFLUORODECANOIC ACID (PFDA)	20171212	20180113	0.0066	UG_L	J	J		0.015	0.0061
537_MOD	PERFLUORODODECANOIC ACID (PFDOA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0050
537_MOD	PERFLUOROHEPTANOIC ACID (PFHPA)	20171212	20180113	0.16	UG_L				0.015	0.0074
537_MOD	PERFLUOROHEXANESULFONIC ACID (PFHXS)	20171212	20180113	1.5	UG_L				0.15	0.056
537_MOD	PERFLUOROHEXANOIC ACID (PFHXA)	20171212	20180113	0.48	UG_L				0.010	0.0035
537_MOD	PERFLUORONONANOIC ACID (PFNA)	20171212	20180113	0.029	UG_L				0.018	0.0087
537_MOD	PERFLUOROOC TANOIC ACID (PFOA)	20171212	20180113	0.25	UG_L				0.010	0.0033
537_MOD	PERFLUOROTETRADECANOIC ACID (PFTEDA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0027
537_MOD	PERFLUOROUNDECANOIC ACID (PFUNA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0025
537_MOD	PERLUOROTRIDECANOIC ACID (PFTRA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0038

Sample ID	06-MW36-1217									
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION	20171212	20180113	1.4	UG_L				0.15	0.060
537_MOD	N-ETHYL PERFLUOROOC TANESULFONAMIDOACETIC ACID (ETFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.010
537_MOD	N-METHYL PERFLUOROOC TANESULFONAMIDOACETIC ACID (MEFOSAA)	20171212	20180113	0.030	UG_L	U	U		0.030	0.013
537_MOD	PERFLUOROBUTANESULFONIC ACID (PFBS)	20171212	20180113	0.076	UG_L				0.015	0.0054
537_MOD	PERFLUORODECANOIC ACID (PFDA)	20171212	20180113	0.015	UG_L	U	U		0.015	0.0061
537_MOD	PERFLUORODODECANOIC ACID (PFDOA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0050
537_MOD	PERFLUOROHEPTANOIC ACID (PFHPA)	20171212	20180113	0.44	UG_L				0.015	0.0074
537_MOD	PERFLUOROHEXANESULFONIC ACID (PFHXS)	20171212	20180113	2.6	UG_L				0.15	0.056
537_MOD	PERFLUOROHEXANOIC ACID (PFHXA)	20171212	20180113	0.93	UG_L				0.010	0.0035

SDG: B7S7424

Sample ID	06-MW36-1217									
Method	Chemical Name	Sampling Date	Anal Date	Final Result	Units	Lab Qual	Val Qual	Reason Code	LOD	DL
537_MOD	PERFLUORONONANOIC ACID (PFNA)	20171212	20180113	0.027	UG_L				0.017	0.0087
537_MOD	PERFLUOROOCTANOIC ACID (PFOA)	20171212	20180113	0.35	UG_L				0.010	0.0033
537_MOD	PERFLUOROTETRADECANOIC ACID (PFTEDA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0027
537_MOD	PERFLUOROUNDECANOIC ACID (PFUNA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0025
537_MOD	PERLUOROTRIDEcanoic ACID (PFTRA)	20171212	20180113	0.010	UG_L	U	U		0.010	0.0038

LDC #: 40257

EDD POPULATION COMPLETENESS WORKSHEET

Date: 2/7
 Page: 1 of 1
 2nd Reviewer: BA

The LDC job number listed above was entered by JE

	EDD Process		Comments/Action
I.	EDD Completeness	-	
Ia.	- All methods present?	Y	
Ib.	- All samples present/match report?	Y	
Ic.	- All reported analytes present?	Y	
Id.	- <u>10%</u> or 100% verification of EDD?	Y	
II.	EDD Preparation/Entry	-	
IIa.	- Carryover U/J?	Y	
IIb.	- Reason Codes used? If so, note which codes.	Y	
IIc.	- Additional Information (QC Level, Validator, Validated Y/N, etc.)	Y	
III.	Reasonableness Checks	-	
IIIa.	- Do all qualified ND results have ND qualifier (e.g. UJ)?	Y	
IIIb.	- Do all qualified detect results have detect qualifier (e.g. J)?	Y	
IIIc.	- If reason codes are used, do all qualified results have reason code field populated, and vice versa?	NA	no qualifiers
IIId.	- Does the detect flag require changing for blank qualifier? If so, are all U results marked ND?	Y	
IIIe.	- Do blank concentrations in report match EDD where data was qualified due to blank contamination?	Y	
IIIf.	- Were multiple results reported due to dilutions/reanalysis? If so, were results qualified appropriately?	Y	
IIIg.	- Are there any discrepancies between the data packet and the EDD?	N	

Notes: *see discrepancy sheet

INSTALLATION_ID	SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	SAMPLE_NAME	SAMPLE_MATRIX_DESC	COLLECT_DATE	ANALYTICAL_METHOD_GRP_DESC	SDG
TREASURE_ISLAND_NS	SITE 00006	06-MW32	Monitoring well	6021196.627	2130516.559	06-MW32-1217 DUPA	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424
TREASURE_ISLAND_NS	SITE 00006	06-MW26	Monitoring well	6021172.738	2130574.156	06-MW26-1217A	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424
TREASURE_ISLAND_NS	SITE 00006	06-MW30	Monitoring well	6021128.148	2130373.461	06-MW30-1217A	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424
TREASURE_ISLAND_NS	SITE 00006	06-MW34	Monitoring well	6021397.778	2130405.903	06-MW34-1217A	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424
TREASURE_ISLAND_NS	SITE 00006	06-MW32	Monitoring well	6021196.627	2130516.559	06-MW32-1217A	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424
TREASURE_ISLAND_NS	SITE 00006	06-MW31	Monitoring well	6021354.143	2130342.49	06-MW31-1217A	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424
TREASURE_ISLAND_NS	SITE 00006	06-MW36	Monitoring well	6021419.54	2130435.329	06-MW36-1217A	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424
TREASURE_ISLAND_NS	SITE 00006	06-MW25	Monitoring well	6021163.016	2130486.964	06-MW25-1217A	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424
TREASURE_ISLAND_NS	SITE 00006	06-MW33	Monitoring well	6021270.898	2130694.212	06-MW33-1217A	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424
TREASURE_ISLAND_NS	SITE 00006	06-MW35	Monitoring well	6021434.084	2130622.196	06-MW35-1217A	Ground water	12-Dec-17	Perfluoroalkyl Compounds	B7S7424