



**Off-Base Drinking Water Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
and the Sample Location Figure, SDG J17184-1**

*Naval Air Station Oceana
Virginia Beach, Virginia*

July 2019

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

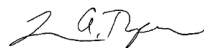
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-17184-1
TestAmerica SDG: CTO WE7G PFC Sampling
Client Project/Site: CTO WE7G PFC Sampling

For:
CH2M Hill, Inc.
5701 Cleveland Street
Suite 200
Virginia Beach, Virginia 23462

Attn: Laurie George



Authorized for release by:
2/29/2016 10:33:30 AM

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LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: CTO WE7G PFC Sampling

TestAmerica Job ID: 320-17184-1
SDG: CTO WE7G PFC Sampling

Job ID: 320-17184-1

Laboratory: TestAmerica Sacramento

Narrative

CASE NARRATIVE

Client: CH2M Hill, Inc.

Project: CTO WE7G PFC Sampling

Report Number: 320-17184-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica West Sacramento attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

TestAmerica utilizes USEPA approved methods and DOD QSM, where applicable, in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

All parameters for which TestAmerica West Sacramento has certification were evaluated to the QSM specified reporting convention or to the client specified format if different from QSM. Parameters not certified under QSM, if any, were evaluated to the detection limit (DL) and include qualified results where applicable.

The sample(s) that contain constituents flagged with U are undetected. The result associated with this flag is the limit of detection (LOD).

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 02/04/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

Subcontract Work

PFC: This method was subcontracted to Maxxam Analytics Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report. Any analytical or quality issues are noted in the subcontract portion of the report. DL/LOD/LOQ limits for Maxxam are included under "General Comments" in the subcontract report.

Certification Summary

Client: CH2M Hill, Inc.
Project/Site: CTO WE7G PFC Sampling

TestAmerica Job ID: 320-17184-1
SDG: CTO WE7G PFC Sampling

Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Oregon	NELAP	10	CA200005	01-29-17

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- 3
- 4
- 5
- 6
- 7
- 8

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: CTO WE7G PFC Sampling

TestAmerica Job ID: 320-17184-1
SDG: CTO WE7G PFC Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-17184-1	OF-RW20-0216	Water	02/04/16 09:28	02/05/16 10:00
320-17184-2	OF-FB20-0216	Water	02/04/16 09:30	02/05/16 10:00
320-17184-3	OF-RW55-0216	Water	02/04/16 10:25	02/05/16 10:00
320-17184-4	OF-FB55-0216	Water	02/04/16 10:27	02/05/16 10:00
320-17184-5	OF-RW54-0216	Water	02/04/16 11:04	02/05/16 10:00
320-17184-6	OF-FB54-0216	Water	02/04/16 11:06	02/05/16 10:00
320-17184-7	OF-RW68-0216	Water	02/04/16 11:25	02/05/16 10:00
320-17184-8	OF-FB68-0216	Water	02/04/16 11:27	02/05/16 10:00
320-17184-9	OF-RW30-0216	Water	02/04/16 16:01	02/05/16 10:00
320-17184-10	OF-FB30-0216	Water	02/04/16 16:03	02/05/16 10:00
320-17184-11	OF-FB69-0216	Water	02/04/16 16:28	02/05/16 10:00
320-17184-12	OF-RW69-0216	Water	02/04/16 16:36	02/05/16 10:00
320-17184-13	OF-FB26-0216	Water	02/04/16 16:54	02/05/16 10:00
320-17184-14	OF-RW26-0216	Water	02/04/16 16:58	02/05/16 10:00



Your Project #: 320-17184
Your C.O.C. #: 283599

Attention:PFC Reporting Group

TestAmerica
Sacramento
880 Riverside Parkway
West Sacramento, CA
USA 95605

Report Date: 2016/02/29
Report #: R3911562
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B630793

Received: 2016/02/13, 13:40

Sample Matrix: Water
Samples Received: 14

Analyses	Date		Laboratory Method	Reference
	Quantity Extracted	Date Analyzed		
Low level PFOS and PFOA in water	14	2016/02/18	2016/02/19 CAM SOP-00894	EPA 537 m

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

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

U = Undetected at the limit of quantitation.

J = Estimated concentration between the EDL & RDL.

B = Blank Contamination.

Q = One or more quality control criteria failed.

E = Analyte concentration exceeds the maximum concentration level.

K = Estimated maximum possible concentration due to ion abundance ratio failure.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Melissa DiGrazia, Project Manager - ATUT

Email: MDiGrazia@maxxam.ca

Phone# (905) 817-5700

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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 Analytics International Corporation is a NELAP accredited laboratory. Certificates #04012 and #4079-001. This certificate shall not be reproduced except in full, without the written approval of Maxxam.



RESULTS OF ANALYSES OF WATER

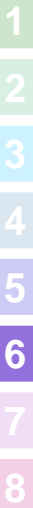
Maxxam ID		BVX792	BVX793	BVX794	BVX795	BVX796			
Sampling Date		2016/02/04 09:28	2016/02/04 09:30	2016/02/04 10:25	2016/02/04 10:27	2016/02/04 11:04			
COC Number		283599	283599	283599	283599	283599			
	UNITS	OF-RW20-0216	OF-FB20-0216	OF-RW55-0216	OF-FB55-0216	OF-RW54-0216	MDL	QC Batch	RDL
Perfluorobutane Sulfonate (PFBS)	ng/L	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27	4385924	2.0
Perfluoroheptanoic Acid (PFHpA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39	4385924	2.0
Perfluorohexane Sulfonate (PFHxS)	ng/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40	4385924	2.0
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39	4385924	2.0
Perfluorononanoic Acid (PFNA)	ng/L	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33	4385924	2.0
Perfluorooctane Sulfonate (PFOS)	ng/L	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30	4385924	2.0
Surrogate Recovery (%)									
13C4-Perfluoroheptanoic acid	%	67	93	61	100	72	N/A	4385924	N/A
13C4-Perfluorooctanesulfonate	%	72	102	70	111	79	N/A	4385924	N/A
13C4-Perfluorooctanoic acid	%	70	104	73	104	81	N/A	4385924	N/A
13C5-Perfluorononanoic acid	%	79	115	82	116	83	N/A	4385924	N/A
18O2-Perfluorohexanesulfonate	%	79	98	75	90	74	N/A	4385924	N/A
QC Batch = Quality Control Batch N/A = Not Applicable									

Maxxam ID		BVX797	BVX798	BVX799	BVX800	BVX801			
Sampling Date		2016/02/04 11:06	2016/02/04 11:25	2016/02/04 11:27	2016/02/04 16:01	2016/02/04 16:03			
COC Number		283599	283599	283599	283599	283599			
	UNITS	OF-FB54-0216	OF-RW68-0216	OF-FB68-0216	OF-RW30-0216	OF-FB30-0216	MDL	QC Batch	RDL
Perfluorobutane Sulfonate (PFBS)	ng/L	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27	4385924	2.0
Perfluoroheptanoic Acid (PFHpA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39	4385924	2.0
Perfluorohexane Sulfonate (PFHxS)	ng/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40	4385924	2.0
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	0.39 U	0.41 J	0.39 U	0.39 U	0.39 U	0.39	4385924	2.0
Perfluorononanoic Acid (PFNA)	ng/L	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33	4385924	2.0
Perfluorooctane Sulfonate (PFOS)	ng/L	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30	4385924	2.0
Surrogate Recovery (%)									
13C4-Perfluoroheptanoic acid	%	96	70	87	74	96	N/A	4385924	N/A
13C4-Perfluorooctanesulfonate	%	108	67	102	74	113	N/A	4385924	N/A
13C4-Perfluorooctanoic acid	%	100	73	102	77	106	N/A	4385924	N/A
13C5-Perfluorononanoic acid	%	116	83	106	81	115	N/A	4385924	N/A
18O2-Perfluorohexanesulfonate	%	94	71	97	82	96	N/A	4385924	N/A
QC Batch = Quality Control Batch N/A = Not Applicable									



RESULTS OF ANALYSES OF WATER

Maxxam ID		BVX802	BVX803	BVX804	BVX805			
Sampling Date		2016/02/04 16:28	2016/02/04 16:36	2016/02/04 16:54	2016/02/04 16:58			
COC Number		283599	283599	283599	283599			
	UNITS	OF-FB69-0216	OF-RW69-0216	OF-FB26-0216	OF-RW26-0216	MDL	QC Batch	RDL
Perfluorobutane Sulfonate (PFBS)	ng/L	0.27 U	0.27 U	0.27 U	0.27 U	0.27	4385924	2.0
Perfluoroheptanoic Acid (PFHpA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	0.39	4385924	2.0
Perfluorohexane Sulfonate (PFHxS)	ng/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40	4385924	2.0
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	0.39	4385924	2.0
Perfluorononanoic Acid (PFNA)	ng/L	0.33 U	0.33 U	0.33 U	0.33 U	0.33	4385924	2.0
Perfluorooctane Sulfonate (PFOS)	ng/L	0.30 U	0.30 U	0.30 U	0.30 U	0.30	4385924	2.0
Surrogate Recovery (%)								
13C4-Perfluoroheptanoic acid	%	97	74	93	95	N/A	4385924	N/A
13C4-Perfluorooctanesulfonate	%	100	71	106	104	N/A	4385924	N/A
13C4-Perfluorooctanoic acid	%	112	76	103	95	N/A	4385924	N/A
13C5-Perfluorononanoic acid	%	111	81	112	107	N/A	4385924	N/A
18O2-Perfluorohexanesulfonate	%	103	82	95	103	N/A	4385924	N/A
QC Batch = Quality Control Batch N/A = Not Applicable								



TEST SUMMARY

Maxxam ID: BVX792
Sample ID: OF-RW20-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX793
Sample ID: OF-FB20-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX794
Sample ID: OF-RW55-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX795
Sample ID: OF-FB55-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX796
Sample ID: OF-RW54-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX797
Sample ID: OF-FB54-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX798
Sample ID: OF-RW68-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara



TEST SUMMARY

Maxxam ID: BVX799
Sample ID: OF-FB68-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX800
Sample ID: OF-RW30-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX801
Sample ID: OF-FB30-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX802
Sample ID: OF-FB69-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX803
Sample ID: OF-RW69-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX804
Sample ID: OF-FB26-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX805
Sample ID: OF-RW26-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara



GENERAL COMMENTS

Perfluorinated Compounds (PFCs):

Perfluoroheptanoic acid (PFHpA) MDL = 0.39, LOD = 1.0, LOQ = 2.0
Perfluorooctanoic acid (PFOA) MDL = 0.39, LOD = 1.0, LOQ = 2.0
Perfluorononanoic acid (PFNA) MDL = 0.33, LOD = 1.0, LOQ = 2.0
Perfluorobutane sulfonate (PFBS) MDL = 0.27, LOD = 1.0, LOQ = 2.0
Perfluorohexane sulfonate (PFHxA) MDL = 0.40, LOD = 1.0, LOQ = 2.0
Perfluorooctane sulfonate (PFOS) MDL = 0.30, LOD = 1.0, LOQ = 2.0
All Units are in ng/L

Results relate only to the items tested.



QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4385924	CM5	Matrix Spike	13C4-Perfluoroheptanoic acid	2016/02/19		105	%	50 - 130	
			13C4-Perfluorooctanesulfonate	2016/02/19		117	%	50 - 130	
			13C4-Perfluorooctanoic acid	2016/02/19		118	%	50 - 130	
			13C5-Perfluorononanoic acid	2016/02/19		115	%	50 - 130	
			18O2-Perfluorohexanesulfonate	2016/02/19		113	%	50 - 130	
4385924	CM5	Matrix Spike DUP	13C4-Perfluoroheptanoic acid	2016/02/19		96	%	50 - 130	
			13C4-Perfluorooctanesulfonate	2016/02/19		105	%	50 - 130	
			13C4-Perfluorooctanoic acid	2016/02/19		100	%	50 - 130	
			13C5-Perfluorononanoic acid	2016/02/19		103	%	50 - 130	
			18O2-Perfluorohexanesulfonate	2016/02/19		98	%	50 - 130	
4385924	CM5	Matrix Spike(BVX793)	Perfluorobutane Sulfonate (PFBS)	2016/02/19		71	%	70 - 130	
			Perfluoroheptanoic Acid (PFHpA)	2016/02/19		99	%	70 - 130	
			Perfluorohexane Sulfonate (PFHxS)	2016/02/19		93	%	70 - 130	
			Perfluorononanoic Acid (PFNA)	2016/02/19		98	%	70 - 130	
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/19		92	%	70 - 130	
			Perfluorooctane Sulfonate (PFOS)	2016/02/19		89	%	70 - 130	
4385924	CM5	Matrix Spike DUP(BVX793)	Perfluorobutane Sulfonate (PFBS)	2016/02/19		88	%	70 - 130	
			Perfluoroheptanoic Acid (PFHpA)	2016/02/19		111	%	70 - 130	
			Perfluorohexane Sulfonate (PFHxS)	2016/02/19		105	%	70 - 130	
			Perfluorononanoic Acid (PFNA)	2016/02/19		110	%	70 - 130	
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/19		110	%	70 - 130	
			Perfluorooctane Sulfonate (PFOS)	2016/02/19		110	%	70 - 130	
4385924	CM5	MS/MSD RPD	Perfluorobutane Sulfonate (PFBS)	2016/02/19	21		%	30	
			Perfluoroheptanoic Acid (PFHpA)	2016/02/19	12		%	30	
			Perfluorohexane Sulfonate (PFHxS)	2016/02/19	13		%	30	
			Perfluorononanoic Acid (PFNA)	2016/02/19	12		%	30	
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/19	18		%	30	
			Perfluorooctane Sulfonate (PFOS)	2016/02/19	22		%	30	
4385924	CM5	Spiked Blank	13C4-Perfluoroheptanoic acid	2016/02/19		105	%	50 - 130	
			13C4-Perfluorooctanesulfonate	2016/02/19		116	%	50 - 130	
			13C4-Perfluorooctanoic acid	2016/02/19		115	%	50 - 130	
			13C5-Perfluorononanoic acid	2016/02/19		114	%	50 - 130	
			18O2-Perfluorohexanesulfonate	2016/02/19		108	%	50 - 130	
			Perfluorobutane Sulfonate (PFBS)	2016/02/19		78	%	70 - 130	
			Perfluoroheptanoic Acid (PFHpA)	2016/02/19		97	%	70 - 130	
			Perfluorohexane Sulfonate (PFHxS)	2016/02/19		94	%	70 - 130	
			Perfluorononanoic Acid (PFNA)	2016/02/19		98	%	70 - 130	
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/19		93	%	70 - 130	
			Perfluorooctane Sulfonate (PFOS)	2016/02/19		94	%	70 - 130	
4385924	CM5	Method Blank	13C4-Perfluoroheptanoic acid	2016/02/19		107	%	50 - 130	
			13C4-Perfluorooctanesulfonate	2016/02/19		107	%	50 - 130	
			13C4-Perfluorooctanoic acid	2016/02/19		108	%	50 - 130	
			13C5-Perfluorononanoic acid	2016/02/19		112	%	50 - 130	
			18O2-Perfluorohexanesulfonate	2016/02/19		99	%	50 - 130	
			Perfluorobutane Sulfonate (PFBS)	2016/02/19	0.27 U, MDL=0.27		ng/L		
			Perfluoroheptanoic Acid (PFHpA)	2016/02/19	0.39 U, MDL=0.39		ng/L		
			Perfluorohexane Sulfonate (PFHxS)	2016/02/19	0.40 U, MDL=0.40		ng/L		
			Perfluorononanoic Acid (PFNA)	2016/02/19	0.33 U, MDL=0.33		ng/L		
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/19	0.39 U, MDL=0.39		ng/L		

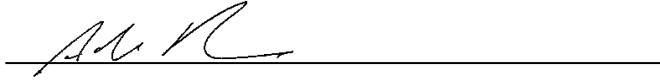
QUALITY ASSURANCE REPORT(CONT'D)

QA/QC				Date		%		
Batch	Init	QC Type	Parameter	Analyzed	Value	Recovery	UNITS	QC Limits
			Perfluorooctane Sulfonate (PFOS)	2016/02/19	0.30 U, MDL=0.30		ng/L	
<p>Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.</p> <p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p> <p>Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.</p>								



VALIDATION SIGNATURE PAGE

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



Adam Robinson, Supervisor, LC/MS/MS

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.

- 1
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Chain of Custody Record

TAL-4124 (1007)

Client: **CH2M Hill** Project Manager: **Bill Friedman** Chain of Custody Number: **283599**
 Address: **5701 Cleveland St, Suite 200** Telephone Number (Area Code)/Fax Number: **757-671-6223** Page **1** of **2**
 City: **Virginia beach** State: **VA** Zip Code: **23462** Lab Number: **02/04/16**
 Project Name and Location (State): **CPD WE76 PFC Sampling** Site Contact: **Lab Contact**
 Contract/Purchase Order/Quote No.: **P.O.# 10026-7-104000** Carrier/Waybill Number: **FedEx**



Temperature on Receipt **2.7°**
 Drinking Water? Yes No

320-17184 Chain of Custody

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt		
			Air	soils	Sed.	Soil	Urpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH				
OF-RW20-0216	02/04/16	0928	X													
OF-FB20-0216		0930														
OF-RW55-0216		1025														
OF-FB55-0216		1027														
OF-RW54-0216		1104														
OF-FB54-0216		1106														
OF-RW68-0216		1125														
OF-FB68-0216		1127														
OF-RW36-0216		1601														
OF-FB36-0216		1603														
OF-FB69-0216		1628														
OF-RW69-0216		1636														

Possible Hazard (Identification): Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

1. Relinquished By: **Kathryn Anstis** Date: **02/04/16** Time: **1930**
 2. Relinquished By: _____ Date: _____ Time: _____
 3. Relinquished By: _____ Date: _____ Time: _____

1. Received By: **[Signature]** Date: **2/5/16** Time: **1000**
 2. Received By: _____ Date: _____ Time: _____
 3. Received By: _____ Date: _____ Time: _____

Comments: _____

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy



Chain of Custody Record

Due 2/22

Temperature on Receipt 3.7

T



CTD WE 76

Drinking Water? Yes No

320-17184 Chain of Custody

Project Manager: [Redacted] Date: 02/04/16 Chain of Custody Number: 283599
 Telephone Number (Area Code)/Fax Number: [Redacted] Lab Number: [Redacted] Page 1 of 2
 Site Contact: [Redacted] Lab Contact: [Redacted] Analysis (Attach list if more space is needed):
 Carrier/Waybill Number: FedEx

Sample I.D. No. and Description
(Containers for each sample may be combined on one line)

Sample I.D. No. and Description	Date	Time	Matrix										Select PCBs			
			Air	Aqueous	Soil	Soil	Uppres	AWSCA	AWCD	AWC	NACH	Zn/Cd		Ni/Cd		
OF-RW20-0216	02/04/16	0928	X					X								2
OF-FB20-0216		0930														2
OF-RW55-0216		1025														2
OF-FB55-0216		1027														2
OF-RW54-0216		1104														2
OF-FB54-0216		1106														2
OF-RW68-0216		1125														2
OF-FB68-0216		1127														2
OF-RW38-0216		1601														2
OF-FB38-0216		1603														2
OF-FB09-0216		1628														2
OF-RW69-0216		1636														2

13-Feb-16 13:40
 Hongmei Zhao (Grace)
 B630793
 AKP ENV-997

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

QC Requirements (Specify)

1. Relinquished By: <u>Kathryn Smith</u>	Date: <u>02/04/16</u>	Time: <u>1930</u>	1. Received By: <u>[Signature]</u>	Date: <u>2/5/16</u>	Time: <u>1000</u>
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By: <u>ADRIANA ORTEGA</u>	Date: <u>2/16/2016</u>	Time: <u>13:40</u>

Comments

DISTRIBUTION: WHITE - Returned to Client with Report, CANARY - Stays with the Sample, PINK - Field Copy

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Chain of Custody Record

Due 2/22

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CTD WEF7G

Temperature on Receipt _____

Drinking Water? Yes No

Project Manager _____ Date *02/04/16* Chain of Custody Number *283626*
 Telephone Number (Area Code)/Fax Number _____ Lab Number _____
 Site Contact _____ Lab Contact _____ Page *2* of *2*
 Carrier/Waybill Number *FedEx*

Sample I.D. No. and Description <small>(Containers for each sample may be combined on one line)</small>	Date	Time	Matrix				Containers & Preservatives						Select PEGS	Special Instructions/ Conditions of Receipt
			Air	Aqueous	Solid	Soil	Urgency	PESSO4	MNCl2	HCl	NiCl2	ZnAc		
<i>DF-FB26-0216</i>	<i>02/04/16</i>	<i>11054</i>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						<i>2</i>	
<i>DF-RW26-0216</i>	<i>↓</i>	<i>11058</i>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						<i>2</i>	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown
 Sample Disposal: Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____
 QC Requirements (Specify)

1. Relinquished By <i>Katten Adams</i>	Date <i>02/04/16</i>	Time <i>1930</i>	1. Received By <i>[Signature]</i>	Date <i>2/5/16</i>	Time <i>1000</i>
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments _____

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 320-17184-1
SDG Number: CTO WE7G PFC Sampling

Login Number: 17184
List Number: 1
Creator: Alltucker, David R

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Job Number: 320-17184-1
SDG Number: CTO WE7G PFC Sampling
Job Description: CTO WE7G PFC Sampling

For:
CH2M Hill, Inc.
5701 Cleveland Street
Suite 200
Virginia Beach, VA 23462
Attention: Laurie George



Approved for release.
Laura Turpen
Project Manager I
3/8/2016 11:28 AM

Laura Turpen, Project Manager I
880 Riverside Parkway, West Sacramento, CA, 95605
(916)374-4414
laura.turpen@testamericainc.com
03/08/2016

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Sacramento 880 Riverside Parkway, West Sacramento, CA 95605
Tel (916) 373-5600 Fax (916) 372-1059 www.testamericainc.com



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Definitions/Glossary

Client: CH2M Hill, Inc.
Project/Site: CTO WE7G PFC Sampling

TestAmerica Job ID: 320-17184-1
SDG: CTO WE7G PFC Sampling

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE

Client: CH2M Hill, Inc.

Project: CTO WE7G PFC Sampling

Report Number: 320-17184-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica West Sacramento attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

TestAmerica utilizes USEPA approved methods and DOD QSM, where applicable, in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

All parameters for which TestAmerica West Sacramento has certification were evaluated to the QSM specified reporting convention or to the client specified format if different from QSM. Parameters not certified under QSM, if any, were evaluated to the detection limit (DL) and include qualified results where applicable.

The sample(s) that contain constituents flagged with U are undetected. The result associated with this flag is the limit of detection (LOD).

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 02/04/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

Subcontract Work

PFC: This method was subcontracted to Maxxam Analytics Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report. Any analytical or quality issues are noted in the subcontract portion of the report.

The DL/LOD/LOQ limits for Maxxam, along with information on the data qualifiers, are included in the narrative (Page 8 of 169 of the subcontract report; page 15 of 182 of the entire report).

Certification Summary

Client: CH2M Hill, Inc.
Project/Site: CTO WE7G PFC Sampling

TestAmerica Job ID: 320-17184-1
SDG: CTO WE7G PFC Sampling

Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Oregon	NELAP	10	CA200005	01-29-17

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: CTO WE7G PFC Sampling

TestAmerica Job ID: 320-17184-1
SDG: CTO WE7G PFC Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-17184-1	OF-RW20-0216	Water	02/04/16 09:28	02/05/16 10:00
320-17184-2	OF-FB20-0216	Water	02/04/16 09:30	02/05/16 10:00
320-17184-3	OF-RW55-0216	Water	02/04/16 10:25	02/05/16 10:00
320-17184-4	OF-FB55-0216	Water	02/04/16 10:27	02/05/16 10:00
320-17184-5	OF-RW54-0216	Water	02/04/16 11:04	02/05/16 10:00
320-17184-6	OF-FB54-0216	Water	02/04/16 11:06	02/05/16 10:00
320-17184-7	OF-RW68-0216	Water	02/04/16 11:25	02/05/16 10:00
320-17184-8	OF-FB68-0216	Water	02/04/16 11:27	02/05/16 10:00
320-17184-9	OF-RW30-0216	Water	02/04/16 16:01	02/05/16 10:00
320-17184-10	OF-FB30-0216	Water	02/04/16 16:03	02/05/16 10:00
320-17184-11	OF-FB69-0216	Water	02/04/16 16:28	02/05/16 10:00
320-17184-12	OF-RW69-0216	Water	02/04/16 16:36	02/05/16 10:00
320-17184-13	OF-FB26-0216	Water	02/04/16 16:54	02/05/16 10:00
320-17184-14	OF-RW26-0216	Water	02/04/16 16:58	02/05/16 10:00

Subcontract Data



Prepared for: Test America

Project: 320-17184

Analytical Data Package (Level IV)

Analysis: Low level PFOS and PFOA in water (Method 537)

Maxxam Job #: B630793

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



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2.1 Sample Custody

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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: B630793

Sample Analysis

All samples were analyzed on QC batch 4385924 (2016/02/19).

Data Qualifiers

In the Results of Analyses, U-flags are applied to results that are less than the DL (MDL). J-flags are applied to results that are less than the RDL (LOQ) but greater than the DL (MDL). Due to limitations in LIMS, the results cannot be U-flagged to the LOD. The LODs for each analyte are presented in the table below.

Parameter	MDL (ng/L)	LOD (ng/L)	LOQ (ng/L)
Perfluorobutane sulfonate (PFBS)	0.27	1.0	2.0
Perfluorohexane sulfonate (PFHxS)	0.40	1.0	2.0
Perfluoroheptanoic acid (PFHpA)	0.39	1.0	2.0
Perfluorooctanoic acid (PFOA)	0.39	1.0	2.0
Perfluorooctane sulfonate (PFOS)	0.30	1.0	2.0
Perfluorononanoic acid (PFNA)	0.33	1.0	2.0

Sin Chii Chia, B.Sc.

schia@maxxam.ca

Office 905 817 5700

PROJECT NARRATIVE

Maxxam Analytics
Client Project #: 320-17184



Client: TestAmerica
Client Project: 320-17184

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Maxxam ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Date Run	Initial Calibration
Low level PFOS and PFOA in water						
BVX792	OF-RW20-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX793	OF-FB20-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX794	OF-RW55-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX795	OF-FB55-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX796	OF-RW54-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX797	OF-FB54-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX798	OF-RW68-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX799	OF-FB68-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX800	OF-RW30-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX801	OF-FB30-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX802	OF-FB69-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX803	OF-RW69-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX804	OF-FB26-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19
BVX805	OF-RW26-0216	2016/02/04	2016/02/13	2016/02/18	2016/02/19	2016/02/19

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: Number of containers is marked as 2 on CoC.
Only one container was received for each sample.

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.

M Di Grazia

2016/03/08

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
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L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



3. Analytical Results

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
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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 Project #: 320-17184
Your C.O.C. #: 283599

Attention:PFC Reporting Group

TestAmerica
Sacramento
880 Riverside Parkway
West Sacramento, CA
USA 95605

Report Date: 2016/03/08
Report #: R3920730
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B630793
Received: 2016/02/13, 13:40

Sample Matrix: Water
Samples Received: 14

Analyses	Quantity	Date	Date	Laboratory Method	Reference
		Extracted	Analyzed		
Low level PFOS and PFOA in water	14	2016/02/18	2016/02/19	CAM SOP-00894	EPA 537 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Melissa DiGrazia, Project Manager - ATUT
Email: MDiGrazia@maxxam.ca
Phone# (905) 817-5700

=====
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RESULTS OF ANALYSES OF WATER

Maxxam ID		BVX792	BVX793	BVX794	BVX795	BVX796			
Sampling Date		2016/02/04 09:28	2016/02/04 09:30	2016/02/04 10:25	2016/02/04 10:27	2016/02/04 11:04			
COC Number		283599	283599	283599	283599	283599			
	UNITS	OF-RW20-0216	OF-FB20-0216	OF-RW55-0216	OF-FB55-0216	OF-RW54-0216	RDL	MDL	QC Batch

Miscellaneous Parameters									
Perfluorobutane Sulfonate (PFBS)	ng/L	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	2.0	0.27	4385924
Perfluoroheptanoic Acid (PFHpA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	2.0	0.39	4385924
Perfluorohexane Sulfonate (PFHxS)	ng/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	2.0	0.40	4385924
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	2.0	0.39	4385924
Perfluorononanoic Acid (PFNA)	ng/L	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.0	0.33	4385924
Perfluorooctane Sulfonate (PFOS)	ng/L	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	2.0	0.30	4385924

Surrogate Recovery (%)									
13C4-Perfluoroheptanoic acid	%	67	93	61	100	72	N/A	N/A	4385924
13C4-Perfluorooctanesulfonate	%	72	102	70	111	79	N/A	N/A	4385924
13C4-Perfluorooctanoic acid	%	70	104	73	104	81	N/A	N/A	4385924
13C5-Perfluorononanoic acid	%	79	115	82	116	83	N/A	N/A	4385924
18O2-Perfluorohexanesulfonate	%	79	98	75	90	74	N/A	N/A	4385924

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Maxxam ID		BVX797	BVX798	BVX799	BVX800	BVX801			
Sampling Date		2016/02/04 11:06	2016/02/04 11:25	2016/02/04 11:27	2016/02/04 16:01	2016/02/04 16:03			
COC Number		283599	283599	283599	283599	283599			
	UNITS	OF-FB54-0216	OF-RW68-0216	OF-FB68-0216	OF-RW30-0216	OF-FB30-0216	RDL	MDL	QC Batch

Miscellaneous Parameters									
Perfluorobutane Sulfonate (PFBS)	ng/L	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	2.0	0.27	4385924
Perfluoroheptanoic Acid (PFHpA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	2.0	0.39	4385924
Perfluorohexane Sulfonate (PFHxS)	ng/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	2.0	0.40	4385924
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	0.39 U	0.41 J	0.39 U	0.39 U	0.39 U	2.0	0.39	4385924
Perfluorononanoic Acid (PFNA)	ng/L	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.0	0.33	4385924
Perfluorooctane Sulfonate (PFOS)	ng/L	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	2.0	0.30	4385924

Surrogate Recovery (%)									
13C4-Perfluoroheptanoic acid	%	96	70	87	74	96	N/A	N/A	4385924
13C4-Perfluorooctanesulfonate	%	108	67	102	74	113	N/A	N/A	4385924
13C4-Perfluorooctanoic acid	%	100	73	102	77	106	N/A	N/A	4385924
13C5-Perfluorononanoic acid	%	116	83	106	81	115	N/A	N/A	4385924
18O2-Perfluorohexanesulfonate	%	94	71	97	82	96	N/A	N/A	4385924

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

RESULTS OF ANALYSES OF WATER

Maxxam ID		BVX802	BVX803	BVX804	BVX805			
Sampling Date		2016/02/04 16:28	2016/02/04 16:36	2016/02/04 16:54	2016/02/04 16:58			
COC Number		283599	283599	283599	283599			
	UNITS	OF-FB69-0216	OF-RW69-0216	OF-FB26-0216	OF-RW26-0216	RDL	MDL	QC Batch
Miscellaneous Parameters								
Perfluorobutane Sulfonate (PFBS)	ng/L	0.27 U	0.27 U	0.27 U	0.27 U	2.0	0.27	4385924
Perfluoroheptanoic Acid (PFHpA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	2.0	0.39	4385924
Perfluorohexane Sulfonate (PFHxS)	ng/L	0.40 U	0.40 U	0.40 U	0.40 U	2.0	0.40	4385924
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	0.39 U	0.39 U	0.39 U	0.39 U	2.0	0.39	4385924
Perfluorononanoic Acid (PFNA)	ng/L	0.33 U	0.33 U	0.33 U	0.33 U	2.0	0.33	4385924
Perfluorooctane Sulfonate (PFOS)	ng/L	0.30 U	0.30 U	0.30 U	0.30 U	2.0	0.30	4385924
Surrogate Recovery (%)								
13C4-Perfluoroheptanoic acid	%	97	74	93	95	N/A	N/A	4385924
13C4-Perfluorooctanesulfonate	%	100	71	106	104	N/A	N/A	4385924
13C4-Perfluorooctanoic acid	%	112	76	103	95	N/A	N/A	4385924
13C5-Perfluorononanoic acid	%	111	81	112	107	N/A	N/A	4385924
18O2-Perfluorohexanesulfonate	%	103	82	95	103	N/A	N/A	4385924
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
N/A = Not Applicable								

TEST SUMMARY

Maxxam ID: BVX792
Sample ID: OF-RW20-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX793
Sample ID: OF-FB20-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX794
Sample ID: OF-RW55-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX795
Sample ID: OF-FB55-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX796
Sample ID: OF-RW54-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX797
Sample ID: OF-FB54-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX798
Sample ID: OF-RW68-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

TEST SUMMARY

Maxxam ID: BVX799
Sample ID: OF-FB68-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX800
Sample ID: OF-RW30-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX801
Sample ID: OF-FB30-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX802
Sample ID: OF-FB69-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX803
Sample ID: OF-RW69-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX804
Sample ID: OF-FB26-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

Maxxam ID: BVX805
Sample ID: OF-RW26-0216
Matrix: Water

Collected: 2016/02/04
Shipped:
Received: 2016/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low level PFOS and PFOA in water	LCMS	4385924	2016/02/18	2016/02/19	Colm McNamara

GENERAL COMMENTS

Report revised to remove qualifier legend

Perfluorinated Compounds (PFCs):

Perfluoroheptanoic acid (PFHpA) MDL = 0.39, LOD = 1.0, LOQ = 2.0
Perfluorooctanoic acid (PFOA) MDL = 0.39, LOD = 1.0, LOQ = 2.0
Perfluorononanoic acid (PFNA) MDL = 0.33, LOD = 1.0, LOQ = 2.0
Perfluorobutane sulfonate (PFBS) MDL = 0.27, LOD = 1.0, LOQ = 2.0
Perfluorohexane sulfonate (PFHxS) MDL = 0.40, LOD = 1.0, LOQ = 2.0
Perfluorooctane sulfonate (PFOS) MDL = 0.30, LOD = 1.0, LOQ = 2.0
All Units are in ng/L

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
4385924	CM5	Matrix Spike [BVX793-01]	13C4-Perfluoroheptanoic acid	2016/02/19		105	%	50 - 130
			13C4-Perfluorooctanesulfonate	2016/02/19		117	%	50 - 130
			13C4-Perfluorooctanoic acid	2016/02/19		118	%	50 - 130
			13C5-Perfluorononanoic acid	2016/02/19		115	%	50 - 130
			18O2-Perfluorohexanesulfonate	2016/02/19		113	%	50 - 130
			Perfluorobutane Sulfonate (PFBS)	2016/02/19		71	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2016/02/19		99	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2016/02/19		93	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2016/02/19		98	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/19		92	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2016/02/19		89	%	70 - 130
4385924	CM5	RPD [BVX793-01]	Perfluorobutane Sulfonate (PFBS)	2016/02/19	21		%	30
			Perfluoroheptanoic Acid (PFHpA)	2016/02/19	12		%	30
			Perfluorohexane Sulfonate (PFHxS)	2016/02/19	13		%	30
			Perfluorononanoic Acid (PFNA)	2016/02/19	12		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/19	18		%	30
			Perfluorooctane Sulfonate (PFOS)	2016/02/19	22		%	30
4385924	CM5	Spiked Blank	13C4-Perfluoroheptanoic acid	2016/02/19		105	%	50 - 130
			13C4-Perfluorooctanesulfonate	2016/02/19		116	%	50 - 130
			13C4-Perfluorooctanoic acid	2016/02/19		115	%	50 - 130
			13C5-Perfluorononanoic acid	2016/02/19		114	%	50 - 130
			18O2-Perfluorohexanesulfonate	2016/02/19		108	%	50 - 130
			Perfluorobutane Sulfonate (PFBS)	2016/02/19		78	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2016/02/19		97	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2016/02/19		94	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2016/02/19		98	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/19		93	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2016/02/19		94	%	70 - 130
4385924	CM5	Method Blank	13C4-Perfluoroheptanoic acid	2016/02/19		107	%	50 - 130
			13C4-Perfluorooctanesulfonate	2016/02/19		107	%	50 - 130
			13C4-Perfluorooctanoic acid	2016/02/19		108	%	50 - 130
			13C5-Perfluorononanoic acid	2016/02/19		112	%	50 - 130
			18O2-Perfluorohexanesulfonate	2016/02/19		99	%	50 - 130
			Perfluorobutane Sulfonate (PFBS)	2016/02/19	0.27 U, MDL=0.27		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2016/02/19	0.39 U, MDL=0.39		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2016/02/19	0.40 U, MDL=0.40		ng/L	
			Perfluorononanoic Acid (PFNA)	2016/02/19	0.33 U, MDL=0.33		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/19	0.39 U, MDL=0.39		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2016/02/19	0.30 U, MDL=0.30		ng/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.

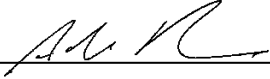
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

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.

VALIDATION SIGNATURE PAGE

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



Adam Robinson, Supervisor, LC/MS/MS

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METHOD 537
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



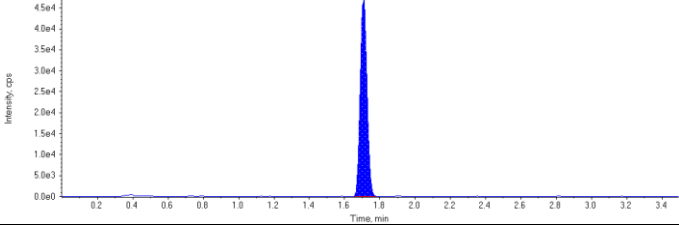
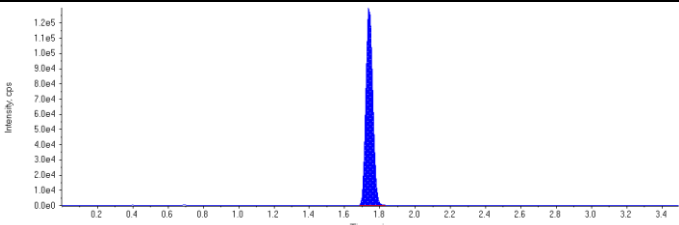
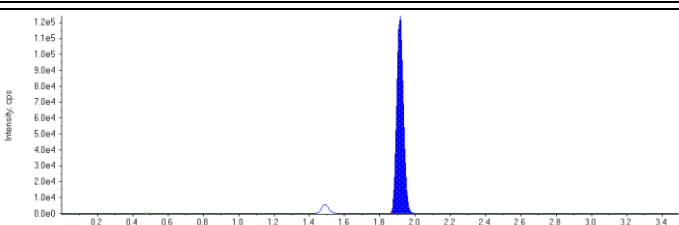
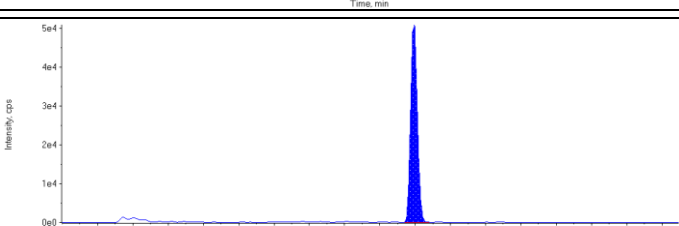
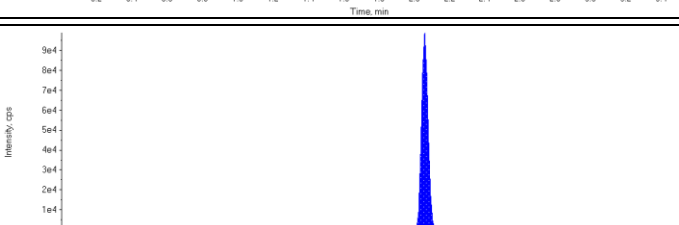
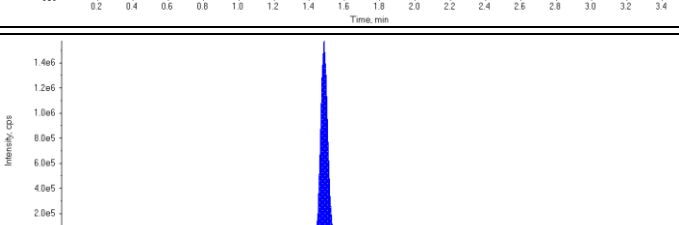
3.2 Sample Chromatograms

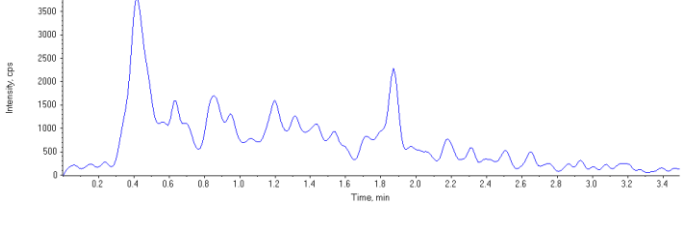
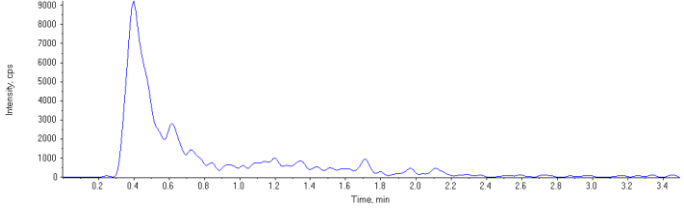
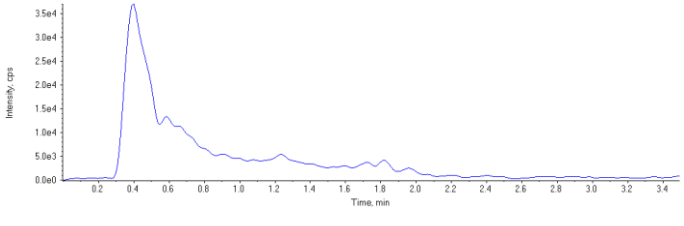
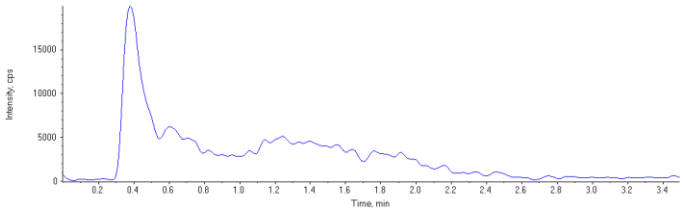
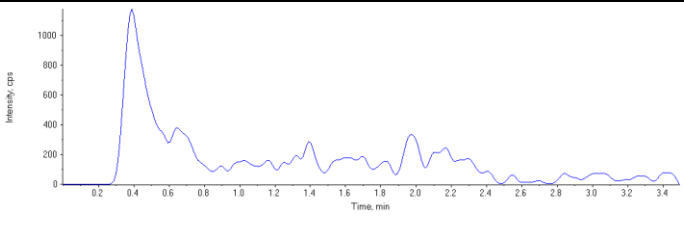
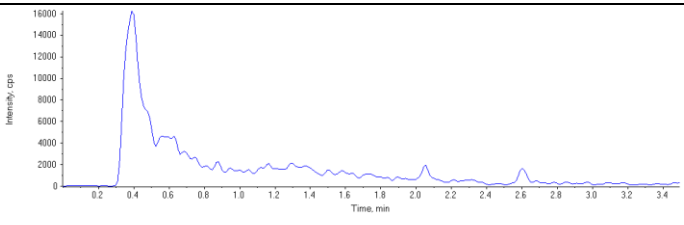
Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Sample Name	4385924~BVX792-01	Injection Vial	38
Sample ID	4385924~BVX792-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:34:28 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro/PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	125000.	1.71	1.00	-
MPFHpA	356000.	1.74	1.00	-
MPFOA	325000.	1.91	1.00	-
MPFOS	135000.	1.99	1.00	-
MPFNA	252000.	2.05	1.00	-
13C6-PFHxA IS	4320000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	125000	1.71	N/A	78.9	N/A
13C4-PFHpA	356000	1.74	N/A	66.6	N/A
13C4-PFOA	325000	1.91	N/A	69.8	N/A
13C4-PFOS	135000	1.99	N/A	72.2	N/A
13C5-PFNA	252000	2.05	N/A	79.2	N/A
13C6-PFHxA	4320000	1.48	N/A	108.	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

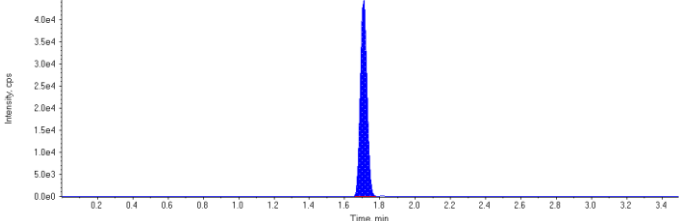
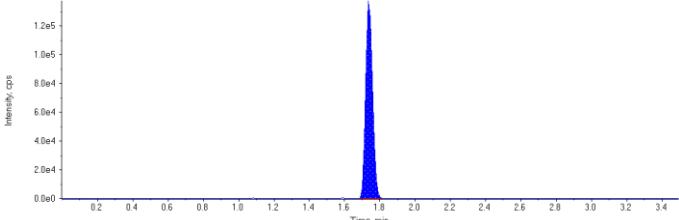
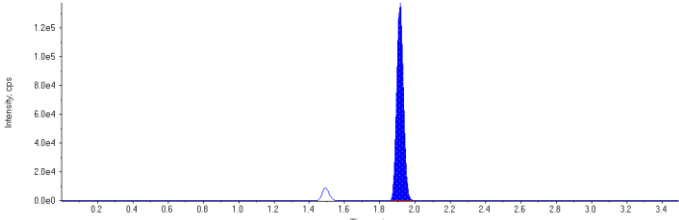
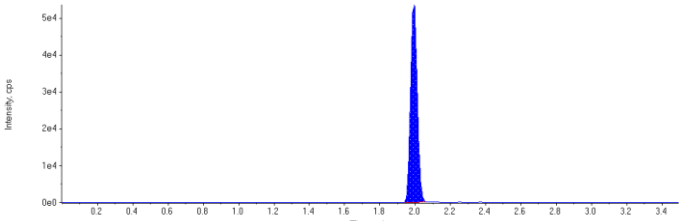
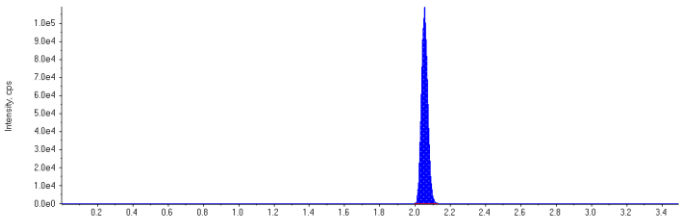
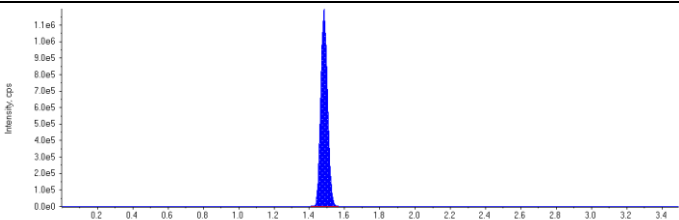
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

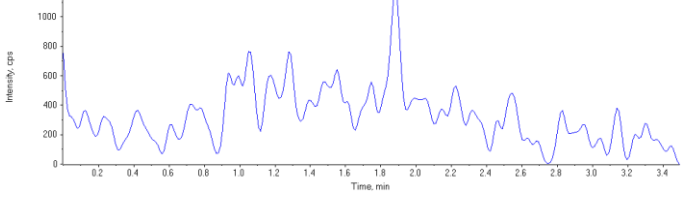
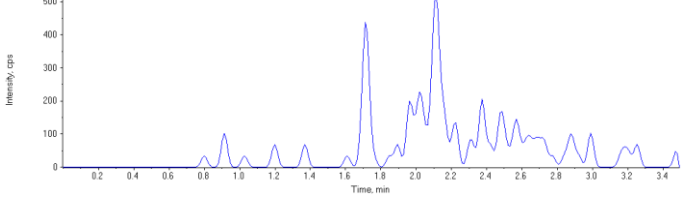
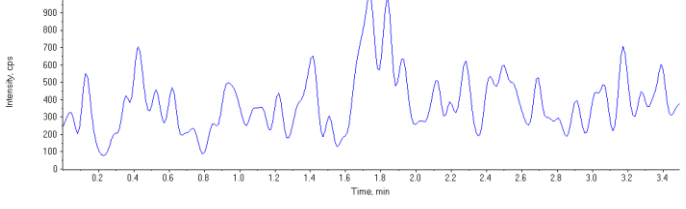
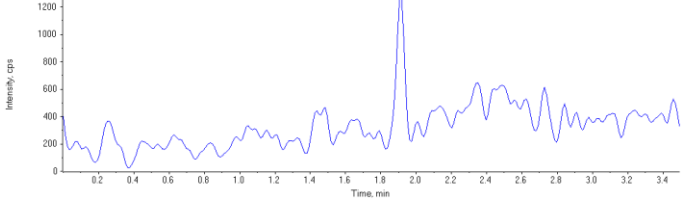
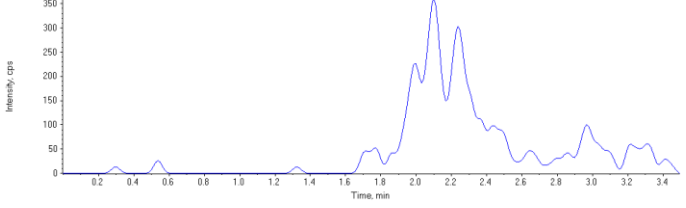
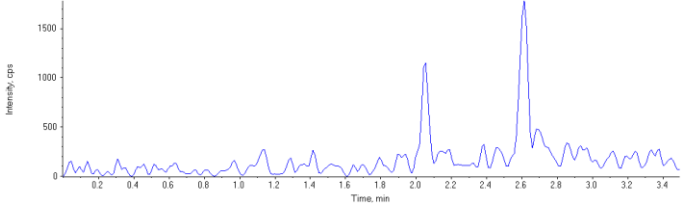
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 78.9 µg/L</p> <p>Area Ratio: 0.0290</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 66.6 µg/L</p> <p>Area Ratio: 0.0824</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 69.8 µg/L</p> <p>Area Ratio: 0.0753</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 72.2 µg/L</p> <p>Area Ratio: 0.0312</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 79.2 µg/L</p> <p>Area Ratio: 0.0583</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 108. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

Sample Name	4385924~BVX793-01	Injection Vial	39
Sample ID	4385924~BVX793-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:39:35 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	117000.	1.71	1.00	-
MPFHpA	371000.	1.74	1.00	-
MPFOA	363000.	1.91	1.00	-
MPFOS	142000.	1.99	1.00	-
MPFNA	274000.	2.05	1.00	-
13C6-PFHxA IS	3230000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	117000	1.71	N/A	98.4	N/A
13C4-PFHpA	371000	1.74	N/A	92.7	N/A
13C4-PFOA	363000	1.91	N/A	104.	N/A
13C4-PFOS	142000	1.99	N/A	102.	N/A
13C5-PFNA	274000	2.05	N/A	115.	N/A
13C6-PFHxA	3230000	1.48	N/A	81.0	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

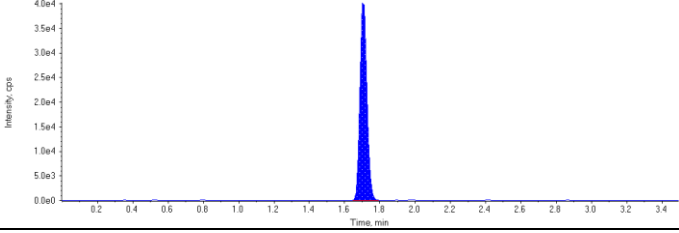
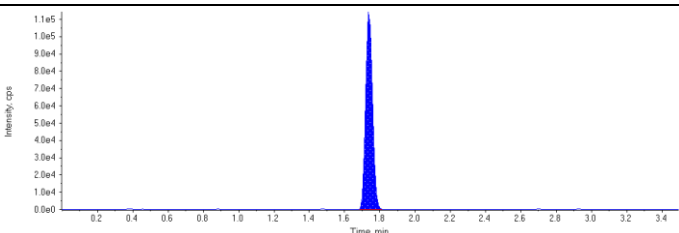
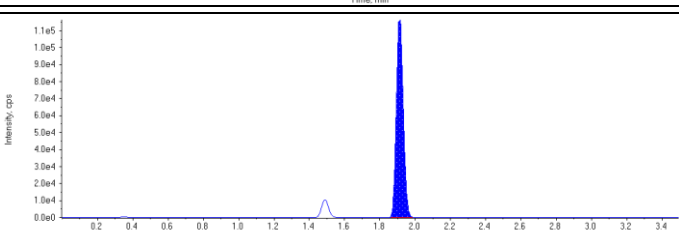
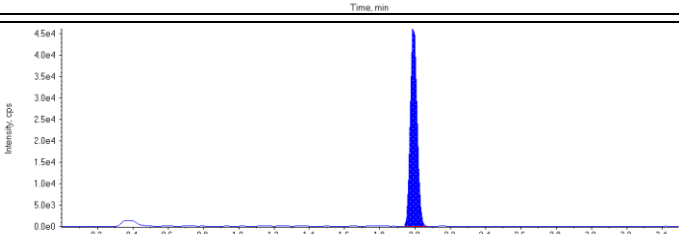
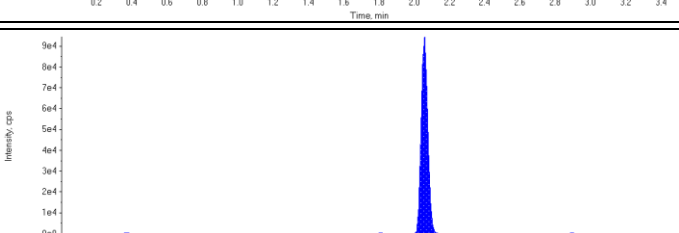
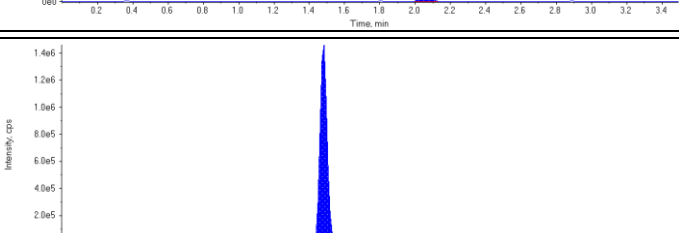
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

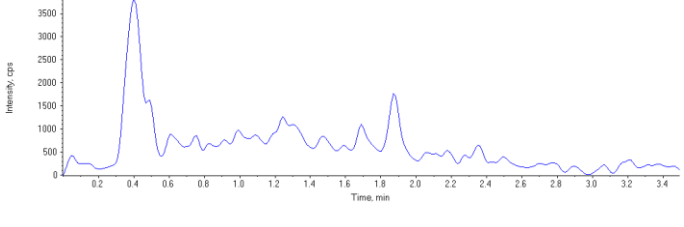
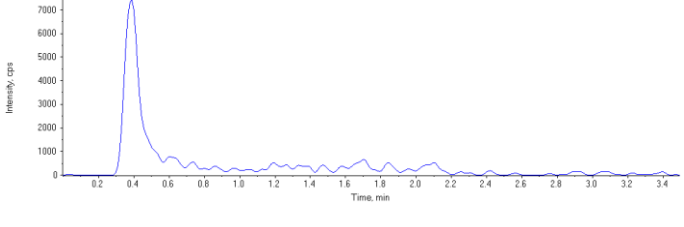
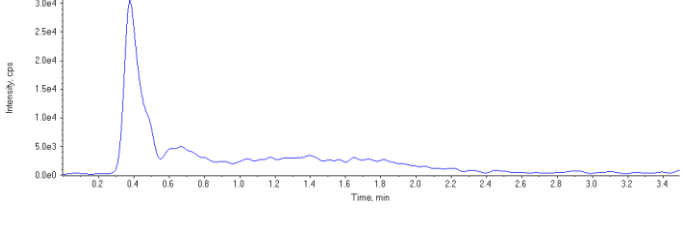
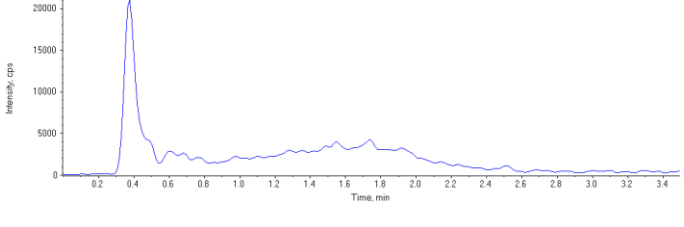
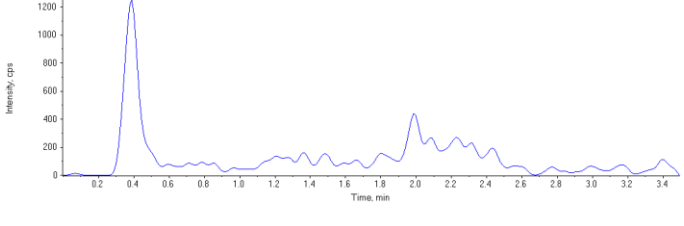
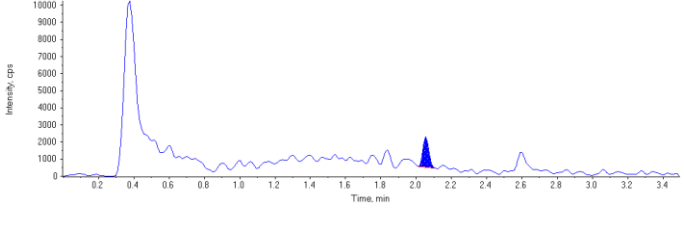
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 98.4 µg/L</p> <p>Area Ratio: 0.0362</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 92.7 µg/L</p> <p>Area Ratio: 0.115</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.112</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.0439</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 115. µg/L</p> <p>Area Ratio: 0.0849</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 81.0 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

Sample Name	4385924~BVX794-01	Injection Vial	40
Sample ID	4385924~BVX794-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:44:41 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	112000.	1.71	1.00	-
MPFHpA	308000.	1.74	1.00	-
MPFOA	321000.	1.91	1.00	-
MPFOS	123000.	1.99	1.00	-
MPFNA	245000.	2.05	1.00	-
13C6-PFHxA IS	4060000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	4150	2.05	N/A	0.265	N/A
18O2-PFHxS	112000	1.71	N/A	74.7	N/A
13C4-PFHpA	308000	1.74	N/A	61.3	N/A
13C4-PFOA	321000	1.91	N/A	73.4	N/A
13C4-PFOS	123000	1.99	N/A	70.4	N/A
13C5-PFNA	245000	2.05	N/A	82.2	N/A
13C6-PFHxA	4060000	1.48	N/A	102.	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

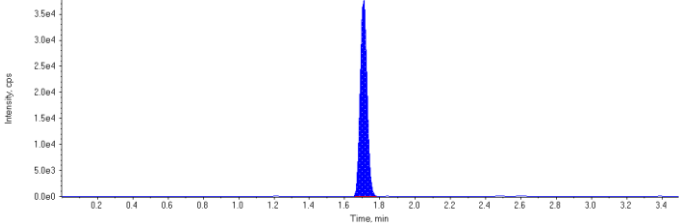
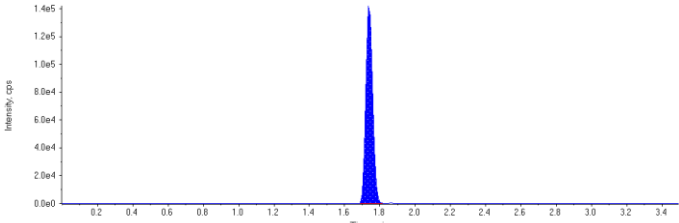
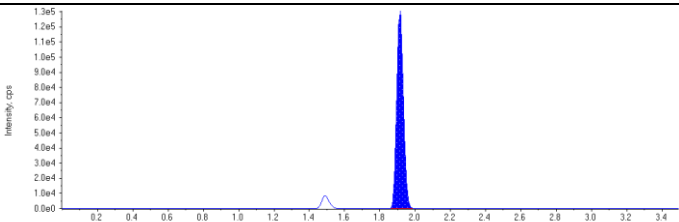
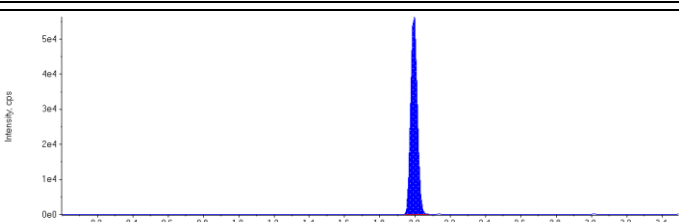
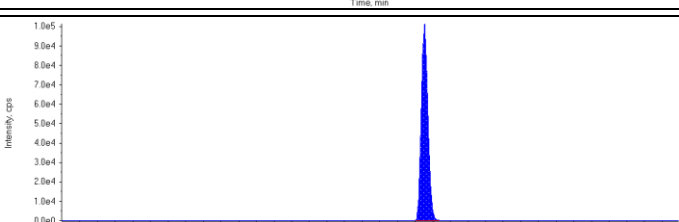
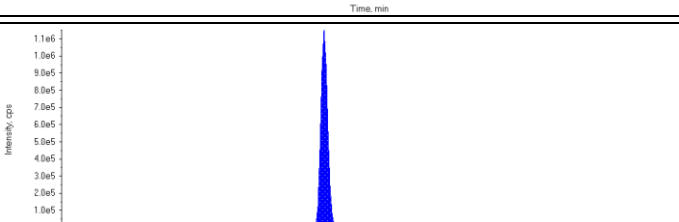
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 0.265 µg/L</p> <p>Area Ratio: 0.0169</p> <p>Sample Type: (Unknown)</p>	

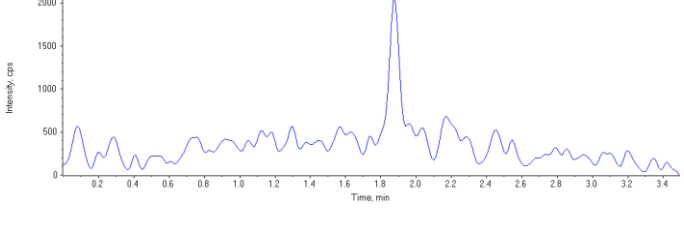
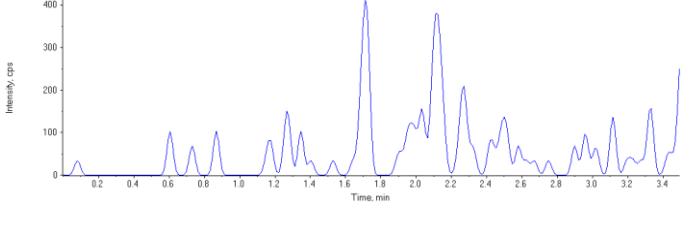
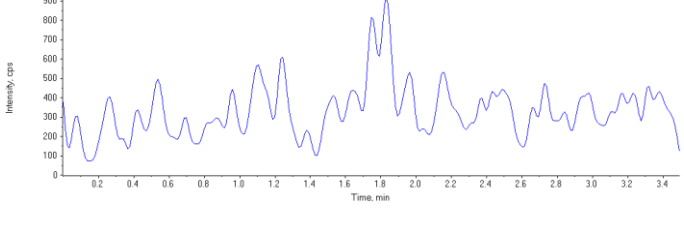
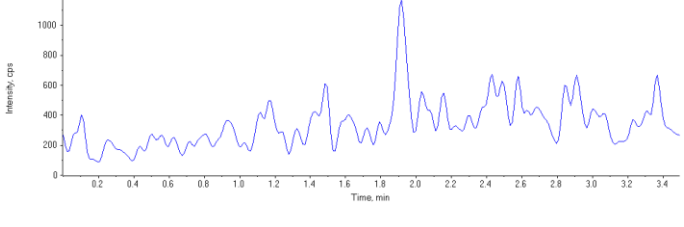
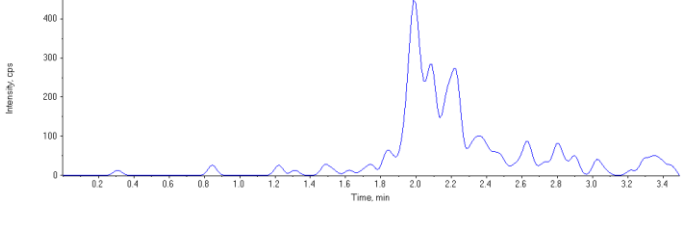
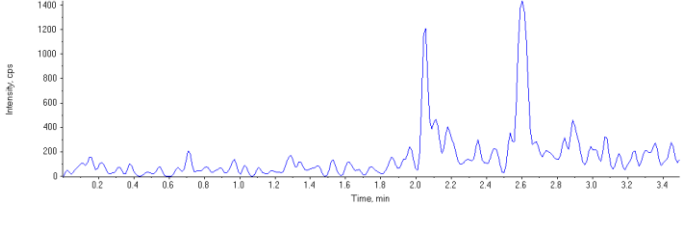
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 74.7 µg/L</p> <p>Area Ratio: 0.0275</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 61.3 µg/L</p> <p>Area Ratio: 0.0758</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 73.4 µg/L</p> <p>Area Ratio: 0.0791</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 70.4 µg/L</p> <p>Area Ratio: 0.0304</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 82.2 µg/L</p> <p>Area Ratio: 0.0605</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

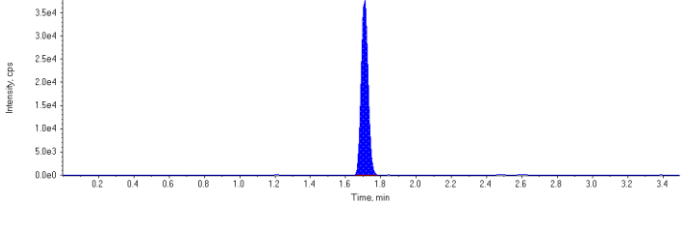
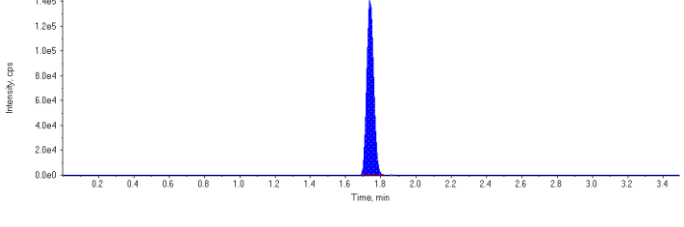
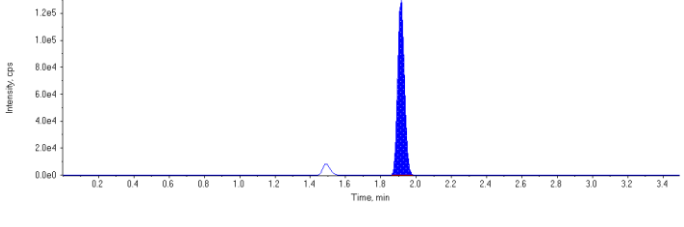
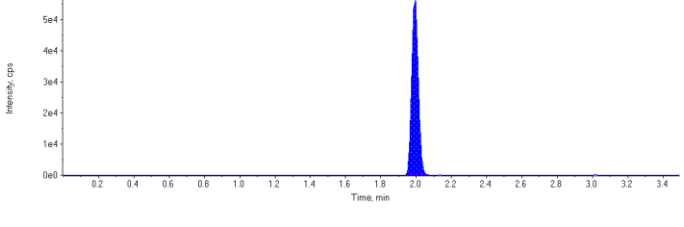
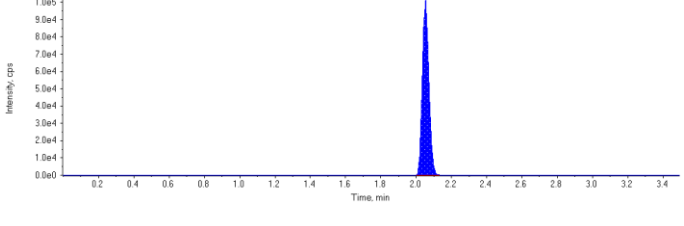
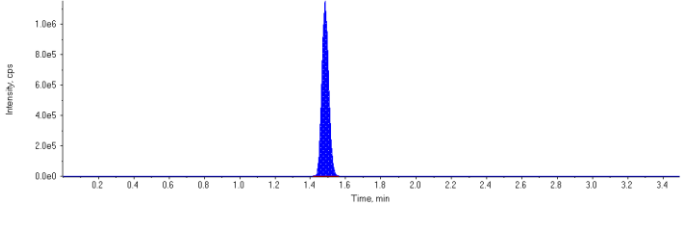
Sample Name	4385924~BVX795-01	Injection Vial	41
Sample ID	4385924~BVX795-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:49:47 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	102000.	1.71	1.00	-
MPFHpA	383000.	1.74	1.00	-
MPFOA	345000.	1.91	1.00	-
MPFOS	148000.	1.99	1.00	-
MPFNA	263000.	2.05	1.00	-
13C6-PFHxA IS	3090000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	102000	1.71	N/A	90.1	N/A
13C4-PFHpA	383000	1.74	N/A	100.	N/A
13C4-PFOA	345000	1.91	N/A	104.	N/A
13C4-PFOS	148000	1.99	N/A	111.	N/A
13C5-PFNA	263000	2.05	N/A	116.	N/A
13C6-PFHxA	3090000	1.48	N/A	77.3	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

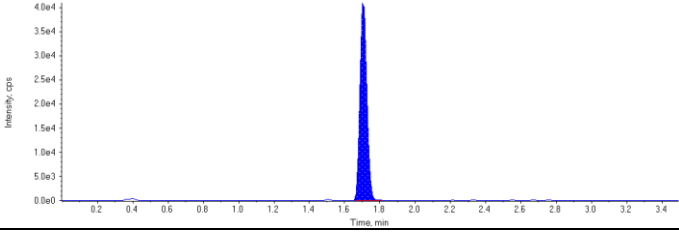
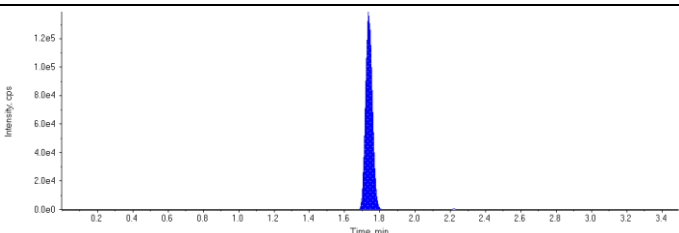
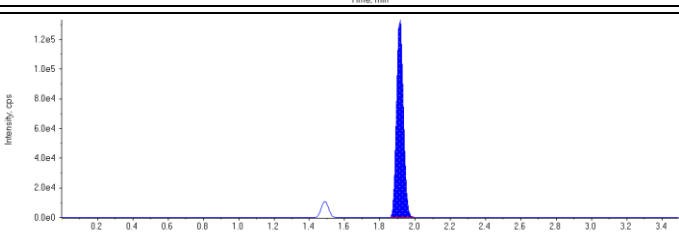
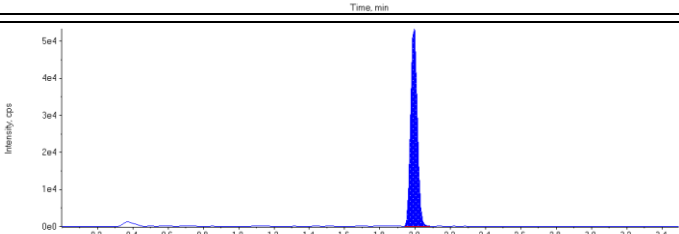
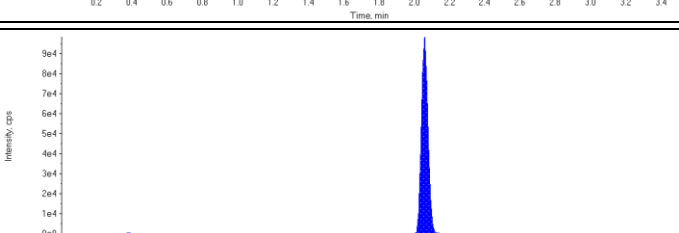
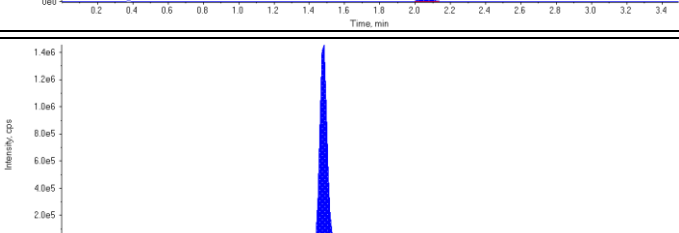
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

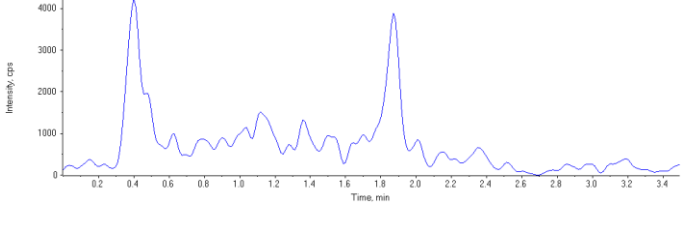
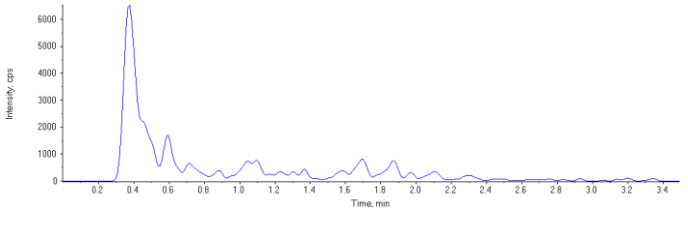
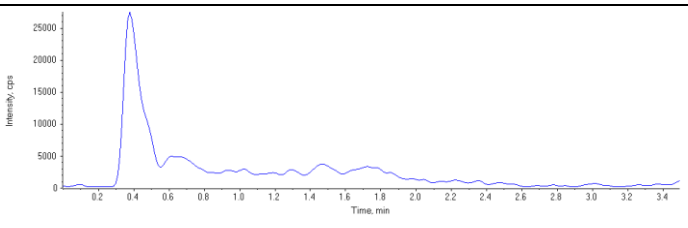
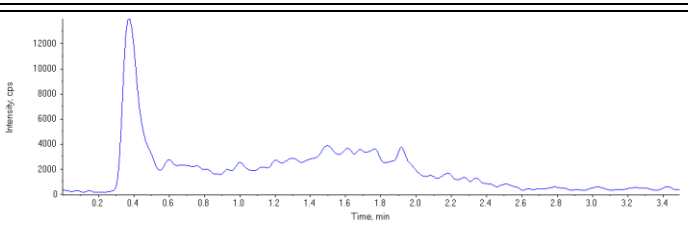
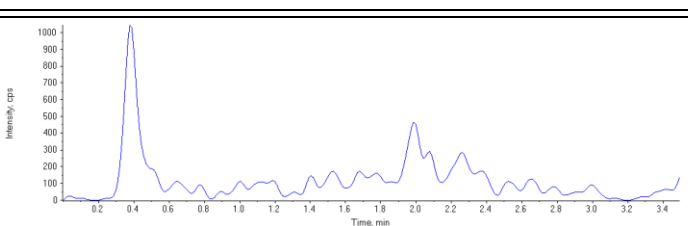
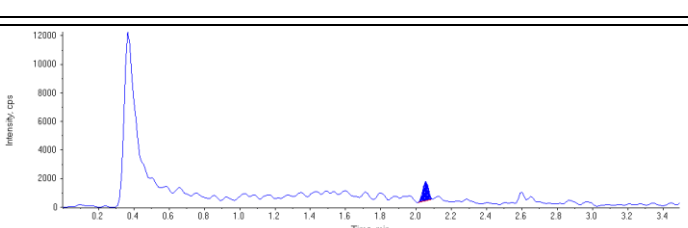
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 90.1 µg/L</p> <p>Area Ratio: 0.0332</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.124</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.112</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.0480</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 116. µg/L</p> <p>Area Ratio: 0.0854</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 77.3 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

Sample Name	4385924~BVX796-01	Injection Vial	42
Sample ID	4385924~BVX796-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:54:52 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	113000.	1.71	1.00	-
MPFHpA	366000.	1.74	1.00	-
MPFOA	359000.	1.91	1.00	-
MPFOS	140000.	1.99	1.00	-
MPFNA	252000.	2.05	1.00	-
13C6-PFHxA IS	4120000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	3040	2.05	N/A	0.237	N/A
18O2-PFHxS	113000	1.71	N/A	74.4	N/A
13C4-PFHpA	366000	1.74	N/A	71.8	N/A
13C4-PFOA	359000	1.91	N/A	80.9	N/A
13C4-PFOS	140000	1.99	N/A	78.5	N/A
13C5-PFNA	252000	2.05	N/A	83.1	N/A
13C6-PFHxA	4120000	1.48	N/A	103.	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

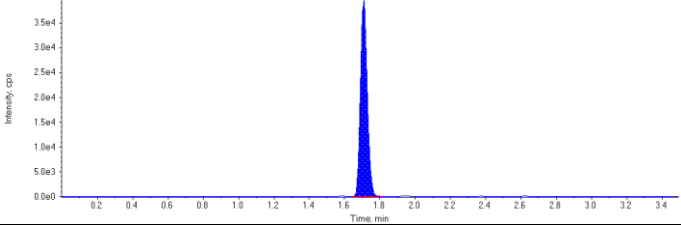
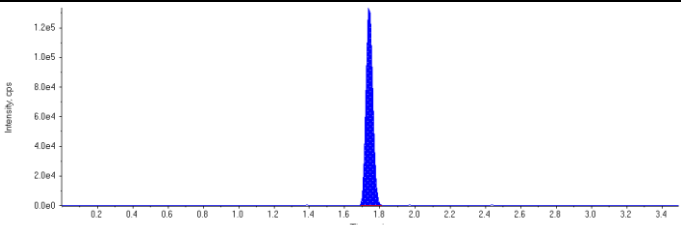
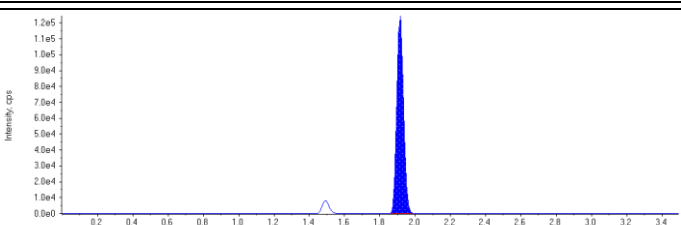
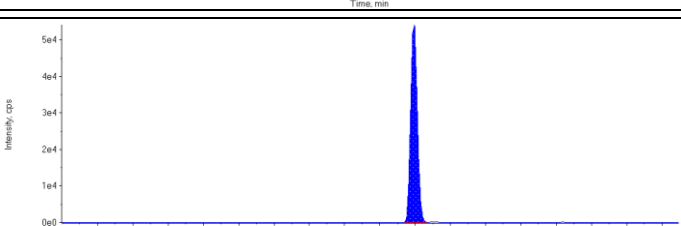
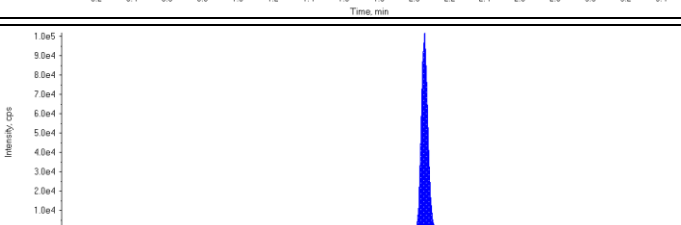
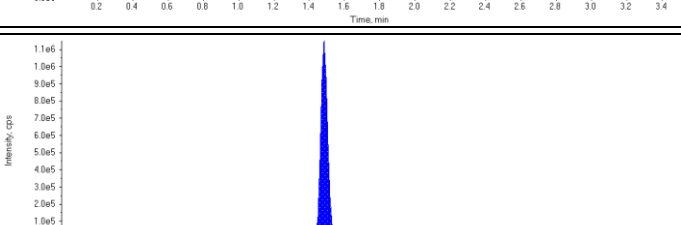
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 0.237 µg/L</p> <p>Area Ratio: 0.0121</p> <p>Sample Type: (Unknown)</p>	

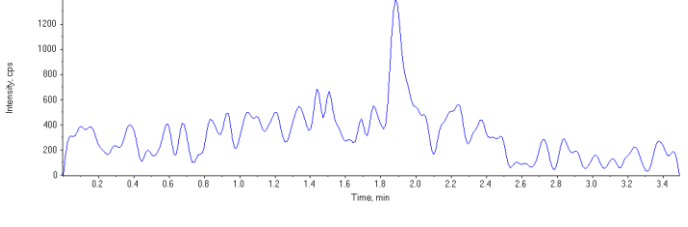
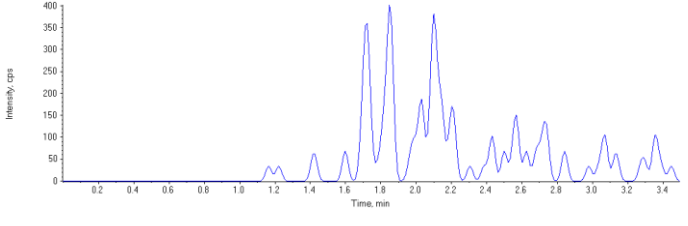
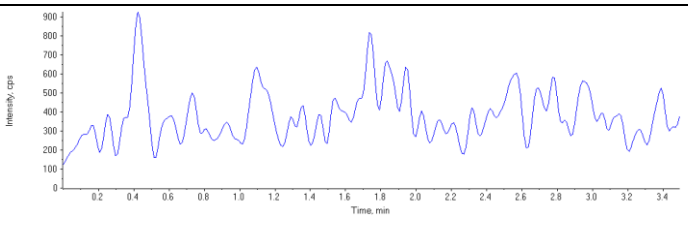
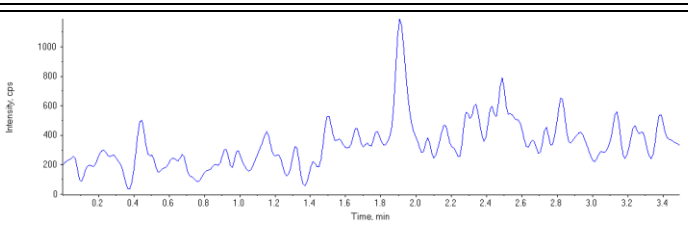
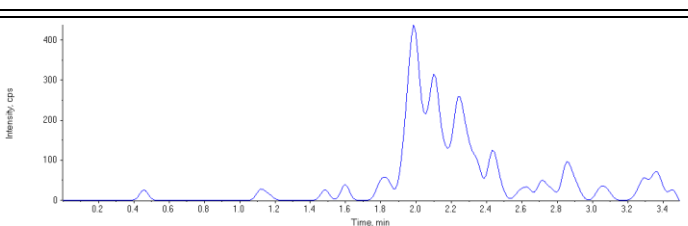
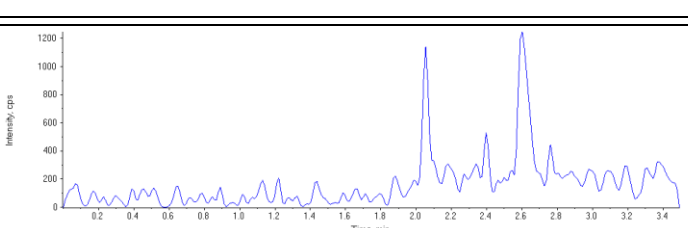
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 74.4 µg/L</p> <p>Area Ratio: 0.0274</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 71.8 µg/L</p> <p>Area Ratio: 0.0888</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 80.9 µg/L</p> <p>Area Ratio: 0.0872</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 78.5 µg/L</p> <p>Area Ratio: 0.0339</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 83.1 µg/L</p> <p>Area Ratio: 0.0612</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

Sample Name	4385924~BVX797-01	Injection Vial	43
Sample ID	4385924~BVX797-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:59:57 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	107000.	1.71	1.00	-
MPFHpA	365000.	1.74	1.00	-
MPFOA	331000.	1.91	1.00	-
MPFOS	143000.	1.99	1.00	-
MPFNA	263000.	2.05	1.00	-
13C6-PFHxA IS	3070000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	107000	1.71	N/A	94.3	N/A
13C4-PFHpA	365000	1.74	N/A	95.9	N/A
13C4-PFOA	331000	1.91	N/A	99.9	N/A
13C4-PFOS	143000	1.99	N/A	108.	N/A
13C5-PFNA	263000	2.05	N/A	116.	N/A
13C6-PFHxA	3070000	1.48	N/A	77.0	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

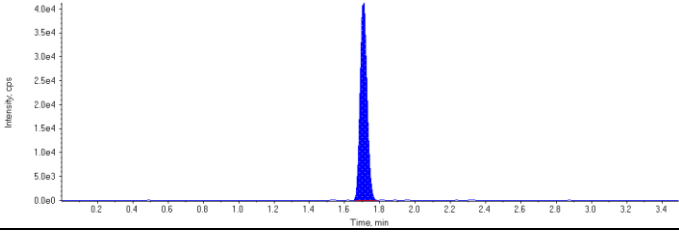
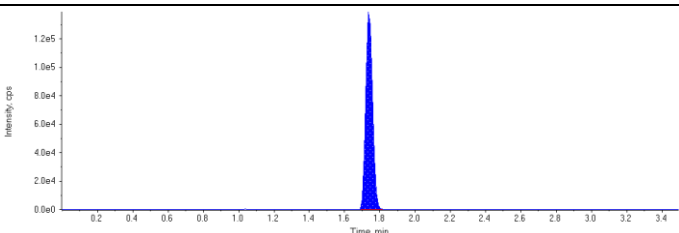
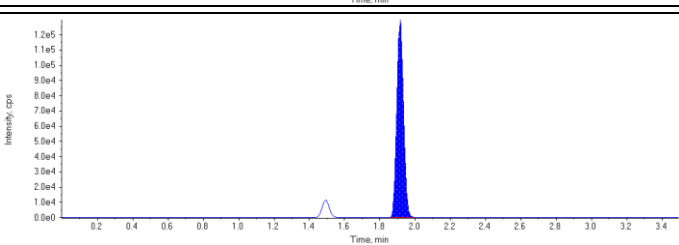
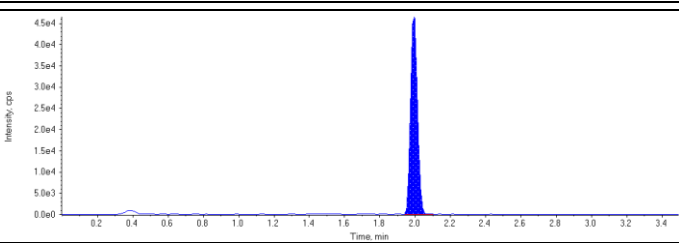
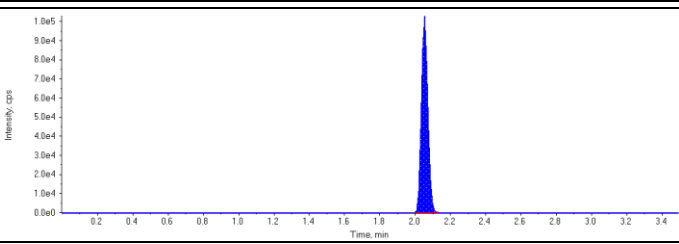
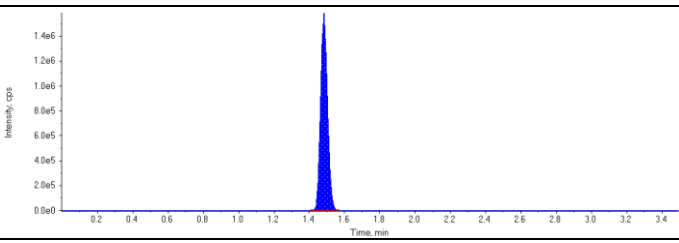
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

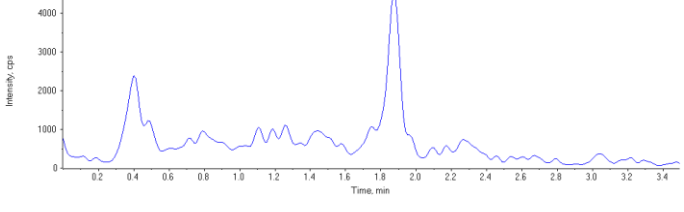
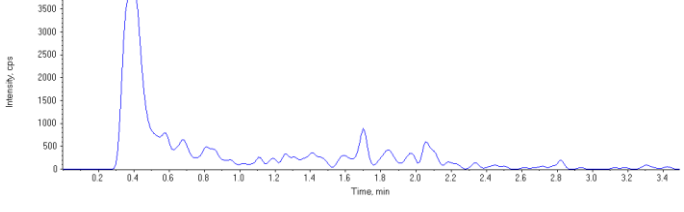
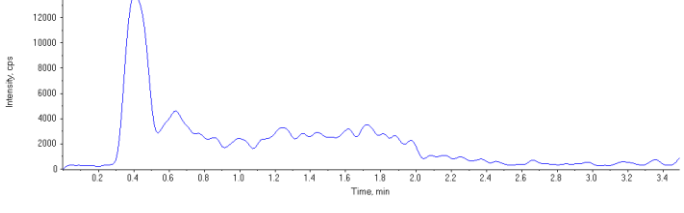
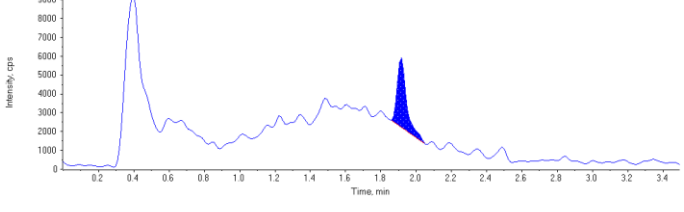
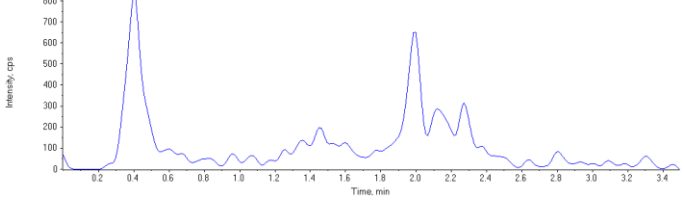
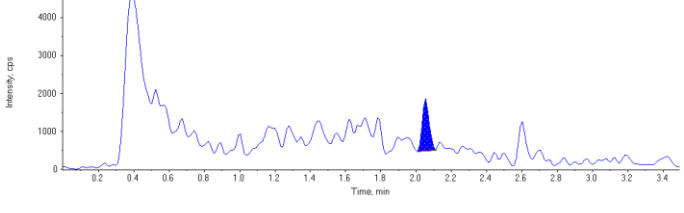
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 94.3 µg/L</p> <p>Area Ratio: 0.0347</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 95.9 µg/L</p> <p>Area Ratio: 0.119</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 99.9 µg/L</p> <p>Area Ratio: 0.108</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 108. µg/L</p> <p>Area Ratio: 0.0466</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 116. µg/L</p> <p>Area Ratio: 0.0856</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 77.0 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

Sample Name	4385924~BVX798-01	Injection Vial	44
Sample ID	4385924~BVX798-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:05:05 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	113000.	1.71	1.00	-
MPFHpA	375000.	1.74	1.00	-
MPFOA	342000.	1.91	1.00	-
MPFOS	126000.	1.99	1.00	-
MPFNA	266000.	2.05	1.00	-
13C6-PFHxA IS	4350000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	13500	1.91	N/A	0.407	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	3700	2.05	N/A	0.248	N/A
18O2-PFHxS	113000	1.71	N/A	70.7	N/A
13C4-PFHpA	375000	1.74	N/A	69.6	N/A
13C4-PFOA	342000	1.91	N/A	72.9	N/A
13C4-PFOS	126000	1.99	N/A	67.3	N/A
13C5-PFNA	266000	2.05	N/A	82.9	N/A
13C6-PFHxA	4350000	1.48	N/A	109.	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

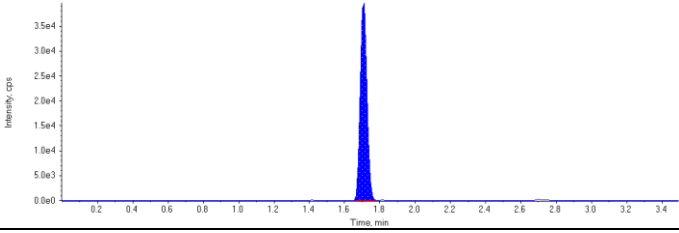
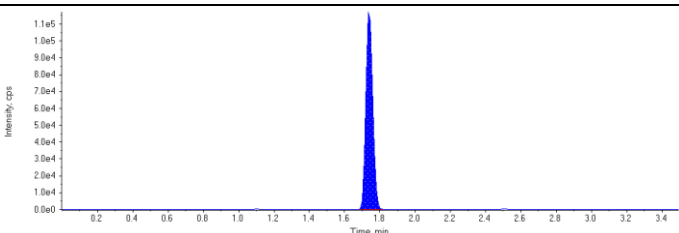
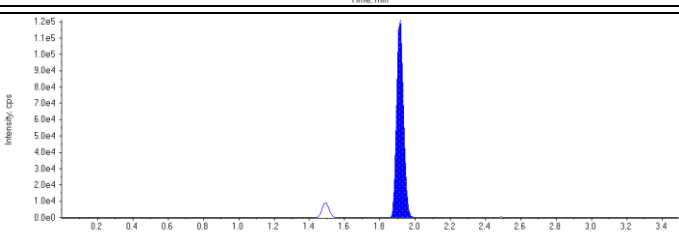
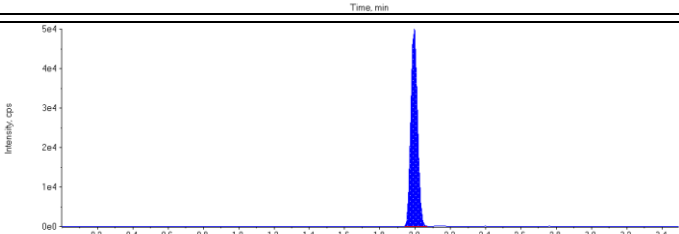
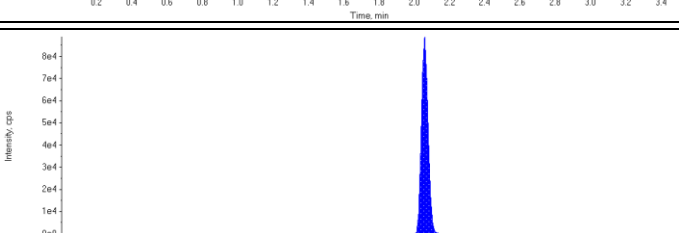
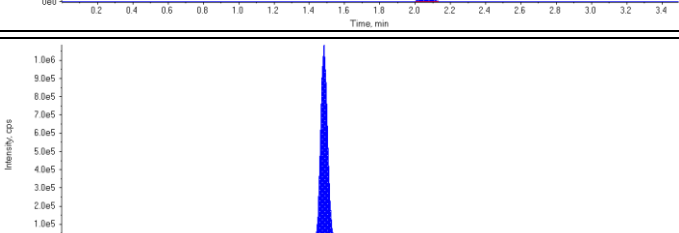
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.88) min</p> <p>Calculated Conc: 0.407 µg/L</p> <p>Area Ratio: 0.0394</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 0.248 µg/L</p> <p>Area Ratio: 0.0139</p> <p>Sample Type: (Unknown)</p>	

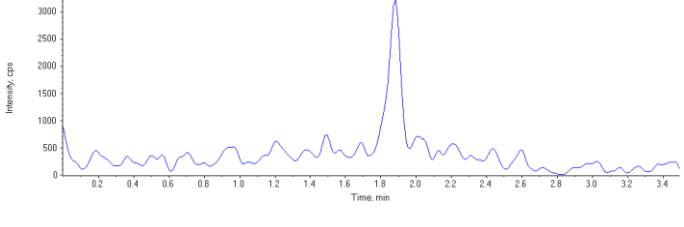
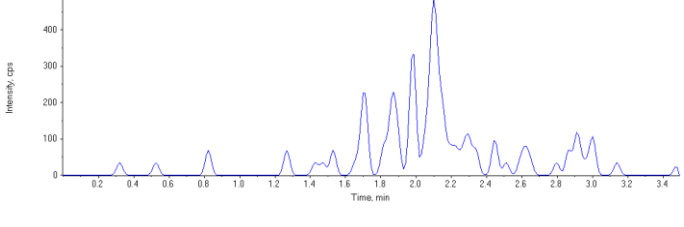
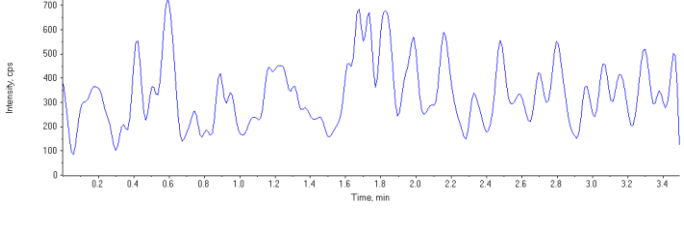
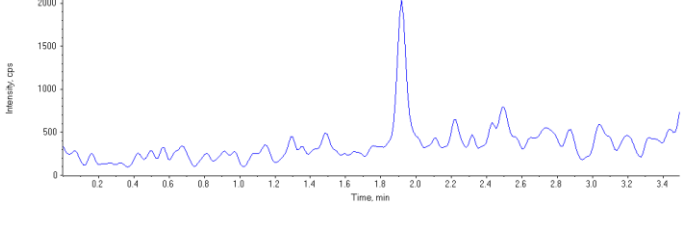
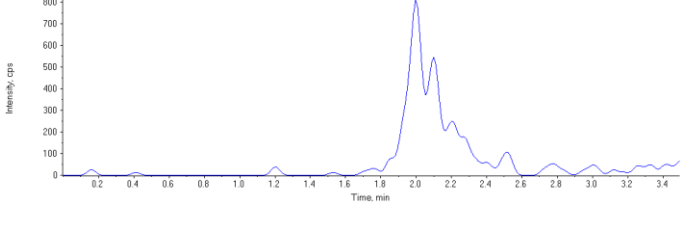
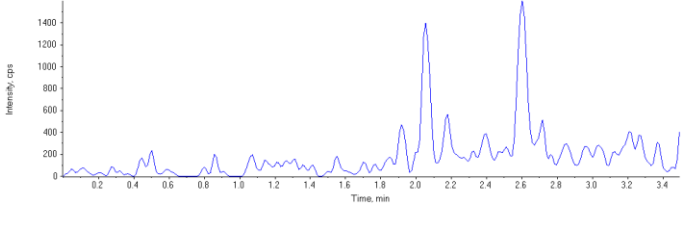
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 70.7 µg/L</p> <p>Area Ratio: 0.0260</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 69.6 µg/L</p> <p>Area Ratio: 0.0861</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 72.9 µg/L</p> <p>Area Ratio: 0.0786</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 67.3 µg/L</p> <p>Area Ratio: 0.0291</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 82.9 µg/L</p> <p>Area Ratio: 0.0610</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 109. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

Sample Name	4385924~BVX799-01	Injection Vial	45
Sample ID	4385924~BVX799-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:10:11 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	106000.	1.71	1.00	-
MPFHpA	320000.	1.74	1.00	-
MPFOA	326000.	1.91	1.00	-
MPFOS	131000.	1.99	1.00	-
MPFNA	231000.	2.05	1.00	-
13C6-PFHxA IS	2970000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	106000	1.71	N/A	96.8	N/A
13C4-PFHpA	320000	1.74	N/A	87.1	N/A
13C4-PFOA	326000	1.91	N/A	102.	N/A
13C4-PFOS	131000	1.99	N/A	102.	N/A
13C5-PFNA	231000	2.05	N/A	106.	N/A
13C6-PFHxA	2970000	1.48	N/A	74.4	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

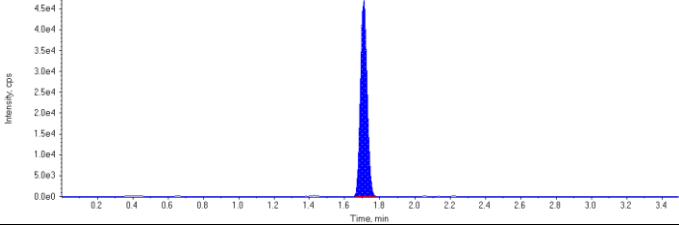
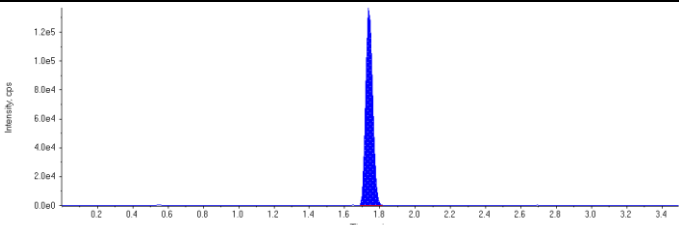
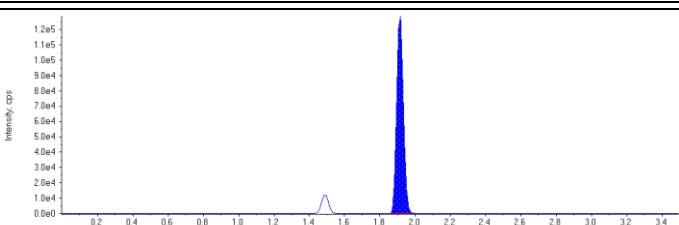
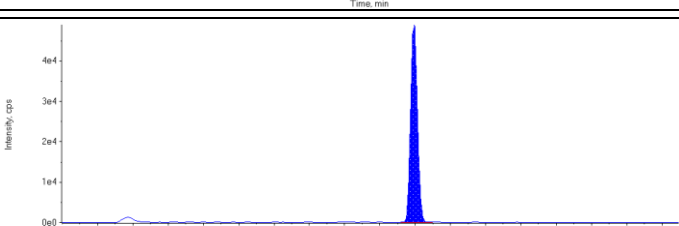
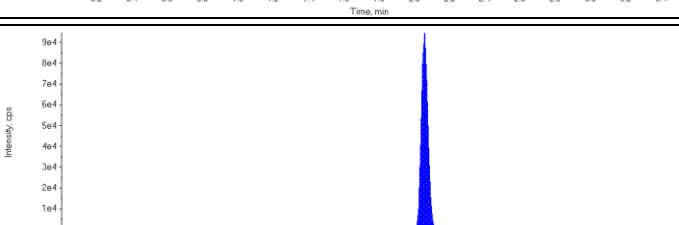
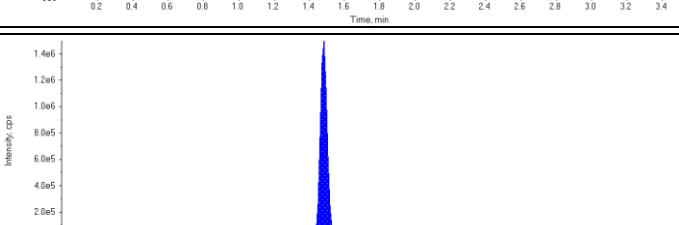
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

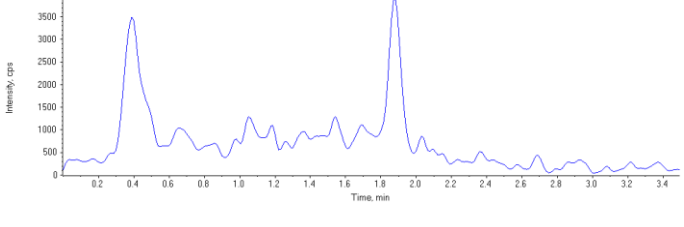
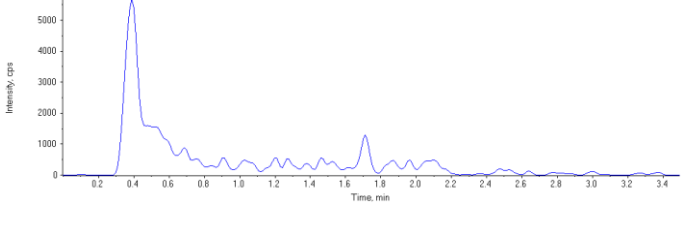
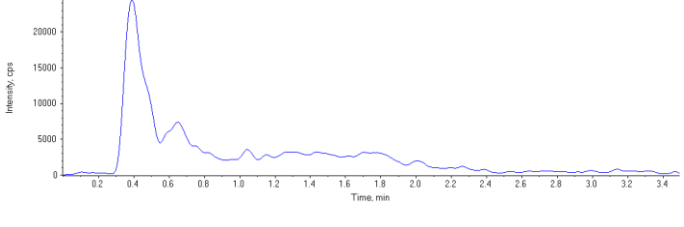
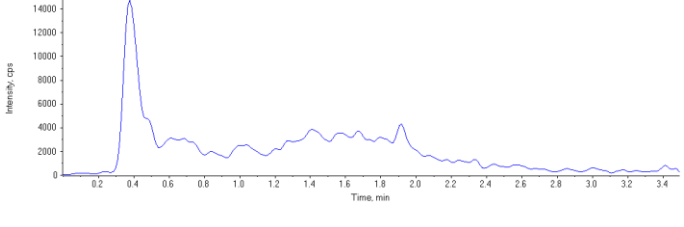
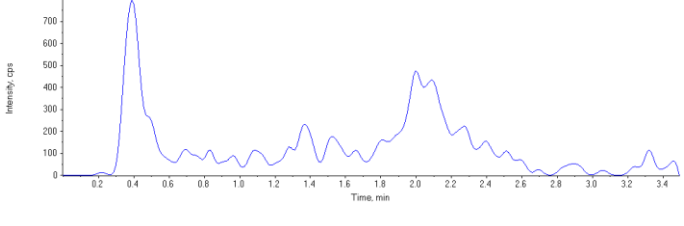
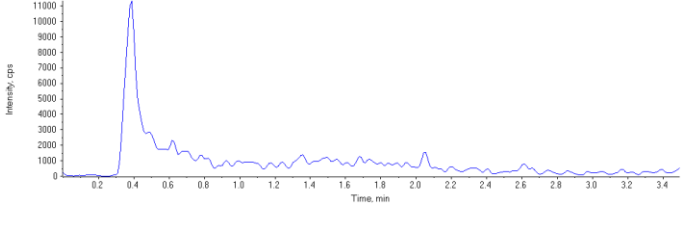
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 96.8 µg/L</p> <p>Area Ratio: 0.0356</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 87.1 µg/L</p> <p>Area Ratio: 0.108</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.110</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.0443</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.0778</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 74.4 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

Sample Name	4385924~BVX800-01	Injection Vial	46
Sample ID	4385924~BVX800-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:15:18 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	124000.	1.71	1.00	-
MPFHpA	374000.	1.74	1.00	-
MPFOA	342000.	1.91	1.00	-
MPFOS	131000.	1.99	1.00	-
MPFNA	244000.	2.05	1.00	-
13C6-PFHxA IS	4110000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	124000	1.71	N/A	81.8	N/A
13C4-PFHpA	374000	1.74	N/A	73.7	N/A
13C4-PFOA	342000	1.91	N/A	77.2	N/A
13C4-PFOS	131000	1.99	N/A	74.0	N/A
13C5-PFNA	244000	2.05	N/A	80.7	N/A
13C6-PFHxA	4110000	1.48	N/A	103.	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

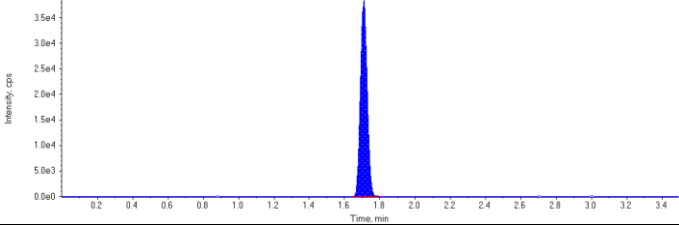
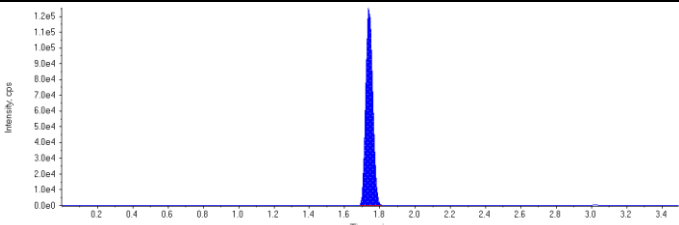
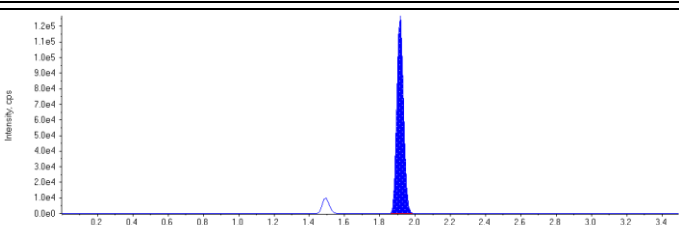
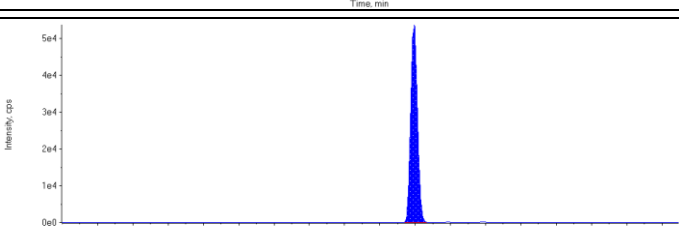
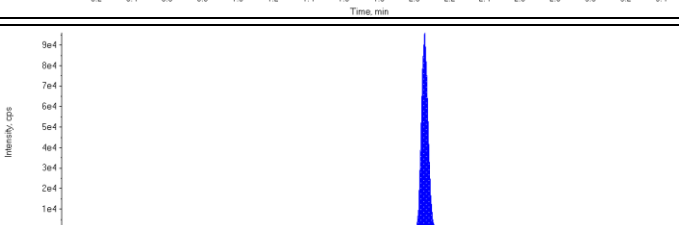
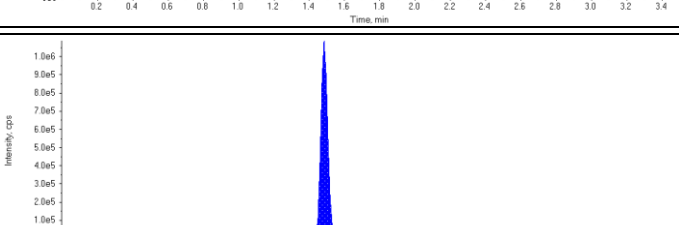
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

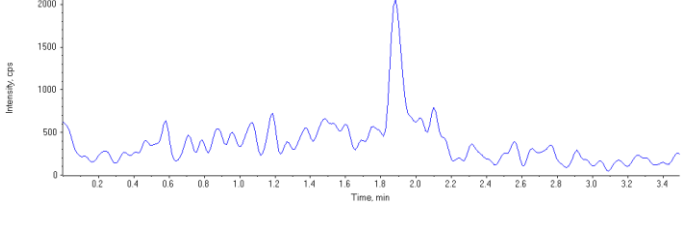
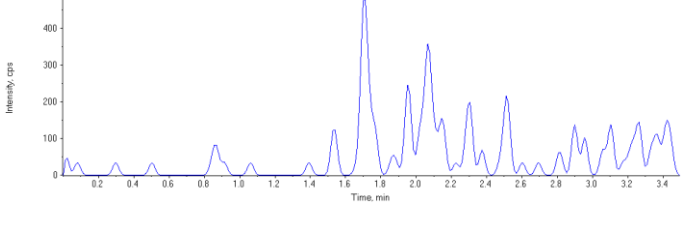
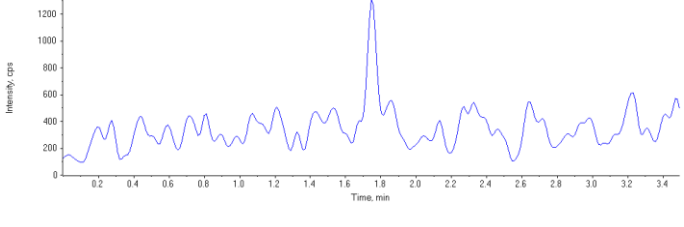
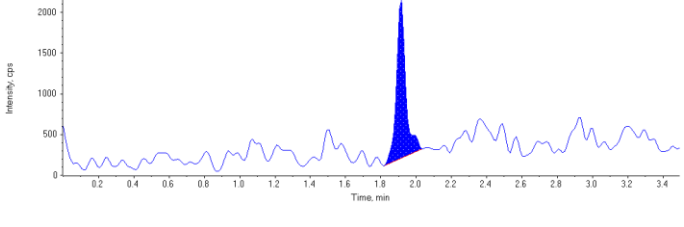
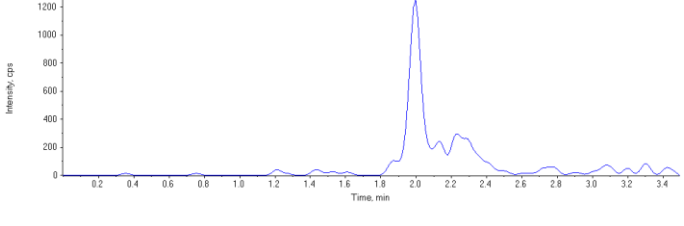
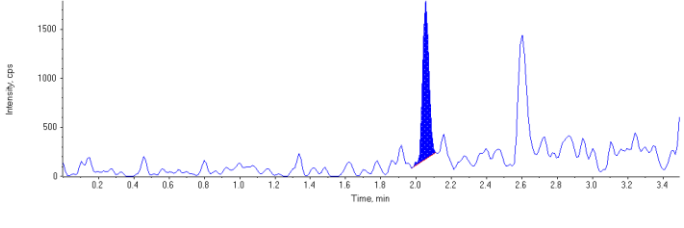
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 81.8 µg/L</p> <p>Area Ratio: 0.0301</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 73.7 µg/L</p> <p>Area Ratio: 0.0912</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 77.2 µg/L</p> <p>Area Ratio: 0.0833</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 74.0 µg/L</p> <p>Area Ratio: 0.0320</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 80.7 µg/L</p> <p>Area Ratio: 0.0594</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

Sample Name	4385924~BVX801-01	Injection Vial	47
Sample ID	4385924~BVX801-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:25:28 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	103000.	1.71	1.00	-
MPFHpA	345000.	1.74	1.00	-
MPFOA	333000.	1.91	1.00	-
MPFOS	143000.	1.99	1.00	-
MPFNA	247000.	2.05	1.00	-
13C6-PFHxA IS	2920000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	7060	1.91	N/A	0.297	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	3940	2.05	N/A	0.260	N/A
18O2-PFHxS	103000	1.71	N/A	95.7	N/A
13C4-PFHpA	345000	1.74	N/A	95.5	N/A
13C4-PFOA	333000	1.91	N/A	106.	N/A
13C4-PFOS	143000	1.99	N/A	113.	N/A
13C5-PFNA	247000	2.05	N/A	115.	N/A
13C6-PFHxA	2920000	1.48	N/A	73.2	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

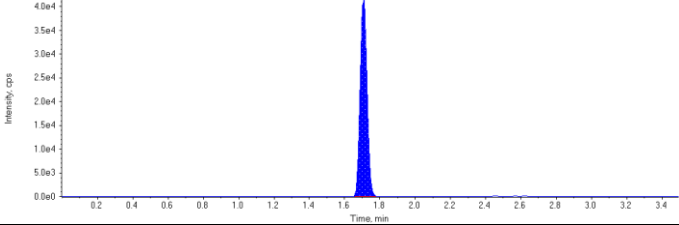
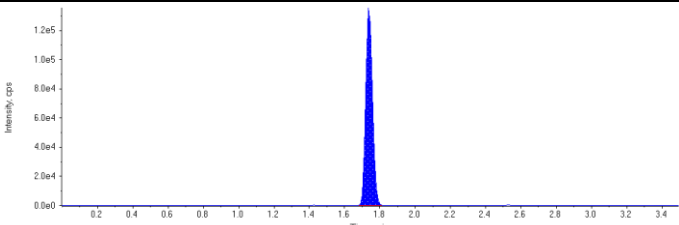
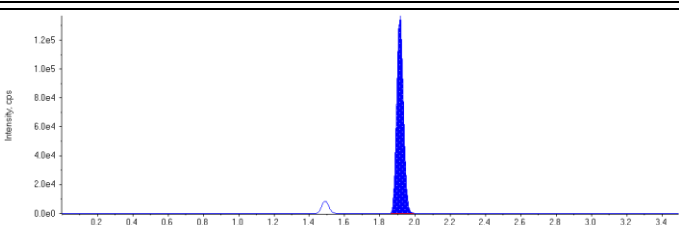
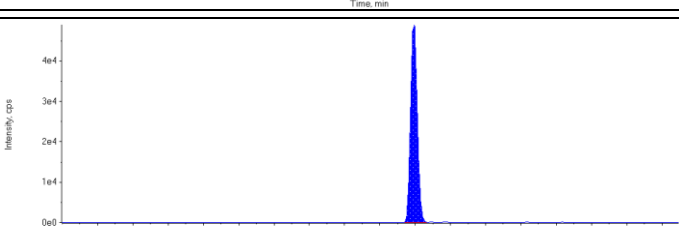
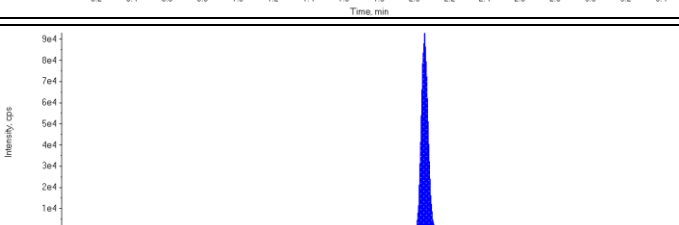
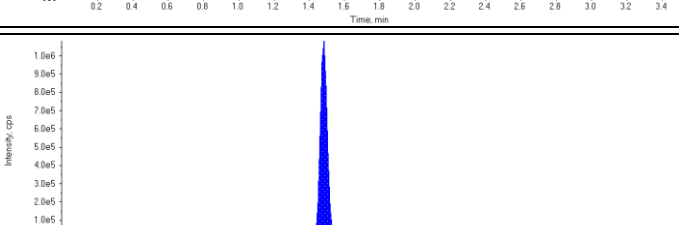
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.88) min</p> <p>Calculated Conc: 0.297 µg/L</p> <p>Area Ratio: 0.0212</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 0.260 µg/L</p> <p>Area Ratio: 0.0160</p> <p>Sample Type: (Unknown)</p>	

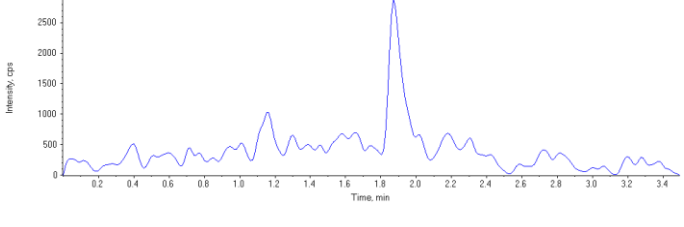
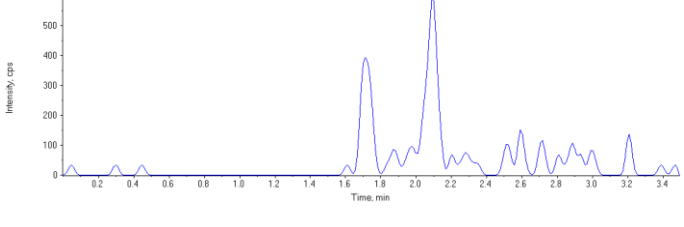
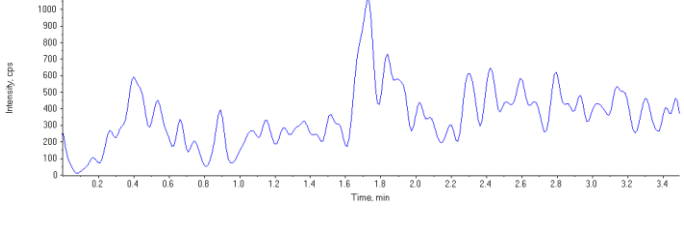
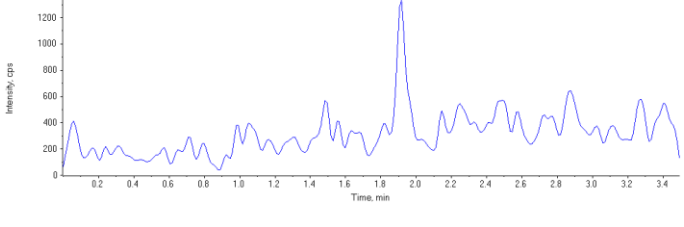
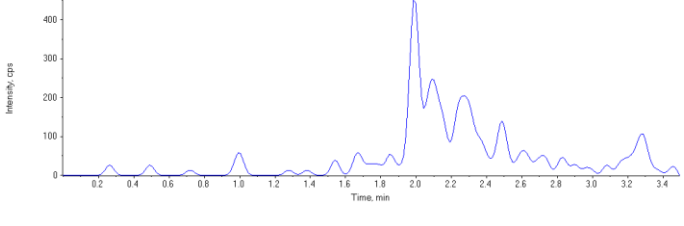
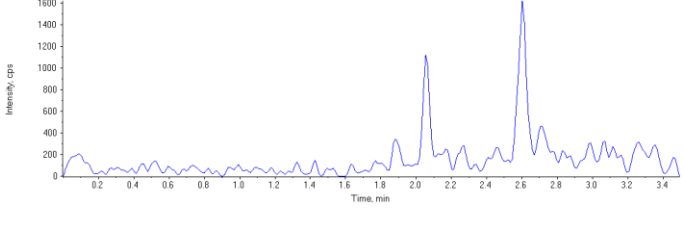
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 95.7 µg/L</p> <p>Area Ratio: 0.0352</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 95.5 µg/L</p> <p>Area Ratio: 0.118</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.114</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 113. µg/L</p> <p>Area Ratio: 0.0488</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 115. µg/L</p> <p>Area Ratio: 0.0845</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 73.2 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

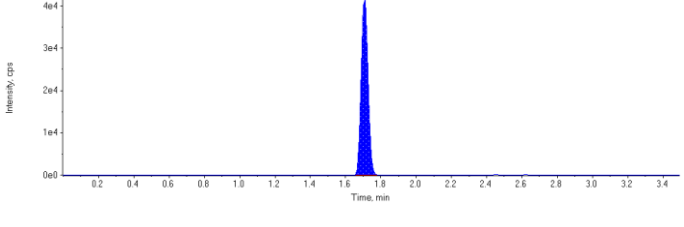
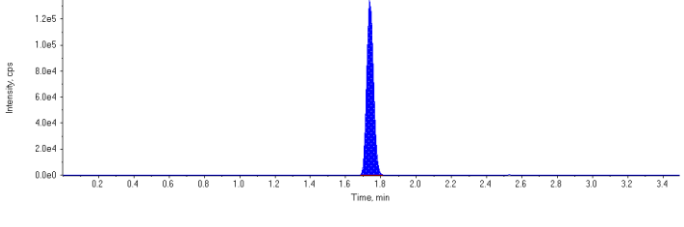
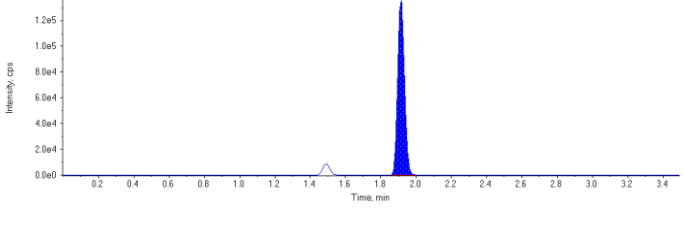
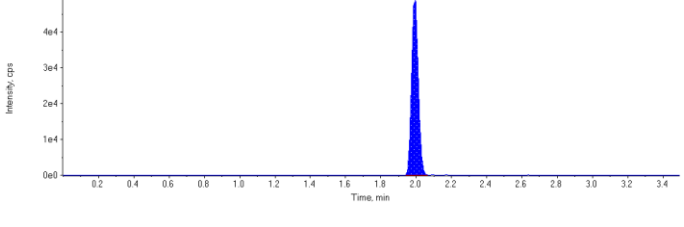
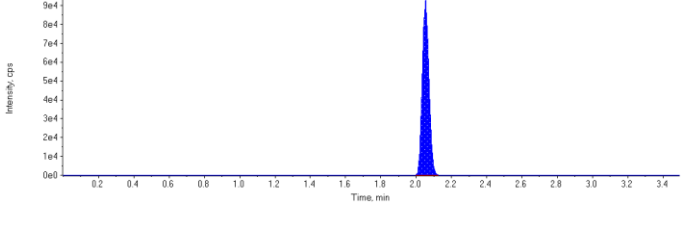
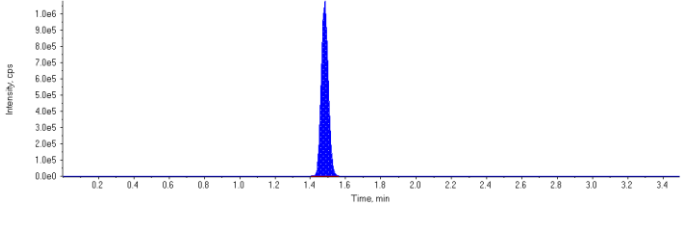
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Sample ID	4385924~BVX802-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:30:34 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	114000.	1.71	1.00	-
MPFHpA	361000.	1.74	1.00	-
MPFOA	363000.	1.91	1.00	-
MPFOS	130000.	1.99	1.00	-
MPFNA	246000.	2.05	1.00	-
13C6-PFHxA IS	3010000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	114000	1.71	N/A	103.	N/A
13C4-PFHpA	361000	1.74	N/A	97.1	N/A
13C4-PFOA	363000	1.91	N/A	112.	N/A
13C4-PFOS	130000	1.99	N/A	100.	N/A
13C5-PFNA	246000	2.05	N/A	111.	N/A
13C6-PFHxA	3010000	1.48	N/A	75.4	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

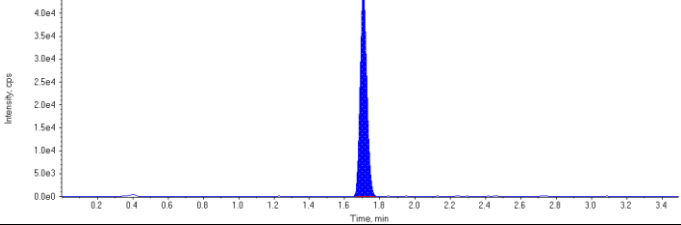
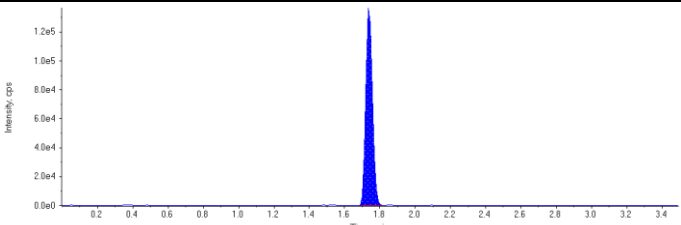
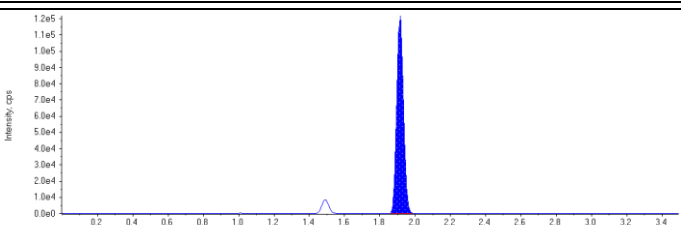
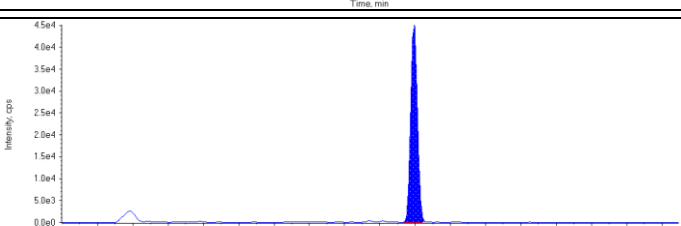
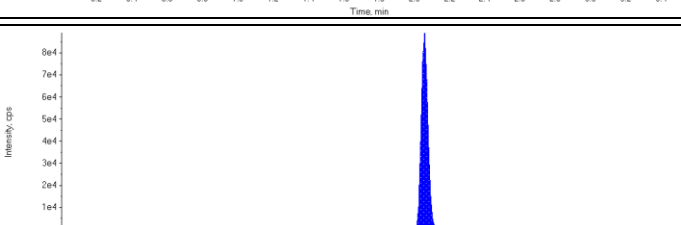
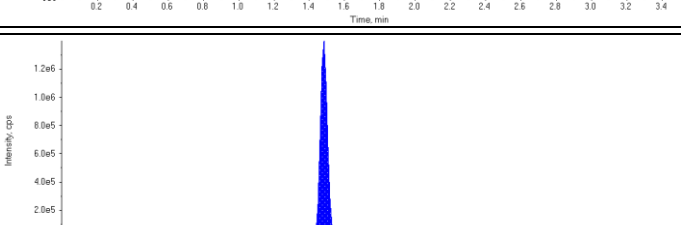
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

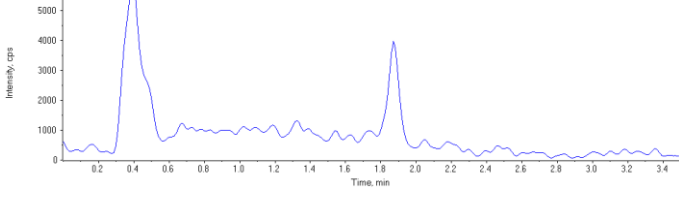
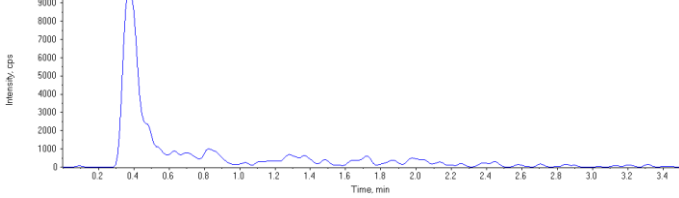
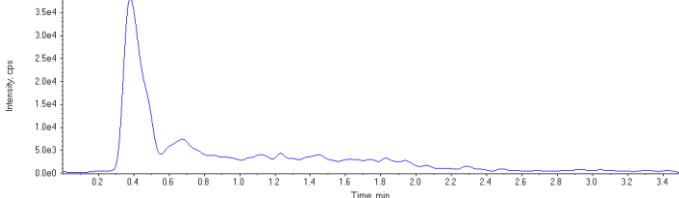
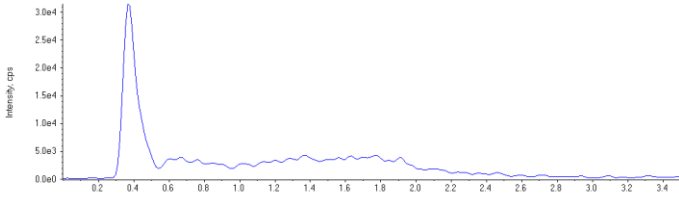
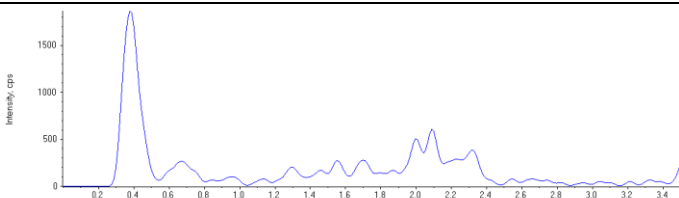
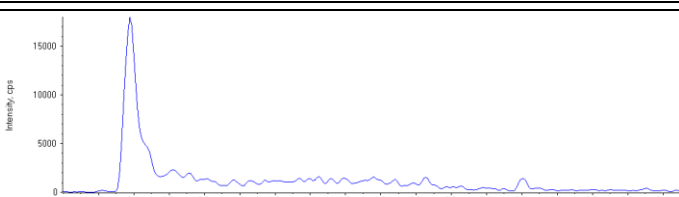
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.0378</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 97.1 µg/L</p> <p>Area Ratio: 0.120</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 112. µg/L</p> <p>Area Ratio: 0.121</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.0432</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.0817</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 75.4 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

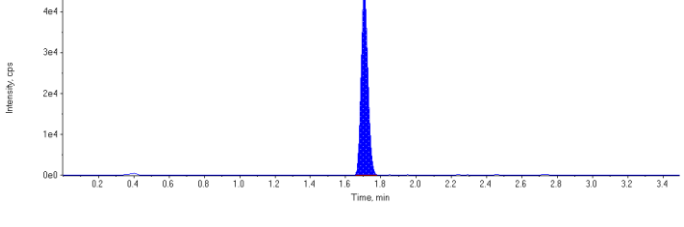
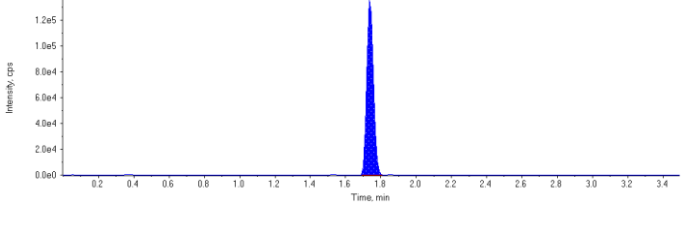
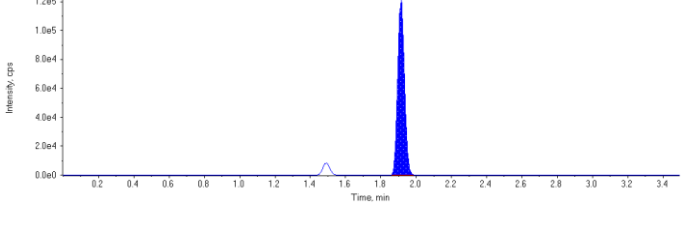
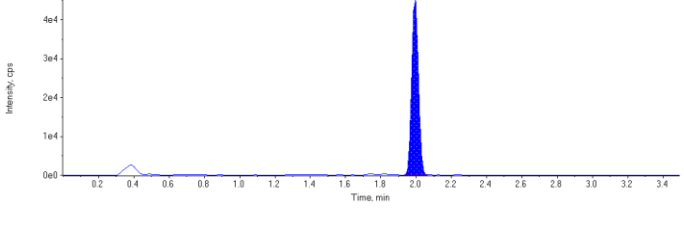
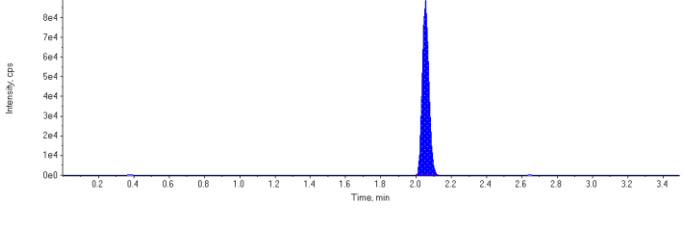
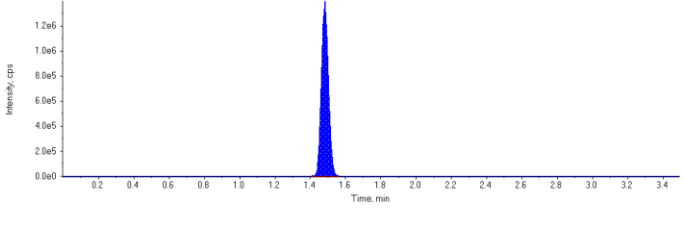
Sample Name	4385924~BVX803-01	Injection Vial	49
Sample ID	4385924~BVX803-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:35:39 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	119000.	1.71	1.00	-
MPFHpA	358000.	1.74	1.00	-
MPFOA	323000.	1.91	1.00	-
MPFOS	119000.	1.99	1.00	-
MPFNA	233000.	2.05	1.00	-
13C6-PFHxA IS	3920000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	119000	1.71	N/A	82.1	N/A
13C4-PFHpA	358000	1.74	N/A	73.7	N/A
13C4-PFOA	323000	1.91	N/A	76.4	N/A
13C4-PFOS	119000	1.99	N/A	70.5	N/A
13C5-PFNA	233000	2.05	N/A	80.7	N/A
13C6-PFHxA	3920000	1.48	N/A	98.3	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

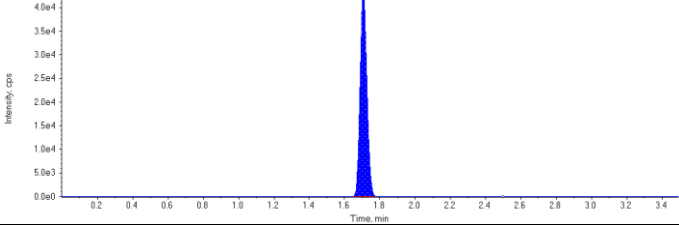
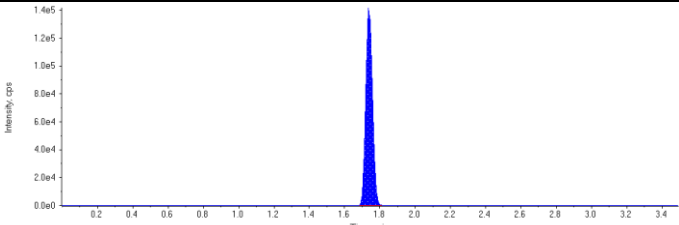
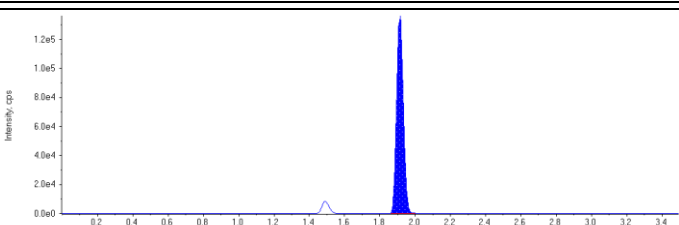
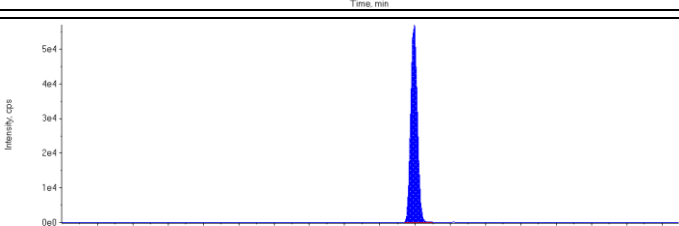
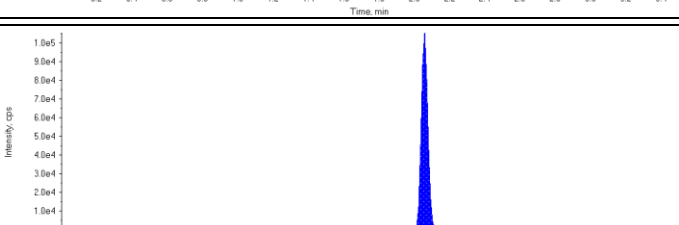
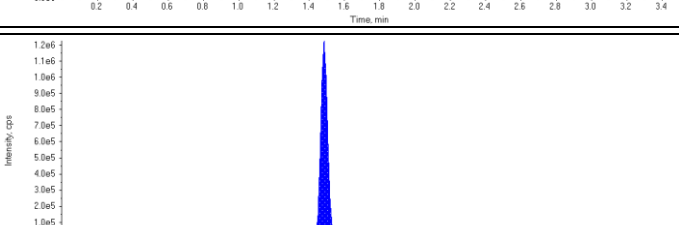
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

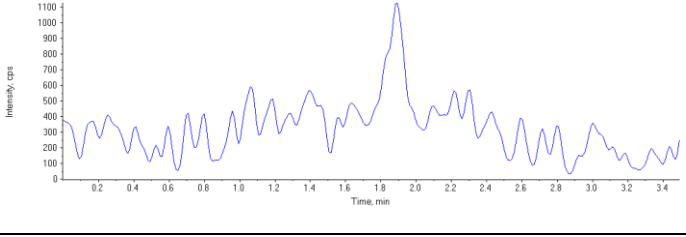
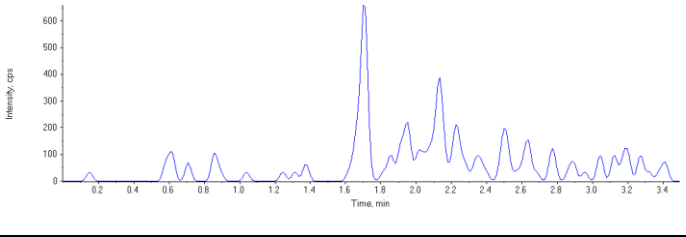
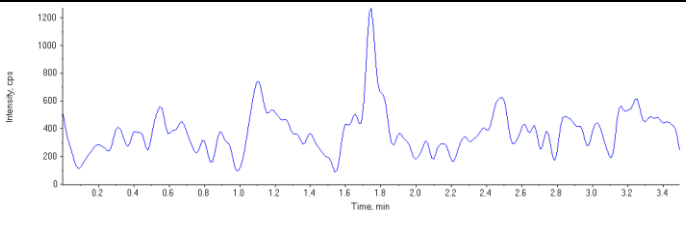
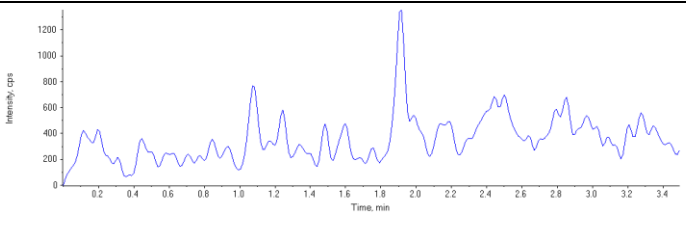
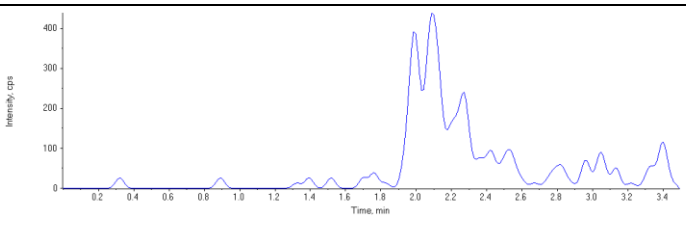
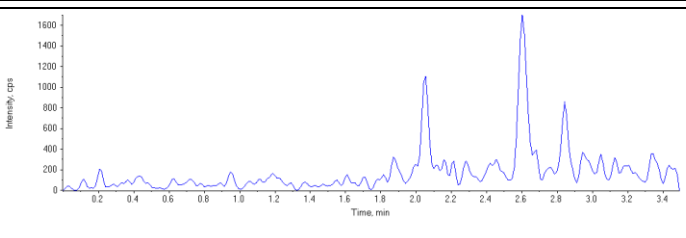
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 82.1 µg/L</p> <p>Area Ratio: 0.0302</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 73.7 µg/L</p> <p>Area Ratio: 0.0912</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 76.4 µg/L</p> <p>Area Ratio: 0.0824</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 70.5 µg/L</p> <p>Area Ratio: 0.0305</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 80.7 µg/L</p> <p>Area Ratio: 0.0594</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 98.3 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

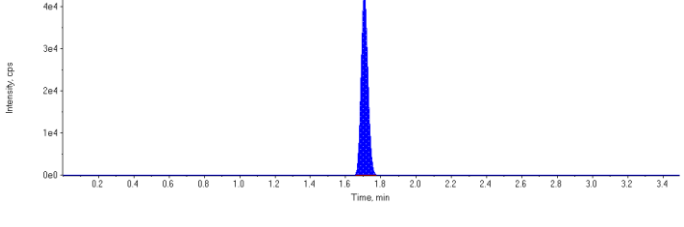
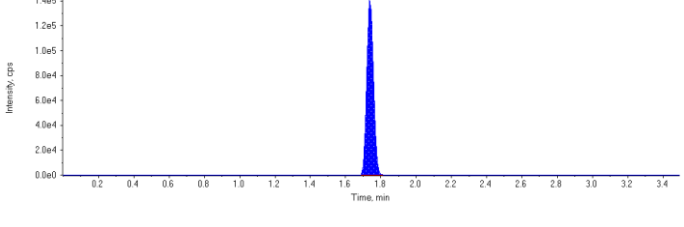
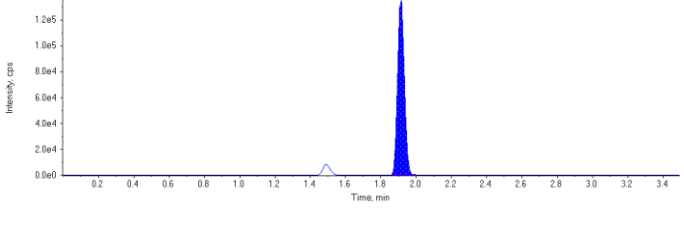
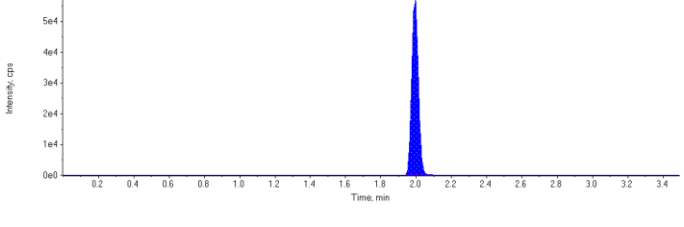
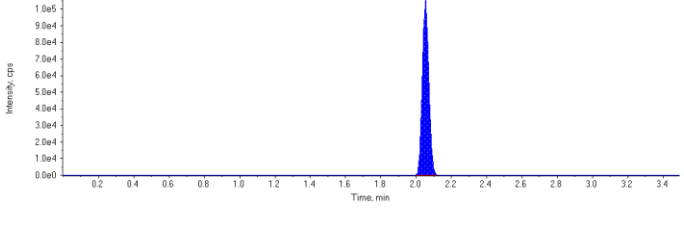
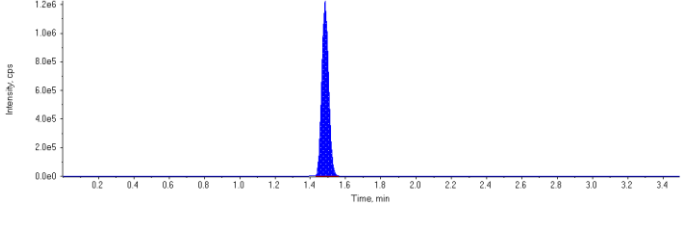
Sample Name	4385924~BVX804-01	Injection Vial	50
Sample ID	4385924~BVX804-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:40:44 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	114000.	1.71	1.00	-
MPFHpA	375000.	1.74	1.00	-
MPFOA	364000.	1.91	1.00	-
MPFOS	149000.	1.99	1.00	-
MPFNA	270000.	2.05	1.00	-
13C6-PFHxA IS	3270000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	114000	1.71	N/A	95.1	N/A
13C4-PFHpA	375000	1.74	N/A	92.7	N/A
13C4-PFOA	364000	1.91	N/A	103.	N/A
13C4-PFOS	149000	1.99	N/A	106.	N/A
13C5-PFNA	270000	2.05	N/A	112.	N/A
13C6-PFHxA	3270000	1.48	N/A	81.9	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

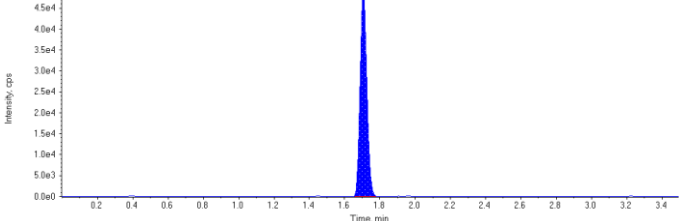
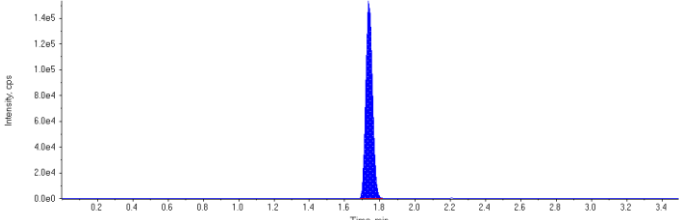
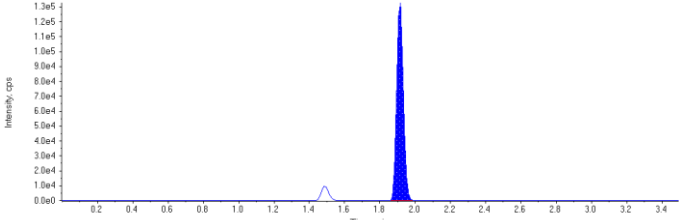
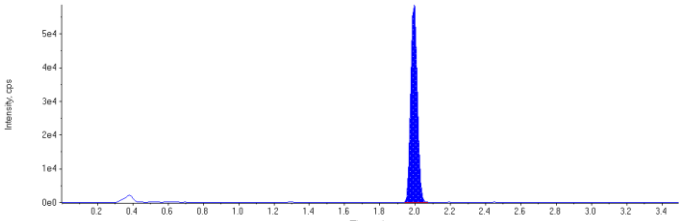
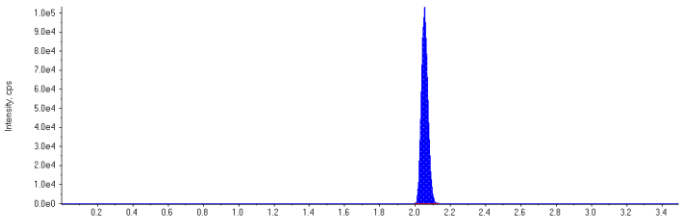
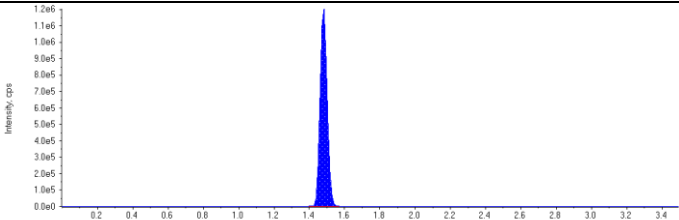
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

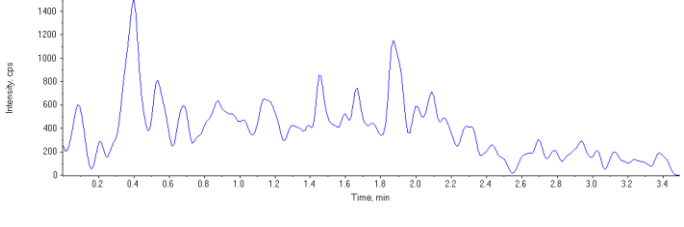
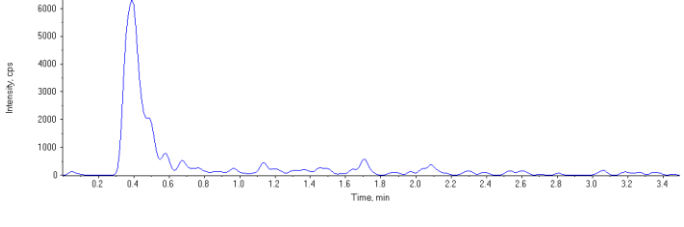
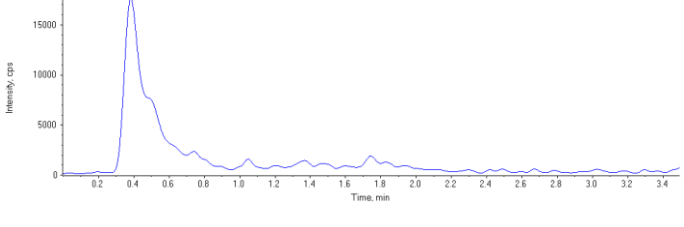
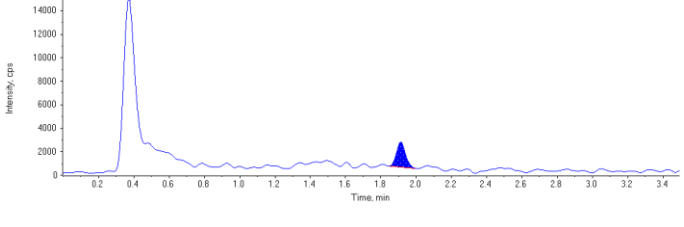
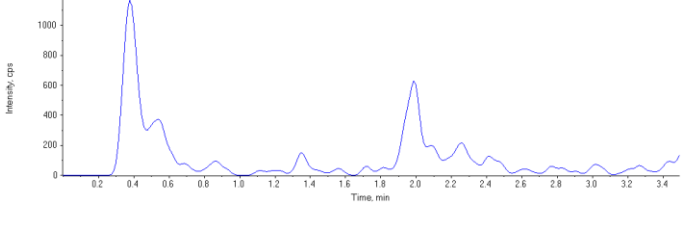
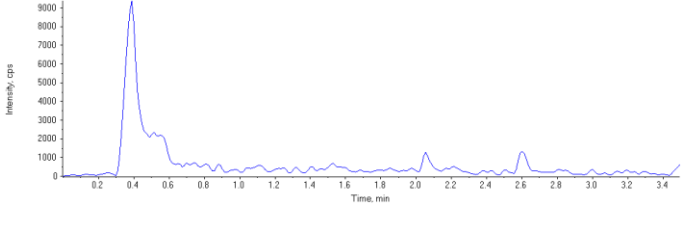
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 95.1 µg/L</p> <p>Area Ratio: 0.0350</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 92.7 µg/L</p> <p>Area Ratio: 0.115</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.111</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.0457</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 112. µg/L</p> <p>Area Ratio: 0.0828</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 81.9 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

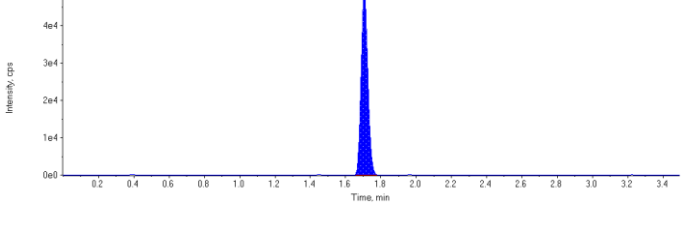
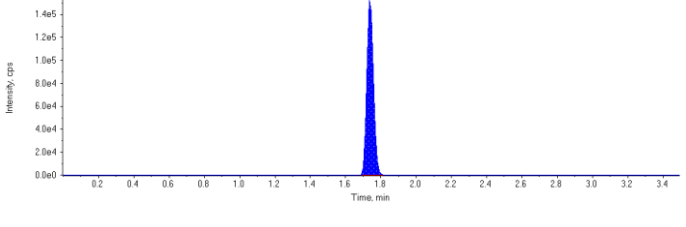
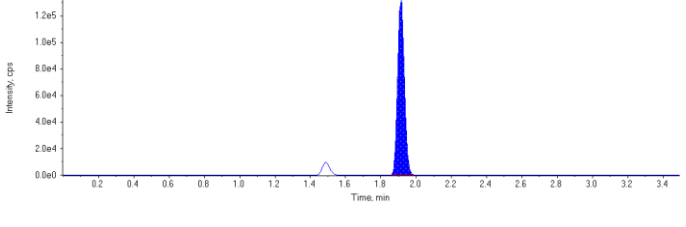
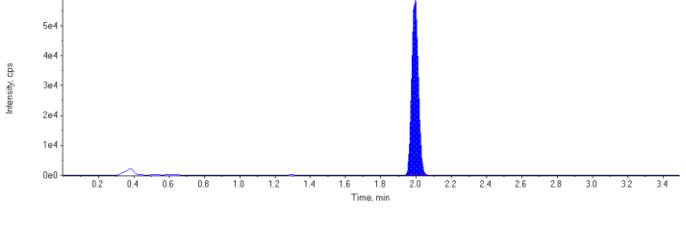
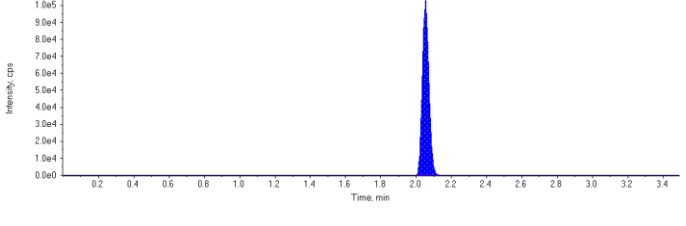
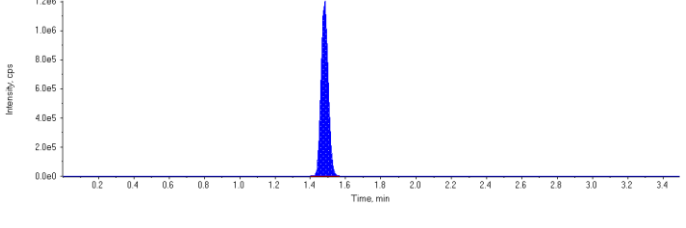
Sample Name	4385924~BVX805-01	Injection Vial	51
Sample ID	4385924~BVX805-01	Injection Volume (µL)	3
Sample Type	Unknown	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:45:48 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	129000.	1.71	1.00	-
MPFHpA	401000.	1.74	1.00	-
MPFOA	350000.	1.91	1.00	-
MPFOS	153000.	1.99	1.00	-
MPFNA	267000.	2.05	1.00	-
13C6-PFHxA IS	3400000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFOA 1	7610	1.91	N/A	0.300	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
18O2-PFHxS	129000	1.71	N/A	103.	N/A
13C4-PFHpA	401000	1.74	N/A	95.3	N/A
13C4-PFOA	350000	1.91	N/A	95.3	N/A
13C4-PFOS	153000	1.99	N/A	104.	N/A
13C5-PFNA	267000	2.05	N/A	107.	N/A
13C6-PFHxA	3400000	1.48	N/A	85.2	N/A

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Unknown)</p>	<p style="text-align: center;">This image is not available</p>

<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.88) min</p> <p>Calculated Conc: 0.300 µg/L</p> <p>Area Ratio: 0.0217</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.0379</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 95.3 µg/L</p> <p>Area Ratio: 0.118</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 95.3 µg/L</p> <p>Area Ratio: 0.103</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.0448</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.0785</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 85.2 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	



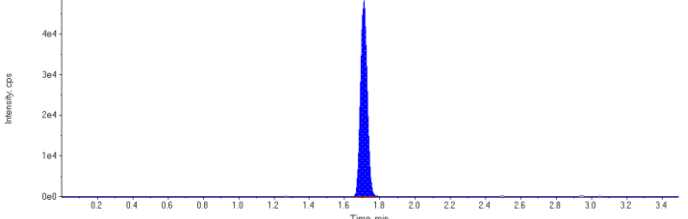
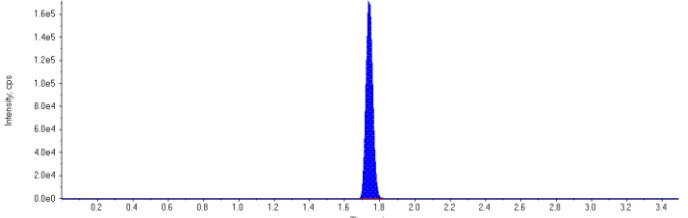
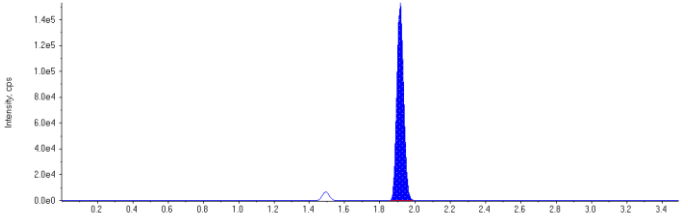
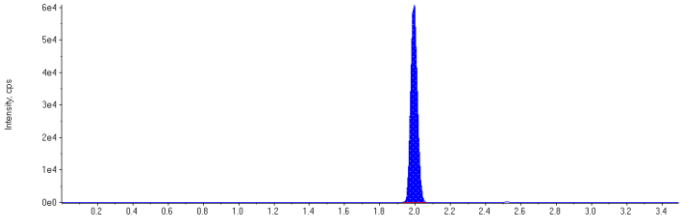
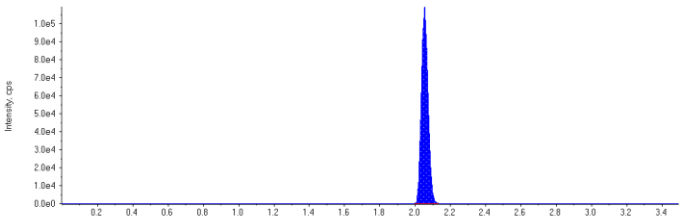
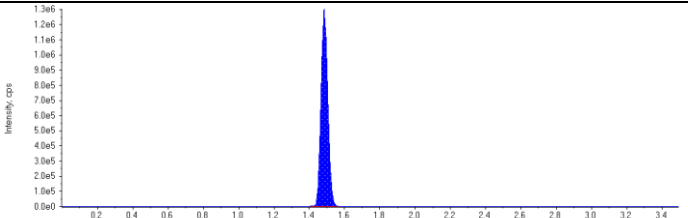
4. QA/QC Data

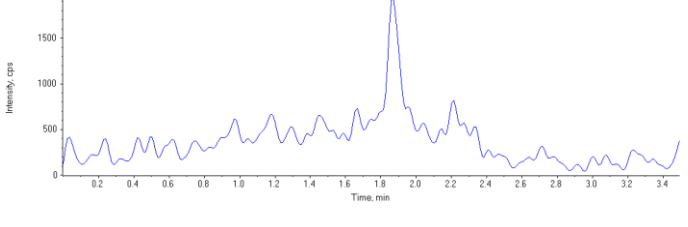
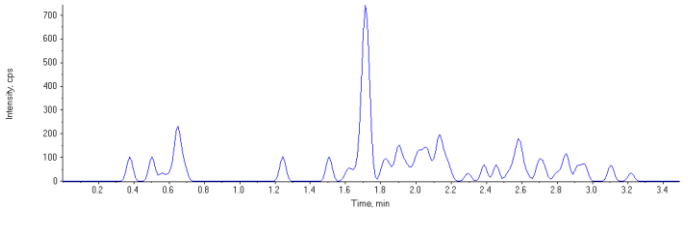
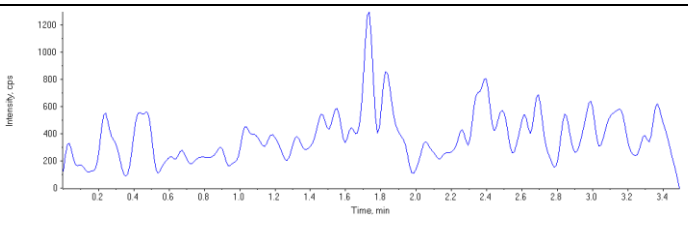
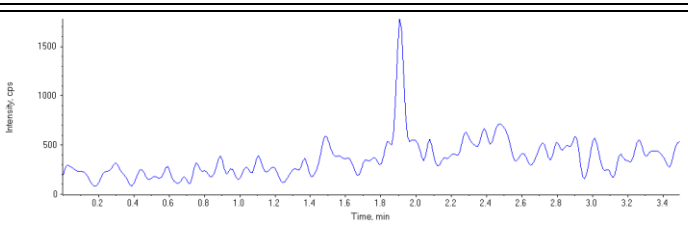
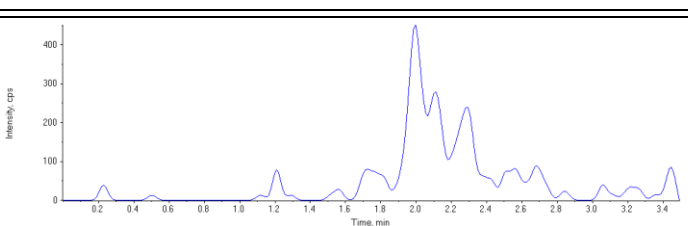
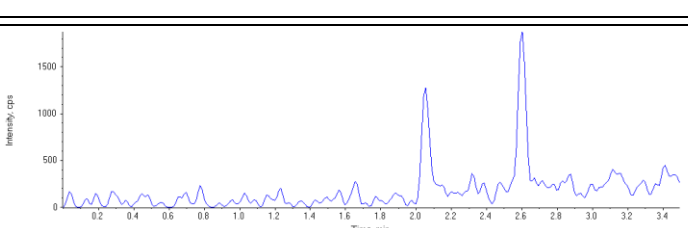
Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

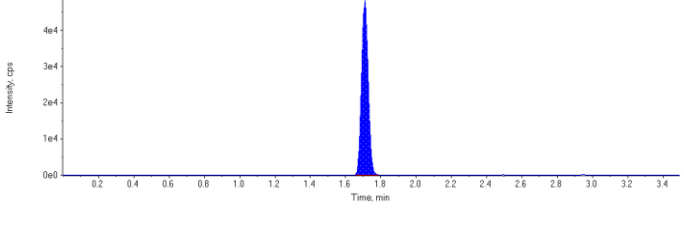
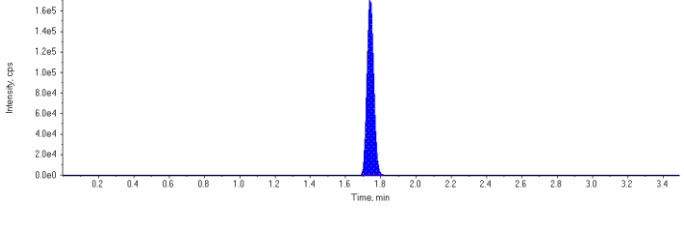
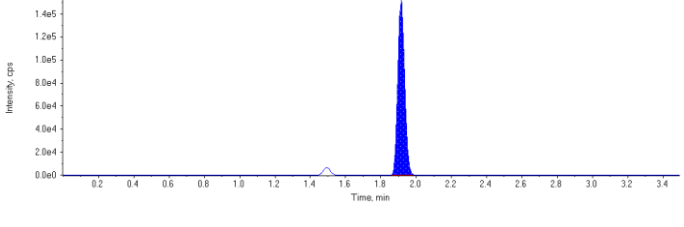
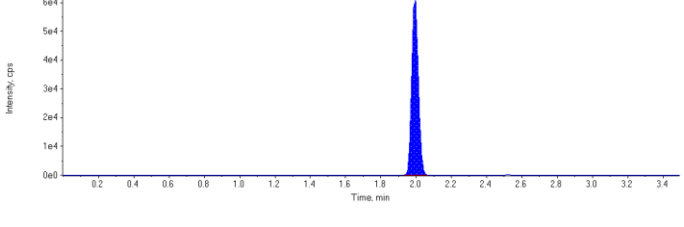
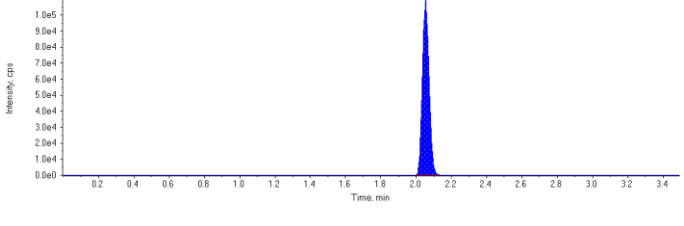
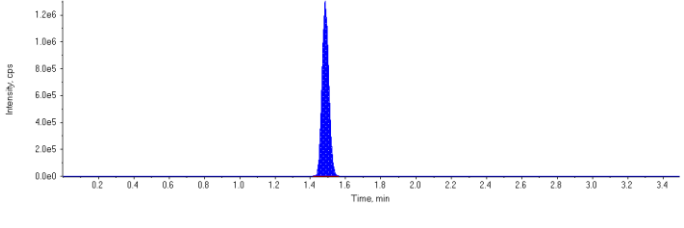
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Sample ID	4385924~BLANK	Injection Volume (µL)	3
Sample Type	Quality Control	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:09:00 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	127000.	1.71	1.00	-
MPFHpA	462000.	1.74	1.00	-
MPFOA	407000.	1.91	1.00	-
MPFOS	161000.	1.99	1.00	-
MPFNA	288000.	2.05	1.00	-
13C6-PFHxA IS	3500000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	0	0.00	0.00	N/A	0.0
PFHxS 1	0	0.00	0.00	N/A	0.0
PFHpA 1	0	0.00	0.00	N/A	0.0
PFOA 1	0	0.00	0.00	N/A	0.0
PFOS 1	0	0.00	0.00	N/A	0.0
PFNA 1	0	0.00	0.00	N/A	0.0
18O2-PFHxS	127000	1.71	100.	98.5	98.5
13C4-PFHpA	462000	1.74	100.	107.	107.0
13C4-PFOA	407000	1.91	100.	108.	108.0
13C4-PFOS	161000	1.99	100.	107.	107.0
13C5-PFNA	288000	2.05	100.	112.	112.0
13C6-PFHxA	3500000	1.48	100.	87.6	87.6

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Quality Control)</p>	<p style="text-align: center;">This image is not available</p>

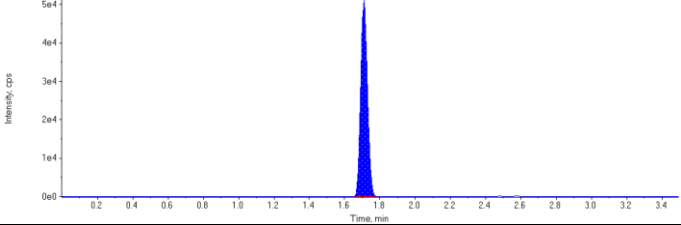
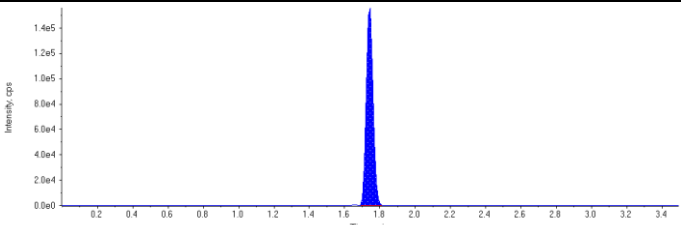
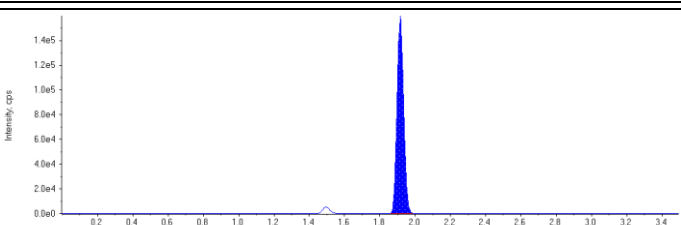
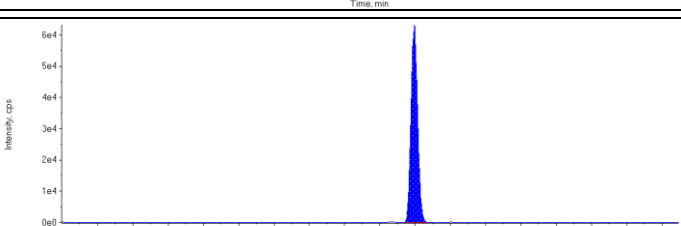
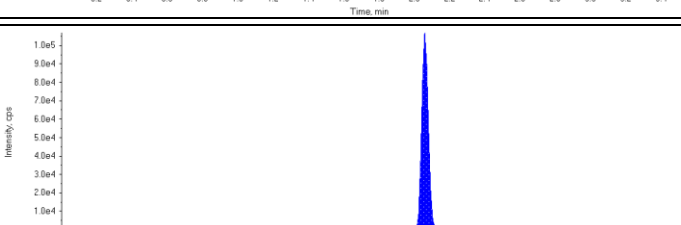
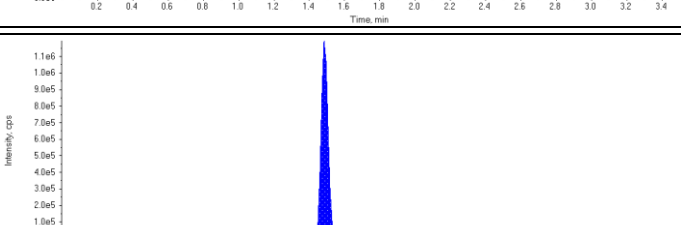
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.68) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.75) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.88) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.00) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.02) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

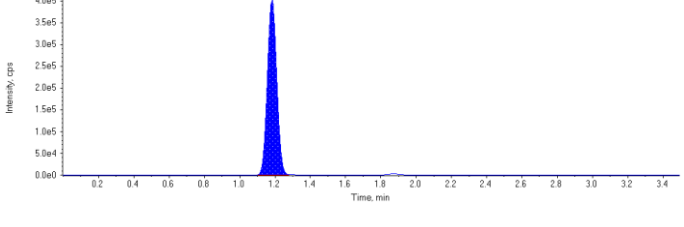
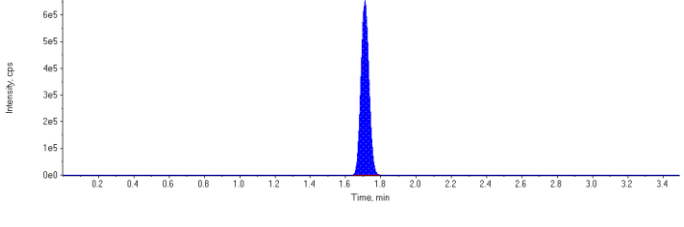
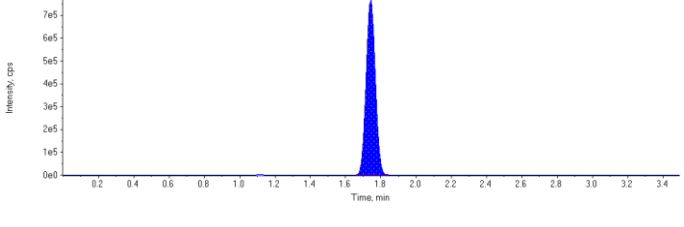
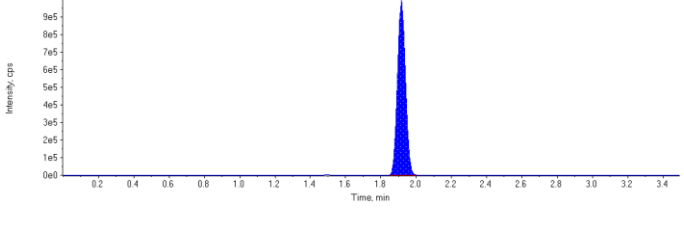
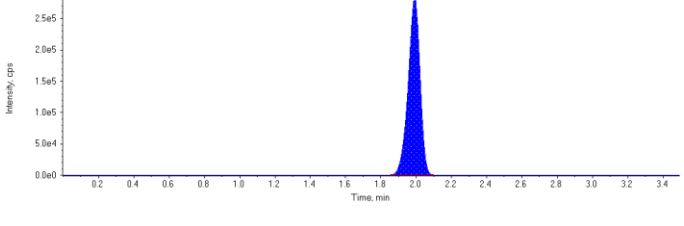
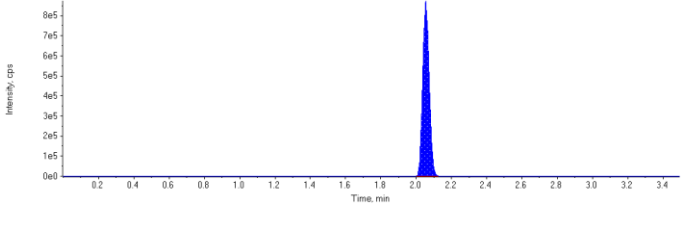
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 98.5 µg/L</p> <p>Area Ratio: 0.0363</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.132</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 108. µg/L</p> <p>Area Ratio: 0.116</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.0461</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 112. µg/L</p> <p>Area Ratio: 0.0824</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 87.6 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

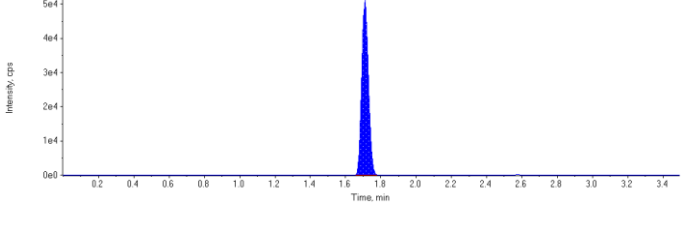
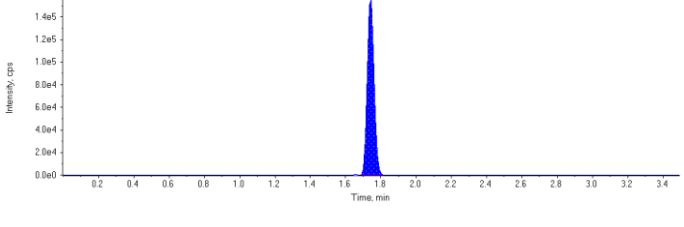
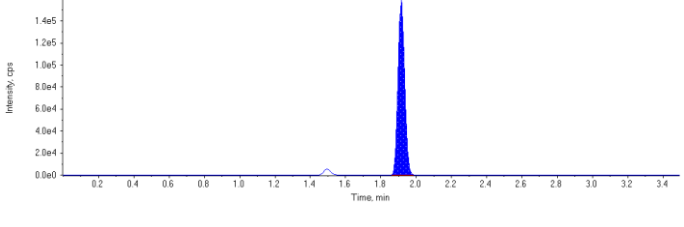
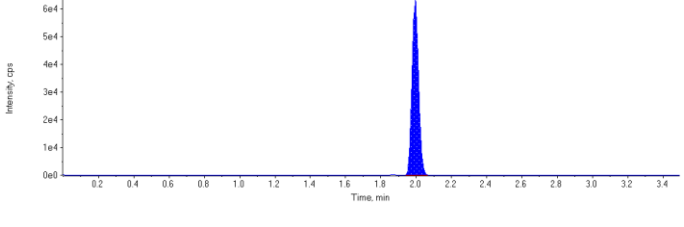
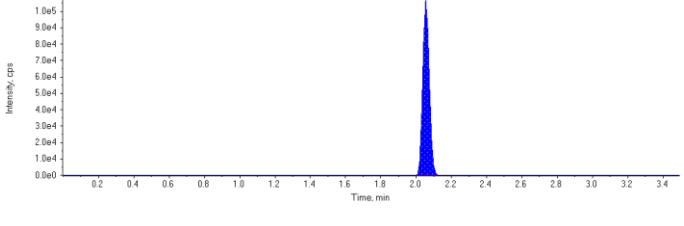
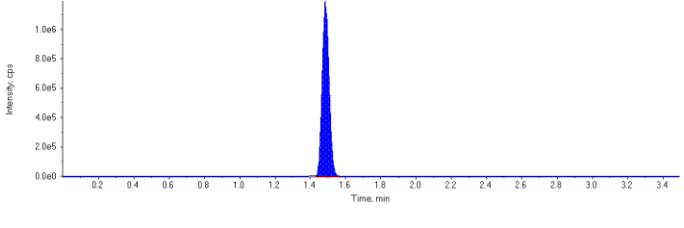
Sample Name	4385924~MTRX SPK	Injection Vial	34
Sample ID	4385924~MTRX SPK (BVX793)	Injection Volume (µL)	3
Sample Type	Quality Control	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:14:05 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	135000.	1.71	1.00	-
MPFHpA	421000.	1.74	1.00	-
MPFOA	413000.	1.92	1.00	-
MPFOS	163000.	1.99	1.00	-
MPFNA	276000.	2.06	1.00	-
13C6-PFHxA IS	3240000.	1.49	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	1480000	1.18	50.0	35.6	71.2
PFHxS 1	2060000	1.71	50.0	46.3	92.6
PFHpA 1	2800000	1.74	50.0	49.3	98.7
PFOA 1	3130000	1.92	50.0	46.0	92.0
PFOS 1	1320000	1.99	50.0	44.4	88.8
PFNA 1	2240000	2.06	50.0	49.0	98.0
18O2-PFHxS	135000	1.71	100.	113.	113.0
13C4-PFHpA	421000	1.74	100.	105.	105.0
13C4-PFOA	413000	1.92	100.	118.	118.0
13C4-PFOS	163000	1.99	100.	117.	117.0
13C5-PFNA	276000	2.06	100.	115.	115.0
13C6-PFHxA	3240000	1.49	100.	81.3	81.3

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.92(1.93) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.06(2.02) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.49(1.50) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Quality Control)</p>	<p style="text-align: center;">This image is not available</p>

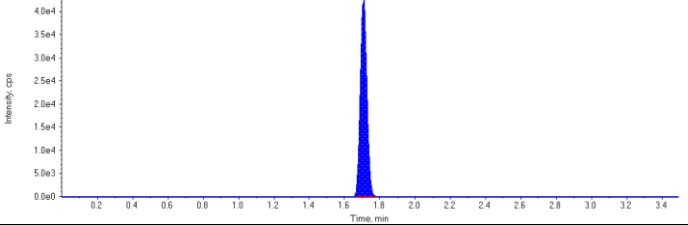
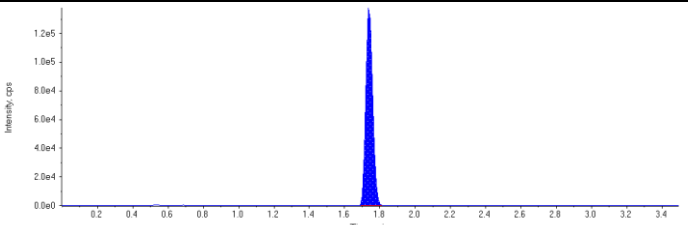
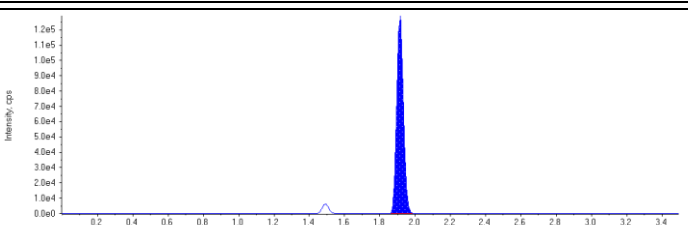
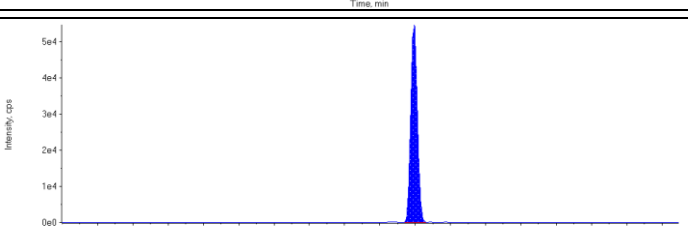
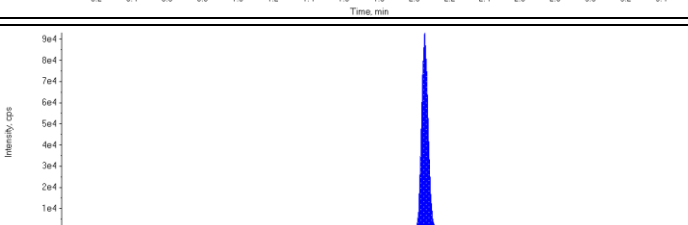
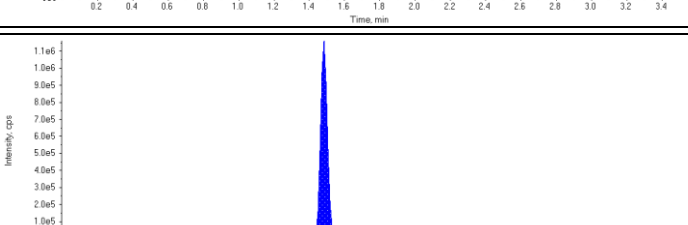
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.18 (1.16) min</p> <p>Calculated Conc: 35.6 µg/L</p> <p>Area Ratio: 10.9</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 46.3 µg/L</p> <p>Area Ratio: 15.2</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 49.3 µg/L</p> <p>Area Ratio: 6.63</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 46.0 µg/L</p> <p>Area Ratio: 7.57</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 44.4 µg/L</p> <p>Area Ratio: 8.05</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 49.0 µg/L</p> <p>Area Ratio: 8.13</p> <p>Sample Type: (Quality Control)</p>	

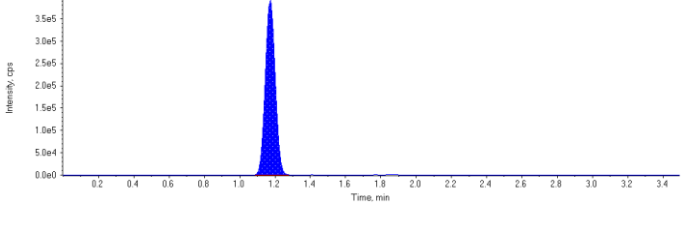
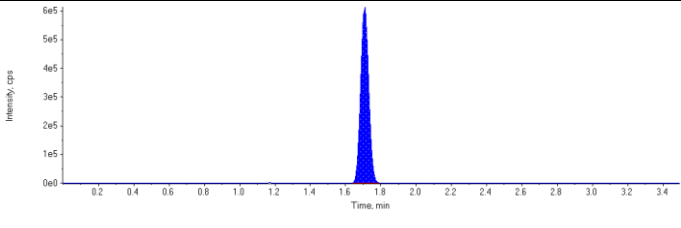
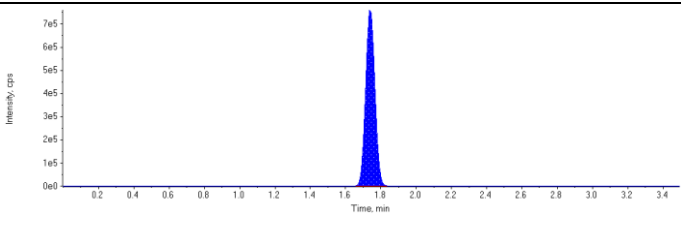
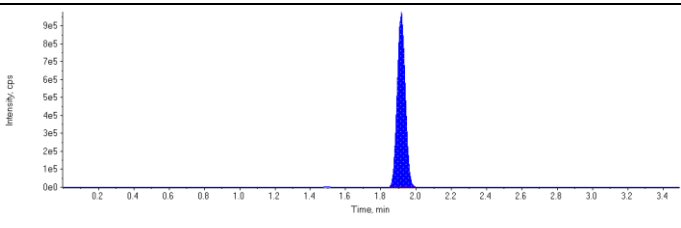
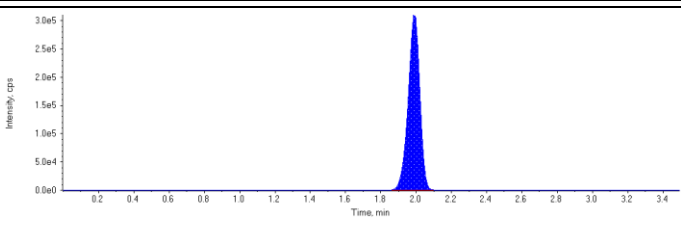
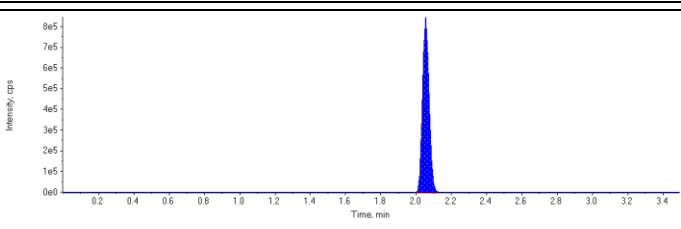
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 113. µg/L</p> <p>Area Ratio: 0.0418</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.130</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.93) min</p> <p>Calculated Conc: 118. µg/L</p> <p>Area Ratio: 0.127</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 117. µg/L</p> <p>Area Ratio: 0.0504</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 115. µg/L</p> <p>Area Ratio: 0.0850</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.49 (1.48) min</p> <p>Calculated Conc: 81.3 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

Sample Name	4385924~MTRX SPK:D1	Injection Vial	35
Sample ID	4385924~MTRX SPK:D1 (BVX793)	Injection Volume (µL)	3
Sample Type	Quality Control	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:19:11 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	113000.	1.71	1.00	-
MPFHpA	374000.	1.74	1.00	-
MPFOA	340000.	1.91	1.00	-
MPFOS	142000.	1.99	1.00	-
MPFNA	238000.	2.05	1.00	-
13C6-PFHxA IS	3140000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	1530000	1.17	50.0	44.0	88.0
PFHxS 1	1950000	1.71	50.0	52.7	105.0
PFHpA 1	2790000	1.74	50.0	55.5	111.0
PFOA 1	3080000	1.92	50.0	55.0	110.0
PFOS 1	1420000	1.99	50.0	55.2	110.0
PFNA 1	2180000	2.05	50.0	55.1	110.0
18O2-PFHxS	113000	1.71	100.	97.5	97.5
13C4-PFHpA	374000	1.74	100.	96.3	96.3
13C4-PFOA	340000	1.91	100.	100.	100.0
13C4-PFOS	142000	1.99	100.	105.	105.0
13C5-PFNA	238000	2.05	100.	103.	103.0
13C6-PFHxA	3140000	1.48	100.	78.6	78.6

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Quality Control)</p>	<p style="text-align: center;">This image is not available</p>

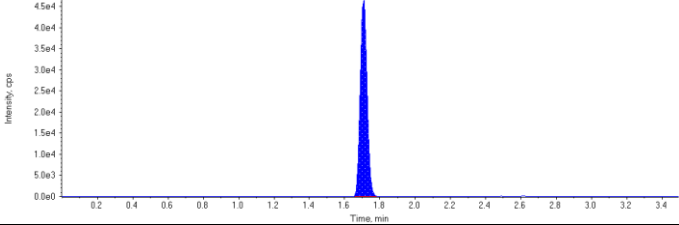
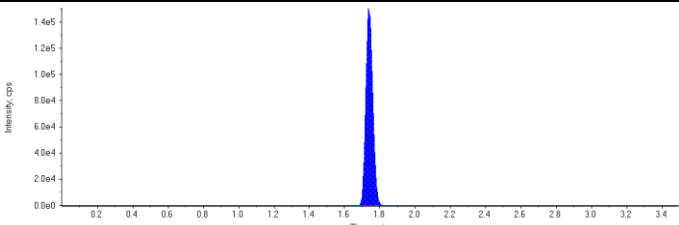
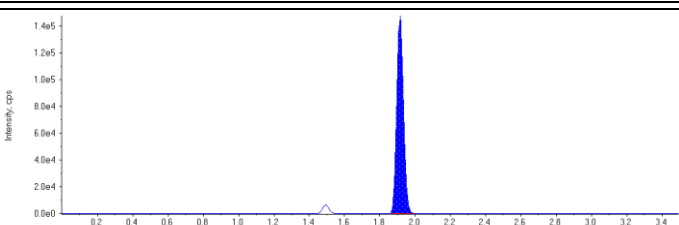
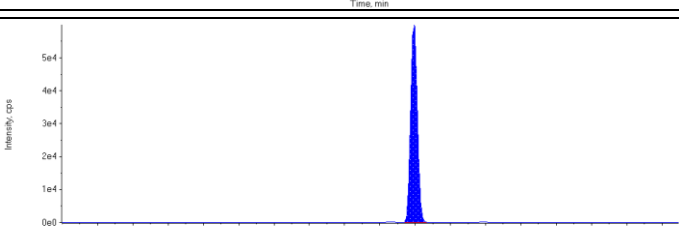
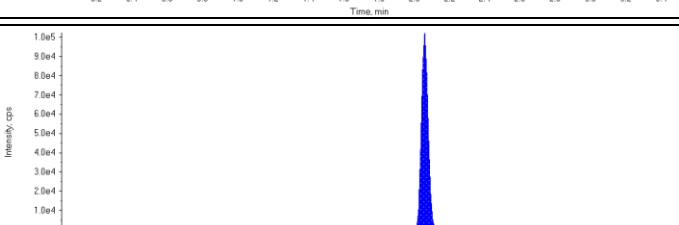
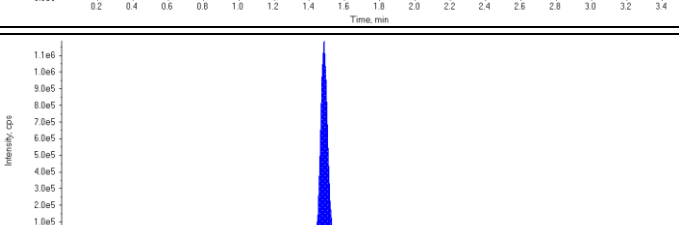
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.17 (1.16) min</p> <p>Calculated Conc: 44.0 µg/L</p> <p>Area Ratio: 13.6</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 52.7 µg/L</p> <p>Area Ratio: 17.3</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 55.5 µg/L</p> <p>Area Ratio: 7.47</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 55.0 µg/L</p> <p>Area Ratio: 9.06</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 55.2 µg/L</p> <p>Area Ratio: 10.0</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 55.1 µg/L</p> <p>Area Ratio: 9.15</p> <p>Sample Type: (Quality Control)</p>	

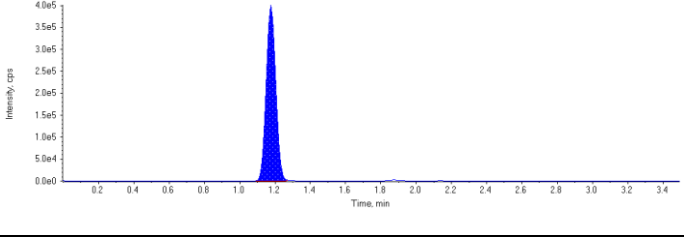
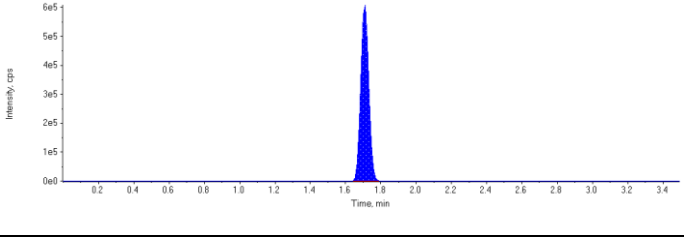
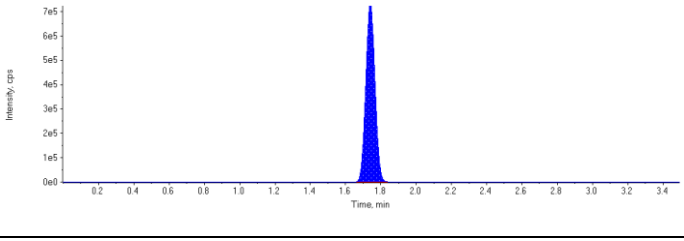
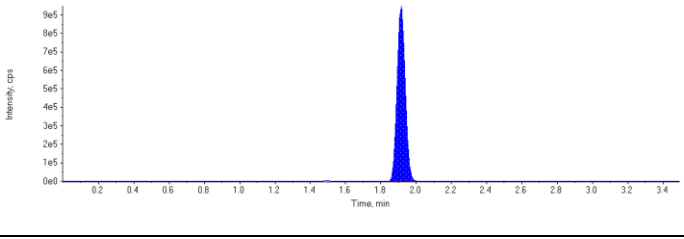
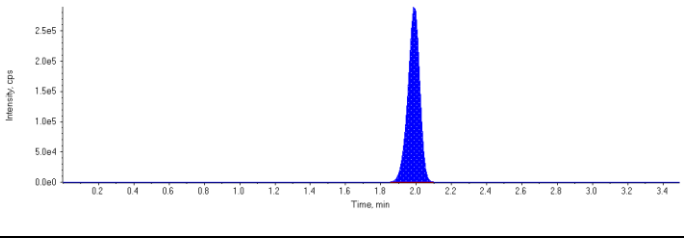
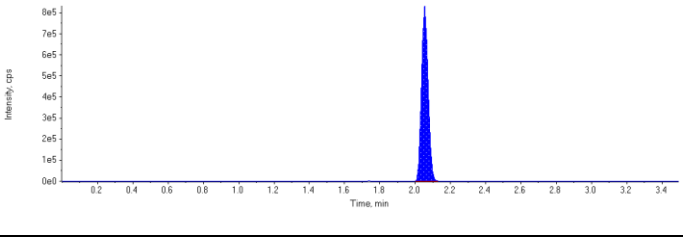
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 97.5 µg/L</p> <p>Area Ratio: 0.0359</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 96.3 µg/L</p> <p>Area Ratio: 0.119</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.108</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.0452</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.0759</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 78.6 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

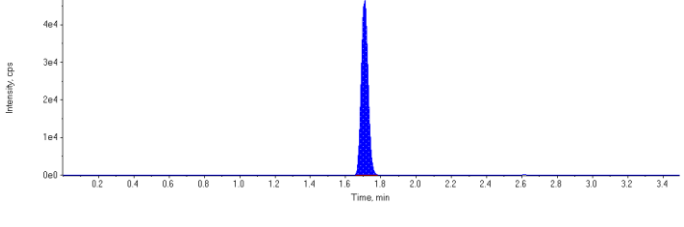
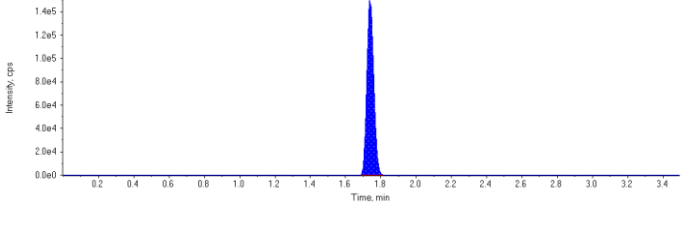
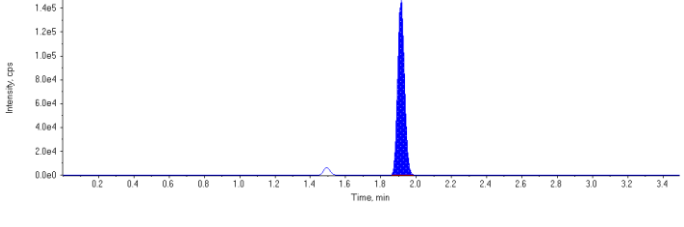
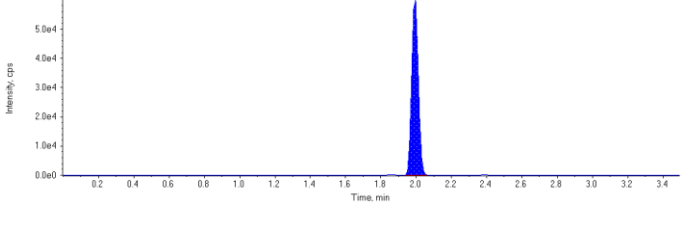
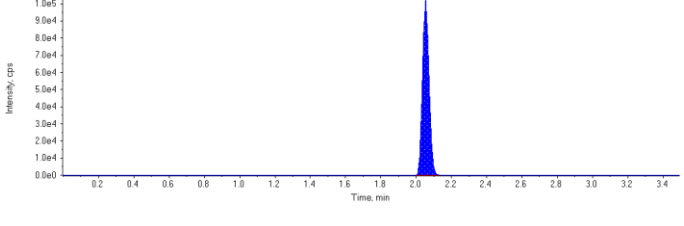
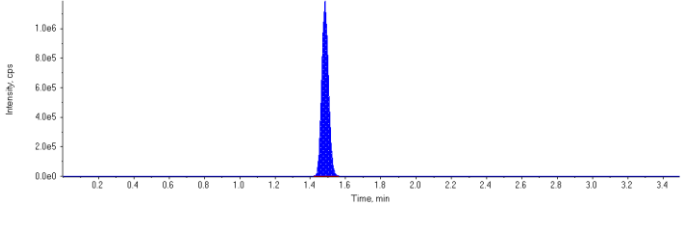
Sample Name	4385924~SPIKE	Injection Vial	36
Sample ID	4385924~SPIKE	Injection Volume (µL)	3
Sample Type	Quality Control	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 11:24:17 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	126000.	1.71	1.00	-
MPFHpA	409000.	1.74	1.00	-
MPFOA	393000.	1.91	1.00	-
MPFOS	158000.	1.99	1.00	-
MPFNA	266000.	2.05	1.00	-
13C6-PFHxA IS	3170000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	1500000	1.18	50.0	38.9	77.7
PFHxS 1	1930000	1.71	50.0	46.8	93.5
PFHpA 1	2680000	1.74	50.0	48.6	97.3
PFOA 1	3020000	1.91	50.0	46.7	93.4
PFOS 1	1350000	1.99	50.0	47.1	94.2
PFNA 1	2170000	2.05	50.0	49.2	98.5
18O2-PFHxS	126000	1.71	100.	108.	108.0
13C4-PFHpA	409000	1.74	100.	105.	105.0
13C4-PFOA	393000	1.91	100.	115.	115.0
13C4-PFOS	158000	1.99	100.	116.	116.0
13C5-PFNA	266000	2.05	100.	114.	114.0
13C6-PFHxA	3170000	1.48	100.	79.3	79.3

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Quality Control)</p>	<p style="text-align: center;">This image is not available</p>

<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.18 (1.16) min</p> <p>Calculated Conc: 38.9 µg/L</p> <p>Area Ratio: 12.0</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 46.8 µg/L</p> <p>Area Ratio: 15.3</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 48.6 µg/L</p> <p>Area Ratio: 6.54</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.88) min</p> <p>Calculated Conc: 46.7 µg/L</p> <p>Area Ratio: 7.69</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 47.1 µg/L</p> <p>Area Ratio: 8.54</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 49.2 µg/L</p> <p>Area Ratio: 8.18</p> <p>Sample Type: (Quality Control)</p>	

<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 108. µg/L</p> <p>Area Ratio: 0.0397</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.129</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 115. µg/L</p> <p>Area Ratio: 0.124</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 116. µg/L</p> <p>Area Ratio: 0.0501</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 114. µg/L</p> <p>Area Ratio: 0.0839</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 79.3 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

DoD Projects - Internal Data Validation Checklist				
Run date: 2016/02/19				
Worksheet #(s): 4385924				
Analysis: PFOS LOW - 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: <i>SW</i>		Date: 2016/02/22		
Comments: Sample BVX 947 extracted past hold time				
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: <i>ASL</i>		Date: 2016/02/22		
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 # 4385924 Testcode: PFOSLOW-n

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time		<input checked="" type="checkbox"/>	
2	Client sample ID verified against Lab ID (waters & oils)	<input checked="" type="checkbox"/>		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	<input checked="" type="checkbox"/>		
4	Height of sediment or if sample was decanted, recorded on worksheet	<input checked="" type="checkbox"/>		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	<input checked="" type="checkbox"/>		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	<input checked="" type="checkbox"/>		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	<input checked="" type="checkbox"/>		
8	If performed any additional dilution clearly recorded	<input checked="" type="checkbox"/>		
9	Matrix spike / Duplicate performed on IOL samples if present			<input checked="" type="checkbox"/>
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	<input checked="" type="checkbox"/>		
11	Spiking process witnessed and signed off	<input checked="" type="checkbox"/>		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			<input checked="" type="checkbox"/>
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			<input checked="" type="checkbox"/>
14	Job Remarks reviewed on 2nd page of worksheet.	<input checked="" type="checkbox"/>		
15	Worksheet and reagent tracking record completed and authorized.	<input checked="" type="checkbox"/>		

Reviewed by: [Signature] Date: 2016/02/18

Comments:
* Rewashed sample BVX947-0112 re-extracted past hold time. required 10x dilution.

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list	<input checked="" type="checkbox"/>		
2	Calibration and CCV standards valid (haven't expired)	<input checked="" type="checkbox"/>		
3	Initial calibration curve and DFTPP tune (if applicable) acceptable	<input checked="" type="checkbox"/>		
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable	<input checked="" type="checkbox"/>		
5	System performance check acceptable (if applicable)	<input checked="" type="checkbox"/>		
6	Internal standard responses acceptable	<input checked="" type="checkbox"/>		
7	Method blank meets acceptance criteria	<input checked="" type="checkbox"/>		
8	Lab Control Samples recoveries meets acceptance criteria	<input checked="" type="checkbox"/>		
9	Duplicate RPD meets acceptance criteria	<input checked="" type="checkbox"/>		
10	Matrix spike recoveries meets acceptance criteria	<input checked="" type="checkbox"/>		
11	Surrogate recoveries meets acceptance criteria	<input checked="" type="checkbox"/>		
12	Appropriate control charts updated			<input checked="" type="checkbox"/>
13	Samples above calibration range diluted and reanalyzed			<input checked="" type="checkbox"/>
14	Dilutions clearly documented on tracking record, inst file and verified during data upload	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
15	Samples following high level samples checked for carryover.			<input checked="" type="checkbox"/>
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			<input checked="" type="checkbox"/>
17	Analytical observations / anomalies documented			<input checked="" type="checkbox"/>
18	DQW comments entered in LIMS, hardcopy in file			<input checked="" type="checkbox"/>
19	Sample Prep section (above) reviewed and verified.			<input checked="" type="checkbox"/>
20	WS Approval performed in LIMS	<input checked="" type="checkbox"/>		

Reviewed by: [Signature] Date: 2016/02/22

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable	<input checked="" type="checkbox"/>		
2	Manual integrations verified			<input checked="" type="checkbox"/>
3	Random calculation checked	<input checked="" type="checkbox"/>		
4	Data and QC validated in LIMS	<input checked="" type="checkbox"/>		
5	Comments reviewed for appropriateness	<input checked="" type="checkbox"/>		
6	Reworks / relogs documented in file			<input checked="" type="checkbox"/>
7	Worksheet signed and dated,	<input checked="" type="checkbox"/>		
8	Worksheet approved and validated within LIMS	<input checked="" type="checkbox"/>		

Reviewed by: [Signature] Date: 2016/02/22

Comments:



RUSH

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Thursday, February 18, 2016

Assigned to : Melinda Molina

Test Code : PFOSLOW-W

Instrument Id:

Test Description : Low level PFOS and PFOA in water by LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	Moist ure	^{Pediment} % or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK 0		PFOSL BVX793-01		0	125	0.3	1X					2016/02/18
	MTRX SPK 1		PFOSL BVX793-01		0	125	0.3	1X					2016/02/18
	SPIKE		PFOSL		0	125	0.3	1X					2016/02/18
	BLANK				0	125	0.3	1X					2016/02/18
B630793*	*BVX792-01R		OF-RW20-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX793-01R		OF-FB20-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX794-01R		OF-RW55-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX795-01R		OF-FB55-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX796-01R		OF-RW54-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX797-01R		OF-FB54-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX798-01R		OF-RW68-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX799-01R		OF-FB68-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX800-01R		OF-RW30-0216	✓	0.1	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX801-01R		OF-FB30-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX802-01R		OF-FB69-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX803-01R		OF-RW69-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX804-01R		OF-FB26-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630793*	*BVX805-01R		OF-RW26-0216	✓	0	125	0.3	1X	1	2016/02/18	2016/02/23 17:00		2016/02/18
B630803	BVX947-01R				0.1	125	0.3	1X		2016/02/18	2016/02/23		

Melinda Molina
2016 02/18

Remarks:

B630803 (Sample BVX947-01R) : Reworked sample, up front 10x dilution required (initial volume: 125 ml)

Samples extracted by: Melinda Molina *mm* 2016 02/18

Instrumentation performed by: *CM*

Date: 2016/02/22

Calculations performed by: *on 2016/02/22 CM*

Date: 2016/02/22

Validated by: *M*

Date: 2016/02/22

Low level PFOS and PFOA in water - Water
ng/L

Parameter Name	Units	MTRX SPK	DL	MTRX SPK Dup1	DL	SPIKE	DL
Perfluorobutanoic acid	ng/L	N/A*****		N/A*****		N/A*****	
Perfluorobutane Sulfonate (PFBS)	ng/L	71.20000	2	88.00000	2	77.80000	2
Perfluorodecane Sulfonate	ng/L	N/A*****		N/A*****		N/A*****	
Perfluoroheptanoic Acid (PFHpA)	ng/L	98.60000	2	111.00000	2	97.20000	2
Perfluoroheptane sulfonate	ng/L	N/A*****		N/A*****		N/A*****	
Perfluorohexanoic Acid (PFHxA)	ng/L	N/A*****		N/A*****		N/A*****	
Perfluorohexane Sulfonate (PFHxS)	ng/L	92.60000	2	105.40000	2	93.60000	2
Perfluorononanoic Acid (PFNA)	ng/L	98.00000	2	110.20000	2	98.40000	2
Perfluoropentanoic Acid (PFPeA)	ng/L	N/A*****		N/A*****		N/A*****	
Perfluorotetradecanoic Acid	ng/L	N/A*****		N/A*****		N/A*****	
Perfluorotridecanoic Acid	ng/L	N/A*****		N/A*****		N/A*****	
Perfluoroundecanoic Acid (PFUnA)	ng/L	N/A*****		N/A*****		N/A*****	
Perfluorodecanoic Acid (PFDA)	ng/L	N/A*****		N/A*****		N/A*****	
Perfluorododecanoic Acid (PFDoA)	ng/L	N/A*****		N/A*****		N/A*****	
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	92.00000	2	110.00000	2	93.40000	2
Perfluorooctane Sulfonate (PFOS)	ng/L	88.80000	2	110.40000	2	94.20000	2
13C2-perfluorotetradecanoic acid	ng/L	N/A*****		N/A*****		N/A*****	
13C4-Perfluorobutanoic acid	ng/L	N/A*****		N/A*****		N/A*****	
13C5-Perfluorononanoic acid	ng/L	115.		103.		114.	
13C2-Perfluorodecanoic acid	ng/L	N/A*****		N/A*****		N/A*****	
13C2-Perfluorododecanoic acid	ng/L	N/A*****		N/A*****		N/A*****	
13C2-Perfluorohexanoic acid	ng/L	N/A*****		N/A*****		N/A*****	
13C2-Perfluoroundecanoic acid	ng/L	N/A*****		N/A*****		N/A*****	
13C4-Perfluoroheptanoic acid	ng/L	105.		96.3		105.	
13C4-Perfluorooctanoic acid	ng/L	118.		100.		115.	
13C4-Perfluorooctanesulfonate	ng/L	117.		105.		116.	
13C5-Perfluoropentanoic acid	ng/L	N/A*****		N/A*****		N/A*****	
18O2-Perfluorohexanesulfonate	ng/L	113.		97.5		108.	

Parameter Name	BLANK	DL	B630793 BVX792	DL	B630793 BVX793	DL	B630793 BVX794
Perfluorobutanoic acid	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluorobutane Sulfonate (PFBS)	0	2	0	2	0	2	0
Perfluorodecane Sulfonate	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluoroheptanoic Acid (PFHpA)	0	2	0	2	0	2	0
Perfluoroheptane sulfonate	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluorohexanoic Acid (PFHxA)	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluorohexane Sulfonate (PFHxS)	0	2	0	2	0	2	0
Perfluorononanoic Acid (PFNA)	0	2	0	2	0	2	0.26500
Perfluoropentanoic Acid (PFPeA)	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluorotetradecanoic Acid	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluorotridecanoic Acid	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluoroundecanoic Acid (PFUnA)	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluorodecanoic Acid (PFDA)	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluorododecanoic Acid (PFDoA)	N/A*****		N/A*****	2	N/A*****	2	N/A*****
Perfluoro-n-Octanoic Acid (PFOA)	0	2	0	2	0	2	0
Perfluorooctane Sulfonate (PFOS)	0	2	0	2	0	2	0
13C2-perfluorotetradecanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C4-Perfluorobutanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C5-Perfluorononanoic acid	112.		79.2		115.		82.2
13C2-Perfluorodecanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C2-Perfluorododecanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C2-Perfluorohexanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C2-Perfluoroundecanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C4-Perfluoroheptanoic acid	107.		66.6		92.7		61.3
13C4-Perfluorooctanoic acid	108.		69.8		104.		73.4
13C4-Perfluorooctanesulfonate	107.		72.2		102.		70.4
13C5-Perfluoropentanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
18O2-Perfluorohexanesulfonate	98.5		78.9		98.4		74.7

Low level PFOS and PFOA in water - Water
ng/L

Parameter Name	DL	B630793 BVX795	DL	B630793 BVX796	DL	B630793 BVX797	DL
Perfluorobutanoic acid	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorobutane Sulfonate (PFBS)	2	0	2	0	2	0	2
Perfluorodecane Sulfonate	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluoroheptanoic Acid (PFHpA)	2	0	2	0	2	0	2
Perfluoroheptane sulfonate	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorohexanoic Acid (PFHxA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorohexane Sulfonate (PFHxS)	2	0	2	0	2	0	2
Perfluorononanoic Acid (PFNA)	2	0	2	0.23700	2	0	2
Perfluoropentanoic Acid (PFPeA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorotetradecanoic Acid	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorotridecanoic Acid	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluoroundecanoic Acid (PFUnA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorodecanoic Acid (PFDA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorododecanoic Acid (PFDoA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluoro-n-Octanoic Acid (PFOA)	2	0	2	0	2	0	2
Perfluorooctane Sulfonate (PFOS)	2	0	2	0	2	0	2
13C2-perfluorotetradecanoic acid		N/A*****		N/A*****		N/A*****	
13C4-Perfluorobutanoic acid		N/A*****		N/A*****		N/A*****	
13C5-Perfluorononanoic acid		116.		83.1		116.	
13C2-Perfluorodecanoic acid		N/A*****		N/A*****		N/A*****	
13C2-Perfluorododecanoic acid		N/A*****		N/A*****		N/A*****	
13C2-Perfluorohexanoic acid		N/A*****		N/A*****		N/A*****	
13C2-Perfluoroundecanoic acid		N/A*****		N/A*****		N/A*****	
13C4-Perfluoroheptanoic acid		100.		71.8		95.9	
13C4-Perfluorooctanoic acid		104.		80.9		99.9	
13C4-Perfluorooctanesulfonate		111.		78.5		108.	
13C5-Perfluoropentanoic acid		N/A*****		N/A*****		N/A*****	
18O2-Perfluorohexanesulfonate		90.1		74.4		94.3	

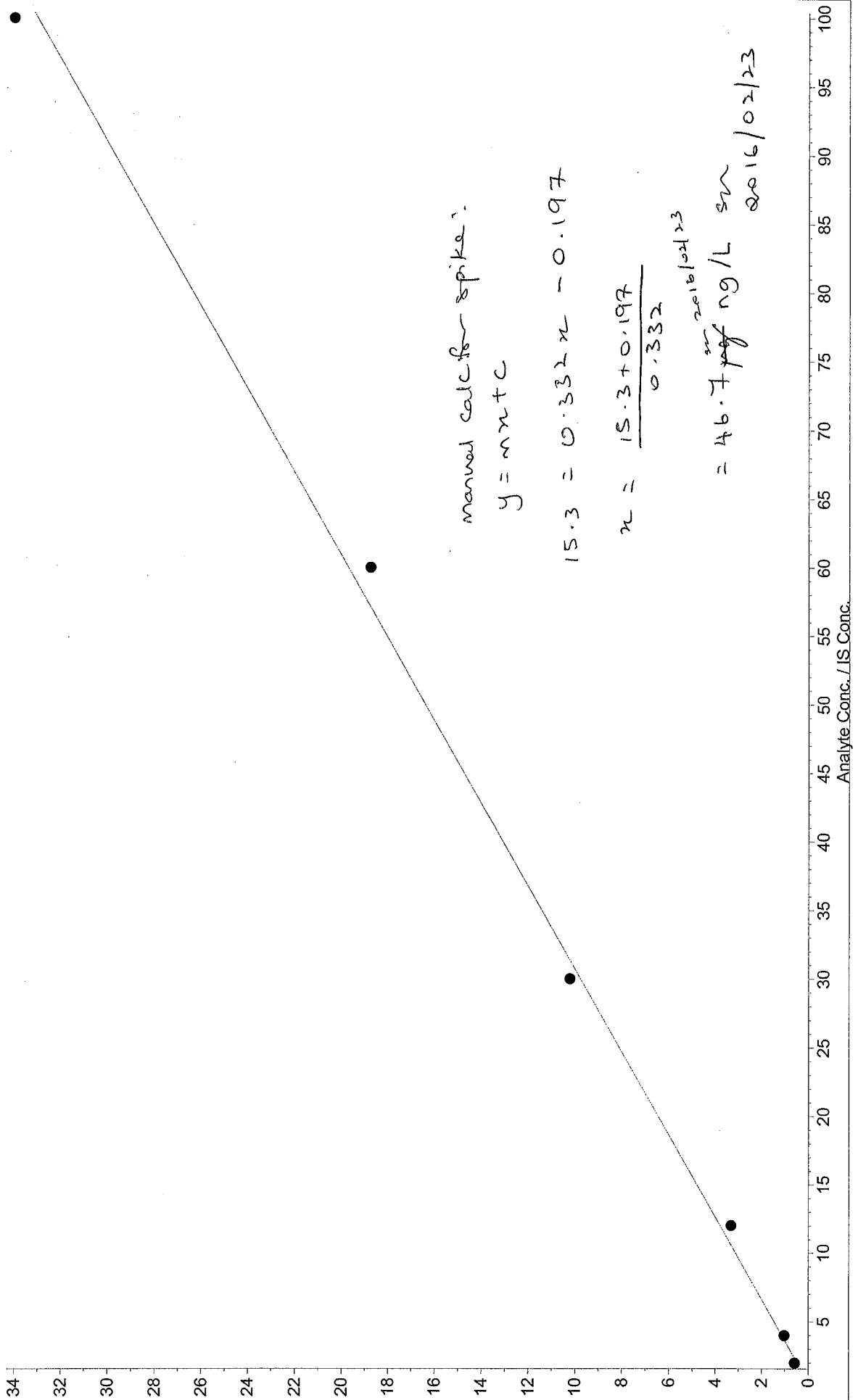
Parameter Name	B630793 BVX798	DL	B630793 BVX799	DL	B630793 BVX800	DL	B630793 BVX801
Perfluorobutanoic acid	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluorobutane Sulfonate (PFBS)	0	2	0	2	0	2	0
Perfluorodecane Sulfonate	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluoroheptanoic Acid (PFHpA)	0	2	0	2	0	2	0
Perfluoroheptane sulfonate	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluorohexanoic Acid (PFHxA)	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluorohexane Sulfonate (PFHxS)	0	2	0	2	0	2	0
Perfluorononanoic Acid (PFNA)	0.24800	2	0	2	0	2	0.26000
Perfluoropentanoic Acid (PFPeA)	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluorotetradecanoic Acid	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluorotridecanoic Acid	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluoroundecanoic Acid (PFUnA)	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluorodecanoic Acid (PFDA)	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluorododecanoic Acid (PFDoA)	N/A*****	2	N/A*****	2	N/A*****	2	N/A*****
Perfluoro-n-Octanoic Acid (PFOA)	0.40700	2	0	2	0	2	0.29700
Perfluorooctane Sulfonate (PFOS)	0	2	0	2	0	2	0
13C2-perfluorotetradecanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C4-Perfluorobutanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C5-Perfluorononanoic acid	82.9		106.		80.7		115.
13C2-Perfluorodecanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C2-Perfluorododecanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C2-Perfluorohexanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C2-Perfluoroundecanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
13C4-Perfluoroheptanoic acid	69.6		87.1		73.7		95.5
13C4-Perfluorooctanoic acid	72.9		102.		77.2		106.
13C4-Perfluorooctanesulfonate	67.3		102.		74.0		113.
13C5-Perfluoropentanoic acid	N/A*****		N/A*****		N/A*****		N/A*****
18O2-Perfluorohexanesulfonate	70.7		96.8		81.8		95.7

Low level PFOS and PFOA in water - Water
ng/L

Parameter Name	DL	B630793 BVX802	DL	B630793 BVX803	DL	B630793 BVX804	DL
Perfluorobutanoic acid	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorobutane Sulfonate (PFBS)	2	0	2	0	2	0	2
Perfluorodecane Sulfonate	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluoroheptanoic Acid (PFHpA)	2	0	2	0	2	0	2
Perfluoroheptane sulfonate	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorohexanoic Acid (PFHxA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorohexane Sulfonate (PFHxS)	2	0	2	0	2	0	2
Perfluorononanoic Acid (PFNA)	2	0	2	0	2	0	2
Perfluoropentanoic Acid (PFPeA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorotetradecanoic Acid	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorotridecanoic Acid	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluoroundecanoic Acid (PFUnA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorodecanoic Acid (PFDA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluorododecanoic Acid (PFDoA)	2	N/A*****	2	N/A*****	2	N/A*****	2
Perfluoro-n-Octanoic Acid (PFOA)	2	0	2	0	2	0	2
Perfluorooctane Sulfonate (PFOS)	2	0	2	0	2	0	2
13C2-perfluorotetradecanoic acid		N/A*****		N/A*****		N/A*****	
13C4-Perfluorobutanoic acid		N/A*****		N/A*****		N/A*****	
13C5-Perfluorononanoic acid		111.		80.7		112.	
13C2-Perfluorodecanoic acid		N/A*****		N/A*****		N/A*****	
13C2-Perfluorododecanoic acid		N/A*****		N/A*****		N/A*****	
13C2-Perfluorohexanoic acid		N/A*****		N/A*****		N/A*****	
13C2-Perfluoroundecanoic acid		N/A*****		N/A*****		N/A*****	
13C4-Perfluoroheptanoic acid		97.1		73.7		92.7	
13C4-Perfluorooctanoic acid		112.		76.4		103.	
13C4-Perfluorooctanesulfonate		100.		70.5		106.	
13C5-Perfluoropentanoic acid		N/A*****		N/A*****		N/A*****	
18O2-Perfluorohexanesulfonate		103.		82.1		95.1	

Parameter Name	B630793 BVX805	DL	B630803 BVX947 ReWork	DL	RDL	MDL	IDL
Perfluorobutanoic acid	N/A*****	2	N/A*****	20	2	0.41	0
Perfluorobutane Sulfonate (PFBS)	0	2	59.30000	20	2	0.27	0
Perfluorodecane Sulfonate	N/A*****	2	N/A*****	20	2	0.38	0
Perfluoroheptanoic Acid (PFHpA)	0	2	22.50000	20	2	0.39	0
Perfluoroheptane sulfonate	N/A*****	2	N/A*****	20	2	0.4	0
Perfluorohexanoic Acid (PFHxA)	N/A*****	2	N/A*****	20	2	0.42	0
Perfluorohexane Sulfonate (PFHxS)	0	2	697.00000	20	2	0.4	0
Perfluorononanoic Acid (PFNA)	0	2	2.84000	20	2	0.33	0
Perfluoropentanoic Acid (PFPeA)	N/A*****	2	N/A*****	20	2	0.46	0
Perfluorotetradecanoic Acid	N/A*****	2	N/A*****	20	2	0.61	0
Perfluorotridecanoic Acid	N/A*****	2	N/A*****	20	2	0.6	0
Perfluoroundecanoic Acid (PFUnA)	N/A*****	2	N/A*****	20	2	0.5	0
Perfluorodecanoic Acid (PFDA)	N/A*****	2	N/A*****	20	2	0.24	0
Perfluorododecanoic Acid (PFDoA)	N/A*****	2	N/A*****	20	2	0.63	0
Perfluoro-n-Octanoic Acid (PFOA)	0.30000	2	242.00000	20	2	0.39	0
Perfluorooctane Sulfonate (PFOS)	0	2	22.90000	20	2	0.3	0
13C2-perfluorotetradecanoic acid	N/A*****		N/A*****				
13C4-Perfluorobutanoic acid	N/A*****		N/A*****				
13C5-Perfluorononanoic acid	107.		64.1				
13C2-Perfluorodecanoic acid	N/A*****		N/A*****				
13C2-Perfluorododecanoic acid	N/A*****		N/A*****				
13C2-Perfluorohexanoic acid	N/A*****		N/A*****				
13C2-Perfluoroundecanoic acid	N/A*****		N/A*****				
13C4-Perfluoroheptanoic acid	95.3		48.8				
13C4-Perfluorooctanoic acid	95.3		60.0				
13C4-Perfluorooctanesulfonate	104.		78.2				
13C5-Perfluoropentanoic acid	N/A*****		N/A*****				
18O2-Perfluorohexanesulfonate	103.		70.4				

PFC_Water_160219_4385924_ULow.rdb (PFHXS 1): "Linear" Regression ("1 / x" weighting): $y = 0.332x + -0.197$ ($r = 0.9984$)



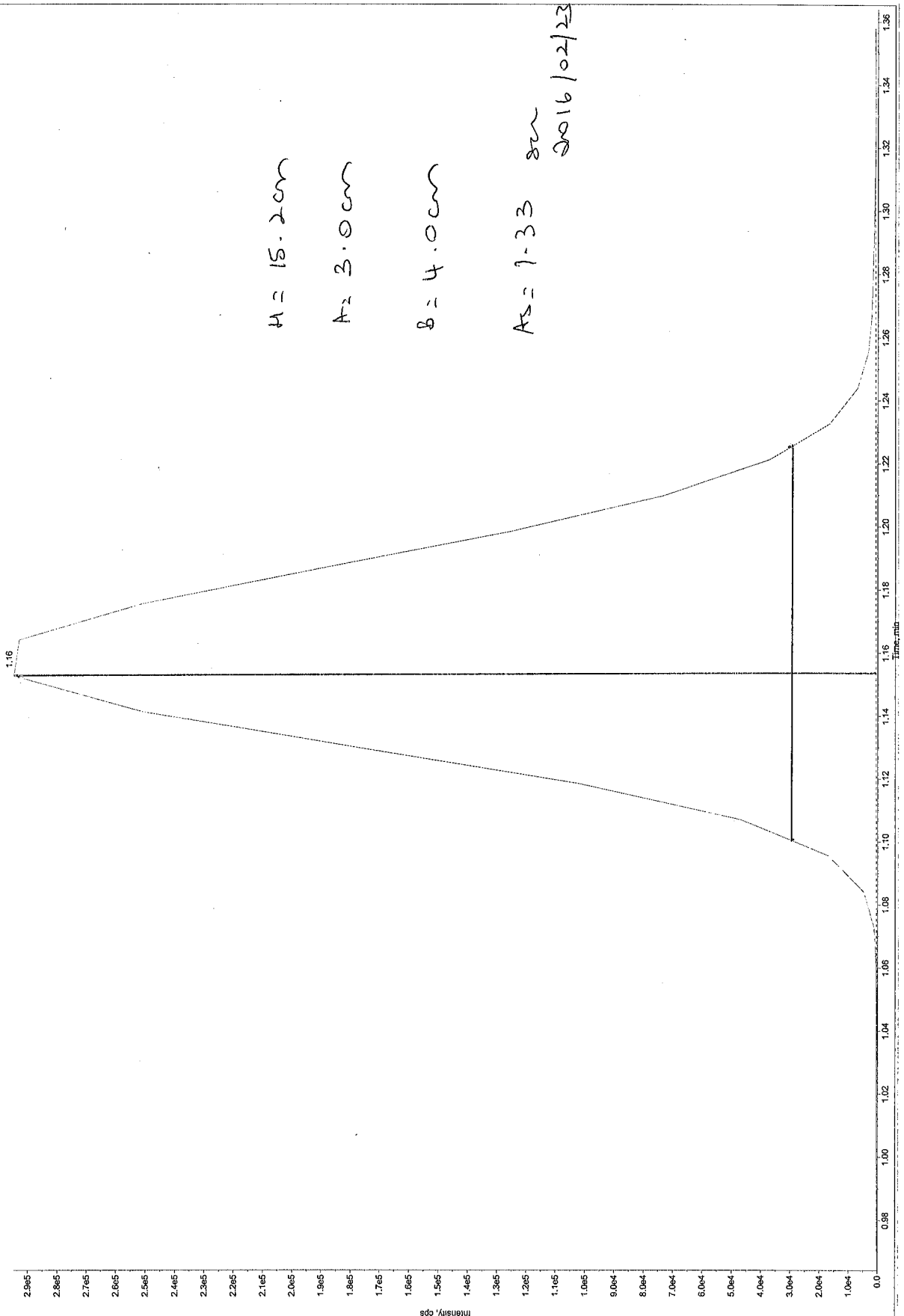
Sample Name: STD_4 - Sample ID: - File: W52438408.wmf
 Peak Name: PFPS 1 - Mass(es): 298.50079.900 Da
 Comment: Annotation: -

Standard
 Sample Type: 29.3 ng/L
 Calculated Conc: 2016/02/19
 Acq Date: 8:00:24 AM
 Acq Time: 2.8e5

Method:
 No.
 Proc Algorithm: Analyst Classic
 Sampling Factor: 1
 NIDA Threshold: 300.00 cps
 Area Threshold: 2000.00 cps
 Min. Counts: 0.00
 Sep. Width: 0.00
 Sep. Height: 5.00
 Exp. Peak Ratio: 4.00
 Exp. Adj. Ratio: 5.00
 RT Window: 10.00 sec
 Expected RT: 1.16 min
 Use Relative RT: No

Int. Type: Base To Base
 Resolution Time: 1280000.16 counts
 Area: 2.99e+005
 Height: 1.04 min
 Start Time: 1.31 min
 End Time: 1.31 min

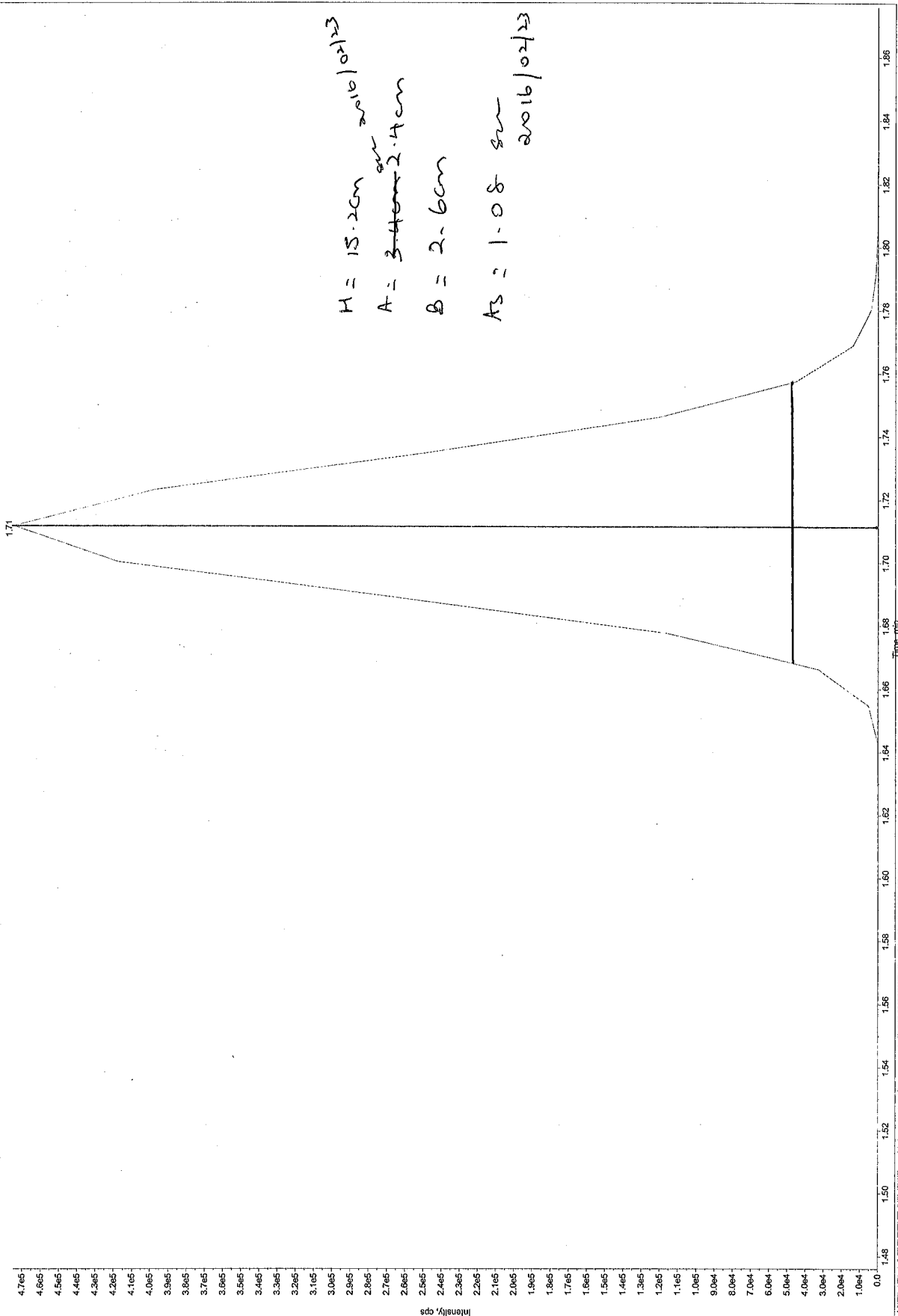
H = 15.2cm
A = 3.0cm
B = 4.0cm
As = 7-33
8cm
2016/02/23



Results Name: PFC_Water_160219_4385924_ULow.rdb
 Results Path: \\miss-netapp2\lcms\lcms3\Analyst
 Data\Projects\Enviro\FPOS\Results\FPC Water_160219_4385924_ULow.rdb

Sample Name: STD 4 Sample ID: File: W654384384.vmr
 Mass(es): 398.90079.900 Da

Comment: Annotation:
 Sample Index: 5
 Sample Type: Standard
 Sample Conc: 31.4 ng/L
 Calculated Conc: 31.4 ng/L
 Acq Date: 2016/02/19
 Acq Time: 8:00:24 AM
 Method: No
 Prep Algorithm: Analyst Classic
 Bumping Factor: 1
 NoX Threshold: 200.00 cps
 Area Threshold: 3000.00 cps
 Min. Counts: 0.00
 Sep. Width: 0.00
 Sep. Height: 4.1e5
 Exp. Peak Ratio: 5.00
 Exp. Adj. Ratio: 4.00
 Exp. Ratio: 10.00
 RT MinMax: 10.00 sec
 Expected RT: 1.88 min
 Use Relative RT: No
 Int. Type: Base To Base
 Retention Time: 37e5
 Area: 1470000.71 counts
 Height: 6.75e+005 cps
 Start Time: 1.57 min
 End Time: 1.84 min



Report Name: Worksheet - Parameter Lists

Report Date: 2016/02/18

Test Code: PFOSLOW-W

Worksheet Number: 4385924

Sample Number	Parameter
BVX792-01	Perfluorobutane Sulfonate (PFBS)
BVX793-01	Perfluoroheptanoic Acid (PFHpA)
BVX794-01	Perfluorohexane Sulfonate (PFHxS)
BVX795-01	Perfluorononanoic Acid (PFNA)
BVX796-01	Perfluoro-n-Octanoic Acid (PFOA)
BVX797-01	Perfluorooctane Sulfonate (PFOS)
BVX798-01	
BVX799-01	
BVX800-01	
BVX801-01	
BVX802-01	
BVX803-01	
BVX804-01	
BVX805-01	

WorkSheet 4385924 Instrument Sequences

1.	 4385924:MTRX SPK	MTRX SPK
2.	 4385924:MTRX SPK:D1	MTRX SPK :D1
3.	 4385924:SPIKE	SPIKE
4.	 4385924:BLANK	BLANK
5.	 4385924:BVX792-01	OF-RW20-0216
6.	 4385924:BVX793-01	OF-FB20-0216
7.	 4385924:BVX794-01	OF-RW55-0216
8.	 4385924:BVX795-01	OF-FB55-0216
9.	 4385924:BVX796-01	OF-RW54-0216
10.	 4385924:BVX797-01	OF-FB54-0216
11.	 4385924:BVX798-01	OF-RW68-0216
12.	 4385924:BVX799-01	OF-FB68-0216
13.	 4385924:BVX800-01	OF-RW30-0216
14.	 4385924:BVX801-01	OF-FB30-0216
15.	 4385924:BVX802-01	OF-FB69-0216
16.	 4385924:BVX803-01	OF-RW69-0216
17.	 4385924:BVX804-01	OF-FB26-0216
18.	 4385924:BVX805-01	OF-RW26-0216

Worksheet Reagent Tracking Record

Worksheet #

4385924

Volume (µL)

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/µL	20	20	20	20	20	20
Morpholine Intermediate Std.				5 ug/mL	NA	50	NA	20	NA	NA
Morpholine-D8 Internal Standard				10 ug/mL	NA	100	NA	100	NA	100
Comp. PFC Spiking Solution A				1ug/mL	62.5	NA	62.5	NA	NA	NA
Comp. PFC Spiking Solution B				250 ng/mL	NA	40	75	NA	40	75
Comp. PFC Spiking Solution C	✓	J26229		100 ng/mL	125	NA	125	NA	NA	NA
Internal Standard Solution A	✓	J2 6010 (4/4)		50 ng/mL	50	100	50	100	50	100
Internal Standard Solution B				250ng/mL	50	NA	50	NA	50	NA
ICV/ICV	✓	I 4676		1ug/mL		62.5				
Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/Prepared	*Spiked by:		
DCM				50% NaOH				mm		
Hexane				20mM TBAS				Spike Date 2010/02/18		
Acetone				o-Phosphoric Acid				Spike Syringe ID# M23487B		
Ottawa Sand				Borax				Int. Std Syringe ID# M23487B		
Methanol			✓ SHB66090V 2010/2/18	Calcium Chloride				*Spiking Witnessed by: BSZ		
2-Propanol (IPA)				EDTA				Final pH		
Acetonitrile				Phosphate Buffer				X		
MTBE				Sodium Thiosulphate						
Sodium Sulfate				DNPH						
Recon Solution				5M Acetate Buffer						
DCM:Ethyl Ether (75:25)				FMOC						
Hexane:IPA (98:2)				0.25M Na ₂ CO ₃						
2% Formic Acid			✓ PRL167 - 131	0.5M TBAS						
0.2% Formic Acid			✓ PRL167 - 114	1% NH ₄ OH 0.2% H ₂ O ₂ PRL167 - 198						
0.05M KOH				Leachate Fluid						
0.05M HCl				Reagent Water	✓	SHB6592V 2010/02/15				
Equipment	ID#	√	Equipment	ID#	√	Equipment	Lot #	Bottle Tracking		
Pipettor	E16295B (1ml)	✓	SPE Cartridge	022635225A	✓	10 mL Serological Pippet		Bottle# 14991		
	(200µL) K19609D	✓	Filter			QC Balance ID		Cap# 14443		
Dispenser			Centrifuge			Thermometer ID &Temp		Systems plus Lot#		
Syringe			Sonicator					16-01-06		

Comments: 60:40 (H₂O: MeOH) PRL167 - 6017 - 190
Inj. I-S (200µL) J2-6017

* - SPIKING OF MAXXAM ANALYTICS MUST BE WITNESSED AT ALL TIMES.

Project: D:\Analyst Data\Projects\Enviro\FPOS Batch:PFC_160219 Tab:Sample Set:SET1 AcqMethod:PFC_Water_Low.dam

Sample	Sample Name	Rack Code	Rack Position	Plate Code	Plate Position	Vial Position	Data File	Inj. Volume (µl)
1	Rinse	2 Well Plates	1	*54VialPlate*	1	1	PFC_160219\WS#4386408	3.000
2	4386408-BLANK	2 Well Plates	1	*54VialPlate*	1	2	PFC_160219\WS#4386408	3.000
3	STD 1	2 Well Plates	1	*54VialPlate*	1	3	PFC_160219\WS#4386408	3.000
4	STD 2	2 Well Plates	1	*54VialPlate*	1	4	PFC_160219\WS#4386408	3.000
5	STD 3	2 Well Plates	1	*54VialPlate*	1	5	PFC_160219\WS#4386408	3.000
6	STD 4	2 Well Plates	1	*54VialPlate*	1	6	PFC_160219\WS#4386408	3.000
7	STD 5	2 Well Plates	1	*54VialPlate*	1	7	PFC_160219\WS#4386408	3.000
8	STD 6	2 Well Plates	1	*54VialPlate*	1	8	PFC_160219\WS#4386408	3.000
9	ICV	2 Well Plates	1	*54VialPlate*	1	9	PFC_160219\WS#4386408	3.000
10	CCV	2 Well Plates	1	*54VialPlate*	1	6	PFC_160219\WS#4386408	3.000
11	4386408-MTRX SPK	2 Well Plates	1	*54VialPlate*	1	10	PFC_160219\WS#4386408	3.000
12	4386408-MTRX SPK.D1	2 Well Plates	1	*54VialPlate*	1	11	PFC_160219\WS#4386408	3.000
13	4386408-SPKE	2 Well Plates	1	*54VialPlate*	1	12	PFC_160219\WS#4386408	3.000
14	4386408-BVX814-01 (10x)	2 Well Plates	1	*54VialPlate*	1	13	PFC_160219\WS#4386408	3.000
15	4386408-BVX817-01 (10x)	2 Well Plates	1	*54VialPlate*	1	14	PFC_160219\WS#4386408	3.000
16	4386408-BVX818-01 (20x)	2 Well Plates	1	*54VialPlate*	1	15	PFC_160219\WS#4386408	3.000
17	4386408-BVX819-01 (10x)	2 Well Plates	1	*54VialPlate*	1	16	PFC_160219\WS#4386408	3.000
18	4386408-BVX769-01	2 Well Plates	1	*54VialPlate*	1	17	PFC_160219\WS#4386408	3.000
19	4386408-BVX770-01	2 Well Plates	1	*54VialPlate*	1	18	PFC_160219\WS#4386408	3.000
20	4386408-BVX771-01	2 Well Plates	1	*54VialPlate*	1	19	PFC_160219\WS#4386408	3.000
21	4386408-BVX772-01	2 Well Plates	1	*54VialPlate*	1	20	PFC_160219\WS#4386408	3.000
22	4386408-BVX773-01	2 Well Plates	1	*54VialPlate*	1	21	PFC_160219\WS#4386408	3.000
23	4386408-BVX774-01	2 Well Plates	1	*54VialPlate*	1	22	PFC_160219\WS#4386408	3.000
24	CCV	2 Well Plates	1	*54VialPlate*	1	6	PFC_160219\WS#4386408	3.000
25	4386408-BVX775-01	2 Well Plates	1	*54VialPlate*	1	23	PFC_160219\WS#4386408	3.000
26	4386408-BVX776-01	2 Well Plates	1	*54VialPlate*	1	24	PFC_160219\WS#4386408	3.000
27	4386408-BVX779-01	2 Well Plates	1	*54VialPlate*	1	25	PFC_160219\WS#4386408	3.000
28	4386408-BVX780-01	2 Well Plates	1	*54VialPlate*	1	26	PFC_160219\WS#4386408	3.000
29	4386408-BVX781-01	2 Well Plates	1	*54VialPlate*	1	27	PFC_160219\WS#4386408	3.000
30	4386408-BVX826-01	2 Well Plates	1	*54VialPlate*	1	28	PFC_160219\WS#4386408	3.000
31	4386408-BVX827-01	2 Well Plates	1	*54VialPlate*	1	29	PFC_160219\WS#4386408	3.000
32	4386408-BVX828-01	2 Well Plates	1	*54VialPlate*	1	30	PFC_160219\WS#4386408	3.000
33	4386408-BVX829-01	2 Well Plates	1	*54VialPlate*	1	31	PFC_160219\WS#4386408	3.000
34	4386408-BVX830-01	2 Well Plates	1	*54VialPlate*	1	32	PFC_160219\WS#4386408	3.000
35	CCV	2 Well Plates	1	*54VialPlate*	1	6	PFC_160219\WS#4386408	3.000
36	4385924-BLANK	2 Well Plates	1	*54VialPlate*	1	33	PFC_160219\WS#4385924	3.000
37	4385924-MTRX SPK	2 Well Plates	1	*54VialPlate*	1	34	PFC_160219\WS#4385924	3.000
38	4385924-MTRX SPK.D1	2 Well Plates	1	*54VialPlate*	1	35	PFC_160219\WS#4385924	3.000
39	4385924-SPKE	2 Well Plates	1	*54VialPlate*	1	36	PFC_160219\WS#4385924	3.000
40	4385924-BVX947-01 (10x)	2 Well Plates	1	*54VialPlate*	1	37	PFC_160219\WS#4385924	3.000
41	4385924-BVX792-01	2 Well Plates	1	*54VialPlate*	1	38	PFC_160219\WS#4385924	3.000
42	4385924-BVX793-01	2 Well Plates	1	*54VialPlate*	1	39	PFC_160219\WS#4385924	3.000
43	4385924-BVX794-01	2 Well Plates	1	*54VialPlate*	1	40	PFC_160219\WS#4385924	3.000
44	4385924-BVX795-01	2 Well Plates	1	*54VialPlate*	1	41	PFC_160219\WS#4385924	3.000
45	4385924-BVX796-01	2 Well Plates	1	*54VialPlate*	1	42	PFC_160219\WS#4385924	3.000
46	4385924-BVX797-01	2 Well Plates	1	*54VialPlate*	1	43	PFC_160219\WS#4385924	3.000
47	4385924-BVX798-01	2 Well Plates	1	*54VialPlate*	1	44	PFC_160219\WS#4385924	3.000
48	4385924-BVX799-01	2 Well Plates	1	*54VialPlate*	1	45	PFC_160219\WS#4385924	3.000
49	4385924-BVX800-01	2 Well Plates	1	*54VialPlate*	1	46	PFC_160219\WS#4385924	3.000
50	CCV	2 Well Plates	1	*54VialPlate*	1	6	PFC_160219\WS#4385924	3.000
51	4385924-BVX801-01	2 Well Plates	1	*54VialPlate*	1	47	PFC_160219\WS#4385924	3.000
52	4385924-BVX802-01	2 Well Plates	1	*54VialPlate*	1	48	PFC_160219\WS#4385924	3.000
53	4385924-BVX803-01	2 Well Plates	1	*54VialPlate*	1	49	PFC_160219\WS#4385924	3.000
54	4385924-BVX804-01	2 Well Plates	1	*54VialPlate*	1	50	PFC_160219\WS#4385924	3.000
55	4385924-BVX805-01	2 Well Plates	1	*54VialPlate*	1	51	PFC_160219\WS#4385924	3.000
56	CCV	2 Well Plates	1	*54VialPlate*	1	6	PFC_160219\WS#4385924	3.000
57	4385888-BLANK	2 Well Plates	1	*54VialPlate*	2	1	PFC_160219\WS#4385888	3.000
58	4385888-MTRX SPK	2 Well Plates	1	*54VialPlate*	2	2	PFC_160219\WS#4385888	3.000
59	4385888-MTRX SPK.D1	2 Well Plates	1	*54VialPlate*	2	3	PFC_160219\WS#4385888	3.000
60	4385888-SPKE	2 Well Plates	1	*54VialPlate*	2	4	PFC_160219\WS#4385888	3.000
61	4385888-BVX782-01	2 Well Plates	1	*54VialPlate*	2	5	PFC_160219\WS#4385888	3.000
62	4385888-BVX783-01	2 Well Plates	1	*54VialPlate*	2	6	PFC_160219\WS#4385888	3.000
63	4385888-BVX784-01	2 Well Plates	1	*54VialPlate*	2	7	PFC_160219\WS#4385888	3.000
64	4385888-BVX785-01	2 Well Plates	1	*54VialPlate*	2	8	PFC_160219\WS#4385888	3.000
65	4385888-BVX786-01	2 Well Plates	1	*54VialPlate*	2	9	PFC_160219\WS#4385888	3.000
66	4385888-BVX787-01	2 Well Plates	1	*54VialPlate*	2	10	PFC_160219\WS#4385888	3.000
67	4385888-BVX788-01	2 Well Plates	1	*54VialPlate*	2	11	PFC_160219\WS#4385888	3.000
68	4385888-BVX789-01	2 Well Plates	1	*54VialPlate*	2	12	PFC_160219\WS#4385888	3.000
69	4385888-BVX790-01	2 Well Plates	1	*54VialPlate*	2	13	PFC_160219\WS#4385888	3.000
70	4385888-BVX791-01	2 Well Plates	1	*54VialPlate*	2	14	PFC_160219\WS#4385888	3.000
71	CCV	2 Well Plates	1	*54VialPlate*	1	6	PFC_160219\WS#4385888	3.000

Column #123
 MPA = Sch # 506 FJRE17
 MFB = MeOH, Fulo-L #15263
 on 2016/02/19

Sample ID	Acquisition Date	Acquisition Method	File Name	Rack Type	Rack Position	Vial Position	Plate Type	Plate Position
1	2/19/2016 7:45:04 AM	PFC_Water_Low.dam	PFC_160219WS#4386408.wiff	2 Well Plates	1	3	*54VialPlate*	1
2	2/19/2016 7:50:14 AM	PFC_Water_Low.dam	PFC_160219WS#4386408.wiff	2 Well Plates	1	4	*54VialPlate*	1
3	2/19/2016 7:55:19 AM	PFC_Water_Low.dam	PFC_160219WS#4386408.wiff	2 Well Plates	1	5	*54VialPlate*	1
4	2/19/2016 8:00:24 AM	PFC_Water_Low.dam	PFC_160219WS#4386408.wiff	2 Well Plates	1	6	*54VialPlate*	1
5	2/19/2016 8:05:30 AM	PFC_Water_Low.dam	PFC_160219WS#4386408.wiff	2 Well Plates	1	7	*54VialPlate*	1
6	2/19/2016 8:10:36 AM	PFC_Water_Low.dam	PFC_160219WS#4386408.wiff	2 Well Plates	1	8	*54VialPlate*	1
7	2/19/2016 8:15:41 AM	PFC_Water_Low.dam	PFC_160219WS#4386408.wiff	2 Well Plates	1	9	*54VialPlate*	1
8	2/19/2016 10:43:32 AM	PFC_Water_Low.dam	PFC_160219WS#4386408.wiff	2 Well Plates	1	6	*54VialPlate*	1
9	2/19/2016 11:09:00 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	33	*54VialPlate*	1
10	2/19/2016 11:14:05 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	34	*54VialPlate*	1
11	2/19/2016 11:19:11 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	35	*54VialPlate*	1
12	2/19/2016 11:24:17 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	36	*54VialPlate*	1
13	2/19/2016 11:29:22 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	37	*54VialPlate*	1
14	2/19/2016 11:34:28 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	38	*54VialPlate*	1
15	2/19/2016 11:39:35 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	39	*54VialPlate*	1
16	2/19/2016 11:44:41 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	40	*54VialPlate*	1
17	2/19/2016 11:49:47 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	41	*54VialPlate*	1
18	2/19/2016 11:54:52 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	42	*54VialPlate*	1
19	2/19/2016 11:59:57 AM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	43	*54VialPlate*	1
20	2/19/2016 12:05:05 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	44	*54VialPlate*	1
21	2/19/2016 12:10:11 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	45	*54VialPlate*	1
22	2/19/2016 12:15:18 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	46	*54VialPlate*	1
23	2/19/2016 12:20:24 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	6	*54VialPlate*	1
24	2/19/2016 12:25:28 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	47	*54VialPlate*	1
25	2/19/2016 12:30:34 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	48	*54VialPlate*	1
26	2/19/2016 12:35:39 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	49	*54VialPlate*	1
27	2/19/2016 12:40:44 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	50	*54VialPlate*	1
28	2/19/2016 12:45:48 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	51	*54VialPlate*	1
29	2/19/2016 12:50:55 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	37	*54VialPlate*	1
30	2/19/2016 12:56:01 PM	PFC_Water_Low.dam	PFC_160219WS#4385924.wiff	2 Well Plates	1	6	*54VialPlate*	1



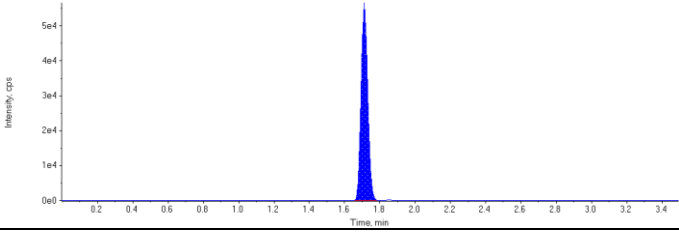
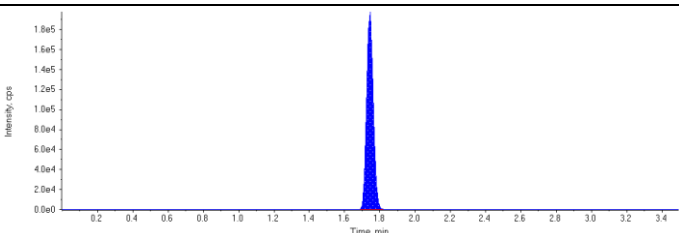
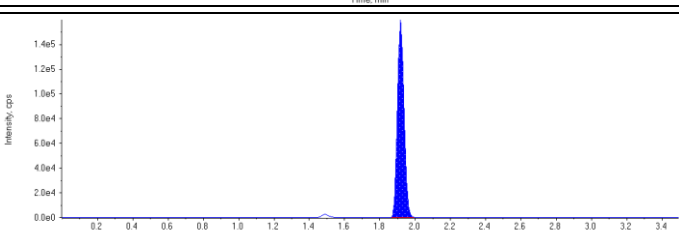
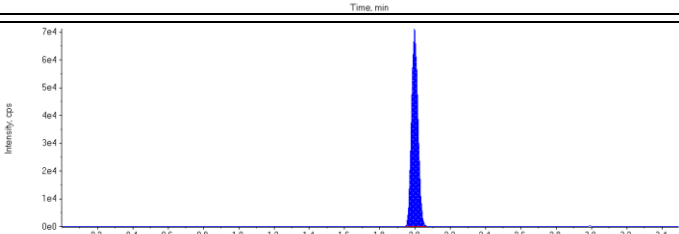
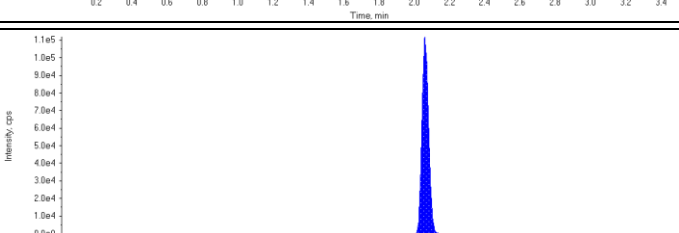
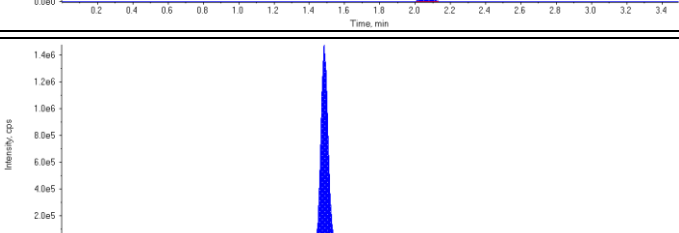
5. Initial Calibration

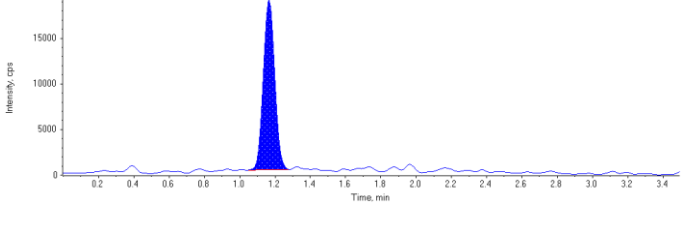
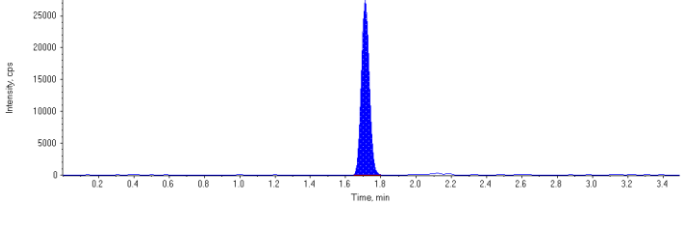
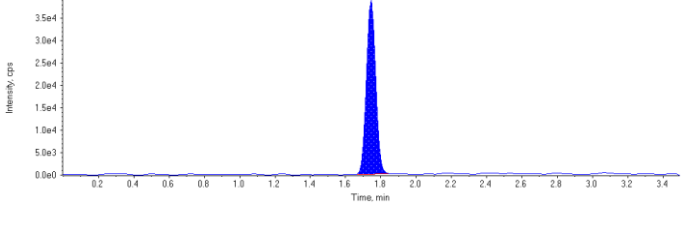
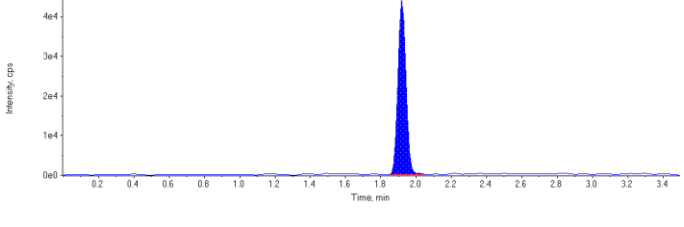
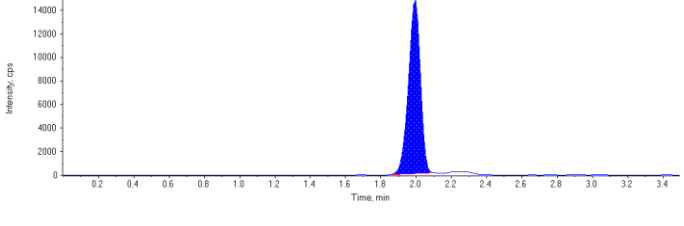
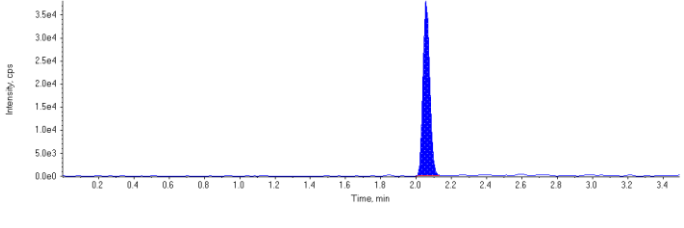
Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

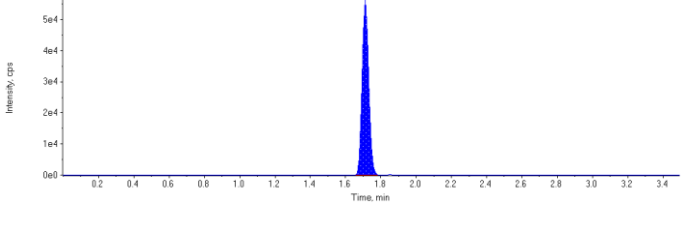
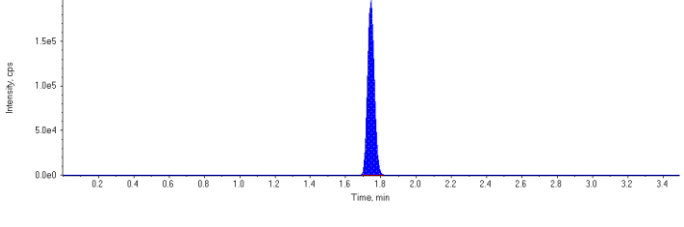
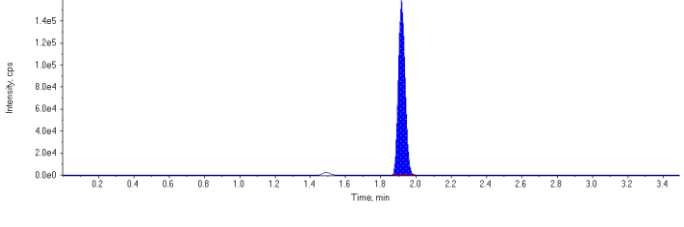
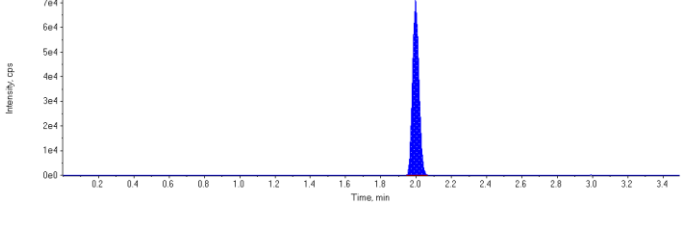
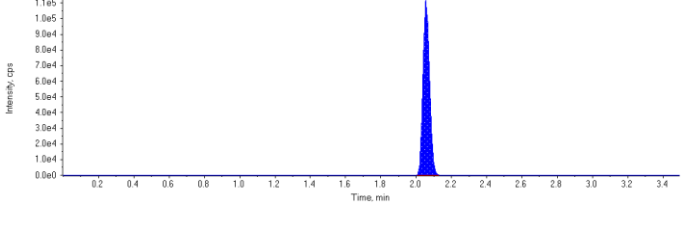
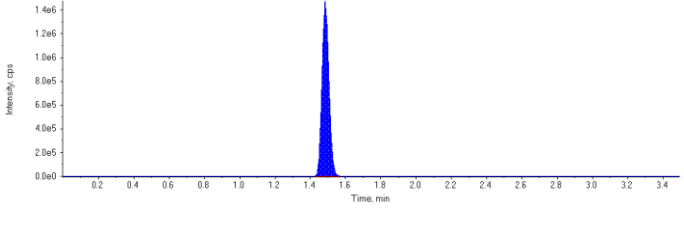
Sample Name	STD 1	Injection Vial	3
Sample ID	STD 1	Injection Volume (µL)	3
Sample Type	Standard	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 7:45:04 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4386408.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	146000.	1.71	1.00	-
MPFHpA	517000.	1.74	1.00	-
MPFOA	413000.	1.92	1.00	-
MPFOS	179000.	2.00	1.00	-
MPFNA	291000.	2.06	1.00	-
13C6-PFHxA IS	4050000.	1.49	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	83700	1.17	2.00	2.41	120.0
PFHxS 1	84900	1.71	2.00	2.35	117.0
PFHpA 1	142000	1.74	2.00	2.11	106.0
PFOA 1	138000	1.92	2.00	2.20	110.0
PFOS 1	69100	1.99	2.00	2.31	116.0
PFNA 1	100000	2.06	2.00	2.23	112.0
18O2-PFHxS	146000	1.71	100.	97.9	97.9
13C4-PFHpA	517000	1.74	100.	103.	103.0
13C4-PFOA	413000	1.92	100.	94.5	94.5
13C4-PFOS	179000	2.00	100.	102.	102.0
13C5-PFNA	291000	2.06	100.	97.6	97.6
13C6-PFHxA	4050000	1.49	100.	101.	101.0

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.92(1.93) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 2.00(1.97) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.06(2.02) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.49(1.50) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Standard)</p>	<p style="text-align: center;">This image is not available</p>

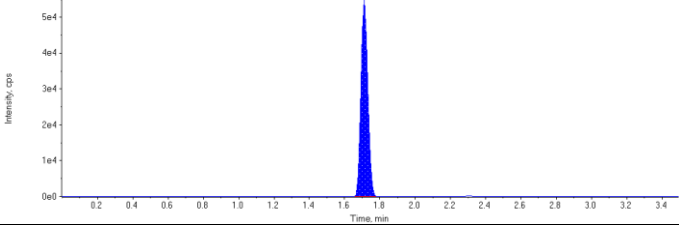
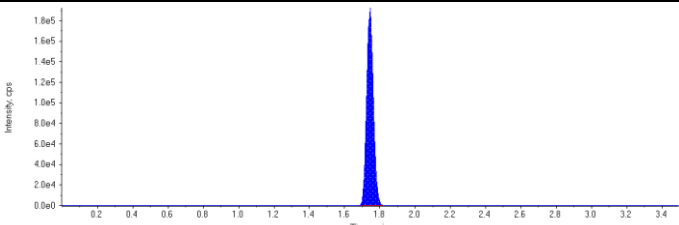
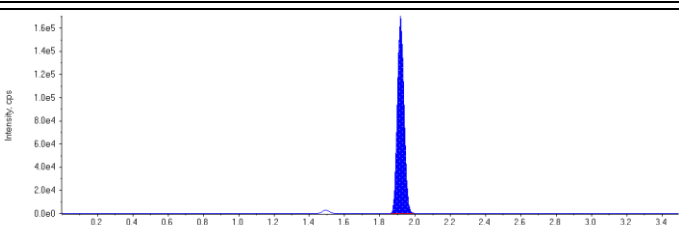
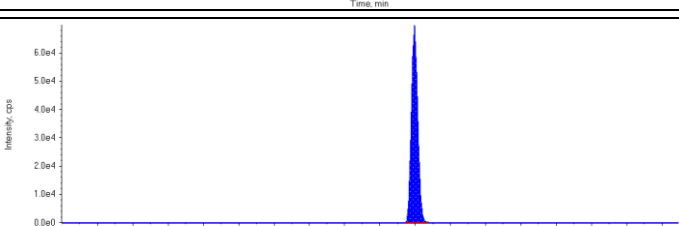
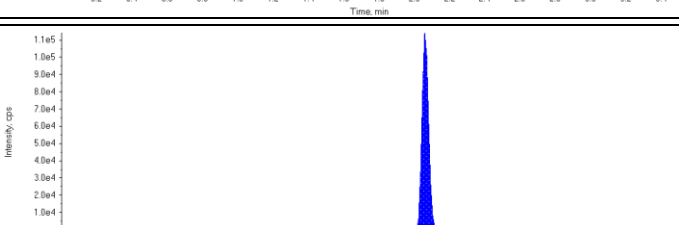
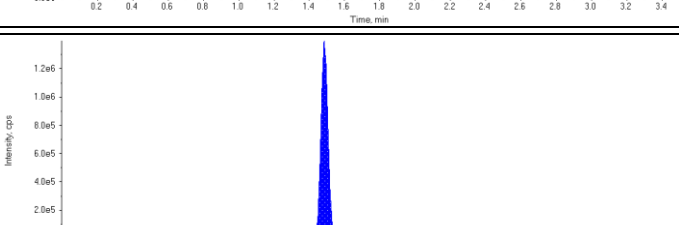
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.17 (1.16) min</p> <p>Calculated Conc: 2.41 µg/L</p> <p>Area Ratio: 0.573</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 2.35 µg/L</p> <p>Area Ratio: 0.582</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 2.11 µg/L</p> <p>Area Ratio: 0.274</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 2.20 µg/L</p> <p>Area Ratio: 0.336</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 2.31 µg/L</p> <p>Area Ratio: 0.386</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 2.23 µg/L</p> <p>Area Ratio: 0.344</p> <p>Sample Type: (Standard)</p>	

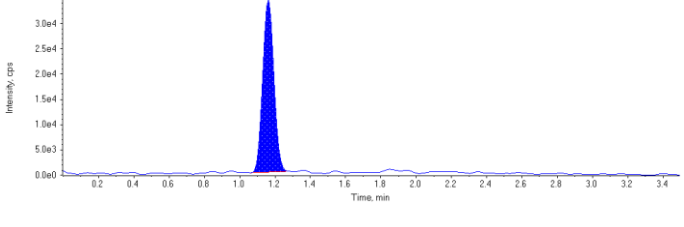
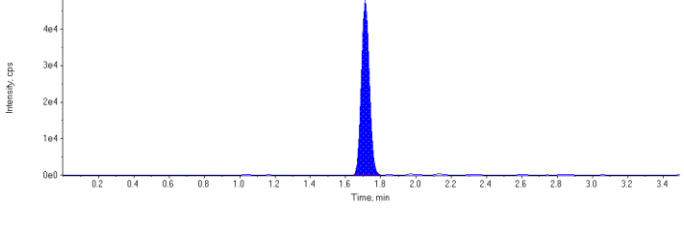
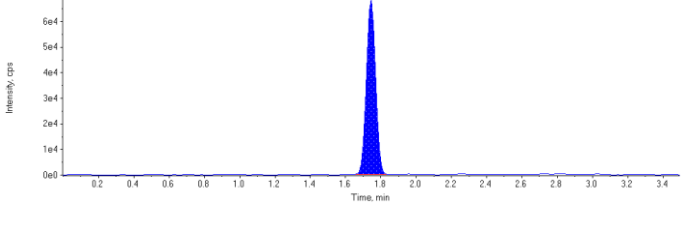
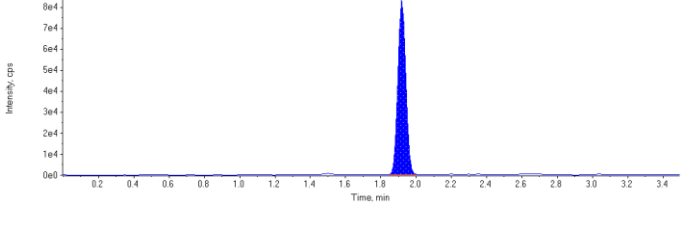
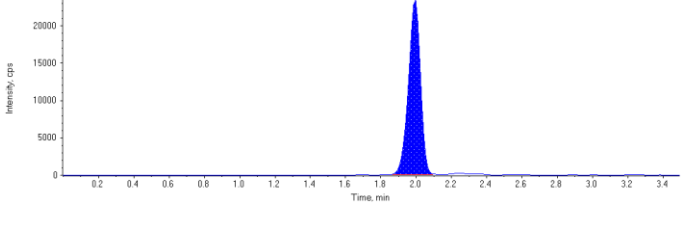
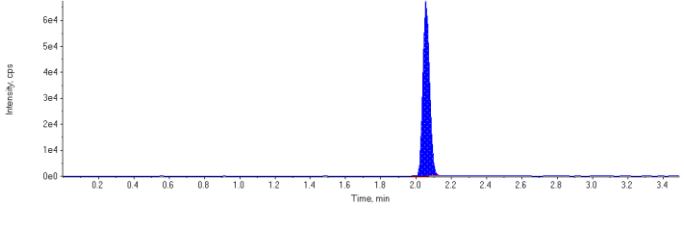
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 97.9 µg/L</p> <p>Area Ratio: 0.0361</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.128</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.93) min</p> <p>Calculated Conc: 94.5 µg/L</p> <p>Area Ratio: 0.102</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 2.00 (1.97) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.0443</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 97.6 µg/L</p> <p>Area Ratio: 0.0719</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.49 (1.48) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

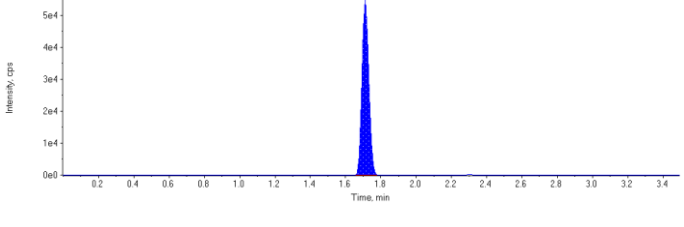
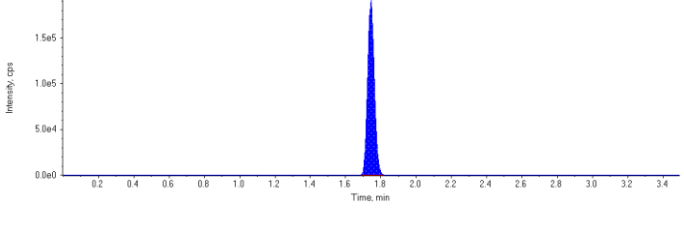
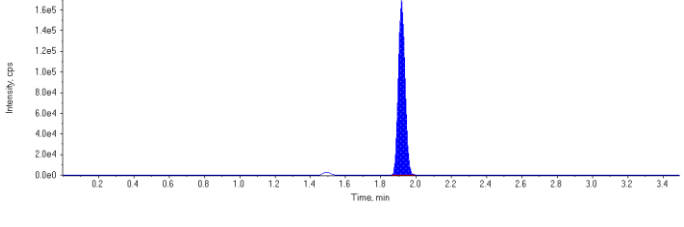
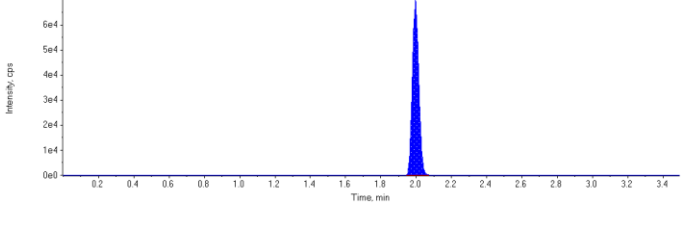
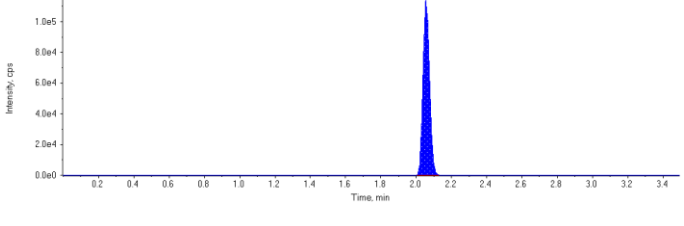
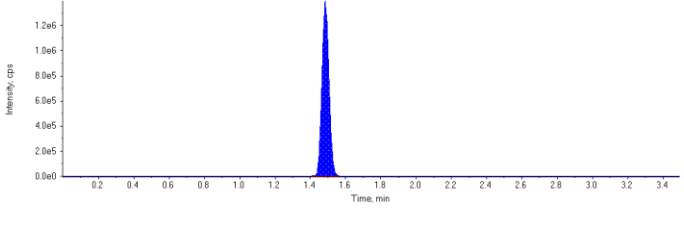
Sample Name	STD 2	Injection Vial	4
Sample ID	STD 2	Injection Volume (µL)	3
Sample Type	Standard	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 7:50:14 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4386408.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	147000.	1.71	1.00	-
MPFHpA	503000.	1.74	1.00	-
MPFOA	442000.	1.92	1.00	-
MPFOS	177000.	2.00	1.00	-
MPFNA	296000.	2.06	1.00	-
13C6-PFHxA IS	3880000.	1.49	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	150000	1.16	4.00	3.84	96.1
PFHxS 1	150000	1.71	4.00	3.68	92.1
PFHpA 1	247000	1.74	4.00	3.72	93.0
PFOA 1	260000	1.92	4.00	3.74	93.4
PFOS 1	111000	1.99	4.00	3.63	90.7
PFNA 1	177000	2.06	4.00	3.76	93.9
18O2-PFHxS	147000	1.71	100.	103.	103.0
13C4-PFHpA	503000	1.74	100.	105.	105.0
13C4-PFOA	442000	1.92	100.	105.	105.0
13C4-PFOS	177000	2.00	100.	105.	105.0
13C5-PFNA	296000	2.06	100.	104.	104.0
13C6-PFHxA	3880000	1.49	100.	97.3	97.3

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.92(1.93) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 2.00(1.97) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.06(2.02) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.49(1.50) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Standard)</p>	<p style="text-align: center;">This image is not available</p>

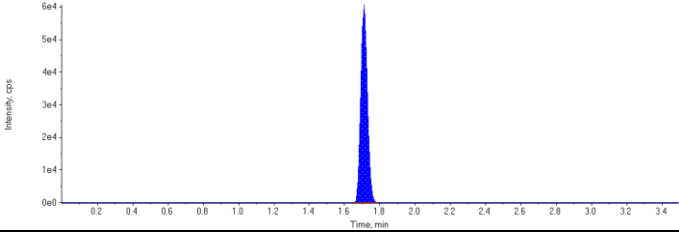
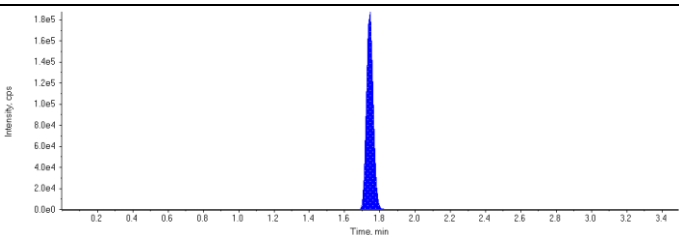
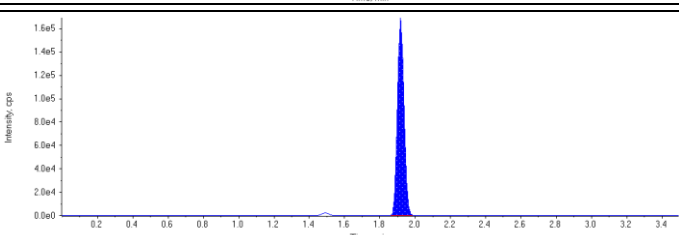
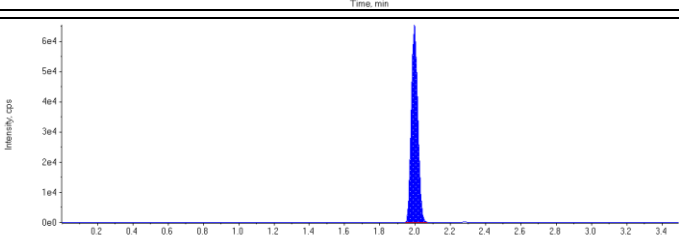
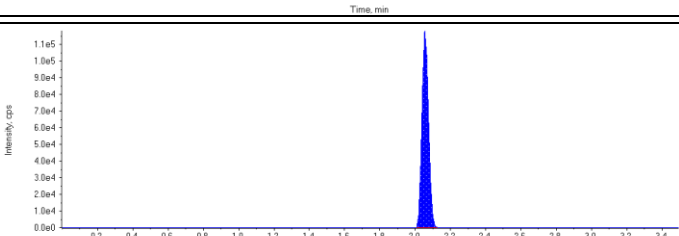
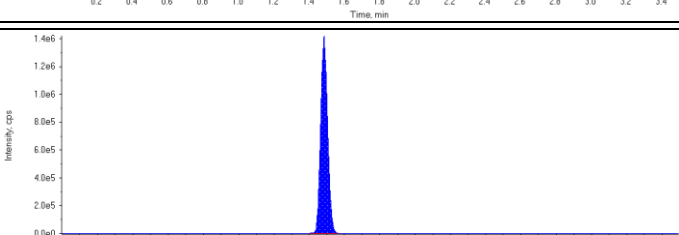
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.16 (1.16) min</p> <p>Calculated Conc: 3.84 µg/L</p> <p>Area Ratio: 1.02</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 3.68 µg/L</p> <p>Area Ratio: 1.03</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 3.72 µg/L</p> <p>Area Ratio: 0.491</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 3.74 µg/L</p> <p>Area Ratio: 0.590</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 3.63 µg/L</p> <p>Area Ratio: 0.626</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 3.76 µg/L</p> <p>Area Ratio: 0.598</p> <p>Sample Type: (Standard)</p>	

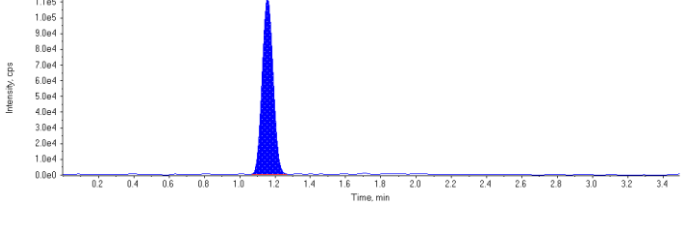
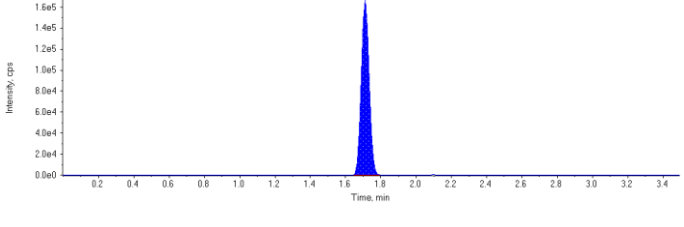
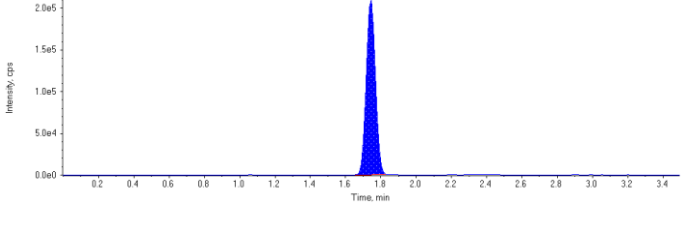
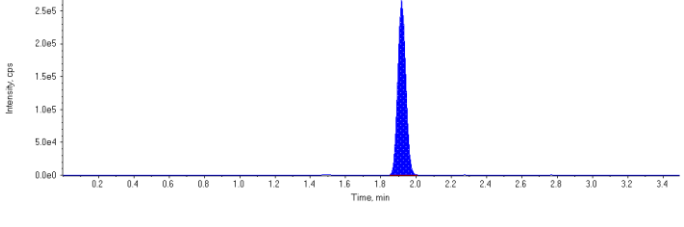
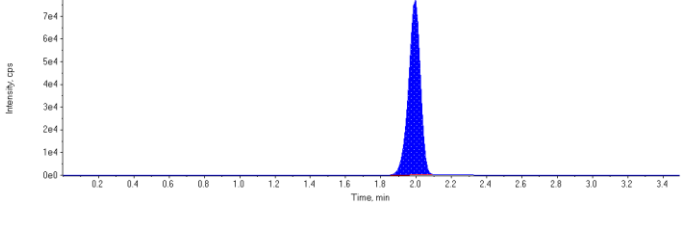
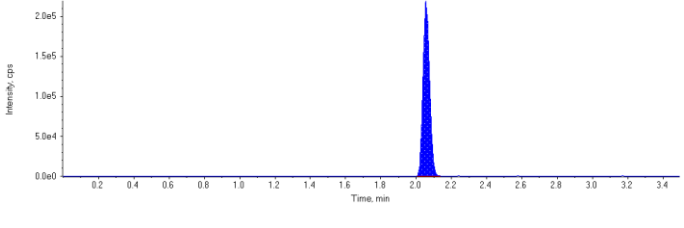
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.0378</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.129</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.93) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.114</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 2.00 (1.97) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.0456</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.0763</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.49 (1.48) min</p> <p>Calculated Conc: 97.3 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

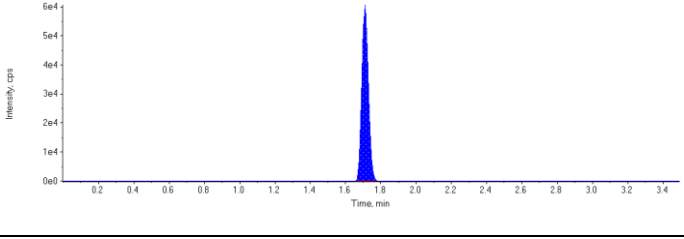
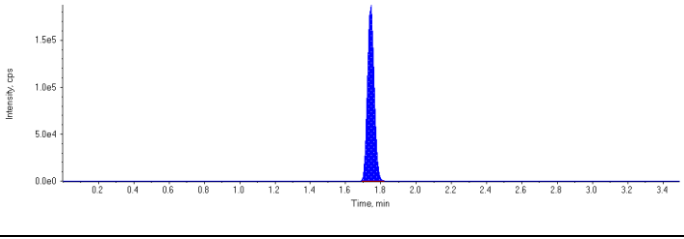
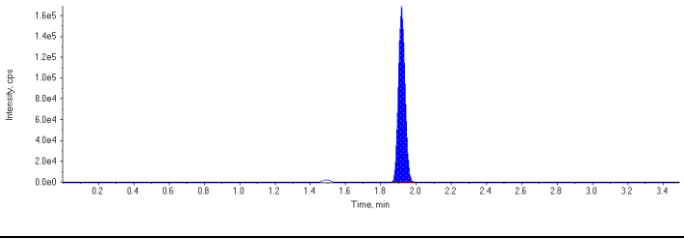
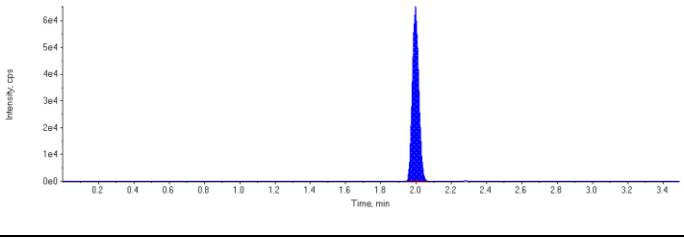
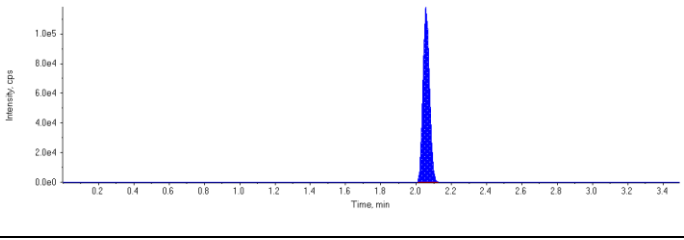
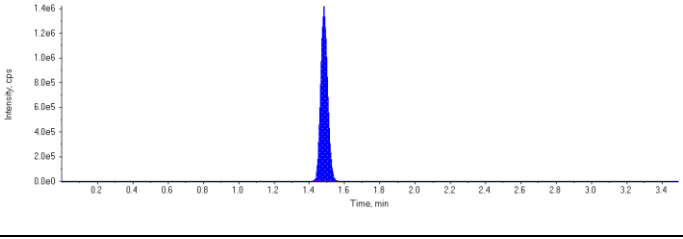
Sample Name	STD 3	Injection Vial	5
Sample ID	STD 3	Injection Volume (µL)	3
Sample Type	Standard	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 7:55:19 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4386408.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	156000.	1.71	1.00	-
MPFHpA	498000.	1.74	1.00	-
MPFOA	435000.	1.92	1.00	-
MPFOS	167000.	2.00	1.00	-
MPFNA	307000.	2.06	1.00	-
13C6-PFHxA IS	3890000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	482000	1.16	12.0	10.5	87.2
PFHxS 1	517000	1.71	12.0	10.6	88.1
PFHpA 1	764000	1.74	12.0	11.5	95.5
PFOA 1	836000	1.92	12.0	11.8	98.2
PFOS 1	356000	1.99	12.0	11.9	99.2
PFNA 1	570000	2.06	12.0	11.3	94.2
18O2-PFHxS	156000	1.71	100.	109.	109.0
13C4-PFHpA	498000	1.74	100.	104.	104.0
13C4-PFOA	435000	1.92	100.	104.	104.0
13C4-PFOS	167000	2.00	100.	99.4	99.4
13C5-PFNA	307000	2.06	100.	107.	107.0
13C6-PFHxA	3890000	1.48	100.	97.4	97.4

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.92(1.93) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 2.00(1.97) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.06(2.02) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Standard)</p>	<p style="text-align: center;">This image is not available</p>

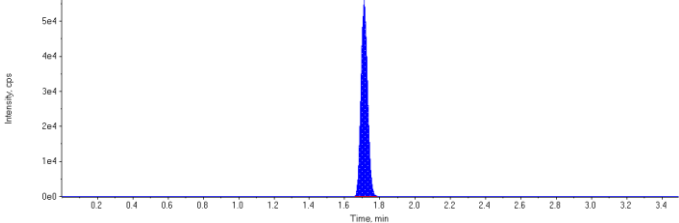
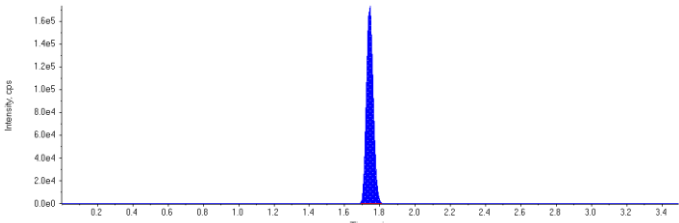
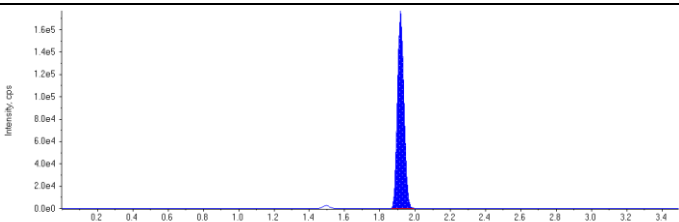
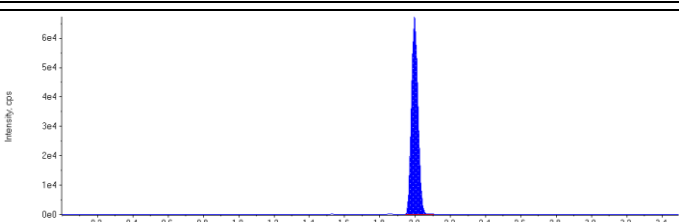
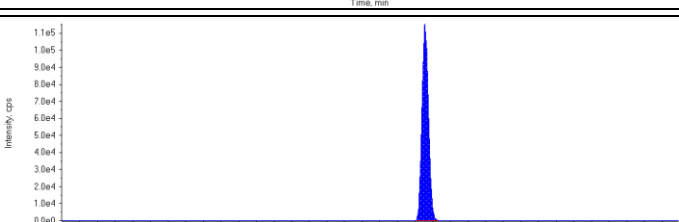
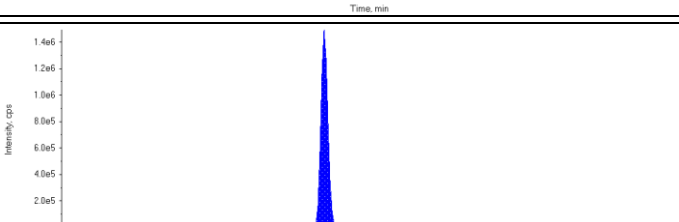
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.16 (1.16) min</p> <p>Calculated Conc: 10.5 µg/L</p> <p>Area Ratio: 3.09</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 10.6 µg/L</p> <p>Area Ratio: 3.31</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 11.5 µg/L</p> <p>Area Ratio: 1.53</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 1.92</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 11.9 µg/L</p> <p>Area Ratio: 2.13</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 11.3 µg/L</p> <p>Area Ratio: 1.86</p> <p>Sample Type: (Standard)</p>	

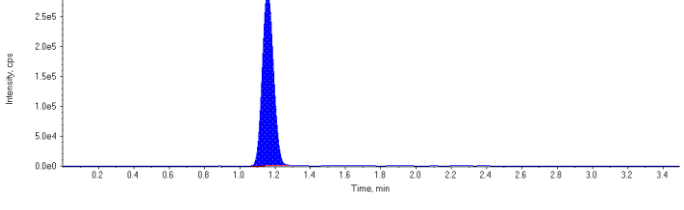
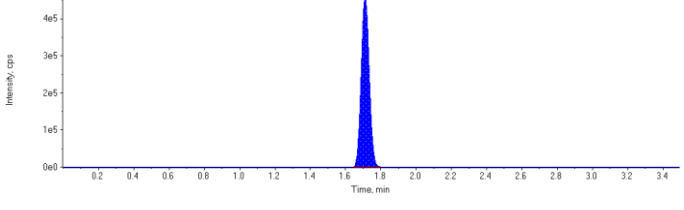
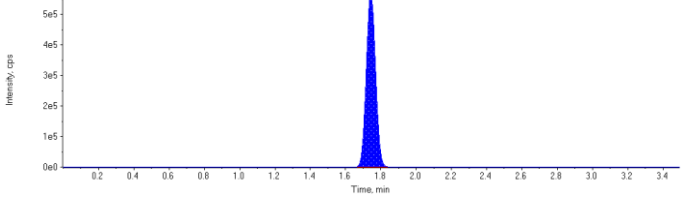
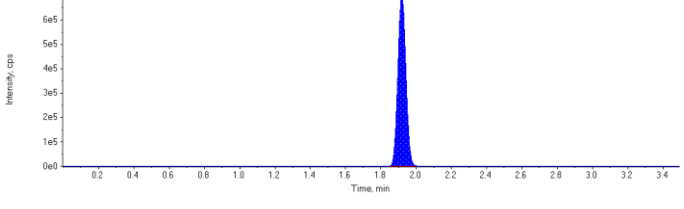
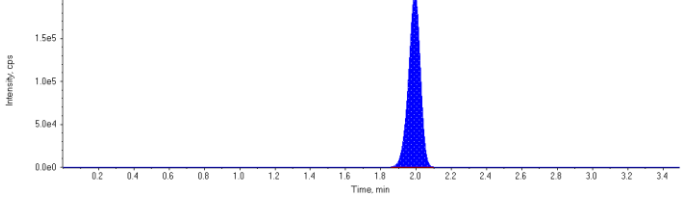
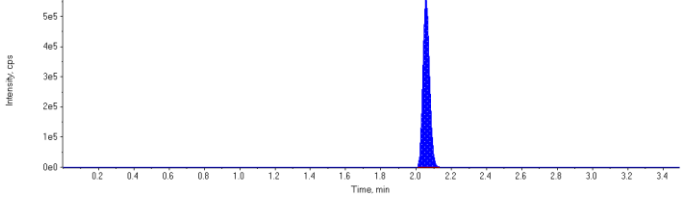
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 109. µg/L</p> <p>Area Ratio: 0.0401</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.128</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.93) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.112</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 2.00 (1.97) min</p> <p>Calculated Conc: 99.4 µg/L</p> <p>Area Ratio: 0.0429</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.0791</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 97.4 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

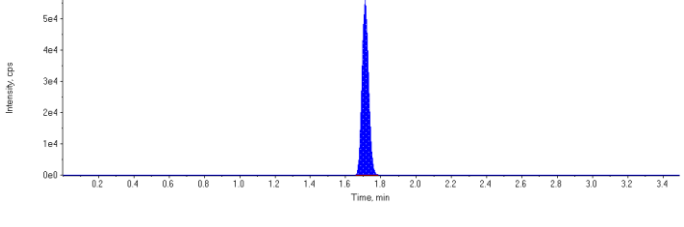
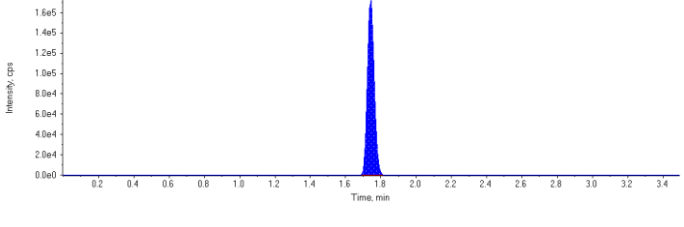
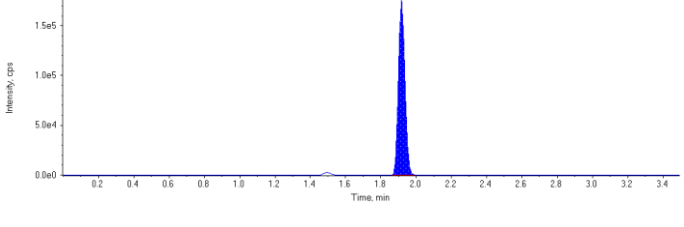
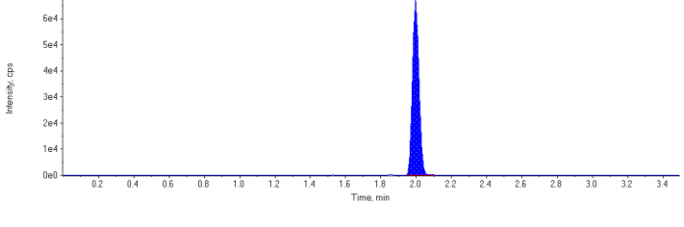
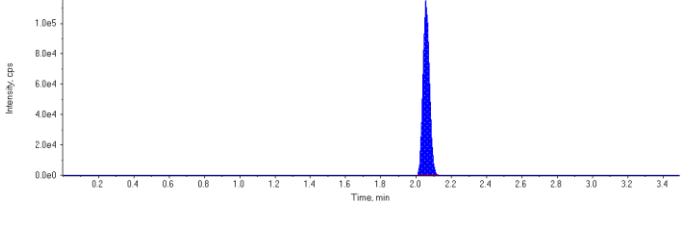
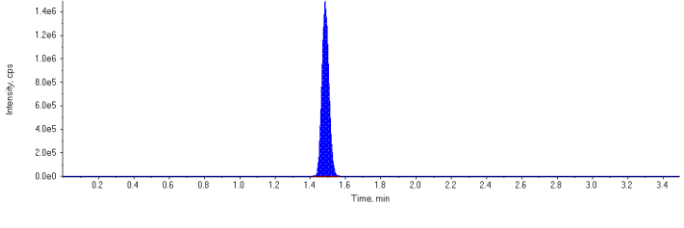
Sample Name	STD 4	Injection Vial	6
Sample ID	STD 4	Injection Volume (µL)	3
Sample Type	Standard	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 8:00:24 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4386408.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	144000.	1.71	1.00	-
MPFHpA	467000.	1.74	1.00	-
MPFOA	447000.	1.92	1.00	-
MPFOS	172000.	2.00	1.00	-
MPFNA	296000.	2.06	1.00	-
13C6-PFHxA IS	4090000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	1290000	1.16	30.0	29.3	97.6
PFHxS 1	1470000	1.71	30.0	31.4	105.0
PFHpA 1	2080000	1.74	30.0	33.2	111.0
PFOA 1	2230000	1.92	30.0	30.3	101.0
PFOS 1	944000	1.99	30.0	30.3	101.0
PFNA 1	1500000	2.06	30.0	30.6	102.0
18O2-PFHxS	144000	1.71	100.	95.4	95.4
13C4-PFHpA	467000	1.74	100.	92.3	92.3
13C4-PFOA	447000	1.92	100.	101.	101.0
13C4-PFOS	172000	2.00	100.	97.3	97.3
13C5-PFNA	296000	2.06	100.	98.3	98.3
13C6-PFHxA	4090000	1.48	100.	102.	102.0

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.92(1.93) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 2.00(1.97) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.06(2.02) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Standard)</p>	<p style="text-align: center;">This image is not available</p>

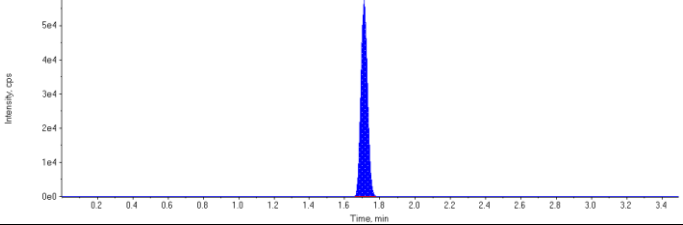
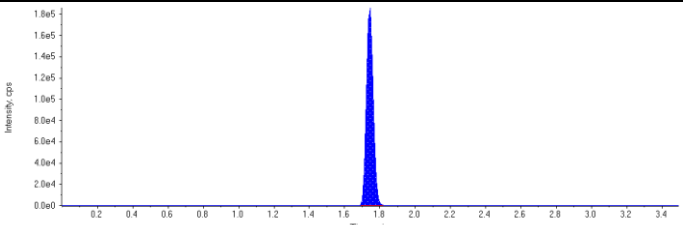
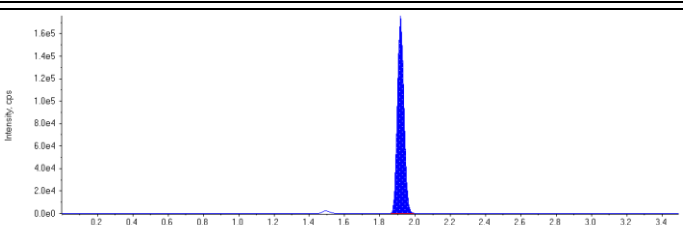
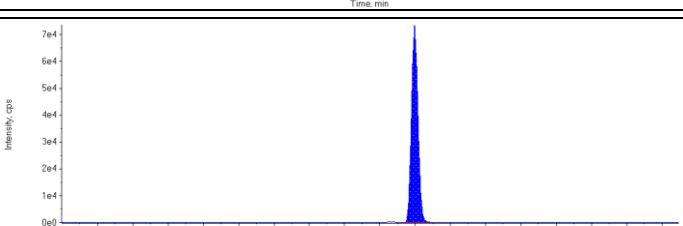
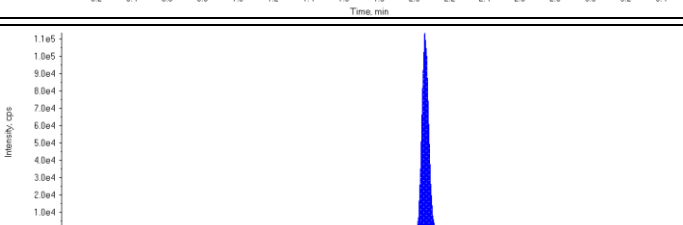
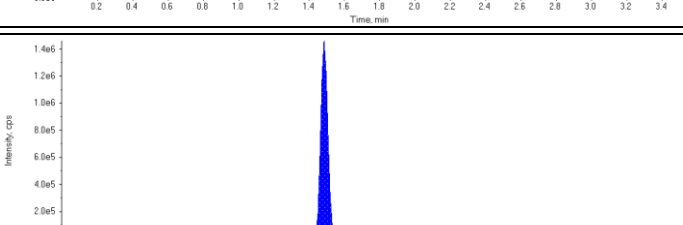
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.16 (1.16) min</p> <p>Calculated Conc: 29.3 µg/L</p> <p>Area Ratio: 8.97</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 31.4 µg/L</p> <p>Area Ratio: 10.2</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 33.2 µg/L</p> <p>Area Ratio: 4.46</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 30.3 µg/L</p> <p>Area Ratio: 4.98</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 30.3 µg/L</p> <p>Area Ratio: 5.49</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 30.6 µg/L</p> <p>Area Ratio: 5.07</p> <p>Sample Type: (Standard)</p>	

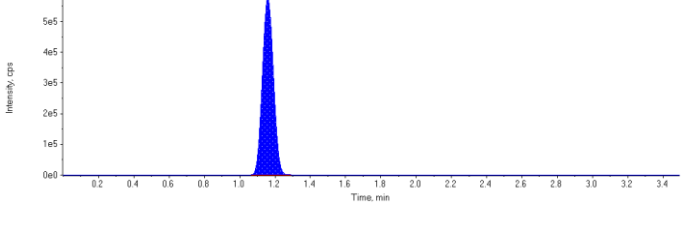
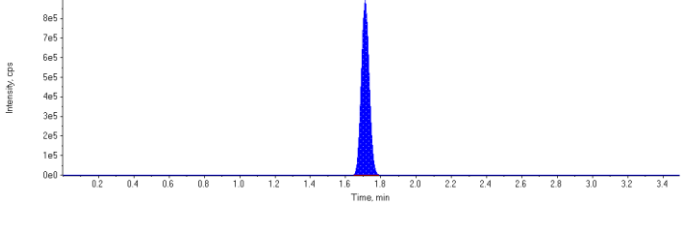
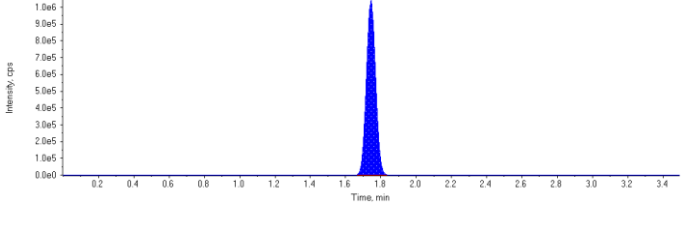
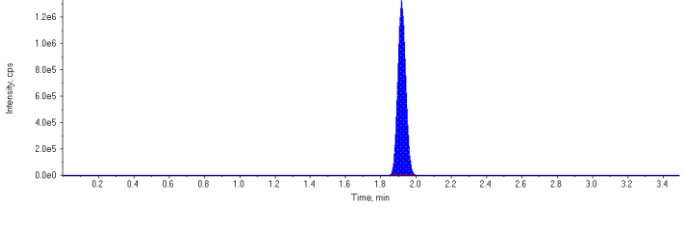
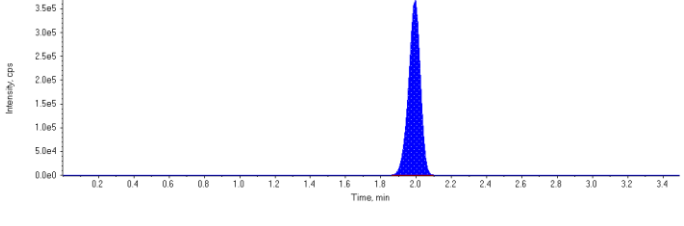
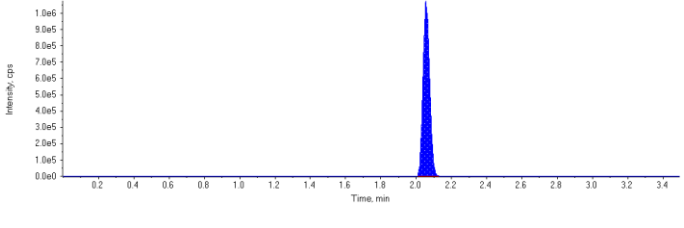
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 95.4 µg/L</p> <p>Area Ratio: 0.0351</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 92.3 µg/L</p> <p>Area Ratio: 0.114</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.93) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.109</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 2.00 (1.97) min</p> <p>Calculated Conc: 97.3 µg/L</p> <p>Area Ratio: 0.0420</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 98.3 µg/L</p> <p>Area Ratio: 0.0723</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

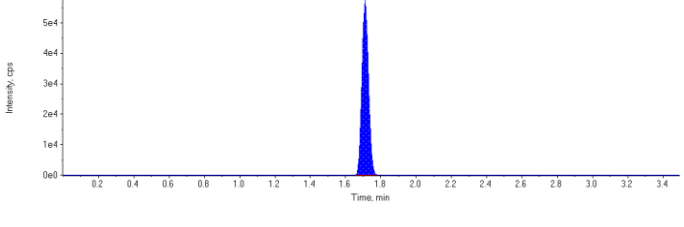
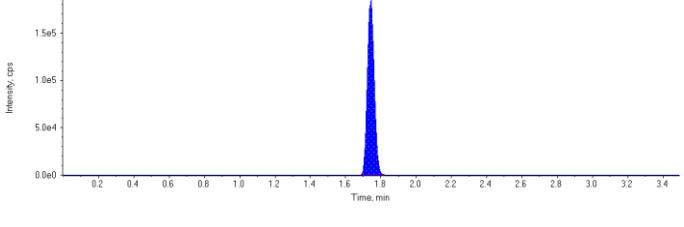
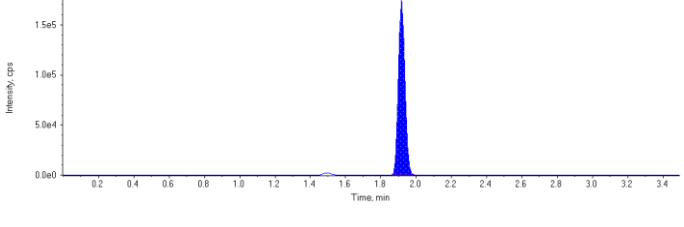
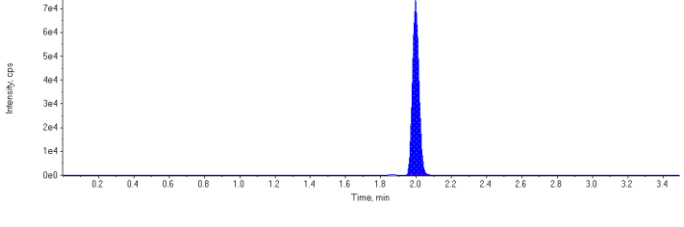
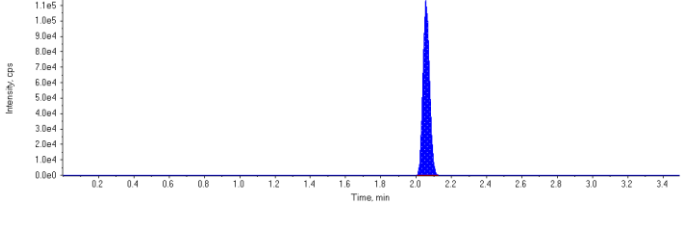
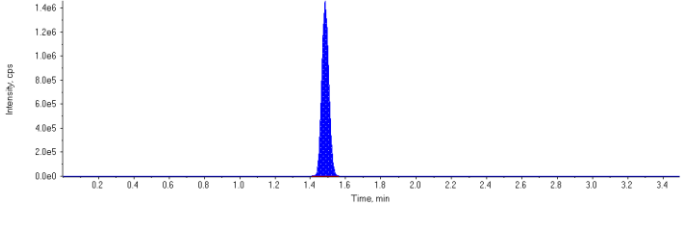
Sample Name	STD 5	Injection Vial	7
Sample ID	STD 5	Injection Volume (µL)	3
Sample Type	Standard	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 8:05:30 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4386408.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	147000.	1.71	1.00	-
MPFHpA	499000.	1.74	1.00	-
MPFOA	448000.	1.92	1.00	-
MPFOS	186000.	2.00	1.00	-
MPFNA	296000.	2.06	1.00	-
13C6-PFHxA IS	4060000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	2510000	1.16	60.0	55.3	92.1
PFHxS 1	2760000	1.71	60.0	57.1	95.1
PFHpA 1	3790000	1.74	60.0	56.5	94.2
PFOA 1	4140000	1.92	60.0	56.1	93.4
PFOS 1	1700000	1.99	60.0	50.5	84.1
PFNA 1	2820000	2.06	60.0	57.2	95.4
18O2-PFHxS	147000	1.71	100.	98.3	98.3
13C4-PFHpA	499000	1.74	100.	99.2	99.2
13C4-PFOA	448000	1.92	100.	102.	102.0
13C4-PFOS	186000	2.00	100.	106.	106.0
13C5-PFNA	296000	2.06	100.	99.1	99.1
13C6-PFHxA	4060000	1.48	100.	102.	102.0

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.92(1.93) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 2.00(1.97) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.06(2.02) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Standard)</p>	<p style="text-align: center;">This image is not available</p>

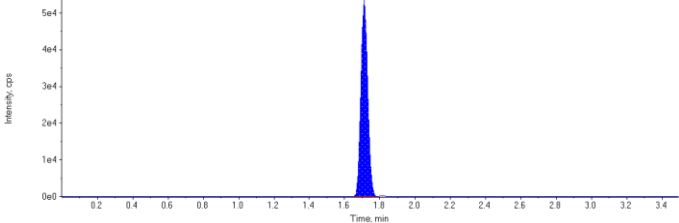
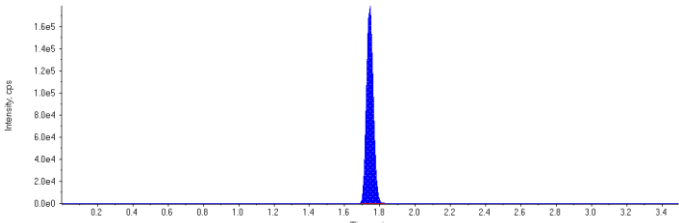
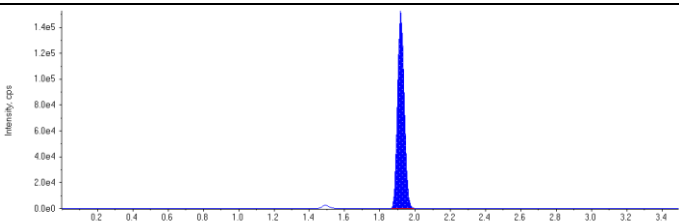
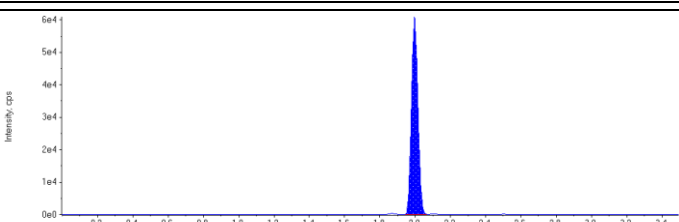
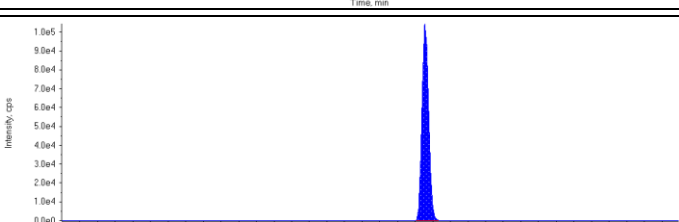
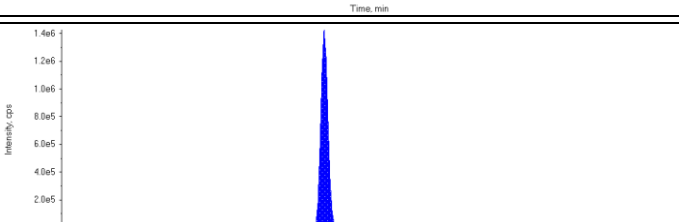
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.16 (1.16) min</p> <p>Calculated Conc: 55.3 µg/L</p> <p>Area Ratio: 17.1</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 57.1 µg/L</p> <p>Area Ratio: 18.8</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 56.5 µg/L</p> <p>Area Ratio: 7.60</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 56.1 µg/L</p> <p>Area Ratio: 9.24</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 50.5 µg/L</p> <p>Area Ratio: 9.16</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 57.2 µg/L</p> <p>Area Ratio: 9.50</p> <p>Sample Type: (Standard)</p>	

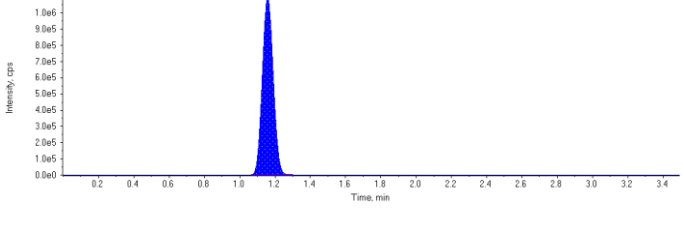
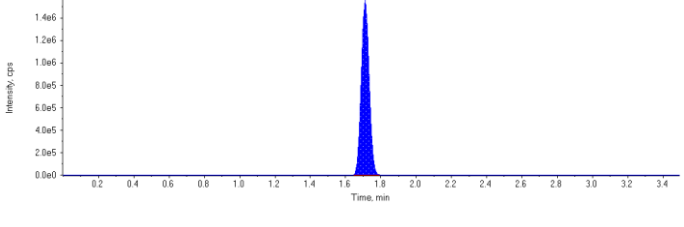
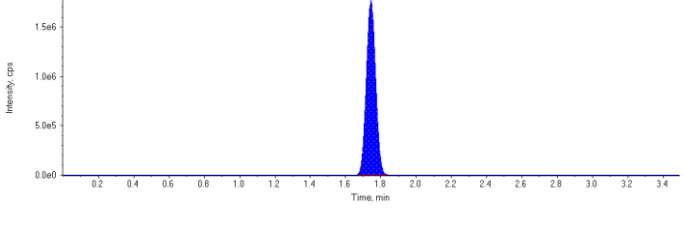
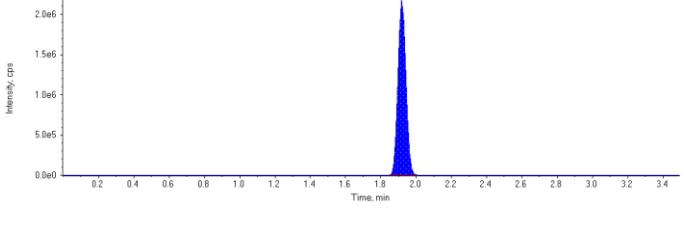
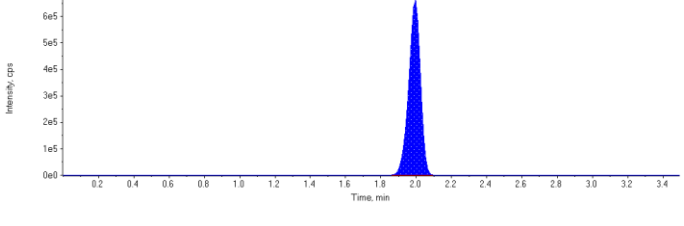
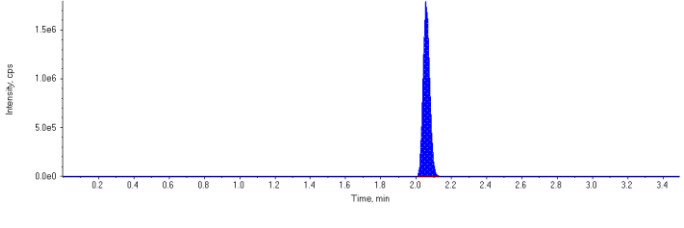
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 98.3 µg/L</p> <p>Area Ratio: 0.0362</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 99.2 µg/L</p> <p>Area Ratio: 0.123</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.93) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.110</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 2.00 (1.97) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.0458</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 99.1 µg/L</p> <p>Area Ratio: 0.0729</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

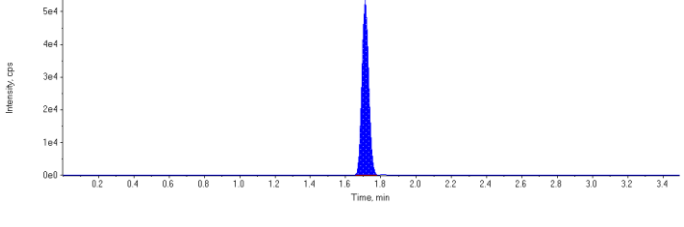
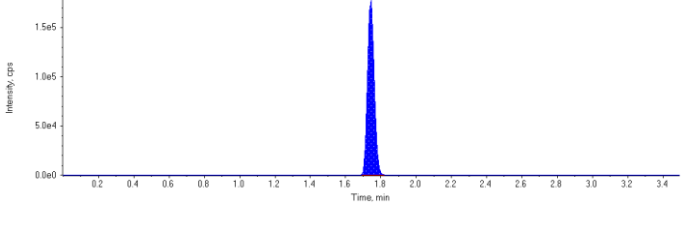
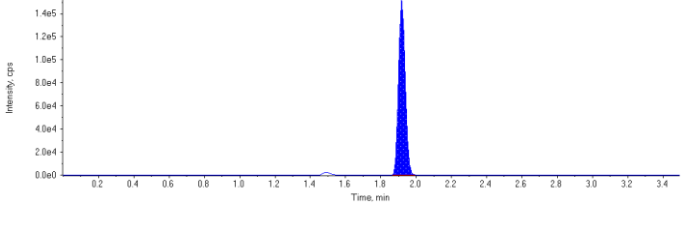
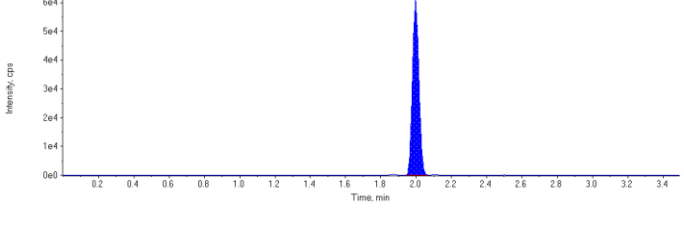
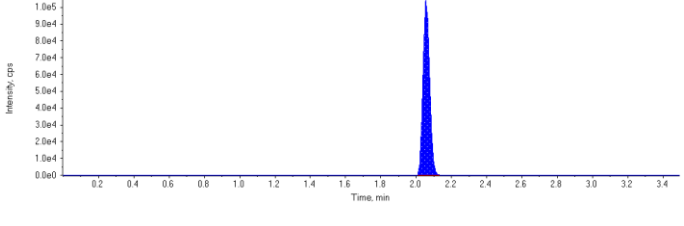
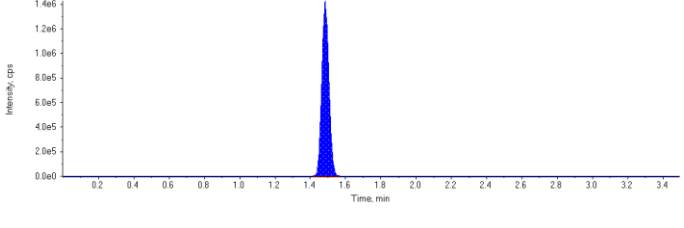
Sample Name	STD 6	Injection Vial	8
Sample ID	STD 6	Injection Volume (µL)	3
Sample Type	Standard	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 8:10:36 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4386408.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	142000.	1.71	1.00	-
MPFHpA	477000.	1.74	1.00	-
MPFOA	398000.	1.92	1.00	-
MPFOS	154000.	2.00	1.00	-
MPFNA	275000.	2.06	1.00	-
13C6-PFHxA IS	3980000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	4700000	1.16	100.	107.	107.0
PFHxS 1	4820000	1.71	100.	103.	103.0
PFHpA 1	6480000	1.74	100.	101.	101.0
PFOA 1	6820000	1.92	100.	104.	104.0
PFOS 1	3050000	1.99	100.	109.	109.0
PFNA 1	4710000	2.06	100.	103.	103.0
18O2-PFHxS	142000	1.71	100.	96.8	96.8
13C4-PFHpA	477000	1.74	100.	96.9	96.9
13C4-PFOA	398000	1.92	100.	92.7	92.7
13C4-PFOS	154000	2.00	100.	89.4	89.4
13C5-PFNA	275000	2.06	100.	94.0	94.0
13C6-PFHxA	3980000	1.48	100.	99.7	99.7

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.92(1.93) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 2.00(1.97) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.06(2.02) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Standard)</p>	<p style="text-align: center;">This image is not available</p>

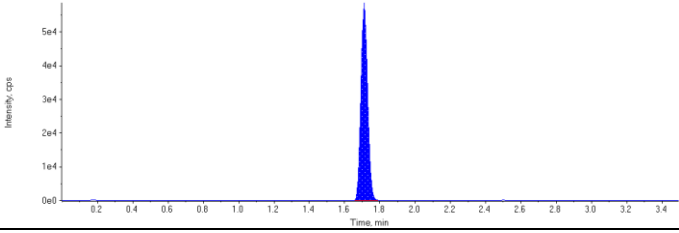
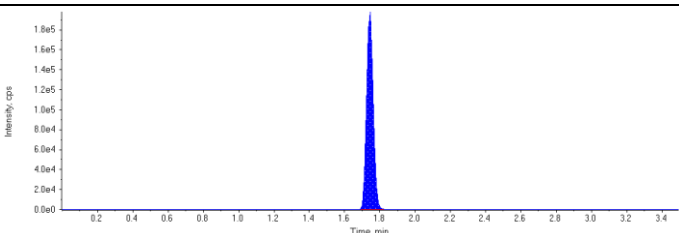
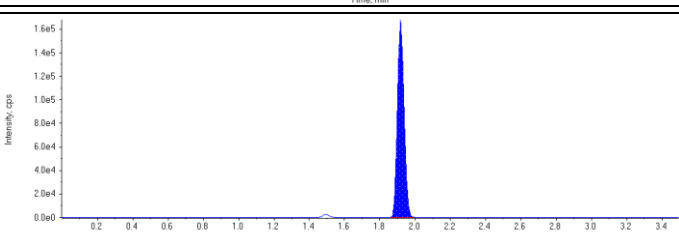
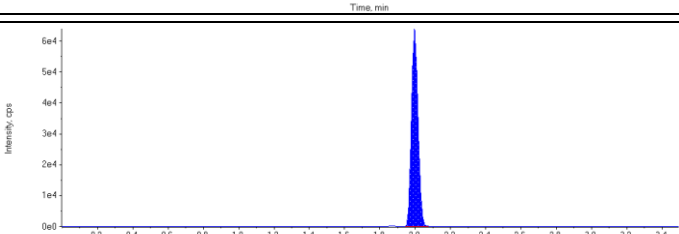
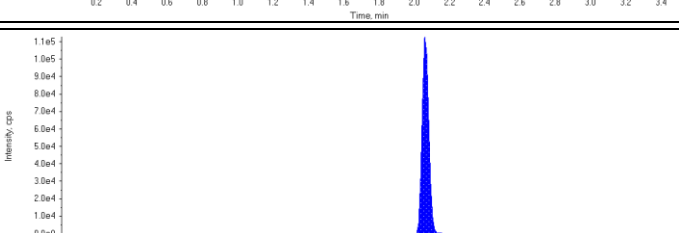
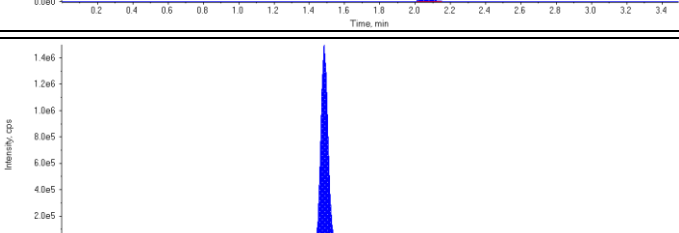
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.16 (1.16) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 33.2</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 34.0</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 13.6</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 17.1</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 109. µg/L</p> <p>Area Ratio: 19.9</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 17.1</p> <p>Sample Type: (Standard)</p>	

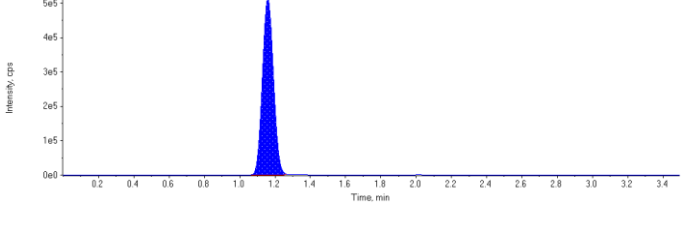
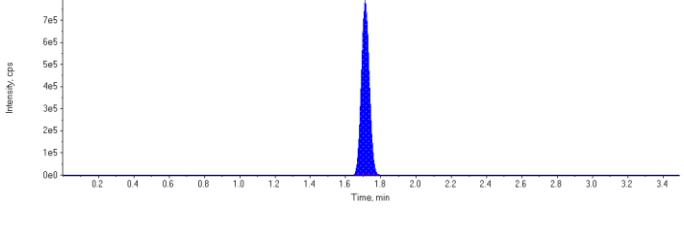
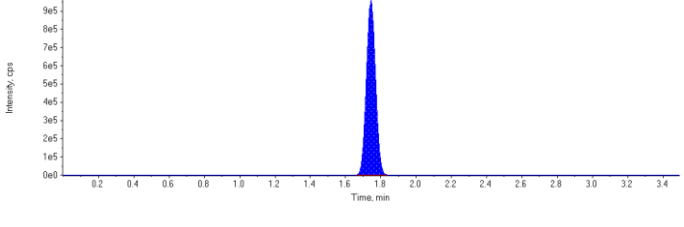
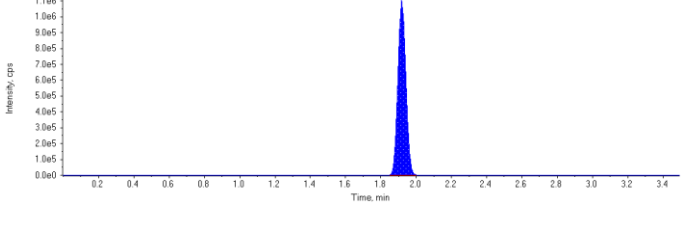
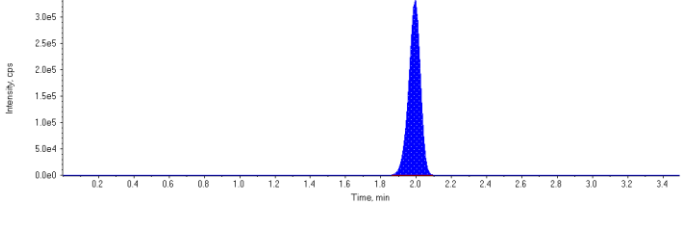
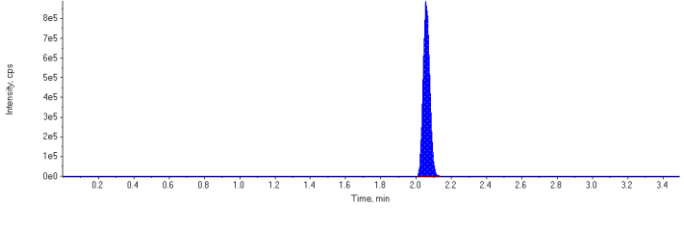
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 96.8 µg/L</p> <p>Area Ratio: 0.0356</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 96.9 µg/L</p> <p>Area Ratio: 0.120</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.93) min</p> <p>Calculated Conc: 92.7 µg/L</p> <p>Area Ratio: 0.100</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 2.00 (1.97) min</p> <p>Calculated Conc: 89.4 µg/L</p> <p>Area Ratio: 0.0386</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 94.0 µg/L</p> <p>Area Ratio: 0.0692</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 99.7 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

Sample Name	ICV	Injection Vial	9
Sample ID	ICV	Injection Volume (µL)	3
Sample Type	Quality Control	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 8:15:41 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4386408.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	152000.	1.71	1.00	-
MPFHpA	517000.	1.74	1.00	-
MPFOA	437000.	1.92	1.00	-
MPFOS	163000.	2.00	1.00	-
MPFNA	297000.	2.06	1.00	-
13C6-PFHxA IS	4130000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	2240000	1.16	50.0	47.7	95.4
PFHxS 1	2450000	1.71	50.0	49.2	98.5
PFHpA 1	3460000	1.74	50.0	49.7	99.5
PFOA 1	3460000	1.92	50.0	48.1	96.3
PFOS 1	1520000	1.99	50.0	51.5	103.0
PFNA 1	2340000	2.06	50.0	47.6	95.1
18O2-PFHxS	152000	1.71	100.	99.7	99.7
13C4-PFHpA	517000	1.74	100.	101.	101.0
13C4-PFOA	437000	1.92	100.	98.0	98.0
13C4-PFOS	163000	2.00	100.	91.5	91.5
13C5-PFNA	297000	2.06	100.	97.6	97.6
13C6-PFHxA	4130000	1.48	100.	104.	104.0

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.92(1.93) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 2.00(1.97) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.06(2.02) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Quality Control)</p>	<p style="text-align: center;">This image is not available</p>

<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.16 (1.16) min</p> <p>Calculated Conc: 47.7 µg/L</p> <p>Area Ratio: 14.7</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 49.2 µg/L</p> <p>Area Ratio: 16.2</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 49.7 µg/L</p> <p>Area Ratio: 6.69</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 48.1 µg/L</p> <p>Area Ratio: 7.93</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 51.5 µg/L</p> <p>Area Ratio: 9.34</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 47.6 µg/L</p> <p>Area Ratio: 7.89</p> <p>Sample Type: (Quality Control)</p>	

<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 99.7 µg/L</p> <p>Area Ratio: 0.0367</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.125</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.93) min</p> <p>Calculated Conc: 98.0 µg/L</p> <p>Area Ratio: 0.106</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 2.00 (1.97) min</p> <p>Calculated Conc: 91.5 µg/L</p> <p>Area Ratio: 0.0395</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.06 (2.02) min</p> <p>Calculated Conc: 97.6 µg/L</p> <p>Area Ratio: 0.0719</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

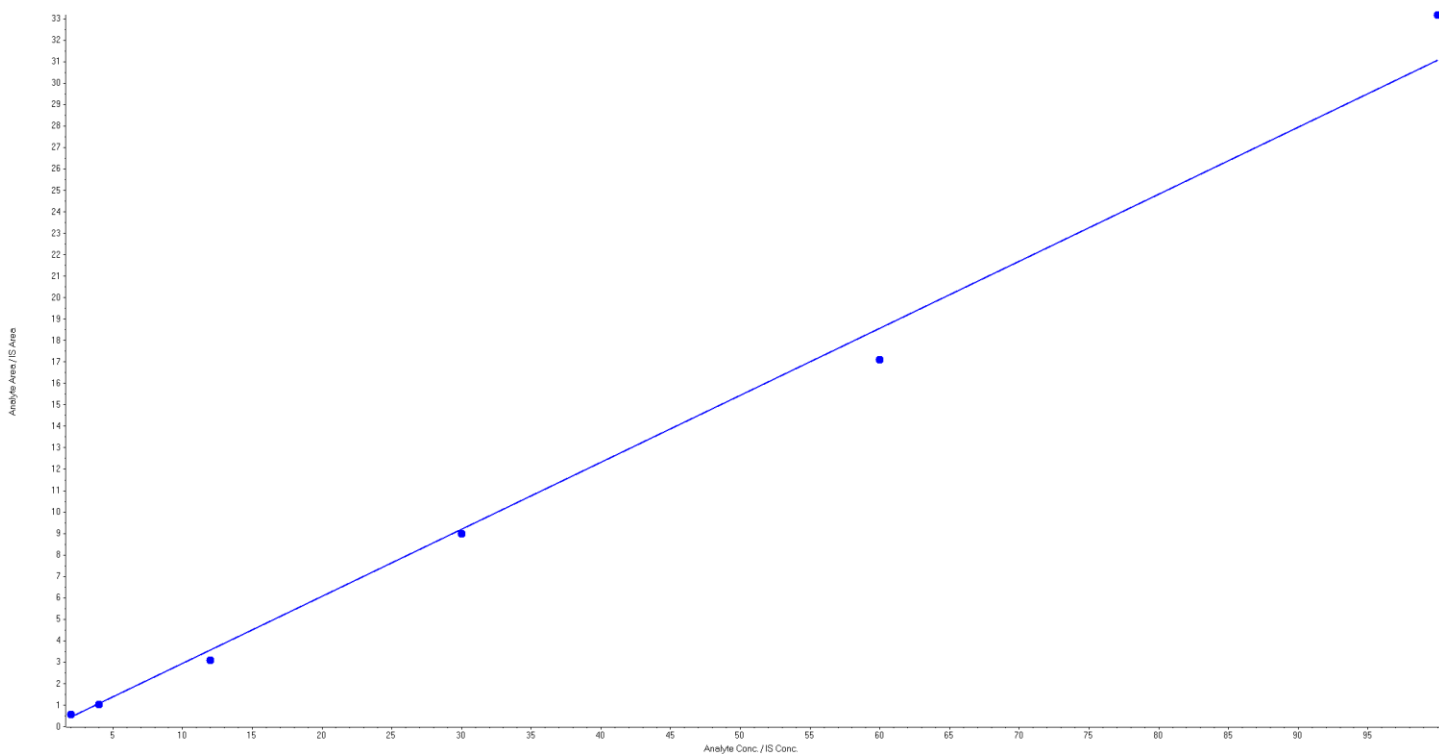
Sample Name	Analyte	PFBS		PFHxS		PFHpA		PFOA		PFOS		PFNA	
	Mass labeled IS	MPFHxS		MPFHxS		MPFHpA		MPFOA		MPFOS		MPFNA	
	Average IS Area in ICAL	147000		147000		493500		430500		172500		293500	
		IS Peak Area	IS %R (ICAL)	IS Peak Area	IS %R (ICAL)	IS Peak Area	IS %R (ICAL)	IS Peak Area	IS %R (ICAL)	IS Peak Area	IS %R (ICAL)	IS Peak Area	IS %R (ICAL)
STD 1		146000	99	146000	99	517000	105	413000	96	179000	104	291000	99
STD 2		147000	100	147000	100	503000	102	442000	103	177000	103	296000	101
STD 3		156000	106	156000	106	498000	101	435000	101	167000	97	307000	105
STD 4		144000	98	144000	98	467000	95	447000	104	172000	100	296000	101
STD 5		147000	100	147000	100	499000	101	448000	104	186000	108	296000	101
STD 6		142000	97	142000	97	477000	97	398000	92	154000	89	275000	94
ICV		152000	103	152000	103	517000	105	437000	102	163000	94	297000	101
CCV		122000	83	122000	83	400000	81	381000	89	150000	87	266000	91
4385924~BLANK		127000	86	127000	86	462000	94	407000	95	161000	93	288000	98
4385924~MTRX SPK		135000	92	135000	92	421000	85	413000	96	163000	94	276000	94
4385924~MTRX SPK:D1		113000	77	113000	77	374000	76	340000	79	142000	82	238000	81
4385924~SPIKE		126000	86	126000	86	409000	83	393000	91	158000	92	266000	91
4385924~BVX947-01 (10x)		105000	71	105000	71	247000	50	245000	57	125000	72	188000	64
4385924~BVX792-01		125000	85	125000	85	356000	72	325000	75	135000	78	252000	86
4385924~BVX793-01		117000	80	117000	80	371000	75	363000	84	142000	82	274000	93
4385924~BVX794-01		112000	76	112000	76	308000	62	321000	75	123000	71	245000	83
4385924~BVX795-01		102000	69	102000	69	383000	78	345000	80	148000	86	263000	90
4385924~BVX796-01		113000	77	113000	77	366000	74	359000	83	140000	81	252000	86
4385924~BVX797-01		107000	73	107000	73	365000	74	331000	77	143000	83	263000	90
4385924~BVX798-01		113000	77	113000	77	375000	76	342000	79	126000	73	266000	91
4385924~BVX799-01		106000	72	106000	72	320000	65	326000	76	131000	76	231000	79
4385924~BVX800-01		124000	84	124000	84	374000	76	342000	79	131000	76	244000	83
CCV		115000	78	115000	78	404000	82	349000	81	157000	91	290000	99
4385924~BVX801-01		103000	70	103000	70	345000	70	333000	77	143000	83	247000	84
4385924~BVX802-01		114000	78	114000	78	361000	73	363000	84	130000	75	246000	84
4385924~BVX803-01		119000	81	119000	81	358000	73	323000	75	119000	69	233000	79
4385924~BVX804-01		114000	78	114000	78	375000	76	364000	85	149000	86	270000	92
4385924~BVX805-01		129000	88	129000	88	401000	81	350000	81	153000	89	267000	91
4385924~BVX947-01 (10x)		94000	64	94000	64	219000	44	235000	55	123000	71	171000	58
CCV		115000	78	115000	78	409000	83	374000	87	145000	84	280000	95

Analyte Name: PFBS 1
Internal Standard: MPFHxS

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.312 x + -0.178$ (r = 0.9966)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
2	1	2.41	120.3
4	1	3.84	96.1
12	1	10.46	87.2
30	1	29.29	97.6
60	1	55.27	92.1
100	1	106.73	106.7

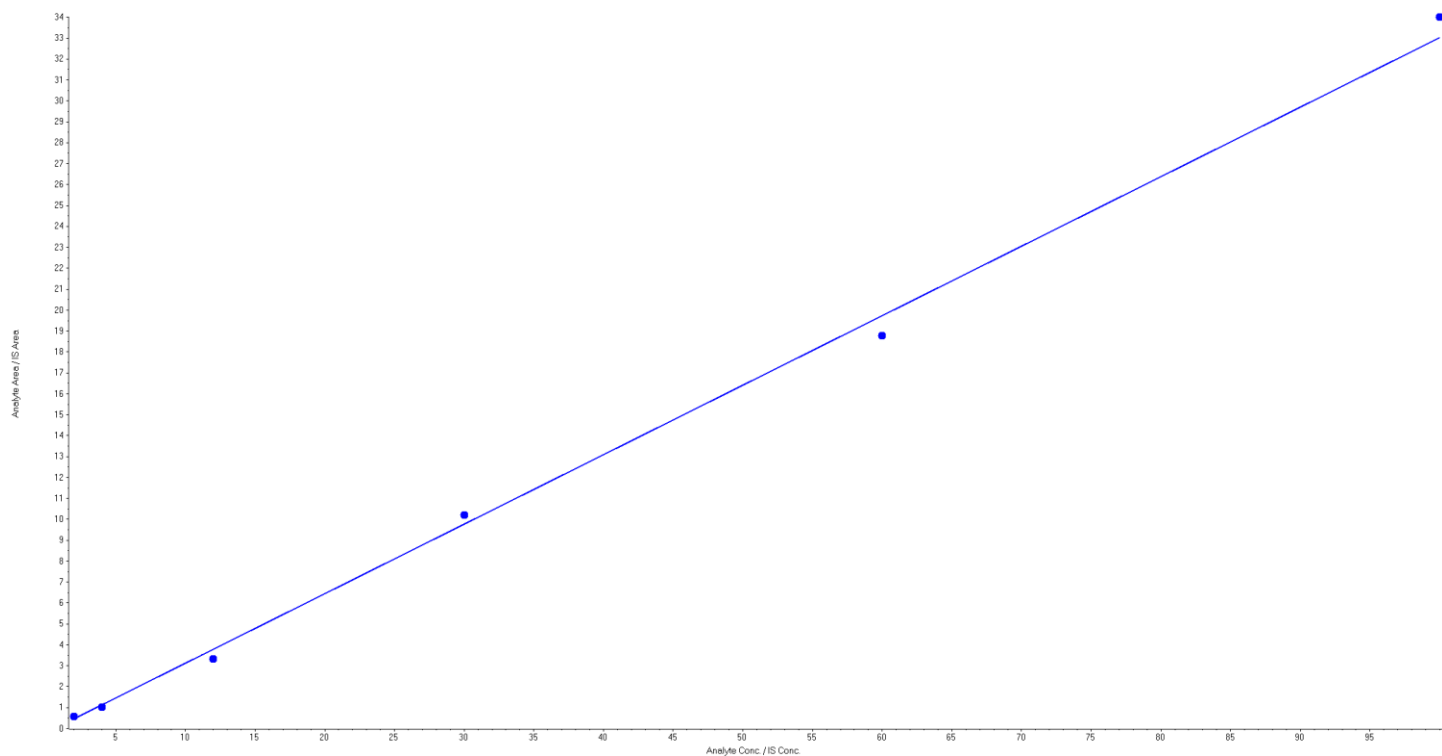


Analyte Name: PFHxS 1
Internal Standard: MPFHxS

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.332 x + -0.197$ (r = 0.9984)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
2	1	2.35	117.3
4	1	3.68	92.1
12	1	10.57	88.1
30	1	31.35	104.5
60	1	57.09	95.1
100	1	102.97	103.0

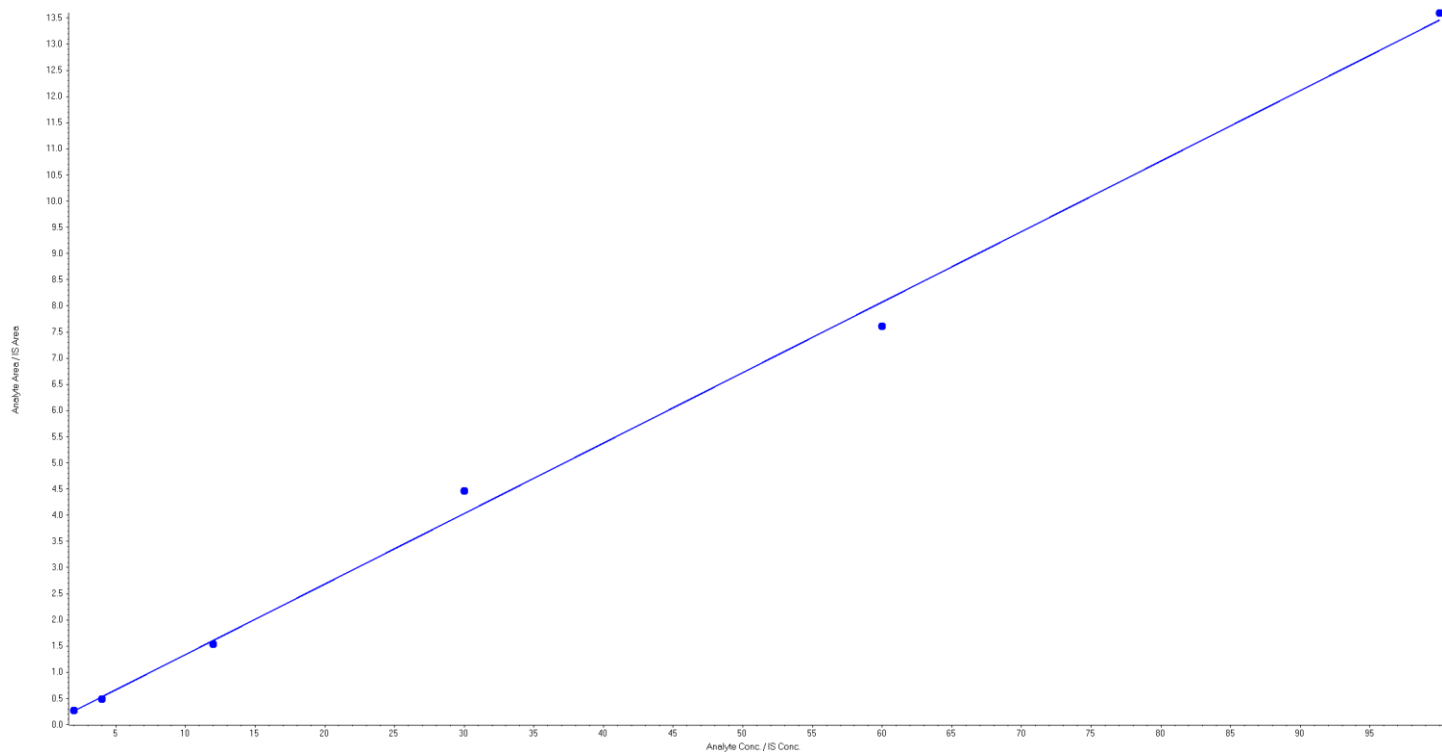


Analyte Name: PFHpA 1
Internal Standard: MPFHpA

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.135 x + -0.0103$ (r = 0.9982)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
2	1	2.11	105.7
4	1	3.72	93.0
12	1	11.46	95.5
30	1	33.18	110.6
60	1	56.53	94.2
100	1	101.00	101.0

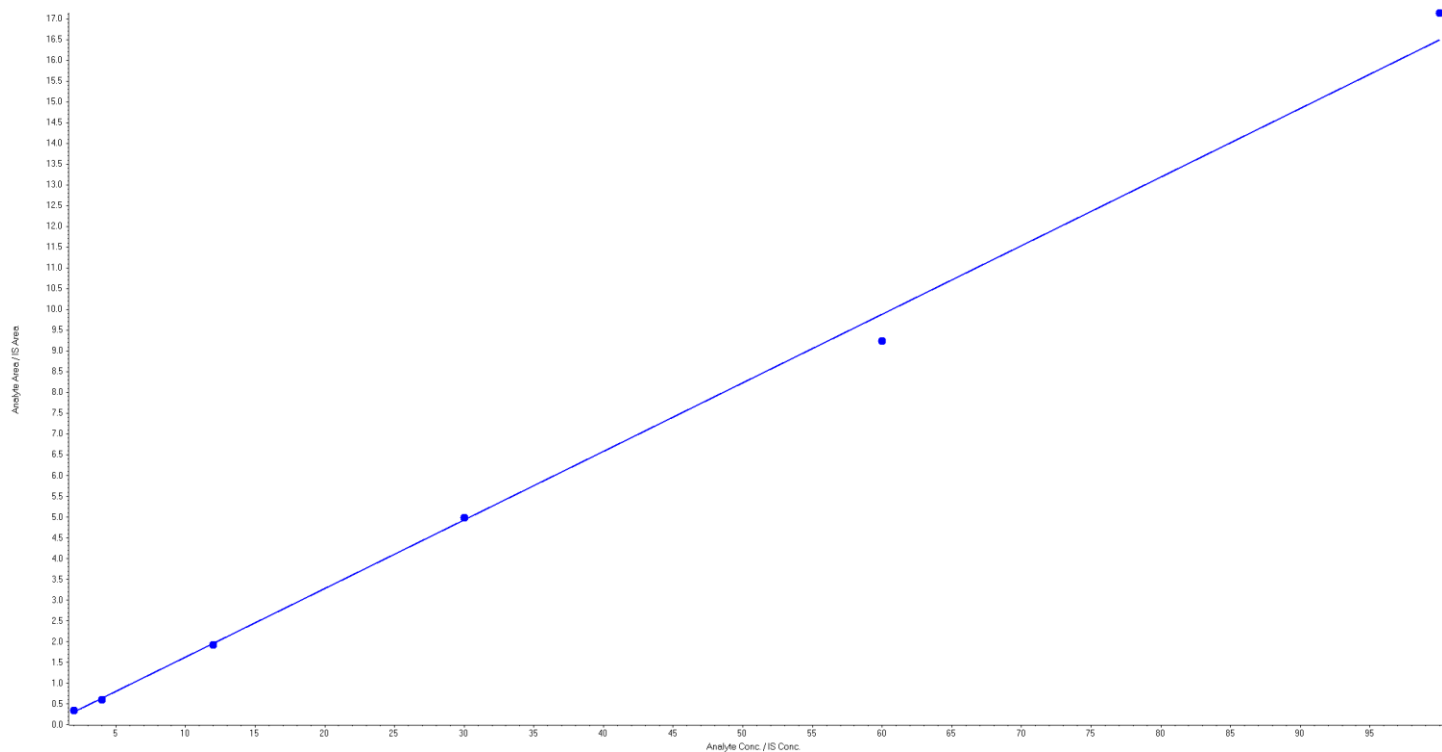


Analyte Name: PFOA 1
Internal Standard: MPFOA

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.165 x + -0.0279$ (r = 0.9986)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
2	1	2.20	110.0
4	1	3.74	93.4
12	1	11.79	98.2
30	1	30.30	101.0
60	1	56.07	93.4
100	1	103.91	103.9

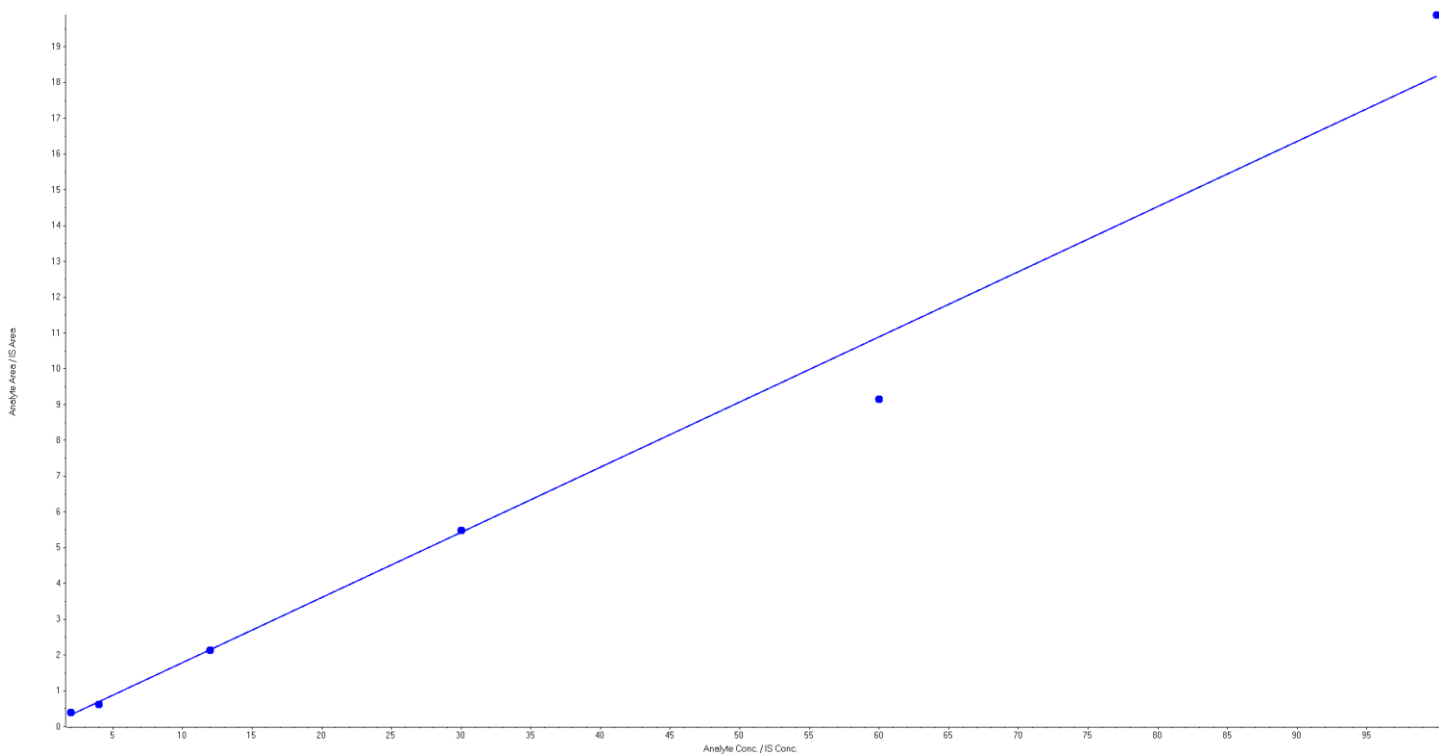


Analyte Name: PFOS 1
Internal Standard: MPFOS

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.182 x + -0.0353$ (r = 0.9927)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
2	1	2.31	115.6
4	1	3.63	90.7
12	1	11.90	99.2
30	1	30.32	101.1
60	1	50.47	84.1
100	1	109.37	109.4

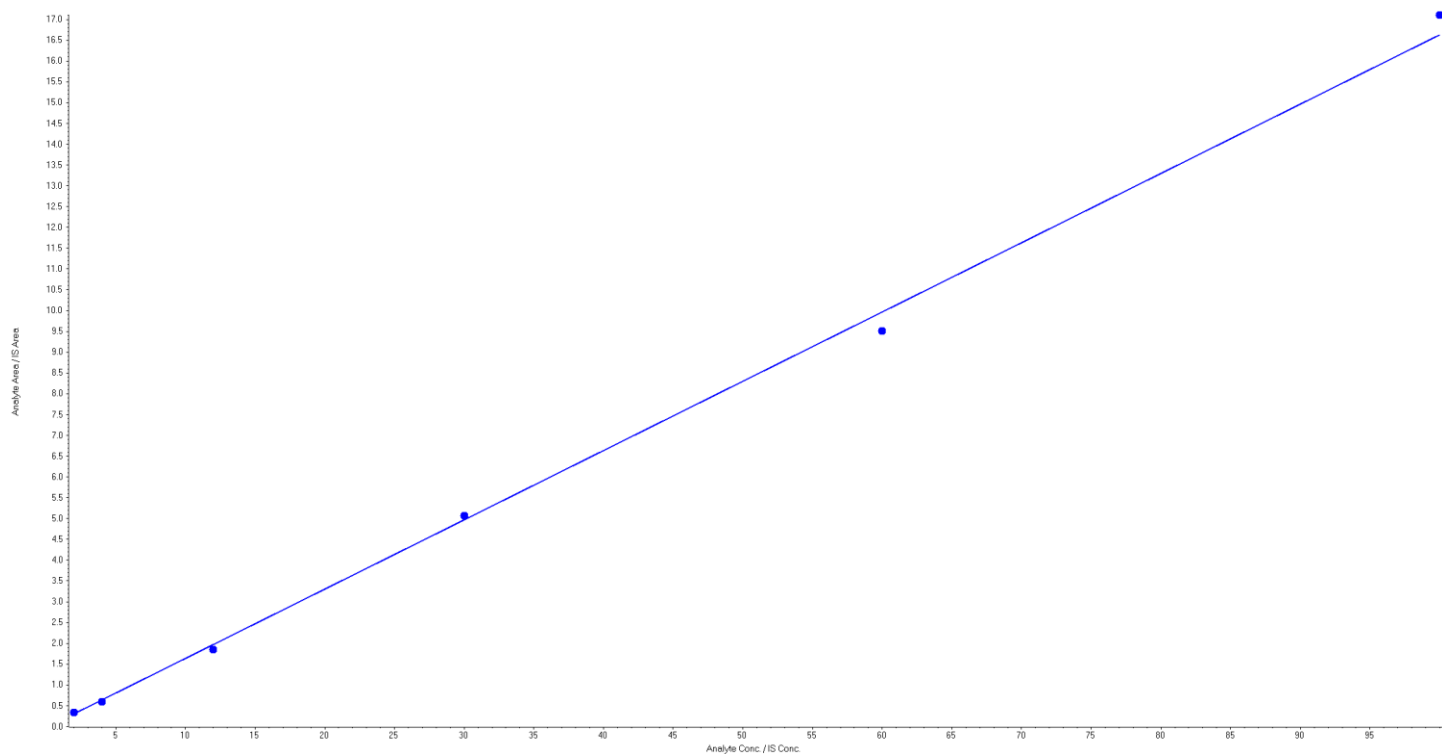


Analyte Name: PFNA 1
Internal Standard: MPFNA

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.167x + -0.0273$ (r = 0.9991)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
2	1	2.23	111.6
4	1	3.76	93.9
12	1	11.30	94.2
30	1	30.63	102.1
60	1	57.22	95.4
100	1	102.86	102.9

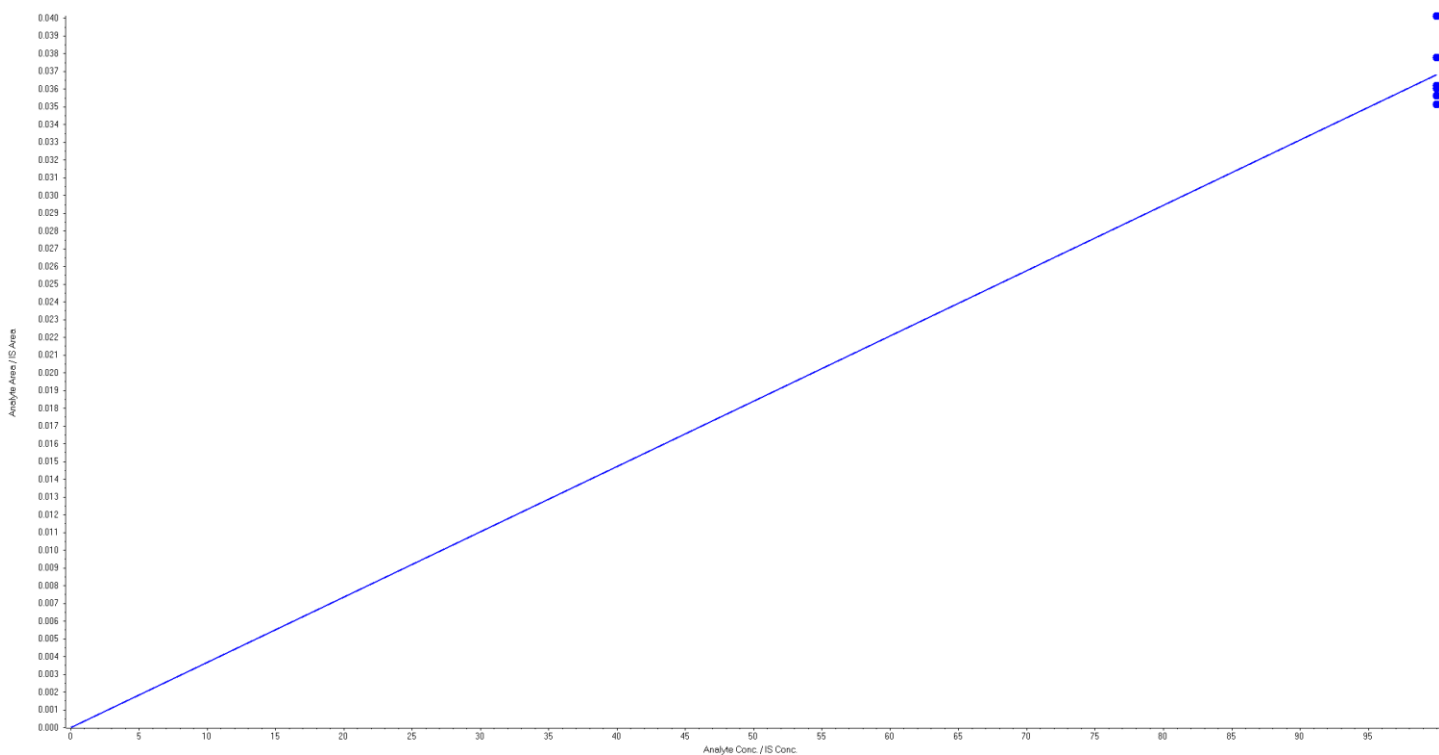


Analyte Name: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.000368 x (r = 0.9990)$

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

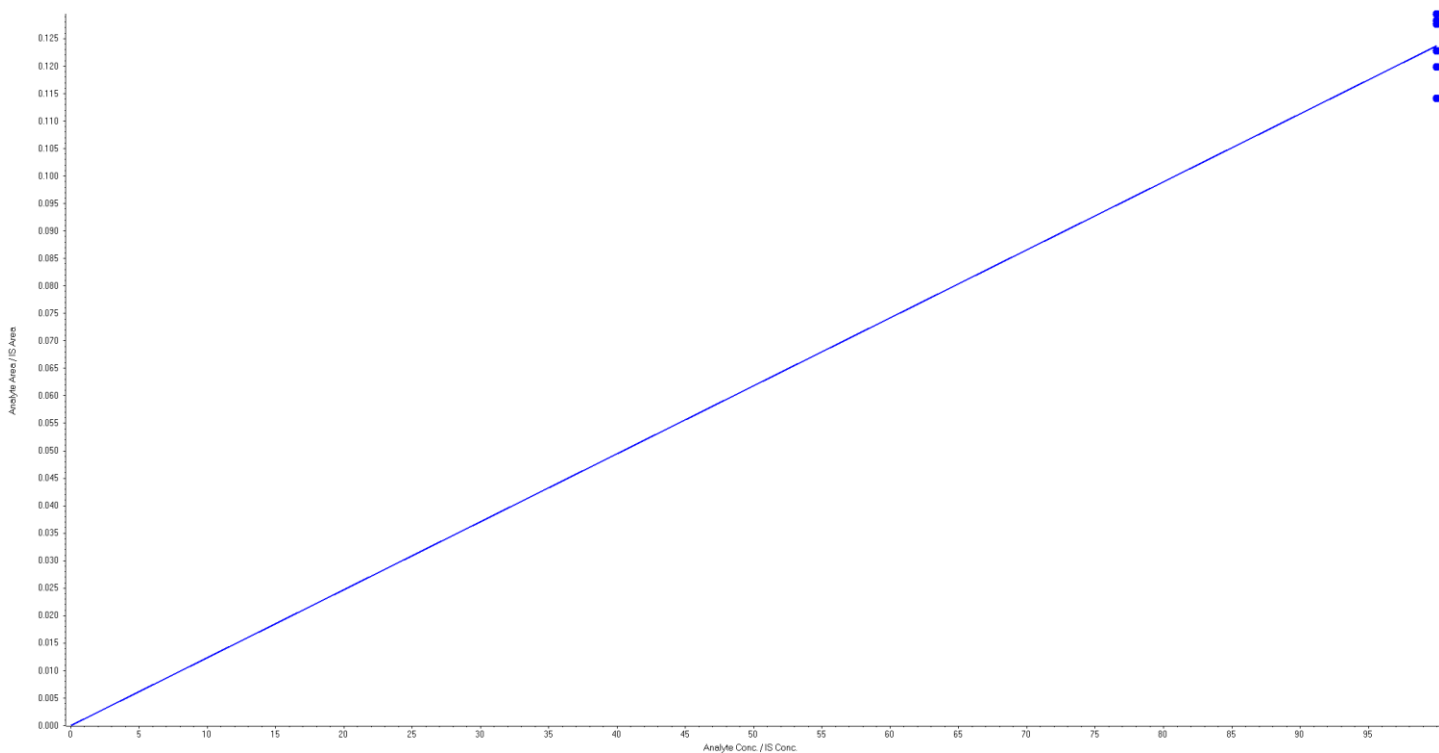


Analyte Name: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00124 x (r = 0.9990)$

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
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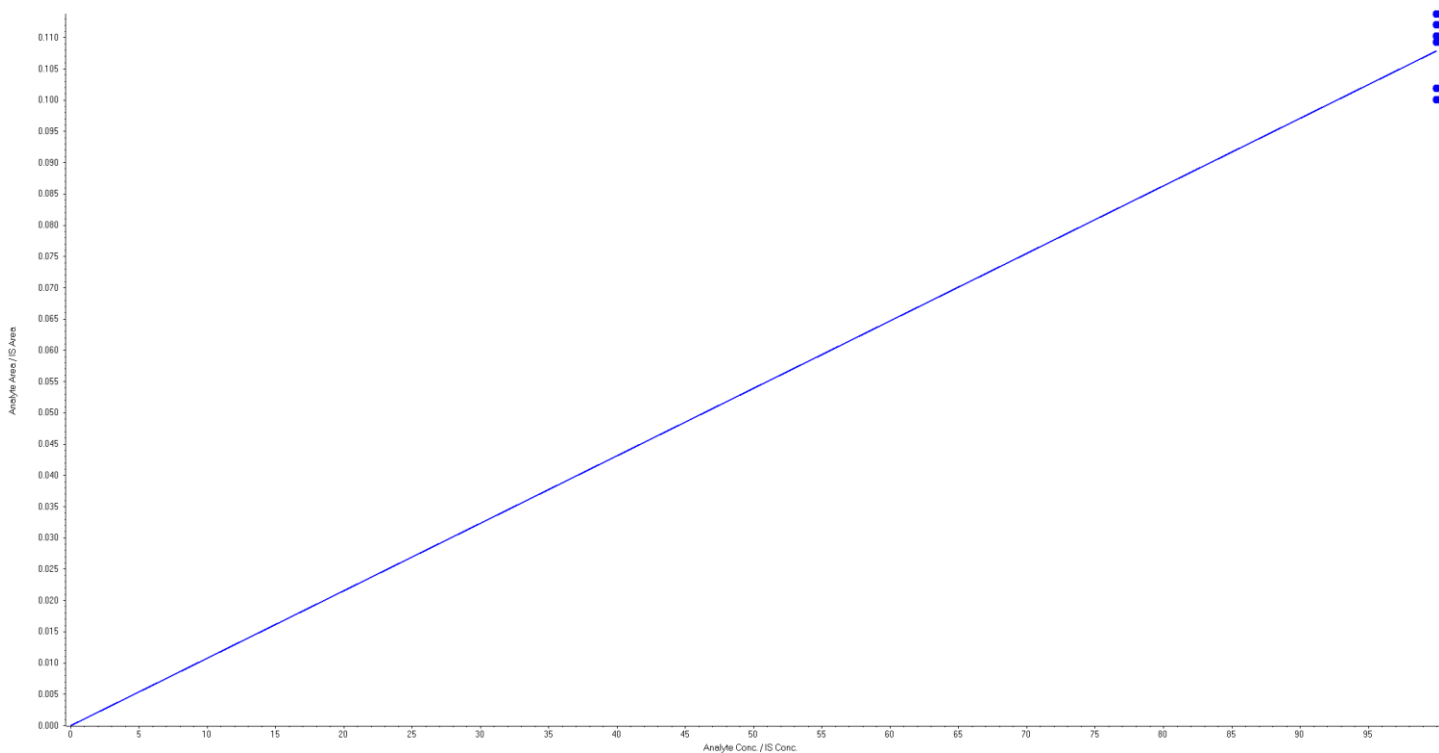


Analyte Name: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00108 x (r = 0.9989)$

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
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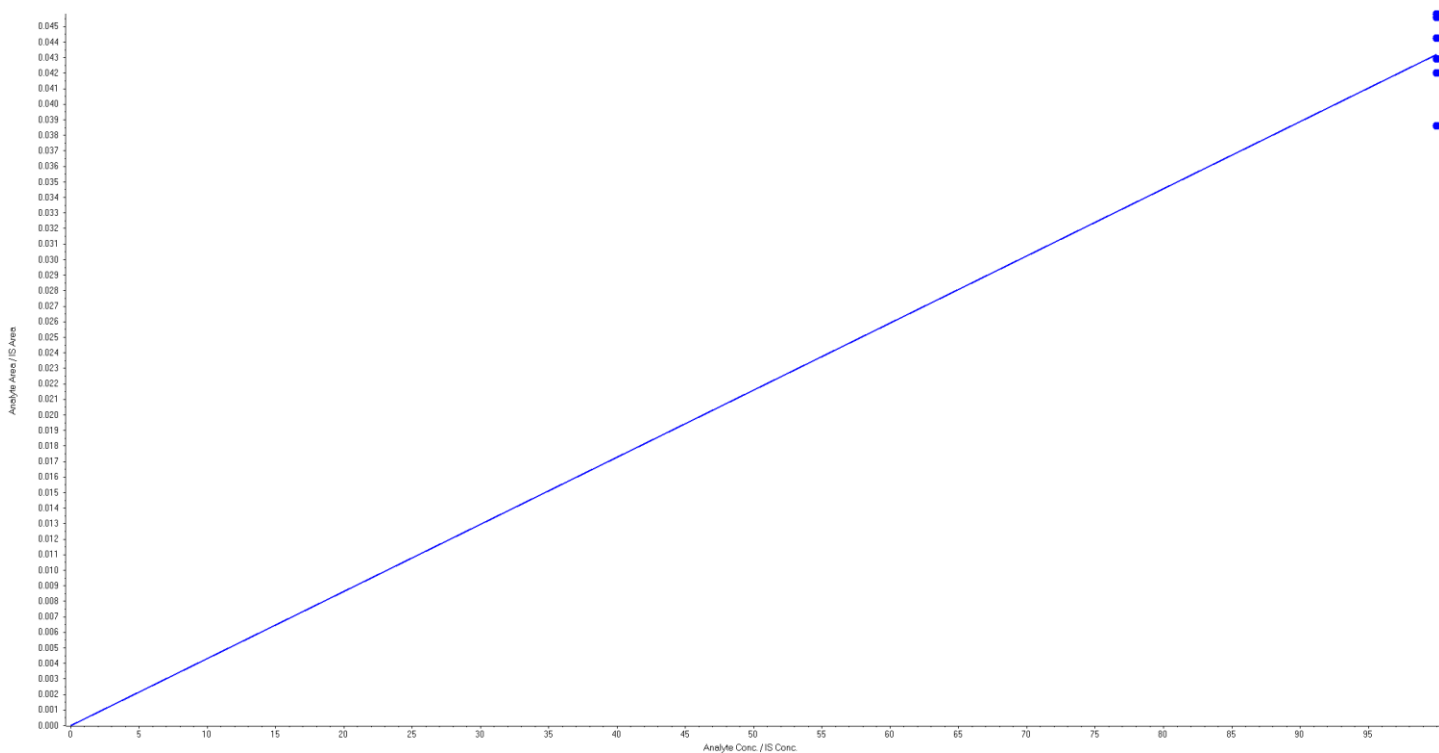


Analyte Name: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.000432 x (r = 0.9984)$

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

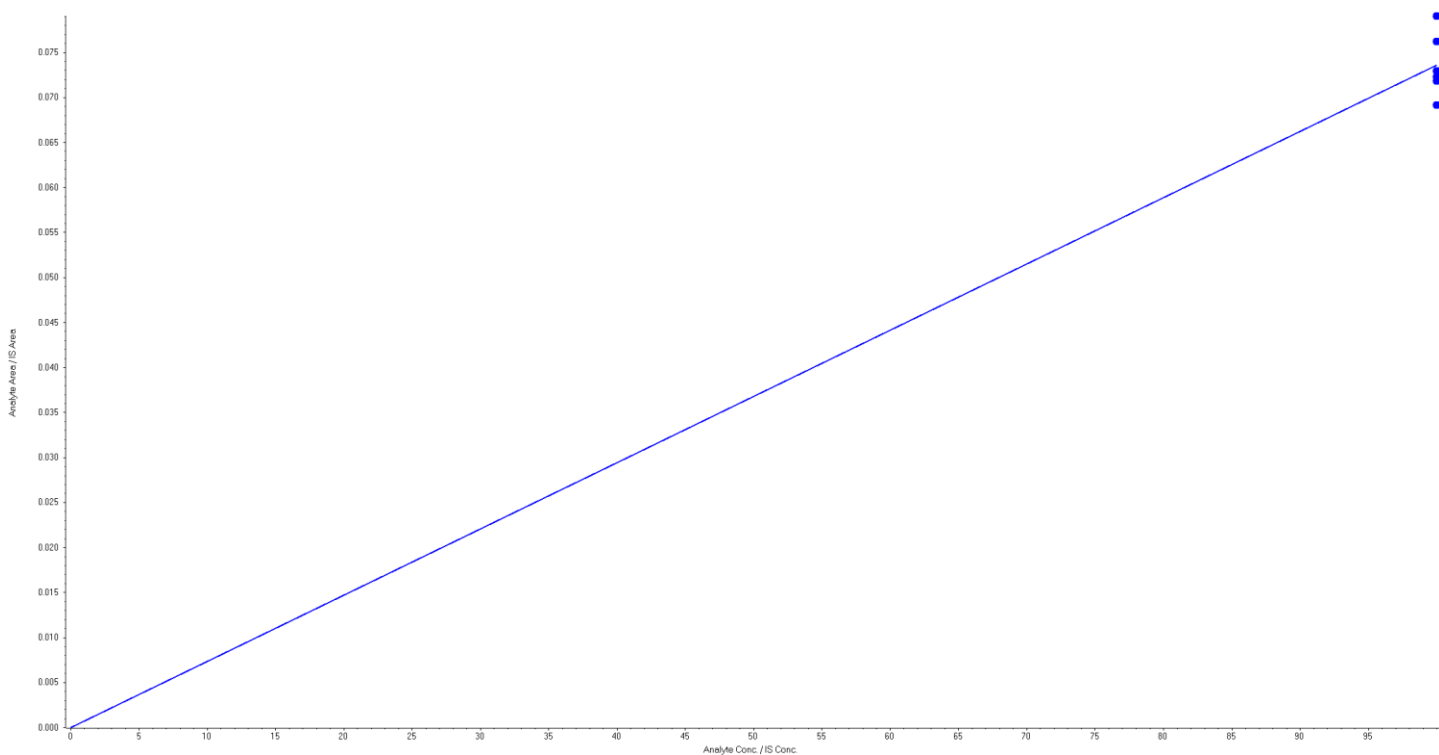


Analyte Name: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_160219\WS#4386408.wiff	Result Table	PFC_Water_160219_4385924_ULow.rdb
Acquisition Date	2016/02/19 7:45:04 AM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.000736 x (r = 0.9991)$

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0





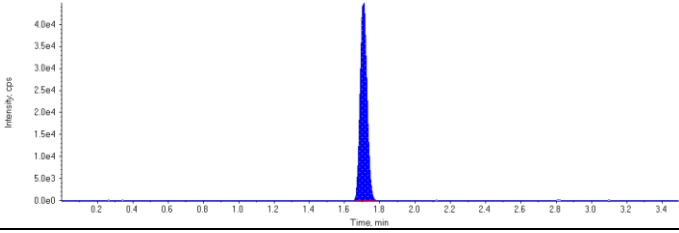
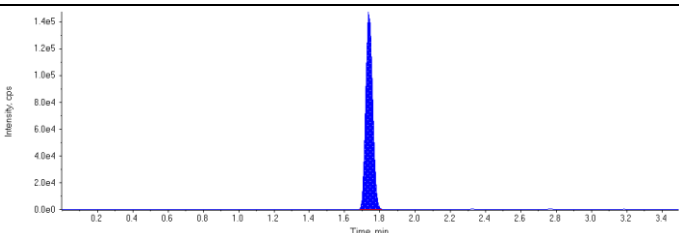
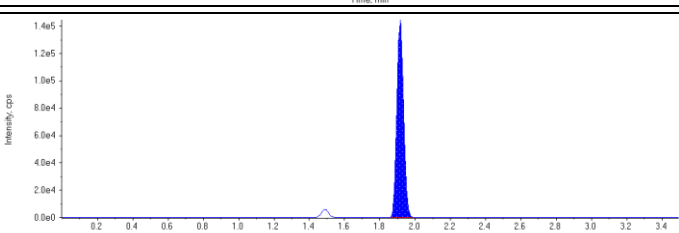
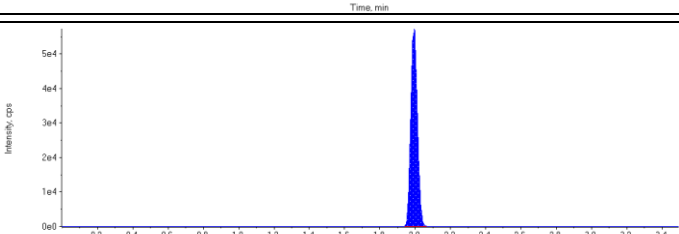
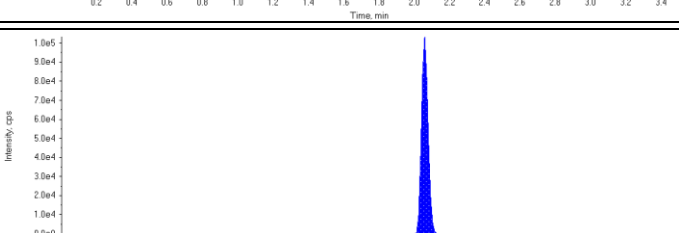
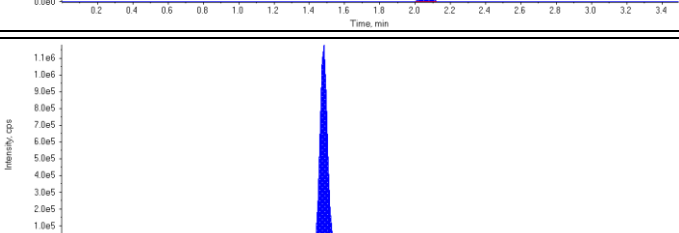
6. Continuing Calibration

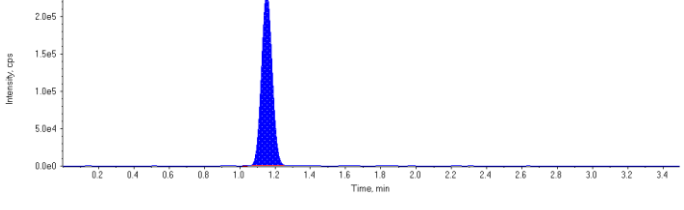
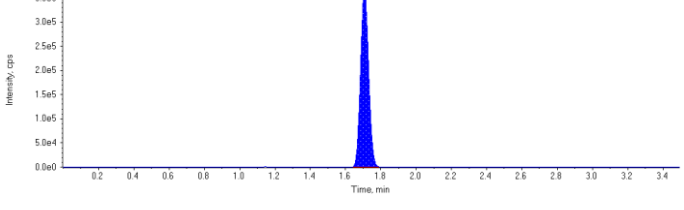
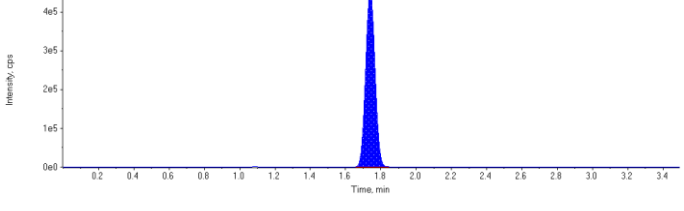
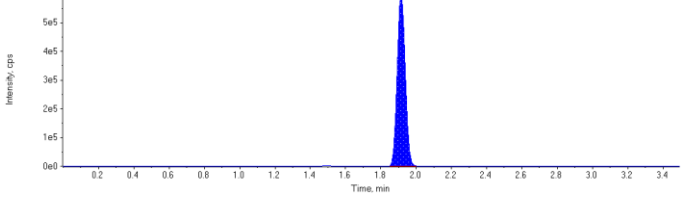
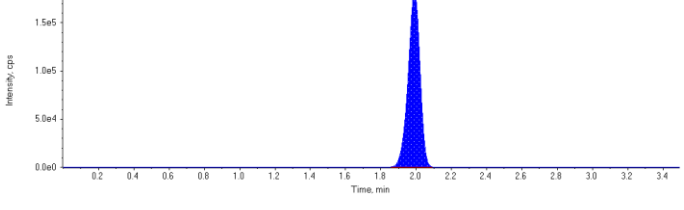
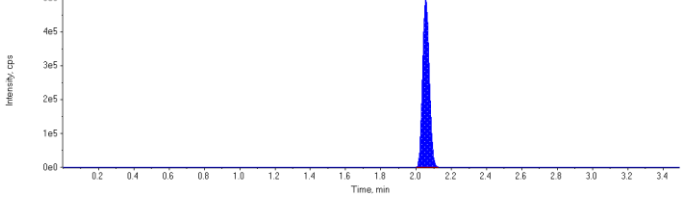
Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
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1-800-668-0639
www.maxxamanalytics.com

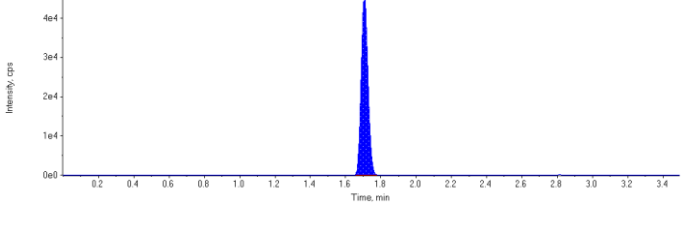
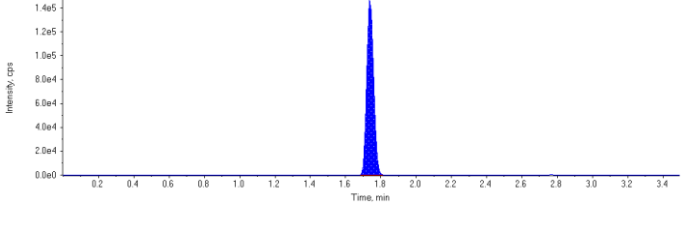
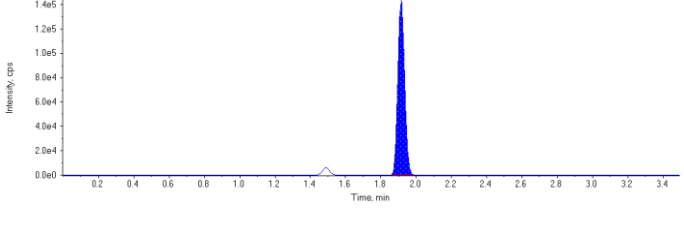
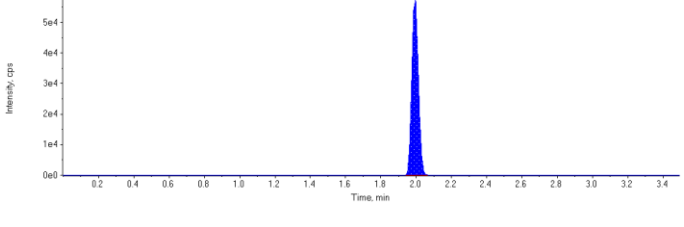
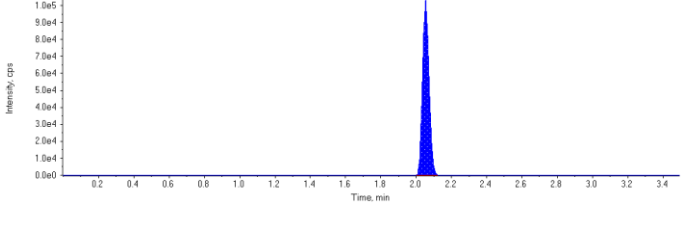
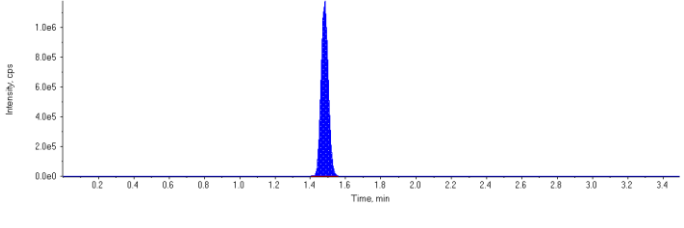
Sample Name	CCV	Injection Vial	6
Sample ID	CCV	Injection Volume (µL)	3
Sample Type	Quality Control	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 10:43:32 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4386408.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	122000.	1.71	1.00	-
MPFHpA	400000.	1.74	1.00	-
MPFOA	381000.	1.91	1.00	-
MPFOS	150000.	1.99	1.00	-
MPFNA	266000.	2.05	1.00	-
13C6-PFHxA IS	3360000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	975000	1.15	30.0	26.1	86.8
PFHxS 1	1160000	1.71	30.0	29.2	97.4
PFHpA 1	1680000	1.74	30.0	31.2	104.0
PFOA 1	1910000	1.92	30.0	30.5	102.0
PFOS 1	851000	1.99	30.0	31.3	104.0
PFNA 1	1330000	2.05	30.0	30.3	101.0
18O2-PFHxS	122000	1.71	100.	99.0	99.0
13C4-PFHpA	400000	1.74	100.	96.4	96.4
13C4-PFOA	381000	1.91	100.	105.	105.0
13C4-PFOS	150000	1.99	100.	103.	103.0
13C5-PFNA	266000	2.05	100.	108.	108.0
13C6-PFHxA	3360000	1.48	100.	84.1	84.1

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Quality Control)</p>	<p style="text-align: center;">This image is not available</p>

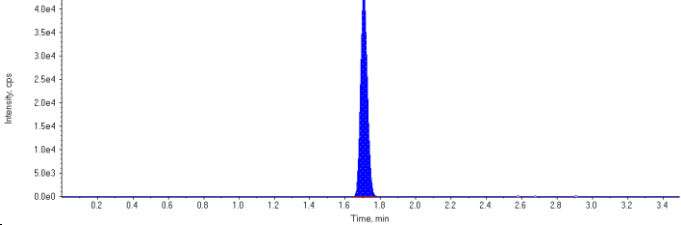
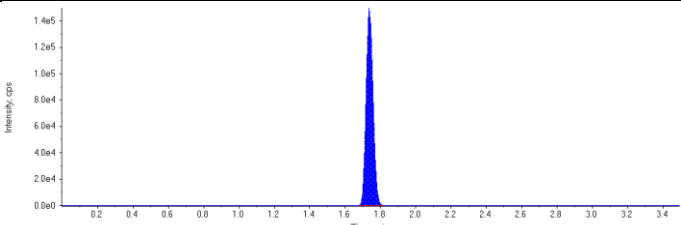
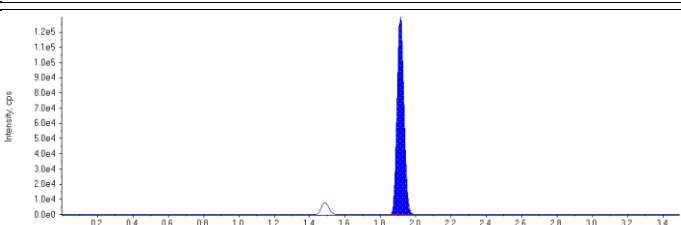
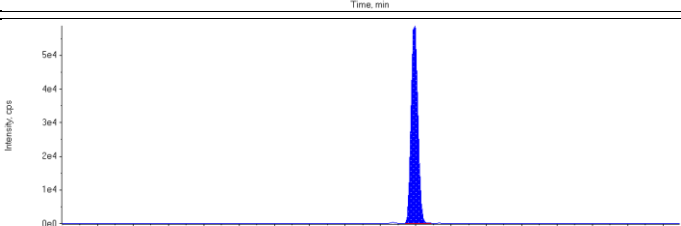
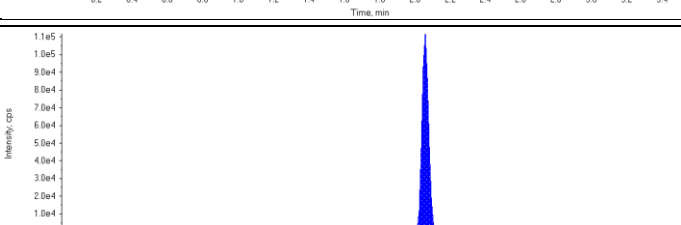
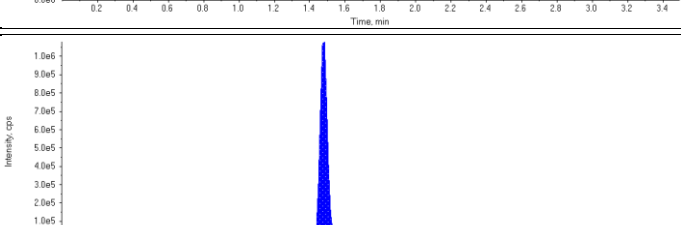
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.15 (1.16) min</p> <p>Calculated Conc: 26.1 µg/L</p> <p>Area Ratio: 7.96</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 29.2 µg/L</p> <p>Area Ratio: 9.51</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 31.2 µg/L</p> <p>Area Ratio: 4.20</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.92 (1.88) min</p> <p>Calculated Conc: 30.5 µg/L</p> <p>Area Ratio: 5.01</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 31.3 µg/L</p> <p>Area Ratio: 5.67</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 30.3 µg/L</p> <p>Area Ratio: 5.01</p> <p>Sample Type: (Quality Control)</p>	

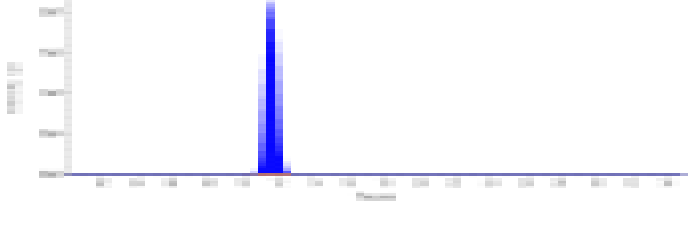
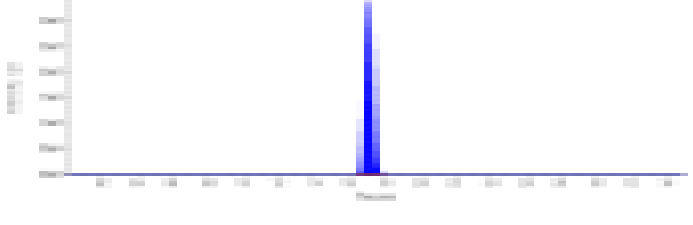
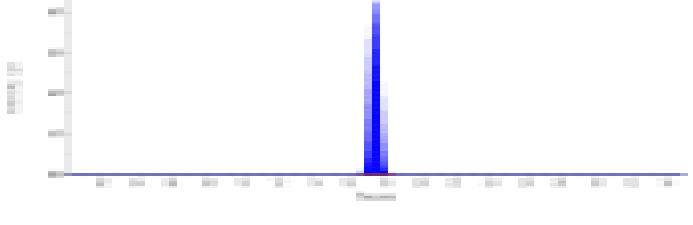
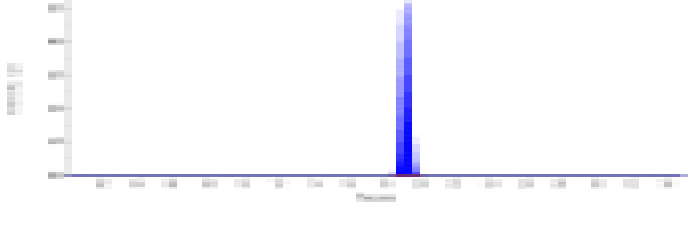
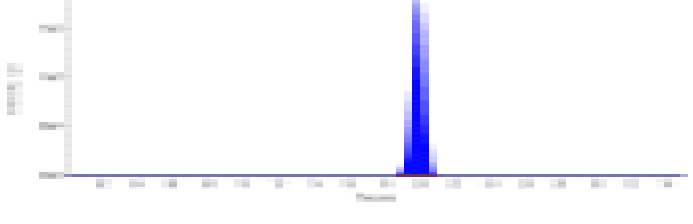
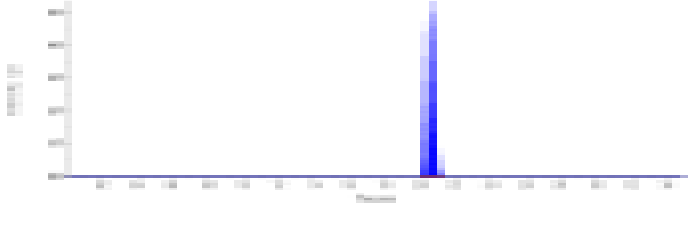
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 99.0 µg/L</p> <p>Area Ratio: 0.0365</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 96.4 µg/L</p> <p>Area Ratio: 0.119</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.114</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.0447</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 108. µg/L</p> <p>Area Ratio: 0.0793</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 84.1 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

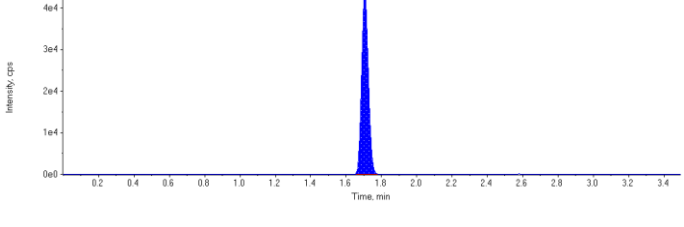
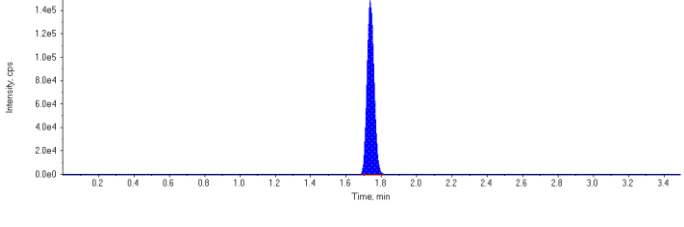
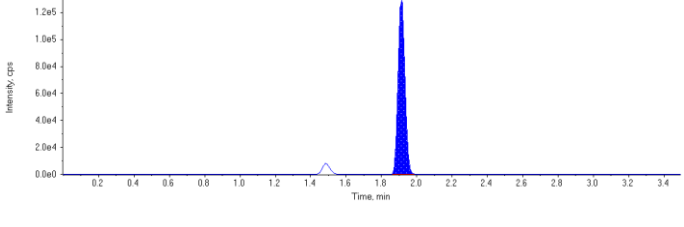
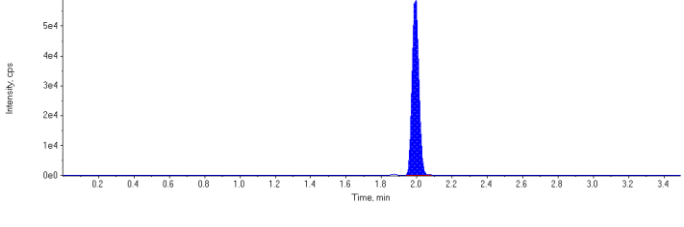
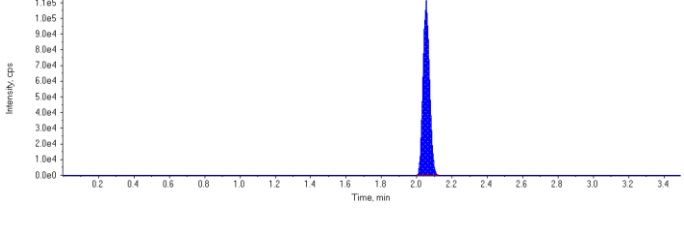
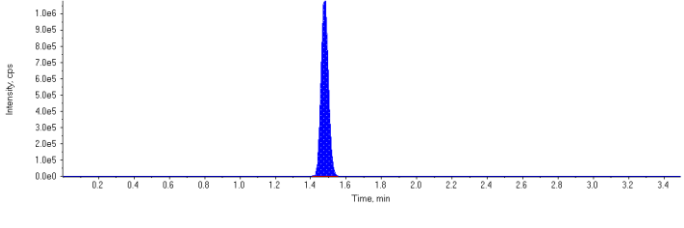
Sample Name	CCV	Injection Vial	6
Sample ID	CCV	Injection Volume (µL)	3
Sample Type	Quality Control	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:20:24 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	115000.	1.71	1.00	-
MPFHpA	404000.	1.74	1.00	-
MPFOA	349000.	1.91	1.00	-
MPFOS	157000.	1.99	1.00	-
MPFNA	290000.	2.05	1.00	-
13C6-PFHxA IS	3170000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	911000	1.15	30.0	25.8	86.1
PFHxS 1	1100000	1.71	30.0	29.3	97.6
PFHpA 1	1580000	1.74	30.0	29.2	97.2
PFOA 1	1670000	1.91	30.0	29.2	97.4
PFOS 1	829000	1.99	30.0	29.3	97.6
PFNA 1	1370000	2.05	30.0	28.5	94.9
18O2-PFHxS	115000	1.71	100.	98.9	98.9
13C4-PFHpA	404000	1.74	100.	103.	103.0
13C4-PFOA	349000	1.91	100.	102.	102.0
13C4-PFOS	157000	1.99	100.	114.	114.0
13C5-PFNA	290000	2.05	100.	124.	124.0
13C6-PFHxA	3170000	1.48	100.	79.5	79.5

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.71(1.68) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Quality Control)</p>	<p style="text-align: center;">This image is not available</p>

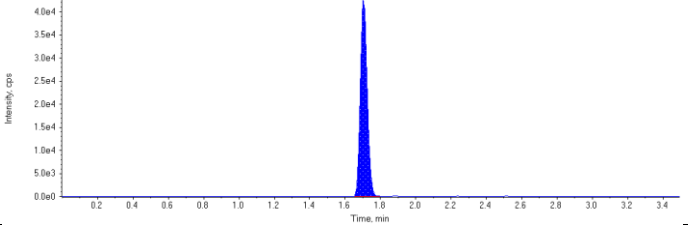
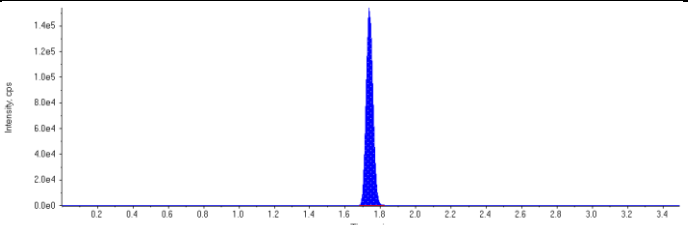
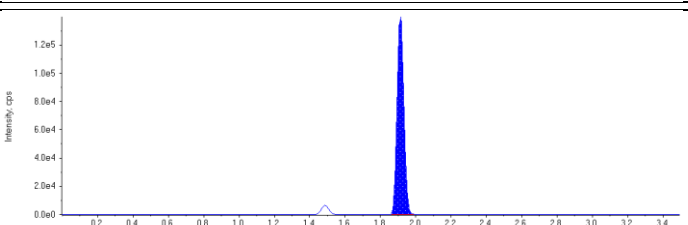
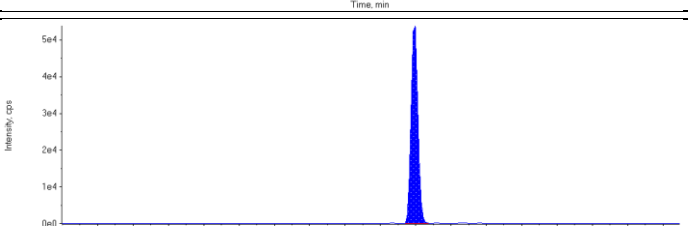
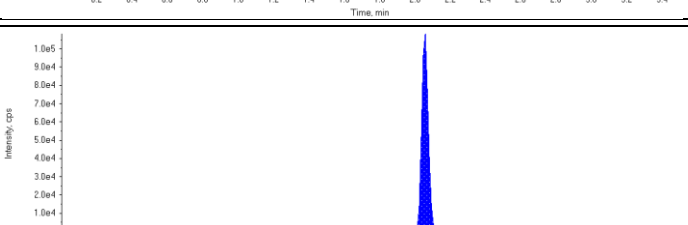
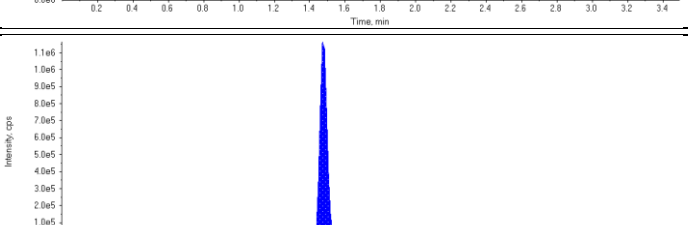
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.15 (1.16) min</p> <p>Calculated Conc: 25.8 µg/L</p> <p>Area Ratio: 7.89</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 29.3 µg/L</p> <p>Area Ratio: 9.53</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 29.2 µg/L</p> <p>Area Ratio: 3.92</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.88) min</p> <p>Calculated Conc: 29.2 µg/L</p> <p>Area Ratio: 4.80</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 29.3 µg/L</p> <p>Area Ratio: 5.30</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 28.5 µg/L</p> <p>Area Ratio: 4.72</p> <p>Sample Type: (Quality Control)</p>	

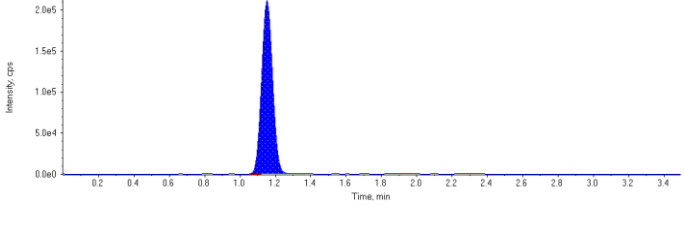
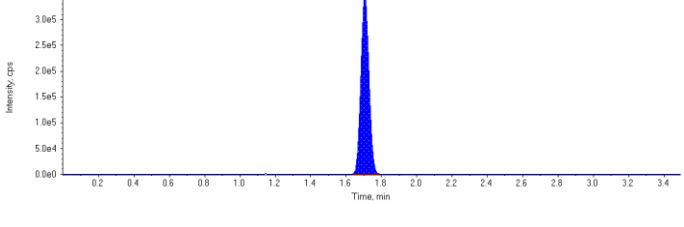
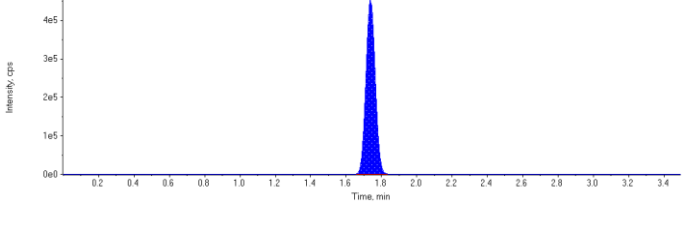
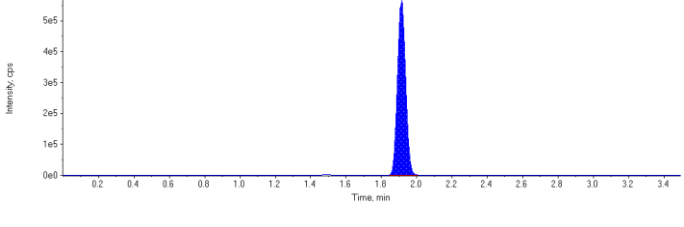
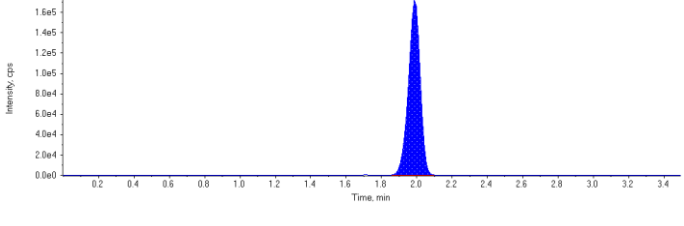
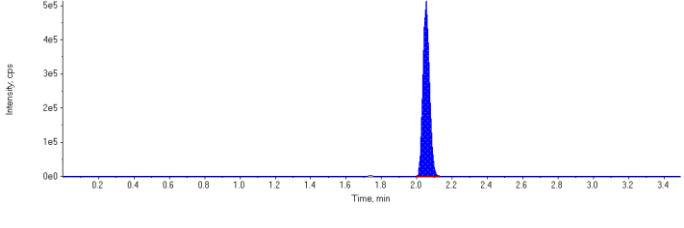
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 98.9 µg/L</p> <p>Area Ratio: 0.0364</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.128</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.110</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 114. µg/L</p> <p>Area Ratio: 0.0494</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 124. µg/L</p> <p>Area Ratio: 0.0914</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 79.5 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

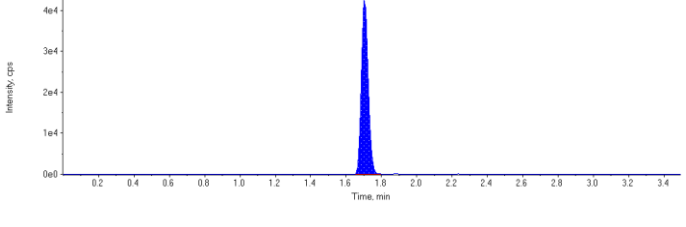
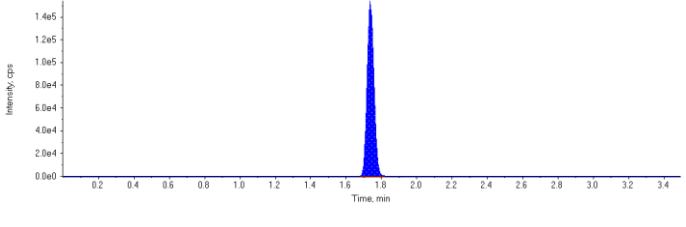
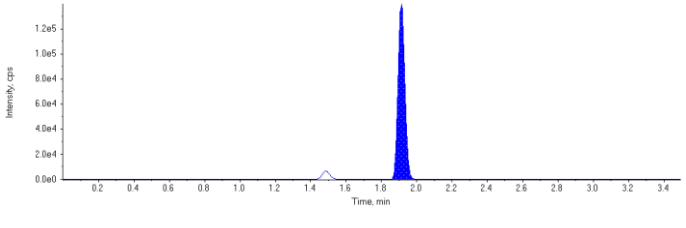
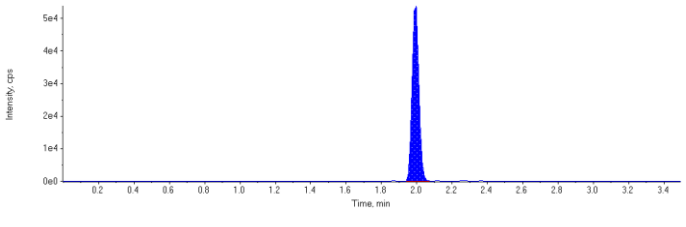
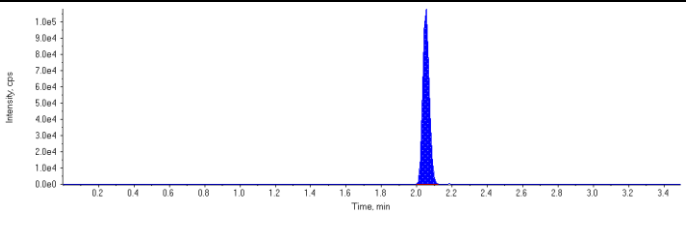
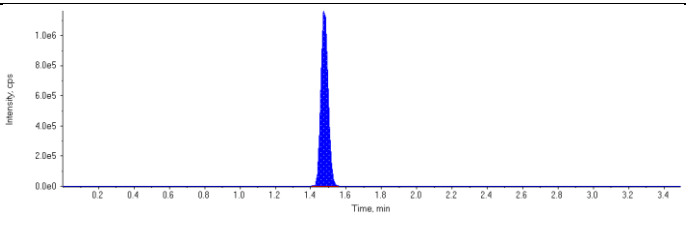
Sample Name	CCV	Injection Vial	6
Sample ID	CCV	Injection Volume (µL)	3
Sample Type	Quality Control	Algorithm Used	Analyst Classic
Acquisition Date	2/19/2016 12:56:01 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Sample Annotation	-
Project	Enviro\PFOS	Instrument Name	LCMS03
Data File	PFC_160219\WS#4385924.wiff		
Result Table	PFC_Water_160219_4385924_ULow.rdb		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)
MPFHxS	115000.	1.70	1.00	-
MPFHpA	409000.	1.74	1.00	-
MPFOA	374000.	1.91	1.00	-
MPFOS	145000.	1.99	1.00	-
MPFNA	280000.	2.05	1.00	-
13C6-PFHxA IS	3320000.	1.48	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ng/L)	Calc. Conc. (ng/L)	Accuracy (%)
PFBS 1	909000	1.15	30.0	25.8	86.0
PFHxS 1	1100000	1.71	30.0	29.4	97.9
PFHpA 1	1660000	1.74	30.0	30.2	101.0
PFOA 1	1810000	1.91	30.0	29.4	98.0
PFOS 1	800000	1.99	30.0	30.5	102.0
PFNA 1	1340000	2.05	30.0	28.9	96.4
18O2-PFHxS	115000	1.70	100.	94.3	94.3
13C4-PFHpA	409000	1.74	100.	99.4	99.4
13C4-PFOA	374000	1.91	100.	104.	104.0
13C4-PFOS	145000	1.99	100.	101.	101.0
13C5-PFNA	280000	2.05	100.	115.	115.0
13C6-PFHxA	3320000	1.48	100.	83.2	83.2

<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.70(1.68) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.74(1.75) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.91(1.93) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.97) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.05(2.02) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.48(1.50) min Concentration: 1.00 ng/L Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min Concentration: N/A N/A Sample Type: (Quality Control)</p>	<p style="text-align: center;">This image is not available</p>

<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.15 (1.16) min</p> <p>Calculated Conc: 25.8 µg/L</p> <p>Area Ratio: 7.89</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.71 (1.68) min</p> <p>Calculated Conc: 29.4 µg/L</p> <p>Area Ratio: 9.56</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 30.2 µg/L</p> <p>Area Ratio: 4.06</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.88) min</p> <p>Calculated Conc: 29.4 µg/L</p> <p>Area Ratio: 4.83</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (2.00) min</p> <p>Calculated Conc: 30.5 µg/L</p> <p>Area Ratio: 5.52</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 28.9 µg/L</p> <p>Area Ratio: 4.79</p> <p>Sample Type: (Quality Control)</p>	

<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.70 (1.68) min</p> <p>Calculated Conc: 94.3 µg/L</p> <p>Area Ratio: 0.0347</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.74 (1.75) min</p> <p>Calculated Conc: 99.4 µg/L</p> <p>Area Ratio: 0.123</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.91 (1.93) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.113</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.99 (1.97) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.0436</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.05 (2.02) min</p> <p>Calculated Conc: 115. µg/L</p> <p>Area Ratio: 0.0844</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.48 (1.48) min</p> <p>Calculated Conc: 83.2 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	



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

Shipping and Receiving Documents

Chain of Custody Record

Due 2/22

Temperature on Receipt 3.7

T



320-17184 Chain of Custody

OTD WE 76

Drinking Water? Yes No

Project Manager [Redacted]	Date 02/04/16	Chain of Custody Number 283599
Telephone Number (Area Code)/Fax Number [Redacted]	Lab Number	Page 1 of 2
Site Contact [Redacted]	Lab Contact	Analysis (Attach list if more space is needed)
Carrier/Waybill Number FedEx	Special Instructions/ Conditions of Receipt	

Sample I.D. No. and Description
(Containers for each sample may be combined on one line)

Sample I.D. No. and Description	Date	Time	Matrix					Containers & Preservatives					Select PFS	
			Air	Aqueous	Solid	Soil	Unpres.	AEBCM	HNCE	PCT	NAOH	ZnAc		NaOH
OF-RW20-0216	02/04/16	0928	X				X							2
OF-FB20-0216		0930												2
OF-RW55-0216		1025												2
OF-FB55-0216		1027												2
OF-RW54-0216		1104												2
OF-FB54-0216		1106												2
OF-RW68-0216		1125												2
OF-FB68-0216		1129												2
OF-RW38-0216		1601												2
OF-FB38-0216		1603												2
OF-FB69-0216		1628												2
OF-RW69-0216		1636												2

13-Feb-16 13:40
Hongmei Zhao (Grace)
B630793
AKP ENV-997

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal
 Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

QC Requirements (Specify)

1. Relinquished By Katherine Smith	Date 02/04/16	Time 1930	1. Received By [Signature]	Date 2/5/16	Time 1000
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By Mona Alicia Ortega	Date 2/6/2016	Time 13:40

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Due 2/22

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CTD WE76

Temperature on Receipt _____

Drinking Water? Yes No

Project Manager [Redacted]	Date <i>02/04/16</i>	Chain of Custody Number 283626
Telephone Number (Area Code) / Fax Number [Redacted]	Lab Number	Page <i>2</i> of <i>2</i>

Site Contact [Redacted]	Lab Contact [Redacted]	Analysis (Attach list if more space is needed)
Carrier/Waybill Number <i>FedEx</i>		

Sample I.D. No. and Description
(Containers for each sample may be combined on one line)

Sample I.D. No. and Description	Date	Time	Matrix					Containers & Preservatives					Select PCBs	Special Instructions/ Conditions of Receipt	
			Al	Ammonia	Sulf	Soil	Uptests	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH			
<i>DF-FB26-0216</i>	<i>02/04/16</i>	<i>1654</i>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						<i>2</i>	
<i>DF-RW26-0216</i>	<i>02/04/16</i>	<i>1658</i>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>						<i>2</i>	

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

QC Requirements (Specify)

1. Relinquished By <i>Latasha</i>	Date <i>02/04/16</i>	Time <i>1930</i>	1. Received By <i>[Signature]</i>	Date <i>2/5/16</i>	Time <i>1000</i>
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TAL-4124 (1/007)

Client: **CH2M Hill** Project Manager: **Bill Friedman** Chain of Custody Number: **283599**

Address: **5701 Cleveland St, Suite 200** Telephone Number (Area Code)/Fax Number: **757-671-6223** Page **1** of **2**

City: **Virginia beach** State: **VA** Zip Code: **23462** Lab Contact: _____

Project Name and Location (State): **Virginia beach** Carrier/Waybill Number: **FedEx**

Contract/Purchase Order/Quote No.: **PD # 10006-7-104000**



Temperature on Receipt **2.7**

Drinking Water? Yes No

320-17184 Chain of Custody

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH			
OF-RW20-0216	02/04/16	0928		X											
OF-FB20-0216		0930													
OF-RW55-0216		1025													
OF-FB55-0216		1027													
OF-RW54-0216		1104													
OF-FB54-0216		1106													
OF-RW68-0216		1125													
OF-FB68-0216		1127													
OF-RW30-0216		1601													
OF-FB30-0216		1603													
OF-FB09-0216		1628													
OF-RW09-0216		1636													

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

QC Requirements (Specify): _____

Relinquished By: **Kathryn Anelli** Date: **02/04/16** Time: **1930**

1. Received By: _____ Date: **2/5/16** Time: **1000**

2. Received By: _____ Date: _____ Time: _____

3. Received By: _____ Date: _____ Time: _____

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 320-17184-1
SDG Number: CTO WE7G PFC Sampling

Login Number: 17184
List Number: 1
Creator: Alltucker, David R

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Data Validation Summary

Oceana CTO-WE44, NALF Fentress

TO: Juliana Dean/VBO
Anita Dodson/VBO

FROM: Tiffany McGlynn/GNV

CC: Herb Kelly/GNV

DATE: March 18, 2016

Introduction

The following data validation report discusses the data validation process and findings for TestAmerica Laboratories and Maxxam Laboratories in the Sample Delivery Groups (SDGs) listed in the table below.

Samples were analyzed using the following analytical methods:

- WS-LC-0025 & 537 MOD Perfluorinated Hydrocarbons

The samples included in these SDGs are listed in the table below.

SDG	Sample Name	Matrix
320-17150	OF-RW42B-0216	Water
320-17150	OF-RW39-0216	Water
320-17150	OF-FB40-0216	Water
320-17150	OF-RW40-0216	Water
320-17150	OF-FB43-0216	Water
320-17150	OF-RW43-0216	Water
320-17150	OF-FB42B-0216	Water
320-17150	OF-RW42A-0216	Water
320-17150	OF-FB42A-0216	Water
320-17150	OF-RW35-0216	Water
320-17150	OF-FB35-0216	Water

SDG	Sample Name	Matrix
320-17150	OF-RW58-0216	Water
320-17150	OF-FB58-0216	Water
320-17150	OF-FB39-0216	Water
320-17154	OF-FB09-0216	Water
320-17154	OF-FB67-0216	Water
320-17154	OF-RW09-0216	Water
320-17154	OF-FB37-0216	Water
320-17154	OF-RW37-0216	Water
320-17154	OF-RW11-0216	Water
320-17154	OF-FB11-0216	Water
320-17154	OF-RW28-0216	Water
320-17154	OF-FB28-0216	Water
320-17154	OF-RW67-0216	Water
320-17183	OF-RW66-0216	Water
320-17183	OF-FB27-0216	Water
320-17183	OF-FB66-0216	Water
320-17183	OF-RW49-0216	Water
320-17183	OF-FB49-0216	Water
320-17183	OF-RW36A-0216	Water
320-17183	OF-FB36A-0216	Water
320-17183	OF-RW51A-0216	Water
320-17183	OF-FB51A-0216	Water
320-17183	OF-RW27-0216	Water
320-17184	OF-RW20-0216	Water
320-17184	OF-FB30-0216	Water
320-17184	OF-FB69-0216	Water
320-17184	OF-RW69-0216	Water
320-17184	OF-FB26-0216	Water
320-17184	OF-RW26-0216	Water
320-17184	OF-FB20-0216	Water
320-17184	OF-RW55-0216	Water
320-17184	OF-FB55-0216	Water
320-17184	OF-RW54-0216	Water
320-17184	OF-FB54-0216	Water
320-17184	OF-RW68-0216	Water
320-17184	OF-FB68-0216	Water
320-17184	OF-RW30-0216	Water
320-17185	OF-FB08-0216	Water
320-17185	OF-RW51-0216	Water
320-17185	OF-RW51P-0216	Water

SDG	Sample Name	Matrix
320-17185	OF-RW08-0216	Water
320-17185	OF-RW08P-0216	Water
320-17185	OF-FB41-0216	Water
320-17185	OF-RW41-0216	Water
320-17185	OF-RW41P-0216	Water
320-17185	OF-FB56-0216	Water
320-17185	OF-RW56-0216	Water
320-17185	OF-FB51-0216	Water
320-17190	OF-FB12-0216	Water
320-17190	OF-RW12-0216	Water
320-17190	OF-FB57-0216	Water
320-17190	OF-RW57-0216	Water
320-17190	OF-RW57P-0216	Water
320-17190	OF-FB25-0216	Water
320-17190	OF-RW25-0216	Water
320-17190	OF-FB16-0216	Water
320-17190	OF-RW16-0216	Water
320-17219	OF-FB47-0216	Water
320-17219	OF-RW47-0216	Water
320-17219	OF-FB47A-0216	Water
320-17219	OF-RW47A-0216	Water
320-17219	OF-FB48-0216	Water
320-17219	OF-RW48-0216	Water
320-17236	OF-FB70-0216	Water
320-17236	OF-RW70-0216	Water
320-17236	OF-FB44-0216	Water
320-17236	OF-RW44-0216	Water
320-17236	OF-RW44P-0216	Water
320-17236	OF-FB65-0216	Water
320-17236	OF-RW65-0216	Water
320-17236	OF-FB21-0216	Water
320-17236	OF-RW21-0216	Water
320-17241	OF-FB62-0216	Water
320-17241	OF-RW34-0216	Water
320-17241	OF-FB38-0216	Water
320-17241	OF-RW38-0216	Water
320-17241	OF-RW62-0216	Water
320-17241	OF-FB63-0216	Water
320-17241	OF-RW63-0216	Water
320-17241	OF-FB59-0216	Water

SDG	Sample Name	Matrix
320-17241	OF-RW59-0216	Water
320-17241	OF-FB50-0216	Water
320-17241	OF-RW50-0216	Water
320-17241	OF-FB34-0216	Water
320-17278	OF-FB24-0216	Water
320-17278	OF-RW24-0216	Water
320-17278	OF-FB31-0216	Water
320-17278	OF-RW31-0216	Water
320-17278	OF-FB60-0216	Water
320-17278	OF-RW60-0216	Water
320-17278	OF-RW60P-0216	Water
320-17278	OF-FB46-0216	Water
320-17278	OF-RW46-0216	Water
320-17321	OF-FB02-0216	Water
320-17321	OF-RW02-0216	Water
320-17321	OF-FB15-0216	Water
320-17321	OF-RW15-0216	Water
320-17321	OF-FB18-0216	Water
320-17321	OF-RW18-0216	Water
320-17859	OF-FB07-0316	Water
320-17859	OF-RW07-0316	Water
320-17859	OF-HPFB01-0316	Water
320-17859	OF-HP01-0316	Water

Data Evaluation

Data was evaluated in accordance with the analytical methods and with the criteria found in the following guidance documents: Sampling and Analysis Plan Perfluorinated Compound Investigation, Naval Auxiliary Landing Field Fentress, Chesapeake, Virginia Contract Task Order WE44 (December 2015) and National Functional Guidelines for Organic Data Review (August 2014) with Region 3 Modification (Use of 'B' qualifier) as applicable. The samples were evaluated based on the following criteria:

- Data Completeness
- Technical Holding Times
- Tuning Instrument
- Initial/Continuing Calibrations
- Blanks

- Internal Standards
- Laboratory Control Samples
- Isotope Dilution Analyte
- Field Duplicates
- Identification/Quantitation
- Reporting Limits

Overall Evaluation of Data/Potential Usability Issues

Specific details regarding qualification of the data are addressed in the sections below. If an issue is not addressed there were no actions required based on unmet quality criteria. When more than one qualifier is associated with a compound/analyte, the validator has chosen the qualifier that best indicates possible bias in the results and qualified these data accordingly.

Data Completeness

The SDG was received complete and intact.

Technical Holding Times

According to the chain of custody records, sampling was performed on 2/3/16 through 2/16/16. Samples were received at the laboratory 2/4/16 through 2/17/16. All sample preparation and analyses were performed within holding time requirements with the exception of the samples listed below. Affected data are summarized in **Attachment 1**.

Sample Name	SDG
OF-RW42B-0216	320-17150
OF-RW08-0216	320-17185
OF-RW08P-0216	320-17185
OF-FB62-0216	320-17241
OF-RW34-0216	320-17241
OF-FB38-0216	320-17241
OF-RW38-0216	320-17241
OF-RW62-0216	320-17241
OF-FB63-0216	320-17241
OF-RW63-0216	320-17241
OF-FB59-0216	320-17241

Sample Name	SDG
OF-RW59-0216	320-17241
OF-FB50-0216	320-17241
OF-RW50-0216	320-17241
OF-FB34-0216	320-17241

Blanks

Several compounds were detected in the field blanks and method blanks as listed below. Affected data are summarized in **Attachment 1**.

SDG	Blank ID	Compound	Conc.	Units
320-17183	OF-FB49-0216	Perfluorohexanesulfonic acid (PFHxS)	0.00068	UG_L
320-17183	OF-FB36A-0216	Perfluorooctane Sulfonate (PFOS)	0.00042	UG_L
320-17185	OF-FB51-0216	Perfluorobutanesulfonic acid (PFBS)	0.00063	UG_L
320-17190	OF-FB12-0216	Perfluorohexanesulfonic acid (PFHxS)	0.00079	UG_L
320-17190	OF-FB57-0216	Perfluorohexanesulfonic acid (PFHxS)	0.00083	UG_L
320-17190	OF-FB25-0216	Perfluorobutanesulfonic acid (PFBS)	0.00092	UG_L
320-17190	OF-FB16-0216	Perfluorobutanesulfonic acid (PFBS)	0.0011	UG_L
320-17190	MB 320-100277/1-A	Perfluorobutanesulfonic acid (PFBS)	0.00103	UG_L
320-17190	MB 320-100277/1-A	Perfluorohexanesulfonic acid (PFHxS)	0.00102	UG_L
320-17190	MB 320-100277/1-A	Perfluorooctane Sulfonate (PFOS)	0.00144	UG_L
320-17859	MB 320-104553/1-A	Perfluorooctanoic acid (PFOA)	0.00217	UG_L

Field Duplicate Precision

Perfluoroheptanoic acid (PFHpA) did not meet required precision criteria in native sample OF-RW51-0216 and field duplicate OF-RW51P-0216. Affected data are summarized in **Attachment 1**.

Matrix Spike/Spike Duplicate

For spiked sample OF-RW56-0216 in SDG 320-17185, perfluorobutanesulfonic acid (PFBS) exhibited high recoveries in the MS/MSD. Affected data are summarized in **Attachment 1**.

Surrogates

Surrogates for the samples listed below exhibited low recoveries. Affected data are summarized in **Attachment 1**.

Sample Name	SDG
OF-RW67-0216	320-17154
OF-RW47-0216	320-17219
OF-RW70-0216	320-17236

Sample Name	SDG
OF-RW24-0216	320-17278

Internal Standards

Internal standards exhibited low recoveries for the samples listed below. Affected data are summarized in **Attachment 1**.


Sample Name	SDG
OF-RW37-0216	320-17154
OF-FB56-0216	320-17185

Conclusion

These data can be used in the project decision-making process as qualified by the data quality evaluation process.

Please do not hesitate to contact us about this validation report.

Sincerely,



Tiffany McGlynn

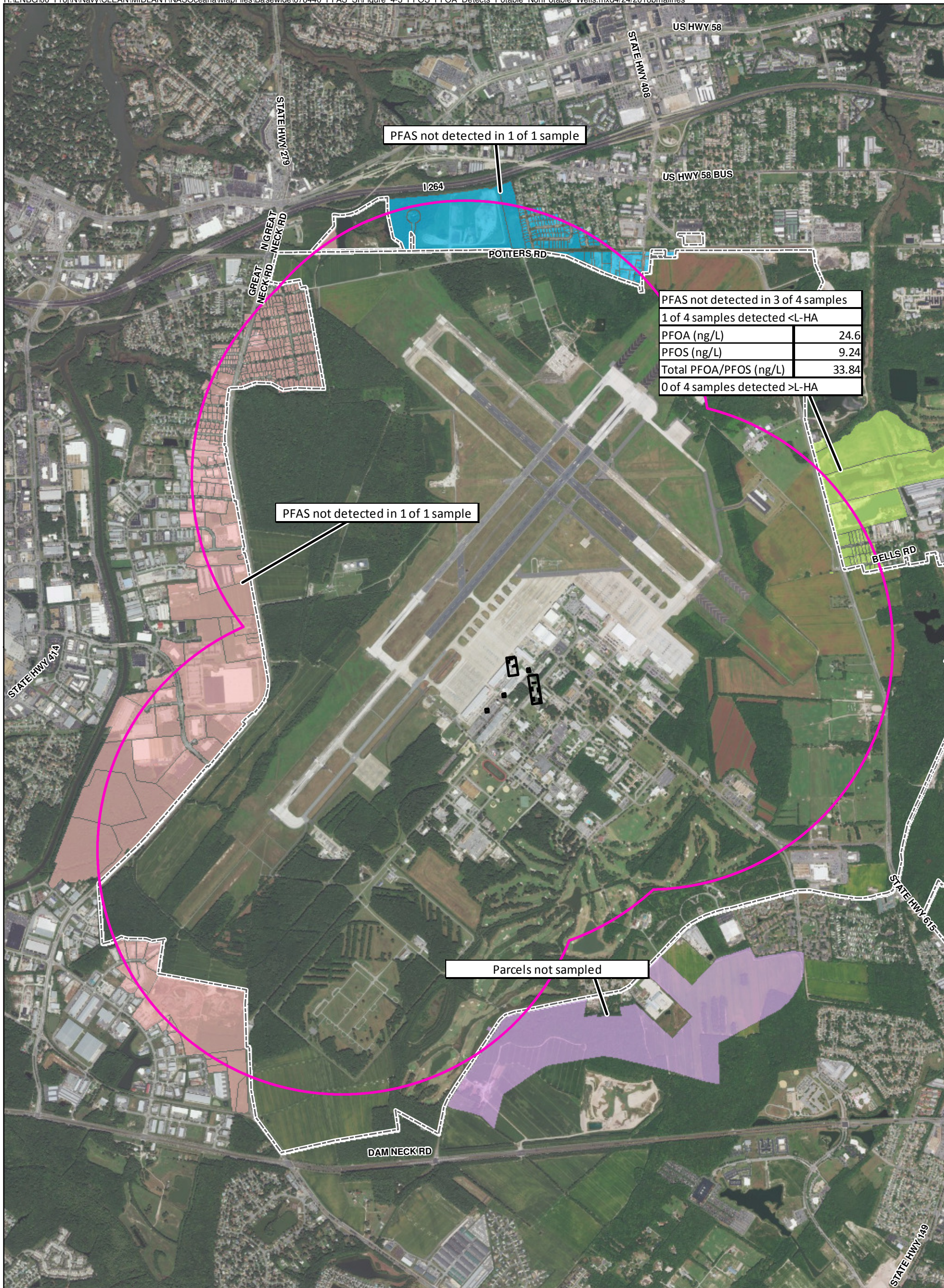
Qualification Flags

Exclude	More appropriate data exist for this analyte.
R	Data were rejected for use.
UL	Analyte not detected, quantitation limit is potentially biased low.
UJ	Analyte not detected, estimated quantitation limit.
U	Analyte not detected.
B	Not detected substantially above the level reported in laboratory or field blanks.
L	Analyte present, estimated value potentially biased low.
K	Analyte present, estimated value potentially biased high.
N	Analyte identification presumptive; no second column analysis performed or GC/MS tentative identification.
J	Analyte present, estimated value.
NJ	Analysis indicates the presence of an analyte that was "tentatively identified" and the associated value represents its approximate concentration.
None	Placeholder for calculating quality control issues that do not require flagging.
=	Analyte was detected at a concentration greater than the quantitation limit.

Qualifier Code Reference

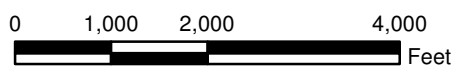
Value	Description
%SOL	High Moisture content
2C	Second Column – Poor Dual Column Reproducibility
2S	Second Source – Bad reproducibility between tandem detectors
BD	Blank Spike/Blank Spike Duplicate(LCS/LCSD) Precision
BRL	Below Reporting Limit
BSH	Blank Spike/LCS – High Recovery
BSL	Blank Spike/LCS – Low Recovery
CC	Continuing Calibration
CCBL	Continuing Calibration Blank Contamination
CCH	Continuing Calibration Verification – High Recovery
CCL	Continuing Calibration Verification – Low Recovery
DL	Redundant Result – due to Dilution
EBL	Equipment Blank Contamination
EMPC	Estimated Possible Maximum Concentration
ESH	Extraction Standard - High Recovery
ESL	Extraction Standard - Low Recovery
FBL	Field Blank Contamination
FD	Field Duplicate
HT	Holding Time
ICB	Initial Calibration – Bad Linearity or Curve Function
ICH	Initial Calibration – High Relative Response Factors
ICL	Initial Calibration – Low Relative Response Factors
IR15	Ion ratio exceeds +/- 15% difference
ISH	Internal Standard – High Recovery
ISL	Internal Standard – Low Recovery
LD	Lab Duplicate Reproducibility
LR	Concentration Exceeds Linear Range
MBL	Method Blank Contamination
MDP	Matrix Spike/Matrix Spike Duplicate Precision
MI	Matrix interference obscuring the raw data

Value	Description
MSH	Matrix Spike and/or Matrix Spike Duplicate – High Recovery
MSL	Matrix Spike and/or Matrix Spike Duplicate – Low Recovery
OT	Other
PD	Pesticide Degradation
RE	Redundant Result - due to Reanalysis or Re-extraction
SD	Serial Dilution Reproducibility
SSH	Spiked Surrogate – High Recovery
SSL	Spiked Surrogate – Low Recovery
TBL	Trip Blank Contamination
TN	Tune



Legend

- Non-Core Target Treatment Area (2004)
- - Core Target Treatment Area (2004) (Core)
- ▭ Sampling Area
- ▭ Installation Boundary
- Off-Base Parcels**
- ▭ East
- ▭ North
- ▭ South
- ▭ West



Imagery Source: ©2017 Esri

Figure 4-3
COCs Detections in Potable Wells Sampled from Parcels Located Off-Base
Basewide Per- and Polyfluoroalkyl Substances Site Inspection Report
NAS Oceana, Virginia Beach, Virginia