



**Groundwater Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
and the Sample Location Report, SDG 18-0612**

*Naval Air Station Point Mugu
Point Mugu, California*

July 2019

**CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15**

SB, SS

Batch 18-0612

Package DP-18-0308

Submitted to:
CH2M
1100 NE Circle Blvd Suite 300
Corvallis, OR 97330 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

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It can be done

CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15
SB, SS
Batch 18-0612
Package DP-18-0308

Submitted to:
CH2M
1100 NE Circle Blvd Suite 300
Corvallis, OR 97330 USA

NELAP Accreditation Number: E87856 (Florida Department of Health)
DoD-ELAP Accreditation Number: 91667

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

Analyst Approval:

Lauren M. Griffith  Lauren Griffith
2018.10.24
16:22:02 -04'00'

QC Chemist Approval:

Carla Devine  Digitally signed by devinec@battelle.org
DN: cn=devinec@battelle.org
Date: 2018.11.05 14:51:05 -05'00'

Project Manager Approval:

 Digitally signed by Jonathan Thorn
Date: 2018.11.05 17:01:16 -05'00'

BATTELLE
It can be done

**CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15**

SD

Batch 18-0612

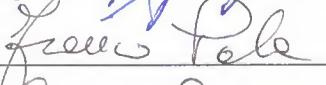
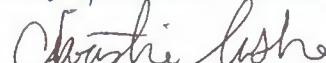
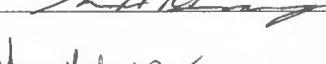
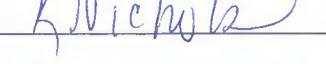
Package DP-18-0308

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BATTELLE

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Name (Printed)	Signature	Initials	Date
Jonathan Thorn		JRT	4/4/2018
Robert Lizotte, Jr.		BL	4.4 2018
Franco Pala		FP	4-4-2018
Carla Devine		CD	4/4/18
Denise Schmitz		DAS	4/4/18
Carrie Peum Milay		CM	4/4/2018
Rich Restucci		RR	4/4/2018
Monica Moran		MM	4/4/2018
Christie Usher		CU	4/4/18
Karen Maternas		KM	4/4/18
Stephanie Schultz		SAS	4/4/18
Jordan Tower		JCT	4/4/18
KRISTEN NICHOLS		KN	4/4/18
Quimico H Brown		CB	4/4/18
Matt Schmitz		MS	4-4-18
Sam Brumares		SB	4-4-18
Lauren Griffith		LGR	4.4.18



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Sample Summary

Client: CH2M

SDG: 18-0612

Project/Site: Naval Base Ventura County

CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR992PB-FS	180507-02: Ottawa Sand	SEDIMENT	10/16/2018	10/16/2018
CR993LCS-FS	180507-02: Ottawa Sand	SEDIMENT	10/16/2018	10/16/2018
J8698-FS	VC-CS00-SB02-0102	SB	10/6/2018	10/9/2018
J8699-FS	VC-CS00-SB02-0506	SB	10/6/2018	10/9/2018
J8700-FS	VC-CS00-SS03-000H	SS	10/6/2018	10/9/2018
J8701-FS	VC-CS00-SB03-0102	SB	10/6/2018	10/9/2018
J8702-FS	VC-CS00-SB03-0506	SB	10/6/2018	10/9/2018
J8703-FS	VC-CS00-SS04-000H	SS	10/6/2018	10/9/2018
J8704-FS	VC-CS00-SB04-0102	SB	10/6/2018	10/9/2018
J8705-FS	VC-CS00-SB04-0506	SB	10/6/2018	10/9/2018
J8706-FS	VC-CS00-SS05-000H	SS	10/6/2018	10/9/2018
J8707-FS	VC-CS00-SB05-0102	SB	10/6/2018	10/9/2018
J8708-FS	VC-CS00-SB05-0506	SB	10/6/2018	10/9/2018
J8709-FS	VC-CS00-SS06-000H	SS	10/6/2018	10/9/2018
J8710-FS	VC-CS00-SB06-0102	SB	10/6/2018	10/9/2018
J8711-FS	VC-CS00-SB06-0506	SB	10/6/2018	10/9/2018
J8712MS-FS	VC-CS00-SB06-0506-MS	SB	10/6/2018	10/9/2018
J8713MSD-FS	VC-CS00-SB06-0506-MSD	SB	10/6/2018	10/9/2018

Miscellaneous Documentation

QA/QC Summary**Batch 18-0612**

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	SS, SB
Data Set:	DP-18-0308
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
10/6/2018	10/9/2018	0.9, 1.1, and 1.7
Corrective Actions	None.	
Sample Storage	The samples were stored refrigerated until extraction.	
Related samples	NA	

METHOD SUMMARIES	
Sample Preparation	Solid samples were aliquoted into extraction tubes and spiked with surrogates prior to the addition of solvent. The sediment was serially extracted on the Geno/Grinder with 0.4% NH ₃ in methanol. 1 mL of extract was refined using ENVI-carb SPE cartridges. Extracts were concentrated to dryness under nitrogen with a water bath set between 35 °C and 45 °C, reconstituted with 80:20 methanol/water (V/V) and fortified with internal standard. Extracts were transferred for LC-MS/MS analysis.
Prep comments	All samples were pre-screened prior to extraction to check potential levels of PFAS in the samples.
Analysis	PFAS were measured by liquid chromatography tandem mass spectrometry (LC-MS/MS) in the multiple reaction monitoring (MRM). An initial calibration consisting of representative target analytes, labelled analogs, and internal standards was analyzed prior to analysis to demonstrate the linear range of analysis. Calibration verification was performed at the beginning and end of 10 injections and at the end of each sequence. Target PFAS were quantified using the isotope dilution method. Samples are reported in ng/g concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS. Where detected in samples, PFHxS and PFOS are reported as a mixture of linear and branched isomers

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/6/2018	10/17, 22-23/2018

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
≤ ¼ the LOQ Samples >10x PB	No exceedances noted. No comments.

QA/QC Summary**Batch 18-0612**

Laboratory Control Spike (LCS)	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery	No exceedances noted. No comments.
Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A MS/MSD was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery and <30% RPD	No exceedances noted. No comments.
Extracted Internal Standard Analytes	Labelled analog compounds were added prior to extraction. The recoveries are calculated to measure extraction efficiency.
50-150% of true value	No exceedances noted. No comments.
Internal Standard Analytes	Labelled analog compounds were added prior to analysis.
+/- 50% of the area of the L5 calibration point.	No exceedances noted. No comments.
Initial Calibration (ICAL)	The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadratic curve fitting.
+/- 30% of true value, $R^2 \geq 0.99$	No exceedances noted. No comments.
Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
+/- 30% of true value	No exceedances noted. No comments.
Continuing Calibration Verification (CCV)	Continuing calibration standards were run at the beginning and end of 10 injections and at the end of the sequence to ensure that initial calibration is still valid.
+/- 30% of true value	No exceedances noted. One CCV failed criteria for d5-EtFOSAA, all bracketing samples were re-aliquoted and re-run, only d5-EtFOSAA was reported from the reanalysis, all other extracted internal standards were reported from the initial analysis.

QA/QC Summary**Batch 18-0612**

Instrument Blank (IB)	Immediately following the highest standard analyzed and daily prior to sample analysis.
≤ ½ the LOQ	No exceedances noted.
	No comments.



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project Number: 100110125-01
 Preparation Batch: 18-0612
 Data Set: DP-18-0308
 Test Code: Master_369

QC Parameter:	Exceed:	Justification:
Procedural Blank	0	None
PB Measurement Quality Objective	0	None
Laboratory Control Sample	0	None
Matrix Spike / Matrix Spike Duplicate Recovery	0	None
Matrix Spike / Matrix Spike Duplicate Precision	0	None
Extracted Internal Standard Analytes (Surrogates)	0	None
Instrument Calibration	0	None
Instrument Blank	0	None
Independent Calibration Check	0	None
Continuing Calibration Verification	0	None



It can be done

BATTELLE - NORWELL OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

Project Title: CTO-4164 Naval Base Ventura County,

Data Set Number: DP-18-0308

Project Number: 100110125-01

Prep Batch Number: 18-0612

Entered By: Lauren Griffith

Entered On: 10/24/2018

Test Code (Matrix Type): Master_369(S)

Samples that were manually integrated are noted on the quant reports with the comment (TRUE).
LMG 10/24/18

CCV KB77, injected at 22:26:39 on 10/22/18, exhibited a low recovery for the surrogate d5-EtFOSAA. Affected samples were re aliquoted and reanalyzed for the surrogate d5-EtFOSAA and the native EtFOSAA only, and the reanalyses were reported for this surrogate and analyte, so the exceedence has no impact on the data. The remaining surrogates and native analytes are reported from the initial analyses. Affected samples were CR992PB, CR993LCS, J8698, J8699, J8700, J8701, J8702 and J8703.
LMG 10/24/18

KB79 was not used for d3-MeFOSAA in the SIS method. There is no impact on the data once this point is removed.
LMG 11/05/19

Task Leader Approval:

Supervisor Approval:

Digitally signed by Jonathan Thorn

Date: 2018.10.25 10:03:41 -04'00'

PM Approval:



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Preparation Batch: 18-0612

Data Set: DP-18-0308

			CR992PB-FS (180507-02: Ottawa Sand)								
PFHxA	307-24-4	-	L	L	L	L	L	L	L	L	-
PFHpA	375-85-9	-	L	L	L	L	L	L	L	L	-
PFOA	335-67-1	-	L	L	L	L	L	L	L	L	-
PFNA	375-95-1	-	L	L	L	L	L	L	L	L	-
PFDA	335-76-2	-	L	L	L	L	L	L	L	L	-
PFUnA	2058-94-8	-	L	L	L	L	L	L	L	L	-
PFDoA	307-55-1	-	L	L	L	L	L	L	L	L	-
PFTrDA	72629-94-8	-	L	L	L	L	L	L	L	L	-
PFTeDA	376-06-7	-	L	L	L	L	L	L	L	L	-
NMeFOSAA	2355-31-9	-	L	L	L	L	L	L	L	L	-
NEtFOSAA	2991-50-6	-	L	L	L	L	L	L	L	L	-
PFBS	375-73-5	-	L	L	L	L	L	L	L	L	-
PFHxS	355-46-4	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	-
PFOS	1763-23-1	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	-

"L": Linear

"Br": branched

"L/Br": Linear/Branched

"-": Not detected



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Preparation Batch

Data Set: DP-18-

	J8702-FS (VC-CS00-SB03-0506)	J8703-FS (VC-CS00-SS04-000H)	J8704-FS (VC-CS00-SB04-0102)	J8705-FS (VC-CS00-SB04-0506)	J8706-FS (VC-CS00-SS05-000H)	J8707-FS (VC-CS00-SB05-0102)	J8708-FS (VC-CS00-SB05-0506)	J8709-FS (VC-CS00-SS06-000H)
PFHxA	-	-	-	-	-	-	-	-
PFHpA	-	-	-	-	-	-	-	-
PFOA	-	-	-	-	-	-	-	-
PFNA	-	-	-	-	-	-	-	-
PFDA	-	-	-	-	-	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTrDA	-	-	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	-	-	-	-	-	-	-	-
PFHxS	-	L/Br	L/Br	-	-	-	-	-
PFOS	-	L/Br	L/Br	L/Br	-	-	-	-

"L": Linear

"Br": branched

"L/Br": Linear/Br:

"-": Not detected



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Preparation Batch:

Data Set: DP-18-

	J8710-FS (VC-CS00-SB06-0102)	J8711-FS (VC-CS00-SB06-0506)
PFHxA	-	-
PFHpA	-	-
PFOA	-	-
PFNA	-	-
PFDA	-	-
PFUnA	-	-
PFDoA	-	-
PFTrDA	-	-
PFTeDA	-	-
NMeFOSAA	-	-
NEtFOSAA	-	-
PFBS	-	-
PFHxS	-	-
PFOS	-	-

"L": Linear

"Br": branched

"L/Br": Linear/Br;

"-": Not detected



ACCREDITATIONS

Accrediting Authority	Laboratory ID
U.S. Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP)	91667
State of Florida Department of Health	E87856
State of New York Department of Health	12105
Commonwealth of Pennsylvania Department of Environmental Protection	68-05687
State of Washington Department of Ecology	C1050
State of California	3045
Commonwealth of Massachusetts	E87856

Current certificates and lists of accredited parameters are available upon request.

Custody Records



It can be done

Sample Receipt Form

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ShpNo SHP-181009-01

Battelle Project No:0110125-01

Approved: Authorized:

Project Number: 695803

Client: CH2M

Received by: Schumitz, Matt

Date/Time Received: Tuesday, October 09, 2018 10:15 AM

No. of Shipping Containers: 3

SHIPMENT

Method of Delivery: Commercial Carrier

Tracking Number: Fed Ex

COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smpls
1 of 3	Cooler	7831 4550 2170	Custody Seals	Intact	Intact	Therm_1	0.9	14
2 of 3	Cooler	7831 4550 2180	Custody Seals	Intact	Intact	Therm_1	1.1	39
3 of 3	Cooler	7831 4550 2191	Custody Seals	Intact	Intact	Therm_1	1.7	12

Samples

Sample Labels:

- Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals:

- Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples:

- Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1.7 Temperature Blank used Yes No

(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA

If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA

If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA

Individual sample deviations noted on sample log

Samples Containers:

Samples returned in PC-grade jars: Yes No Unknown /Lot No.: Unknown

Storage Location: Custody: Refrigerator - R0119 (NA) BDO IDs Assigned: J8658 - J8722

Samples logged in by: Schumitz, Matt

Date/Time: 10/09/2018 10:15 AM

Approved By:

Approved On:

Authorized By:

Authorized On:

Sample Receipt Form Details

Approved: Authorized:

Project Number: 695803

Client: CH2M

Received by: Schumitz, Matt

Date/Time Received: Tuesday, October 09, 2018 10:15 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8658	VC-CS12-SS01-000H	10/06/18 8:25	10/09/18 14:33	1	SS	1.7	NA	NA	NA	R0119 (NA)			
J8659	VC-CS12-SB01-0102	10/06/18 8:26	10/09/18 14:33	1	SB	1.7	NA	NA	NA	R0119 (NA)			
J8660	VC-CS12-SB01-0506	10/06/18 8:34	10/09/18 14:34	1	SB	1.7	NA	NA	NA	R0119 (NA)			
J8661	VC-CS12-SS02-000H	10/06/18 11:07	10/09/18 14:34	1	SS	1.7	NA	NA	NA	R0119 (NA)			
J8662	VC-CS12-SB02-0102	10/06/18 11:09	10/09/18 14:34	1	SB	1.7	NA	NA	NA	R0119 (NA)			
J8663	VC-CS12-SB02-0506	10/06/18 11:13	10/09/18 14:35	1	SB	1.7	NA	NA	NA	R0119 (NA)			
J8664	VC-CS12-SS03-000H	10/06/18 10:06	10/09/18 14:35	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8665	VC-CS12-SB03-0102	10/06/18 10:07	10/09/18 14:35	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8666	VC-CS12-SB03-0506	10/06/18 10:12	10/09/18 14:36	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8667	VC-CS12-DW01-1018	10/06/18 8:44	10/09/18 14:36	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8668	VC-CS12-DW01P-1018	10/06/18 8:48	10/09/18 14:37	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8669	VC-CS12-DW02-1018	10/06/18 11:22	10/09/18 14:37	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8670	VC-CS12-DW03-1018	10/06/18 10:30	10/09/18 14:38	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8671	VC-CS10-SS01-000H	10/06/18 13:02	10/09/18 14:39	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8672	VC-CS10-SB01-0102	10/06/18 13:04	10/09/18 14:40	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8673	VC-CS10-SB01-0506	10/06/18 13:10	10/09/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8674	VC-CS10-SS02-000H	10/06/18 9:55	10/09/18 14:41	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8675	VC-CS10-SB02-0102	10/06/18 9:58	10/09/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8676	VC-CS10-SB02-0506	10/06/18 10:06	10/09/18 14:42	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8677	VC-CS10-SS03-000H	10/06/18 11:31	10/09/18 14:43	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8678	VC-CS10-SB03-0102	10/06/18 11:33	10/09/18 14:43	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8679	VC-CS10-SB03-0506	10/06/18 11:37	10/09/18 14:43	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8680	VC-CS10-SS04-000H	10/06/18 10:35	10/09/18 14:43	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8681	VC-CS10-SB04-0102	10/06/18 10:38	10/09/18 14:44	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8682	VC-CS10-SB04-0506	10/06/18 10:41	10/09/18 14:44	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8683	VC-CS10-DW01-1018	10/06/18 13:38	10/09/18 14:45	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8684	VC-CS10-DW02-1018	10/06/18 10:30	10/09/18 14:46	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8685	VC-CS10-DW02P-1018	10/06/18 10:40	10/09/18 14:46	2	GW	0.9	NA	NA	NA	R0119 (NA)			

Sample Receipt Form Details

Approved: Authorized:

Project Number: 695803

Client: CH2M

Received by: Schumitz, Matt

Date/Time Received: Tuesday, October 09, 2018 10:15 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8686	VC-CS10-DW03-1018	10/06/18 12:07	10/09/18 14:46	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8687	VC-CS10-DW04-1018	10/06/18 10:55	10/09/18 14:46	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8688	VC-CS18-DW01-1018	10/06/18 15:18	10/09/18 14:47	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8689	VC-CS10-SD01-000H	10/06/18 13:28	10/09/18 14:48	1	SD	0.9	NA	NA	NA	R0119 (NA)			
J8690	VC-CS10-SD01-0102	10/06/18 13:30	10/09/18 14:48	1	SD	0.9	NA	NA	NA	R0119 (NA)			
J8691	VC-CS18-SS01-000H	10/06/18 13:52	10/09/18 14:49	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8692	VC-CS18-SB01-0102	10/06/18 13:54	10/09/18 14:49	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8693	VC-CS18-SB01-0506	10/06/18 14:00	10/09/18 14:50	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8694	VC-CS00-SS01-000H	10/06/18 14:05	10/09/18 14:52	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8695	VC-CS00-SB01-0102	10/06/18 14:07	10/09/18 14:53	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8696	VC-CS00-SB01-0506	10/06/18 14:10	10/09/18 14:58	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8697	VC-CS00-SS02-000H	10/06/18 15:22	10/09/18 14:59	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8698	VC-CS00-SB02-0102	10/06/18 15:23	10/09/18 14:59	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8699	VC-CS00-SB02-0506	10/06/18 15:27	10/09/18 15:00	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8700	VC-CS00-SS03-000H	10/06/18 16:15	10/09/18 15:00	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8701	VC-CS00-SB03-0102	10/06/18 16:18	10/09/18 15:06	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8702	VC-CS00-SB03-0506	10/06/18 16:25	10/09/18 15:07	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8703	VC-CS00-SS04-000H	10/06/18 13:13	10/09/18 15:07	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8704	VC-CS00-SB04-0102	10/06/18 13:15	10/09/18 15:07	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8705	VC-CS00-SB04-0506	10/06/18 13:20	10/09/18 15:07	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8706	VC-CS00-SS05-000H	10/06/18 17:17	10/09/18 15:08	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8707	VC-CS00-SB05-0102	10/06/18 17:19	10/09/18 15:09	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8708	VC-CS00-SB05-0506	10/06/18 17:24	10/09/18 15:09	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8709	VC-CS00-SS06-000H	10/06/18 17:05	10/09/18 15:09	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8710	VC-CS00-SB06-0102	10/06/18 17:07	10/09/18 15:10	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8711	VC-CS00-SB06-0506	10/06/18 17:10	10/09/18 15:10	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8712	VC-CS00-SB06-0506-MS	10/06/18 17:10	10/09/18 15:10	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8713	VC-CS00-SB06-0506-MSD	10/06/18 17:10	10/09/18 15:11	1	SB	1.1	NA	NA	NA	R0119 (NA)			



Sample Receipt Form Details

Approved: Authorized:

Project Number: 695803

Client: CH2M

Received by: Schumitz, Matt

Date/Time Received: Tuesday, October 09, 2018 10:15 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8714	VC-FB11-10062018	10/06/18 18:34	10/09/18 15:11	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8715	VC-EB11-10062018	10/06/18 18:36	10/09/18 15:11	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8716	VC-CS00-DW01-1018	10/06/18 14:32	10/09/18 15:12	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8717	VC-CS00-DW02-1018	10/06/18 16:25	10/09/18 15:12	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8718	VC-CS00-DW02P-1018	10/06/18 16:27	10/09/18 15:14	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8719	VC-CS00-DW03-1018	10/06/18 17:05	10/09/18 15:14	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8720	VC-CS00-DW04-1018	10/06/18 13:30	10/09/18 15:15	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8721	VC-CS00-DW05-1018	10/06/18 18:02	10/09/18 15:15	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8722	VC-CS00-DW06-1018	10/06/18 17:40	10/09/18 15:15	2	GW	1.7	NA	NA	NA	R0119 (NA)			

Total Samples: 65

Chain-of-Custody							
Client Contact Information	Project Manager: Eric Davis			Sampling Site: PM CS12		Site Information:	
	Sampler Information (print name): V.Kilbert Phone: 724-977-3428 Email: V.Kilbert@jacobson.com						
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330				Preservative		COC # <u>06</u>	
Turnaround Time (TAT) Requested:							
Project Name: NBVC Basewide SI	Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>					Page# <u>1 of 8</u>	
Project No.: <u>695803</u>	Time Zone: PST						
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis PFAS by Method 517 Mod	
VC-CS12-SS01-000H	<u>10/16/18</u>	<u>0825</u>	Grab	SS	<u>1</u>	X	<u>J8658</u>
VC-CS12-SB01- <u>0102</u>	<u>10/16/18</u>	<u>0826</u>	Grab	SB	<u>1</u>	X	<u>S9</u>
VC-CS12-SB01- <u>0506</u>	<u>10/16/18</u>	<u>0834</u>	Grab	SB	<u>1</u>	X	<u>60</u>
VC-CS12-SS02-000H	<u>10/16/18</u>	<u>1107</u>	Grab	SS	<u>1</u>	X	<u>61</u>
VC-CS12-SB02- <u>0102</u>	<u>10/16/18</u>	<u>1109</u>	Grab	SB	<u>1</u>	X	<u>62</u>
VC-CS12-SB02- <u>0504</u>	<u>10/16/18</u>	<u>1113</u>	Grab	SB	<u>1</u>	X	<u>63</u>
VC-CS12-SS03-000H	<u>10/16/18</u>	<u>1006</u>	Grab	SS	<u>1</u>	X	<u>64</u>
VC-CS12-SB03- <u>0102</u>	<u>10/16/18</u>	<u>1007</u>	Grab	SB	<u>1</u>	X	<u>65</u>
VC-CS12-SB03- <u>0506</u>	<u>10/16/18</u>	<u>1012</u>	Grab	SB	<u>1</u>	X	<u>J8666</u>
VC-CS12-SB03- <u>0506</u>			Grab	SB	<u>1</u>	X	
VC-CS12-S- <u>MS</u>			Grab			X	
VC-CS12-S- <u>SD</u>			Grab			X	
Receipt Temperature:(°C)	Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments:
Relinquished by (Print/Sign): <u>V.Kilbert</u>	Company: <u>Jacobs</u>	Date/Time: <u>10/8/18 0820</u>		Received by (Print/Sign):	Company: <u>Battelle</u>	Date/Time: <u>10-9-18 1015</u>	
Relinquished by (Print/Sign):	Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:	
Relinquished by (Print/Sign):	Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:	
Comments:							

Chain-of-Custody					
Client Contact Information		Project Manager: Eric Davis Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacs.com		Sampling Site: PM CS12 Site Information:	
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330				Preservative: NA	
Project Name: NBVC Basewide Sl Project No.: 645803		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>		Analysis: PFAS by Method 537 Med	
		Time Zone: PST			
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix
VC-CS12-DW01- 1018		10/6/18	0844	Grab	GW
VC-CS12-DW01P- 1018		10/6/18	0848	Grab	GW
VC-CS12-DW02- 1018		10/6/18	1122	Grab	GW
VC-CS12-DW03- 1018		10/6/18	1030	Grab	GW
PDT-AQ-FB				Grab	AQ
PDT-AQ-EB				Grab	AQ
Receipt Temperature:(°C)		Samples Intact: Yes - No		Samples on Ice: Yes - No	
Relinquished by (Print/Sign): <i>V. Kilbert</i>		Company: <i>Jacobs</i>	Date/Time: <i>10/8/18 0800</i>	Received by (Print/Sign): <i>M</i>	Company: <i>Battelle</i>
Relinquished by (Print/Sign):		Company:	Date/Time:	Received by (Print/Sign):	Company:
Relinquished by (Print/Sign):		Company:	Date/Time:	Received by (Print/Sign):	Company:
Comments: 					

Chain-of-Custody								
Client Contact Information		Project Manager: Eric Davis		Sampling Site: PM CS10-6678				
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Sampler Information (print name): <u>V.Kilbert</u> Phone: <u>724-977-3628</u> Email: <u>Victoria.kilbert@jacobs.com</u> Turnaround Time (TAT) Requested:		Site Information:				
Project Name: NBVC Basewide SI		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>		Preservative	NA	COC #		
Project No.: <u>Le95803</u>		Time Zone: <u>PST</u>		Analysis	PFAS by Method 537 Mod	Page#		
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.		
VC-CS10-SS01-000H		<u>10/6/18</u>	<u>1302</u>	Grab	SS	1	X	<u>J8671</u>
VC-CS10-SB01- <u>0102</u>		<u>10/6/18</u>	<u>1304</u>	Grab	SB	1	X	<u>72</u>
VC-CS10-SB01- <u>0506</u>		<u>10/6/18</u>	<u>1310</u>	Grab	SB	1	X	<u>73</u>
VC-CS10-SS02-000H		<u>10/6/18</u>	<u>0955</u>	Grab	SS	1	X	<u>74</u>
VC-CS10-SB02- <u>0102</u>		<u>10/6/18</u>	<u>0958</u>	Grab	SB	1	X	<u>75</u>
VC-CS10-SB02- <u>0506</u>		<u>10/6/18</u>	<u>1006</u>	Grab	SB	1	X	<u>76</u>
VC-CS10-SS03-000H		<u>10/6/18</u>	<u>1131</u>	Grab	SS	1	X	<u>77</u>
VC-CS10-SB03- <u>2102</u>		<u>10/6/18</u>	<u>1133</u>	Grab	SB	1	X	<u>78</u>
VC-CS10-SB03- <u>0506</u>		<u>10/6/18</u>	<u>1137</u>	Grab	SB	1	X	<u>79</u>
VC-CS10-SS04-000H		<u>10/6/18</u>	<u>1035</u>	Grab	SS	1	X	<u>80</u>
VC-CS10-SB04- <u>2102</u>		<u>10/6/18</u>	<u>1038</u>	Grab	SB	1	X	<u>81</u>
VC-CS10-SB04- <u>0506</u>		<u>10/6/18</u>	<u>1041</u>	Grab	SB	1	X	<u>J8682</u>
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No		Receipt Comments:	
Relinquished by (Print/Sign): <u>V.Kilbert</u>		Company: <u>Jacobs</u>	Date/Time: <u>10/8/18 0800</u>		Received by (Print/Sign): <u>Me</u>	Company: <u>Battelle</u>	Date/Time: <u>10-9-18 1015</u>	
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:	
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:	
Comments:								

Chain-of-Custody						
Client Contact Information	Project Manager: Eric Davis			Sampling Site: PM CS10 & CS18		
	Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert	Phone: (541) 977-3628	Email: Victoria.Kilbert@jacobs.com	Preservative: NA	Site Information:
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>					Page# 4 of 8
Project No.: 6915863	Time Zone: PST			Analysis	PFAS by Method 537 Mod	
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	
VC-CS10-DW01-1018	10/6/18	1338	Grab	GW	2	X 18683
VC-CS10-DW02-1018	10/6/18	1030	Grab	GW	2	X 18684
VC-CS10-DW02P-1018	10/6/18	1040	Grab	GW	2	X 18685
VC-CS10-DW03-1018	10/6/18	1207	Grab	GW	2	X 18686
VC-CS10-DW04-1018	10/6/18	1055	Grab	GW	2	X 18687
FDT-AQ-PB			Grab	AQ		
FDT-AQ-EB			Grab	AQ		
VC-CS18-DW01-1018	10/6/18	1518	Grab	GW	2	X 18688
<i>V. Kilbert</i>						
Receipt Temperature:(°C)	Samples Intact: Yes - No			Samples on Ice: Yes - No		Receipt Comments:
Relinquished by (Print/Sign): <i>V. Kilbert</i>	Company: Jacobs	Date/Time: 10/8/18 0808	Received by (Print/Sign): <i>Mo</i>	Company: Battelle	Date/Time: 10-9-18 1015	
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:	
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:	
Comments:						



Chain-of-Custody

Client Contact Information		Project Manager: Eric Davis Sampler Information (print name): V. Kilbert Phone: (724) 977-3628 Email: victoria.kilbert@jacobs.com		Sampling Site: PM CS10 & CS18		Site Information:		
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330				Preservative: NA		COC # 06		
Project Name: NBVC Basewide Sl		Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>				Page# 5 of 8		
Project No.: 695803		Time Zone: PST						
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis	PFAS by Method 537 Mod	
VC-CS10-SD01-000H	10/6/18	1328	Grab	SD	1	X		J8689
VC-CS10-SD01-0102	10/6/18	1330	Grab	SD	1	X		J8690
VC-CS10-S-MS			Grab			X		
VC-CS10-S-SD			Grab			X		
FDT-SO-FB			Grab	AQ		X		
FDT-SO-FB			Grab	AQ		X		
VC-CS18-SS01-000H	10/6/18	1352	Grab	SS	1	X		J8691
VC-CS18-SB01-0102	10/6/18	1354	Grab	SB	1	X		J8692
VC-CS18-SB01-0506	10/6/18	1400	Grab	SB	1	X		J8693
Receipt Temperature:(°C)		Samples Intact: Yes - No		Samples on Ice: Yes - No		Receipt Comments:		
Relinquished by (Print/Sign): <i>Victoria Kilbert</i>	Company: Jacobs	Date/Time: 10/8/18 0800	Received by (Print/Sign): <i>M</i>	Company: Battelle	Date/Time: 10-9-18 1015			
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:			
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:			
Comments:								

Chain-of-Custody								
Client Contact Information		Project Manager: Eric Davis Sampler Information (print name): <u>V.Kilbert</u> Phone: <u>724-977-3628</u> Email: <u>victoria.kilbert@easbs.com</u>		Sampling Site: <u>PM CS00</u> Site Information:				
Turnaround Time (TAT) Requested:				Preservative	Analysis	COC #		
Project Name: NBVC Basewide SI		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>		NA		66		
Project No.: <u>695803</u>		Time Zone: <u>PST</u>				Page# <u>6 of 8</u>		
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.		
VC-CS00-SS01-000H		<u>10/6/18</u>	<u>1405</u>	Grab	SS	<u>1</u>	X	<u>J 8694</u>
VC-CS00-SB01- <u>0102</u>		<u>10/6/18</u>	<u>1407</u>	Grab	SB	<u>1</u>	X	<u>95</u>
VC-CS00-SB01- <u>0506</u>		<u>10/6/18</u>	<u>1410</u>	Grab	SB	<u>1</u>	X	<u>96</u>
VC-CS00-SS02-000H		<u>10/6/18</u>	<u>1522</u>	Grab	SS	<u>1</u>	X	<u>97</u>
VC-CS00-SB02- <u>0102</u>		<u>10/6/18</u>	<u>1523</u>	Grab	SB	<u>1</u>	X	<u>98</u>
VC-CS00-SB02- <u>0506</u>		<u>10/6/18</u>	<u>1527</u>	Grab	SB	<u>1</u>	X	<u>99</u>
VC-CS00-SS03-000H		<u>10/6/18</u>	<u>1615</u>	Grab	SS	<u>1</u>	X	<u>J 8700</u>
VC-CS00-SB03- <u>0102</u>		<u>10/6/18</u>	<u>1618</u>	Grab	SB	<u>1</u>	X	<u>01</u>
VC-CS00-SB03- <u>0506</u>		<u>10/6/18</u>	<u>1625</u>	Grab	SB	<u>1</u>	X	<u>02</u>
VC-CS00-SS04-000H		<u>10/6/18</u>	<u>1313</u>	Grab	SS	<u>1</u>	X	<u>03</u>
VC-CS00-SB04- <u>0102</u>		<u>10/6/18</u>	<u>1315</u>	Grab	SB	<u>1</u>	X	<u>64</u>
VC-CS00-SB04- <u>0506</u>		<u>10/6/18</u>	<u>1320</u>	Grab	SB	<u>1</u>	X	<u>J 8705</u>
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No		Receipt Comments:	
Relinquished by (Print/Sign): <u>V.Kilbert</u>		Company: <u>Jobs</u>	Date/Time: <u>10/8/18 0800</u>	Received by (Print/Sign): <u>MJ</u>	Company: <u>Battelle</u>	Date/Time: <u>10-9-18 1015</u>		
Relinquished by (Print/Sign):		Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:		
Relinquished by (Print/Sign):		Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:		
Comments:								

 It can be done							<u>Chain-of-Custody</u>		
Client Contact Information		Project Manager: Eric Davis Sampler Information (print name): V.Kilbert Phone: 724-977-3628 Email: Victoria.kilbert@jacobslab.com		Sampling Site: PM CS00		Site Information:			
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330				Preservative: NA					
									<u>COC #</u> 04
Project Name: NBVC Basewide Sl		Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>							Page# 7 of 8
Project No.: 695803		Time Zone: PST							
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis	PFAS by Method 537 Mod	
VC-CS00-SS05-000H		10/16/18	1717	Grab	SS	1	X		J 8706
VC-CS00-SB05- 0102		10/16/18	1719	Grab	SB	1	X		07
VC-CS00-SB05- 0506		10/16/18	1724	Grab	SB	1	X		08
VC-CS00-SS06-000H		10/16/18	1705	Grab	SS	1	X		09
VC-CS00-SB06- 0102		10/16/18	1707	Grab	SB	1	X		10
VC-CS00-SB06- 0506		10/16/18	1710	Grab	SB	1	X		11
VC-CS00-SB06- 0506 -MS		10/16/18	1710	Grab	SB	1	X		12
VC-CS00-SB06- 0506 -MSD		10/16/18	1710	Grab	SB	1	X		13
VC-FDPSO-FB 11 - 1000 2018		10/16/18	1834	Grab	AQ	2	X		14
VC-FDPSO-EB 11 - 1000 2018		10/16/18	1834	Grab	AQ	2	X	on bowl	J 8715
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments:	
Relinquished by (Print/Sign): V.Kilbert		Company: Jacobs		Date/Time: 10/18/18 0800		Received by (Print/Sign): M		Company: Battelle	
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):		Company:	
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):		Company:	
Comments:									

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information		Project Manager: Eric Davis Sampler Information (print name): <i>V.Kilbert</i> Phone: <i>724-977-3628</i> Email: <i>Victor.v.kilbert@c.jacobs.com</i>			Sampling Site: <i>PM CS00</i>		Site Information:		
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330					Preservative	NA			COC # <i>04</i>
Project Name: NBVC Basewide SI		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>			Analysis	PFAS by Method 537 Mod			Page# <i>8 of 8</i>
Project No.: <i>695803</i>		Time Zone: <i>PST</i>							
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.			
VC-CS00-DW01- <i>1018</i>		<i>10/6/18</i>	<i>1432</i>	Grab	GW	<i>2</i>	X		<i>J8716</i>
VC-CS00-DW02- <i>1018</i>		<i>10/6/18</i>	<i>1625</i>	Grab	GW	<i>2</i>	X		<i>J8717</i>
VC-CS00-DW02P- <i>1018</i>		<i>10/6/18</i>	<i>1627</i>	Grab	GW	<i>2</i>	X		<i>J8718</i>
VC-CS00-DW03- <i>1018</i>		<i>10/6/18</i>	<i>1705</i>	Grab	GW	<i>2</i>	X		<i>① J78 J8719</i>
VC-CS00-DW04- <i>1018</i>		<i>10/6/18</i>	<i>1830</i>	Grab	GW	<i>2</i>	X		<i>J8720</i>
VC-CS00-DW05- <i>1018</i>		<i>10/6/18</i>	<i>1802</i>	Grab	GW	<i>2</i>	X		<i>J8721</i>
VC-CS00-DW06- <i>1018</i>		<i>10/6/18</i>	<i>1740</i>	Grab	GW	<i>2</i>	X		<i>J8722</i>
FDT-AQ-FB				Grab	AQ		X		
FDT-AQ-EB				Grab	AQ		X		
<i>H</i>									
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments: <i>(V.K)</i>	
Relinquished by (Print/Sign): <i>V.Kilbert</i>	Company: <i>Jacobs</i>	Date/Time: <i>10/8/18 0800</i>		Received by (Print/Sign): <i>Mr</i>	Company: <i>Battelle</i>	Date/Time: <i>10-9-18 1015</i>			
Relinquished by (Print/Sign):	Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:			
Relinquished by (Print/Sign):	Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:			

Comments:

*① MBS Wrong Number
10-9-18*

RA (724) 977-3628

BERT

IY STE 1450

192101

US

IAN THORN

LE

IGWATER DR. STE 202

0.9° TB
10-9-18 Therm
10:15

LL MA 02061

REF: 1

DEPT: 1

13
4550 2170 TUE - 09 OCT 10:
PRIORITY OVERNIG

XPUA 020
MA-US B



RT 246 1 10:30 B

IGIN ID: OXRA (724) 977-3628
VICTORIA KILBERT
PO 695803
402 W BROADWAY STE 1450

SHIP DATE: 08OCT18
ACTWGT: 53.90 LB
CAD: 6997666/SSF01922
DIMS: 26x13x14 IN

UNITED STATES US

BILL THIRD PARTY

TO JONATHAN THORN

BATTELLE

141 LONGWATER DR. STE 202

NORWELL MA 02061

(781) 681-6666
TNU:
PO:

REF:

DEPT:



2 of 3
MPS# 7831 4550 2180
0263
Mstr# 7831 4550 2170

TUE - 09 OCT 10:30A
PRIORITY OVERNIGHT

[0201]

02061
MA-US BOS

NB XPUA



RT 246 1 10:30 B
ST 4.3 2180
10.09

SHIP DATE: 08OCT18
ACTWGT: 66.50 LB
CAD: 6997666/SSF01922
DIMS: 26x14x14 IN

BILL THIRD PARTY

ORIGIN ID: OXRA (724) 977-3628
VICTORIA KILBERT
PO 695803
402 W BROADWAY STE 1450

UNITED STATES US

TO JONATHAN THORN

BATTELLE

141 LONGWATER DR. STE 202

NORWELL MA 02061

(781) 681-6666
TNU:
PO:

REF:

DEPT:



3 of 3
MPS# 7831 4550 2191
0263
Mstr# 7831 4550 2170

[0201]
NB XPUA

TUE - 09 OCT 10:
PRIORITY OVERNIG

0206

MA-US BO



RT 246 1 10:30 B
ST 4.3 2191
10.09

Data Tables



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB02-0102

Battelle ID	J8698-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	6.83	Matrix	SB	Sample Size	1.82	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.10 U		0.36		1.10		5.49													
PFHpA	375-85-9				1.10 U		0.48		1.10		5.49													
PFOA	335-67-1				1.10 U		0.55		1.10		5.49													
PFNA	375-95-1				1.10 U		0.47		1.10		5.49													
PFDA	335-76-2				1.10 U		0.30		1.10		5.49													
PFUnA	2058-94-8				1.10 U		0.45		1.10		5.49													
PFDoA	307-55-1				0.55 U		0.26		0.55		5.49													
PFTrDA	72629-94-8				1.10 U		0.31		1.10		5.49													
PFTeDA	376-06-7				2.20 U		0.69		2.20		5.49													
NMeFOSAA	2355-31-9				2.75 U		1.23		2.75		5.49													
NEtFOSAA	2991-50-6				2.20 U		0.63		2.20		5.49													
PFBS	375-73-5				1.10 U		0.40		1.10		5.49													
PFHxS	355-46-4				0.55 U		0.24		0.55		5.49													
PFOS	1763-23-1				1.10 U		0.30		1.10		5.49													

Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	96
13C8-PFOA	98
13C9-PFNA	96
13C6-PFDA	93
13C7-PFUnA	86
13C2-PFDoA	95
13C2-PFTeDA	97
d3-MeFOSAA	80
d5-EtFOSAA	88
13C3-PFBS	95
13C3-PFHxS	91
13C8-PFOS	107



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB02-0506

Battelle ID	J8699-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	14.79	Matrix	SB	Sample Size	1.66	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.20 U		0.40		1.20		6.02													
PFHpA	375-85-9				1.20 U		0.53		1.20		6.02													
PFOA	335-67-1				1.20 U		0.60		1.20		6.02													
PFNA	375-95-1				1.20 U		0.52		1.20		6.02													
PFDA	335-76-2				1.20 U		0.33		1.20		6.02													
PFUnA	2058-94-8				1.20 U		0.49		1.20		6.02													
PFDoA	307-55-1				0.60 U		0.29		0.60		6.02													
PFTrDA	72629-94-8				1.20 U		0.34		1.20		6.02													
PFTeDA	376-06-7				2.41 U		0.76		2.41		6.02													
NMeFOSAA	2355-31-9				3.01 U		1.35		3.01		6.02													
NEtFOSAA	2991-50-6				2.41 U		0.69		2.41		6.02													
PFBS	375-73-5				1.20 U		0.43		1.20		6.02													
PFHxS	355-46-4				0.60 U		0.27		0.60		6.02													
PFOS	1763-23-1				1.20 U		0.33		1.20		6.02													

Surrogate Recoveries (%)

13C5-PFHxA	76
13C4-PFHpA	83
13C8-PFOA	86
13C9-PFNA	76
13C6-PFDA	87
13C7-PFUnA	85
13C2-PFDoA	90
13C2-PFTeDA	90
d3-MeFOSAA	65
d5-EtFOSAA	65
13C3-PFBS	81
13C3-PFHxS	80
13C8-PFOS	85



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SS03-000H

Battelle ID		J8700-FS	SA		
Sample Type					
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/22/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		3.08			
Matrix		SS			
Sample Size		1.95			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.03 U	0.34	1.03	5.13
PFHpA	375-85-9	1.03 U	0.45	1.03	5.13
PFOA	335-67-1	1.03 U	0.51	1.03	5.13
PFNA	375-95-1	1.03 U	0.44	1.03	5.13
PFDA	335-76-2	1.03 U	0.28	1.03	5.13
PFUnA	2058-94-8	1.03 U	0.42	1.03	5.13
PFDoA	307-55-1	0.51 U	0.25	0.51	5.13
PFTrDA	72629-94-8	1.03 U	0.29	1.03	5.13
PFTeDA	376-06-7	2.05 U	0.65	2.05	5.13
NMeFOSAA	2355-31-9	2.56 U	1.15	2.56	5.13
NEtFOSAA	2991-50-6	2.05 U	0.58	2.05	5.13
PFBS	375-73-5	1.03 U	0.37	1.03	5.13
PFHxS	355-46-4	0.51 U	0.23	0.51	5.13
PFOS	1763-23-1	0.56 J	0.28	1.03	5.13

Surrogate Recoveries (%)

13C5-PFHxA	76
13C4-PFHpA	79
13C8-PFOA	87
13C9-PFNA	80
13C6-PFDA	92
13C7-PFUnA	97
13C2-PFDoA	96
13C2-PFTeDA	106
d3-MeFOSAA	55
d5-EtFOSAA	80
13C3-PFBS	84
13C3-PFHxS	82
13C8-PFOS	82



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB03-0102

Battelle ID	J8701-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	11.58	Matrix	SB	Sample Size	1.73	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.16 U		0.38		1.16		1.16		5.78											
PFHpA	375-85-9				1.16 U		0.51		1.16		1.16		5.78											
PFOA	335-67-1				1.16 U		0.58		1.16		1.16		5.78											
PFNA	375-95-1				1.16 U		0.50		1.16		1.16		5.78											
PFDA	335-76-2				1.16 U		0.31		1.16		1.16		5.78											
PFUnA	2058-94-8				1.16 U		0.47		1.16		1.16		5.78											
PFDoA	307-55-1				0.58 U		0.28		0.58		0.58		5.78											
PFTrDA	72629-94-8				1.16 U		0.32		1.16		1.16		5.78											
PFTeDA	376-06-7				2.31 U		0.73		2.31		2.31		5.78											
NMeFOSAA	2355-31-9				2.89 U		1.29		2.89		2.89		5.78											
NEtFOSAA	2991-50-6				2.31 U		0.66		2.31		2.31		5.78											
PFBS	375-73-5				1.16 U		0.42		1.16		1.16		5.78											
PFHxS	355-46-4				0.58 U		0.25		0.58		0.58		5.78											
PFOS	1763-23-1				1.16 U		0.31		1.16		1.16		5.78											

Surrogate Recoveries (%)

13C5-PFHxA	111
13C4-PFHpA	109
13C8-PFOA	108
13C9-PFNA	99
13C6-PFDA	105
13C7-PFUnA	101
13C2-PFDoA	101
13C2-PFTeDA	110
d3-MeFOSAA	75
d5-EtFOSAA	85
13C3-PFBS	92
13C3-PFHxS	95
13C8-PFOS	93

Analyzed by: Griffith, Lauren

Isotope Dilution

Printed: 11/5/2018

S18-0612_Master_369.xlsxm



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB03-0506

Battelle ID	J8702-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	13.00	Matrix	SB	Sample Size	1.67	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.20 U		0.40		1.20		5.99													
PFHpA	375-85-9				1.20 U		0.53		1.20		5.99													
PFOA	335-67-1				1.20 U		0.60		1.20		5.99													
PFNA	375-95-1				1.20 U		0.51		1.20		5.99													
PFDA	335-76-2				1.20 U		0.32		1.20		5.99													
PFUnA	2058-94-8				1.20 U		0.49		1.20		5.99													
PFDoA	307-55-1				0.60 U		0.29		0.60		5.99													
PFTrDA	72629-94-8				1.20 U		0.34		1.20		5.99													
PFTeDA	376-06-7				2.40 U		0.75		2.40		5.99													
NMeFOSAA	2355-31-9				2.99 U		1.34		2.99		5.99													
NEtFOSAA	2991-50-6				2.40 U		0.68		2.40		5.99													
PFBS	375-73-5				1.20 U		0.43		1.20		5.99													
PFHxS	355-46-4				0.60 U		0.26		0.60		5.99													
PFOS	1763-23-1				1.20 U		0.32		1.20		5.99													

Surrogate Recoveries (%)

13C5-PFHxA	88
13C4-PFHpA	86
13C8-PFOA	94
13C9-PFNA	84
13C6-PFDA	94
13C7-PFUnA	94
13C2-PFDoA	101
13C2-PFTeDA	108
d3-MeFOSAA	60
d5-EtFOSAA	62
13C3-PFBS	101
13C3-PFHxS	95
13C8-PFOS	98



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SS04-000H

Battelle ID		J8703-FS			
Sample Type		SA			
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		9.25			
Matrix		SS			
Sample Size		1.72			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.16 U	0.38	1.16	5.81
PFHpA	375-85-9	1.16 U	0.51	1.16	5.81
PFOA	335-67-1	1.02 J	0.58	1.16	5.81
PFNA	375-95-1	0.59 J	0.50	1.16	5.81
PFDA	335-76-2	1.16 U	0.31	1.16	5.81
PFUnA	2058-94-8	1.76 J	0.48	1.16	5.81
PFDoA	307-55-1	0.58 U	0.28	0.58	5.81
PFTrDA	72629-94-8	0.59 J	0.33	1.16	5.81
PFTeDA	376-06-7	2.33 U	0.73	2.33	5.81
NMeFOSAA	2355-31-9	2.91 U	1.30	2.91	5.81
NEtFOSAA	2991-50-6	2.33 U	0.66	2.33	5.81
PFBS	375-73-5	1.16 U	0.42	1.16	5.81
PFHxS	355-46-4	8.64	0.26	0.58	5.81
PFOS	1763-23-1	156.44 D	1.57	5.81	29.07

Surrogate Recoveries (%)

13C5-PFHxA	86
13C4-PFHpA	89
13C8-PFOA	92
13C9-PFNA	79
13C6-PFDA	84
13C7-PFUnA	88
13C2-PFDoA	92
13C2-PFTeDA	95
d3-MeFOSAA	79
d5-EtFOSAA	95
13C3-PFBS	98
13C3-PFHxS	97
13C8-PFOS	106



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB04-0102

Battelle ID		J8704-FS	SA		
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		9.07			
Matrix		SB			
Sample Size		1.74			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.00 J	0.38	1.15	5.75
PFHpA	375-85-9	1.15 U	0.51	1.15	5.75
PFOA	335-67-1	0.95 J	0.57	1.15	5.75
PFNA	375-95-1	1.15 U	0.49	1.15	5.75
PFDA	335-76-2	1.15 U	0.31	1.15	5.75
PFUnA	2058-94-8	1.15 U	0.47	1.15	5.75
PFDoA	307-55-1	0.57 U	0.28	0.57	5.75
PFTrDA	72629-94-8	1.15 U	0.32	1.15	5.75
PFTeDA	376-06-7	2.30 U	0.72	2.30	5.75
NMeFOSAA	2355-31-9	2.87 U	1.29	2.87	5.75
NEtFOSAA	2991-50-6	2.30 U	0.66	2.30	5.75
PFBS	375-73-5	0.41 J	0.41	1.15	5.75
PFHxS	355-46-4	14.67	0.25	0.57	5.75
PFOS	1763-23-1	128.92 D	1.55	5.75	28.74

Surrogate Recoveries (%)

13C5-PFHxA	83
13C4-PFHpA	83
13C8-PFOA	93
13C9-PFNA	83
13C6-PFDA	87
13C7-PFUnA	89
13C2-PFDoA	82
13C2-PFTeDA	93
d3-MeFOSAA	78
d5-EtFOSAA	71
13C3-PFBS	100
13C3-PFHxS	104
13C8-PFOS	103



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB04-0506

Battelle ID		J8705-FS	SA		
Sample Type					
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		25.78			
Matrix		SB			
Sample Size		1.45			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.38 U	0.46	1.38	6.90
PFHpA	375-85-9	1.38 U	0.61	1.38	6.90
PFOA	335-67-1	1.38 U	0.69	1.38	6.90
PFNA	375-95-1	1.38 U	0.59	1.38	6.90
PFDA	335-76-2	1.38 U	0.37	1.38	6.90
PFUnA	2058-94-8	1.38 U	0.57	1.38	6.90
PFDoA	307-55-1	0.69 U	0.33	0.69	6.90
PFTrDA	72629-94-8	1.38 U	0.39	1.38	6.90
PFTeDA	376-06-7	2.76 U	0.87	2.76	6.90
NMeFOSAA	2355-31-9	3.45 U	1.54	3.45	6.90
NEtFOSAA	2991-50-6	2.76 U	0.79	2.76	6.90
PFBS	375-73-5	1.38 U	0.50	1.38	6.90
PFHxS	355-46-4	6.27 J	0.30	0.69	6.90
PFOS	1763-23-1	30.56	0.37	1.38	6.90

Surrogate Recoveries (%)

13C5-PFHxA	74
13C4-PFHpA	82
13C8-PFOA	78
13C9-PFNA	74
13C6-PFDA	86
13C7-PFUnA	81
13C2-PFDoA	83
13C2-PFTeDA	89
d3-MeFOSAA	68
d5-EtFOSAA	69
13C3-PFBS	82
13C3-PFHxS	74
13C8-PFOS	87



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SS05-000H

Battelle ID	J8706-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	3.09	Matrix	SS	Sample Size	1.92	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.04 U		0.34		1.04		5.21													
PFHpA	375-85-9				1.04 U		0.46		1.04		5.21													
PFOA	335-67-1				1.04 U		0.52		1.04		5.21													
PFNA	375-95-1				1.04 U		0.45		1.04		5.21													
PFDA	335-76-2				1.04 U		0.28		1.04		5.21													
PFUnA	2058-94-8				1.04 U		0.43		1.04		5.21													
PFDoA	307-55-1				0.52 U		0.25		0.52		5.21													
PFTrDA	72629-94-8				1.04 U		0.29		1.04		5.21													
PFTeDA	376-06-7				2.08 U		0.66		2.08		5.21													
NMeFOSAA	2355-31-9				2.60 U		1.17		2.60		5.21													
NEtFOSAA	2991-50-6				2.08 U		0.59		2.08		5.21													
PFBS	375-73-5				1.04 U		0.38		1.04		5.21													
PFHxS	355-46-4				0.52 U		0.23		0.52		5.21													
PFOS	1763-23-1				0.54 J		0.28		1.04		5.21													

Surrogate Recoveries (%)

13C5-PFHxA	90
13C4-PFHpA	90
13C8-PFOA	100
13C9-PFNA	86
13C6-PFDA	96
13C7-PFUnA	90
13C2-PFDoA	98
13C2-PFTeDA	103
d3-MeFOSAA	64
d5-EtFOSAA	67
13C3-PFBS	91
13C3-PFHxS	87
13C8-PFOS	94



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB05-0102

Battelle ID	J8707-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	10.20	Matrix	SB	Sample Size	1.85	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.08 U		0.36		1.08		5.41													
PFHpA	375-85-9				1.08 U		0.48		1.08		5.41													
PFOA	335-67-1				1.08 U		0.54		1.08		5.41													
PFNA	375-95-1				1.08 U		0.46		1.08		5.41													
PFDA	335-76-2				1.08 U		0.29		1.08		5.41													
PFUnA	2058-94-8				1.08 U		0.44		1.08		5.41													
PFDoA	307-55-1				0.54 U		0.26		0.54		5.41													
PFTrDA	72629-94-8				1.08 U		0.30		1.08		5.41													
PFTeDA	376-06-7				2.16 U		0.68		2.16		5.41													
NMeFOSAA	2355-31-9				2.70 U		1.21		2.70		5.41													
NEtFOSAA	2991-50-6				2.16 U		0.62		2.16		5.41													
PFBS	375-73-5				1.08 U		0.39		1.08		5.41													
PFHxS	355-46-4				0.54 U		0.24		0.54		5.41													
PFOS	1763-23-1				1.08 U		0.29		1.08		5.41													

Surrogate Recoveries (%)

13C5-PFHxA	97
13C4-PFHpA	106
13C8-PFOA	107
13C9-PFNA	103
13C6-PFDA	110
13C7-PFUnA	119
13C2-PFDoA	125
13C2-PFTeDA	123
d3-MeFOSAA	77
d5-EtFOSAA	80
13C3-PFBS	100
13C3-PFHxS	110
13C8-PFOS	109



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB05-0506

Battelle ID	J8708-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	23.72	Matrix	SB	Sample Size	1.46	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				0.57 J		0.45		1.37		6.85													
PFHpA	375-85-9				1.37 U		0.60		1.37		6.85													
PFOA	335-67-1				1.37 U		0.68		1.37		6.85													
PFNA	375-95-1				1.37 U		0.59		1.37		6.85													
PFDA	335-76-2				1.37 U		0.37		1.37		6.85													
PFUnA	2058-94-8				1.37 U		0.56		1.37		6.85													
PFDoA	307-55-1				0.68 U		0.33		0.68		6.85													
PFTrDA	72629-94-8				1.37 U		0.38		1.37		6.85													
PFTeDA	376-06-7				2.74 U		0.86		2.74		6.85													
NMeFOSAA	2355-31-9				3.42 U		1.53		3.42		6.85													
NEtFOSAA	2991-50-6				2.74 U		0.78		2.74		6.85													
PFBS	375-73-5				1.37 U		0.49		1.37		6.85													
PFHxS	355-46-4				3.15 J		0.30		0.68		6.85													
PFOS	1763-23-1				1.37 U		0.37		1.37		6.85													

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	102
13C8-PFOA	109
13C9-PFNA	97
13C6-PFDA	110
13C7-PFUnA	103
13C2-PFDoA	109
13C2-PFTeDA	120
d3-MeFOSAA	94
d5-EtFOSAA	91
13C3-PFBS	108
13C3-PFHxS	103
13C8-PFOS	100



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SS06-000H

Battelle ID		J8709-FS	SA		
Sample Type					
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.29			
Matrix		SS			
Sample Size		2.02			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	0.99 U	0.33	0.99	4.95
PFHpA	375-85-9	0.99 U	0.44	0.99	4.95
PFOA	335-67-1	0.99 U	0.50	0.99	4.95
PFNA	375-95-1	0.99 U	0.43	0.99	4.95
PFDA	335-76-2	0.99 U	0.27	0.99	4.95
PFUnA	2058-94-8	0.99 U	0.41	0.99	4.95
PFDoA	307-55-1	0.50 U	0.24	0.50	4.95
PFTrDA	72629-94-8	0.99 U	0.28	0.99	4.95
PFTeDA	376-06-7	1.98 U	0.62	1.98	4.95
NMeFOSAA	2355-31-9	2.48 U	1.11	2.48	4.95
NEtFOSAA	2991-50-6	1.98 U	0.56	1.98	4.95
PFBS	375-73-5	0.99 U	0.36	0.99	4.95
PFHxS	355-46-4	0.50 U	0.22	0.50	4.95
PFOS	1763-23-1	0.34 J	0.27	0.99	4.95

Surrogate Recoveries (%)

13C5-PFHxA	85
13C4-PFHpA	85
13C8-PFOA	86
13C9-PFNA	84
13C6-PFDA	74
13C7-PFUnA	77
13C2-PFDoA	80
13C2-PFTeDA	85
d3-MeFOSAA	53
d5-EtFOSAA	56
13C3-PFBS	78
13C3-PFHxS	74
13C8-PFOS	84



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB06-0102

Battelle ID	J8710-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	5.41	Matrix	SB	Sample Size	1.82	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.10 U		0.36		1.10		1.10		5.49											
PFHpA	375-85-9				1.10 U		0.48		1.10		1.10		5.49											
PFOA	335-67-1				1.10 U		0.55		1.10		1.10		5.49											
PFNA	375-95-1				1.10 U		0.47		1.10		1.10		5.49											
PFDA	335-76-2				1.10 U		0.30		1.10		1.10		5.49											
PFUnA	2058-94-8				1.10 U		0.45		1.10		1.10		5.49											
PFDoA	307-55-1				0.55 U		0.26		0.55		0.55		5.49											
PFTrDA	72629-94-8				1.10 U		0.31		1.10		1.10		5.49											
PFTeDA	376-06-7				2.20 U		0.69		2.20		2.20		5.49											
NMeFOSAA	2355-31-9				2.75 U		1.23		2.75		2.75		5.49											
NEtFOSAA	2991-50-6				2.20 U		0.63		2.20		2.20		5.49											
PFBS	375-73-5				1.10 U		0.40		1.10		1.10		5.49											
PFHxS	355-46-4				0.55 U		0.24		0.55		0.55		5.49											
PFOS	1763-23-1				1.10 U		0.30		1.10		1.10		5.49											

Surrogate Recoveries (%)

13C5-PFHxA	87
13C4-PFHpA	86
13C8-PFOA	92
13C9-PFNA	83
13C6-PFDA	86
13C7-PFUnA	83
13C2-PFDoA	85
13C2-PFTeDA	100
d3-MeFOSAA	78
d5-EtFOSAA	60
13C3-PFBS	80
13C3-PFHxS	81
13C8-PFOS	88



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB06-0506

Battelle ID	J8711-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	13.93	Matrix	SB	Sample Size	1.76	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.14 U		0.38		1.14		5.68													
PFHpA	375-85-9				1.14 U		0.50		1.14		5.68													
PFOA	335-67-1				1.14 U		0.57		1.14		5.68													
PFNA	375-95-1				1.14 U		0.49		1.14		5.68													
PFDA	335-76-2				1.14 U		0.31		1.14		5.68													
PFUnA	2058-94-8				1.14 U		0.47		1.14		5.68													
PFDoA	307-55-1				0.57 U		0.27		0.57		5.68													
PFTrDA	72629-94-8				1.14 U		0.32		1.14		5.68													
PFTeDA	376-06-7				2.27 U		0.72		2.27		5.68													
NMeFOSAA	2355-31-9				2.84 U		1.27		2.84		5.68													
NEtFOSAA	2991-50-6				2.27 U		0.65		2.27		5.68													
PFBS	375-73-5				1.14 U		0.41		1.14		5.68													
PFHxS	355-46-4				0.57 U		0.25		0.57		5.68													
PFOS	1763-23-1				1.14 U		0.31		1.14		5.68													

Surrogate Recoveries (%)

13C5-PFHxA	82
13C4-PFHpA	82
13C8-PFOA	83
13C9-PFNA	74
13C6-PFDA	80
13C7-PFUnA	85
13C2-PFDoA	85
13C2-PFTeDA	91
d3-MeFOSAA	73
d5-EtFOSAA	78
13C3-PFBS	80
13C3-PFHxS	85
13C8-PFOS	93



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID	KB80 IB				
Battelle ID	KB80 IB_10/17/2018	IB			
Sample Type					
Collection Date		NA			
Extraction Date		NA			
Analysis Date	10/17/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture		NA			
Matrix		Solid			
Sample Size	2.00				
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.00 U	0.33	1.00	5.00
PFHpA	375-85-9	1.00 U	0.44	1.00	5.00
PFOA	335-67-1	1.00 U	0.50	1.00	5.00
PFNA	375-95-1	1.00 U	0.43	1.00	5.00
PFDA	335-76-2	1.00 U	0.27	1.00	5.00
PFUnA	2058-94-8	1.00 U	0.41	1.00	5.00
PFDoA	307-55-1	0.50 U	0.24	0.50	5.00
PFTrDA	72629-94-8	1.00 U	0.28	1.00	5.00
PFTeDA	376-06-7	2.00 U	0.63	2.00	5.00
NMeFOSAA	2355-31-9	2.50 U	1.12	2.50	5.00
NEtFOSAA	2991-50-6	2.00 U	0.57	2.00	5.00
PFBS	375-73-5	1.00 U	0.36	1.00	5.00
PFHxS	355-46-4	0.50 U	0.22	0.50	5.00
PFOS	1763-23-1	1.00 U	0.27	1.00	5.00

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	98
13C8-PFOA	101
13C9-PFNA	100
13C6-PFDA	103
13C7-PFUnA	102
13C2-PFDoA	98
13C2-PFTeDA	93
d3-MeFOSAA	104
d5-EtFOSAA	96
13C3-PFBS	95
13C3-PFHxS	103
13C8-PFOS	96



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID	KB80 IB			
Battelle ID	KB80 IB_10/23/2018	IB	NA	NA
Sample Type		IB		
Collection Date		NA		
Extraction Date		NA		
Analysis Date	10/23/2018			
Analytical Instrument	Sciex 5500 LC/MS/MS			
% Moisture		NA		
Matrix		Solid		
Sample Size	2.00			
Size Unit-Basis		g		
Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	--	-	-
PFHpA	375-85-9	--	-	-
PFOA	335-67-1	--	-	-
PFNA	375-95-1	--	-	-
PFDA	335-76-2	--	-	-
PFUnA	2058-94-8	--	-	-
PFDoA	307-55-1	--	-	-
PFTrDA	72629-94-8	--	-	-
PFTeDA	376-06-7	--	-	-
NMeFOSAA	2355-31-9	--	-	-
NEtFOSAA	2991-50-6	2.00 U	0.57	2.00
PFBS	375-73-5	--	-	-
PFHxS	355-46-4	--	-	-
PFOS	1763-23-1	--	-	-

Surrogate Recoveries (%)

13C5-PFHxA	--
13C4-PFHpA	--
13C8-PFOA	--
13C9-PFNA	--
13C6-PFDA	--
13C7-PFUnA	--
13C2-PFDoA	--
13C2-PFTeDA	--
d3-MeFOSAA	--
d5-EtFOSAA	73
13C3-PFBS	--
13C3-PFHxS	--
13C8-PFOS	



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID 180507-02: Ottawa Sand

Battelle ID		CR992PB-FS	PB		
Collection Date		10/16/2018			
Extraction Date		10/16/2018			
Analysis Date		10/22/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		0.00			
Matrix		SEDIMENT			
Sample Size		1.98			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ

PFHxA	307-24-4	1.01 U	0.33	1.01	5.05
PFHpA	375-85-9	1.01 U	0.44	1.01	5.05
PFOA	335-67-1	1.01 U	0.51	1.01	5.05
PFNA	375-95-1	1.01 U	0.43	1.01	5.05
PFDA	335-76-2	1.01 U	0.27	1.01	5.05
PFUnA	2058-94-8	1.01 U	0.41	1.01	5.05
PFDoA	307-55-1	0.51 U	0.24	0.51	5.05
PFTrDA	72629-94-8	1.01 U	0.28	1.01	5.05
PFTeDA	376-06-7	2.02 U	0.64	2.02	5.05
NMeFOSAA	2355-31-9	2.53 U	1.13	2.53	5.05
NEtFOSAA	2991-50-6	2.02 U	0.58	2.02	5.05
PFBS	375-73-5	1.01 U	0.36	1.01	5.05
PFHxS	355-46-4	0.51 U	0.22	0.51	5.05
PFOS	1763-23-1	1.01 U	0.27	1.01	5.05

Surrogate Recoveries (%)

13C5-PFHxA	90
13C4-PFHpA	98
13C8-PFOA	104
13C9-PFNA	91
13C6-PFDA	104
13C7-PFUnA	98
13C2-PFDoA	108
13C2-PFTeDA	114
d3-MeFOSAA	90
d5-EtFOSAA	91
13C3-PFBS	98
13C3-PFHxS	101
13C8-PFOS	116



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID 180507-02: Ottawa Sand

Battelle ID	CR993LCS-FS	Sample Type	LCS	Collection Date	10/16/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	0.00	Matrix	SEDIMENT	Sample Size	1.97	Size Unit-Basis	g	Units	ng/g_Dry	Target	Recovery	Qual	Control Limits
																				Lower	Upper				
PFHxA	307-24-4																		45	135					
PFHpA	375-85-9																		60	128					
PFOA	335-67-1																		56	136					
PFNA	375-95-1																		54	130					
PFDA	335-76-2																		55	141					
PFUnA	2058-94-8																		57	137					
PFDoA	307-55-1																		62	134					
PFTrDA	72629-94-8																		51	127					
PFTeDA	376-06-7																		34	162					
NMeFOSAA	2355-31-9																		52	146					
NEtFOSAA	2991-50-6																		54	124					
PFBS	375-73-5																		57	145					
PFHxS	355-46-4																		52	132					
PFOS	1763-23-1																		50	130					

Surrogate Recoveries (%)

13C5-PFHxA	88
13C4-PFHpA	87
13C8-PFOA	96
13C9-PFNA	91
13C6-PFDA	89
13C7-PFUnA	88
13C2-PFDoA	91
13C2-PFTeDA	101
d3-MeFOSAA	92
d5-EtFOSAA	84
13C3-PFBS	87
13C3-PFHxS	84
13C8-PFOS	91



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID	VC-CS00-SB06-0506	VC-CS00-SB06-0506-MS					
Battelle ID	J8711-FS	J8712MS-FS					
Sample Type	SA	MS					
Collection Date	10/06/2018	10/06/2018					
Extraction Date	10/16/2018	10/16/2018					
Analysis Date	10/23/2018	10/23/2018					
Analytical Instrument	Sciex 5500 LC/MS/MS	Sciex 5500 LC/MS/MS					
% Moisture	13.93	13.61					
Matrix	SB	SB					
Sample Size	1.76	1.78					
Size Unit-Basis	g	g					
Units	ng/g_Dry	ng/g_Dry	Target	Recovery	Qual	Control Limits	
						Lower	Upper
PFHxA	307-24-4	1.14 U	27.35	28.37	96	45	135
PFHpA	375-85-9	1.14 U	27.51	28.09	98	60	128
PFOA	335-67-1	1.14 U	28.23	28.09	100	56	136
PFNA	375-95-1	1.14 U	34.30	28.09	122	54	130
PFDA	335-76-2	1.14 U	27.94	28.09	99	55	141
PFUnA	2058-94-8	1.14 U	29.18	28.09	104	57	137
PFDoA	307-55-1	0.57 U	29.06	28.09	103	62	134
PFTrDA	72629-94-8	1.14 U	28.14	28.09	100	51	127
PFTeDA	376-06-7	2.27 U	28.42	28.09	101	34	162
NMeFOSAA	2355-31-9	2.84 U	28.79	28.09	102	52	146
NEtFOSAA	2991-50-6	2.27 U	31.61	28.09	113	54	124
PFBS	375-73-5	1.14 U	29.21	28.37	103	57	145
PFHxS	355-46-4	0.57 U	30.63	28.37	108	52	132
PFOS	1763-23-1	1.14 U	26.80	28.09	95	50	130
Surrogate Recoveries (%)							
13C5-PFHxA		82	91				
13C4-PFHpA		82	86				
13C8-PFOA		83	88				
13C9-PFNA		74	74				
13C6-PFDA		80	77				
13C7-PFUnA		85	79				
13C2-PFDoA		85	83				
13C2-PFTeDA		91	94				
d3-MeFOSAA		73	77				
d5-EtFOSAA		78	63				
13C3-PFBS		80	89				
13C3-PFHxS		85	82				
13C8-PFOS		93	89				



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID	VC-CS00-SB06-0506-MSD	Battelle ID	J8713MSD-FS	Sample Type	MSD	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	13.74	Matrix	SB	Sample Size	1.81	Size Unit-Basis	g	ng/g_Dry	Control Limits	Target	Recovery	Qual	Lower	Upper	RPD	Qual	RPD Limit
PFHxA	307-24-4		28.59	27.90	102		45	135	6.1		≤ 30																				
PFHpA	375-85-9		26.51	27.62	96		60	128	2.1		≤ 30																				
PFOA	335-67-1		26.90	27.62	97		56	136	3.0		≤ 30																				
PFNA	375-95-1		28.49	27.62	103		54	130	16.9		≤ 30																				
PFDA	335-76-2		27.78	27.62	101		55	141	2.0		≤ 30																				
PFUnA	2058-94-8		27.53	27.62	100		57	137	3.9		≤ 30																				
PFDaA	307-55-1		27.82	27.62	101		62	134	2.0		≤ 30																				
PFTrDA	72629-94-8		28.65	27.62	104		51	127	3.9		≤ 30																				
PFTeDA	376-06-7		28.43	27.62	103		34	162	2.0		≤ 30																				
NMeFOSAA	2355-31-9		28.83	27.62	104		52	146	1.9		≤ 30																				
NEtFOSAA	2991-50-6		28.57	27.62	103		54	124	9.3		≤ 30																				
PFBS	375-73-5		27.66	27.90	99		57	145	4.0		≤ 30																				
PFHxS	355-46-4		27.24	27.90	98		52	132	9.7		≤ 30																				
PFOS	1763-23-1		27.44	27.62	99		50	130	4.1		≤ 30																				
Surrogate Recoveries (%)																															
13C5-PFHxA			105																												
13C4-PFHpA			109																												
13C8-PFOA			108																												
13C9-PFNA			101																												
13C6-PFDA			99																												
13C7-PFUnA			106																												
13C2-PFDaA			108																												
13C2-PFTeDA			119																												
d3-MeFOSAA			86																												
d5-EtFOSAA			78																												
13C3-PFBS			101																												
13C3-PFHxS			96																												
13C8-PFOS			90																												



Glossary of Data Qualifiers

Flag: Application:

B	Analyte found in the sample at a concentration <10x the level found in the procedural blank
D	Dilution Run. Initial run outside the initial calibration range of the instrument
E	Estimate, result is greater than the higher concentration level in the calibration
H	Surrogate diluted out. Used when surrogate recovery is affected by excessive dilution of the sample extract.
J	Analyte detected below the Limit of Quantitation (LOQ)
ME	Significant Matrix Interference - Estimated value.
MI	Significant Matrix Interference - value could not be determined.
n	Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but meets secondary criteria
N	Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
NA	Not Applicable
T	Holding Time (HT) exceeded
U	Analyte not detected or detected below the Method detection limit (MDL) value, Limit of Detection (LOD) reported

**CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15**

SB, SS

Batch 18-0612

Package DP-18-0308

Submitted to:
CH2M
1100 NE Circle Blvd Suite 300
Corvallis, OR 97330 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

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CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15
SB, SS
Batch 18-0612
Package DP-18-0308

Submitted to:
CH2M
1100 NE Circle Blvd Suite 300
Corvallis, OR 97330 USA

NELAP Accreditation Number: E87856 (Florida Department of Health)
DoD-ELAP Accreditation Number: 91667

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

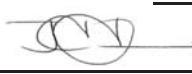
Analyst Approval:

Lauren M. Griffith  Lauren Griffith
2018.10.24
16:22:02 -04'00'

QC Chemist Approval:

Carla Devine  Digitally signed by devinec@battelle.org
DN: cn=devinec@battelle.org
Date: 2018.11.05 14:51:05 -05'00'

Project Manager Approval:

 Digitally signed by Jonathan Thorn
Date: 2018.11.05 17:01:16 -05'00'

BATTELLE
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CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15
SB, SS
Batch 18-0612
Package DP-18-0308

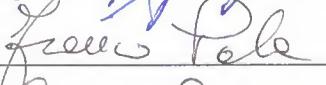
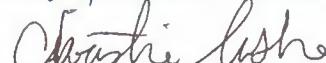
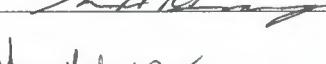
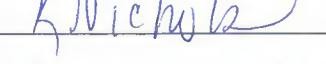
1	<i>Work Plan</i> Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	<i>Tables</i> Analytical Data Tables, Qualifier Definitions.	31
3	<i>Miscellaneous Documentation</i> Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	53
4	<i>Sample Preparation Records</i> Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	202
5	<i>Analytical Calibrations</i> Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	226
6	<i>Analytical Data</i> Raw Data Quantification Reports.	409
7	<i>Chromatograms</i> Sample And Standard Chromatograms.	560
8	<i>Unused Data</i>	NA

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BATTELLE

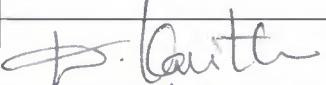
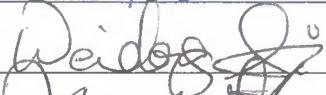
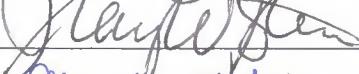
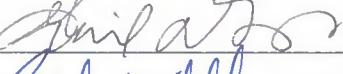
Signature Page

Battelle 2018 (1 of 2)
Signature Page

Name (Printed)	Signature	Initials	Date
Jonathan Thorn		JRT	4/4/2018
Robert Lizotte, Jr.		BL	4.4 2018
Franco Pala		FP	4-4-2018
Carla Devine		CD	4/4/18
Denise Schmitz		DAS	4/4/18
Carrie Peum Milay		CM	4/4/2018
Rich Restucci		RR	4/4/2018
Monica Moran		MM	4/4/2018
Christie Usher		CU	4/4/18
Karen Maternas		KM	4/4/18
Stephanie Schultz		SAS	4/4/18
Jordan Tower		JCT	4/4/18
KRISTEN NICHOLS		KN	4/4/18
Quimico H Brown		CB	4/4/18
Matt Schmitz		MS	4-4-18
Sam Brumares		SB	4-4-18
Lauren Griffith		LGR	4.4.18

Signature Page

Battelle 2018 (2 of 2)
Signature Page

Name (Printed)	Signature	Initials	Date
KAVITHA DASU		KD	04/04/18
Kayla Lamarre		KAL	04/04/18
Weidong Li		W.L	04/04/18
Tracy W Stenner		TWS	04/04/18
Ellyn M Fitch		EMF	12-April-2018
Gail DeRuzzo		GD	4/18/18
Zachary Willenberg		ZHW	4/20/18

Sample Summary

Client: CH2M

SDG: 18-0612

Project/Site: Naval Base Ventura County

CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR992PB-FS	180507-02: Ottawa Sand	SEDIMENT	10/16/2018	10/16/2018
CR993LCS-FS	180507-02: Ottawa Sand	SEDIMENT	10/16/2018	10/16/2018
J8698-FS	VC-CS00-SB02-0102	SB	10/6/2018	10/9/2018
J8699-FS	VC-CS00-SB02-0506	SB	10/6/2018	10/9/2018
J8700-FS	VC-CS00-SS03-000H	SS	10/6/2018	10/9/2018
J8701-FS	VC-CS00-SB03-0102	SB	10/6/2018	10/9/2018
J8702-FS	VC-CS00-SB03-0506	SB	10/6/2018	10/9/2018
J8703-FS	VC-CS00-SS04-000H	SS	10/6/2018	10/9/2018
J8704-FS	VC-CS00-SB04-0102	SB	10/6/2018	10/9/2018
J8705-FS	VC-CS00-SB04-0506	SB	10/6/2018	10/9/2018
J8706-FS	VC-CS00-SS05-000H	SS	10/6/2018	10/9/2018
J8707-FS	VC-CS00-SB05-0102	SB	10/6/2018	10/9/2018
J8708-FS	VC-CS00-SB05-0506	SB	10/6/2018	10/9/2018
J8709-FS	VC-CS00-SS06-000H	SS	10/6/2018	10/9/2018
J8710-FS	VC-CS00-SB06-0102	SB	10/6/2018	10/9/2018
J8711-FS	VC-CS00-SB06-0506	SB	10/6/2018	10/9/2018
J8712MS-FS	VC-CS00-SB06-0506-MS	SB	10/6/2018	10/9/2018
J8713MSD-FS	VC-CS00-SB06-0506-MSD	SB	10/6/2018	10/9/2018

Work Plan



WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title: CTO-4164: Analysis of Solids

Project Number: 100110125-01

Client: CH2M

1100 NE Circle Blvd Suite 300

Corvallis, OR 97330

USA

Client Contact Information: Tiffany Hill
Project Chemist
(541) 768-3109(V)
NA
tiffany.hill@jacobs.com

Effective Date of QAPP: 9/17/2018

Version Number: 100110125-01(S)-01

Project Manager: Thorn, Jonathan

Laboratory Task Manager: Thorn, Jonathan

Deliverable Due Date: 10/19/2018

2.0 SCOPE OF WORK

Overview: Analysis of solid samples for PFAS compounds.

Matrix: Soil/Sediment

2.1 TECHNICAL APPROACH

2.1.1 Sample Receipt, Storage, and Handling

The list of samples for this project plan are presented in Attachment 1.

Storage Directions: Store all samples frozen upon arrival.

Sub_Sampling: None

Procedures: NA

Contact: NA

Comment: None

Archiving: Samples will be disposed of six months after submission of final data.
Client will be informed prior to sample disposal.

Disposal: Dispose of samples and extracts in the appropriate waste streams.

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WORK/QUALITY ASSURANCE PROJECT PLAN

2.1.2 Sample Preparation

None

Samples Expected:	Samples Per Batch:	Batches Expected:
212	20	11

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

Type:	Description:	Count:	Rgt:	Reference:	Comment:
PB	Laboratory control reagent blank.	1 per batch	--	180507-02: Ottawa Sand Lot:1DJ0861	
LCS	Laboratory Control Sample	1 per batch	Yes	180507-02: Ottawa Sand Lot:1DJ0861	
MS	Spiked field sample for determining method accuracy in the presence of matrix.	1 per batch	--	NA	MS/MSD will be identified on the COC.
MSD	Spiked field sample for determining method accuracy and precision in the presence of matrix.	1 per batch	--	NA	MS/MSD will be identified on the COC.

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

SOP No.-Rev: **5-370-06**

SOP Title: *Extraction of Poly and Perfluoroalkyl Substances from Environmental Matrices*

Sample Size: 2 g

SIS and LCS/MS Compounds: Defined in Table 2.

Deviations:

- no split post ENVI-Carb
- PIV changed to 1 mL

Comments:

- All solids will be prescreened prior to extraction and analysis.

Table 2: SIS and LCS/MS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	JY27 SIS	~ 2.50 ng	50 uL	NA



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Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PFAS - DoD High Level Second Source LCS/MS Solution	KA84 LCS/MS	~ 20.0 ng	100 uL	LCS sample - vary between 100 µL and 400 µL for each batch.
PFAS - DoD High Level Second Source LCS/MS Solution	KA84 LCS/MS	~ 50 ng	250 uL	MS/MSD only - spike between 250 µL and 800 µL (vary per batch)

2.1.3.2 Cleanup

None.

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 1000

Table 3: RIS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PFAS - DoD Internal Standard Spiking Solution	JY26 RIS	~ 0.250 ng	50 uL	NA

2.1.4 Instrumental Analysis

The list of analytes along with data quality criteria are presented in Attachment 2.

- 1) SOP_No-Rev: **5-369-06**
 SOP_Title: *Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)*
 Deviations: None
 Comments: None

2.2. DELIVERABLES

Deliverables Due:	10/19/2018
LIMS Reports:	No
Histograms:	No
Excel Tables:	Yes
EICs:	No



WORK/QUALITY ASSURANCE PROJECT PLAN

Chromatograms:	<i>No</i>
EDDs:	<i>Yes</i>
Comments:	<ul style="list-style-type: none"> • Individual data sets will be due 28 days after receipt of each sample set. • Full Level 4 data package (QSM 5.1 Table B-15 compliant) required. • SEDD file required. • weekly updates to client on status required.

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

The project team is defined in Table 4. Supervisors may make substitutions with Project Manager concurrence.

Table 4: Project Team and Roles

Staff Member	Role	Comment
Jonathan R. Thorn	Project Manager	NA
Stephanie A. Schultz	Sample Preparation	NA
Denise M. Schumitz	LC-MS/MS Analysis	NA
Matt D. Schumitz	Sample Custody	NA
Carla R. Devine	Quality Control Officer	NA
Zachary J. Willenberg	Quality Assurance Officer	NA

4.2 COMMUNICATION

A kick-off meeting will be held to discuss project scope and goals.

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Sample Receipt	09/20/2018	09/20/2018	0	Schedule will vary as samples arrive over time.
Sample Preparation	09/20/2018	09/25/2018	5	NA



WORK/QUALITY ASSURANCE PROJECT PLAN

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Instrument Analysis	09/25/2018	10/09/2018	14	NA
Quality Control Review	10/09/2018	10/11/2018	2	NA
Quality Assurance Review	10/11/2018	10/12/2018	1	NA

6.0 BUDGET

The labor budget for the analytical task is presented in Table 6.

Table 6. Labor Budget (Laboratory Analytical Task)

Labor Activity:	Hours/ Batch:	Batches:	Total Hours:	Comment:
Sample Receipt	2	10	20	Hours are per batch of 20 samples.
Sample Preparation	8	10	80	NA
Instrument Analysis	8	10	80	NA
Quality Control Review	3	10	30	NA
Quality Assurance Review	1	10	10	NA

7.0 STAFF DEVELOPMENT

None anticipated.



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Shipment: SHP-180921-01

Status: Pending

Description: NBVC Basewide SI

Range: J8201-J8271

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8201	VC-PM3009-SS01-000H	09/17/2018 2:15 pm	SS	R0119	(NA)		
2	J8202	VC-PM3009-SB01-0102	09/17/2018 2:15 pm	SB	R0119	(NA)		
3	J8203	VC-PM3009-SB01-0506	09/17/2018 2:15 pm	SB	R0119	(NA)		
4	J8204	VC-PM3009-SS02-000H	09/17/2018 3:12 pm	SS	R0119	(NA)		
5	J8205	VC-PM3009-SB02-0102	09/17/2018 3:13 pm	SB	R0119	(NA)		
6	J8206	VC-PM3009-SB02-0506	09/17/2018 3:15 pm	SB	R0119	(NA)		
7	J8207	VC-PM3009-SS03-000H	09/17/2018 4:16 pm	SS	R0119	(NA)		
8	J8208	VC-PM3009-SB03-0102	09/17/2018 4:17 pm	SB	R0119	(NA)		
9	J8209	VC-PM3009-SB03-0506	09/17/2018 4:18 pm	SB	R0119	(NA)		
10	J8218	VC-PM372-SS01-000H	09/18/2018 9:36 am	SS	R0119	(NA)		
11	J8219	VC-PM372-SB01-0102	09/18/2018 9:37 am	SB	R0119	(NA)		
12	J8220	VC-PM372-SB01-0506	09/18/2018 9:43 am	SB	R0119	(NA)		
13	J8221	VC-PM372-SS02-000H	09/18/2018 8:57 am	SS	R0119	(NA)		
14	J8222	VC-PM372-SB02-0102	09/18/2018 9:03 am	SB	R0119	(NA)		
15	J8223	VC-PM372-SB02-0506	09/18/2018 9:06 am	SB	R0119	(NA)		
16	J8224	VC-PM372-SS03-000H	09/18/2018 10:46 am	SS	R0119	(NA)		
17	J8225	VC-PM372-SB03-0102	09/18/2018 10:47 am	SB	R0119	(NA)		
18	J8226	VC-PM372-SB03-0506	09/18/2018 10:49 am	SB	R0119	(NA)		
19	J8229	VC-PM649-SS01-000H	09/18/2018 11:30 am	SS	R0119	(NA)		
20	J8230	VC-PM649-SB01-0102	09/18/2018 11:35 am	SB	R0119	(NA)		
21	J8231	VC-PM649-SB01-0506	09/18/2018 11:40 am	SB	R0119	(NA)		
22	J8232	VC-PM649-SS02-000H	09/18/2018 2:25 pm	SS	R0119	(NA)		
23	J8233	VC-PM649-SB02-0102	09/18/2018 2:29 pm	SB	R0119	(NA)		
24	J8234	VC-PM649-SB02-0506	09/18/2018 2:30 pm	SB	R0119	(NA)		
25	J8235	VC-PM649-SS03-000H	09/18/2018 1:00 pm	SS	R0119	(NA)		
26	J8236	VC-PM649-SB03-0102	09/18/2018 1:12 pm	SB	R0119	(NA)		
27	J8237	VC-PM649-SB03-0506	09/18/2018 1:20 pm	SB	R0119	(NA)		
28	J8238	VC-PM649-SS04-000H	09/18/2018 1:15 pm	SS	R0119	(NA)		
29	J8239	VC-PM649-SB04-0102	09/18/2018 1:27 pm	SB	R0119	(NA)		
30	J8240	VC-PM649-SB04-0506	09/18/2018 1:40 pm	SB	R0119	(NA)		
31	J8248	VC-PM365-SS01-000H	09/19/2018 10:28 am	SS	R0119	(NA)		
32	J8249	VC-PM365-SB01-0102	09/19/2018 10:30 am	SB	R0119	(NA)		
33	J8250	VC-PM365-SB01-0506	09/19/2018 10:37 am	SB	R0119	(NA)		
34	J8251	VC-PM365-SS02-000H	09/19/2018 11:30 am	SS	R0119	(NA)		
35	J8252	VC-PM365-SB02-0102	09/19/2018 11:32 am	SB	R0119	(NA)		
36	J8253	VC-PM365-SB02-0506	09/19/2018 11:40 am	SB	R0119	(NA)		
37	J8254	VC-PM365-SS03-000H	09/19/2018 10:26 am	SS	R0119	(NA)		
38	J8255	VC-PM365-SB03-0102	09/19/2018 10:27 am	SB	R0119	(NA)		
39	J8256	VC-PM365-SB03-0506	09/19/2018 10:32 am	SB	R0119	(NA)		
40	J8263	VC-PM553-SS01-000H	09/19/2018 1:50 pm	SS	R0119	(NA)		
41	J8264	VC-PM553-SB01-0102	09/19/2018 1:53 pm	SB	R0119	(NA)		



WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-180921-01

Status: Pending

Description: NBVC Basewide SI

Range: J8201-J8271

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
42	J8265	VC-PM553-SB01-0506	09/19/2018 1:59 pm	SB	R0119	(NA)		
43	J8266	VC-PM553-SS02-000H	09/19/2018 2:40 pm	SS	R0119	(NA)		
44	J8267	VC-PM553-SB02-0102	09/19/2018 2:42 pm	SB	R0119	(NA)		
45	J8268	VC-PM553-SB02-0506	09/19/2018 2:50 pm	SB	R0119	(NA)		
46	J8269	VC-PM553-SS03-000H	09/19/2018 11:30 am	SS	R0119	(NA)		
47	J8270	VC-PM553-SB03-0102	09/19/2018 11:34 am	SB	R0119	(NA)		
48	J8271	VC-PM553-SB03-0506	09/19/2018 11:42 am	SB	R0119	(NA)		

Shipment: SHP-180925-02

Status: Approved

Description: NBVC Basewide SI

Range: J8291-J8334

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8291	VC-CS94-SS01-000H	09/21/2018 10:30 am	SS	R0119	(NA)		
2	J8292	VC-CS94-SB01-0102	09/21/2018 10:33 am	SB	R0119	(NA)		
3	J8293	VC-CS94-SB01-0506	09/21/2018 10:37 am	SB	R0119	(NA)		
4	J8294	VC-CS94-SS02-000H	09/21/2018 11:24 am	SS	R0119	(NA)		
5	J8295	VC-CS94-SB02-0102	09/21/2018 11:25 am	SB	R0119	(NA)		
6	J8296	VC-CS94-SB02-0506	09/21/2018 11:33 am	SB	R0119	(NA)		
7	J8297	VC-CS94-SS03-000H	09/21/2018 10:37 am	SS	R0119	(NA)		
8	J8298	VC-CS94-SB03-0102	09/21/2018 10:38 am	SB	R0119	(NA)		
9	J8299	VC-CS94-SB03-0506	09/21/2018 10:41 am	SB	R0119	(NA)		
10	J8300	VC-CS94-SS04-000H	09/21/2018 11:57 am	SS	R0119	(NA)		
11	J8301	VC-CS94-SB04-0102	09/21/2018 11:58 am	SB	R0119	(NA)		
12	J8302	VC-CS94-SB04-0506	09/21/2018 12:04 pm	SB	R0119	(NA)		
13	J8303	VC-CS94-SS05-000H	09/21/2018 12:04 pm	SS	R0119	(NA)		
14	J8304	VC-CS94-SB05-0102	09/21/2018 12:05 pm	SB	R0119	(NA)		
15	J8305	VC-CS94-SB05-0506	09/21/2018 12:10 pm	SB	R0119	(NA)		
16	J8310	VC-PM323-324-SS01-000H	09/20/2018 1:52 pm	SS	R0119	(NA)		
17	J8311	VC-PM323-324-SB01-0102	09/20/2018 1:55 pm	SB	R0119	(NA)		
18	J8312	VC-PM323-324-SB01-0506	09/20/2018 2:10 pm	SB	R0119	(NA)		
19	J8313	VC-PM323-324-SS02-000H	09/20/2018 11:00 am	SS	R0119	(NA)		
20	J8314	VC-PM323-324-SB02-0102	09/20/2018 11:05 am	SB	R0119	(NA)		
21	J8315	VC-PM323-324-SB02-0506	09/20/2018 11:15 am	SB	R0119	(NA)		
22	J8316	VC-PM323-324-SS03-000H	09/20/2018 10:15 am	SS	R0119	(NA)		



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-180925-02

Status: Approved

Description: NBVC Basewide SI

Range: J8291-J8334

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
23	J8317	VC-PM323-324-SB03-0102	09/20/2018 10:17 am	SB	R0119	(NA)		
24	J8318	VC-PM323-324-SB03-0506	09/20/2018 10:22 am	SB	R0119	(NA)		
25	J8327	VC-PM323-SS02-000H	09/20/2018 2:43 pm	SS	R0119	(NA)		
26	J8328	VC-PM323-SB02-0102	09/20/2018 2:44 pm	SB	R0119	(NA)		
27	J8329	VC-PM323-SB02-0506	09/20/2018 2:48 pm	SB	R0119	(NA)		
28	J8332	VC-PM324-SS02-000H	09/20/2018 1:40 pm	SS	R0119	(NA)		
29	J8333	VC-PM324-SB02-0102	09/20/2018 1:45 pm	SB	R0119	(NA)		
30	J8334	VC-PM324-SB02-0506	09/20/2018 1:51 pm	SB	R0119	(NA)		

Shipment: SHP-180927-02

Status: Approved

Description: NBVC Basewide SI

Range: J8352-J8411

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8352	VC-PM323-SS01-000H	09/24/2018 9:52 am	SS	R0119	(NA)		
2	J8353	VC-PM323-SB01-0102	09/24/2018 9:53 am	SB	R0119	(NA)		
3	J8354	VC-PM323-SB01-0506	09/24/2018 10:01 am	SB	R0119	(NA)		
4	J8355	VC-PM323-SS03-000H	09/24/2018 9:20 am	SS	R0119	(NA)		
5	J8356	VC-PM323-SB03-0102	09/24/2018 9:23 am	SB	R0119	(NA)		
6	J8357	VC-PM323-SB03-0506	09/24/2018 10:30 am	SB	R0119	(NA)		
7	J8360	VC-PM324-SS01-000H	09/24/2018 1:08 pm	SS	R0119	(NA)		
8	J8361	VC-PM324-SB01-0102	09/24/2018 1:11 pm	SB	R0119	(NA)		
9	J8362	VC-PM324-SB01-0506	09/24/2018 1:30 pm	SB	R0119	(NA)		
10	J8363	VC-PM324-SS03-000H	09/24/2018 10:49 am	SS	R0119	(NA)		
11	J8364	VC-PM324-SB03-0102	09/24/2018 10:50 am	SB	R0119	(NA)		
12	J8365	VC-PM324-SB03-0506	09/24/2018 11:02 am	SB	R0119	(NA)		
13	J8373	VC-PM64B-SS01-000H	09/24/2018 2:34 pm	SS	R0119	(NA)		
14	J8374	VC-PM64B-SB01-0102	09/24/2018 2:38 pm	SB	R0119	(NA)		
15	J8375	VC-PM64B-SB01-0506	09/24/2018 2:50 pm	SB	R0119	(NA)		
16	J8376	VC-PM64B-SS02-000H	09/24/2018 3:02 pm	SS	R0119	(NA)		
17	J8377	VC-PM64B-SB02-0102	09/24/2018 3:03 pm	SB	R0119	(NA)		
18	J8378	VC-PM64B-SB02-0506	09/24/2018 3:16 pm	SB	R0119	(NA)		
19	J8379	VC-PM64B-SS03-000H	09/24/2018 1:52 pm	SS	R0119	(NA)		
20	J8380	VC-PM64B-SB03-0102	09/24/2018 1:53 pm	SB	R0119	(NA)		
21	J8381	VC-PM64B-SB03-0506	09/24/2018 2:13 pm	SB	R0119	(NA)		
22	J8386	VC-HS09-SB01-0102	09/25/2018 1:21 pm	SB	R0119	(NA)		
23	J8387	VC-HS09-SB01-0506	09/25/2018 2:04 pm	SB	R0119	(NA)		
24	J8388	VC-HS09-SB02-0102	09/25/2018 2:39 pm	SB	R0119	(NA)		



WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-180927-02

Status: Approved

Description: NBVC Basewide SI

Range: J8352-J8411

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
25	J8389	VC-HS09-SB02-0506	09/25/2018 2:47 pm	SB	R0119	(NA)		
26	J8390	VC-HS09-SS03-000H	09/25/2018 12:54 pm	SS	R0119	(NA)		
27	J8391	VC-HS09-SB03-0102	09/25/2018 12:55 pm	SB	R0119	(NA)		
28	J8392	VC-HS09-SB03-0506	09/25/2018 1:05 pm	SB	R0119	(NA)		
29	J8401	VC-HS09-SS01-000H	09/25/2018 1:20 pm	SS	R0119	(NA)		
30	J8402	VC-HS09-SS02-000H	09/25/2018 2:35 pm	SS	R0119	(NA)		
31	J8403	VC-AOC16-SS01-000H	09/25/2018 9:43 am	SS	R0119	(NA)		
32	J8404	VC-AOC16-SB01-0102	09/25/2018 9:43 am	SB	R0119	(NA)		
33	J8405	VC-AOC16-SB01-0506	09/25/2018 9:57 am	SB	R0119	(NA)		
34	J8406	VC-AOC16-SS02-000H	09/25/2018 10:05 am	SS	R0119	(NA)		
35	J8407	VC-AOC16-SB02-0102	09/25/2018 10:06 am	SB	R0119	(NA)		
36	J8408	VC-AOC16-SB02-0506	09/25/2018 10:10 am	SB	R0119	(NA)		
37	J8409	VC-AOC16-SS03-000H	09/25/2018 9:43 am	SS	R0119	(NA)		
38	J8410	VC-AOC16-SB03-0102	09/25/2018 9:44 am	SB	R0119	(NA)		
39	J8411	VC-AOC16-SB03-0506	09/25/2018 9:53 am	SB	R0119	(NA)		

Shipment: SHP-180928-03

Status: Pending

Description: NBVC Basewide SI

Range: J8438-J8476

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8438	VC-MS09-SS01-000H	09/26/2018 9:41 am	SS	F0117	(NA)		
2	J8439	VC-MS09-SB01-0102	09/26/2018 9:43 am	SB	F0117	(NA)		
3	J8440	VC-MS09-SB01-0506	09/26/2018 9:52 am	SB	F0117	(NA)		
4	J8441	VC-MS09-SS02-000H	09/26/2018 9:30 am	SS	F0117	(NA)		
5	J8442	VC-MS09-SB02-0102	09/26/2018 9:34 am	SB	F0117	(NA)		
6	J8443	VC-MS09-SB02-0506	09/26/2018 9:41 am	SB	F0117	(NA)		
7	J8444	VC-MS09-SS03-000H	09/26/2018 10:15 am	SS	F0117	(NA)		
8	J8445	VC-MS09-SB03-0102	09/26/2018 10:20 am	SB	F0117	(NA)		
9	J8446	VC-MS09-SB03-0506	09/26/2018 10:25 am	SB	F0117	(NA)		
10	J8447	VC-MS09-SS04-000H	09/26/2018 11:16 am	SS	F0117	(NA)		
11	J8448	VC-MS09-SB04-0102	09/26/2018 11:18 am	SB	F0117	(NA)		
12	J8449	VC-MS09-SB04-0506	09/26/2018 11:25 am	SB	F0117	(NA)		
13	J8450	VC-MS09-SS05-000H	09/26/2018 10:44 am	SS	F0117	(NA)		
14	J8451	VC-MS09-SB05-0102	09/26/2018 10:45 am	SB	F0117	(NA)		
15	J8452	VC-MS09-SB05-0506	09/26/2018 10:50 am	SB	F0117	(NA)		
16	J8465	VC-PM367-SS01-000H	09/27/2018 10:12 am	SS	F0117	(NA)		
17	J8466	VC-PM367-SB01-0102	09/27/2018 10:15 am	SB	F0117	(NA)		
18	J8467	VC-PM367-SB01-0506	09/27/2018 10:26 am	SB	F0117	(NA)		
19	J8468	VC-PM367-SS02-000H	09/27/2018 9:25 am	SS	F0117	(NA)		



WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-180928-03

Status: Pending

Description: NBVC Basewide SI

Range: J8438-J8476

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
20	J8469	VC-PM367-SB02-0102	09/27/2018 9:31 am	SB	F0117	(NA)		
21	J8470	VC-PM367-SB02-0506	09/27/2018 9:37 am	SB	F0117	(NA)		
22	J8471	VC-PM367-SS03-000H	09/27/2018 10:19 am	SS	F0117	(NA)		
23	J8472	VC-PM367-SB03-0102	09/27/2018 10:20 am	SB	F0117	(NA)		
24	J8473	VC-PM367-SB03-0506	09/27/2018 10:26 am	SB	F0117	(NA)		
25	J8474	VC-PM367-SS04-000H	09/27/2018 9:30 am	SS	F0117	(NA)		
26	J8475	VC-PM367-SB04-0102	09/27/2018 9:31 am	SB	F0117	(NA)		
27	J8476	VC-PM367-SB04-0506	09/27/2018 9:38 am	SB	F0117	(NA)		

Shipment: SHP-181009-01

Status: Pending

Description: NBVC Basewide SI

Range: J8658-J8711

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8658	VC-CS12-SS01-000H	10/06/2018 8:25 am	SS	R0119	(NA)		
2	J8659	VC-CS12-SB01-0102	10/06/2018 8:26 am	SB	R0119	(NA)		
3	J8660	VC-CS12-SB01-0506	10/06/2018 8:34 am	SB	R0119	(NA)		
4	J8661	VC-CS12-SS02-000H	10/06/2018 11:07 am	SS	R0119	(NA)		
5	J8662	VC-CS12-SB02-0102	10/06/2018 11:09 am	SB	R0119	(NA)		
6	J8663	VC-CS12-SB02-0506	10/06/2018 11:13 am	SB	R0119	(NA)		
7	J8664	VC-CS12-SS03-000H	10/06/2018 10:06 am	SS	R0119	(NA)		
8	J8665	VC-CS12-SB03-0102	10/06/2018 10:07 am	SB	R0119	(NA)		
9	J8666	VC-CS12-SB03-0506	10/06/2018 10:12 am	SB	R0119	(NA)		
10	J8671	VC-CS10-SS01-000H	10/06/2018 1:02 pm	SS	R0119	(NA)		
11	J8672	VC-CS10-SB01-0102	10/06/2018 1:04 pm	SB	R0119	(NA)		
12	J8673	VC-CS10-SB01-0506	10/06/2018 1:10 pm	SB	R0119	(NA)		
13	J8674	VC-CS10-SS02-000H	10/06/2018 9:55 am	SS	R0119	(NA)		
14	J8675	VC-CS10-SB02-0102	10/06/2018 9:58 am	SB	R0119	(NA)		
15	J8676	VC-CS10-SB02-0506	10/06/2018 10:06 am	SB	R0119	(NA)		
16	J8677	VC-CS10-SS03-000H	10/06/2018 11:31 am	SS	R0119	(NA)		
17	J8678	VC-CS10-SB03-0102	10/06/2018 11:33 am	SB	R0119	(NA)		
18	J8679	VC-CS10-SB03-0506	10/06/2018 11:37 am	SB	R0119	(NA)		
19	J8680	VC-CS10-SS04-000H	10/06/2018 10:35 am	SS	R0119	(NA)		
20	J8681	VC-CS10-SB04-0102	10/06/2018 10:38 am	SB	R0119	(NA)		
21	J8682	VC-CS10-SB04-0506	10/06/2018 10:41 am	SB	R0119	(NA)		
22	J8689	VC-CS10-SD01-000H	10/06/2018 1:28 pm	SD	R0119	(NA)		
23	J8690	VC-CS10-SD01-0102	10/06/2018 1:30 pm	SD	R0119	(NA)		
24	J8691	VC-CS18-SS01-000H	10/06/2018 1:52 pm	SS	R0119	(NA)		
25	J8692	VC-CS18-SB01-0102	10/06/2018 1:54 pm	SB	R0119	(NA)		
26	J8693	VC-CS18-SB01-0506	10/06/2018 2:00 pm	SB	R0119	(NA)		



WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-181009-01

Status: Pending

Description: NBVC Basewide SI

Range: J8658-J8711

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
27	J8694	VC-CS00-SS01-000H	10/06/2018 2:05 pm	SS	R0119	(NA)		
28	J8695	VC-CS00-SB01-0102	10/06/2018 2:07 pm	SB	R0119	(NA)		
29	J8696	VC-CS00-SB01-0506	10/06/2018 2:10 pm	SB	R0119	(NA)		
30	J8697	VC-CS00-SS02-000H	10/06/2018 3:22 pm	SS	R0119	(NA)		
31	J8698	VC-CS00-SB02-0102	10/06/2018 3:23 pm	SS	R0119	(NA)		
32	J8699	VC-CS00-SB02-0506	10/06/2018 3:27 pm	SB	R0119	(NA)		
33	J8700	VC-CS00-SS03-000H	10/06/2018 4:15 pm	SS	R0119	(NA)		
34	J8701	VC-CS00-SB03-0102	10/06/2018 4:18 pm	SB	R0119	(NA)		
35	J8702	VC-CS00-SB03-0506	10/06/2018 4:25 pm	SB	R0119	(NA)		
36	J8703	VC-CS00-SS04-000H	10/06/2018 1:13 pm	SS	R0119	(NA)		
37	J8704	VC-CS00-SB04-0102	10/06/2018 1:15 pm	SB	R0119	(NA)		
38	J8705	VC-CS00-SB04-0506	10/06/2018 1:20 pm	SB	R0119	(NA)		
39	J8706	VC-CS00-SS05-000H	10/06/2018 5:17 pm	SS	R0119	(NA)		
40	J8707	VC-CS00-SB05-0102	10/06/2018 5:19 pm	SB	R0119	(NA)		
41	J8708	VC-CS00-SB05-0506	10/06/2018 5:24 pm	SB	R0119	(NA)		
42	J8709	VC-CS00-SS06-000H	10/06/2018 5:05 pm	SS	R0119	(NA)		
43	J8710	VC-CS00-SB06-0102	10/06/2018 5:07 pm	SB	R0119	(NA)		
44	J8711	VC-CS00-SB06-0506	10/06/2018 5:10 pm	SB	R0119	(NA)		



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name:	Master_369
SOP Reference:	5-369 - Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)
Description:	PFAS by DoD QSM 5.1 Table B-15
Matrix:	S - Solid Samples, like soil or sediment, prepared and analyzed under the same class of detection limits.
Detection Limit Study:	5-369
Instrument:	LC-MS/MS
MQO Criteria	Universal_LC
Standard Report:	Standard Result Report

Method Specific Reporting			Holding Times (days)		Data Flags	
Result Units:	ng/g	Unit Conversion:	(none)	Sample:	14	DL_Flag: U
Weight Basis:	DRY	Result Format:	Fixed Digits	Frozen:	14	RL_Flag: J
Standard Basis:	SIS	# of Figures/Digits:	2	Extract:	28	PB_Flag: B
Oil Weight Basis:	No	Oil Weight Source:	Oil Weight			DIL_Flag: D
U-Value Substitution:	U-Flag=MD	Histograms:	No			HT_Flag: T
ECD_Report:	No					

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
1	Perfluoro-n-hexanoic acid	PFHxA	T		13C5-PFHxA	No	No
2	Perfluoro-n-heptanoic Acid	PFHpA	T		13C4-PFHpA	No	No
3	Perfluoro-n-octanoic Acid	PFOA	T		13C8-PFOA	No	No
4	Perfluorononanoic Acid	PFNA	T		13C9-PFNA	No	No
5	Perfluoro-n-decanoic Acid	PFDA	T		13C6-PFDA	No	No
6	Perfluoro-n-undecanoic acid	PFUnA	T		13C7-PFUnA	No	No
7	Perfluoro-n-dodecanoic acid	PFDoA	T		13C2-PFDoA	No	No
8	Perfluoro-n-tridecanoic acid	PFTrDA	T		13C2-PFTeDA	No	No
9	Perfluoro-n-tetradecanoic acid	PFTeDA	T		13C2-PFTeDA	No	No
10	N-methylperfluoro-1-octanesulfonamidoacetic acid	NMeFOSAA	T		d3-MeFOSAA	No	No
11	N-ethylperfluoro-octanesulfonamidoacetic acid	NEtFOSAA	T		d5-EtFOSAA	No	No
12	Perfluoro-1-butanесulfонат	PFBS	T		13C3-PFBS	No	No
13	Perfluoro-1-hexanesulfonate	PFHxS	T		13C3-PFHxS	No	No
14	Perfluoro-1-octanesulfonate	PFOS	T		13C8-PFOS	No	No
1	13C5-PFHxA	13C5-PFHxA	SIS	13C2-PFOA		No	No
2	13C4-PFHpA	13C4-PFHpA	SIS	13C2-PFOA		No	No
3	13C8-PFOA	13C8-PFOA	SIS	13C2-PFOA		No	No
4	13C9-PFNA	13C9-PFNA	SIS	13C2-PFOA		No	No



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_369

No: Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
5 13C6-PFDA	13C6-PFDA	SIS	13C2-PFDA		No	No
6 13C7-PFUnA	13C7-PFUnA	SIS	13C2-PFDA		No	No
7 13C2-PFDoA	13C2-PFDoA	SIS	13C2-PFDA		No	No
8 13C2-PFTeDA	13C2-PFTeDA	SIS	13C2-PFDA		No	No
9 d3-MeFOSAA	d3-MeFOSAA	SIS	13C4-PFOS		No	No
10 d5-EtFOSAA	d5-EtFOSAA	SIS	13C4-PFOS		No	No
11 13C3-PFBS	13C3-PFBS	SIS	13C4-PFOS		No	No
12 13C3-PFHxS	13C3-PFHxS	SIS	13C4-PFOS		No	No
13 13C8-PFOS	13C8-PFOS	SIS	13C4-PFOS		No	No

Total Analytes: 27

Subtract Peaks:

None

Sum Peaks:

None



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_369

ICAL Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.99	N	5	N	$y = Bx + C$
Quadratic	NA	NA	0.99	N	6	N	$y = Ax^2 + Bx + C$

Continuing Calibration Verification Criteria:

CCV Name: 5-369							
Frequency Hrs:	Mean PD(%):	Individual PD(%):	RIS/SIS RT Window (min):	Area Limit Low(%):	Area Limit High(%):	Comment:	
12 (N)	30 (N)	30 (N)	0.04 (N)	-50	100 (N)	NA	

Independent Calibration Verification:

ICC Name: 5-369							
Mean PD Limit(%):	Ind. PD Limit(%):	RIS/SIS Window Limit (Secs):	Area Limit High(%):	Area Limit Low(%):	Comment:		
30 (N)	30 (N)	0.04 (N)	-50	100 (N)	NA		

Mass Discrimination Criteria:

None

Degredation Check Criteria:

None



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application	<i>Universal_LC</i>		
MQO:	Acceptance Criteria	Qual: Corrective Action:	
Procedural Blank	Samples must be greater than five times the blank concentration ($>5\times PB$).	B	Review with Project Manager; re-analyze or justify results in project records.
PB Measurement Quality Objective	Organic results in the Procedural Blank are less than 1/2 times the LOQ ($<1/2\times LOQ$)	N	Review with Project Manager; re-analyze or justify results in project records.
Laboratory Control Sample	Recovery values 70-130%.	N	Review with project manager; re-analyze or justify reporting the results in project records.
Matrix Spike / Matrix Spike Duplicate Recovery	Organics 70-130%. Analyte concentration in MS/MSD must be greater than five times reported background concentration. Organics Results in the Target is less than 5 times the Original	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Matrix Spike/Spike Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Analyte concentration in MS/MSD must be greater than five times reported background concentration. Organics Results in the Target is less than 5 times the Original	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Standard Reference Material Accuracy	Organics Percent Difference less than 30% from a range of certified values on average. Analyte concentration must be greater than five times the Method Detection Limit ($>5\times MDL$). Organics Results in the Target is less than 5 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Analytical Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Analyte concentration must be $> 5\times MDL$. Organics Results in the Original is less than 5 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application	<i>Universal_LC</i>		
MQO:	Acceptance Criteria	Qual: Corrective Action:	
Analytical Triplicate Precision	Organics results less than 30% Relative Standard Deviation (RSD). Analyte concentration must be > 5x MDL. Organics Results in the Original is less than 5 times the MDL	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
Surrogate Compound Recovery	Recovery results between 50% and 150%.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
Control Oil	RPD < 30% for at least 90% of analytes	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Instrument Calibration	5-369-6: R-squared greater than or equal to 0.990		Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Independent Calibration Check Solution	5-369-6: Individual PD less than or equal to 30%. Mean Percent Difference less than or equal to 30%.	N	Review with Project Manager; re-analyze or justify in project records.
Continuing Calibration Verification	5-369-6: Individual PD less than or equal to 30%. Mean Percent Difference less than or equal to 30%.	N	Review with Project Manager; re-analyze or justify in project records.



It can be done

Sample Receipt Form

Approved: Authorized:

Project Number: 695803

Client: CH2M

Received by: Schumitz, Matt

Date/Time Received: Tuesday, October 09, 2018 10:15 AM

No. of Shipping Containers: 3

SHIPMENT

Method of Delivery: Commercial Carrier

Tracking Number: Fed Ex

COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smpls
1 of 3	Cooler	7831 4550 2170	Custody Seals	Intact	Intact	Therm_1	0.9	14
2 of 3	Cooler	7831 4550 2180	Custody Seals	Intact	Intact	Therm_1	1.1	39
3 of 3	Cooler	7831 4550 2191	Custody Seals	Intact	Intact	Therm_1	1.7	12

Samples

Sample Labels:

- Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals:

- Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples:

- Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1.7 Temperature Blank used Yes No

(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA

If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA

If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA

Individual sample deviations noted on sample log

Samples Containers:

Samples returned in PC-grade jars: Yes No Unknown /Lot No.: Unknown

Storage Location: Custody: Refrigerator - R0119 (NA) BDO IDs Assigned: J8658 - J8722

Samples logged in by: Schumitz, Matt

Date/Time: 10/09/2018 10:15 AM

Approved By:

Approved On:

Authorized By:

Authorized On:

Sample Receipt Form Details

Approved: Authorized:

Project Number: 695803

Client: CH2M

Received by: Schumitz, Matt

Date/Time Received: Tuesday, October 09, 2018 10:15 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8658	VC-CS12-SS01-000H	10/06/18 8:25	10/09/18 14:33	1	SS	1.7	NA	NA	NA	R0119 (NA)			
J8659	VC-CS12-SB01-0102	10/06/18 8:26	10/09/18 14:33	1	SB	1.7	NA	NA	NA	R0119 (NA)			
J8660	VC-CS12-SB01-0506	10/06/18 8:34	10/09/18 14:34	1	SB	1.7	NA	NA	NA	R0119 (NA)			
J8661	VC-CS12-SS02-000H	10/06/18 11:07	10/09/18 14:34	1	SS	1.7	NA	NA	NA	R0119 (NA)			
J8662	VC-CS12-SB02-0102	10/06/18 11:09	10/09/18 14:34	1	SB	1.7	NA	NA	NA	R0119 (NA)			
J8663	VC-CS12-SB02-0506	10/06/18 11:13	10/09/18 14:35	1	SB	1.7	NA	NA	NA	R0119 (NA)			
J8664	VC-CS12-SS03-000H	10/06/18 10:06	10/09/18 14:35	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8665	VC-CS12-SB03-0102	10/06/18 10:07	10/09/18 14:35	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8666	VC-CS12-SB03-0506	10/06/18 10:12	10/09/18 14:36	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8667	VC-CS12-DW01-1018	10/06/18 8:44	10/09/18 14:36	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8668	VC-CS12-DW01P-1018	10/06/18 8:48	10/09/18 14:37	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8669	VC-CS12-DW02-1018	10/06/18 11:22	10/09/18 14:37	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8670	VC-CS12-DW03-1018	10/06/18 10:30	10/09/18 14:38	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8671	VC-CS10-SS01-000H	10/06/18 13:02	10/09/18 14:39	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8672	VC-CS10-SB01-0102	10/06/18 13:04	10/09/18 14:40	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8673	VC-CS10-SB01-0506	10/06/18 13:10	10/09/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8674	VC-CS10-SS02-000H	10/06/18 9:55	10/09/18 14:41	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8675	VC-CS10-SB02-0102	10/06/18 9:58	10/09/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8676	VC-CS10-SB02-0506	10/06/18 10:06	10/09/18 14:42	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8677	VC-CS10-SS03-000H	10/06/18 11:31	10/09/18 14:43	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8678	VC-CS10-SB03-0102	10/06/18 11:33	10/09/18 14:43	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8679	VC-CS10-SB03-0506	10/06/18 11:37	10/09/18 14:43	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8680	VC-CS10-SS04-000H	10/06/18 10:35	10/09/18 14:43	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8681	VC-CS10-SB04-0102	10/06/18 10:38	10/09/18 14:44	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8682	VC-CS10-SB04-0506	10/06/18 10:41	10/09/18 14:44	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8683	VC-CS10-DW01-1018	10/06/18 13:38	10/09/18 14:45	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8684	VC-CS10-DW02-1018	10/06/18 10:30	10/09/18 14:46	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8685	VC-CS10-DW02P-1018	10/06/18 10:40	10/09/18 14:46	2	GW	0.9	NA	NA	NA	R0119 (NA)			

Sample Receipt Form Details

Approved: Authorized:

Project Number: 695803

Client: CH2M

Received by: Schumitz, Matt

Date/Time Received: Tuesday, October 09, 2018 10:15 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8686	VC-CS10-DW03-1018	10/06/18 12:07	10/09/18 14:46	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8687	VC-CS10-DW04-1018	10/06/18 10:55	10/09/18 14:46	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8688	VC-CS18-DW01-1018	10/06/18 15:18	10/09/18 14:47	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8689	VC-CS10-SD01-000H	10/06/18 13:28	10/09/18 14:48	1	SD	0.9	NA	NA	NA	R0119 (NA)			
J8690	VC-CS10-SD01-0102	10/06/18 13:30	10/09/18 14:48	1	SD	0.9	NA	NA	NA	R0119 (NA)			
J8691	VC-CS18-SS01-000H	10/06/18 13:52	10/09/18 14:49	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8692	VC-CS18-SB01-0102	10/06/18 13:54	10/09/18 14:49	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8693	VC-CS18-SB01-0506	10/06/18 14:00	10/09/18 14:50	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8694	VC-CS00-SS01-000H	10/06/18 14:05	10/09/18 14:52	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8695	VC-CS00-SB01-0102	10/06/18 14:07	10/09/18 14:53	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8696	VC-CS00-SB01-0506	10/06/18 14:10	10/09/18 14:58	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8697	VC-CS00-SS02-000H	10/06/18 15:22	10/09/18 14:59	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8698	VC-CS00-SB02-0102	10/06/18 15:23	10/09/18 14:59	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8699	VC-CS00-SB02-0506	10/06/18 15:27	10/09/18 15:00	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8700	VC-CS00-SS03-000H	10/06/18 16:15	10/09/18 15:00	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8701	VC-CS00-SB03-0102	10/06/18 16:18	10/09/18 15:06	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8702	VC-CS00-SB03-0506	10/06/18 16:25	10/09/18 15:07	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8703	VC-CS00-SS04-000H	10/06/18 13:13	10/09/18 15:07	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8704	VC-CS00-SB04-0102	10/06/18 13:15	10/09/18 15:07	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8705	VC-CS00-SB04-0506	10/06/18 13:20	10/09/18 15:07	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8706	VC-CS00-SS05-000H	10/06/18 17:17	10/09/18 15:08	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8707	VC-CS00-SB05-0102	10/06/18 17:19	10/09/18 15:09	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8708	VC-CS00-SB05-0506	10/06/18 17:24	10/09/18 15:09	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8709	VC-CS00-SS06-000H	10/06/18 17:05	10/09/18 15:09	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8710	VC-CS00-SB06-0102	10/06/18 17:07	10/09/18 15:10	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8711	VC-CS00-SB06-0506	10/06/18 17:10	10/09/18 15:10	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8712	VC-CS00-SB06-0506-MS	10/06/18 17:10	10/09/18 15:10	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8713	VC-CS00-SB06-0506-MSD	10/06/18 17:10	10/09/18 15:11	1	SB	1.1	NA	NA	NA	R0119 (NA)			

Sample Receipt Form Details

Approved: Authorized:

Project Number: 695803

Client: CH2M

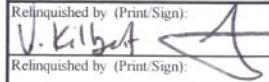
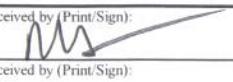
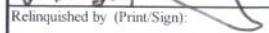
Received by: Schumitz, Matt

Date/Time Received: Tuesday, October 09, 2018 10:15 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8714	VC-FB11-10062018	10/06/18 18:34	10/09/18 15:11	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8715	VC-EB11-10062018	10/06/18 18:36	10/09/18 15:11	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8716	VC-CS00-DW01-1018	10/06/18 14:32	10/09/18 15:12	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8717	VC-CS00-DW02-1018	10/06/18 16:25	10/09/18 15:12	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8718	VC-CS00-DW02P-1018	10/06/18 16:27	10/09/18 15:14	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8719	VC-CS00-DW03-1018	10/06/18 17:05	10/09/18 15:14	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8720	VC-CS00-DW04-1018	10/06/18 13:30	10/09/18 15:15	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8721	VC-CS00-DW05-1018	10/06/18 18:02	10/09/18 15:15	2	GW	1.7	NA	NA	NA	R0119 (NA)			
J8722	VC-CS00-DW06-1018	10/06/18 17:40	10/09/18 15:15	2	GW	1.7	NA	NA	NA	R0119 (NA)			

Total Samples: 65

Chain-of-Custody						
Client Contact Information	Project Manager: Eric Davis			Sampling Site: PM CS12		Site Information: COC # 06
	Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V.Kilbert	Phone: 724-977-3428	Email: V.Kilbert@jacobs.com	Preservative: N/A	
	Turnaround Time (TAT) Requested:					
Project Name: NBVC Basewide SI	Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>					Page# 1 of 8
Project No.: 695803	Time Zone: PST					
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis PFAS by Method 537 Mod
VC-CS12-SS01-000H	10/16/18	0825	Grab	SS	1	X J8658
VC-CS12-SB01-0102	10/16/18	0826	Grab	SB	1	X 59
VC-CS12-SB01-0506	10/16/18	0834	Grab	SB	1	X 60
VC-CS12-SS02-000H	10/16/18	1107	Grab	SS	1	X 61
VC-CS12-SB02-0102	10/16/18	1109	Grab	SB	1	X 62
VC-CS12-SB02-0504	10/16/18	1113	Grab	SB	1	X 63
VC-CS12-SS03-000H	10/16/18	1006	Grab	SS	1	X 64
VC-CS12-SB03-0102	10/16/18	1007	Grab	SB	1	X 65
VC-CS12-SB03-0506	10/16/18	1012	Grab	SB	1	X J8666
VC-CS12-SB03-			Grab	SB	1	X
VC-CS12-S-MS			Grab			
VC-CS12-S-SD			Grab			
Receipt Temperature:(°C)	Samples Intact: Yes - No			Samples on Ice: Yes - No		Receipt Comments:
Relinquished by (Print/Sign): 	Company: Jacobs	Date/Time: 10/18/18 0820	Received by (Print/Sign): 	Company: Battelle	Date/Time: 10-9-18 1015	
Relinquished by (Print/Sign): 	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:	
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:	
Comments:						

Chain-of-Custody					
Client Contact Information		Project Manager: Eric Davis		Sampling Site: PM CS12	
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jaws.com		Site Information:	
				Preservative: NA	
				COC # 06	
Turnaround Time (TAT) Requested:		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>			
Project Name: NBVC Basewide Sl					
Project No.: 645803					
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix
VC-CS12-DW01-1018		10/6/18	0844	Grab	GW
VC-CS12-DW01P-1018		10/6/18	0848	Grab	GW
VC-CS12-DW02-1018		10/6/18	1122	Grab	GW
VC-CS12-DW03-1018		10/6/18	1030	Grab	GW
PDT-AQ-FB				Grab	AQ
PDT-AQ-EB				Grab	AQ
Receipt Temperature:(°C)		Samples Intact: Yes - No		Samples on Ice: Yes - No	
Relinquished by (Print/Sign): <i>V. Kilbert</i>		Company: <i>Jacobs</i>	Date/Time: 10/8/18 0800	Received by (Print/Sign): <i>M</i>	Company: <i>Battelle</i> Date/Time: 10-9-18 1015
Relinquished by (Print/Sign):		Company:	Date/Time:	Received by (Print/Sign):	Company: Date/Time:
Relinquished by (Print/Sign):		Company:	Date/Time:	Received by (Print/Sign):	Company: Date/Time:
Comments:					

Chain-of-Custody								
Client Contact Information		Project Manager: Eric Davis		Sampling Site: PM CS10-6678				
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Sampler Information (print name): <u>V.Kilbert</u> Phone: <u>724-977-3628</u> Email: <u>Victoria.kilbert.C.jacobs.com</u> Turnaround Time (TAT) Requested:		Site Information:				
Project Name: NBVC Basewide SI		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>		Preservative	NA	COC #		
Project No.: <u>Le95803</u>		Time Zone: <u>PST</u>		Analysis	PFAS by Method 537 Mod	Page#		
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.		
VC-CS10-SS01-000H		<u>10/6/18</u>	<u>1302</u>	Grab	SS	1	X	<u>J8671</u>
VC-CS10-SB01- <u>0102</u>		<u>10/6/18</u>	<u>1304</u>	Grab	SB	1	X	<u>72</u>
VC-CS10-SB01- <u>0506</u>		<u>10/6/18</u>	<u>1310</u>	Grab	SB	1	X	<u>73</u>
VC-CS10-SS02-000H		<u>10/6/18</u>	<u>0955</u>	Grab	SS	1	X	<u>74</u>
VC-CS10-SB02- <u>0102</u>		<u>10/6/18</u>	<u>0958</u>	Grab	SB	1	X	<u>75</u>
VC-CS10-SB02- <u>0506</u>		<u>10/6/18</u>	<u>1006</u>	Grab	SB	1	X	<u>76</u>
VC-CS10-SS03-000H		<u>10/6/18</u>	<u>1131</u>	Grab	SS	1	X	<u>77</u>
VC-CS10-SB03- <u>2102</u>		<u>10/6/18</u>	<u>1133</u>	Grab	SB	1	X	<u>78</u>
VC-CS10-SB03- <u>0506</u>		<u>10/6/18</u>	<u>1137</u>	Grab	SB	1	X	<u>79</u>
VC-CS10-SS04-000H		<u>10/6/18</u>	<u>1035</u>	Grab	SS	1	X	<u>80</u>
VC-CS10-SB04- <u>2102</u>		<u>10/6/18</u>	<u>1038</u>	Grab	SB	1	X	<u>81</u>
VC-CS10-SB04- <u>0506</u>		<u>10/6/18</u>	<u>1041</u>	Grab	SB	1	X	<u>J8682</u>
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No		Receipt Comments:	
Relinquished by (Print/Sign): <u>V.Kilbert</u>		Company: <u>Jacobs</u>	Date/Time: <u>10/8/18 0800</u>		Received by (Print/Sign): <u>Me</u>	Company: <u>Battelle</u>	Date/Time: <u>10-9-18 1015</u>	
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:	
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:	
Comments:								

Chain-of-Custody						
Client Contact Information	Project Manager: Eric Davis			Sampling Site: PM CS10 & CS18		
	Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert	Phone: (541) 977-3628	Email: Victoria.Kilbert@jacobs.com	Preservative: NA	Site Information:
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>					Page# 4 of 8
Project No.: 6915863	Time Zone: PST			Analysis	PFAS by Method 537 Mod	
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	
VC-CS10-DW01-1018	10/6/18	1338	Grab	GW	2	X 18683
VC-CS10-DW02-1018	10/6/18	1030	Grab	GW	2	X 18684
VC-CS10-DW02P-1018	10/6/18	1040	Grab	GW	2	X 18685
VC-CS10-DW03-1018	10/6/18	1207	Grab	GW	2	X 18686
VC-CS10-DW04-1018	10/6/18	1055	Grab	GW	2	X 18687
FDT-AQ-PB			Grab	AQ		
FDT-AQ-EB			Grab	AQ		
VC-CS18-DW01-1018	10/6/18	1518	Grab	GW	2	X 18688
<i>V. Kilbert</i>						
Receipt Temperature:(°C)	Samples Intact: Yes - No			Samples on Ice: Yes - No		Receipt Comments:
Relinquished by (Print/Sign): <i>V. Kilbert</i>	Company: Jacobs	Date/Time: 10/8/18 0808	Received by (Print/Sign): <i>Mo</i>	Company: Battelle	Date/Time: 10-9-18 1015	
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:	
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:	
Comments:						

Chain-of-Custody							
Client Contact Information		Project Manager: Eric Davis Sampler Information (print name): V. Kilbert Phone: (724) 977-3628 Email: victoria.kilbert@jacobs.com		Sampling Site: PM CS10 & CS18		Site Information:	
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330				Preservative: N/A		COC # 06	
Project Name: NBVC Basewide Sl		Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>		Analysis: PFAS by Method 537 Mod		Page# 5 of 8	
Project No.: 695803		Time Zone: PST					
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	
VC-CS10-SD01-000H		10/6/18	1328	Grab	SD	1	X J8689
VC-CS10-SD01-0102		10/6/18	1330	Grab	SD	1	X J8690
VC-CS10-S-MS				Grab			X
VC-CS10-S-SD				Grab			X
FDT-SO-FB				Grab	AQ		X
FDT-SO-FB				Grab	AQ		X
VC-CS18-SS01-000H		10/6/18	1352	Grab	SS	1	X J8691
VC-CS18-SB01-0102		10/6/18	1354	Grab	SB	1	X J8692
VC-CS18-SB01-0506		10/6/18	1400	Grab	SB	1	X J8693
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No		Receipt Comments:
Relinquished by (Print/Sign): <i>Victoria Kilbert</i>		Company: Jacobs		Date/Time: 10/8/16 0800		Received by (Print/Sign): <i>M</i>	
Relinquished by (Print/Sign):		Company:		Date/Time:		Company: Battelle Date/Time: 10-9-18 1015	
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign): Company: Date/Time:	
Comments:							

Chain-of-Custody								
Client Contact Information		Project Manager: Eric Davis Sampler Information (print name): <u>V.Kilbert</u> Phone: <u>724-977-3628</u> Email: <u>victoria.kilbert@easbs.com</u>		Sampling Site: <u>PM CS00</u> Site Information:				
				Preservative	Analysis	COC #		
				NA	PFAS by Method 537 Mod	Page#		
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>				<u>06</u>		
Project Name: NBVC Basewide SI Project No.: <u>695803</u>		Time Zone: <u>PST</u>				<u>6 of 8</u>		
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.		
VC-CS00-SS01-000H		<u>10/6/18</u>	<u>1405</u>	Grab	SS	<u>1</u>	X	<u>J8694</u>
VC-CS00-SB01- <u>0102</u>		<u>10/6/18</u>	<u>1407</u>	Grab	SB	<u>1</u>	X	<u>95</u>
VC-CS00-SB01- <u>0506</u>		<u>10/6/18</u>	<u>1410</u>	Grab	SB	<u>1</u>	X	<u>96</u>
VC-CS00-SS02-000H		<u>10/6/18</u>	<u>1522</u>	Grab	SS	<u>1</u>	X	<u>97</u>
VC-CS00-SB02- <u>0102</u>		<u>10/6/18</u>	<u>1523</u>	Grab	SB	<u>1</u>	X	<u>98</u>
VC-CS00-SB02- <u>0506</u>		<u>10/6/18</u>	<u>1527</u>	Grab	SB	<u>1</u>	X	<u>99</u>
VC-CS00-SS03-000H		<u>10/6/18</u>	<u>1615</u>	Grab	SS	<u>1</u>	X	<u>J8700</u>
VC-CS00-SB03- <u>0102</u>		<u>10/6/18</u>	<u>1618</u>	Grab	SB	<u>1</u>	X	<u>01</u>
VC-CS00-SB03- <u>0506</u>		<u>10/6/18</u>	<u>1625</u>	Grab	SB	<u>1</u>	X	<u>02</u>
VC-CS00-SS04-000H		<u>10/6/18</u>	<u>1313</u>	Grab	SS	<u>1</u>	X	<u>03</u>
VC-CS00-SB04- <u>0102</u>		<u>10/6/18</u>	<u>1315</u>	Grab	SB	<u>1</u>	X	<u>64</u>
VC-CS00-SB04- <u>0506</u>		<u>10/6/18</u>	<u>1320</u>	Grab	SB	<u>1</u>	X	<u>J8705</u>
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No		Receipt Comments:	
Relinquished by (Print/Sign): <u>V.Kilbert</u>		Company: <u>Jobs</u>	Date/Time: <u>10/8/18 0800</u>	Received by (Print/Sign): <u>MJ</u>	Company: <u>Battelle</u>	Date/Time: <u>10-9-18 1015</u>		
Relinquished by (Print/Sign):		Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:		
Relinquished by (Print/Sign):		Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:		
Comments:								

 It can be done							<u>Chain-of-Custody</u>				
Client Contact Information		Project Manager: Eric Davis Sampler Information (print name): V.Kilbert Phone: 724-977-3628 Email: Victoria.kilbert@jacobslab.com			Sampling Site: PM CS00		Site Information:				
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330					Preservative: NA						
										<u>COC #</u> <i>04</i>	
Project Name: NBVC Basewide Sl		Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>								Page# <i>7 of 8</i>	
Project No.: 695803		Time Zone: PST			Analysis						
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod				
VC-CS00-SS05-000H		10/16/18	1717	Grab	SS	1	X				J 8706
VC-CS00-SB05- 0102		10/16/18	1719	Grab	SB	1	X				07
VC-CS00-SB05- 0506		10/16/18	1724	Grab	SB	1	X				08
VC-CS00-SS06-000H		10/16/18	1705	Grab	SS	1	X				09
VC-CS00-SB06- 0102		10/16/18	1707	Grab	SB	1	X				10
VC-CS00-SB06- 0506		10/16/18	1710	Grab	SB	1	X				11
VC-CS00-SB06- 0506 -MS		10/16/18	1710	Grab	SB	1	X				12
VC-CS00-SB06- 0506 -MSD		10/16/18	1710	Grab	SB	1	X				13
VC-FDPSO-FB 11 - 1000 2018		10/16/18	1834	Grab	AQ	2	X				14
VC-FDPSO-EB 11 - 1000 2018		10/16/18	1834	Grab	AQ	2	X				on bowl J 8715
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments:			
Relinquished by (Print/Sign): <i>V.Kilbert</i>		Company: <i>Jacobs</i>	Date/Time: 10/18/18 0800		Received by (Print/Sign): <i>M</i>		Company: <i>Battelle</i>	Date/Time: 10-9-18 1015			
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:			
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:			
Comments:											

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information		Project Manager: Eric Davis			Sampling Site: PM CS00		Site Information:		COC # 04
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Sampler Information (print name): V.Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com							
Project Name: NBVC Basewide SI		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>			Preservative NA	Analysis PFAS by Method 537 Mod			Page# 8 of 8
Project No.: 695803		Time Zone: PST							
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod		
VC-CS00-DW01-1018		10/6/18	1432	Grab	GW	2	X		J8716
VC-CS00-DW02-1018		10/6/18	1625	Grab	GW	2	X		J8717
VC-CS00-DW02P-1018		10/6/18	1627	Grab	GW	2	X		J8718
VC-CS00-DW03-1018		10/6/18	1705	Grab	GW	2	X		078 J8719
VC-CS00-DW04-1018		10/6/18	1330	Grab	GW	2	X		J8720
VC-CS00-DW05-1018		10/6/18	1802	Grab	GW	2	X		J8721
VC-CS00-DW06-1018		10/6/18	1740	Grab	GW	2	X		J8722
FDT-AQ-FB				Grab	AQ		X		
FDT-AQ-EB				Grab	AQ		X		
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments:	
Relinquished by (Print/Sign): V.Kilbert		Company: Jacobs	Date/Time: 10/8/18 0800		Received by (Print/Sign): M	Company: Battelle	Date/Time: 10-9-18 1015		
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:		
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):	Company:	Date/Time:		
Comments: ① MBS Wrong Number 10-9-18									

RA (724) 977-3628

BERT

IY STE 1450

192101

US

IAN THORN

LE

IGWATER DR. STE 202

0.9° TB
10-9-18 Therm
10:15

LL MA 02061

REF:

DEPT:



REL#

378534

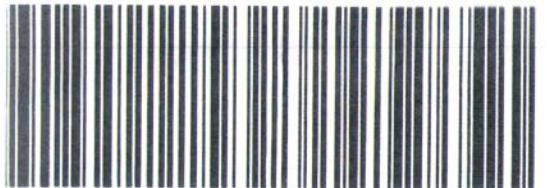
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TUE - 09 OCT 10:
PRIORITY OVERNIG

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MA-US

B



RT 246 1 10:30 B

IGIN ID: OXRA (724) 977-3628
 VICTORIA KILBERT
 PO 695803
 402 W BROADWAY STE 1450

SHIP DATE: 08OCT18
 ACTWGT: 53.90 LB
 CAD: 6997666/SSF01922
 DIMS: 26x13x14 IN

SAN DIEGO, CA 92101

UNITED STATES US

TO JONATHAN THORN

BATTELLE

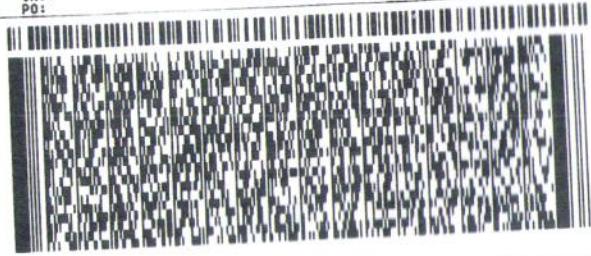
141 LONGWATER DR. STE 202

NORWELL MA 02061

(781) 681-6666
TNU:
PO:

REF:

DEPT:



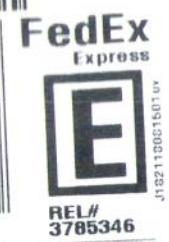
2 of 3
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0263
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TUE - 09 OCT 10:30A
PRIORITY OVERNIGHT

[0201]

02061
MA-US BOS

NB XPUA



REL#

3785346



RT 246 1 10:30 B
 ST 4.3 2180
 10.09

IGIN ID: OXRA (724) 977-3628
 VICTORIA KILBERT
 PO 695803
 402 W BROADWAY STE 1450

SHIP DATE: 08OCT18
 ACTWGT: 51.60 LB
 CAD: 6997666/SSF01922
 DIMS: 23x15x16 IN

SAN DIEGO, CA 92101

UNITED STATES US

TO JONATHAN THORN

BATTELLE

141 LONGWATER DR. STE 202

NORWELL MA 02061

(781) 681-6666
TNU:
PO:

REF:

DEPT:



3 of 3
MPS# 7831 4550 2191
0263
Mstr# 7831 4550 2170

[0201]
NB XPUA



REL#

3785346



RT 246 1 10:30 B
 ST 4.3 2191
 10.09

Data Tables



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB02-0102

Battelle ID	J8698-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	6.83	Matrix	SB	Sample Size	1.82	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.10 U		0.36		1.10		5.49													
PFHpA	375-85-9				1.10 U		0.48		1.10		5.49													
PFOA	335-67-1				1.10 U		0.55		1.10		5.49													
PFNA	375-95-1				1.10 U		0.47		1.10		5.49													
PFDA	335-76-2				1.10 U		0.30		1.10		5.49													
PFUnA	2058-94-8				1.10 U		0.45		1.10		5.49													
PFDoA	307-55-1				0.55 U		0.26		0.55		5.49													
PFTrDA	72629-94-8				1.10 U		0.31		1.10		5.49													
PFTeDA	376-06-7				2.20 U		0.69		2.20		5.49													
NMeFOSAA	2355-31-9				2.75 U		1.23		2.75		5.49													
NEtFOSAA	2991-50-6				2.20 U		0.63		2.20		5.49													
PFBS	375-73-5				1.10 U		0.40		1.10		5.49													
PFHxS	355-46-4				0.55 U		0.24		0.55		5.49													
PFOS	1763-23-1				1.10 U		0.30		1.10		5.49													

Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	96
13C8-PFOA	98
13C9-PFNA	96
13C6-PFDA	93
13C7-PFUnA	86
13C2-PFDoA	95
13C2-PFTeDA	97
d3-MeFOSAA	80
d5-EtFOSAA	88
13C3-PFBS	95
13C3-PFHxS	91
13C8-PFOS	107



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB02-0506

Battelle ID	J8699-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	14.79	Matrix	SB	Sample Size	1.66	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.20 U		0.40		1.20		1.20		6.02											
PFHpA	375-85-9				1.20 U		0.53		1.20		1.20		6.02											
PFOA	335-67-1				1.20 U		0.60		1.20		1.20		6.02											
PFNA	375-95-1				1.20 U		0.52		1.20		1.20		6.02											
PFDA	335-76-2				1.20 U		0.33		1.20		1.20		6.02											
PFUnA	2058-94-8				1.20 U		0.49		1.20		1.20		6.02											
PFDoA	307-55-1				0.60 U		0.29		0.60		0.60		6.02											
PFTrDA	72629-94-8				1.20 U		0.34		1.20		1.20		6.02											
PFTeDA	376-06-7				2.41 U		0.76		2.41		2.41		6.02											
NMeFOSAA	2355-31-9				3.01 U		1.35		3.01		3.01		6.02											
NEtFOSAA	2991-50-6				2.41 U		0.69		2.41		2.41		6.02											
PFBS	375-73-5				1.20 U		0.43		1.20		1.20		6.02											
PFHxS	355-46-4				0.60 U		0.27		0.60		0.60		6.02											
PFOS	1763-23-1				1.20 U		0.33		1.20		1.20		6.02											

Surrogate Recoveries (%)

13C5-PFHxA	76
13C4-PFHpA	83
13C8-PFOA	86
13C9-PFNA	76
13C6-PFDA	87
13C7-PFUnA	85
13C2-PFDoA	90
13C2-PFTeDA	90
d3-MeFOSAA	65
d5-EtFOSAA	65
13C3-PFBS	81
13C3-PFHxS	80
13C8-PFOS	85



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SS03-000H

Battelle ID		J8700-FS	SA		
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/22/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		3.08			
Matrix		SS			
Sample Size		1.95			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.03 U	0.34	1.03	5.13
PFHpA	375-85-9	1.03 U	0.45	1.03	5.13
PFOA	335-67-1	1.03 U	0.51	1.03	5.13
PFNA	375-95-1	1.03 U	0.44	1.03	5.13
PFDA	335-76-2	1.03 U	0.28	1.03	5.13
PFUnA	2058-94-8	1.03 U	0.42	1.03	5.13
PFDoA	307-55-1	0.51 U	0.25	0.51	5.13
PFTrDA	72629-94-8	1.03 U	0.29	1.03	5.13
PFTeDA	376-06-7	2.05 U	0.65	2.05	5.13
NMeFOSAA	2355-31-9	2.56 U	1.15	2.56	5.13
NEtFOSAA	2991-50-6	2.05 U	0.58	2.05	5.13
PFBS	375-73-5	1.03 U	0.37	1.03	5.13
PFHxS	355-46-4	0.51 U	0.23	0.51	5.13
PFOS	1763-23-1	0.56 J	0.28	1.03	5.13

Surrogate Recoveries (%)

13C5-PFHxA	76
13C4-PFHpA	79
13C8-PFOA	87
13C9-PFNA	80
13C6-PFDA	92
13C7-PFUnA	97
13C2-PFDoA	96
13C2-PFTeDA	106
d3-MeFOSAA	55
d5-EtFOSAA	80
13C3-PFBS	84
13C3-PFHxS	82
13C8-PFOS	82



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB03-0102

Battelle ID	J8701-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	11.58	Matrix	SB	Sample Size	1.73	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.16 U		0.38		1.16		1.16		5.78											
PFHpA	375-85-9				1.16 U		0.51		1.16		1.16		5.78											
PFOA	335-67-1				1.16 U		0.58		1.16		1.16		5.78											
PFNA	375-95-1				1.16 U		0.50		1.16		1.16		5.78											
PFDA	335-76-2				1.16 U		0.31		1.16		1.16		5.78											
PFUnA	2058-94-8				1.16 U		0.47		1.16		1.16		5.78											
PFDoA	307-55-1				0.58 U		0.28		0.58		0.58		5.78											
PFTrDA	72629-94-8				1.16 U		0.32		1.16		1.16		5.78											
PFTeDA	376-06-7				2.31 U		0.73		2.31		2.31		5.78											
NMeFOSAA	2355-31-9				2.89 U		1.29		2.89		2.89		5.78											
NEtFOSAA	2991-50-6				2.31 U		0.66		2.31		2.31		5.78											
PFBS	375-73-5				1.16 U		0.42		1.16		1.16		5.78											
PFHxS	355-46-4				0.58 U		0.25		0.58		0.58		5.78											
PFOS	1763-23-1				1.16 U		0.31		1.16		1.16		5.78											

Surrogate Recoveries (%)

13C5-PFHxA	111
13C4-PFHpA	109
13C8-PFOA	108
13C9-PFNA	99
13C6-PFDA	105
13C7-PFUnA	101
13C2-PFDoA	101
13C2-PFTeDA	110
d3-MeFOSAA	75
d5-EtFOSAA	85
13C3-PFBS	92
13C3-PFHxS	95
13C8-PFOS	93

Analyzed by: Griffith, Lauren

Isotope Dilution

Printed: 11/5/2018

S18-0612_Master_369.xlsxm



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB03-0506

Battelle ID	J8702-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	13.00	Matrix	SB	Sample Size	1.67	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.20 U		0.40		1.20		5.99													
PFHpA	375-85-9				1.20 U		0.53		1.20		5.99													
PFOA	335-67-1				1.20 U		0.60		1.20		5.99													
PFNA	375-95-1				1.20 U		0.51		1.20		5.99													
PFDA	335-76-2				1.20 U		0.32		1.20		5.99													
PFUnA	2058-94-8				1.20 U		0.49		1.20		5.99													
PFDoA	307-55-1				0.60 U		0.29		0.60		5.99													
PFTrDA	72629-94-8				1.20 U		0.34		1.20		5.99													
PFTeDA	376-06-7				2.40 U		0.75		2.40		5.99													
NMeFOSAA	2355-31-9				2.99 U		1.34		2.99		5.99													
NEtFOSAA	2991-50-6				2.40 U		0.68		2.40		5.99													
PFBS	375-73-5				1.20 U		0.43		1.20		5.99													
PFHxS	355-46-4				0.60 U		0.26		0.60		5.99													
PFOS	1763-23-1				1.20 U		0.32		1.20		5.99													

Surrogate Recoveries (%)

13C5-PFHxA	88
13C4-PFHpA	86
13C8-PFOA	94
13C9-PFNA	84
13C6-PFDA	94
13C7-PFUnA	94
13C2-PFDoA	101
13C2-PFTeDA	108
d3-MeFOSAA	60
d5-EtFOSAA	62
13C3-PFBS	101
13C3-PFHxS	95
13C8-PFOS	98



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SS04-000H

Battelle ID		J8703-FS	SA		
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		9.25			
Matrix		SS			
Sample Size		1.72			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.16 U	0.38	1.16	5.81
PFHpA	375-85-9	1.16 U	0.51	1.16	5.81
PFOA	335-67-1	1.02 J	0.58	1.16	5.81
PFNA	375-95-1	0.59 J	0.50	1.16	5.81
PFDA	335-76-2	1.16 U	0.31	1.16	5.81
PFUnA	2058-94-8	1.76 J	0.48	1.16	5.81
PFDoA	307-55-1	0.58 U	0.28	0.58	5.81
PFTrDA	72629-94-8	0.59 J	0.33	1.16	5.81
PFTeDA	376-06-7	2.33 U	0.73	2.33	5.81
NMeFOSAA	2355-31-9	2.91 U	1.30	2.91	5.81
NEtFOSAA	2991-50-6	2.33 U	0.66	2.33	5.81
PFBS	375-73-5	1.16 U	0.42	1.16	5.81
PFHxS	355-46-4	8.64	0.26	0.58	5.81
PFOS	1763-23-1	156.44 D	1.57	5.81	29.07

Surrogate Recoveries (%)

13C5-PFHxA	86
13C4-PFHpA	89
13C8-PFOA	92
13C9-PFNA	79
13C6-PFDA	84
13C7-PFUnA	88
13C2-PFDoA	92
13C2-PFTeDA	95
d3-MeFOSAA	79
d5-EtFOSAA	95
13C3-PFBS	98
13C3-PFHxS	97
13C8-PFOS	106



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB04-0102

Battelle ID	J8704-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	9.07	Matrix	SB	Sample Size	1.74	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.00 J		0.38		1.15		5.75													
PFHpA	375-85-9				1.15 U		0.51		1.15		5.75													
PFOA	335-67-1				0.95 J		0.57		1.15		5.75													
PFNA	375-95-1				1.15 U		0.49		1.15		5.75													
PFDA	335-76-2				1.15 U		0.31		1.15		5.75													
PFUnA	2058-94-8				1.15 U		0.47		1.15		5.75													
PFDoA	307-55-1				0.57 U		0.28		0.57		5.75													
PFTrDA	72629-94-8				1.15 U		0.32		1.15		5.75													
PFTeDA	376-06-7				2.30 U		0.72		2.30		5.75													
NMeFOSAA	2355-31-9				2.87 U		1.29		2.87		5.75													
NEtFOSAA	2991-50-6				2.30 U		0.66		2.30		5.75													
PFBS	375-73-5				0.41 J		0.41		1.15		5.75													
PFHxS	355-46-4				14.67		0.25		0.57		5.75													
PFOS	1763-23-1				128.92 D		1.55		5.75		28.74													

Surrogate Recoveries (%)

13C5-PFHxA	83
13C4-PFHpA	83
13C8-PFOA	93
13C9-PFNA	83
13C6-PFDA	87
13C7-PFUnA	89
13C2-PFDoA	82
13C2-PFTeDA	93
d3-MeFOSAA	78
d5-EtFOSAA	71
13C3-PFBS	100
13C3-PFHxS	104
13C8-PFOS	103



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB04-0506

Battelle ID		J8705-FS	SA		
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		25.78			
Matrix		SB			
Sample Size		1.45			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.38 U	0.46	1.38	6.90
PFHpA	375-85-9	1.38 U	0.61	1.38	6.90
PFOA	335-67-1	1.38 U	0.69	1.38	6.90
PFNA	375-95-1	1.38 U	0.59	1.38	6.90
PFDA	335-76-2	1.38 U	0.37	1.38	6.90
PFUnA	2058-94-8	1.38 U	0.57	1.38	6.90
PFDoA	307-55-1	0.69 U	0.33	0.69	6.90
PFTrDA	72629-94-8	1.38 U	0.39	1.38	6.90
PFTeDA	376-06-7	2.76 U	0.87	2.76	6.90
NMeFOSAA	2355-31-9	3.45 U	1.54	3.45	6.90
NEtFOSAA	2991-50-6	2.76 U	0.79	2.76	6.90
PFBS	375-73-5	1.38 U	0.50	1.38	6.90
PFHxS	355-46-4	6.27 J	0.30	0.69	6.90
PFOS	1763-23-1	30.56	0.37	1.38	6.90

Surrogate Recoveries (%)

13C5-PFHxA	74
13C4-PFHpA	82
13C8-PFOA	78
13C9-PFNA	74
13C6-PFDA	86
13C7-PFUnA	81
13C2-PFDoA	83
13C2-PFTeDA	89
d3-MeFOSAA	68
d5-EtFOSAA	69
13C3-PFBS	82
13C3-PFHxS	74
13C8-PFOS	87



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SS05-000H

Battelle ID		J8706-FS	SA		
Sample Type					
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		3.09			
Matrix		SS			
Sample Size		1.92			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.04 U	0.34	1.04	5.21
PFHpA	375-85-9	1.04 U	0.46	1.04	5.21
PFOA	335-67-1	1.04 U	0.52	1.04	5.21
PFNA	375-95-1	1.04 U	0.45	1.04	5.21
PFDA	335-76-2	1.04 U	0.28	1.04	5.21
PFUnA	2058-94-8	1.04 U	0.43	1.04	5.21
PFDoA	307-55-1	0.52 U	0.25	0.52	5.21
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.21
PFTeDA	376-06-7	2.08 U	0.66	2.08	5.21
NMeFOSAA	2355-31-9	2.60 U	1.17	2.60	5.21
NEtFOSAA	2991-50-6	2.08 U	0.59	2.08	5.21
PFBS	375-73-5	1.04 U	0.38	1.04	5.21
PFHxS	355-46-4	0.52 U	0.23	0.52	5.21
PFOS	1763-23-1	0.54 J	0.28	1.04	5.21

Surrogate Recoveries (%)

13C5-PFHxA	90
13C4-PFHpA	90
13C8-PFOA	100
13C9-PFNA	86
13C6-PFDA	96
13C7-PFUnA	90
13C2-PFDoA	98
13C2-PFTeDA	103
d3-MeFOSAA	64
d5-EtFOSAA	67
13C3-PFBS	91
13C3-PFHxS	87
13C8-PFOS	94



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB05-0102

Battelle ID	J8707-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	10.20	Matrix	SB	Sample Size	1.85	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.08 U		0.36		1.08		5.41													
PFHpA	375-85-9				1.08 U		0.48		1.08		5.41													
PFOA	335-67-1				1.08 U		0.54		1.08		5.41													
PFNA	375-95-1				1.08 U		0.46		1.08		5.41													
PFDA	335-76-2				1.08 U		0.29		1.08		5.41													
PFUnA	2058-94-8				1.08 U		0.44		1.08		5.41													
PFDoA	307-55-1				0.54 U		0.26		0.54		5.41													
PFTrDA	72629-94-8				1.08 U		0.30		1.08		5.41													
PFTeDA	376-06-7				2.16 U		0.68		2.16		5.41													
NMeFOSAA	2355-31-9				2.70 U		1.21		2.70		5.41													
NEtFOSAA	2991-50-6				2.16 U		0.62		2.16		5.41													
PFBS	375-73-5				1.08 U		0.39		1.08		5.41													
PFHxS	355-46-4				0.54 U		0.24		0.54		5.41													
PFOS	1763-23-1				1.08 U		0.29		1.08		5.41													

Surrogate Recoveries (%)

13C5-PFHxA	97
13C4-PFHpA	106
13C8-PFOA	107
13C9-PFNA	103
13C6-PFDA	110
13C7-PFUnA	119
13C2-PFDoA	125
13C2-PFTeDA	123
d3-MeFOSAA	77
d5-EtFOSAA	80
13C3-PFBS	100
13C3-PFHxS	110
13C8-PFOS	109



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB05-0506

Battelle ID	J8708-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	23.72	Matrix	SB	Sample Size	1.46	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				0.57 J		0.45		1.37		6.85													
PFHpA	375-85-9				1.37 U		0.60		1.37		6.85													
PFOA	335-67-1				1.37 U		0.68		1.37		6.85													
PFNA	375-95-1				1.37 U		0.59		1.37		6.85													
PFDA	335-76-2				1.37 U		0.37		1.37		6.85													
PFUnA	2058-94-8				1.37 U		0.56		1.37		6.85													
PFDoA	307-55-1				0.68 U		0.33		0.68		6.85													
PFTrDA	72629-94-8				1.37 U		0.38		1.37		6.85													
PFTeDA	376-06-7				2.74 U		0.86		2.74		6.85													
NMeFOSAA	2355-31-9				3.42 U		1.53		3.42		6.85													
NEtFOSAA	2991-50-6				2.74 U		0.78		2.74		6.85													
PFBS	375-73-5				1.37 U		0.49		1.37		6.85													
PFHxS	355-46-4				3.15 J		0.30		0.68		6.85													
PFOS	1763-23-1				1.37 U		0.37		1.37		6.85													

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	102
13C8-PFOA	109
13C9-PFNA	97
13C6-PFDA	110
13C7-PFUnA	103
13C2-PFDoA	109
13C2-PFTeDA	120
d3-MeFOSAA	94
d5-EtFOSAA	91
13C3-PFBS	108
13C3-PFHxS	103
13C8-PFOS	100



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SS06-000H

Battelle ID		J8709-FS	SA		
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.29			
Matrix		SS			
Sample Size		2.02			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	0.99 U	0.33	0.99	4.95
PFHpA	375-85-9	0.99 U	0.44	0.99	4.95
PFOA	335-67-1	0.99 U	0.50	0.99	4.95
PFNA	375-95-1	0.99 U	0.43	0.99	4.95
PFDA	335-76-2	0.99 U	0.27	0.99	4.95
PFUnA	2058-94-8	0.99 U	0.41	0.99	4.95
PFDoA	307-55-1	0.50 U	0.24	0.50	4.95
PFTrDA	72629-94-8	0.99 U	0.28	0.99	4.95
PFTeDA	376-06-7	1.98 U	0.62	1.98	4.95
NMeFOSAA	2355-31-9	2.48 U	1.11	2.48	4.95
NEtFOSAA	2991-50-6	1.98 U	0.56	1.98	4.95
PFBS	375-73-5	0.99 U	0.36	0.99	4.95
PFHxS	355-46-4	0.50 U	0.22	0.50	4.95
PFOS	1763-23-1	0.34 J	0.27	0.99	4.95

Surrogate Recoveries (%)

13C5-PFHxA	85
13C4-PFHpA	85
13C8-PFOA	86
13C9-PFNA	84
13C6-PFDA	74
13C7-PFUnA	77
13C2-PFDoA	80
13C2-PFTeDA	85
d3-MeFOSAA	53
d5-EtFOSAA	56
13C3-PFBS	78
13C3-PFHxS	74
13C8-PFOS	84



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB06-0102

Battelle ID	J8710-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	5.41	Matrix	SB	Sample Size	1.82	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.10 U		0.36		1.10		5.49													
PFHpA	375-85-9				1.10 U		0.48		1.10		5.49													
PFOA	335-67-1				1.10 U		0.55		1.10		5.49													
PFNA	375-95-1				1.10 U		0.47		1.10		5.49													
PFDA	335-76-2				1.10 U		0.30		1.10		5.49													
PFUnA	2058-94-8				1.10 U		0.45		1.10		5.49													
PFDoA	307-55-1				0.55 U		0.26		0.55		5.49													
PFTrDA	72629-94-8				1.10 U		0.31		1.10		5.49													
PFTeDA	376-06-7				2.20 U		0.69		2.20		5.49													
NMeFOSAA	2355-31-9				2.75 U		1.23		2.75		5.49													
NEtFOSAA	2991-50-6				2.20 U		0.63		2.20		5.49													
PFBS	375-73-5				1.10 U		0.40		1.10		5.49													
PFHxS	355-46-4				0.55 U		0.24		0.55		5.49													
PFOS	1763-23-1				1.10 U		0.30		1.10		5.49													

Surrogate Recoveries (%)

13C5-PFHxA	87
13C4-PFHpA	86
13C8-PFOA	92
13C9-PFNA	83
13C6-PFDA	86
13C7-PFUnA	83
13C2-PFDoA	85
13C2-PFTeDA	100
d3-MeFOSAA	78
d5-EtFOSAA	60
13C3-PFBS	80
13C3-PFHxS	81
13C8-PFOS	88



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB06-0506

Battelle ID	J8711-FS	Sample Type	SA	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	13.93	Matrix	SB	Sample Size	1.76	Size Unit-Basis	g	Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4				1.14 U		0.38		1.14		5.68													
PFHpA	375-85-9				1.14 U		0.50		1.14		5.68													
PFOA	335-67-1				1.14 U		0.57		1.14		5.68													
PFNA	375-95-1				1.14 U		0.49		1.14		5.68													
PFDA	335-76-2				1.14 U		0.31		1.14		5.68													
PFUnA	2058-94-8				1.14 U		0.47		1.14		5.68													
PFDoA	307-55-1				0.57 U		0.27		0.57		5.68													
PFTrDA	72629-94-8				1.14 U		0.32		1.14		5.68													
PFTeDA	376-06-7				2.27 U		0.72		2.27		5.68													
NMeFOSAA	2355-31-9				2.84 U		1.27		2.84		5.68													
NEtFOSAA	2991-50-6				2.27 U		0.65		2.27		5.68													
PFBS	375-73-5				1.14 U		0.41		1.14		5.68													
PFHxS	355-46-4				0.57 U		0.25		0.57		5.68													
PFOS	1763-23-1				1.14 U		0.31		1.14		5.68													

Surrogate Recoveries (%)

13C5-PFHxA	82
13C4-PFHpA	82
13C8-PFOA	83
13C9-PFNA	74
13C6-PFDA	80
13C7-PFUnA	85
13C2-PFDoA	85
13C2-PFTeDA	91
d3-MeFOSAA	73
d5-EtFOSAA	78
13C3-PFBS	80
13C3-PFHxS	85
13C8-PFOS	93



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID	KB80 IB				
Battelle ID	KB80 IB_10/17/2018	IB			
Sample Type		NA			
Collection Date		NA			
Extraction Date		NA			
Analysis Date	10/17/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture		NA			
Matrix		Solid			
Sample Size	2.00				
Size Unit-Basis		g			
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	307-24-4	1.00 U	0.33	1.00	5.00
PFHpA	375-85-9	1.00 U	0.44	1.00	5.00
PFOA	335-67-1	1.00 U	0.50	1.00	5.00
PFNA	375-95-1	1.00 U	0.43	1.00	5.00
PFDA	335-76-2	1.00 U	0.27	1.00	5.00
PFUnA	2058-94-8	1.00 U	0.41	1.00	5.00
PFDoA	307-55-1	0.50 U	0.24	0.50	5.00
PFTrDA	72629-94-8	1.00 U	0.28	1.00	5.00
PFTeDA	376-06-7	2.00 U	0.63	2.00	5.00
NMeFOSAA	2355-31-9	2.50 U	1.12	2.50	5.00
NEtFOSAA	2991-50-6	2.00 U	0.57	2.00	5.00
PFBS	375-73-5	1.00 U	0.36	1.00	5.00
PFHxS	355-46-4	0.50 U	0.22	0.50	5.00
PFOS	1763-23-1	1.00 U	0.27	1.00	5.00

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	98
13C8-PFOA	101
13C9-PFNA	100
13C6-PFDA	103
13C7-PFUnA	102
13C2-PFDoA	98
13C2-PFTeDA	93
d3-MeFOSAA	104
d5-EtFOSAA	96
13C3-PFBS	95
13C3-PFHxS	103
13C8-PFOS	96



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID	KB80 IB			
Battelle ID	KB80 IB_10/23/2018	IB	NA	NA
Sample Type				
Collection Date				
Extraction Date				
Analysis Date	10/23/2018			
Analytical Instrument	Sciex 5500 LC/MS/MS			
% Moisture		NA		
Matrix		Solid		
Sample Size	2.00			
Size Unit-Basis		g		
Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	--	-	-
PFHpA	375-85-9	--	-	-
PFOA	335-67-1	--	-	-
PFNA	375-95-1	--	-	-
PFDA	335-76-2	--	-	-
PFUnA	2058-94-8	--	-	-
PFDoA	307-55-1	--	-	-
PFTrDA	72629-94-8	--	-	-
PFTeDA	376-06-7	--	-	-
NMeFOSAA	2355-31-9	--	-	-
NEtFOSAA	2991-50-6	2.00 U	0.57	2.00
PFBS	375-73-5	--	-	-
PFHxS	355-46-4	--	-	-
PFOS	1763-23-1	--	-	-

Surrogate Recoveries (%)

13C5-PFHxA	--
13C4-PFHpA	--
13C8-PFOA	--
13C9-PFNA	--
13C6-PFDA	--
13C7-PFUnA	--
13C2-PFDoA	--
13C2-PFTeDA	--
d3-MeFOSAA	--
d5-EtFOSAA	73
13C3-PFBS	--
13C3-PFHxS	--
13C8-PFOS	--



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID 180507-02: Ottawa Sand

Battelle ID		CR992PB-FS	PB		
Collection Date		10/16/2018			
Extraction Date		10/16/2018			
Analysis Date		10/22/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		0.00			
Matrix		SEDIMENT			
Sample Size		1.98			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ

PFHxA	307-24-4	1.01 U	0.33	1.01	5.05
PFHpA	375-85-9	1.01 U	0.44	1.01	5.05
PFOA	335-67-1	1.01 U	0.51	1.01	5.05
PFNA	375-95-1	1.01 U	0.43	1.01	5.05
PFDA	335-76-2	1.01 U	0.27	1.01	5.05
PFUnA	2058-94-8	1.01 U	0.41	1.01	5.05
PFDoA	307-55-1	0.51 U	0.24	0.51	5.05
PFTrDA	72629-94-8	1.01 U	0.28	1.01	5.05
PFTeDA	376-06-7	2.02 U	0.64	2.02	5.05
NMeFOSAA	2355-31-9	2.53 U	1.13	2.53	5.05
NEtFOSAA	2991-50-6	2.02 U	0.58	2.02	5.05
PFBS	375-73-5	1.01 U	0.36	1.01	5.05
PFHxS	355-46-4	0.51 U	0.22	0.51	5.05
PFOS	1763-23-1	1.01 U	0.27	1.01	5.05

Surrogate Recoveries (%)

13C5-PFHxA	90
13C4-PFHpA	98
13C8-PFOA	104
13C9-PFNA	91
13C6-PFDA	104
13C7-PFUnA	98
13C2-PFDoA	108
13C2-PFTeDA	114
d3-MeFOSAA	90
d5-EtFOSAA	91
13C3-PFBS	98
13C3-PFHxS	101
13C8-PFOS	116

Analyzed by: Griffith, Lauren

Printed: 11/5/2018

Isotope Dilution

S18-0612_Master_369.xlsxm



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID 180507-02: Ottawa Sand

Battelle ID	CR993LCS-FS	Sample Type	LCS	Collection Date	10/16/2018	Extraction Date	10/16/2018	Analysis Date	10/22/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	0.00	Matrix	SEDIMENT	Sample Size	1.97	Size Unit-Basis	g	Units	ng/g_Dry	Target	Recovery	Qual	Control Limits
																				Lower	Upper				
PFHxA	307-24-4				16.68		15.38		108										45	135					
PFHpA	375-85-9				17.45		15.23		115										60	128					
PFOA	335-67-1				15.83		15.23		104										56	136					
PFNA	375-95-1				16.39		15.23		108										54	130					
PFDA	335-76-2				16.10		15.23		106										55	141					
PFUnA	2058-94-8				16.36		15.23		107										57	137					
PFDoA	307-55-1				17.19		15.23		113										62	134					
PFTrDA	72629-94-8				17.05		15.23		112										51	127					
PFTeDA	376-06-7				17.68		15.23		116										34	162					
NMeFOSAA	2355-31-9				16.38		15.23		108										52	146					
NEtFOSAA	2991-50-6				16.54		15.23		109										54	124					
PFBS	375-73-5				18.30		15.38		119										57	145					
PFHxS	355-46-4				18.68		15.38		121										52	132					
PFOS	1763-23-1				16.50		15.23		108										50	130					

Surrogate Recoveries (%)

13C5-PFHxA	88
13C4-PFHpA	87
13C8-PFOA	96
13C9-PFNA	91
13C6-PFDA	89
13C7-PFUnA	88
13C2-PFDoA	91
13C2-PFTeDA	101
d3-MeFOSAA	92
d5-EtFOSAA	84
13C3-PFBS	87
13C3-PFHxS	84
13C8-PFOS	91



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID	VC-CS00-SB06-0506	VC-CS00-SB06-0506-MS					
Battelle ID	J8711-FS	J8712MS-FS					
Sample Type	SA	MS					
Collection Date	10/06/2018	10/06/2018					
Extraction Date	10/16/2018	10/16/2018					
Analysis Date	10/23/2018	10/23/2018					
Analytical Instrument	Sciex 5500 LC/MS/MS	Sciex 5500 LC/MS/MS					
% Moisture	13.93	13.61					
Matrix	SB	SB					
Sample Size	1.76	1.78					
Size Unit-Basis	g	g					
Units	ng/g_Dry	ng/g_Dry	Target	Recovery	Qual	Control Limits	
						Lower	Upper
PFHxA	307-24-4	1.14 U	27.35	28.37	96	45	135
PFHpA	375-85-9	1.14 U	27.51	28.09	98	60	128
PFOA	335-67-1	1.14 U	28.23	28.09	100	56	136
PFNA	375-95-1	1.14 U	34.30	28.09	122	54	130
PFDA	335-76-2	1.14 U	27.94	28.09	99	55	141
PFUnA	2058-94-8	1.14 U	29.18	28.09	104	57	137
PFDoA	307-55-1	0.57 U	29.06	28.09	103	62	134
PFTrDA	72629-94-8	1.14 U	28.14	28.09	100	51	127
PFTeDA	376-06-7	2.27 U	28.42	28.09	101	34	162
NMeFOSAA	2355-31-9	2.84 U	28.79	28.09	102	52	146
NEtFOSAA	2991-50-6	2.27 U	31.61	28.09	113	54	124
PFBS	375-73-5	1.14 U	29.21	28.37	103	57	145
PFHxS	355-46-4	0.57 U	30.63	28.37	108	52	132
PFOS	1763-23-1	1.14 U	26.80	28.09	95	50	130
Surrogate Recoveries (%)							
13C5-PFHxA		82	91				
13C4-PFHpA		82	86				
13C8-PFOA		83	88				
13C9-PFNA		74	74				
13C6-PFDA		80	77				
13C7-PFUnA		85	79				
13C2-PFDoA		85	83				
13C2-PFTeDA		91	94				
d3-MeFOSAA		73	77				
d5-EtFOSAA		78	63				
13C3-PFBS		80	89				
13C3-PFHxS		85	82				
13C8-PFOS		93	89				



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID	VC-CS00-SB06-0506-MSD	Battelle ID	J8713MSD-FS	Sample Type	MSD	Collection Date	10/06/2018	Extraction Date	10/16/2018	Analysis Date	10/23/2018	Analytical Instrument	Sciex 5500 LC/MS/MS	% Moisture	13.74	Matrix	SB	Sample Size	1.81	Size Unit-Basis	g	ng/g_Dry	Target	Recovery	Qual	Control Limits	Lower	Upper	RPD	Qual	RPD Limit
PFHxA	307-24-4		28.59	27.90	102		45	135	6.1		≤ 30																				
PFHpA	375-85-9		26.51	27.62	96		60	128	2.1		≤ 30																				
PFOA	335-67-1		26.90	27.62	97		56	136	3.0		≤ 30																				
PFNA	375-95-1		28.49	27.62	103		54	130	16.9		≤ 30																				
PFDA	335-76-2		27.78	27.62	101		55	141	2.0		≤ 30																				
PFUnA	2058-94-8		27.53	27.62	100		57	137	3.9		≤ 30																				
PFDaA	307-55-1		27.82	27.62	101		62	134	2.0		≤ 30																				
PFTrDA	72629-94-8		28.65	27.62	104		51	127	3.9		≤ 30																				
PFTeDA	376-06-7		28.43	27.62	103		34	162	2.0		≤ 30																				
NMeFOSAA	2355-31-9		28.83	27.62	104		52	146	1.9		≤ 30																				
NEtFOSAA	2991-50-6		28.57	27.62	103		54	124	9.3		≤ 30																				
PFBS	375-73-5		27.66	27.90	99		57	145	4.0		≤ 30																				
PFHxS	355-46-4		27.24	27.90	98		52	132	9.7		≤ 30																				
PFOS	1763-23-1		27.44	27.62	99		50	130	4.1		≤ 30																				
Surrogate Recoveries (%)																															
13C5-PFHxA			105																												
13C4-PFHpA			109																												
13C8-PFOA			108																												
13C9-PFNA			101																												
13C6-PFDA			99																												
13C7-PFUnA			106																												
13C2-PFDaA			108																												
13C2-PFTeDA			119																												
d3-MeFOSAA			86																												
d5-EtFOSAA			78																												
13C3-PFBS			101																												
13C3-PFHxS			96																												
13C8-PFOS			90																												



Glossary of Data Qualifiers

Flag: Application:

- B Analyte found in the sample at a concentration <10x the level found in the procedural blank
- D Dilution Run. Initial run outside the initial calibration range of the instrument
- E Estimate, result is greater than the higher concentration level in the calibration
- H Surrogate diluted out. Used when surrogate recovery is affected by excessive dilution of the sample extract.
- J Analyte detected below the Limit of Quantitation (LOQ)
- ME Significant Matrix Interference - Estimated value.
- MI Significant Matrix Interference - value could not be determined.
- n Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but meets secondary criteria
- N Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
- NA Not Applicable
- T Holding Time (HT) exceeded
- U Analyte not detected or detected below the Method detection limit (MDL) value, Limit of Detection (LOD) reported

Miscellaneous Documentation

QA/QC Summary**Batch 18-0612**

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	SS, SB
Data Set:	DP-18-0308
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
10/6/2018	10/9/2018	0.9, 1.1, and 1.7
Corrective Actions	None.	
Sample Storage	The samples were stored refrigerated until extraction.	
Related samples	NA	

METHOD SUMMARIES	
Sample Preparation	Solid samples were aliquoted into extraction tubes and spiked with surrogates prior to the addition of solvent. The sediment was serially extracted on the Geno/Grinder with 0.4% NH ₃ in methanol. 1 mL of extract was refined using ENVI-carb SPE cartridges. Extracts were concentrated to dryness under nitrogen with a water bath set between 35 °C and 45 °C, reconstituted with 80:20 methanol/water (V/V) and fortified with internal standard. Extracts were transferred for LC-MS/MS analysis.
Prep comments	All samples were pre-screened prior to extraction to check potential levels of PFAS in the samples.
Analysis	PFAS were measured by liquid chromatography tandem mass spectrometry (LC-MS/MS) in the multiple reaction monitoring (MRM). An initial calibration consisting of representative target analytes, labelled analogs, and internal standards was analyzed prior to analysis to demonstrate the linear range of analysis. Calibration verification was performed at the beginning and end of 10 injections and at the end of each sequence. Target PFAS were quantified using the isotope dilution method. Samples are reported in ng/g concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS. Where detected in samples, PFHxS and PFOS are reported as a mixture of linear and branched isomers

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/6/2018	10/17, 22-23/2018

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
≤ ½ the LOQ Samples >10x PB	No exceedances noted. No comments.

QA/QC Summary**Batch 18-0612**

Laboratory Control Spike (LCS)	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery	No exceedances noted. No comments.
Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A MS/MSD was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery and <30% RPD	No exceedances noted. No comments.
Extracted Internal Standard Analytes	Labelled analog compounds were added prior to extraction. The recoveries are calculated to measure extraction efficiency.
50-150% of true value	No exceedances noted. No comments.
Internal Standard Analytes	Labelled analog compounds were added prior to analysis.
+/- 50% of the area of the L5 calibration point.	No exceedances noted. No comments.
Initial Calibration (ICAL)	The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadratic curve fitting.
+/- 30% of true value, $R^2 \geq 0.99$	No exceedances noted. No comments.
Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
+/- 30% of true value	No exceedances noted. No comments.
Continuing Calibration Verification (CCV)	Continuing calibration standards were run at the beginning and end of 10 injections and at the end of the sequence to ensure that initial calibration is still valid.
+/- 30% of true value	No exceedances noted. One CCV failed criteria for d5-EtFOSAA, all bracketing samples were re-aliquoted and re-run, only d5-EtFOSAA was reported from the reanalysis, all other extracted internal standards were reported from the initial analysis.

QA/QC Summary**Batch 18-0612**

Instrument Blank (IB)	Immediately following the highest standard analyzed and daily prior to sample analysis.
≤ ½ the LOQ	No exceedances noted.
	No comments.



It can be done

BATTELLE - NORWELL OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-4164 Naval Base Ventura County,	Data Set Number:	DP-18-0308
Project Number:	100110125-01	Prep Batch Number:	18-0612
Entered By:	Lauren Griffith	Entered On:	10/24/2018
Test Code (Matrix Type):		Master_369(S)	

Samples that were manually integrated are noted on the quant reports with the comment (TRUE).
LMG 10/24/18

CCV KB77, injected at 22:26:39 on 10/22/18, exhibited a low recovery for the surrogate d5-EtFOSAA. Affected samples were realiquoted and reanalyzed for the surrogate d5-EtFOSAA and the native EtFOSAA only, and the reanalyses were reported for this surrogate and analyte, so the exceedence has no impact on the data. The remaining surrogates and native analytes are reported from the initial analyses. Affected samples were CR992PB, CR993LCS, J8698, J8699, J8700, J8701, J8702 and J8703.
LMG 10/24/18

KB79 was not used for d3-MeFOSAA in the SIS method. There is no impact on the data once this point is removed.
LMG 11/05/19

Task Leader Approval:

Supervisor Approval:

Digitally signed by Jonathan Thorn

Date: 2018.10.25 10:03:41 -04'00'

PM Approval:



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project Number: 100110125-01
 Preparation Batch: 18-0612
 Data Set: DP-18-0308
 Test Code: Master_369

QC Parameter:	Exceed:	Justification:
Procedural Blank	0	None
PB Measurement Quality Objective	0	None
Laboratory Control Sample	0	None
Matrix Spike / Matrix Spike Duplicate Recovery	0	None
Matrix Spike / Matrix Spike Duplicate Precision	0	None
Extracted Internal Standard Analytes (Surrogates)	0	None
Instrument Calibration	0	None
Instrument Blank	0	None
Independent Calibration Check	0	None
Continuing Calibration Verification	0	None



Example Calculation for PFAS

Calculation of final concentration from area:

$$\text{Concentration} = \left[\frac{PA - b}{m} \right] * C_{IS} * PIV * DF / S$$

Where:

PA = Area of target / area of internal standard
 b = y intercept from calibration curve
 CIS = concentration of internal standard (ng/L)
 m = slope of calibration
 DF = dilution factor
 S = Sample Size
 PIV = Pre-injection volume (L)

Sample ID: J8703-FS-D(5)
 Client Sample ID: VC-CS00-SS04-000H
 Sample Size: 1.72
 Units: g
 Dilution Factor: 50.000
 PIV (L): 0.001
 Target Analyte: PFOS
 MRM Transition: 499.0 / 80.0
 Data file: Data18-0590_18-01588_18-0589.wiff
 Result table: 18-0610_18-0611_BASE
 Area: 2,914,950.08
 IS Name: 13C8-PFOS
 IS Area: 27,057.68
 IS Amount (ng/L): 239.25
 y-intercept: -0.03583
 slope: 4.79098

$$\text{Concentration} = \frac{[(2914950.08/27057.68) - -0.03583]}{4.79098} * 239.25 * 0.001 * 50 / 1.72$$

$$\text{ng/g} = 156.44$$

*Final concentration may vary based on rounding.



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Preparation Batch: 18-0612

Data Set: DP-18-0308

			CR992PB-FS (180507-02: Ottawa Sand)								
PFHxA	307-24-4	-	L	L	L	L	L	L	L	L	-
PFHpA	375-85-9	-	L	L	L	L	L	L	L	L	-
PFOA	335-67-1	-	L	L	L	L	L	L	L	L	-
PFNA	375-95-1	-	L	L	L	L	L	L	L	L	-
PFDA	335-76-2	-	L	L	L	L	L	L	L	L	-
PFUnA	2058-94-8	-	L	L	L	L	L	L	L	L	-
PFDoA	307-55-1	-	L	L	L	L	L	L	L	L	-
PFTrDA	72629-94-8	-	L	L	L	L	L	L	L	L	-
PFTeDA	376-06-7	-	L	L	L	L	L	L	L	L	-
NMeFOSAA	2355-31-9	-	L	L	L	L	L	L	L	L	-
NEtFOSAA	2991-50-6	-	L	L	L	L	L	L	L	L	-
PFBS	375-73-5	-	L	L	L	L	L	L	L	L	-
PFHxS	355-46-4	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	-
PFOS	1763-23-1	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	-

"L": Linear

"Br": branched

"L/Br": Linear/Branched

"-": Not detected



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Preparation Batch

Data Set: DP-18-

	J8702-FS (VC-CS00-SB03-0506)	J8703-FS (VC-CS00-SS04-000H)	J8704-FS (VC-CS00-SB04-0102)	J8705-FS (VC-CS00-SB04-0506)	J8706-FS (VC-CS00-SS05-000H)	J8707-FS (VC-CS00-SB05-0102)	J8708-FS (VC-CS00-SB05-0506)	J8709-FS (VC-CS00-SS06-000H)
PFHxA	-	-	-	-	-	-	-	-
PFHpA	-	-	-	-	-	-	-	-
PFOA	-	-	-	-	-	-	-	-
PFNA	-	-	-	-	-	-	-	-
PFDA	-	-	-	-	-	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTrDA	-	-	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	-	-	-	-	-	-	-	-
PFHxS	-	L/Br	L/Br	-	-	-	-	-
PFOS	-	L/Br	L/Br	L/Br	-	-	-	-

"L": Linear

"Br": branched

"L/Br": Linear/Br:

"-": Not detected



Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Preparation Batch:

Data Set: DP-18-

	J8710-FS (VC-CS00-SB06-0102)	J8711-FS (VC-CS00-SB06-0506)
PFHxA	-	-
PFHpA	-	-
PFOA	-	-
PFNA	-	-
PFDA	-	-
PFUnA	-	-
PFDoA	-	-
PFTrDA	-	-
PFTeDA	-	-
NMeFOSAA	-	-
NEtFOSAA	-	-
PFBS	-	-
PFHxS	-	-
PFOS	-	-

"L": Linear

"Br": branched

"L/Br": Linear/Br;

"-": Not detected

Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01



Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/17/18 20:30	13C2-PFOA	80,369.12	40,184.56	120,553.68

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C2-PFOA	79,095.63	40,184.56	120,553.68	
KB74	L2	10/17/18 19:57	13C2-PFOA	89,971.31	40,184.56	120,553.68	
KB75	L3	10/17/18 20:08	13C2-PFOA	87,799.30	40,184.56	120,553.68	
KB76	L4	10/17/18 20:19	13C2-PFOA	84,567.91	40,184.56	120,553.68	
KB77	L5	10/17/18 20:30	13C2-PFOA	80,369.12	40,184.56	120,553.68	
KB78	L6	10/17/18 20:41	13C2-PFOA	85,964.25	40,184.56	120,553.68	
KB79	L7	10/17/18 20:52	13C2-PFOA	86,636.81	40,184.56	120,553.68	
KB80 IB	IB	10/17/18 21:02	13C2-PFOA	85,730.94	40,184.56	120,553.68	
KB81 ICC	ICC	10/17/18 21:13	13C2-PFOA	85,242.44	40,184.56	120,553.68	
KB75 ISC	ISC	10/19/18 18:16	13C2-PFOA	81,344.96	40,184.56	120,553.68	
KB80 IB	IB	10/19/18 18:27	13C2-PFOA	68,811.37	40,184.56	120,553.68	
KB77 CCV	CCV	10/22/18 22:26	13C2-PFOA	65,437.19	40,184.56	120,553.68	
CR992PB-FS(3)	Procedural Blank	10/22/18 22:48	13C2-PFOA	70,767.13	40,184.56	120,553.68	
CR993LCS-FS(3)	Laboratory Control Sample	10/22/18 22:59	13C2-PFOA	72,262.50	40,184.56	120,553.68	
J8698-FS(3)	VC-CS00-SB02-0102	10/22/18 23:10	13C2-PFOA	69,914.06	40,184.56	120,553.68	
J8699-FS(3)	VC-CS00-SB02-0506	10/22/18 23:20	13C2-PFOA	77,631.54	40,184.56	120,553.68	
J8700-FS(3)	VC-CS00-SS03-000H	10/22/18 23:31	13C2-PFOA	82,079.98	40,184.56	120,553.68	
J8701-FS(3)	VC-CS00-SB03-0102	10/22/18 23:42	13C2-PFOA	84,841.66	40,184.56	120,553.68	
J8702-FS(3)	VC-CS00-SB03-0506	10/22/18 23:53	13C2-PFOA	73,419.57	40,184.56	120,553.68	
J8703-FS(3)	VC-CS00-SS04-000H	10/23/18 0:04	13C2-PFOA	78,204.29	40,184.56	120,553.68	
J8703-FS-D(5)	VC-CS00-SS04-000H	10/23/18 0:15	13C2-PFOA	82,018.41	40,184.56	120,553.68	
J8703-FS-D(7)	VC-CS00-SS04-000H	10/23/18 0:26	13C2-PFOA	69,507.25	40,184.56	120,553.68	1
KB76 CCV	CCV	10/23/18 0:37	13C2-PFOA	69,713.49	40,184.56	120,553.68	
J8704-FS(3)	VC-CS00-SB04-0102	10/23/18 0:58	13C2-PFOA	95,690.40	40,184.56	120,553.68	
J8704-FS-D(5)	VC-CS00-SB04-0102	10/23/18 1:09	13C2-PFOA	77,358.82	40,184.56	120,553.68	
J8704-FS-D(7)	VC-CS00-SB04-0102	10/23/18 1:20	13C2-PFOA	82,122.92	40,184.56	120,553.68	1
J8705-FS(3)	VC-CS00-SB04-0506	10/23/18 1:31	13C2-PFOA	75,284.72	40,184.56	120,553.68	
J8705-FS-D(5)	VC-CS00-SB04-0506	10/23/18 1:42	13C2-PFOA	82,704.47	40,184.56	120,553.68	1
J8706-FS(3)	VC-CS00-SS05-000H	10/23/18 1:53	13C2-PFOA	78,196.19	40,184.56	120,553.68	
J8707-FS(3)	VC-CS00-SB05-0102	10/23/18 2:03	13C2-PFOA	68,821.15	40,184.56	120,553.68	
J8708-FS(3)	VC-CS00-SB05-0506	10/23/18 2:14	13C2-PFOA	86,714.66	40,184.56	120,553.68	
J8709-FS(3)	VC-CS00-SS06-000H	10/23/18 2:25	13C2-PFOA	76,595.33	40,184.56	120,553.68	
J8710-FS(3)	VC-CS00-SB06-0102	10/23/18 2:36	13C2-PFOA	79,955.49	40,184.56	120,553.68	
KB77 CCV	CCV	10/23/18 2:47	13C2-PFOA	84,191.62	40,184.56	120,553.68	
J8711-FS(3)	VC-CS00-SB06-0506	10/23/18 3:09	13C2-PFOA	88,282.96	40,184.56	120,553.68	
J8712MS-FS(3)	VC-CS00-SB06-0506-MS	10/23/18 3:19	13C2-PFOA	83,510.37	40,184.56	120,553.68	
J8713MSD-FS(3)	VC-CS00-SB06-0506-MSD	10/23/18 3:30	13C2-PFOA	78,542.11	40,184.56	120,553.68	
KB76 CCV	CCV	10/23/18 3:41	13C2-PFOA	73,507.58	40,184.56	120,553.68	

1 - Please see sequence report for details. LMG 11/05/18

Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01



Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/17/18 20:30	13C2-PFDA	90,129.70	45,064.85	135,194.55

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C2-PFDA	100,139.46	45,064.85	135,194.55	
KB74	L2	10/17/18 19:57	13C2-PFDA	103,883.83	45,064.85	135,194.55	
KB75	L3	10/17/18 20:08	13C2-PFDA	98,052.33	45,064.85	135,194.55	
KB76	L4	10/17/18 20:19	13C2-PFDA	99,978.99	45,064.85	135,194.55	
KB77	L5	10/17/18 20:30	13C2-PFDA	90,129.70	45,064.85	135,194.55	
KB78	L6	10/17/18 20:41	13C2-PFDA	104,169.70	45,064.85	135,194.55	
KB79	L7	10/17/18 20:52	13C2-PFDA	100,765.46	45,064.85	135,194.55	
KB80 IB	IB	10/17/18 21:02	13C2-PFDA	96,280.28	45,064.85	135,194.55	
KB81 ICC	ICC	10/17/18 21:13	13C2-PFDA	103,402.36	45,064.85	135,194.55	
KB75 ISC	ISC	10/19/18 18:16	13C2-PFDA	90,191.16	45,064.85	135,194.55	
KB80 IB	IB	10/19/18 18:27	13C2-PFDA	83,787.58	45,064.85	135,194.55	
KB77 CCV	CCV	10/22/18 22:26	13C2-PFDA	72,478.91	45,064.85	135,194.55	
CR992PB-FS(3)	Procedural Blank	10/22/18 22:48	13C2-PFDA	81,163.88	45,064.85	135,194.55	
CR993LCS-FS(3)	Laboratory Control Sample	10/22/18 22:59	13C2-PFDA	87,597.96	45,064.85	135,194.55	
J8698-FS(3)	VC-CS00-SB02-0102	10/22/18 23:10	13C2-PFDA	90,815.60	45,064.85	135,194.55	
J8699-FS(3)	VC-CS00-SB02-0506	10/22/18 23:20	13C2-PFDA	88,805.89	45,064.85	135,194.55	
J8700-FS(3)	VC-CS00-SS03-000H	10/22/18 23:31	13C2-PFDA	88,341.58	45,064.85	135,194.55	
J8701-FS(3)	VC-CS00-SB03-0102	10/22/18 23:42	13C2-PFDA	107,140.08	45,064.85	135,194.55	
J8702-FS(3)	VC-CS00-SB03-0506	10/22/18 23:53	13C2-PFDA	80,630.50	45,064.85	135,194.55	
J8703-FS(3)	VC-CS00-SS04-000H	10/23/18 0:04	13C2-PFDA	89,465.05	45,064.85	135,194.55	
J8703-FS-D(5)	VC-CS00-SS04-000H	10/23/18 0:15	13C2-PFDA	100,471.71	45,064.85	135,194.55	
J8703-FS-D(7)	VC-CS00-SS04-000H	10/23/18 0:26	13C2-PFDA	87,691.45	45,064.85	135,194.55	1
KB76 CCV	CCV	10/23/18 0:37	13C2-PFDA	86,248.17	45,064.85	135,194.55	
J8704-FS(3)	VC-CS00-SB04-0102	10/23/18 0:58	13C2-PFDA	114,837.89	45,064.85	135,194.55	
J8704-FS-D(5)	VC-CS00-SB04-0102	10/23/18 1:09	13C2-PFDA	87,631.80	45,064.85	135,194.55	
J8704-FS-D(7)	VC-CS00-SB04-0102	10/23/18 1:20	13C2-PFDA	95,705.19	45,064.85	135,194.55	1
J8705-FS(3)	VC-CS00-SB04-0506	10/23/18 1:31	13C2-PFDA	87,020.82	45,064.85	135,194.55	
J8705-FS-D(5)	VC-CS00-SB04-0506	10/23/18 1:42	13C2-PFDA	101,080.84	45,064.85	135,194.55	1
J8706-FS(3)	VC-CS00-SS05-000H	10/23/18 1:53	13C2-PFDA	88,298.44	45,064.85	135,194.55	
J8707-FS(3)	VC-CS00-SB05-0102	10/23/18 2:03	13C2-PFDA	77,735.36	45,064.85	135,194.55	
J8708-FS(3)	VC-CS00-SB05-0506	10/23/18 2:14	13C2-PFDA	103,960.57	45,064.85	135,194.55	
J8709-FS(3)	VC-CS00-SS06-000H	10/23/18 2:25	13C2-PFDA	104,191.35	45,064.85	135,194.55	
J8710-FS(3)	VC-CS00-SB06-0102	10/23/18 2:36	13C2-PFDA	100,213.22	45,064.85	135,194.55	
KB77 CCV	CCV	10/23/18 2:47	13C2-PFDA	100,180.27	45,064.85	135,194.55	
J8711-FS(3)	VC-CS00-SB06-0506	10/23/18 3:09	13C2-PFDA	102,338.80	45,064.85	135,194.55	
J8712MS-FS(3)	VC-CS00-SB06-0506-MS	10/23/18 3:19	13C2-PFDA	107,862.68	45,064.85	135,194.55	
J8713MSD-FS(3)	VC-CS00-SB06-0506-MSD	10/23/18 3:30	13C2-PFDA	97,353.06	45,064.85	135,194.55	
KB76 CCV	CCV	10/23/18 3:41	13C2-PFDA	91,954.41	45,064.85	135,194.55	

1 - Please see sequence report for details. LMG 11/05/18

Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01



Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/17/18 20:30	13C4-PFOS	31,518.26	15,759.13	47,277.39

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C4-PFOS	29,846.55	15,759.13	47,277.39	
KB74	L2	10/17/18 19:57	13C4-PFOS	34,856.85	15,759.13	47,277.39	
KB75	L3	10/17/18 20:08	13C4-PFOS	30,684.77	15,759.13	47,277.39	
KB76	L4	10/17/18 20:19	13C4-PFOS	30,962.75	15,759.13	47,277.39	
KB77	L5	10/17/18 20:30	13C4-PFOS	31,518.26	15,759.13	47,277.39	
KB78	L6	10/17/18 20:41	13C4-PFOS	29,589.19	15,759.13	47,277.39	
KB79	L7	10/17/18 20:52	13C4-PFOS	26,984.04	15,759.13	47,277.39	
KB80 IB	IB	10/17/18 21:02	13C4-PFOS	29,371.12	15,759.13	47,277.39	
KB81 ICC	ICC	10/17/18 21:13	13C4-PFOS	33,690.55	15,759.13	47,277.39	
KB75 ISC	ISC	10/19/18 18:16	13C4-PFOS	31,112.11	15,759.13	47,277.39	
KB80 IB	IB	10/19/18 18:27	13C4-PFOS	28,447.31	15,759.13	47,277.39	
KB77 CCV	CCV	10/22/18 22:26	13C4-PFOS	27,237.29	15,759.13	47,277.39	
CR992PB-FS(3)	Procedural Blank	10/22/18 22:48	13C4-PFOS	24,184.17	15,759.13	47,277.39	
CR993LCS-FS(3)	Laboratory Control Sample	10/22/18 22:59	13C4-PFOS	25,632.24	15,759.13	47,277.39	
J8698-FS(3)	VC-CS00-SB02-0102	10/22/18 23:10	13C4-PFOS	27,010.27	15,759.13	47,277.39	
J8699-FS(3)	VC-CS00-SB02-0506	10/22/18 23:20	13C4-PFOS	27,367.42	15,759.13	47,277.39	
J8700-FS(3)	VC-CS00-SS03-000H	10/22/18 23:31	13C4-PFOS	30,669.98	15,759.13	47,277.39	
J8701-FS(3)	VC-CS00-SB03-0102	10/22/18 23:42	13C4-PFOS	34,634.70	15,759.13	47,277.39	
J8702-FS(3)	VC-CS00-SB03-0506	10/22/18 23:53	13C4-PFOS	24,478.97	15,759.13	47,277.39	
J8703-FS(3)	VC-CS00-SS04-000H	10/23/18 0:04	13C4-PFOS	25,053.62	15,759.13	47,277.39	
J8703-FS-D(5)	VC-CS00-SS04-000H	10/23/18 0:15	13C4-PFOS	30,360.83	15,759.13	47,277.39	
J8703-FS-D(7)	VC-CS00-SS04-000H	10/23/18 0:26	13C4-PFOS	25,053.38	15,759.13	47,277.39	1
KB76 CCV	CCV	10/23/18 0:37	13C4-PFOS	29,836.28	15,759.13	47,277.39	
J8704-FS(3)	VC-CS00-SB04-0102	10/23/18 0:58	13C4-PFOS	29,132.87	15,759.13	47,277.39	
J8704-FS-D(5)	VC-CS00-SB04-0102	10/23/18 1:09	13C4-PFOS	25,534.42	15,759.13	47,277.39	
J8704-FS-D(7)	VC-CS00-SB04-0102	10/23/18 1:20	13C4-PFOS	28,896.18	15,759.13	47,277.39	1
J8705-FS(3)	VC-CS00-SB04-0506	10/23/18 1:31	13C4-PFOS	25,658.58	15,759.13	47,277.39	
J8705-FS-D(5)	VC-CS00-SB04-0506	10/23/18 1:42	13C4-PFOS	32,148.58	15,759.13	47,277.39	1
J8706-FS(3)	VC-CS00-SS05-000H	10/23/18 1:53	13C4-PFOS	27,871.25	15,759.13	47,277.39	
J8707-FS(3)	VC-CS00-SB05-0102	10/23/18 2:03	13C4-PFOS	24,046.26	15,759.13	47,277.39	
J8708-FS(3)	VC-CS00-SB05-0506	10/23/18 2:14	13C4-PFOS	31,592.04	15,759.13	47,277.39	
J8709-FS(3)	VC-CS00-SS06-000H	10/23/18 2:25	13C4-PFOS	31,235.04	15,759.13	47,277.39	
J8710-FS(3)	VC-CS00-SB06-0102	10/23/18 2:36	13C4-PFOS	30,821.04	15,759.13	47,277.39	
KB77 CCV	CCV	10/23/18 2:47	13C4-PFOS	29,575.31	15,759.13	47,277.39	
J8711-FS(3)	VC-CS00-SB06-0506	10/23/18 3:09	13C4-PFOS	30,013.93	15,759.13	47,277.39	
J8712MS-FS(3)	VC-CS00-SB06-0506-MS	10/23/18 3:19	13C4-PFOS	29,320.83	15,759.13	47,277.39	
J8713MSD-FS(3)	VC-CS00-SB06-0506-MSD	10/23/18 3:30	13C4-PFOS	31,720.11	15,759.13	47,277.39	
KB76 CCV	CCV	10/23/18 3:41	13C4-PFOS	31,073.45	15,759.13	47,277.39	

1 - Please see sequence report for details. LMG 11/05/18

Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01



Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/17/18 20:30	13C4-PFOS	31,518.26	15,759.13	47,277.39

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C4-PFOS	29,846.55	15,759.13	47,277.39	
KB74	L2	10/17/18 19:57	13C4-PFOS	34,856.85	15,759.13	47,277.39	
KB75	L3	10/17/18 20:08	13C4-PFOS	30,684.77	15,759.13	47,277.39	
KB76	L4	10/17/18 20:19	13C4-PFOS	30,962.75	15,759.13	47,277.39	
KB77	L5	10/17/18 20:30	13C4-PFOS	31,518.26	15,759.13	47,277.39	
KB78	L6	10/17/18 20:41	13C4-PFOS	29,589.19	15,759.13	47,277.39	
KB79	L7	10/17/18 20:52	13C4-PFOS	26,984.04	15,759.13	47,277.39	
KB80 IB	IB	10/17/18 21:02	13C4-PFOS	29,371.12	15,759.13	47,277.39	
KB81 ICC	ICC	10/17/18 21:13	13C4-PFOS	33,690.55	15,759.13	47,277.39	
KB75 ISC	ISC	10/23/18 18:42	13C4-PFOS	28,461.06	15,759.13	47,277.39	
KB80 IB	IB	10/23/18 18:53	13C4-PFOS	30,413.28	15,759.13	47,277.39	
KB77 CCV	CCV	10/23/18 20:52	13C4-PFOS	30,197.62	15,759.13	47,277.39	
CR992PB-FS(3)	Procedural Blank	10/23/18 21:14	13C4-PFOS	30,006.71	15,759.13	47,277.39	
CR993LCS-FS(3)	Laboratory Control Sample	10/23/18 21:25	13C4-PFOS	29,392.23	15,759.13	47,277.39	
J8698-FS(3)	VC-CS00-SB02-0102	10/23/18 21:36	13C4-PFOS	30,185.51	15,759.13	47,277.39	
J8699-FS(3)	VC-CS00-SB02-0506	10/23/18 21:47	13C4-PFOS	34,792.97	15,759.13	47,277.39	
J8700-FS(3)	VC-CS00-SS03-000H	10/23/18 21:57	13C4-PFOS	27,171.95	15,759.13	47,277.39	
J8701-FS(3)	VC-CS00-SB03-0102	10/23/18 22:08	13C4-PFOS	32,138.52	15,759.13	47,277.39	
J8702-FS(3)	VC-CS00-SB03-0506	10/23/18 22:19	13C4-PFOS	33,706.11	15,759.13	47,277.39	
J8703-FS(3)	VC-CS00-SS04-000H	10/23/18 22:30	13C4-PFOS	24,553.93	15,759.13	47,277.39	
KB76 CCV	CCV	10/23/18 22:41	13C4-PFOS	26,782.97	15,759.13	47,277.39	



Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 8:52:06 PM	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS_1	298.9 / 80.0	1.56	22	>10
PFBS_2	298.9 / 99.0	1.56	22	>10
PFHxA_1	313.0 / 269.0	1.89	21	>10
PFHxA_2	313.0 / 119.0	1.88	22	>10
PFHpA_1	363.0 / 319.0	2.29	30	>10
PFHpA_2	363.0 / 169.0	2.30	23	>10
PFHxS_1	399.0 / 80.0	2.32	33	>10
PFHxS_2	399.0 / 99.0	2.32	35	>10
PFOA_1	413.0 / 369.0	2.71	32	>10
PFOA_2	413.0 / 169.0	2.71	30	>10
PFNA_1	463.0 / 419.0	3.11	29	>10
PFNA_2	463.0 / 219.0	3.11	27	>10
PFOS_1	499.0 / 80.0	3.10	43	>10
PFOS_2	499.0 / 99.0	3.10	45	>10
PFDA_1	513.0 / 469.0	3.47	31	>10
PFDA_2	513.0 / 219.0	3.47	34	>10
PFUnA_1	563.0 / 519.0	3.79	30	>10
PFUnA_2	563.0 / 269.0	3.79	43	>10
PFDoA_1	613.0 / 569.0	4.07	39	>10
PFDoA_2	613.0 / 319.0	4.07	46	>10
PFTrDA_1	663.0 / 619.0	4.32	56	>10
PFTrDA_2	663.0 / 169.0	4.32	40	>10
PFTeDA_1	713.0 / 669.0	4.54	59	>10
PFTeDA_2	713.0 / 169.0	4.54	64	>10
NMeFOSAA_1	570.0 / 419.0	3.62	29	>10
NMeFOSAA_2	570.0 / 512.0	3.62	39	>10
NetFOSAA_1	584.0 / 419.0	3.78	31	>10
NetFOSAA_2	584.0 / 483.0	3.78	19	>10



Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 8:52:06 PM	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
13C2-PFDoA	615.0 / 570.0	4.07	23	>10
d3-MeFOSAA	573.0 / 419.0	3.62	18	>10
d5-EtFOSAA	589.0 / 419.0	3.78	27	>10
13C5-PFHxA	318.0 / 273.0	1.87	23	>10
13C4-PFHxA	367.0 / 322.0	2.28	26	>10
13C8-PFOA	421.0 / 376.0	2.70	47	>10
13C9-PFNA	472.0 / 427.0	3.09	24	>10
13C6-PFDA	519.0 / 474.0	3.45	29	>10
13C7-PFUnA	570.0 / 525.0	3.78	36	>10
13C2-PFTeDA	715.0 / 670.0	4.54	38	>10
13C3-PFBS	302.0 / 99.0	1.54	24	>10
13C3-PFHxS	402.0 / 99.0	2.31	27	>10
13C8-PFOS	507.0 / 99.0	3.09	33	>10



Precision and Bias at the LOQ for PFAS in Solids

Analyte	CAS No.	Average (ng/g)	ST DEV	2 Sigma	n
PFBA	375-22-4	11.08	1.57	3.14	20
PFPeA	2706-90-3	10.94	1.44	2.88	20
PFHxA	307-24-4	11.11	2.08	4.16	26
PFHpA	375-85-9	11.13	1.83	3.66	26
PFOA	335-67-1	11.22	1.83	3.66	26
PFNA	375-95-1	11.05	1.63	3.26	26
PFDA	335-76-2	11.68	2.06	4.12	26
PFUnA	2058-94-8	11.4	1.84	3.68	26
PFDoA	307-55-1	11.54	1.53	3.06	26
PFTrDA	72629-94-8	10.89	1.28	2.56	26
PFTeDA	376-06-7	11.86	2.17	4.34	26
NMeFOSAA	2355-31-9	11.76	1.59	3.18	26
NEtFOSAA	2991-50-6	10.69	1.45	2.9	26
PFOSA	754-91-6	10.75	1.63	3.26	4
PFBS	375-73-5	11.51	1.74	3.48	26
PFPeS	BDO-2114	11.67	1.22	2.44	4
PFHxS	355-46-4	11.24	1.73	3.46	26
PFHpS	375-99-6	11.05	1.68	3.36	20
PFOS	1763-23-1	11.04	1.62	3.24	26
PFNS	98789-57-2	10.67	1.01	2.02	4
PFDS	2806-15-7	11.84	2.23	4.46	20
4:2FTS	BDO-2205	12.03	1.86	3.72	20
6:2FTS	27619-97-2	12.48	1.33	2.66	12
8:2FTS	39108-34-4	12.08	2.01	4.02	20

BATTELLE DETECTION LIMITS FOR PFAS IN SOLIDS (SEDIMENT/SOIL)

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Analytical SOP 5-369

Extraction SOP 5-370

PFAS by LC-MS/MS Compliant with QSM 5.1 Table B-15

Analyte	CAS No.	MDL (ng/g)	LOD (ng/g)	LOQ (ng/g)
PFBA	375-22-4	0.36	1.0	5.0
PFPeA	2706-90-3	0.39	1.0	5.0
PFHxA	307-24-4	0.33	1.0	5.0
PFHpA	375-85-9	0.44	1.0	5.0
PFOA	335-67-1	0.50	1.0	5.0
PFNA	375-95-1	0.43	1.0	5.0
PFDA	335-76-2	0.27	1.0	5.0
PFUnA	2058-94-8	0.41	1.0	5.0
PFDoA	307-55-1	0.24	0.5	5.0
PFTrDA	72629-94-8	0.28	1.0	5.0
PFTeDA	376-06-7	0.63	2.0	5.0
NMeFOSAA	2355-31-9	1.12	2.5	5.0
NEtFOSAA	2991-50-6	0.57	2.0	5.0
PFOSA	754-91-6	0.39	1.0	5.0
PFBS	375-73-5	0.36	1.0	5.0
PFPeS	BDO-2114	0.57	2.0	5.0
PFHxS	355-46-4	0.22	0.5	5.0
PFHpS	375-99-6	0.34	1.0	5.0
PFOS	1763-23-1	0.27	1.0	5.0
PFNS	98789-57-2	0.74	2.0	5.0
PFDS	2806-15-7	0.19	0.5	5.0
4:2FTS	BDO-2205	0.29	1.0	5.0
6:2FTS	27619-97-2	2.31	2.5	5.0
8:2FTS	39108-34-4	0.59	2.0	5.0

Analytes on NELAP and ELAP QSM 5.1 Scope of accreditation

Analytical Transitions for PFAS in non-potable water, solid, and tissue

EPA 537 MOD DoD QSM 5.1 compliant with Table B-15 requirements

Analyte	CAS No.	Type	Primary Transition	Secondary Transition
PFBA	375-22-4	Target	213.0 / 169.0	NA
PFPeA	2706-90-3	Target	263.0 / 219.0	NA
PFHxA	307-24-4	Target	313.0 / 269.0	313.0 / 119.0
PFHpA	375-85-9	Target	363.0 / 319.0	363.0 / 169.0
PFOA	335-67-1	Target	413.0 / 369.0	413.0 / 169.0
PFNA	375-95-1	Target	463.0 / 419.0	463.0 / 219.0
PFDA	335-76-2	Target	513.0 / 469.0	513.0 / 219.0
PFUnA	2058-94-8	Target	563.0 / 519.0	563.0 / 269.0
PFDoA	307-55-1	Target	613.0 / 569.0	613.0 / 319.0
PFTrDA	72629-94-8	Target	663.0 / 619.0	663.0 / 169.0
PFTeDA	376-06-7	Target	713.0 / 669.0	713.0 / 169.0
NMeFOSAA	2355-31-9	Target	570.0 / 419.0	570.0 / 512.0
NEtFOSAA	2991-50-6	Target	584.0 / 419.0	584.0 / 483.0
PFOSA	754-91-6	Target	498.0 / 78.0	498.0 / 83.0
PFBS	375-73-5	Target	299.0 / 80.0	299.0 / 99.0
PFPeS	BDO-2114	Target	349.0 / 99.0	249.0 / 80.0
PFHxS	355-46-4	Target	399.0 / 80.0	399.0 / 99.0
PFHpS	375-99-6	Target	449.0 / 80.0	449.0 / 99.0
PFOS	1763-23-1	Target	499.0 / 80.0	499.0 / 99.0
PFNS	98789-57-2	Target	549.0 / 99.0	549.0 / 80.0
PFDS	2806-15-7	Target	599.0 / 80.0	599.0 / 99.0
4:2FTS	BDO-2205	Target	327.0 / 307.0	327.0 / 80.0
6:2FTS	27619-97-2	Target	427.0 / 407.0	427.0 / 81.0
8:2FTS	39108-34-4	Target	527.0 / 507.0	527.0 / 487.0
13C4-PFBA	BDO-2105	SIS ¹	217.0 / 172.0	NA
13C5-PFPeA	BDO-2216	SIS ¹	268.0 / 223.0	NA
13C5-PFHxA	BDO-2217	SIS ¹	318.0 / 273.0	NA

Analyte	CAS No.	Type	Primary Transition	Secondary Transition
13C4-PFH _p A	BDO-2218	SIS ¹	367.0 / 322.0	NA
13C8-PFOA	BDO-2219	SIS ¹	421.0 / 376.0	NA
13C9-PFNA	BDO-2221	SIS ¹	472.0 / 427.0	NA
13C6-PFDA	BDO-2222	SIS ¹	519.0 / 474.0	NA
13C7-PFU _n A	BDO-2223	SIS ¹	570.0 / 525.0	NA
13C2-PFDoA	BDO-2112	SIS ¹	615.0 / 570.0	NA
13C2-PFTeDA	BDO-2224	SIS ¹	715.0 / 670.0	NA
d3-MeFOSAA	BDO-1838	SIS ¹	573.0 / 419.0	NA
d5-EtFOSAA	BDO-1839	SIS ¹	589.0 / 419.0	NA
13C8-FOSA	BDO-2225	SIS ¹	506.0 / 78.0	NA
13C3-PFBS	BDO-2226	SIS ¹	302.0 / 99.0	NA
13C3-PFHxS	BDO-2227	SIS ¹	402.0 / 99.0	NA
13C8-PFOS	BDO-2228	SIS ¹	507.0 / 99.0	NA
13C2-4:2FTS	BDO-2229	SIS ¹	329.0 / 81.0	NA
13C2-6:2FTS	BDO-2230	SIS ¹	429.0 / 81.0	NA
13C2-8:2FTS	BDO-2220	SIS ¹	529.0 / 81.0	NA
13C3-PFBA	BDO-2231	IS ²	216.0 / 172.0	NA
13C2-PFOA	BDO-2107	IS ²	415.0 / 370.0	NA
13C2-PFDA	BDO-2110	IS ²	515.0 / 470.0	NA
13C4-PFOS	BDO-2121	IS ²	503.0 / 99.0	NA

¹ – extracted internal standard (surrogate)

² – injection internal standard



Solids Calibration to Sample Equivalents

ICAL (ng/L)	PIV (mL)	DF ¹	Sample Size (g)	Sample Equivalent (ng/g) ²
25	1	10	2.0	0.1
50	1	10	2.0	0.3
100	1	10	2.0	0.5
250	1	10	2.0	1.3
500	1	10	2.0	2.5
1,000	1	10	2.0	5.0
2,500	1	10	2.0	12.5
10,000	1	10	2.0	50.0
20,000	1	10	2.0	100.0

¹ - base level dilution as part of the extraction procedure

² - calculated equivalent of a sample based on the ICAL concentration

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QTRAP 5500**LC/MS/MS Detector System**

Appendix ZEFPM003-2L

QTRAP 5500

Preventive Maintenance Checklist

Preventive Maintenance Date:	12-June-2018
Request ID:	9749
Company Name:	Battelle Memorial Institute
Instrument ID:	X60666
Instrument Model:	QTRAP 5500
Instrument Serial Number:	AU23051004

PASS **FAIL**

Any failure will lead to an automatic Service Call being open to investigate fault.

Preventive Maintenance is performed twice every year unless specified in the Service Contract. It is designed to help maintain optimum system performance and to help diagnose any system deficiencies.

Engineer is required the assigned Request ID for this PM otherwise making this job invalid.

Comments: Suspected issue with pulse gas manifold. TRAP testing in POSITIVE mode couldn't be finished because of pulse gas issue. The same issue will be taken care in separate service call.

Performed By: _____ Kaustubh Dhayagude **Date:** _____ 12-June-2018

Approved By : _____ **Date:** _____

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QTRAP 5500**LC/MS/MS Detector System**

Appendix ZEFPM003-2L

PRE PM PPG PERFORMANCE EVALUATION:

- Consult Customer concerning the unit overall performance.
- Check Logbook for Services recently performed.
- Check Vacuum Pressure:

CAD Settings	Vacuum Reading ($\times 10^{-5}$ Torr)	Acceptance Criteria
<input checked="" type="checkbox"/> CAD 0	0.6	0.4 to 1.1 $\times 10^{-5}$ Torr
<input checked="" type="checkbox"/> CAD Low	1.3	Read Only
<input checked="" type="checkbox"/> CAD Medium	2.7	Read Only
<input checked="" type="checkbox"/> CAD High	3.7	Read Only
<input checked="" type="checkbox"/> CAD 12	3.7	2.4 to 4.5 $\times 10^{-5}$ Torr

- Check for Front end contamination symptoms. Run Q1 POS PPG using PPG 2e-7 for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification
 - No degradation or Sensitivity drop
- Check for Q3 contamination symptoms. Run Q3 POS PPG using PPG 2e-7 for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification
 - No degradation or Sensitivity drop

Pre PM PPG Test: Perform each of the following tests. Optimize ion source position only. The specifications listed for these Pre PM tests are guidelines only, not required to be met.

- Perform Q1 POS using POS PPG 2e-7M. Scan Rate 10 Da/s. Record 10 mca.

Mass	Q1 Intensity		Q1 Width Value	Width Specs
	Value	Spec		
Q1 175.133	4.01 e6	Read Only	0.6998	Read Only
Q1 500.380	2.81 e7	Read Only	0.7038	Read Only
Q1 906.673	4.21 e7	Read Only	0.7071	Read Only

- Perform Q3 POS using POS PPG 2e-7M. Scan Rate 10 Da/s. Record 10 mca.

Mass	Q3 Intensity		Q3 Width Value	Width Specs
	Value	Spec		
Q3 175.133	5.45 e6	Read Only	0.6873	Read Only
Q3 500.380	2.69 e7	Read Only	0.7591	Read Only
Q3 906.673	4.50 e7	Read Only	0.7843	Read Only

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QTRAP 5500**LC/MS/MS Detector System**

Appendix ZEFPM003-2L

- Perform MSMS POS in Product Ion scan with 609.3 parent and record daughter 195.1 using Reserpine 0.167 pmol/ul at the scan rate of 10 Da/s for 10 MCA. Calculate transmission efficiency comparing Q1POS 609 intensity. Transmission Efficiency: : 28.87% (Read Only)

Mass	MSMS Intensity		MSMS Width Value	Width Specs
	Value	Spec		
Q1 609.3	4.26 e7	Read Only	0.7011	Read Only
MS/MS 195.1	1.23 e7	Read Only	0.7069	Read Only

- Perform Q1 NEG using NEG PPG 3e-5M. Scan Rate 10 Da/s. Record 10 mca.

Mass	Q1 Intensity		Q1 Width Value	Width Specs
	Value	Spec		
Q1 933.636	1.42 e7	Read Only	0.7686	Read Only

- Perform Q3 NEG using NEG PPG 3e-5M. Scan Rate 10 Da/s. Record 10 mca.

Mass	Q3 Intensity		Q3 Width Value	Width Specs
	Value	Spec		
Q3 933.636	2.24 e7	Read Only	0.7243	Read Only

- Perform Product Ion scan using NEG PPG 3e-5M. Record10mca.

Mass	Scan Rate	MCA	MSMS Intensity		MSMS Width Value	Width Specs
			Value	Spec		
MSMS 45	10	10	3.31 e6	Read Only	0.6746	Read Only

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QTRAP 5500**LC/MS/MS Detector System**

Appendix ZEFPM003-2L

PREVENTIVE MAINTENANCE CHECKLIST:

- Check Cooling Fans for Turbo Pumps while MS is ON.
- Check QJet and QPS tuning voltage for reference.
- Record AC input Voltage while MS is OFF: _____ (200-240VAC).
If Out-of-Range, notify customer.

- Clean Interface
 - Curtain Plate
 - Orifice Plate
 - QJet
 - Q0 Rods.

- Replace Roughing Pump Oil.
- Inspect Oil Exhaust Filter, if Applicable.
- Clean and inspect built-in divert valve if used.
- Check Multiplier Voltage, optimize if necessary.
- Replace four Air Filters at the bottom of the mass spectrometer.

- Pump down overnight if possible. N/A

- Perform Maintenance on Turbo V source.

- Replace Electrode, if necessary. N/A
- Check Turbo heaters resistances.
- Check if Temperature is reached at 500C with TIS Probe installed.
- Check if Temperature is reached at 500C with APCI Probe installed. N/A

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QTRAP 5500**LC/MS/MS Detector System**

Appendix ZEFPM003-2L

POST PM PPG PERFORMANCE TESTS:

- Set-up Sample for Infusion.
- Check spray and adjust sprayer's position of the TIS source.
- Check Vacuum Pressure:

CAD Settings	Vacuum Reading ($\times 10^{-5}$ Torr)	Acceptance Criteria
<input checked="" type="checkbox"/> CAD 0	0.7	0.4 to 1.1 $\times 10^{-5}$ Torr
<input checked="" type="checkbox"/> CAD Low	1.3	Read Only
<input checked="" type="checkbox"/> CAD Medium	2.7	Read Only
<input checked="" type="checkbox"/> CAD High	3.7	Read Only
<input checked="" type="checkbox"/> CAD 12	3.7	2.4 to 4.5 $\times 10^{-5}$ Torr

- Perform Q1 POS using POS PPG 2e-7M. Mass calibrate to less than 0.1 amu.

Mass	Q1 Intensity		Q1 Width Value	Width Specs
	Value	Spec		
Scan Rate 10 Da/s Record 10 mca				
Q1 175.133	5.04 e6	$\geq 1.2^{\circ}6$	0.6737	0.6 to 0.8
Q1 500.380	1.60 e7	$\geq 9.0^{\circ}6$	0.6961	0.6 to 0.8
Q1 906.673	2.84 e7	$\geq 1.4^{\circ}7$	0.7179	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q1 906.673	1.33 e8	$\geq 6.8^{\circ}7$	0.7465	0.6 to 0.8

- Perform Q3 POS using POS PPG 2e-7M. Mass calibrate to less than 0.1 amu.

Mass	Q3 Intensity		Q3 Width Value	Width Specs
	Value	Spec		
Scan Rate 10 Da/s Record 10 mca				
Q3 175.133	5.02 e6	$\geq 1.2^{\circ}6$	0.6719	0.6 to 0.8
Q3 500.380	1.72 e7	$\geq 9.0^{\circ}6$	0.7443	0.6 to 0.8
Q3 906.673	3.00 e7	$\geq 1.4^{\circ}7$	0.7504	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q3 906.673	1.46 e8	$\geq 6.8^{\circ}7$	0.7202	0.6 to 0.8

- Perform "Product of 609.3" POS and record product ion 195.1 using Reserpine 0.167pmol/uL. Record 10 mca. Calculate Transmission efficiency comparing Q1POS 609 intensity.

Transmission Efficiency: 21.10% ($\geq 10.0\%$)

Mass	MS/MS Intensity		Width Value	Width Specs
	Value	Spec		
Q1 609.3	5.78 e7	N/A	0.6888	Read Only
MS/MS 195.1	1.22 e7	N/A	0.7003	Read Only

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QTRAP 5500**LC/MS/MS Detector System****Appendix ZEFPM003-2L**

- Perform Q1 NEG using NEG PPG 3e-5M. Mass calibrate to less than 0.1 amu.

Mass	Scan Rate	Mca	Q1 Intensity		Q1 Width Value	Width Specs
			Value	Spec		
Q1 933.636	10	10	1.35 e7	$\geq 1.0^{\circ}7$	0.7486	0.6 to 0.8
Q1 933.636	1000	50	7.52 e7	$\geq 4.0^{\circ}7$	0.7206	0.6 to 0.8

- Perform Q3 NEG using NEG PPG 3e-5M. Mass calibrate to less than 0.1 amu.

Mass	Scan Rate	Mca	Q3 Intensity		Q3 Width Value	Width Specs
			Value	Spec		
Q3 933.636	10	10	2.15 e7	$\geq 8.0^{\circ}6$	0.7492	0.6 to 0.8
Q3 933.636	1000	50	8.33 e7	$\geq 4.0^{\circ}7$	0.7299	0.6 to 0.8

- Perform Product Ion scan using NEG PPG 3e-5M.

Mass	Scan Rate	Mca	MSMS Intensity		MSMS Width Value	Width Specs
			Value	Spec		
MSMS 45	10	10	3.33 e6	Read Only	0.6387	Read Only

- Perform ER POS 118.087 and 922.01 using ESI Tuning Mix 1:100 in ES Tuning Dilution Solvent. Apply suggested Scan Rate and Record number of MCA. Mass calibrate to less than 0.1 amu.

Mass	Fill Time (ms)	ER Intensity		ER Width Value	Width Specs
		Value	Spec		
ScanRate : 1000 Da/s ; 50 Mca					
ER 118.087	0.05	8.54 e6	$\geq 7.2^{\circ}6$	0.1473	<0.35
ER 922.010	0.05	4.96 e7	$\geq 2.8^{\circ}6$	0.2434	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 118.087	0.05		$\geq 2.4^{\circ}7$		<0.65
ER 922.010	0.05		$\geq 6.8^{\circ}7$		<0.65

- Perform ER NEG 431.982 and 601.978 using ESI Tuning Mix 1:100 in ES Tuning Dilution Solvent. Apply suggested Scan Rate and Record number of MCA. Mass calibrate to less than 0.1 amu.

Mass	Fill Time (ms)	ER Intensity		ER Width Value	Width Specs
		Value	Spec		
ScanRate : 1000 Da/s ; 50 Mca					
ER 431.982	0.05	1.81 e8	$\geq 4.4^{\circ}7$	0.1862	<0.35
ER 601.978	0.05	1.70 e8	$\geq 5.6^{\circ}7$	0.1809	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 431.982	0.05	5.72 e8	$\geq 1.2^{\circ}8$	0.5102	<0.65
ER 601.978	0.05	4.52 e8	$\geq 1.6^{\circ}8$	0.6187	<0.65

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QTRAP 5500**LC/MS/MS Detector System**

Appendix ZEFPM003-2L

- Perform EPI POS 397.2 using Reserpine 0.167pmol/uL. Record 20 mca.

Mass	Scan Rate (Da/s)	Q0 Trapping OFF		Q0 Trapping ON	
		Intensity	Spec	Intensity	Spec
EPI 397.2	10000	> 3.0 e6	$\geq 2.0 \text{ } ^6$	> 7.0 e6	$\geq 6.4 \text{ } ^6$

- Perform MS3 POS full scan Fragmentation ON & OFF using Reserpine 0.167pmol/uL. Record 20 mca.

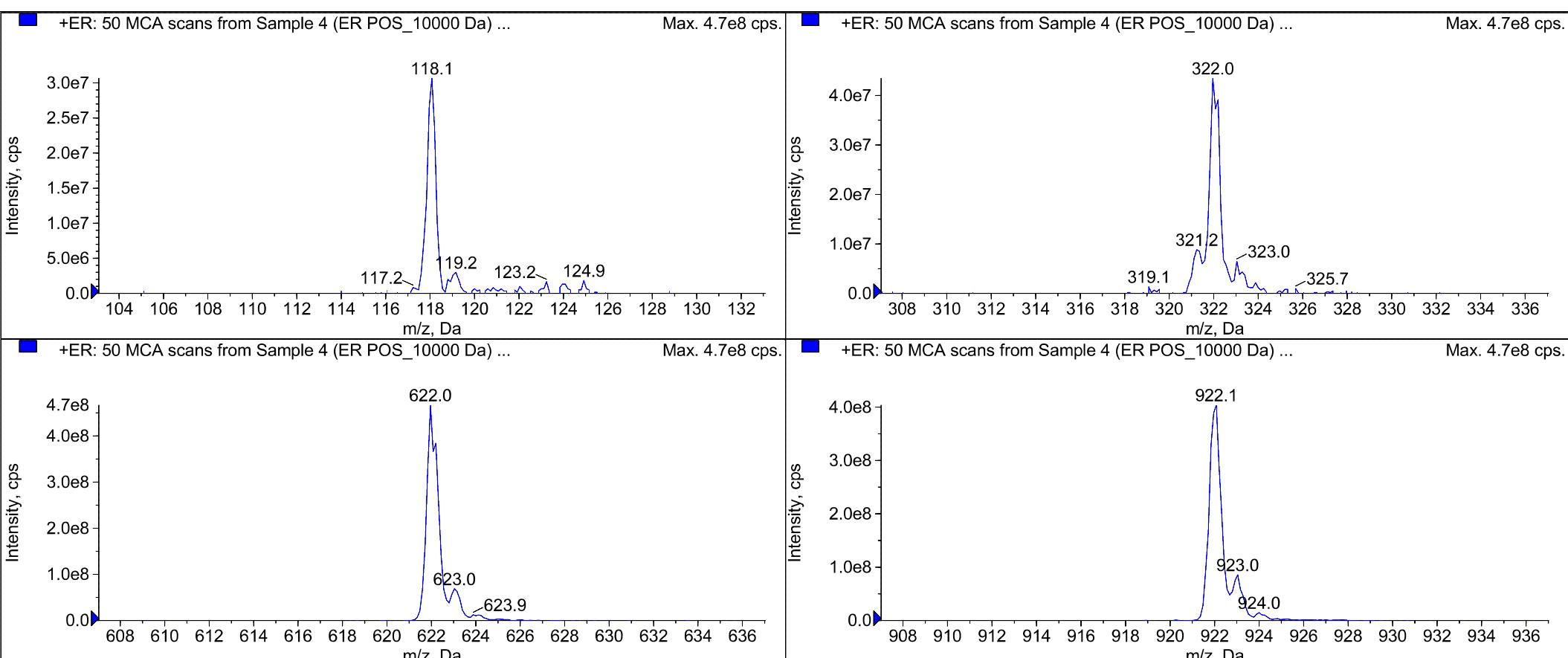
Mass	Scan Rate (Da/s)	Fragmentation OFF		Fragmentation ON	
		Intensity	Spec	Intensity	Spec
MS3 397.2	1000	Yes	Contains only 397.2	N/A	N/A
<input type="checkbox"/> 236 OR <input checked="" type="checkbox"/> 365	1000	Yes	Fragment Intensity	> 2.0 e6	$\geq 1.6 \times 10^6$

REVIEW:

- Attach all spectrums printouts to this procedure.
- If any parameter setting access modes were changed during the PM, ensure they are returned to their normal access mode and that their offsets are adjusted to match optimized values from the post-PM acquisition files.
- Empty tuning cache folder, if necessary. N/A
- Update Service Work Order status
- Fill and replace PM Label.

END OF PREVENTIVE MAINTENANCE CHECKLIST**Document history:**

06 OCT 2016: Appendix ZEFPM003-2L: Removed requirements to fit Manufacturer's testing criteria.



Peak List for "+ER: 50 MCA scans from Sample 4 (ER POS_10000 Da) of TRAP ER with NEW Pulse Manifold.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	118.0870	118.0702	3.0667e7	0.4146	0.0168
2	322.0490	322.0509	4.3500e7	0.4945	-1.9159e-3
3	622.0290	622.0370	4.6717e8	0.5757	-8.0044e-3
4	922.0100	922.0101	4.0400e8	0.5732	-1.4148e-4

Battelle Standard ID	Description	Intermediate Solutions	Battelle Reagent ID (purchased solutions)
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	-	180726-05
KB72	PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)	KB71	180726-05
KC02	PFAS - DoD High Level Second Source LCS/MS Solution	-	181001-01
KC03	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
KB73	PFAS - DoD Calibration L1	KB71	180726-05
KB73	PFAS - DoD Calibration L1	JY25	180726-04
KB73	PFAS - DoD Calibration L1	JY23	180705-02
KB74	PFAS - DoD Calibration L2	JY25	180726-04
KB74	PFAS - DoD Calibration L2	KB71	180726-05
KB74	PFAS - DoD Calibration L2	JY23	180705-02
KB75	PFAS - DoD Calibration L3	KB71	180726-05
KB75	PFAS - DoD Calibration L3	JY25	180726-04
KB75	PFAS - DoD Calibration L3	KB70	180705-02
KB76	PFAS - DoD Calibration L4	KB70	180705-02
KB76	PFAS - DoD Calibration L4	JY25	180726-04
KB76	PFAS - DoD Calibration L4	KB71	180726-05
KB77	PFAS - DoD Calibration L5	KB71	180726-05
KB77	PFAS - DoD Calibration L5	KB70	180705-02
KB77	PFAS - DoD Calibration L5	JY25	180726-04
KB78	PFAS - DoD Calibraiton L6	JY25	180726-04
KB78	PFAS - DoD Calibraiton L6	KB70	180705-02
KB78	PFAS - DoD Calibraiton L6	KB71	180726-05
KB79	PFAS - DoD Calibration L7	KB71	180726-05
KB79	PFAS - DoD Calibration L7	KB70	180705-02
KB79	PFAS - DoD Calibration L7	JY25	180726-04
KB80	PFAS - DoD Instrument Blank	JY25	180726-04
KB80	PFAS - DoD Instrument Blank	KB71	180726-05
KB81	PFAS - DoD ICC	KB82	170724-01
KB81	PFAS - DoD ICC	KB71	180726-05
KB81	PFAS - DoD ICC	JY25	180726-04
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-02
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-03
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-04
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-06
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-07

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: JX28

Description: PFAS Branched Standard Stock

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180618-02	Branched NEtFOSAA Standard (50 µg/mL)	Neat	~50.0000 00	01/17/23	---	---	100 uL	1	10	~0.5000
180618-03	Branched NMeFOSAA Standard (50 µg/mL)	Neat	~50.0000 00	01/17/23	---	---	100 uL	1	10	~0.5000
180618-04	PFOA - Technical Mix	Neat	~50.0000 00	02/16/22	---	---	100 uL	1	10	~0.5000
180618-06	Branched PFHxS Standard (50 µg/mL)	Neat	~50.0000 00	01/04/22	---	---	100 uL	1	10	~0.5000
180618-07	Branched PFOS Standard (50 µg/mL)	Neat	~50.0000 00	01/12/22	---	---	100 uL	1	10	~0.5000

Solution Prepared By: Schultz, Stephanie	Date Prepared: 6/18/2018	Expiration Date: 6/18/2019
Solution Volume 25 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Balance ID: _____

Solvent: _____

Comment: _____

Lot: _____

Methanol (HPLC)

179315

Approved By: Thorn, Jonathan

Date: 7/3/2018 8:10:00 AM

It can be done**Standard Solution Concentrations****Approved:** **Standard Laboratory ID Number:** JX28**Description:** PFAS Branched Standard Stock**Stock Id:** 180618-02

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
N-ethylperfluoro-octanesulfonamidoacetic acid	100	50.00	1	100.000	1	10	0.50000

Stock Id: 180618-03

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
N-methylperfluoro-1-octanesulfonamidoacetic acid	100	50.00	1	100.000	1	10	0.50000

Stock Id: 180618-04

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
Perfluoro-n-octanoic Acid	100	50.00	1	100.000	1	10	0.50000

Stock Id: 180618-06

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
Perfluoro-1-hexanesulfonate	100	50.00	1	100.000	1	10	0.50000

Stock Id: 180618-07

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
Perfluoro-1-octanesulfonate	100	50.00	1	100.000	1	10	0.50000

Final Concentrations:

Analyte:	Conc (ug/mL):
N-ethylperfluoro-octanesulfonamidoacetic acid	.50000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.50000
Perfluoro-1-hexanesulfonate	.50000
Perfluoro-1-octanesulfonate	.50000
Perfluoro-n-octanoic Acid	.50000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180618-02	Pipette	I0793912B
180618-03	Pipette	I0793912B
180618-04	Pipette	I0793912B
180618-06	Pipette	I0793912B
180618-07	Pipette	I0793912B

Solution Prepared By: Schultz, Stephanie	Date Prepared:	6/18/2018	Expiration Date:	6/18/2019
Solution Volume 25 mL X 1 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107		

Comment: Approved By: Thorn, Jonathan Date: 7/3/2018 8:10:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: JY23

Description: PFAS - DoD Low ICAL Stock

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180705-02	PFOA - DOD	Neat	~1.00000 0	06/19/23	---	---	500 uL	1	100	~0.0050

Solution Prepared By: Schultz, Stephanie	Date Prepared: 7/16/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 4 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Balance ID: _____

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan Date: 8/29/2018 10:10:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: JY23

Description: PFAS - DoD Low ICAL Stock

Stock Id: 180705-02

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	500	1.01	1	100.000	1	100	0.00505
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	500	1.01	1	100.000	1	100	0.00505
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	500	1.00	1	100.000	1	100	0.00500
(Na) Perfluoro-1-decanesulfonate	500	1.01	1	100.000	1	100	0.00505
(NA) Perfluoro-1-heptanesulfonate	500	1.00	1	100.000	1	100	0.00500
(Na) Perfluoro-1-nonanesulfonate	500	1.01	1	100.000	1	100	0.00505
N-ethylperfluoro-octanesulfonamidoacetic acid	500	1.00	1	100.000	1	100	0.00500
N-methylperfluoro-1-octanesulfonamidoacetic acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-1-butanesulfonate	500	1.01	1	100.000	1	100	0.00505
Perfluoro-1-hexamersulfonate	500	1.01	1	100.000	1	100	0.00505
Perfluoro-1-octanesulfonamide	500	1.00	1	100.000	1	100	0.00500
Perfluoro-1-octanesulfonate	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-butanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-decanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-dodecanoic acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-heptanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-hexanoic acid	500	1.01	1	100.000	1	100	0.00505
Perfluoro-n-octanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluorononanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-pentanoic acid	500	1.01	1	100.000	1	100	0.00505
Perfluoro-n-tetradecanoic acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-tridecanoic acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-undecanoic acid	500	1.00	1	100.000	1	100	0.00500
Sodium perfluoro-1-pentanesulfonate	500	1.00	1	100.000	1	100	0.00500

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00505
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00505
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00500
(Na) Perfluoro-1-decanesulfonate	.00505
(NA) Perfluoro-1-heptanesulfonate	.00500
(Na) Perfluoro-1-nonanesulfonate	.00505
N-ethylperfluoro-octanesulfonamidoacetic acid	.00500
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00500
Perfluoro-1-butanesulfonate	.00505

Solution Prepared By: Schultz, Stephanie	Date Prepared: 7/16/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 4 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan Date: 8/29/2018 10:10:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: JY23

Description: PFAS - DoD Low ICAL Stock

Perfluoro-1-hexanesulfonate	.00505
Perfluoro-1-octanesulfonamide	.00500
Perfluoro-1-octanesulfonate	.00500
Perfluoro-n-butanoic Acid	.00500
Perfluoro-n-decanoic Acid	.00500
Perfluoro-n-dodecanoic acid	.00500
Perfluoro-n-heptanoic Acid	.00500
Perfluoro-n-hexanoic acid	.00505
Perfluoro-n-octanoic Acid	.00500
Perfluorononanoic Acid	.00500
Perfluoro-n-pentanoic acid	.00505
Perfluoro-n-tetradecanoic acid	.00500
Perfluoro-n-tridecanoic acid	.00500
Perfluoro-n-undecanoic acid	.00500
Sodium perfluoro-1-pentanesulfonate	.00500

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180705-02	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie	Date Prepared:	7/16/2018	Expiration Date:	7/16/2019
Solution Volume 40 mL X 4 Vials	Refrigerator/Freezer No:	LC Laboratory	Refrigerator - R0107	

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan Date: 8/29/2018 10:10:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: JY25

Description: PFAS - DoD Internal Standard Stock Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180726-04	Mass-labelled PFAS injection standards	Neat	~2.00000 0	05/02/22	---	---	625 uL	1	25	~0.0500

Solution Prepared By: Schultz, Stephanie	Date Prepared: 7/16/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Thorn, Jonathan

Date: 8/29/2018 10:09:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: JY25

Description: PFAS - DoD Internal Standard Stock Solution

Stock Id: 180726-04

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity 100.000	Conv. Factor 1	Final Vol mL 25	Concentration (ug/mL) 0.05000
13C2-PFDA	625	2.00	1	100.000	1	25	0.05000
13C2-PFOA	625	2.00	1	100.000	1	25	0.05000
13C3-PFBA	625	2.00	1	100.000	1	25	0.05000
13C4-PFOS	625	1.91	1	100.000	1	25	0.04785

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-PFDA	.05000
13C2-PFOA	.05000
13C3-PFBA	.05000
13C4-PFOS	.04785

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180726-04	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie	Date Prepared: 7/16/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Thorn, Jonathan Date: 8/29/2018 10:09:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: JY27

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180726-05	Mass-labelled PFAS Extraction Standard Solution	Neat	~1.000000	02/07/23	---	---	1000 uL	1	20	~0.0500

Solution Prepared By: Schultz, Stephanie

Date Prepared: 7/16/2018

Expiration Date:

7/16/2019

Solution Volume 40 mL X 1 Vials

Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Schumitz, Denise

Date: 8/8/2018 9:17:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: JY27

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

Stock Id: 180726-05

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	1000	0.94	1	100.000	1	20	0.04675
13C2-6:2FTS	1000	0.95	1	100.000	1	20	0.04745
13C2-8:2FTS	1000	0.96	1	100.000	1	20	0.04790
13C2-PFDoA	1000	1.00	1	100.000	1	20	0.05000
13C2-PFTeDA	1000	1.00	1	100.000	1	20	0.05000
13C3-PFBS	1000	0.93	1	100.000	1	20	0.04645
13C3-PFHxS	1000	0.95	1	100.000	1	20	0.04730
13C4-PFBA	1000	1.00	1	100.000	1	20	0.05000
13C4-PFHxA	1000	1.00	1	100.000	1	20	0.05000
13C5-PFPeA	1000	1.00	1	100.000	1	20	0.05000
13C6-PFDA	1000	1.00	1	100.000	1	20	0.05000
13C7-PFUnA	1000	1.00	1	100.000	1	20	0.05000
13C8-FOSA	1000	1.00	1	100.000	1	20	0.05000
13C8-PFOA	1000	1.00	1	100.000	1	20	0.05000
13C8-PFOS	1000	0.96	1	100.000	1	20	0.04785
13C9-PFNA	1000	1.00	1	100.000	1	20	0.05000
d3-MeFOSAA	1000	1.00	1	100.000	1	20	0.05000
d5-EtFOSAA	1000	1.00	1	100.000	1	20	0.05000

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.04675
13C2-6:2FTS	.04745
13C2-8:2FTS	.04790
13C2-PFDoA	.05000
13C2-PFTeDA	.05000
13C3-PFBS	.04645
13C3-PFHxS	.04730
13C4-PFBA	.05000
13C4-PFHxA	.05000
13C5-PFPeA	.05000
13C6-PFDA	.05000
13C7-PFUnA	.05000
13C8-FOSA	.05000

Solution Prepared By: Schultz, Stephanie

Date Prepared:

7/16/2018

Expiration Date:

7/16/2019

Solution Volume 40 mL X 1 Vials Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Schumitz, Denise Date: 8/8/2018 9:17:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: JY27

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

13C8-PFOA	.05000
13C8-PFOS	.04785
13C9-PFNA	.05000
d3-MeFOSAA	.05000
d5-EtFOSAA	.05000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180726-05	Pipette	B820865811

Solution Prepared By:	Schultz, Stephanie	Date Prepared:	7/16/2018	Expiration Date:	7/16/2019
Solution Volume	40 mL X 1 Vials	Refrigerator/Freezer No:	LC Laboratory	Refrigerator - R0107	

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Schumitz, Denise Date: 8/8/2018 9:17:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB71

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180726-05	Mass-labelled PFAS Extraction Standard Solution	Neat	~1.00000 0	02/07/23	---	---	1000 uL	1	20	~0.0500

Solution Prepared By	Schultz, Stephanie	Date Prepared:	10/1/2018	Expiration Date	10/1/2019
Solution Volume	40 mL X 1 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise Date: 10/4/2018 2:44:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB71

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

Stock Id: 180726-05

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	1000	0.94	1	100.000	1	20	0.04675
13C2-6:2FTS	1000	0.95	1	100.000	1	20	0.04745
13C2-8:2FTS	1000	0.96	1	100.000	1	20	0.04790
13C2-PFDoA	1000	1.00	1	100.000	1	20	0.05000
13C2-PFTeDA	1000	1.00	1	100.000	1	20	0.05000
13C3-PFBS	1000	0.93	1	100.000	1	20	0.04645
13C3-PFHxS	1000	0.95	1	100.000	1	20	0.04730
13C4-PFBA	1000	1.00	1	100.000	1	20	0.05000
13C4-PFHpA	1000	1.00	1	100.000	1	20	0.05000
13C5-PFHxA	1000	1.00	1	100.000	1	20	0.05000
13C5-PFPeA	1000	1.00	1	100.000	1	20	0.05000
13C6-PFDA	1000	1.00	1	100.000	1	20	0.05000
13C7-PFUnA	1000	1.00	1	100.000	1	20	0.05000
13C8-FOSA	1000	1.00	1	100.000	1	20	0.05000
13C8-PFOA	1000	1.00	1	100.000	1	20	0.05000
13C8-PFOS	1000	0.96	1	100.000	1	20	0.04785
13C9-PFNA	1000	1.00	1	100.000	1	20	0.05000
d3-MeFOSAA	1000	1.00	1	100.000	1	20	0.05000
d5-EtFOSAA	1000	1.00	1	100.000	1	20	0.05000

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.04675
13C2-6:2FTS	.04745
13C2-8:2FTS	.04790
13C2-PFDoA	.05000
13C2-PFTeDA	.05000
13C3-PFBS	.04645
13C3-PFHxS	.04730
13C4-PFBA	.05000
13C4-PFHpA	.05000
13C5-PFHxA	.05000
13C5-PFPeA	.05000
13C6-PFDA	.05000
13C7-PFUnA	.05000
13C8-FOSA	.05000

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 10/1/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB71

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

13C8-PFOA	.05000
13C8-PFOS	.04785
13C9-PFNA	.05000
d3-MeFOSAA	.05000
d5-EtFOSAA	.05000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180726-05	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 10/1/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB72

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	2500 uL	1	25	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	10/1/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 96/4 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB72

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)

Stock Id: KB71	Chemical Name	Stock Amount	Initial Conc.	Density	Purity	Conv. Factor	Final Vol	Concentration
		uL	(ug/mL)	(g/mL)			mL	(ug/mL)
13C2-4:2FTS		2500	0.05	---	---	1	25	0.00468
13C2-6:2FTS		2500	0.05	---	---	1	25	0.00475
13C2-8:2FTS		2500	0.05	---	---	1	25	0.00479
13C2-PFDoA		2500	0.05	---	---	1	25	0.00500
13C2-PFTeDA		2500	0.05	---	---	1	25	0.00500
13C3-PFBS		2500	0.05	---	---	1	25	0.00465
13C3-PFHxS		2500	0.05	---	---	1	25	0.00473
13C4-PFBA		2500	0.05	---	---	1	25	0.00500
13C4-PFHpA		2500	0.05	---	---	1	25	0.00500
13C5-PFHxA		2500	0.05	---	---	1	25	0.00500
13C5-PFPeA		2500	0.05	---	---	1	25	0.00500
13C6-PFDA		2500	0.05	---	---	1	25	0.00500
13C7-PFUnA		2500	0.05	---	---	1	25	0.00500
13C8-FOSA		2500	0.05	---	---	1	25	0.00500
13C8-PFOA		2500	0.05	---	---	1	25	0.00500
13C8-PFOS		2500	0.05	---	---	1	25	0.00478
13C9-PFNA		2500	0.05	---	---	1	25	0.00500
d3-MeFOSAA		2500	0.05	---	---	1	25	0.00500
d5-EtFOSAA		2500	0.05	---	---	1	25	0.00500

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.00468
13C2-6:2FTS	.00475
13C2-8:2FTS	.00479
13C2-PFDoA	.00500
13C2-PFTeDA	.00500
13C3-PFBS	.00465
13C3-PFHxS	.00473
13C4-PFBA	.00500
13C4-PFHpA	.00500
13C5-PFHxA	.00500
13C5-PFPeA	.00500
13C6-PFDA	.00500
13C7-PFUnA	.00500
13C8-FOSA	.00500

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 10/1/2019
Solution Volume 40 mL X 1 Vials Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Comment: 96/4 Methanol/mill-i-q water

Approved By: Schumitz, Denise Date: 10/4/2018 2:44:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB72

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)

13C8-PFOA	.00500
13C8-PFOS	.00478
13C9-PFNA	.00500
d3-MeFOSAA	.00500

Syringes/Pipettes:

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 10/1/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 96/4 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB73

Description: PFAS - DoD Calibration L1

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY23	PFAS - DoD Low ICAL Stock	Solution	~0	07/16/19	---	---	200 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB73

Description: PFAS - DoD Calibration L1

Stock Id: JY23

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	200	0.01	---	---	1	10	0.00010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	200	0.01	---	---	1	10	0.00010
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	200	0.01	---	---	1	10	0.00010
(Na) Perfluoro-1-decanesulfonate	200	0.01	---	---	1	10	0.00010
(NA) Perfluoro-1-heptanesulfonate	200	0.01	---	---	1	10	0.00010
(Na) Perfluoro-1-nananesulfonate	200	0.01	---	---	1	10	0.00010
N-ethylperfluoro-octanesulfonamidoacetic acid	200	0.01	---	---	1	10	0.00010
N-methylperfluoro-1-octanesulfonamidoacetic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-1-butanesulfonate	200	0.01	---	---	1	10	0.00010
Perfluoro-1-hexanesulfonate	200	0.01	---	---	1	10	0.00010
Perfluoro-1-octanesulfonamide	200	0.01	---	---	1	10	0.00010
Perfluoro-1-octanesulfonate	200	0.01	---	---	1	10	0.00010
Perfluoro-n-butanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-decanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-dodecanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-heptanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-hexanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-octanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluorononanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-pentanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-tetradecanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-tridecanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-undecanoic acid	200	0.01	---	---	1	10	0.00010
Sodium perfluoro-1-pentanesulfonate	200	0.01	---	---	1	10	0.00010

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie

Date Prepared: 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 mL X 1 Vials **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB73

Description: PFAS - DoD Calibration L1

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00010
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	.00010
(Na) Perfluoro-1-decanesulfonate	.00010
(NA) Perfluoro-1-heptanesulfonate	.00010
(Na) Perfluoro-1-nananesulfonate	.00010
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHxA	.00025

Solution Prepared By:	Schultz, Stephanie	Date Prepared:	10/1/2018	Expiration Date:	7/16/2019
Solution Volume	40 mL X 1 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107		

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise Date: 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB73

Description: PFAS - DoD Calibration L1

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00010
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00010
Perfluoro-1-butanesulfonate	.00010
Perfluoro-1-hexanesulfonate	.00010
Perfluoro-1-octanesulfonamide	.00010
Perfluoro-1-octanesulfonate	.00010
Perfluoro-n-butanoic Acid	.00010
Perfluoro-n-decanoic Acid	.00010
Perfluoro-n-dodecanoic acid	.00010
Perfluoro-n-heptanoic Acid	.00010
Perfluoro-n-hexanoic acid	.00010
Perfluoro-n-octanoic Acid	.00010
Perfluorononanoic Acid	.00010
Perfluoro-n-pentanoic acid	.00010
Perfluoro-n-tetradecanoic acid	.00010
Perfluoro-n-tridecanoic acid	.00010
Perfluoro-n-undecanoic acid	.00010
Sodium perfluoro-1-pentanesulfonate	.00010

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY23	Pipette	B814657482
JY25	Pipette	B814659662
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB74

Description: PFAS - DoD Calibration L2

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY23	PFAS - DoD Low ICAL Stock	Solution	~0	07/16/19	---	---	500 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB74

Description: PFAS - DoD Calibration L2

Stock Id: JY23

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	500	0.01	---	---	1	10	0.00025
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	500	0.01	---	---	1	10	0.00025
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	500	0.01	---	---	1	10	0.00025
(Na) Perfluoro-1-decanesulfonate	500	0.01	---	---	1	10	0.00025
(NA) Perfluoro-1-heptanesulfonate	500	0.01	---	---	1	10	0.00025
(Na) Perfluoro-1-nananesulfonate	500	0.01	---	---	1	10	0.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	500	0.01	---	---	1	10	0.00025
N-methylperfluoro-1-octanesulfonamidoacetic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-1-butanesulfonate	500	0.01	---	---	1	10	0.00025
Perfluoro-1-hexanesulfonate	500	0.01	---	---	1	10	0.00025
Perfluoro-1-octanesulfonamide	500	0.01	---	---	1	10	0.00025
Perfluoro-1-octanesulfonate	500	0.01	---	---	1	10	0.00025
Perfluoro-n-butanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-decanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-dodecanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-heptanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-hexanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-octanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluorononanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-pentanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-tetradecanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-tridecanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-undecanoic acid	500	0.01	---	---	1	10	0.00025
Sodium perfluoro-1-pentanesulfonate	500	0.01	---	---	1	10	0.00025

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie

Date Prepared: 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 mL X 1 Vials **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB74

Description: PFAS - DoD Calibration L2

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00025
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00025
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	.00025
(Na) Perfluoro-1-decanesulfonate	.00025
(NA) Perfluoro-1-heptanesulfonate	.00025
(Na) Perfluoro-1-nananesulfonate	.00025
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHxA	.00025

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB74

Description: PFAS - DoD Calibration L2

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00025
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00025
Perfluoro-1-butanesulfonate	.00025
Perfluoro-1-hexanesulfonate	.00025
Perfluoro-1-octanesulfonamide	.00025
Perfluoro-1-octanesulfonate	.00025
Perfluoro-n-butanoic Acid	.00025
Perfluoro-n-decanoic Acid	.00025
Perfluoro-n-dodecanoic acid	.00025
Perfluoro-n-heptanoic Acid	.00025
Perfluoro-n-hexanoic acid	.00025
Perfluoro-n-octanoic Acid	.00025
Perfluorononanoic Acid	.00025
Perfluoro-n-pentanoic acid	.00025
Perfluoro-n-tetradecanoic acid	.00025
Perfluoro-n-tridecanoic acid	.00025
Perfluoro-n-undecanoic acid	.00025
Sodium perfluoro-1-pentanesulfonate	.00025

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY23	Pipette	B820865811
JY25	Pipette	B814659662
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB75

Description: PFAS - DoD Calibration L3

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	100 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB75

Description: PFAS - DoD Calibration L3

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB70

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	100	0.05	---	---	1	10	0.00051
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	100	0.05	---	---	1	10	0.00051
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	100	0.05	---	---	1	10	0.00050
(Na) Perfluoro-1-decanesulfonate	100	0.05	---	---	1	10	0.00051
(NA) Perfluoro-1-heptanesulfonate	100	0.05	---	---	1	10	0.00050
(Na) Perfluoro-1-nananesulfonate	100	0.05	---	---	1	10	0.00051
N-ethylperfluoro-octanesulfonamidoacetic acid	100	0.05	---	---	1	10	0.00050
N-methylperfluoro-1-octanesulfonamidoacetic acid	100	0.05	---	---	1	10	0.00050
Perfluoro-1-butanesulfonate	100	0.05	---	---	1	10	0.00051
Perfluoro-1-hexanesulfonate	100	0.05	---	---	1	10	0.00051
Perfluoro-1-octanesulfonamide	100	0.05	---	---	1	10	0.00050
Perfluoro-1-octanesulfonate	100	0.05	---	---	1	10	0.00050
Perfluoro-n-butanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-decanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-dodecanoic acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-heptanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-hexanoic acid	100	0.05	---	---	1	10	0.00051
Perfluoro-n-octanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluorononanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-pentanoic acid	100	0.05	---	---	1	10	0.00051
Perfluoro-n-tetradecanoic acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-tridecanoic acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-undecanoic acid	100	0.05	---	---	1	10	0.00050
Sodium perfluoro-1-pentanesulfonate	100	0.05	---	---	1	10	0.00050

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie

Date Prepared: 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 mL X 1 Vials **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB75

Description: PFAS - DoD Calibration L3

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00051
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00051
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	.00050
(Na) Perfluoro-1-decanesulfonate	.00051
(NA) Perfluoro-1-heptanesulfonate	.00050
(Na) Perfluoro-1-nananesulfonate	.00051
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHxA	.00025

Solution Prepared By:	Schultz, Stephanie	Date Prepared:	10/1/2018	Expiration Date:	7/16/2019
Solution Volume	40 mL X 1 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107		

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise Date: 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB75

Description: PFAS - DoD Calibration L3

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00050
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00050
Perfluoro-1-butanesulfonate	.00051
Perfluoro-1-hexanesulfonate	.00051
Perfluoro-1-octanesulfonamide	.00050
Perfluoro-1-octanesulfonate	.00050
Perfluoro-n-butanoic Acid	.00050
Perfluoro-n-decanoic Acid	.00050
Perfluoro-n-dodecanoic acid	.00050
Perfluoro-n-heptanoic Acid	.00050
Perfluoro-n-hexanoic acid	.00051
Perfluoro-n-octanoic Acid	.00050
Perfluorononanoic Acid	.00050
Perfluoro-n-pentanoic acid	.00051
Perfluoro-n-tetradecanoic acid	.00050
Perfluoro-n-tridecanoic acid	.00050
Perfluoro-n-undecanoic acid	.00050
Sodium perfluoro-1-pentanesulfonate	.00050

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB70	Pipette	B814659662
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB76

Description: PFAS - DoD Calibration L4

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	1000 uL	1	50	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	250 uL	1	50	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	250 uL	1	50	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	7/16/2019
Solution Volume 40 mL X 2 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB76

Description: PFAS - DoD Calibration L4

Stock Id: JY25

Chemical Name	Stock Amount	Initial Conc.	Density	Purity	Conv. Factor	Final Vol	Concentration
	uL	(ug/mL)	(g/mL)			mL	(ug/mL)
13C2-PFDA	250	0.05	---	---	1	50	0.00025
13C2-PFOA	250	0.05	---	---	1	50	0.00025
13C3-PFBA	250	0.05	---	---	1	50	0.00025
13C4-PFOS	250	0.05	---	---	1	50	0.00024

Stock Id: KB70

Chemical Name	Stock Amount	Initial Conc.	Density	Purity	Conv. Factor	Final Vol	Concentration
	uL	(ug/mL)	(g/mL)			mL	(ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	0.05	---	---	1	50	0.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	0.05	---	---	1	50	0.00101
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	1000	0.05	---	---	1	50	0.00100
(Na) Perfluoro-1-decanesulfonate	1000	0.05	---	---	1	50	0.00101
(NA) Perfluoro-1-heptanesulfonate	1000	0.05	---	---	1	50	0.00100
(Na) Perfluoro-1-nananesulfonate	1000	0.05	---	---	1	50	0.00101
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	0.05	---	---	1	50	0.00100
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-1-butanesulfonate	1000	0.05	---	---	1	50	0.00101
Perfluoro-1-hexanesulfonate	1000	0.05	---	---	1	50	0.00101
Perfluoro-1-octanesulfonamide	1000	0.05	---	---	1	50	0.00100
Perfluoro-1-octanesulfonate	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-butanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-decanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-dodecanoic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-heptanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-hexanoic acid	1000	0.05	---	---	1	50	0.00101
Perfluoro-n-octanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluorononanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-pentanoic acid	1000	0.05	---	---	1	50	0.00101
Perfluoro-n-tetradecanoic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-tridecanoic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-undecanoic acid	1000	0.05	---	---	1	50	0.00100
Sodium perfluoro-1-pentanesulfonate	1000	0.05	---	---	1	50	0.00100

Stock Id: KB71

Chemical Name	Stock Amount	Initial Conc.	Density	Purity	Conv. Factor	Final Vol	Concentration
	uL	(ug/mL)	(g/mL)			mL	(ug/mL)
13C2-4:2FTS	250	0.05	---	---	1	50	0.00023

Solution Prepared By: Schultz, Stephanie

Date Prepared: 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 mL X 2 Vials **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB76

Description: PFAS - DoD Calibration L4

13C2-6:2FTS	250	0.05	---	---	1	50	0.00024
13C2-8:2FTS	250	0.05	---	---	1	50	0.00024
13C2-PFDoA	250	0.05	---	---	1	50	0.00025
13C2-PFTeDA	250	0.05	---	---	1	50	0.00025
13C3-PFBS	250	0.05	---	---	1	50	0.00023
13C3-PFHxS	250	0.05	---	---	1	50	0.00024
13C4-PFBA	250	0.05	---	---	1	50	0.00025
13C4-PFHxA	250	0.05	---	---	1	50	0.00025
13C5-PFHxA	250	0.05	---	---	1	50	0.00025
13C5-PFPeA	250	0.05	---	---	1	50	0.00025
13C6-PFDA	250	0.05	---	---	1	50	0.00025
13C7-PFUnA	250	0.05	---	---	1	50	0.00025
13C8-FOSA	250	0.05	---	---	1	50	0.00025
13C8-PFOA	250	0.05	---	---	1	50	0.00025
13C8-PFOS	250	0.05	---	---	1	50	0.00024
13C9-PFNA	250	0.05	---	---	1	50	0.00025
d3-MeFOSAA	250	0.05	---	---	1	50	0.00025
d5-EtFOSAA	250	0.05	---	---	1	50	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00101
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	.00100
(Na) Perfluoro-1-decanesulfonate	.00101
(NA) Perfluoro-1-heptanesulfonate	.00100
(Na) Perfluoro-1-nananesulfonate	.00101
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHxA	.00025

Solution Prepared By:	Schultz, Stephanie	Date Prepared:	10/1/2018	Expiration Date:	7/16/2019
Solution Volume	40 mL X 2 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107		

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise Date: 10/9/2018 9:40:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB76

Description: PFAS - DoD Calibration L4

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00100
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00100
Perfluoro-1-butanesulfonate	.00101
Perfluoro-1-hexanesulfonate	.00101
Perfluoro-1-octanesulfonamide	.00100
Perfluoro-1-octanesulfonate	.00100
Perfluoro-n-butanoic Acid	.00100
Perfluoro-n-decanoic Acid	.00100
Perfluoro-n-dodecanoic acid	.00100
Perfluoro-n-heptanoic Acid	.00100
Perfluoro-n-hexanoic acid	.00101
Perfluoro-n-octanoic Acid	.00100
Perfluorononanoic Acid	.00100
Perfluoro-n-pentanoic acid	.00101
Perfluoro-n-tetradecanoic acid	.00100
Perfluoro-n-tridecanoic acid	.00100
Perfluoro-n-undecanoic acid	.00100
Sodium perfluoro-1-pentanesulfonate	.00100

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814657482
KB70	Pipette	B820865811
KB71	Pipette	B814657482

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 2 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB77

Description: PFAS - DoD Calibration L5

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	2500 uL	1	50	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	250 uL	1	50	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	250 uL	1	50	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	7/16/2019
Solution Volume 40 mL X 2 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB77

Description: PFAS - DoD Calibration L5

Stock Id: JY25

Chemical Name	Stock Amount	Initial Conc.	Density	Purity	Conv. Factor	Final Vol	Concentration
	uL	(ug/mL)	(g/mL)			mL	(ug/mL)
13C2-PFDA	250	0.05	---	---	1	50	0.00025
13C2-PFOA	250	0.05	---	---	1	50	0.00025
13C3-PFBA	250	0.05	---	---	1	50	0.00025
13C4-PFOS	250	0.05	---	---	1	50	0.00024

Stock Id: KB70

Chemical Name	Stock Amount	Initial Conc.	Density	Purity	Conv. Factor	Final Vol	Concentration
	uL	(ug/mL)	(g/mL)			mL	(ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	2500	0.05	---	---	1	50	0.00253
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	2500	0.05	---	---	1	50	0.00253
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	2500	0.05	---	---	1	50	0.00250
(Na) Perfluoro-1-decanesulfonate	2500	0.05	---	---	1	50	0.00253
(NA) Perfluoro-1-heptanesulfonate	2500	0.05	---	---	1	50	0.00250
(Na) Perfluoro-1-nananesulfonate	2500	0.05	---	---	1	50	0.00253
N-ethylperfluoro-octanesulfonamidoacetic acid	2500	0.05	---	---	1	50	0.00250
N-methylperfluoro-1-octanesulfonamidoacetic acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-1-butanesulfonate	2500	0.05	---	---	1	50	0.00253
Perfluoro-1-hexanesulfonate	2500	0.05	---	---	1	50	0.00253
Perfluoro-1-octanesulfonamide	2500	0.05	---	---	1	50	0.00250
Perfluoro-1-octanesulfonate	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-butanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-decanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-dodecanoic acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-heptanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-hexanoic acid	2500	0.05	---	---	1	50	0.00253
Perfluoro-n-octanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluorononanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-pentanoic acid	2500	0.05	---	---	1	50	0.00253
Perfluoro-n-tetradecanoic acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-tridecanoic acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-undecanoic acid	2500	0.05	---	---	1	50	0.00250
Sodium perfluoro-1-pentanesulfonate	2500	0.05	---	---	1	50	0.00250

Stock Id: KB71

Chemical Name	Stock Amount	Initial Conc.	Density	Purity	Conv. Factor	Final Vol	Concentration
	uL	(ug/mL)	(g/mL)			mL	(ug/mL)
13C2-4:2FTS	250	0.05	---	---	1	50	0.00023

Solution Prepared By: Schultz, Stephanie

Date Prepared: 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 mL X 2 Vials **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB77

Description: PFAS - DoD Calibration L5

13C2-6:2FTS	250	0.05	---	---	1	50	0.00024
13C2-8:2FTS	250	0.05	---	---	1	50	0.00024
13C2-PFDoA	250	0.05	---	---	1	50	0.00025
13C2-PFTeDA	250	0.05	---	---	1	50	0.00025
13C3-PFBS	250	0.05	---	---	1	50	0.00023
13C3-PFHxS	250	0.05	---	---	1	50	0.00024
13C4-PFBA	250	0.05	---	---	1	50	0.00025
13C4-PFHxA	250	0.05	---	---	1	50	0.00025
13C5-PFHxA	250	0.05	---	---	1	50	0.00025
13C5-PFPeA	250	0.05	---	---	1	50	0.00025
13C6-PFDA	250	0.05	---	---	1	50	0.00025
13C7-PFUnA	250	0.05	---	---	1	50	0.00025
13C8-FOSA	250	0.05	---	---	1	50	0.00025
13C8-PFOA	250	0.05	---	---	1	50	0.00025
13C8-PFOS	250	0.05	---	---	1	50	0.00024
13C9-PFNA	250	0.05	---	---	1	50	0.00025
d3-MeFOSAA	250	0.05	---	---	1	50	0.00025
d5-EtFOSAA	250	0.05	---	---	1	50	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00253
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00253
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	.00250
(Na) Perfluoro-1-decanesulfonate	.00253
(NA) Perfluoro-1-heptanesulfonate	.00250
(Na) Perfluoro-1-nananesulfonate	.00253
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHxA	.00025

Solution Prepared By:	Schultz, Stephanie	Date Prepared:	10/1/2018	Expiration Date:	7/16/2019
Solution Volume	40 mL X 2 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107		

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise Date: 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB77

Description: PFAS - DoD Calibration L5

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00250
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00250
Perfluoro-1-butanesulfonate	.00253
Perfluoro-1-hexanesulfonate	.00253
Perfluoro-1-octanesulfonamide	.00250
Perfluoro-1-octanesulfonate	.00250
Perfluoro-n-butanoic Acid	.00250
Perfluoro-n-decanoic Acid	.00250
Perfluoro-n-dodecanoic acid	.00250
Perfluoro-n-heptanoic Acid	.00250
Perfluoro-n-hexanoic acid	.00253
Perfluoro-n-octanoic Acid	.00250
Perfluorononanoic Acid	.00250
Perfluoro-n-pentanoic acid	.00253
Perfluoro-n-tetradecanoic acid	.00250
Perfluoro-n-tridecanoic acid	.00250
Perfluoro-n-undecanoic acid	.00250
Sodium perfluoro-1-pentanesulfonate	.00250

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814657482
KB70	Pipette	OU16914
KB71	Pipette	B814657482

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 2 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB78

Description: PFAS - DoD Calibraiton L6

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	2000 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB78

Description: PFAS - DoD Calibratlon L6

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB70

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	2000	0.05	---	---	1	10	0.01010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	2000	0.05	---	---	1	10	0.01010
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	2000	0.05	---	---	1	10	0.01000
(Na) Perfluoro-1-decanesulfonate	2000	0.05	---	---	1	10	0.01010
(NA) Perfluoro-1-heptanesulfonate	2000	0.05	---	---	1	10	0.01000
(Na) Perfluoro-1-nananesulfonate	2000	0.05	---	---	1	10	0.01010
N-ethylperfluoro-octanesulfonamidoacetic acid	2000	0.05	---	---	1	10	0.01000
N-methylperfluoro-1-octanesulfonamidoacetic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-1-butanesulfonate	2000	0.05	---	---	1	10	0.01010
Perfluoro-1-hexanesulfonate	2000	0.05	---	---	1	10	0.01010
Perfluoro-1-octanesulfonamide	2000	0.05	---	---	1	10	0.01000
Perfluoro-1-octanesulfonate	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-butanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-decanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-dodecanoic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-heptanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-hexanoic acid	2000	0.05	---	---	1	10	0.01010
Perfluoro-n-octanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluorononanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-pentanoic acid	2000	0.05	---	---	1	10	0.01010
Perfluoro-n-tetradecanoic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-tridecanoic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-undecanoic acid	2000	0.05	---	---	1	10	0.01000
Sodium perfluoro-1-pentanesulfonate	2000	0.05	---	---	1	10	0.01000

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie

Date Prepared: 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 mL X 1 Vials **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB78

Description: PFAS - DoD Calibratlon L6

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.01010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.01010
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	.01000
(Na) Perfluoro-1-decanesulfonate	.01010
(NA) Perfluoro-1-heptanesulfonate	.01000
(Na) Perfluoro-1-nananesulfonate	.01010
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHxA	.00025

Solution Prepared By:	Schultz, Stephanie	Date Prepared:	10/1/2018	Expiration Date:	7/16/2019
Solution Volume	40 mL X 1 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107		

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise Date: 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB78

Description: PFAS - DoD Calibraiton L6

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.01000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.01000
Perfluoro-1-butanesulfonate	.01010
Perfluoro-1-hexanesulfonate	.01010
Perfluoro-1-octanesulfonamide	.01000
Perfluoro-1-octanesulfonate	.01000
Perfluoro-n-butanoic Acid	.01000
Perfluoro-n-decanoic Acid	.01000
Perfluoro-n-dodecanoic acid	.01000
Perfluoro-n-heptanoic Acid	.01000
Perfluoro-n-hexanoic acid	.01010
Perfluoro-n-octanoic Acid	.01000
Perfluorononanoic Acid	.01000
Perfluoro-n-pentanoic acid	.01010
Perfluoro-n-tetradecanoic acid	.01000
Perfluoro-n-tridecanoic acid	.01000
Perfluoro-n-undecanoic acid	.01000
Sodium perfluoro-1-pentanesulfonate	.01000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB70	Pipette	OU16914
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB79

Description: PFAS - DoD Calibration L7

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	4000 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB79

Description: PFAS - DoD Calibration L7

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB70

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	4000	0.05	---	---	1	10	0.02020
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	4000	0.05	---	---	1	10	0.02020
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	4000	0.05	---	---	1	10	0.02000
(Na) Perfluoro-1-decanesulfonate	4000	0.05	---	---	1	10	0.02020
(NA) Perfluoro-1-heptanesulfonate	4000	0.05	---	---	1	10	0.02000
(Na) Perfluoro-1-nananesulfonate	4000	0.05	---	---	1	10	0.02020
N-ethylperfluoro-octanesulfonamidoacetic acid	4000	0.05	---	---	1	10	0.02000
N-methylperfluoro-1-octanesulfonamidoacetic acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-1-butanesulfonate	4000	0.05	---	---	1	10	0.02020
Perfluoro-1-hexanesulfonate	4000	0.05	---	---	1	10	0.02020
Perfluoro-1-octanesulfonamide	4000	0.05	---	---	1	10	0.02000
Perfluoro-1-octanesulfonate	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-butanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-decanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-dodecanoic acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-heptanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-hexanoic acid	4000	0.05	---	---	1	10	0.02020
Perfluoro-n-octanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluorononanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-pentanoic acid	4000	0.05	---	---	1	10	0.02020
Perfluoro-n-tetradecanoic acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-tridecanoic acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-undecanoic acid	4000	0.05	---	---	1	10	0.02000
Sodium perfluoro-1-pentanesulfonate	4000	0.05	---	---	1	10	0.02000

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie

Date Prepared: 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 mL X 1 Vials **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB79

Description: PFAS - DoD Calibration L7

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHpA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.02020
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.02020
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	.02000
(Na) Perfluoro-1-decanesulfonate	.02020
(NA) Perfluoro-1-heptanesulfonate	.02000
(Na) Perfluoro-1-nananesulfonate	.02020
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB79

Description: PFAS - DoD Calibration L7

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.02000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.02000
Perfluoro-1-butanesulfonate	.02020
Perfluoro-1-hexanesulfonate	.02020
Perfluoro-1-octanesulfonamide	.02000
Perfluoro-1-octanesulfonate	.02000
Perfluoro-n-butanoic Acid	.02000
Perfluoro-n-decanoic Acid	.02000
Perfluoro-n-dodecanoic acid	.02000
Perfluoro-n-heptanoic Acid	.02000
Perfluoro-n-hexanoic acid	.02020
Perfluoro-n-octanoic Acid	.02000
Perfluorononanoic Acid	.02000
Perfluoro-n-pentanoic acid	.02020
Perfluoro-n-tetradecanoic acid	.02000
Perfluoro-n-tridecanoic acid	.02000
Perfluoro-n-undecanoic acid	.02000
Sodium perfluoro-1-pentanesulfonate	.02000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB70	Pipette	OU16914
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB80

Description: PFAS - DoD Instrument Blank

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB80

Description: PFAS - DoD Instrument Blank

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023
13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHpA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025

Solution Prepared By:	Schultz, Stephanie	Date Prepared:	10/1/2018	Expiration Date:	7/16/2019
Solution Volume	40 mL X 1 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107		

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise Date: 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB80

Description: PFAS - DoD Instrument Blank

13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHxA	.00025
13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie

Date Prepared:

10/1/2018

Expiration Date: 7/16/2019

Solution Volume 40 mL X 1 Vials **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB81

Description: PFAS - DoD ICC

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB82	PFAS - DoD Second Source LCS/MS Solution	Solution	~0	10/01/19	---	---	200 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date	7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB81

Description: PFAS - DoD ICC

Stock Id: JY25

Chemical Name	Stock uL	Amount Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB71

Chemical Name	Stock uL	Amount Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023
13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUuA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Stock Id: KB82

Chemical Name	Stock uL	Amount Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	200	0.05	---	---	1	10	0.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	200	0.05	---	---	1	10	0.00100
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	200	0.05	---	---	1	10	0.00100
(Na) Perfluoro-1-decanesulfonate	200	0.05	---	---	1	10	0.00101
(Na) Perfluoro-1-heptanesulfonate	200	0.05	---	---	1	10	0.00100
(Na) Perfluoro-1-nonanesulfonate	200	0.05	---	---	1	10	0.00101

Solution Prepared By: Schultz, Stephanie

Date Prepared: 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 mL X 1 Vials **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB81

Description: PFAS - DoD ICC

N-ethylperfluoro-octanesulfonamidoacetic acid	200	0.05	---	---	1	10	0.00100
N-methylperfluoro-1-octanesulfonamidoacetic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-1-butanesulfonate	200	0.05	---	---	1	10	0.00101
Perfluoro-1-hexanesulfonate	200	0.05	---	---	1	10	0.00101
Perfluoro-1-octanesulfonamide	200	0.05	---	---	1	10	0.00100
Perfluoro-1-octanesulfonate	200	0.05	---	---	1	10	0.00100
Perfluoro-n-butanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-decanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-dodecanoic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-heptanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-hexanoic acid	200	0.05	---	---	1	10	0.00101
Perfluoro-n-octanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluorononanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-pentanoic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-tetradecanoic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-tridecanoic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-undecanoic acid	200	0.05	---	---	1	10	0.00100
Sodium perfluoro-1-pentanesulfonate	200	0.05	---	---	1	10	0.00100

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00100
(Na) 1H,1H,2H,2H-Perfluoroctane sulfonate	.00100
(Na) Perfluoro-1-decanesulfonate	.00101
(NA) Perfluoro-1-heptanesulfonate	.00100
(Na) Perfluoro-1-nananesulfonate	.00101
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHxA	.00025

Solution Prepared By: Schultz, Stephanie	Date Prepared:	10/1/2018	Expiration Date:	7/16/2019
Solution Volume	40 mL X	1 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB81

Description: PFAS - DoD ICC

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00100
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00100
Perfluoro-1-butanesulfonate	.00101
Perfluoro-1-hexanesulfonate	.00101
Perfluoro-1-octanesulfonamide	.00100
Perfluoro-1-octanesulfonate	.00100
Perfluoro-n-butanoic Acid	.00100
Perfluoro-n-decanoic Acid	.00100
Perfluoro-n-dodecanoic acid	.00100
Perfluoro-n-heptanoic Acid	.00100
Perfluoro-n-hexanoic acid	.00101
Perfluoro-n-octanoic Acid	.00100
Perfluorononanoic Acid	.00100
Perfluoro-n-pentanoic acid	.00100
Perfluoro-n-tetradecanoic acid	.00100
Perfluoro-n-tridecanoic acid	.00100
Perfluoro-n-undecanoic acid	.00100
Sodium perfluoro-1-pentanesulfonate	.00100

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB71	Pipette	B814659662
KB82	Pipette	B814657482

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 7/16/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB82

Description: PFAS - DoD Second Source LCS/MS Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
170724-01	PFOA - 2nd Source	Neat	~1.00000 0	03/22/22	---	---	1000 uL	1	20	~0.0500

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 10/1/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan Date: 10/12/2018 8:05:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB82

Description: PFAS - DoD Second Source LCS/MS Solution

Stock Id: 170724-01

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	20	0.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	20	0.05050
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-nananesulfonate	1000	1.01	1	100.000	1	20	0.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-1-butanesulfonate	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-pentanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	20	0.05000

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.05000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.05000
(Na) Perfluoro-1-decanesulfonate	.05050
(NA) Perfluoro-1-heptanesulfonate	.05000
(Na) Perfluoro-1-nananesulfonate	.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.05000
Perfluoro-1-butanesulfonate	.05050

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 10/1/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:05:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB82

Description: PFAS - DoD Second Source LCS/MS Solution

Perfluoro-1-hexanesulfonate	.05050
Perfluoro-1-octanesulfonamide	.05000
Perfluoro-1-octanesulfonate	.05000
Perfluoro-n-butanoic Acid	.05000
Perfluoro-n-decanoic Acid	.05000
Perfluoro-n-dodecanoic acid	.05000
Perfluoro-n-heptanoic Acid	.05000
Perfluoro-n-hexanoic acid	.05050
Perfluoro-n-octanoic Acid	.05000
Perfluorononanoic Acid	.05000
Perfluoro-n-pentanoic acid	.05000
Perfluoro-n-tetradecanoic acid	.05000
Perfluoro-n-tridecanoic acid	.05000
Perfluoro-n-undecanoic acid	.05000
Sodium perfluoro-1-pentanesulfonate	.05000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
170724-01	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 10/1/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:05:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB89

Description: PFAS Branched Solution (~5,000 ng/L)

Stock Id: JX28

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
N-ethylperfluoro-octanesulfonamidoacetic acid	100	0.50	---	---	1	10	0.00500
N-methylperfluoro-1-octanesulfonamidoacetic acid	100	0.50	---	---	1	10	0.00500
Perfluoro-1-hexanesulfonate	100	0.50	---	---	1	10	0.00500
Perfluoro-1-octanesulfonate	100	0.50	---	---	1	10	0.00500
Perfluoro-n-octanoic Acid	100	0.50	---	---	1	10	0.00500

Final Concentrations:

Analyte:	Conc (ug/mL):
N-ethylperfluoro-octanesulfonamidoacetic acid	.00500
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00500
Perfluoro-1-hexanesulfonate	.00500
Perfluoro-1-octanesulfonate	.00500
Perfluoro-n-octanoic Acid	.00500

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JX28	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie

Date Prepared:

10/3/2018

Expiration Date:

6/18/2019

Solution Volume 40 mL X 1 Vials Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise Date: 10/9/2018 9:43:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KB89

Description: PFAS Branched Solution (~5,000 ng/L)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JX28	PFAS Branched Standard Stock	Solution	~0	06/18/19	---	---	100 uL	1	10	~0.0000

Solution Prepared By Schultz, Stephanie	Date Prepared: 10/3/2018	Expiration Date	6/18/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:43:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KC02

Description: PFAS - DoD High Level Second Source LCS/MS Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
181001-01	PFOA - 2nd source	Neat	~1.00000 0	09/20/23	---	---	1000 uL	1	5	~0.2000

Solution Prepared By: Schumitz, Denise	Date Prepared: 10/8/2018	Expiration Date: 10/8/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise Date: 10/8/2018 11:44:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KC02

Description: PFAS - DoD High Level Second Source LCS/MS Solution

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	5	0.20200
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	5	0.20200
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) Perfluoro-1-nananesulfonate	1000	1.01	1	100.000	1	5	0.20200
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	5	0.20000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-butanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-pentanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	5	0.20000

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.20200
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.20000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.20000
(Na) Perfluoro-1-decanesulfonate	.20200
(NA) Perfluoro-1-heptanesulfonate	.20000
(Na) Perfluoro-1-nananesulfonate	.20200
N-ethylperfluoro-octanesulfonamidoacetic acid	.20000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.20000
Perfluoro-1-butanesulfonate	.20200

Solution Prepared By: Schumitz, Denise	Date Prepared: 10/8/2018	Expiration Date: 10/8/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/8/2018 11:44:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KC02

Description: PFAS - DoD High Level Second Source LCS/MS Solution

Perfluoro-1-hexanesulfonate	.20200
Perfluoro-1-octanesulfonamide	.20000
Perfluoro-1-octanesulfonate	.20000
Perfluoro-n-butanoic Acid	.20000
Perfluoro-n-decanoic Acid	.20000
Perfluoro-n-dodecanoic acid	.20000
Perfluoro-n-heptanoic Acid	.20000
Perfluoro-n-hexanoic acid	.20200
Perfluoro-n-octanoic Acid	.20000
Perfluorononanoic Acid	.20000
Perfluoro-n-pentanoic acid	.20200
Perfluoro-n-tetradecanoic acid	.20000
Perfluoro-n-tridecanoic acid	.20000
Perfluoro-n-undecanoic acid	.20000
Sodium perfluoro-1-pentanesulfonate	.20000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
181001-01	Pipette	B820865811

Solution Prepared By: Schumitz, Denise	Date Prepared: 10/8/2018	Expiration Date: 10/8/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/8/2018 11:44:00 AM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: KC03

Description: PFAS - DoD Internal Standard Spiking Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	2500 uL	1	25	~0.0000

Solution Prepared By	Schultz, Stephanie	Date Prepared:	10/9/2018	Expiration Date	7/16/2019
Solution Volume	40 mL X 1 Vials	Refrigerator/Freezer No:	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 4:15:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KC03

Description: PFAS - DoD Internal Standard Spiking Solution

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	2500	0.05	---	---	1	25	0.00500
13C2-PFOA	2500	0.05	---	---	1	25	0.00500
13C3-PFBA	2500	0.05	---	---	1	25	0.00500
13C4-PFOS	2500	0.05	---	---	1	25	0.00479

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-PFDA	.00500
13C2-PFOA	.00500
13C3-PFBA	.00500
13C4-PFOS	.00479

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie

Date Prepared:

10/9/2018

Expiration Date:

7/16/2019

Solution Volume 40 mL X 1 Vials Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise Date: 10/9/2018 4:15:00 PM



It can be done

Reagent Receipt Report

Approved: Authorized:

Name:	PFOA- 2nd Source	Received:	7/24/2017
Vendor:	ABSOLUTE STANDARDS	Custodian:	Schumitz, Matt
Catalogue No:	99207	Expires:	3/22/2022
Type:	Solution	Consumed:	
Lot No:	032217	Stored In:	LC Laboratory - F0111
Quantity:	5 ea mL	% Moisture:	
Description:	PFOA - 2nd Source		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert Val:	Cert Val:	Lower Limit:	Upper Limit:
(Na) 1H,1H,2H,2H-Perfluorodecane	39108-34-4	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
(Na) 1H,1H,2H,2H-Perfluorohexane s	414911-30-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
(Na) 1H,1H,2H,2H-Perfluoroctane s	27619-97-2	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
(Na) Perfluoro-1-decanesulfonate	2806-15-7	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
(NA) Perfluoro-1-heptanesulfonate	375-92-8	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
(Na) Perfluoro-1-nonanesulfonate	98789-57-2	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
N-ethylperfluoro-octanesulfonamidoa	2991-50-6	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
N-methylperfluoro-1-octanesulfonami	2355-31-9	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-1-butanesulfonate	375-73-5	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-1-hexanesulfonate	355-46-4	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-1-octanesulfonamide	754-91-6	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-1-octanesulfonate	1763-23-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-butanoic Acid	375-22-4	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-decanoic Acid	335-76-2	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-dodecanoic acid	307-55-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-heptanoic Acid	375-85-9	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-hexanoic acid	307-24-4	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-octanoic Acid	335-67-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluorononanoic Acid	375-95-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-pentanoic acid	2706-90-3	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-tetradecanoic acid	376-06-7	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-tridecanoic acid	72629-94-8	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-undecanoic acid	2058-94-8	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Sodium perfluoro-1-pentanesulfonate	2706-91-4	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			

Total Analytes: 24

Notes:

Approved by: _____	Approved on: _____
Authorized by: _____	Authorized on: _____



CERTIFIED WEIGHT REPORT

Part Number:	99207	Lot Number:	032217	Description:	PFOA - DOD
Expiration Date:	032222	Solvent(s):	Methanol (1 mM KOH)	Lot#	031317 (98%)
Recommended Storage:	Freezer (0 °C)		2-Propanol		23214 (2%)
Nominal Concentration (µg/mL):	1.0				
NIST Test ID#:	822-275872-11	5E-05	Balance Uncertainty		
Volume(s) shown below were combined and diluted to (mL):	50.0	0.007	Flask Uncertainty		

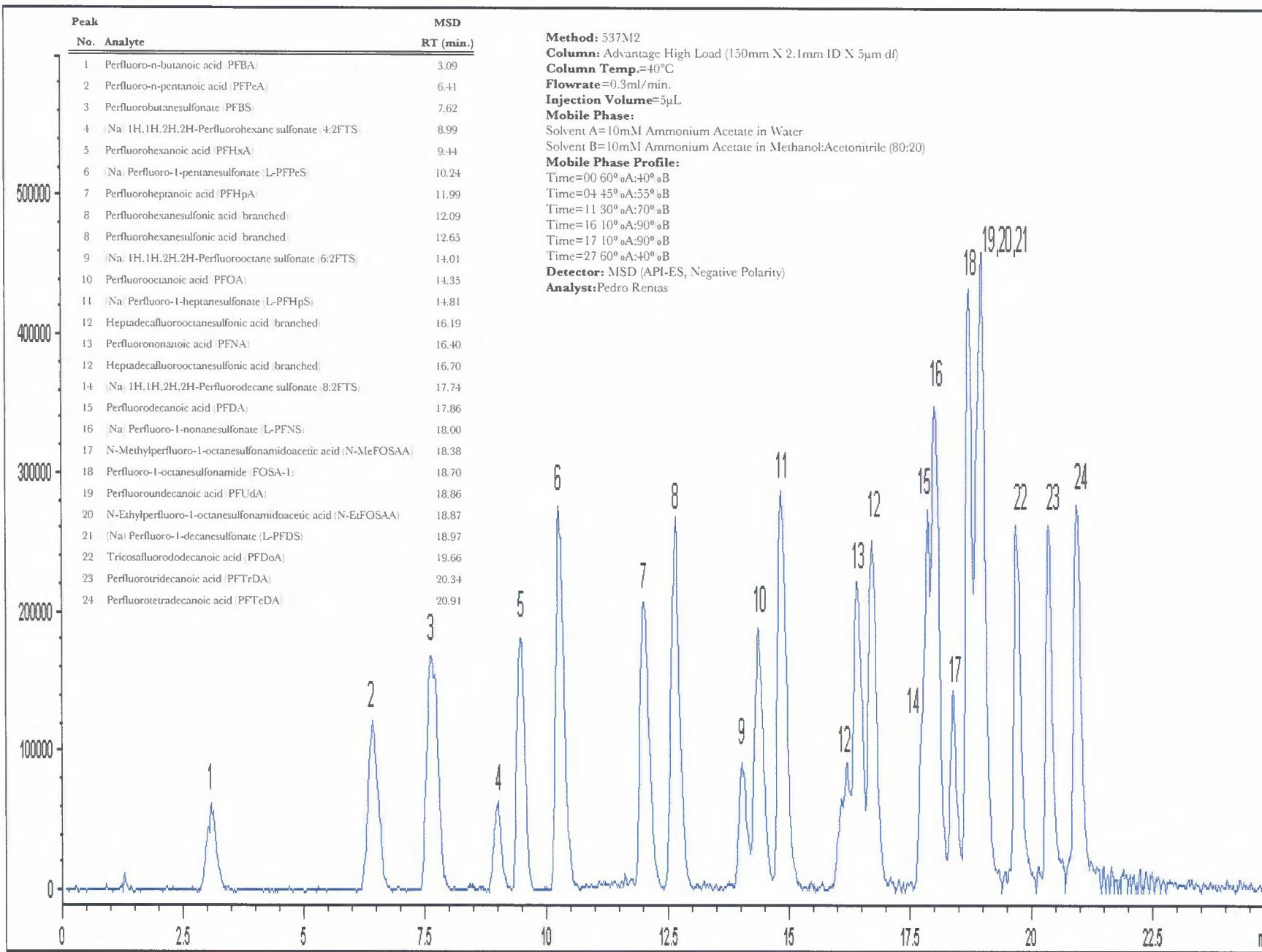
Volume(s) shown below were combined and diluted to (mL):

Note: All assigned values are anion concentrations.

Formulated By:	Paul Barron	DATE
Reviewed By:	Pedro L. Rentas	DATE

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information		
									CAS#	OSHA PEL (TWA)	LD50
1. Perfluoro-n-butanoic acid	3670	PFBA0516	0.02	1.00	0.004	50.0	1.00	0.01	375-22-4	N/A	N/A
2. Perfluoro-n-pentanoic acid	3669	PPFPeA0516	0.02	1.00	0.004	50.0	1.00	0.01	2706-90-3	N/A	N/A
3. Perfluorohexanoic acid	99199	030617	0.02	1.00	0.004	50.3	1.01	0.01	307-24-4	N/A	N/A
4. Perfluoroheptanoic acid	99197	030517	0.02	1.00	0.004	50.1	1.00	0.01	375-85-9	N/A	N/A
5. Perfluoroctanoic acid	99202	030617	0.02	1.00	0.004	50.2	1.00	0.01	335-67-1	N/A	ipr-rat 189mg/kg
6. Perfluorononanoic acid	99200	030617	0.02	1.00	0.004	50.1	1.00	0.01	375-95-1	N/A	N/A
7. Perfluorodecanoic acid	99195	030617	0.02	1.00	0.004	50.1	1.00	0.01	335-76-2	N/A	orl-rat 57mg/kg
8. Perfluoroundecanoic acid	99205	030617	0.02	1.00	0.004	50.1	1.00	0.01	2058-94-8	N/A	N/A
9. Tricosafluorododecanoic acid	99196	030617	0.02	1.00	0.004	50.1	1.00	0.01	307-55-1	N/A	N/A
10. Perfluorotridecanoic acid	99204	030617	0.02	1.00	0.004	50.1	1.00	0.01	72629-94-8	N/A	N/A
11. Perfluorotetradecanoic acid	99203	030617	0.02	1.00	0.004	50.1	1.00	0.01	376-06-7	N/A	N/A
12. Perfluoro-1-octanesulfonamide	3677	FOSA0916I	0.02	1.00	0.004	50.0	1.00	0.01	754-91-6	N/A	N/A
13. N-Methylperfluoro-1-octanesulfonamidoacetic acid	3667	NMeFOSAA0117	0.02	1.00	0.004	50.0	1.00	0.01	2355-31-9	N/A	N/A
14. N-Ethylperfluoro-1-octanesulfonamidoacetic acid	3664	NEIFOSAA0117	0.02	1.00	0.004	50.0	1.00	0.01	2991-50-6	N/A	N/A
15. Perfluorobutanesulfonic acid	99194	031017	0.02	1.00	0.004	50.7	1.01	0.01	375-73-5	N/A	N/A
16. Perfluoro-1-pentanesulfonic acid	3956	LPFPeS0117	0.0214	1.07	0.004	46.9	1.00	0.01	00-00-0	N/A	N/A
17. Perfluorohexameresulfonic acid (branched)	99198	030617	0.02	1.00	0.004	50.6	1.01	0.01	3871-99-6	N/A	N/A
18. Perfluoro-1-heptanesulfonic acid	3672	LPFHpS1016	0.021	1.05	0.004	47.6	1.00	0.01	375-92-8	N/A	N/A
19. Heptadecafluorooctanesulfonic acid (branched)	99201	030617	0.02	1.00	0.004	50.2	1.00	0.01	1763-23-1	N/A	N/A
20. Perfluoro-1-nonanesulfonic acid	3957	LPPNS0516	0.021	1.05	0.004	48.0	1.01	0.01	98789-57-2	N/A	N/A
21. Perfluoro-1-decanesulfonic acid	3671	LPFDs0217	0.021	1.05	0.004	48.2	1.01	0.01	2806-15-7	N/A	N/A
22. 1H,1H,2H,2H-Perfluorohexane sulfonic acid	3955	42FTS1216	0.0214	1.07	0.004	46.7	1.00	0.01	00-00-0	N/A	N/A
23. 1H,1H,2H,2H-Perfluorooctane sulfonic acid	3661	62FTS0616	0.021	1.05	0.004	47.4	1.00	0.01	27619-97-2	N/A	N/A
24. 1H,1H,2H,2H-Perfluorodecane sulfonic acid	3662	82FTS1216	0.021	1.05	0.004	47.9	1.01	0.01	39108-34-4	N/A	N/A

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).





It can be done

Reagent Receipt Report

Approved: Authorized:

Name:	Branched NEtFOSAA Standard (50 μ)	Received:	6/18/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	br-NEtFOSAAA	Expires:	1/17/2023
Type:	Solution	Consumed:	
Lot No:	brNEtFOSAA0118	Stored In:	Sample Preparation - C0103
Quantity:	1 ea mL	% Moisture:	0
Description:	Branched NEtFOSAA Standard (50 μ g/mL)		

Analyte:	CAS No:	Concentration	Purity:	Density:	Density Units:	Cert Val:	Cert Val:	Lower Limit:	Upper Limit:
			(ug/mL):						

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

180618-02



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

br-NEtFOSAA

**N-Ethylperfluorooctanesulfonamidoacetic
Acid Solution/Mixture of Linear and
Branched Isomers**

<u>PRODUCT CODE:</u>	br-NEtFOSAA
<u>LOT NUMBER:</u>	brNEtFOSAA0118
<u>CONCENTRATION:</u>	50.0 ± 2.5 µg/ml
<u>SOLVENT(S):</u>	Methanol/Water (<1%)
<u>DATE PREPARED:</u> (mm/dd/yyyy)	01/10/2018
<u>LAST TESTED:</u> (mm/dd/yyyy)	01/17/2018
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	01/17/2023
<u>RECOMMENDED STORAGE:</u>	Refrigerate ampoule

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-ethylperfluorooctanesulfonamidoacetic acid (linear and branched isomers). The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

- Table A: Isomeric Components and Percent Composition by ^{19}F -NMR
- Figure 1: LC/MS Data (TIC and Mass Spectrum)
- Figure 2: LC/MS Data (SIR)
- Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

**Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com**

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

$$x_1, x_2, \dots, x_n \text{ on which it depends is: } u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: br-NEtFOSAA; Isomeric Components and Percent Composition (by $^{19}\text{F-NMR}$)*

Isomer	Name	Structure	Percent Composition by $^{19}\text{F-NMR}$
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\underset{\text{C}_2\text{H}_5}{\text{NCH}_2}\text{CO}_2\text{H}$	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_3\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_2\text{SO}_2\underset{\text{C}_2\text{H}_5}{\text{NCH}_2}\text{CO}_2\text{H}$	2.3
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_3\text{SO}_2\underset{\text{C}_2\text{H}_5}{\text{NCH}_2}\text{CO}_2\text{H}$	2.2
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_4\text{SO}_2\underset{\text{C}_2\text{H}_5}{\text{NCH}_2}\text{CO}_2\text{H}$	5.4
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_5\text{SO}_2\underset{\text{C}_2\text{H}_5}{\text{NCH}_2}\text{CO}_2\text{H}$	10.4
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\begin{matrix} \text{CF}_3 \\ \\ \text{CF}_3\text{C}(\text{CF}_2)_4\text{SO}_2\underset{\text{C}_2\text{H}_5}{\text{NCH}_2}\text{CO}_2\text{H} \\ \\ \text{CF}_3 \end{matrix}$	0.3
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	$\begin{matrix} \text{CF}_3 \\ \\ \text{CF}_3\text{CFCF}(\text{CF}_2)_3\text{SO}_2\underset{\text{C}_2\text{H}_5}{\text{NCH}_2}\text{CO}_2\text{H} \\ \\ \text{CF}_3 \end{matrix}$	0.3
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	$\begin{matrix} \text{CF}_3 \\ \\ \text{CF}_3\text{CFCF}_2\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_2\text{SO}_2\underset{\text{C}_2\text{H}_5}{\text{NCH}_2}\text{CO}_2\text{H} \\ \\ \text{CF}_3 \end{matrix}$	0.3
9	Other Unidentified Isomers		1.3

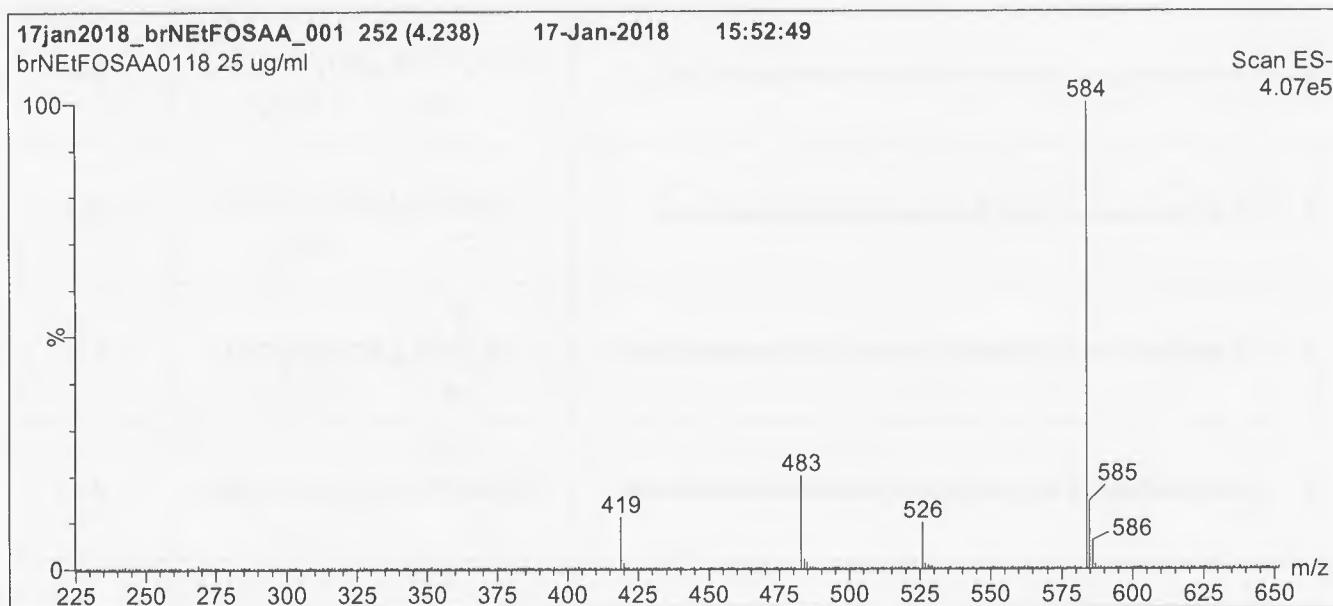
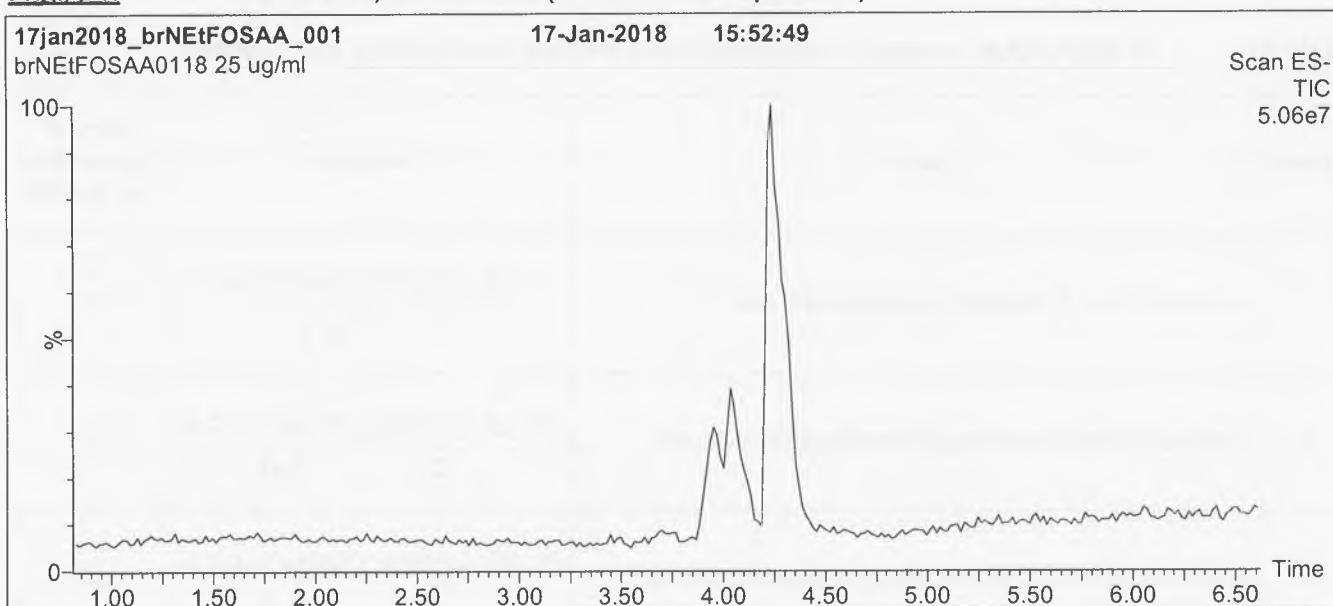
* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By:



B.G. Chittim, General Manager
Date: 03/22/2018

(mm/dd/yyyy)

Figure 1: br-NEtFOSAA; LC/MS Data (TIC and Mass Spectrum)**Conditions for Figure 1:**

LC: Waters Acuity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acuity UPLC BEH Shield RP₁₈
1.7 µm, 2.1 x 100 mm

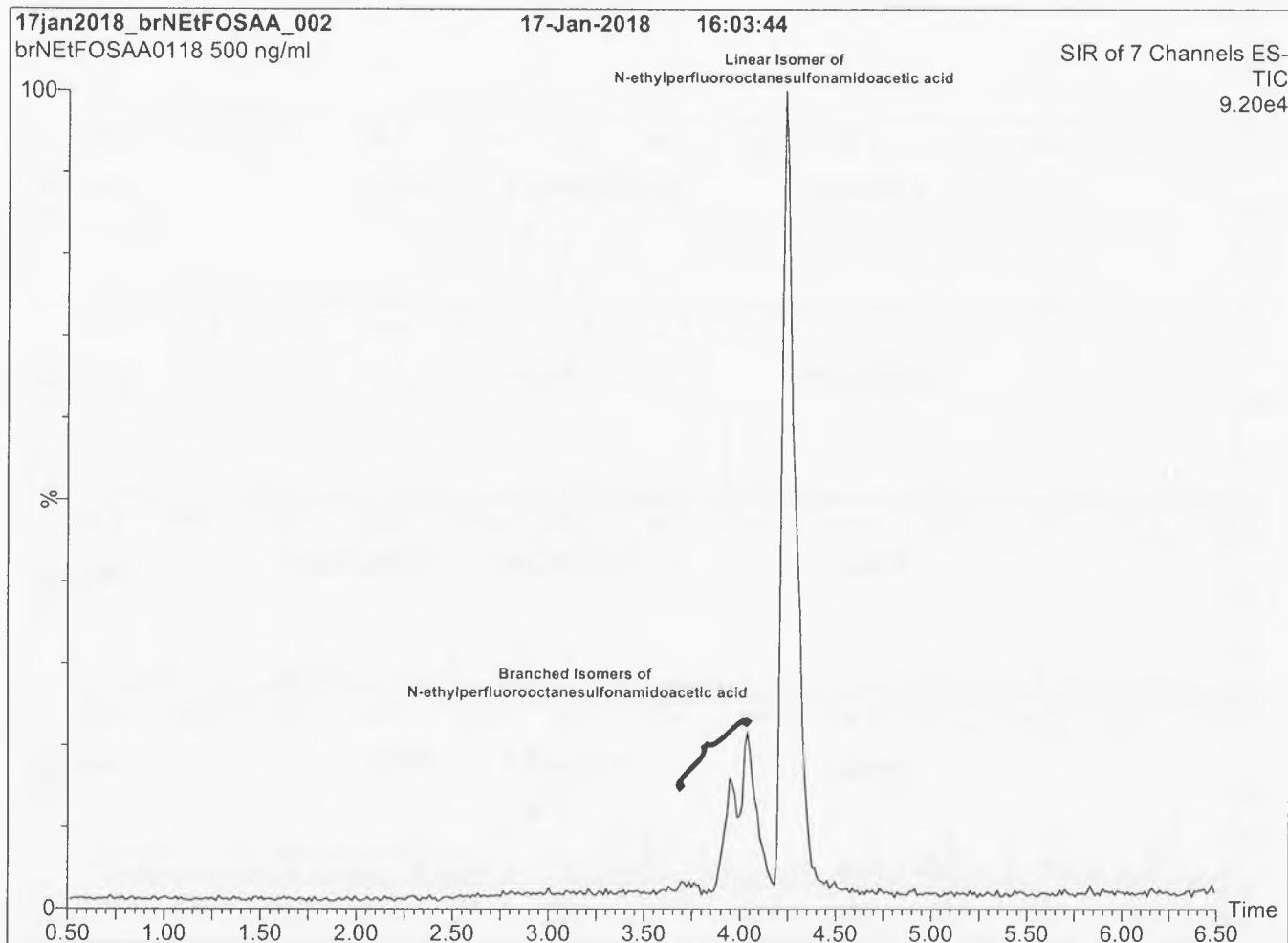
Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)
Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: br-NEtFOSAA; LC/MS Data (SIR)**Conditions for Figure 2:**

LC: Waters Acuity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acuity UPLC BEH Shield RP₁₈
 1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
 Start: 55% (80:20 MeOH:ACN) / 45% H₂O
 (both with 10 mM NH₄OAc buffer)
 Ramp to 90% organic over 7 min and hold for
 2 min before returning to initial conditions in 0.5 min.

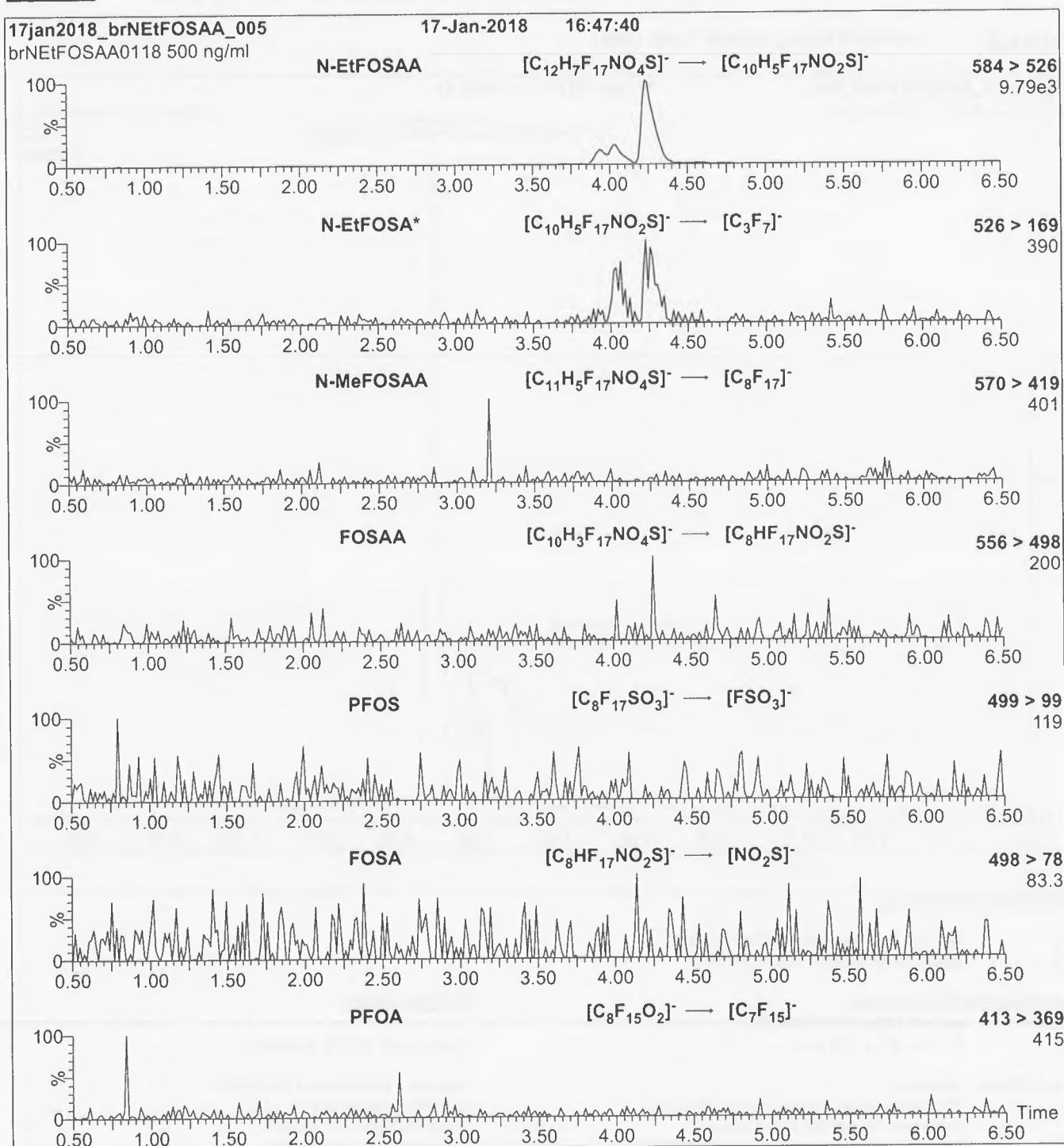
Time: 10 min

Flow: 300 µl/min

MS Parameters

Experiment: SIR (7 channels)

Source: Electrospray (negative)
 Capillary Voltage (kV) = 3.00
 Cone Voltage (V) = 15-60
 Cone Gas Flow (l/hr) = 50
 Desolvation Gas Flow (l/hr) = 750

Figure 3: br-NEtFOSAA; LC/MS/MS Data (Selected MRM Transitions)

*Note: N-EtFOSA is formed by in-source fragmentation.

Conditions for Figure 3:

Injection: On-column

MS Parameters

Collision Gas (mbar) = 3.39e-3

Mobile phase: Same as Figure 2

Collision Energy (eV) = 11-40 (variable)

Flow: 300 μ l/min



It can be done

BDO Id: 180618-03

Reagent Receipt Report

Approved: Authorized:

Name:	Branched NMeFOSAA Standard (50)	Received:	6/18/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	brNMeFOSAA	Expires:	1/17/2023
Type:	Solution	Consumed:	
Lot No:	brNMeFOSAA0118	Stored In:	Sample Preparation - C0103
Quantity:	1 ea mL	% Moisture:	0
Description:	Branched NMeFOSAA Standard (50 µg/mL)		

Analyte:	CAS No:	Concentration	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
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Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

180618-03



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

br-NMeFOSAA

**N-Methylperfluorooctanesulfonamidoacetic
Acid Solution/Mixture of Linear and
Branched Isomers**

<u>PRODUCT CODE:</u>	br-NMeFOSAA
<u>LOT NUMBER:</u>	brNMeFOSAA0118
<u>CONCENTRATION:</u>	50.0 ± 2.5 µg/ml
<u>SOLVENT(S):</u>	Methanol/Water (<1%)
<u>DATE PREPARED:</u> (mm/dd/yyyy)	01/10/2018
<u>LAST TESTED:</u> (mm/dd/yyyy)	01/17/2018
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	01/17/2023
<u>RECOMMENDED STORAGE:</u>	Refrigerate ampoule

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-methylperfluorooctanesulfonamidoacetic acid (linear and branched isomers). The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F -NMR

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS Data (SIR)

Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

**Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com**

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

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SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

$$x_1, x_2, \dots, x_n \text{ on which it depends is: } u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: br-NMeFOSAA; Isomeric Components and Percent Composition (by $^{19}\text{F-NMR}$)*

Isomer	Name	Structure	Percent Composition by $^{19}\text{F-NMR}$
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\underset{\text{CH}_3}{\text{NCH}_2}\text{CO}_2\text{H}$	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_3\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_2\text{SO}_2\underset{\text{CH}_3}{\text{NCH}_2}\text{CO}_2\text{H}$	0.7
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_3\text{SO}_2\underset{\text{CH}_3}{\text{NCH}_2}\text{CO}_2\text{H}$	2.0
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_4\text{SO}_2\underset{\text{CH}_3}{\text{NCH}_2}\text{CO}_2\text{H}$	6.0
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_5\text{SO}_2\underset{\text{CH}_3}{\text{NCH}_2}\text{CO}_2\text{H}$	14.0
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\begin{matrix} \text{CF}_3 \\ \\ \text{CF}_3\text{C}(\text{CF}_2)_4\text{SO}_2\underset{\text{CH}_3}{\text{NCH}_2}\text{CO}_2\text{H} \end{matrix}$	0.2
7	Other Unidentified Isomers		1.1

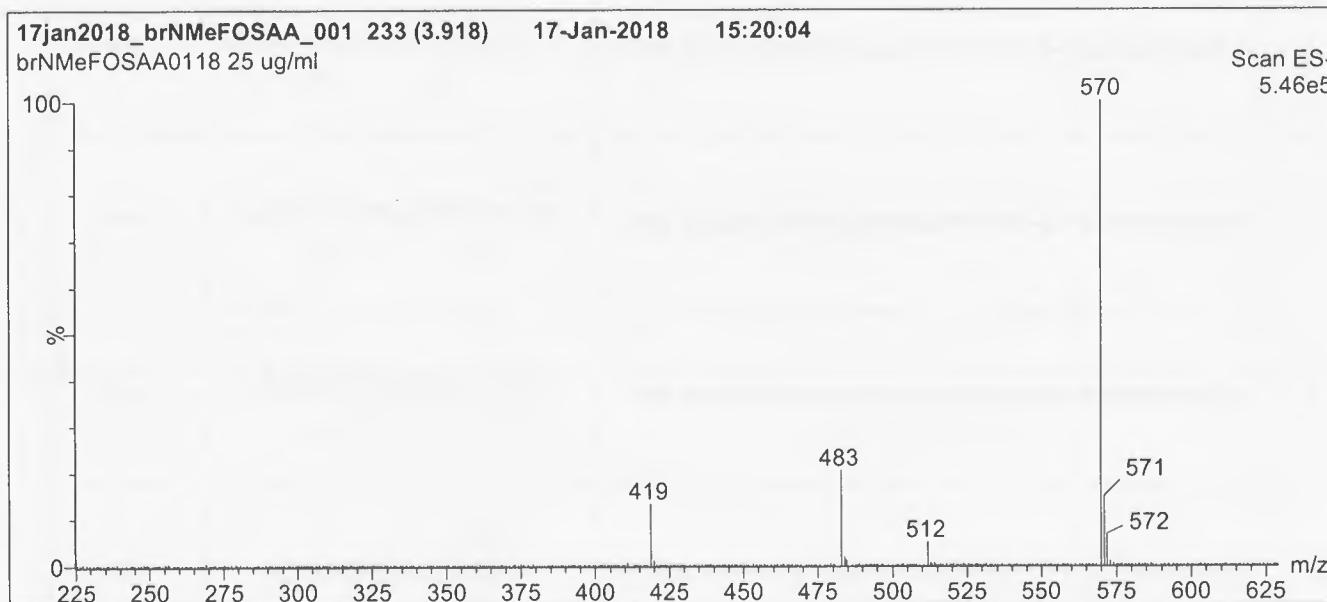
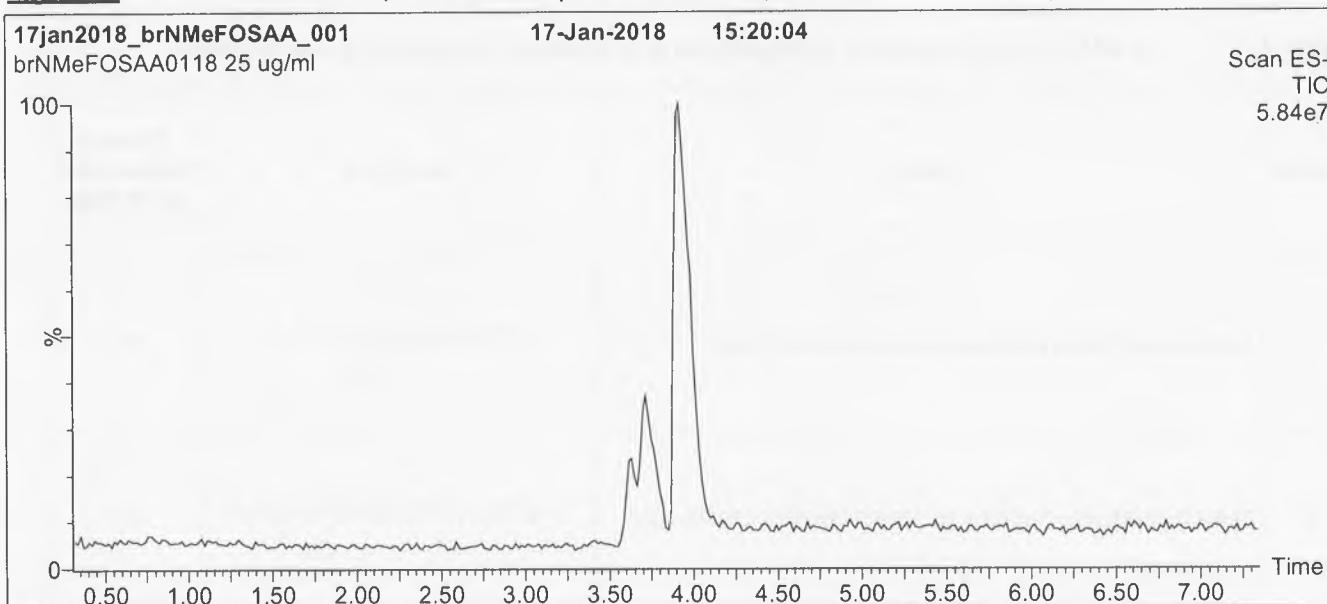
* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By:

B.G. Chittim, General Manager

Date: 03/22/2018

(mm/dd/yyyy)

Figure 1: br-NMeFOSAA; LC/MS Data (TIC and Mass Spectrum)**Conditions for Figure 1:**

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acuity UPLC BEH Shield RP₁₈
1.7 μm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

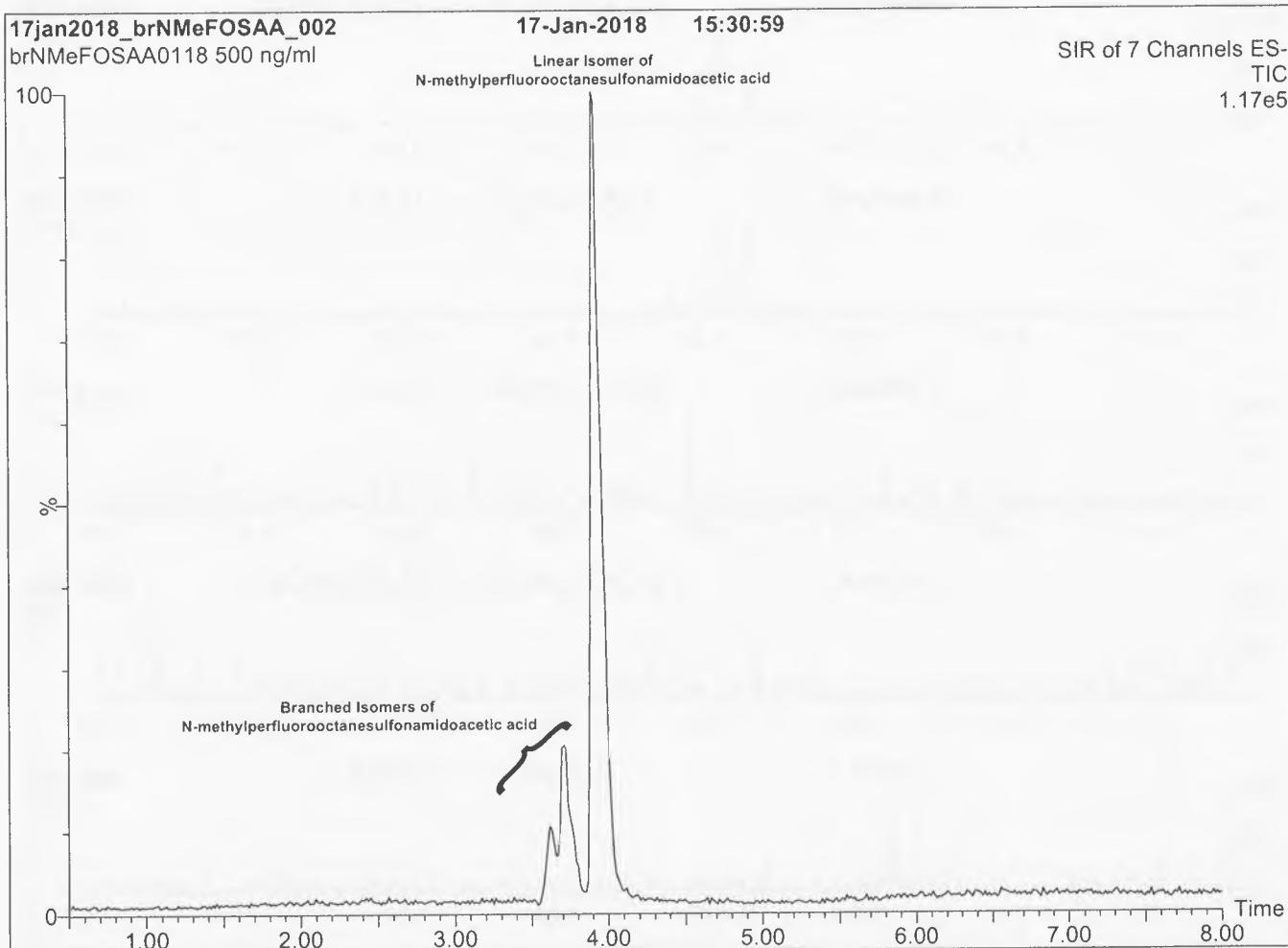
Time: 10 min

Flow: 300 μl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: br-NMeFOSAA; LC/MS Data (SIR)**Conditions for Figure 2:**

LC: Waters Acuity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acuity UPLC BEH Shield RP₁₈
 1.7 μm, 2.1 x 100 mm

Mobile phase: Gradient
 Start: 55% (80:20 MeOH:ACN) / 45% H₂O
 (both with 10 mM NH₄OAc buffer)
 Ramp to 90% organic over 7 min and hold for
 2 min before returning to initial conditions in 0.5 min.

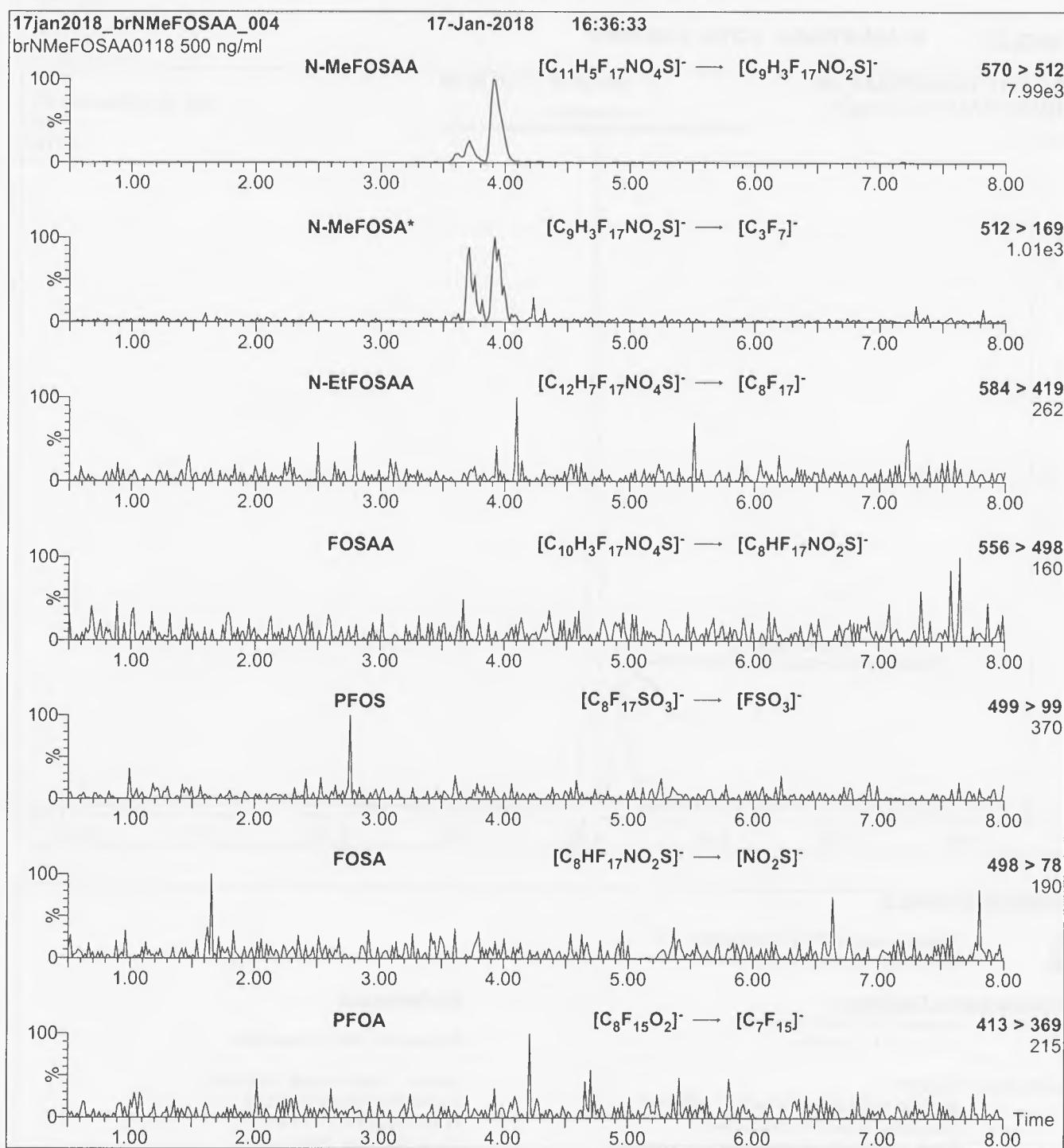
Time: 10 min

Flow: 300 μl/min

MS Parameters

Experiment: SIR (7 channels)

Source: Electrospray (negative)
 Capillary Voltage (kV) = 3.00
 Cone Voltage (V) = 15-60
 Cone Gas Flow (l/hr) = 50
 Desolvation Gas Flow (l/hr) = 750

Figure 3: br-NMeFOSAA; LC/MS/MS Data (Selected MRM Transitions)

*Note: N-MeFOSA is formed by in-source fragmentation.

Conditions for Figure 3:

Injection: On-column

MS Parameters

Mobile phase: Same as Figure 2

Collision Gas (mbar) = 3.39e-3

Collision Energy (eV) = 11-40 (variable)

Flow: 300 μ l/min



It can be done

BDO Id: 180618-04

Reagent Receipt Report

Approved: Authorized:

Name:	PFOA - Technical Mix	Received:	6/18/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	T-PFOA	Expires:	2/16/2022
Type:	Solution	Consumed:	
Lot No:	TPFOA0217	Stored In:	Sample Preparation - C0103
Quantity:	1 ea mL	% Moisture:	0
Description:	PFOA - Technical Mix		

Analyte:	CAS No:	Concentration	Purity:	Density:	Density (ug/mL):	Cert Units:	Cert Val:	Lower Limit:	Upper Limit:
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Notes:

Approved by:	Approved on:
Authorized by:	Authorized on:

180618-04



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

PRODUCT CODE:	T-PFOA	LOT NUMBER:	TPFOA0217
COMPOUND:	Technical Ammonium Perfluorooctanoate		
STRUCTURE:	CAS #: 95328-99-7 (for linear ammonium perfluorooctanoate)		
(see Table A)			
MOLECULAR FORMULA:	<chem>C8F15O2NH4</chem>		
CONCENTRATION:	50 ± 2.5 µg/ml (gravimetric)		
CHEMICAL PURITY:	Technical material		
SOLVENT(S):	Methanol/Water (<1%)		
LAST TESTED: (mm/dd/yyyy)	02/16/2017		
EXPIRY DATE: (mm/dd/yyyy)	02/16/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition
 Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS Data (SIR)
 Figure 3: LC/MS/MS Data (Selected MRM Transitions)
 Figure 4: LC/MS Elution Profile of the Perfluorooctanoic Acid Isomers

ADDITIONAL INFORMATION:

- See page 2 for further details.
- This technical mixture is >97% ammonium perfluorooctanoate (branched and linear isomers). The remaining 3% consists of common impurities such as the perfluoroheptanoic and perfluorohexanoic acids.
- It is recommended that this solution be used as a *qualitative or semi-quantitative standard only*.
- Contains 4 mole eq. of NaOH to prevent conversion of any carboxylic acids to their corresponding methyl esters.
- The molecular weight of perfluoro-n-octanoic acid is 414.07 g/mol.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 02/22/2017
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used for the identification and/or semi-quantitative determination of the specific chemical compound(s) it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

CHARACTERIZATION / HOMOGENEITY:

This product is a technical mixture obtained from an industrial manufacturer. It has been characterized as to its content and components using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Testing of samples in solution has shown it to be homogeneous. As this product is a technical mixture, it should not be used to quantitate any of the listed components.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



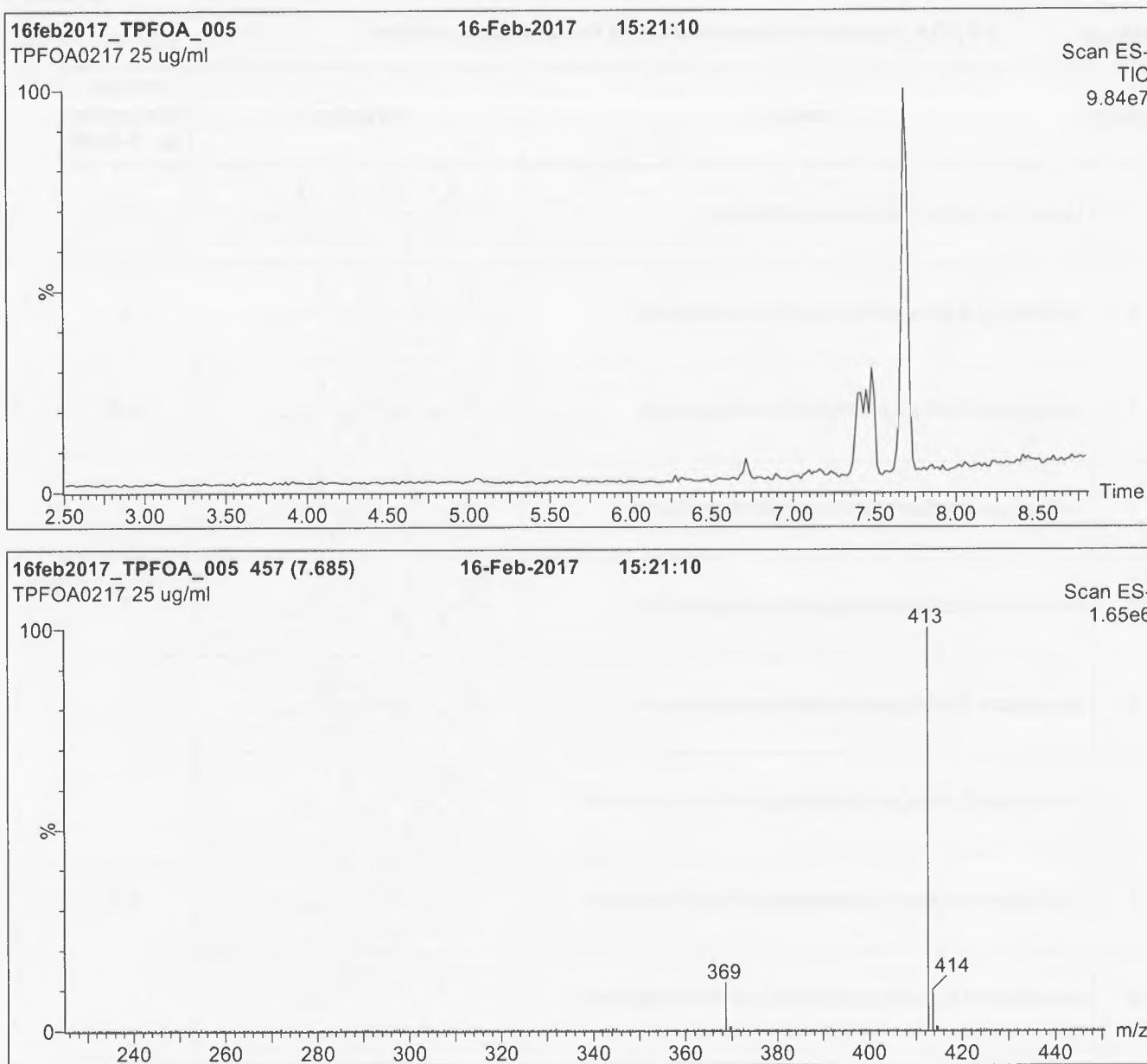
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: T-PFOA; Isomeric Components and Percent Composition*

Isomer	Name	Structure	Percent Composition by $^{19}\text{F-NMR}$
1	Linear ammonium perfluoro-n-octanoate		79
2	Ammonium 6-trifluoromethylperfluoroheptanoate		9
3	Ammonium 5-trifluoromethylperfluoroheptanoate		4.5
4	Ammonium 4-trifluoromethylperfluoroheptanoate		4
5	Ammonium 3-trifluoromethylperfluoroheptanoate		3
6 ^a	Ammonium 2-trifluoromethylperfluoroheptanoate		0.5
7	Ammonium 5,5-bis(trifluoromethyl)perfluorohexanoate		
8	Ammonium 4,4-bis(trifluoromethyl)perfluorohexanoate		
9 ^a	Ammonium 4,5-bis(trifluoromethyl)perfluorohexanoate		
10	Ammonium 3,5-bis(trifluoromethyl)perfluorohexanoate		

* Percent Composition was determined by $^{19}\text{F-NMR}$. The percentages displayed are of total ammonium perfluorooctanoate isomers only (isomers are labelled in Figure 4).

^a Presence of this isomer could not be verified by LC/MS due to co-elution.

Figure 1: T-PFOA; LC/MS Data (TIC and Mass Spectrum)**Conditions for Figure 1:**

LC: Waters Acuity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions:

Column: Kinetex PFP
 2.6 μ m, 4.6 x 100 mm

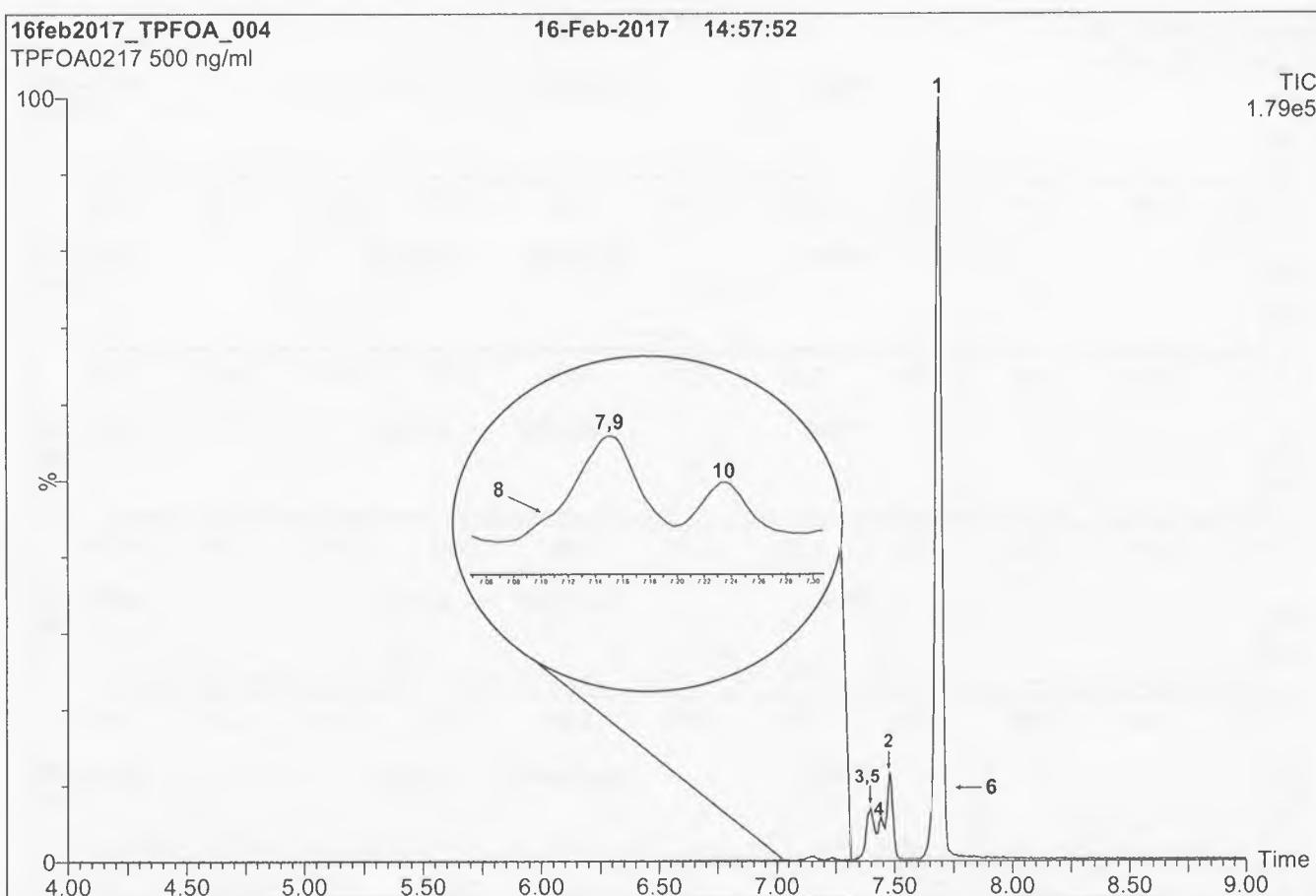
Mobile phase: Gradient
 Start: 30% (80:20 MeOH:ACN) / 70% H₂O
 (both with 10 mM NH₄OAc buffer)
 Ramp to 50% organic over 5 min. Ramp to
 90% organic over 5 min and hold for 1.5 min.
 Return to initial conditions over 0.5 min.
 Time: 13 min

Flow: 1.0 ml/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
 Capillary Voltage (kV) = 3.00
 Cone Voltage (V) = 15.00
 Cone Gas Flow (l/hr) = 100
 Desolvation Gas Flow (l/hr) = 750

Figure 2: T-PFOA; LC/MS Data (SIR)**Conditions for Figure 2:**

LC: Waters Acuity Ultra Performance LC
MS: Micromass Quattro micro API MS

Chromatographic Conditions:

Column: Kinetex PFP
2.6 µm, 4.6 x 100 mm

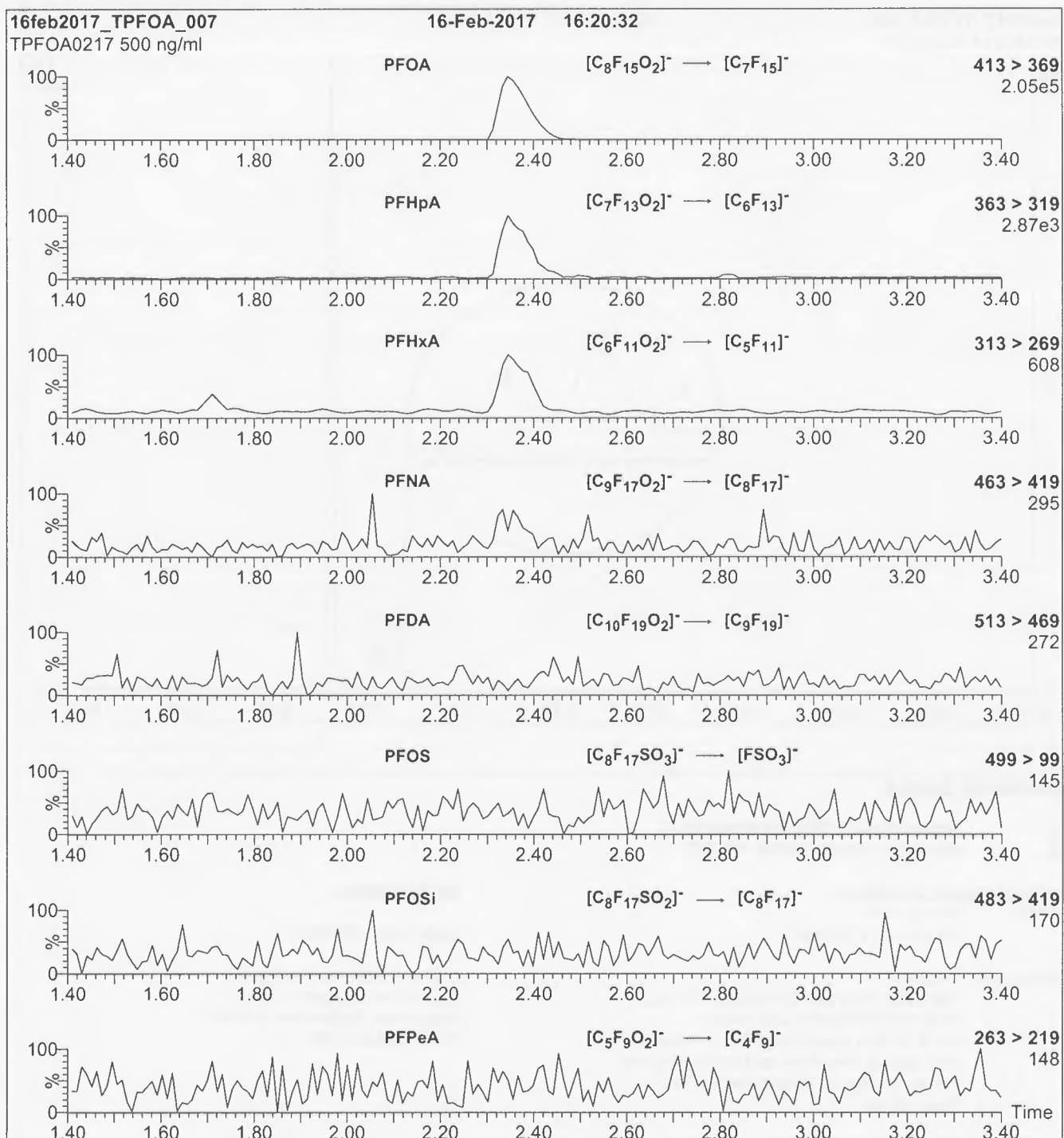
Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 5 min. Ramp to
90% organic over 5 min and hold for 1.5 min.
Return to initial conditions over 0.5 min.
Time: 13 min

Flow: 1.0 ml/min

MS Parameters:

Experiment: SIR (ES⁻)

Source conditions: see Figure 1
Source Temperature = 110 °C
Desolvation Temperature = 325 °C
Cone Voltage = 15V

Figure 3: T-PFOA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 3:**

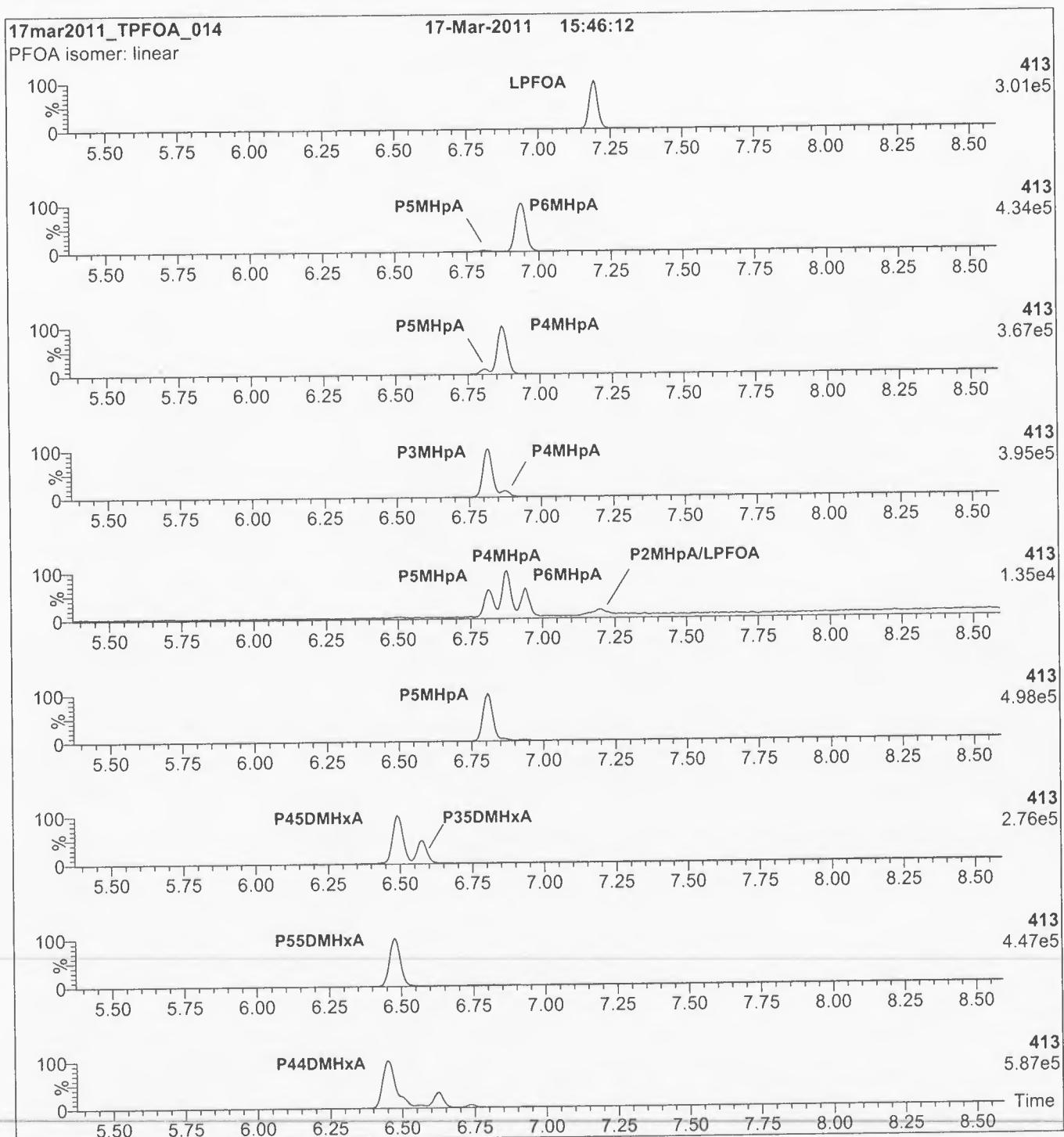
Injection: Direct loop injection
10 μ l (500 ng/ml T-PFOA)

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = variable (9-40)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H₂O
(both with 10 mM NH₄OAc buffer)

Flow: 300 μ l/min

Figure 4: T-PFOA; LC/MS Elution Profile of the Perfluorooctanoic Acid Isomers**Conditions for Figure 4:**

Same as Figure 2.



It can be done

Reagent Receipt Report

BDO Id: 180618-06

180618-06

Approved: **Authorized:**

Name:	Branched PFHxS Standard (50 µg/mL)	Received:	6/18/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	br-PFHxSK	Expires:	1/4/2022
Type:	Solution	Consumed:	
Lot No:	brPFHxSK0117	Stored In:	Sample Preparation - C0103
Quantity:	1 ea mL	% Moisture:	0
Description:	Branched PFHxS Standard (50 µg/mL)		

Analyte:	CAS No:	Concentration (μ g/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
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Notes:

Approved by: _____ **Approved on:** _____
Authorized by: _____ **Authorized on:** _____

180618-06



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

br-PFHxSK

**Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers**

PRODUCT CODE:

br-PFHxSK

LOT NUMBER:

brPFHxSK0117

CONCENTRATION:

50.0 ± 2.5 µg/ml (total potassium salt)

45.5 ± 2.3 µg/ml (total PFHxS anion)

SOLVENT(S):

Methanol

DATE PREPARED: (mm/dd/yyyy)

01/03/2017

LAST TESTED: (mm/dd/yyyy)

01/04/2017

EXPIRY DATE: (mm/dd/yyyy)

01/04/2022

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ¹⁹F-NMR

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS Data (SIR)

Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



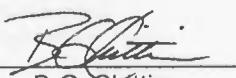
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: br-PFHxSK; Isomeric Components and Percent Composition (by $^{19}\text{F-NMR}$)^{*}

Isomer	Name	Structure	Percent Composition by $^{19}\text{F-NMR}$
1	Potassium perfluoro-1-hexanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CFSO}_3^-\text{K}^+$ CF_3	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CFCF}_2\text{SO}_3^-\text{K}^+$ CF_3	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$\text{CF}_3\text{CF}_2\text{CFCF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$ CF_3	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$\text{CF}_3\text{CFCF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$ CF_3	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	CF_3 $\text{CF}_3\text{CCF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$ CF_3	0.2
7	Other Unidentified Isomers		0.5

^{*} Percent of total perfluorohexanesulfonate isomers only.^{**} Systematic Name: Potassium perfluorohexane-2-sulfonate.

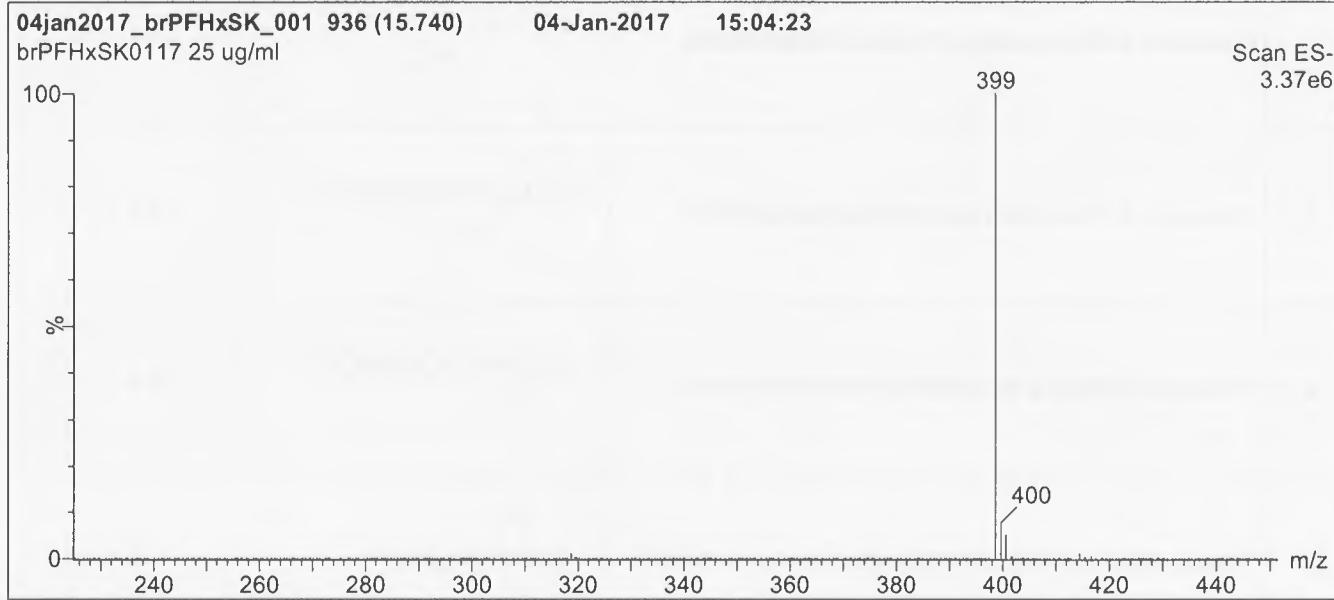
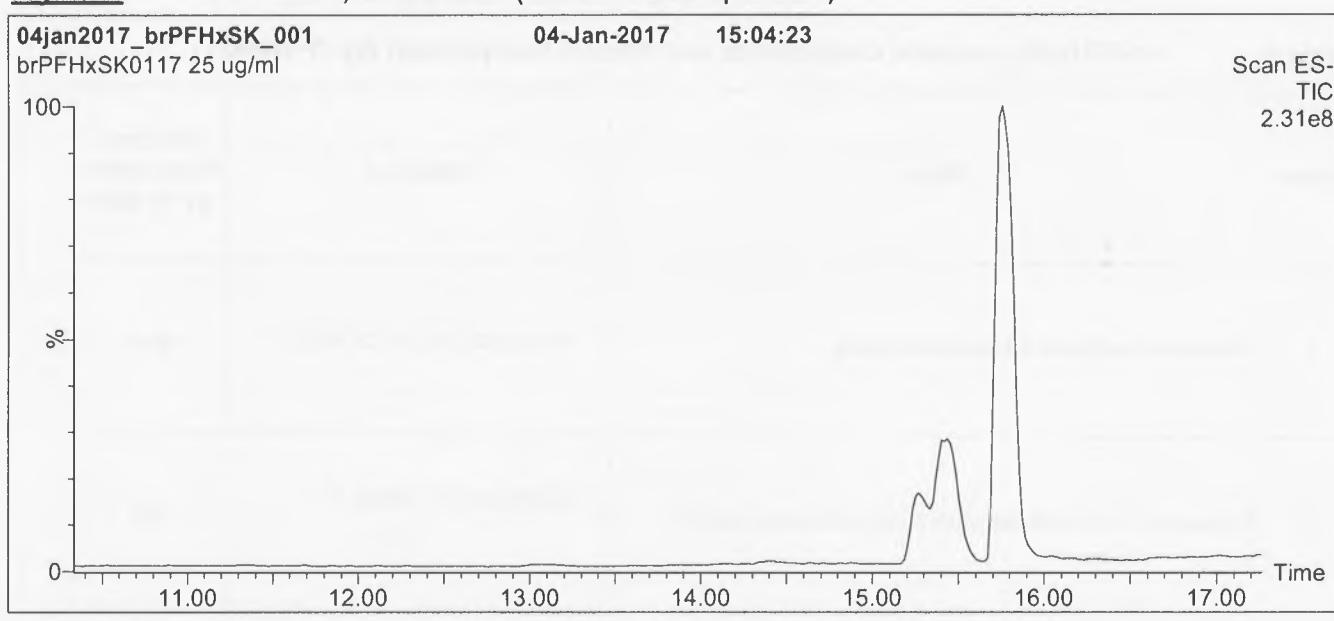
Certified By:



B.G. Chittim

Date: 01/20/2017

(mm/dd/yyyy)

Figure 1: br-PFhxSK; LC/MS Data (TIC and Mass Spectrum)**Conditions for Figure 1:**

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 µm, 2.1 x 100 mm

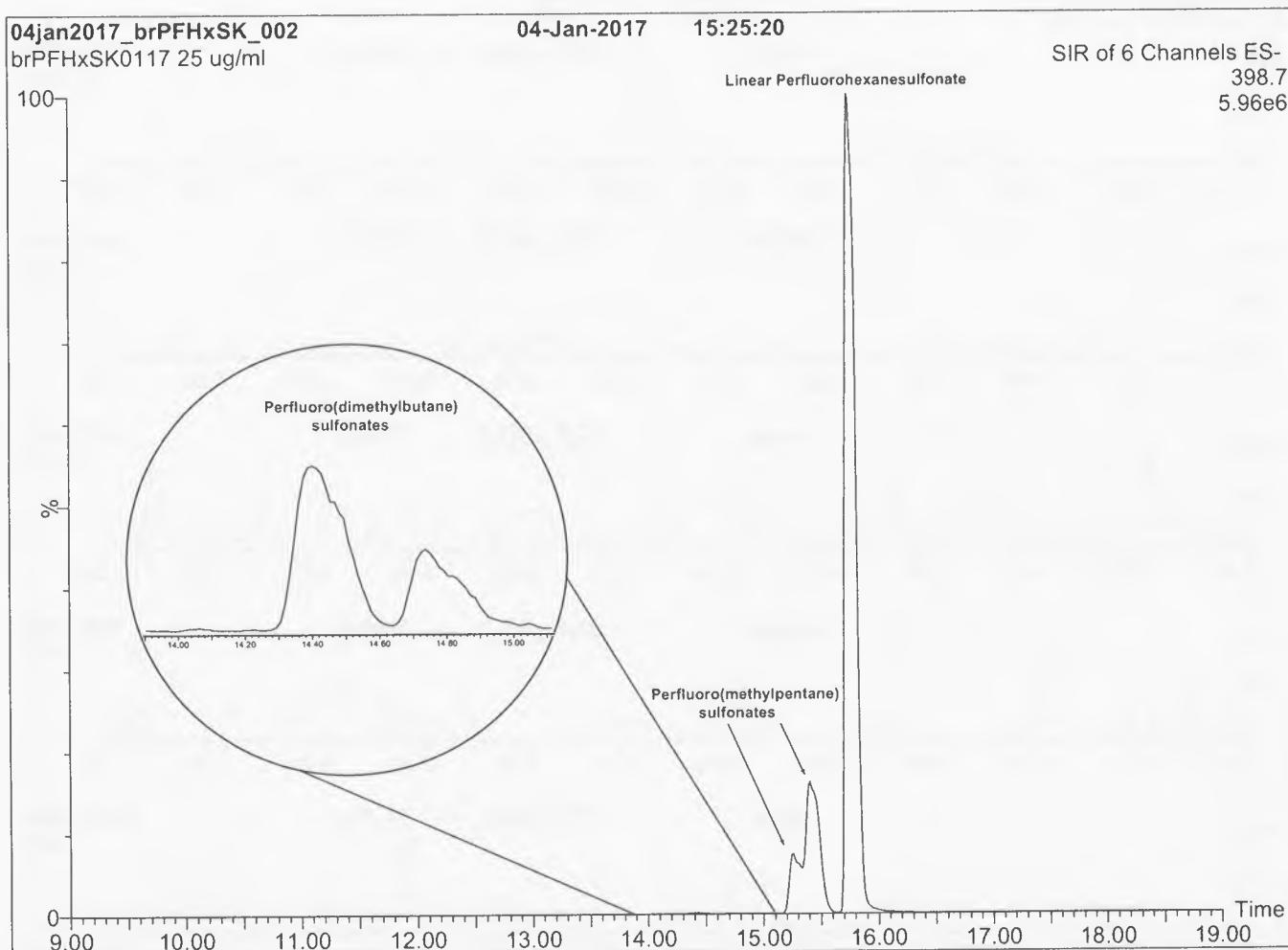
Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 14 min. Ramp to
90% organic over 3 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: br-PFhxSK; LC/MS Data (SIR)**Conditions for Figure 2:**

LC: Waters Acuity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acuity UPLC BEH Shield RP₁₈
 1.7 µm, 2.1 x 100 mm

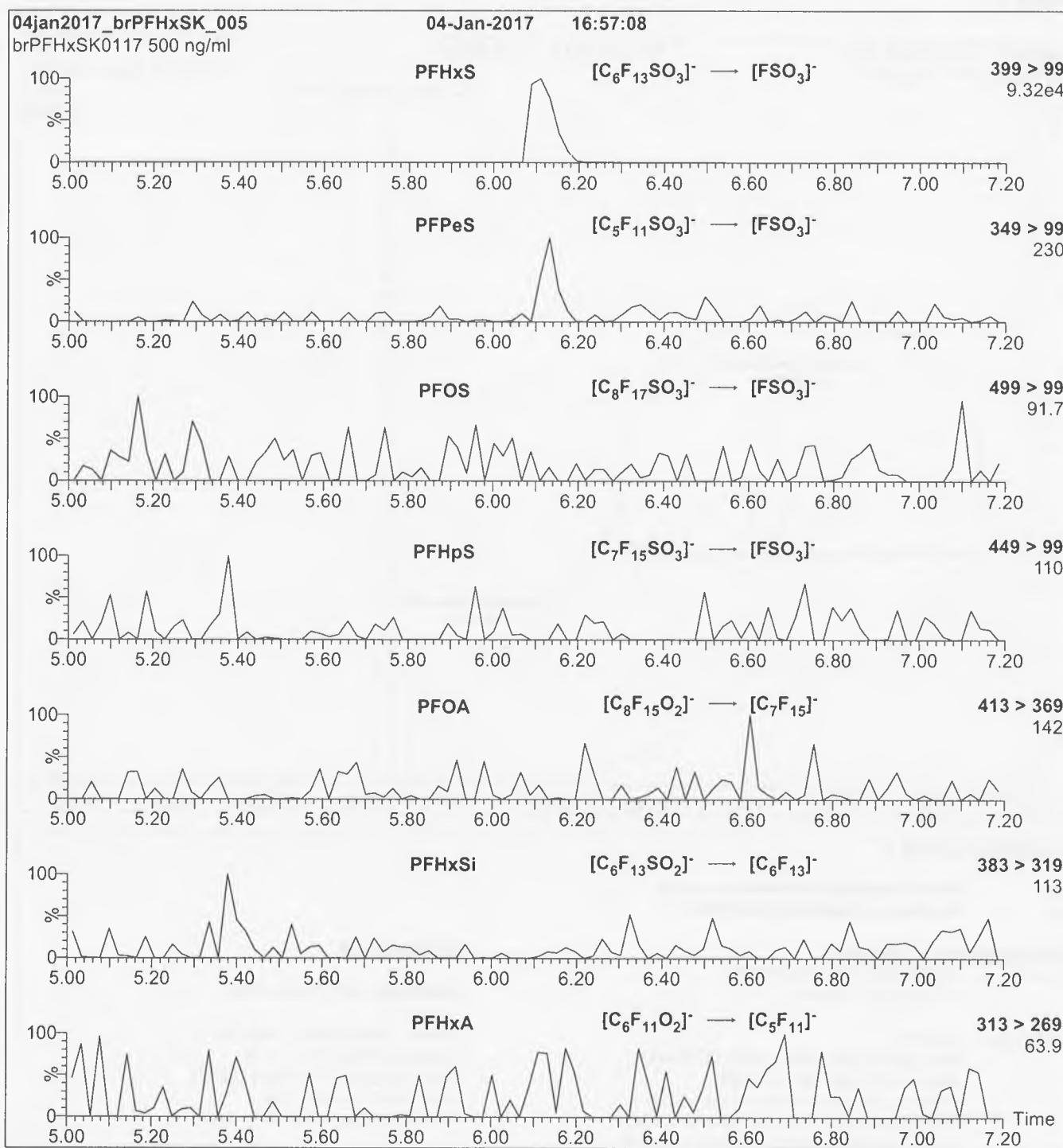
Mobile phase: Gradient
 Start: 20% (80:20 MeOH:ACN) / 80% H₂O
 (both with 10 mM NH₄OAc buffer)
 Ramp to 50% organic over 14 min. Ramp to
 90% organic over 3 min and hold for 1.5 min
 before returning to initial conditions in 0.5 min.
 Time: 20 min

Flow: 300 µl/min

MS Parameters

Experiment: SIR (6 channels)

Source: Electrospray (negative)
 Capillary Voltage (kV) = 3.00
 Cone Voltage (V) = variable (15-62)
 Cone Gas Flow (l/hr) = 60
 Desolvation Gas Flow (l/hr) = 750

Figure 3: br-PFhxSK; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 3:**

Injection: Direct loop injection
 10 μ l (500 ng/ml br-PFhxSK)

MS Parameters

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H₂O
 (both with 10 mM NH₄OAc buffer)

Collision Gas (mbar) = 3.35e-3
 Collision Energy (eV) = 30

Flow: 300 μ l/min



It can be done

Reagent Receipt Report

Page 176 of 765

BDO Id: 180618-07

Approved: Authorized:

Name:	Branched PFOS Standard (50 µg/mL)	Received:	6/18/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	br-PFOSK	Expires:	1/12/2022
Type:	Solution	Consumed:	
Lot No:	brPFOSK0117	Stored In:	Sample Preparation - C0103
Quantity:	1 ea mL	% Moisture:	0
Description:	Branched PFOS Standard (50 µg/mL)		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert Val:	Lower Limit:	Upper Limit:
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Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

180418-07

**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

br-PFOSK

**Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers**

PRODUCT CODE:

br-PFOSK

LOT NUMBER:

brPFOSK0117

CONCENTRATION:

50 ± 2.5 µg/ml (total potassium salt)

46.4 ± 2.3 µg/ml (total PFOS anion)

SOLVENT(S):

Methanol

DATE PREPARED: (mm/dd/yyyy)

01/09/2017

LAST TESTED: (mm/dd/yyyy)

01/12/2017

EXPIRY DATE: (mm/dd/yyyy)

01/12/2022

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ¹⁹F-NMR

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS Data (SIR)

Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: br-PFOSK; Isomeric Components and Percent Composition (by $^{19}\text{F-NMR}$)*

Isomer	Name	Structure	Percent Composition by $^{19}\text{F-NMR}$
1	Potassium perfluoro-1-octanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CFSO}_3^-\text{K}^+$ CF_3	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CFCF}_2\text{SO}_3^-\text{K}^+$ CF_3	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CFCF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$ CF_3	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CFCF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$ CF_3	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$\text{CF}_3\text{CF}_2\text{CFCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$ CF_3	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$\text{CF}_3\text{CFCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$ CF_3	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{matrix} \text{CF}_3 \\ \\ \text{CF}_3\text{CCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{matrix}$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{matrix} \text{CF}_3 \\ \\ \text{CF}_3\text{CCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{matrix}$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{matrix} \text{CF}_3 \\ \\ \text{CF}_3\text{CFCF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{matrix}$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{matrix} \text{CF}_3 \\ \\ \text{CF}_3\text{CFCF}_2\text{CFCF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{matrix}$	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.

** Systematic Name: Potassium perfluorooctane-2-sulfonate.

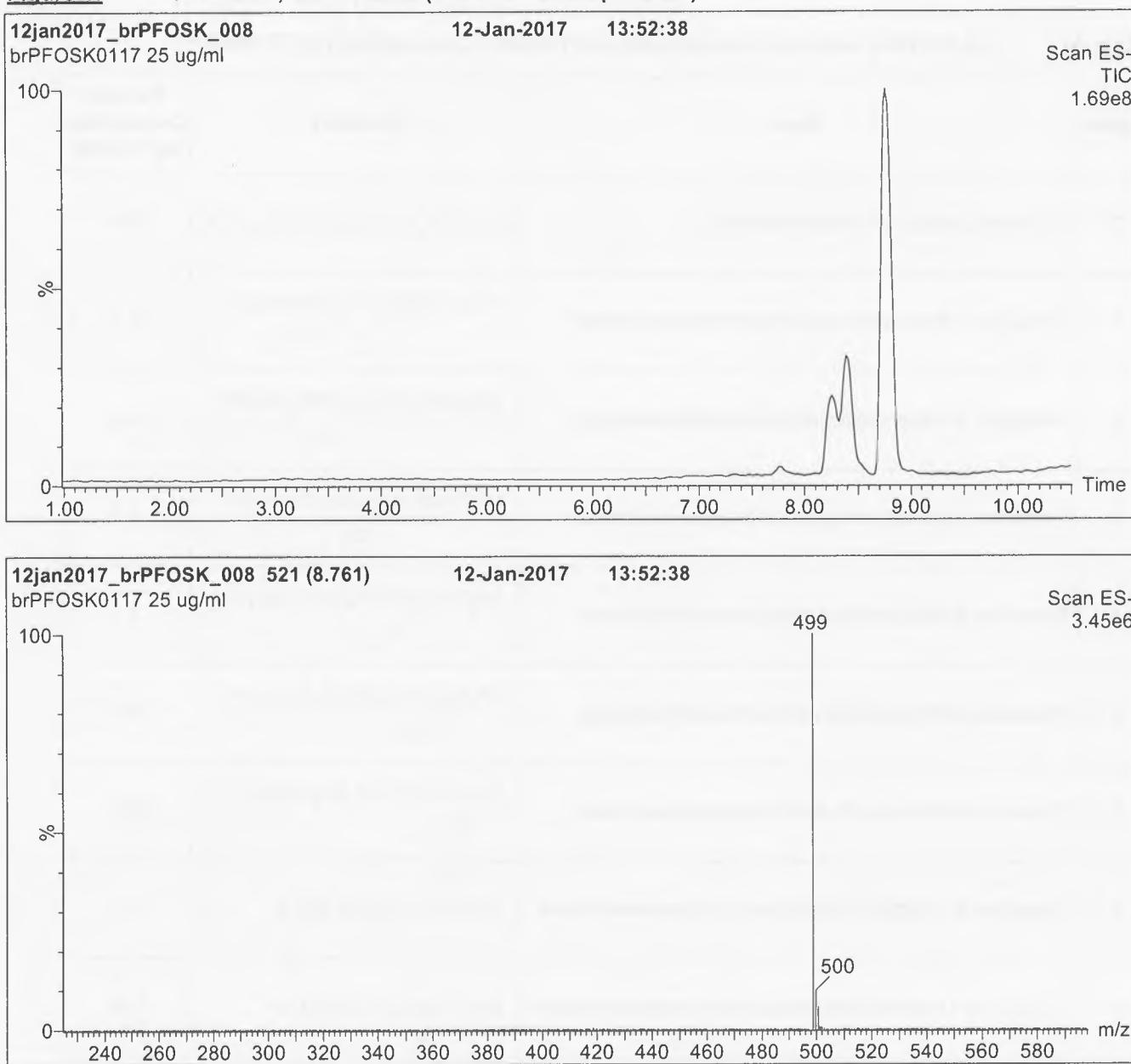
Certified By:



B.G. Chittim

Date: 01/20/2017

(mm/dd/yyyy)

Figure 1: br-PFOSK; LC/MS Data (TIC and Mass Spectrum)**Conditions for Figure 1:**

LC: Waters Acuity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acuity UPLC BEH Shield RP₁₈
 1.7 µm, 2.1 x 100 mm

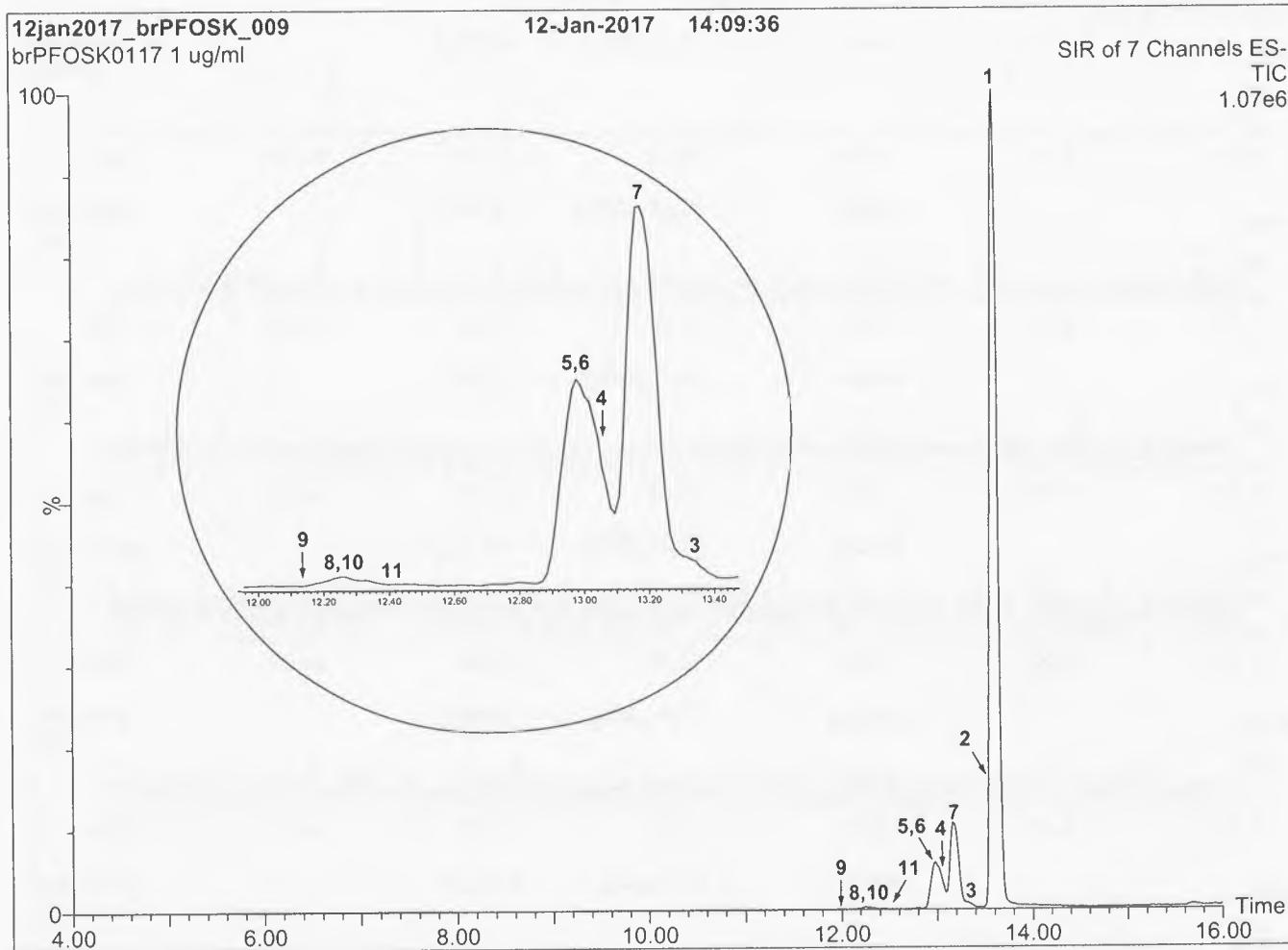
Mobile phase: Gradient
 Start: 45% (80:20 MeOH:ACN) / 55% H₂O
 (both with 10 mM NH₄OAc buffer)
 Ramp to 90% organic over 12 min and hold for 2 min.
 Return to initial conditions over 0.5 min.
 Time: 16 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
 Capillary Voltage (kV) = 3.00
 Cone Voltage (V) = 60.00
 Cone Gas Flow (l/hr) = 50
 Desolvation Gas Flow (l/hr) = 750

Figure 2: br-PFOSK; LC/MS Data (SIR)**Conditions for Figure 2:**

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

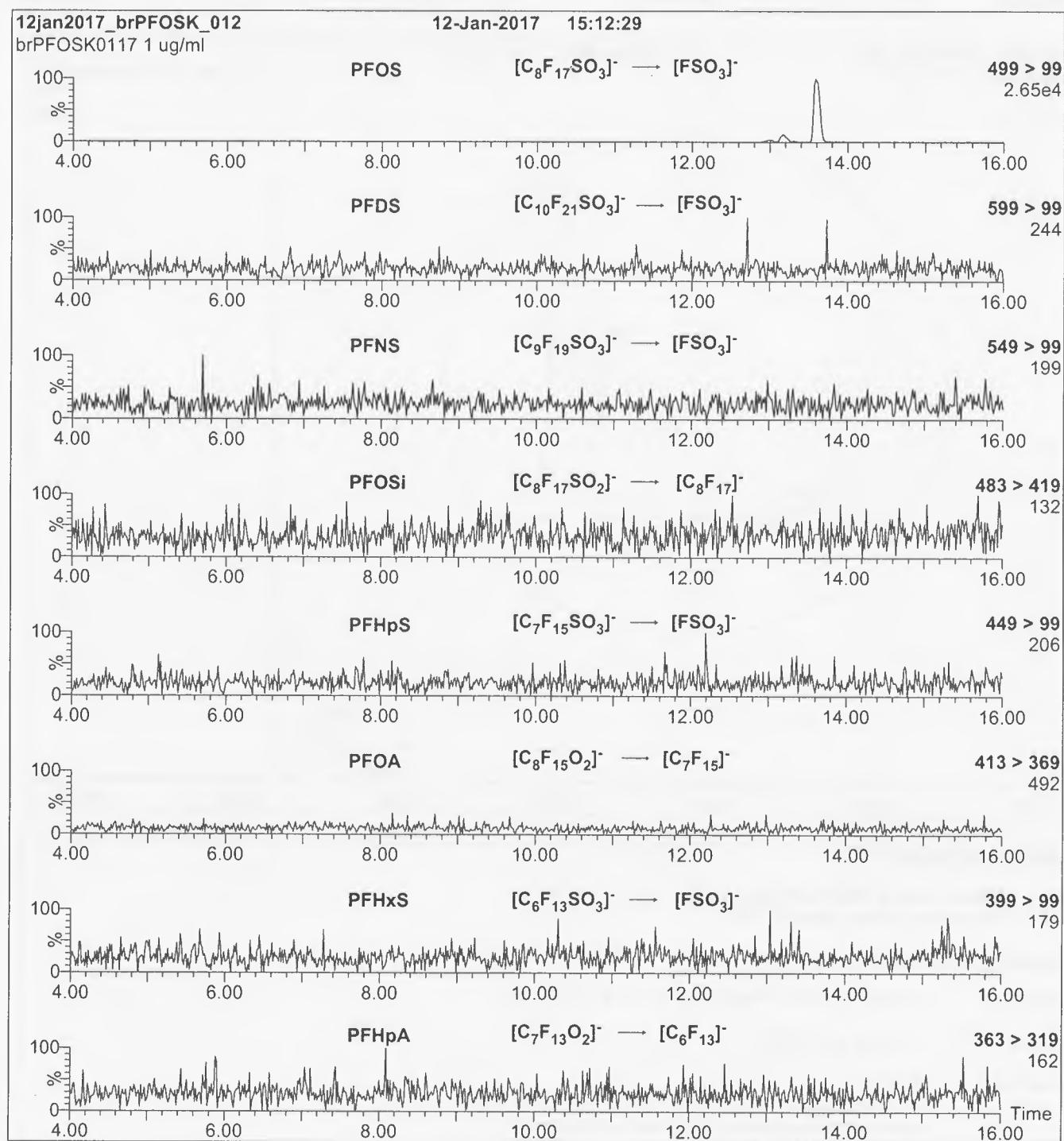
Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP₁₈ (1.7 µm, 2.1 x 100 mm)
 Injection: 1.0 µg/ml of br-PFOSK
 Mobile Phase: Gradient
 45% (80:20 MeOH:ACN) / 55% H₂O (both with 10 mM NH₄OAc buffer)
 Ramp to 90% organic over 15 min and hold for 3 min.
 Return to initial conditions over 1 min.
 Time: 20 min

Flow: 300 µl/min

MS Conditions:

SIR (ES):
 Source = 110 °C
 Desolvation = 325 °C
 Cone Voltage = 60V

Figure 3: br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 3:**

Injection: On-column

MS Parameters

Mobile phase: Same as Figure 2

Collision Gas (mbar) = 3.31e-3

Flow: 300 μ l/min

Collision Energy (eV) = 11-50 (variable)



CERTIFIED WEIGHT REPORT

Part Number: 99207
 Lot Number: 061918
 Description: PFOA - DOD
 Expiration Date: 061923
 Recommended Storage: Freezer (0 °C)
 Nominal Concentration ($\mu\text{g/mL}$): 1.0
 NIST Test ID#: 2684186
 Solvent(s): Methanol (1 mM KOH)
 Lot #: 061918 (98%)
 2-Propanol 23214 (2%)
 5E-05 Balance Uncertainty
 0.007 Flask Uncertainty

Volume(s) shown below were combined and diluted to (mL):

50.0 ▾ 0.007

<i>Mario Luis</i>	061918
Formulated By:	Mario Luis
<i>Pedro L. Rentas</i>	061918
Reviewed By:	Pedro L. Rentas

Note: All assigned values are anion concentrations.

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc. ($\mu\text{g/mL}$)	Final Conc. ($\mu\text{g/mL}$)	Expanded Uncertainty (+/-) ($\mu\text{g/mL}$)	SDS Information (Solvent Safety Info. On Attached pg.)		
									CAS#	OSHA PEL (TWA)	LD50
1. Perfluoro-n-butanoic acid (linear) ~	99542	110317	0.02	1.00	0.004	50.2	1.00	0.01	375-22-4	N/A	N/A
2. Perfluoro-n-pentanoic acid ~	99543	110317	0.02	1.00	0.004	50.7	1.01	0.01	2706-90-3	N/A	N/A
3. Perfluorohexanoic acid ~	99199	030617	0.02	1.00	0.004	50.3	1.01	0.01	307-24-4	N/A	N/A
4. Perfluoroheptanoic acid ~	99197	030517	0.02	1.00	0.004	50.1	1.00	0.01	375-85-9	N/A	N/A
5. Perfluoroctanoic acid ~	99202	030617	0.02	1.00	0.004	50.2	1.00	0.01	335-67-1	N/A	ipr-rat 189mg/kg
6. Perfluorononanoic acid ~	99200	030617	0.02	1.00	0.004	50.1	1.00	0.01	375-95-1	N/A	N/A
7. Perfluorodecanoic acid ~	99195	030617	0.02	1.00	0.004	50.1	1.00	0.01	335-76-2	N/A	orl-rat 57mg/kg
8. Perfluoroundecanoic acid ~	99205	030617	0.02	1.00	0.004	50.1	1.00	0.01	2058-94-8	N/A	N/A
9. Tricosafluorododecanoic acid ~	99196	030617	0.02	1.00	0.004	50.1	1.00	0.01	307-55-1	N/A	N/A
10. Perfluorotridecanoic acid ~	99204	030617	0.02	1.00	0.004	50.1	1.00	0.01	72629-94-8	N/A	N/A
11. Perfluorotetradecanoic acid ~	99203	030617	0.02	1.00	0.004	50.1	1.00	0.01	376-06-7	N/A	N/A
12. Perfluoro-1-octanesulfonamide ~	3677	FOSA0817I	0.02	1.00	0.004	50.0	1.00	0.01	754-91-6	N/A	N/A
13. N-Methylperfluoro-1-octanesulfonamidoacetic acid ~	3667	NMeFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2355-31-9	N/A	N/A
14. N-Ethylperfluoro-1-octanesulfonamidoacetic acid ~	3664	NEFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2991-50-6	N/A	N/A
15. Perfluorobutanesulfonic acid ~	99194	031017	0.02	1.00	0.004	50.7	1.01	0.01	375-73-5	N/A	N/A
16. Perfluoro-1-pentanesulfonate ~	99544	111017	0.02	0.98	0.004	51.3	1.00	0.01	630402-22-1	N/A	N/A
17. Perfluorohexanesulfonic acid (branched) ~	99198	030617	0.02	1.00	0.004	50.6	1.01	0.01	3871-99-6	N/A	N/A
18. Perfluoro-1-heptanesulfonic acid ~	3672	LPFHs0817	0.021	1.05	0.004	47.6	1.00	0.01	375-92-8	N/A	N/A
19. Heptadecafluorooctanesulfonic acid (branched) ~	99201	030617	0.02	1.00	0.004	50.2	1.00	0.01	1763-23-1	N/A	N/A
20. Perfluoro-1-nonanesulfonic acid ~	3957	LPFNS0917	0.021	1.05	0.004	48.0	1.01	0.01	98789-57-2	N/A	N/A
21. Perfluoro-1-decanesulfonic acid ~	3671	LPFDs0217	0.021	1.05	0.004	48.2	1.01	0.01	2806-15-7	N/A	N/A
22. 1H,1H,2H,2H-Perfluorohexane sulfonic acid	3955	42FTS1216	0.0214	1.07	0.004	46.7	1.00	0.01	00-00-0	N/A	N/A
23. 1H,1H,2H,2H-Perfluorooctane sulfonic acid	3661	62FTS0616	0.021	1.05	0.004	47.4	1.00	0.01	27619-97-2	N/A	N/A
24. 1H,1H,2H,2H-Perfluorodecane sulfonic acid ~	3662	82FTS1216	0.021	1.05	0.004	47.9	1.01	0.01	39108-34-4	N/A	N/A



Peak No.	Analyte	MSD RT (min.)
1	Perfluoro-n-butyric acid (PFBA)	9.08
2	Perfluoro-n-pentanoic acid (PFPeA)	6.42
3	Perfluorobutanesulfonate (PFBS)	7.59
4	(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2FTS)	8.96
5	Perfluorooxanoic acid (PFHxA)	9.42
6	(Na) Perfluoro-1-pentanesulfonate (L-PFPeS)	10.17
7	Perfluorodecanoic acid (PFHxD)	11.89
8	Perfluorobenesulfonic acid (branched) (br-PFHxS)	11.96
9	Perfluorohexanesulfonic acid (branched) (br-PFHxS)	12.46
10	(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate (8:2FTS)	13.89
11	Perfluorooctanoic acid (PFOA)	14.19
12	(Na) Perfluoro-1-heptanesulfonate (L-PFHxS)	14.63
13	Heptadecafluorooctanesulfonic acid (branched)	15.97
14	Perfluorononanoic acid (PFNA)	16.21
15	Heptadecafluorooctanesulfonic acid (branched)	16.49
16	(Na) 1H,1H,2H,2H-Perfluorodecanoate (8:2FTS)	17.55
17	Perfluorodecanoic acid (PFDA)	17.65
18	(Na) Perfluoro-1-octanesulfonate (L-PFNS)	17.79
19	N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MePOSA)	18.17
20	Perfluoro-1-octanesulfonamide (POSA-1)	18.43
21	N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtPOSA)	18.54
22	Perfluoroundecanoic acid (PFUdA)	18.65
23	(Na) Perfluoro-1-decanesulfonate (L-PFDS)	18.72
24	Tricosfluorododecanoic acid (PFDoA)	19.42
25	Perfluorotridecanoic acid (PFTrDA)	20.06
26	Perfluorotetradecanoic acid (PFTcDA)	20.60

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC. (1994).

Method: 537M2**Column:** Advantage High Load (150mm X 2.1mm ID X 5μm df)**Column Temp.**=40°C**Flowrate**=0.3mL/min.**Injection Volume**=1μL**Mobile Phase:**

Solvent A=10mM Ammonium Acetate in Water

Solvent B=10mM Ammonium Acetate in Methanol:Acetonitrile (80:20)

Mobile Phase Profile:

Time=00 60% A:40% B

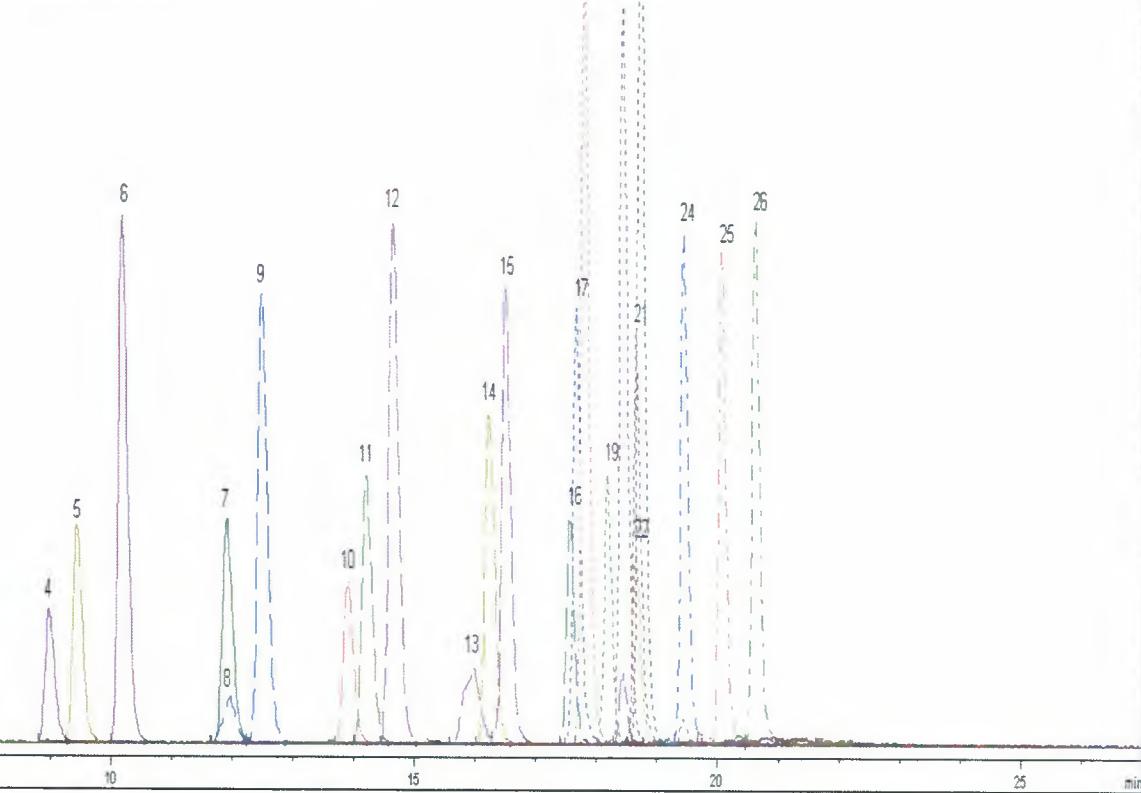
Time=04 45% A:55% B

Time=11 30% A:70% B

Time=16 10% A:90% B

Time=17 10% A:90% B

Time=27 60% A:40% B

Detector: MSD (API-ES, Negative Polarity, Scan mode)**Analyst:**Pedro Rentas

BDO Id: 180726-04**Reagent Receipt Report**Approved: Authorized

Name:	Mass-labelled PFAS injection standard	Received:	7/26/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	MPFAC-C-IS	Expires:	5/2/2022
Type:	Solution	Consumed:	
Lot No:	MPFACCIS0516	Stored In:	LC Laboratory - R0107
Quantity:	2 ea 1.2 mL	% Moisture:	0
Description:	Mass-labelled PFAS injection standards		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
13C2-PFDA	BDO-2110	2.0000	100.00	--	--	<input checked="" type="checkbox"/>			
13C2-PFOA	BDO-2107	2.0000	100.00	--	--	<input checked="" type="checkbox"/>			
13C3-PFBA	BDO-2231	2.0000	100.00	--	--	<input checked="" type="checkbox"/>			
13C4-PFOS	BDO-2121	1.9140	100.00	--	--	<input checked="" type="checkbox"/>			

Total Analytes: 4

Notes:

Approved by:	Lizotte Jr, Robert	Approved on:	7/27/2018 11:10:00 AM
Authorized by:		Authorized on:	



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

MPFAC-C-IS

**Mass-Labelled Perfluorinated
Compound Injection Standards Solution**

<u>PRODUCT CODE:</u>	MPFAC-C-IS
<u>LOT NUMBER:</u>	MPFACCIS0516
<u>SOLVENT(S):</u>	Methanol / Water (<1%)
<u>DATE PREPARED:</u> (mm/dd/yyyy)	05/24/2016
<u>LAST TESTED:</u> (mm/dd/yyyy)	05/02/2017
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	05/02/2022
<u>RECOMMENDED STORAGE:</u>	Store ampoule in a cool, dark place

DESCRIPTION:

MPFAC-C-IS is a solution/mixture of mass-labelled (¹³C) perfluoroalkylcarboxylic acids and a mass-labelled (¹³C) perfluoroalkylsulfonate. The components and their concentrations are given in Table A.

MPFAC-C-IS was designed for, and prepared to be used with, PFC-CVS-C.

The individual mass-labelled perfluoroalkylcarboxylic acids and mass-labelled perfluoroalkylsulfonate all have chemical purities of >98% and isotopic purities of >99%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
 Figure 1: LC/MS Data (SIR)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The mass-labelled perfluoroalkylsulfonate compound concentration is reported as the salt.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

$$x_1, x_2, \dots, x_n \text{ on which it depends is: } u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

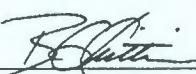
Table A: MPFAC-C-IS; Components and Concentrations (ng/ml; ± 5% in Methanol / Water (<1%))

Compound	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1
Perfluoro-n-[2,3,4- ¹³ C ₃]butanoic acid	M3PFBA	2000	A
Perfluoro-n-[1,2- ¹³ C ₂]octanoic acid	M2PFOA	2000	B
Perfluoro-n-[1,2- ¹³ C ₂]decanoic acid	MPFDA	2000	D
Sodium perfluoro-1-[1,2,3,4- ¹³ C ₄]octanesulfonate	MPFOS	2000	C

① 1914 when corrected
for sodium

JMT 7/26/2017

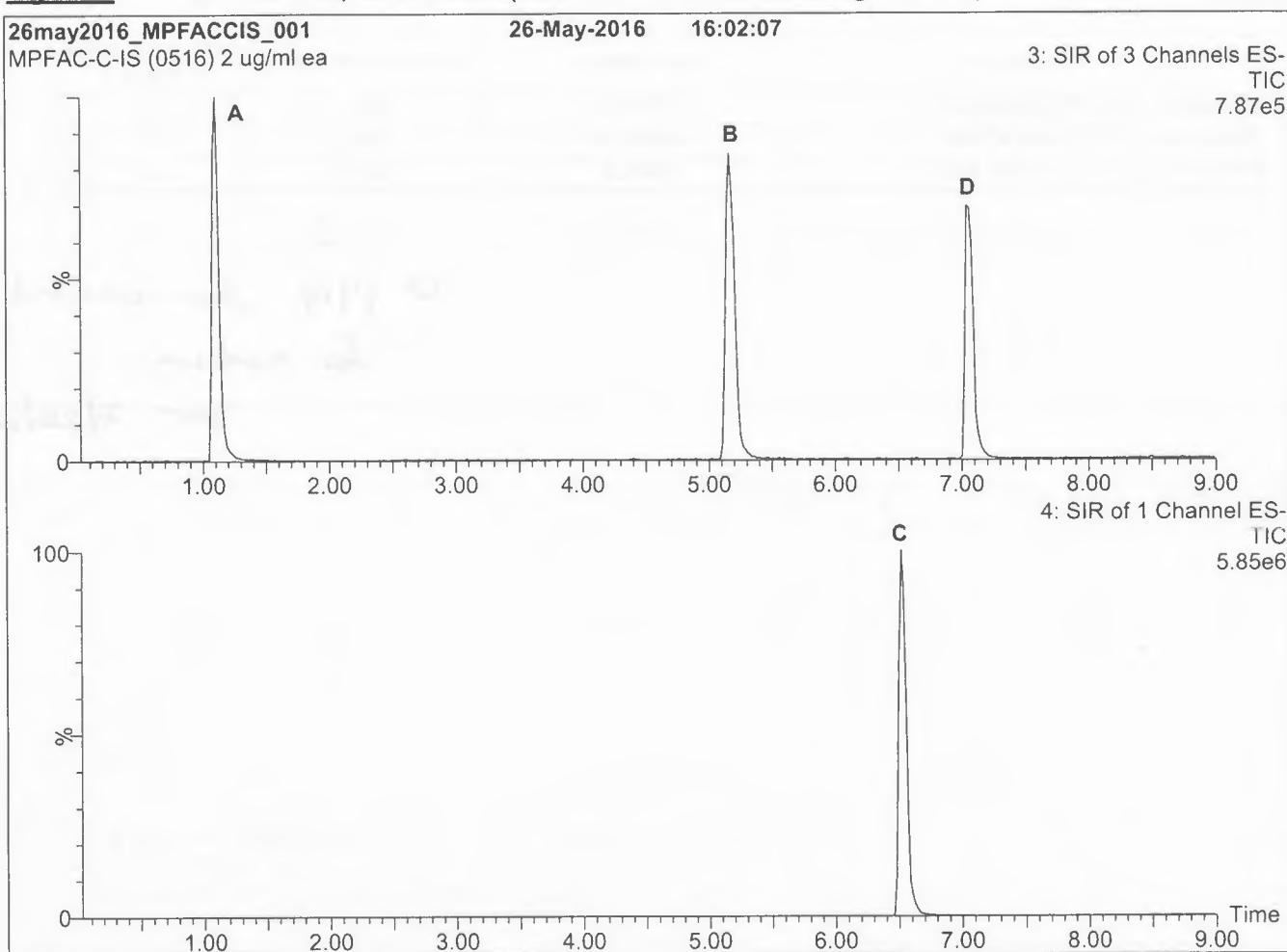
Certified By:



B.G. Chittim, General Manager

Date: 05/04/2017

(mm/dd/yyyy)

Figure 1: MPFAC-C-IS; LC/MS Data (Total Ion Current Chromatogram; SIR)**Conditions for Figure 1:**

LC: Waters Acuity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acuity UPLC BEH Shield RP₁₈
 1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient

Start: 50% (80:20 MeOH:ACN) / 50% H₂O
 (both with 10 mM NH₄OAc buffer)
 Ramp to 90% organic over 8 min
 and hold for 2 min before returning
 to initial conditions in 1 min.

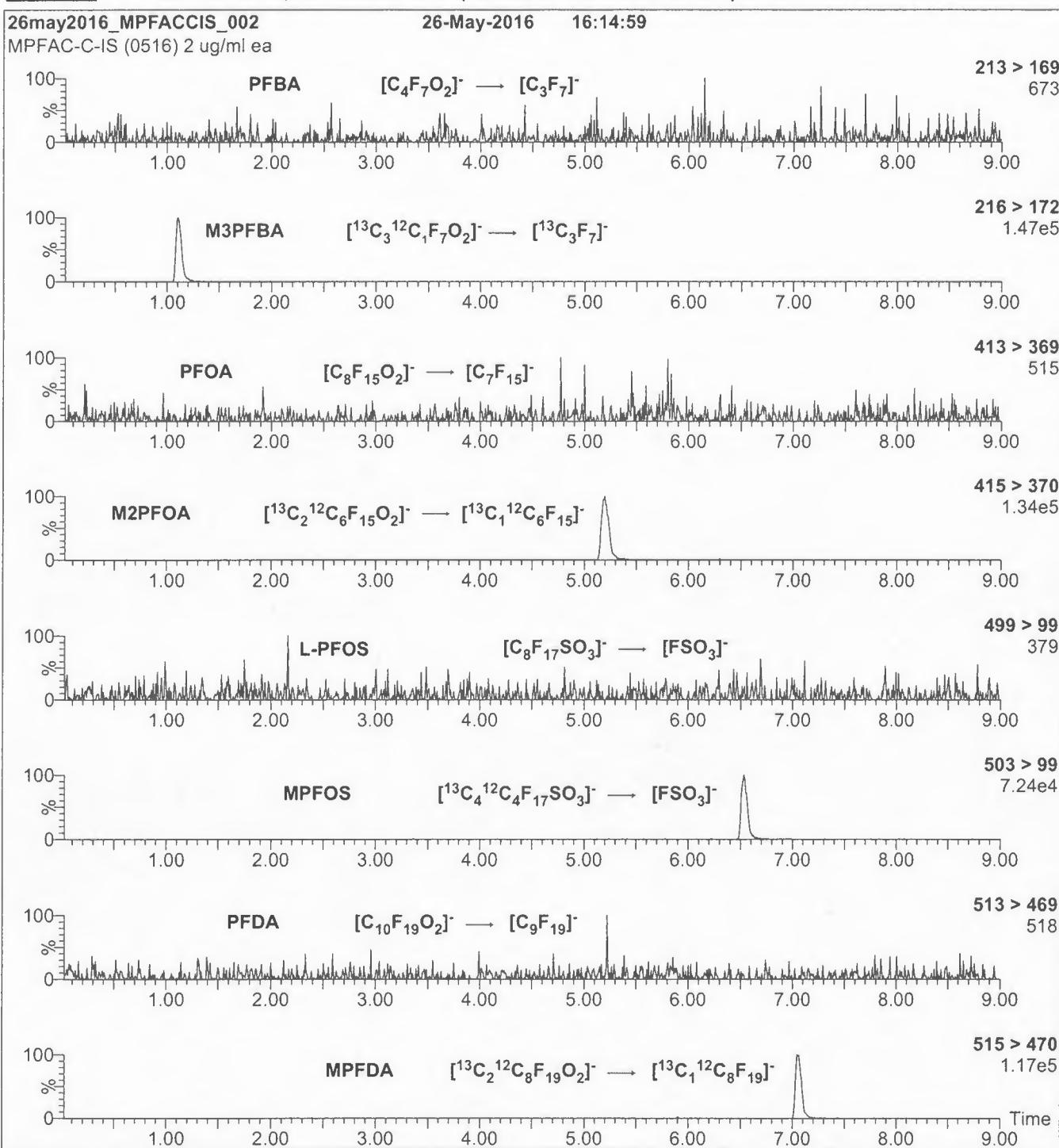
Time: 12 min

Flow: 300 µl/min

MS Parameters

Experiment: SIR

Source: Electrospray (negative)
 Capillary Voltage (kV) = 2.00
 Cone Voltage (V) = variable (10-80)
 Cone Gas Flow (l/hr) = 50
 Desolvation Gas Flow (l/hr) = 750

Figure 2: MPFAC-C-IS; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (MPFAC-C-IS)

MS Parameters

Collision Gas (mbar) = 3.50e-3

Mobile phase: Same as Figure 1

Collision Energy (eV) = 8-50 (variable)

Flow: 300 μ l/min

BDO Id: 180726-05**Reagent Receipt Report**Approved: Authorized:

Name: Mass-labelled PFAS Extraction Stand Received: 7/26/2018
 Vendor: Wellington Laboratories Custodian: Thorn, Jonathan
 Catalogue No: MPFAC-24ES Expires: 2/7/2023
 Type: Solution Consumed:
 Lot No: MPFAC24ES0218 Stored In: LC Laboratory - R0107
 Quantity: 2 ea 1.2 mL % Moisture: 0
 Description: Mass-labelled PFAS Extraction Standard Solution

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
13C2-4:2FTS	BDO-2229	0.9350	100.00	--	--	<input type="checkbox"/>			
13C2-6:2FTS	BDO-2230	0.9490	100.00	--	--	<input type="checkbox"/>			
13C2-8:2FTS	BDO-2220	0.9580	100.00	--	--	<input type="checkbox"/>			
13C2-PFDoA	BDO-2112	1.0000	100.00	--	--	<input type="checkbox"/>			
13C2-PFTeDA	BDO-2224	1.0000	100.00	--	--	<input type="checkbox"/>			
13C3-PFBS	BDO-2226	0.9290	100.00	--	--	<input type="checkbox"/>			
13C3-PFHxS	BDO-2227	0.9460	100.00	--	--	<input type="checkbox"/>			
13C4-PFBA	BDO-2105	1.0000	100.00	--	--	<input type="checkbox"/>			
13C4-PFHxA	BDO-2218	1.0000	100.00	--	--	<input type="checkbox"/>			
13C5-PFHxA	BDO-2217	1.0000	100.00	--	--	<input type="checkbox"/>			
13C5-PFPeA	BDO-2216	1.0000	100.00	--	--	<input type="checkbox"/>			
13C6-PFDA	BDO-2222	1.0000	100.00	--	--	<input type="checkbox"/>			
13C7-PFUnA	BDO-2223	1.0000	100.00	--	--	<input type="checkbox"/>			
13C8-FOSA	BDO-2225	1.0000	100.00	--	--	<input type="checkbox"/>			
13C8-PFOA	BDO-2219	1.0000	100.00	--	--	<input type="checkbox"/>			
13C8-PFOS	BDO-2228	0.9570	100.00	--	--	<input type="checkbox"/>			
13C9-PFNA	BDO-2221	1.0000	100.00	--	--	<input type="checkbox"/>			
d3-MeFOSAA	BDO-1838	1.0000	100.00	--	--	<input type="checkbox"/>			
d5-EtFOSAA	BDO-1839	1.0000	100.00	--	--	<input type="checkbox"/>			

Total Analytes: 19

Notes:

Approved by: Lizotte Jr, Robert Approved on: 7/27/2018 11:10:00 AM
 Authorized by: _____ Authorized on: _____



**WELLINGTON
LABORATORIES**

**CERTIFICATE OF ANALYSIS
DOCUMENTATION**

MPFAC-24ES

**Mass-Labelled Per- and Poly-fluoroalkyl Substance
Extraction Standard Solution**

PRODUCT CODE: MPFAC-24ES

LOT NUMBER: MPFAC24ES0218

SOLVENT(S): Methanol / Isopropanol (2%) / Water (<1%)

DATE PREPARED: (mm/dd/yyyy) 02/07/2018

LAST TESTED: (mm/dd/yyyy) 02/07/2018

EXPIRY DATE: (mm/dd/yyyy) 02/07/2023

RECOMMENDED STORAGE: Refrigerate ampoule

DESCRIPTION:

MPFAC-24ES is a solution/mixture of ten mass-labelled (¹³C) perfluoroalkylcarboxylic acids (C₄-C₁₂ and C₁₄), three mass-labelled (¹³C) perfluoroalkylsulfonates (C₄, C₆, and C₈), three mass-labelled (¹³C) telomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled (²H) perfluorooctanesulfonamidoacetic acids, and perfluoro-1-[¹³C₈]octanesulfonamide. The components and their concentrations are given in Table A.

The individual mass-labelled perfluoroalkylcarboxylic acids, mass-labelled perfluoroalkylsulfonates, mass-labelled telomer sulfonates, and perfluoro-1-[¹³C₈]octanesulfonamide all have chemical purities of >98% and isotopic purities of ≥99%. The individual mass-labelled perfluorooctanesulfonamidoacetic acids all have chemical purities of >98% and isotopic purities of ≥98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture

Figure 1: LC/MS Data (SIR)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

$$x_1, x_2, \dots, x_n \text{ on which it depends is: } u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: MPFAC-24ES; Components and Concentrations
(ng/ml, ± 5% in Methanol / Isopropanol (2%) / Water (<1%))

Compound	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1	
Perfluoro-n-[¹³ C ₄]butanoic acid	MPFBA	1000	A	
Perfluoro-n-[¹³ C ₅]pentanoic acid	M5PFPeA	1000	B	
Perfluoro-n-[1,2,3,4,6- ¹³ C ₅]hexanoic acid	M5PFHxA	1000	E	
Perfluoro-n-[1,2,3,4- ¹³ C ₄]heptanoic acid	M4PFHpA	1000	F	
Perfluoro-n-[¹³ C ₈]octanoic acid	M8PFOA	1000	I	
Perfluoro-n-[¹³ C ₉]nonanoic acid	M9PFNA	1000	J	
Perfluoro-n-[1,2,3,4,5,6- ¹³ C ₆]decanoic acid	M6PFDA	1000	M	
Perfluoro-n-[1,2,3,4,5,6,7- ¹³ C ₇]undecanoic acid	M7PFUdA	1000	Q	
Perfluoro-n-[1,2- ¹³ C ₂]dodecanoic acid	MPFDaO	1000	R	
Perfluoro-n-[1,2- ¹³ C ₂]tetradecanoic acid	M2PFTeDA	1000	S	
Perfluoro-1-[¹³ C ₈]octanesulfonamide	M8FOSA	1000	O	
N-methyl-d ₃ -perfluoro-1-octanesulfonamidoacetic acid	d3-N-MeFOSAA	1000	N	
N-ethyl-d ₅ -perfluoro-1-octanesulfonamidoacetic acid	d5-N-EtFOSAA	1000	P	
Compound	Abbreviation	Concentration (ng/ml) as the salt	Peak Assignment in Figure 1	
Sodium perfluoro-1-[2,3,4- ¹³ C ₃]butanesulfonate	M3PFBS	1000	929	C
Sodium perfluoro-1-[1,2,3- ¹³ C ₃]hexanesulfonate	M3PFHxS	1000	946	G
Sodium perfluoro-1-[¹³ C ₈]octanesulfonate	M8PFOS	1000	957	K
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2- ¹³ C ₂]hexanesulfonate	M2-4:2FTS	1000	935	D
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2- ¹³ C ₂]octanesulfonate	M2-6:2FTS	1000	949	H
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2- ¹³ C ₂]decanesulfonate	M2-8:2FTS	1000	958	L

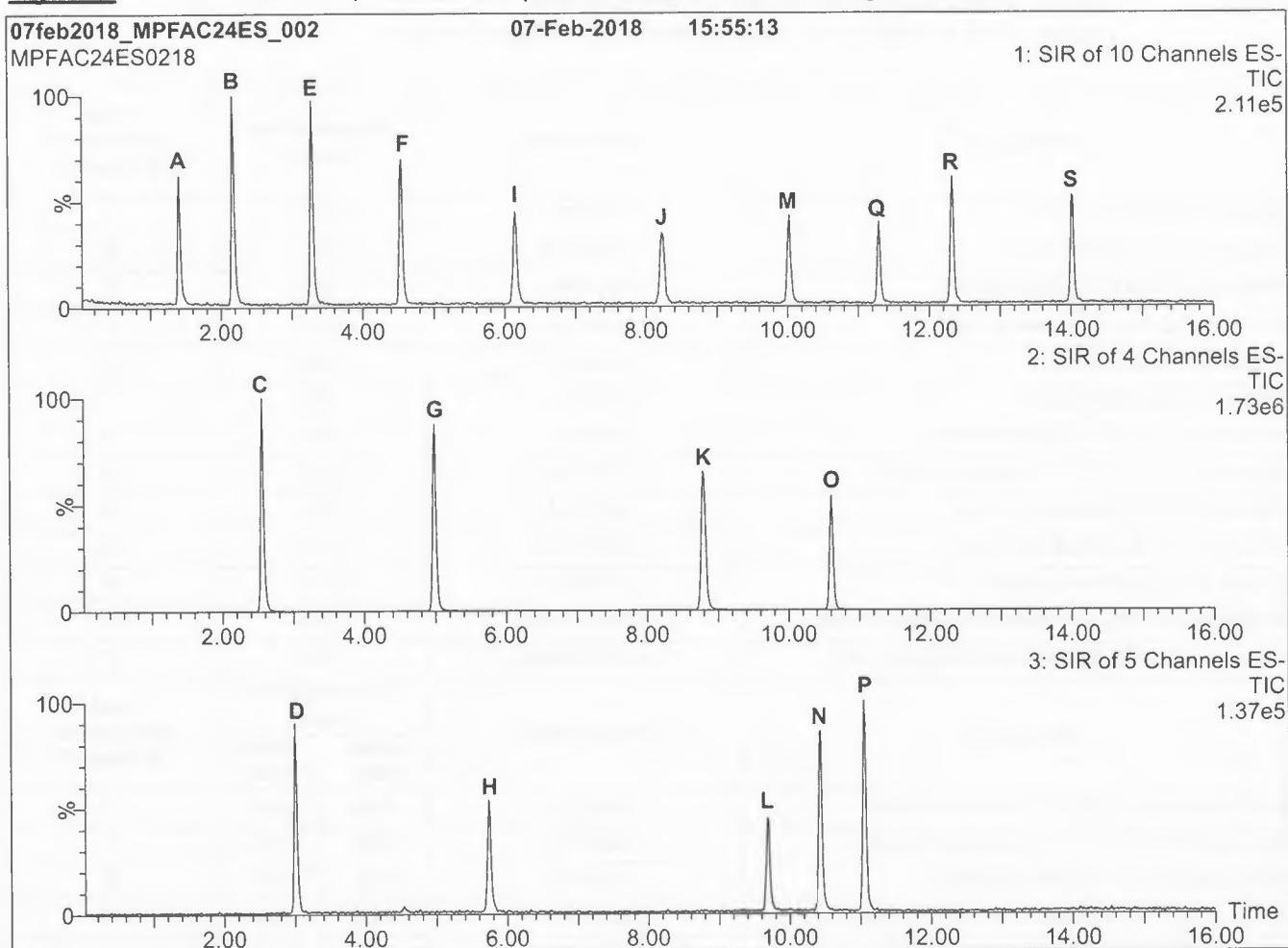
Certified By:



B.G. Chittim, General Manager

Date: 02/09/2018

(mm/dd/yyyy)

Figure 1: MPFAC-24ES; LC/MS Data (Total Ion Current Chromatogram; SIR)**Conditions for Figure 1:**

LC: Waters Acuity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acuity UPLC BEH Shield RP₁₈
 1.7 μm, 2.1 x 100 mm

Mobile phase: Gradient

Start: 40% (80:20 MeOH:ACN) / 60% H₂O
 (both with 10 mM NH₄OAc buffer)
 Ramp to 55% organic over 3.5 min.
 Ramp to 70% organic over 6.5 min.
 Ramp to 85% organic over 5 min and hold for
 1 min before returning to initial conditions in 0.5 min.
 Time: 17 min

Flow: 300 μl/min

MS Parameters

Experiment: SIR

Source: Electrospray (negative)
 Capillary Voltage (kV) = 3.00
 Cone Voltage (V) = variable (10-60)
 Cone Gas Flow (l/hr) = 100
 Desolvation Gas Flow (l/hr) = 750

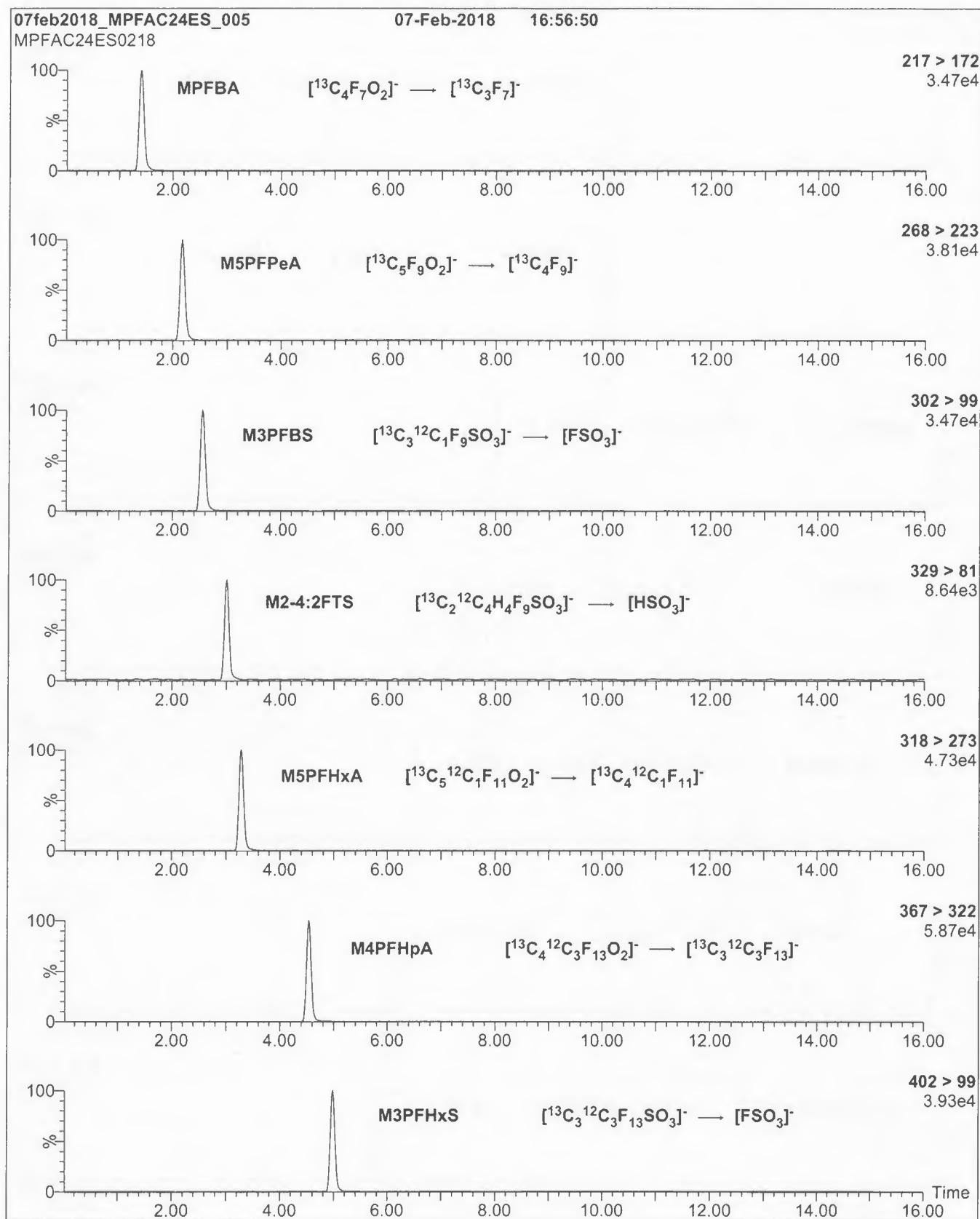
Figure 2: MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)

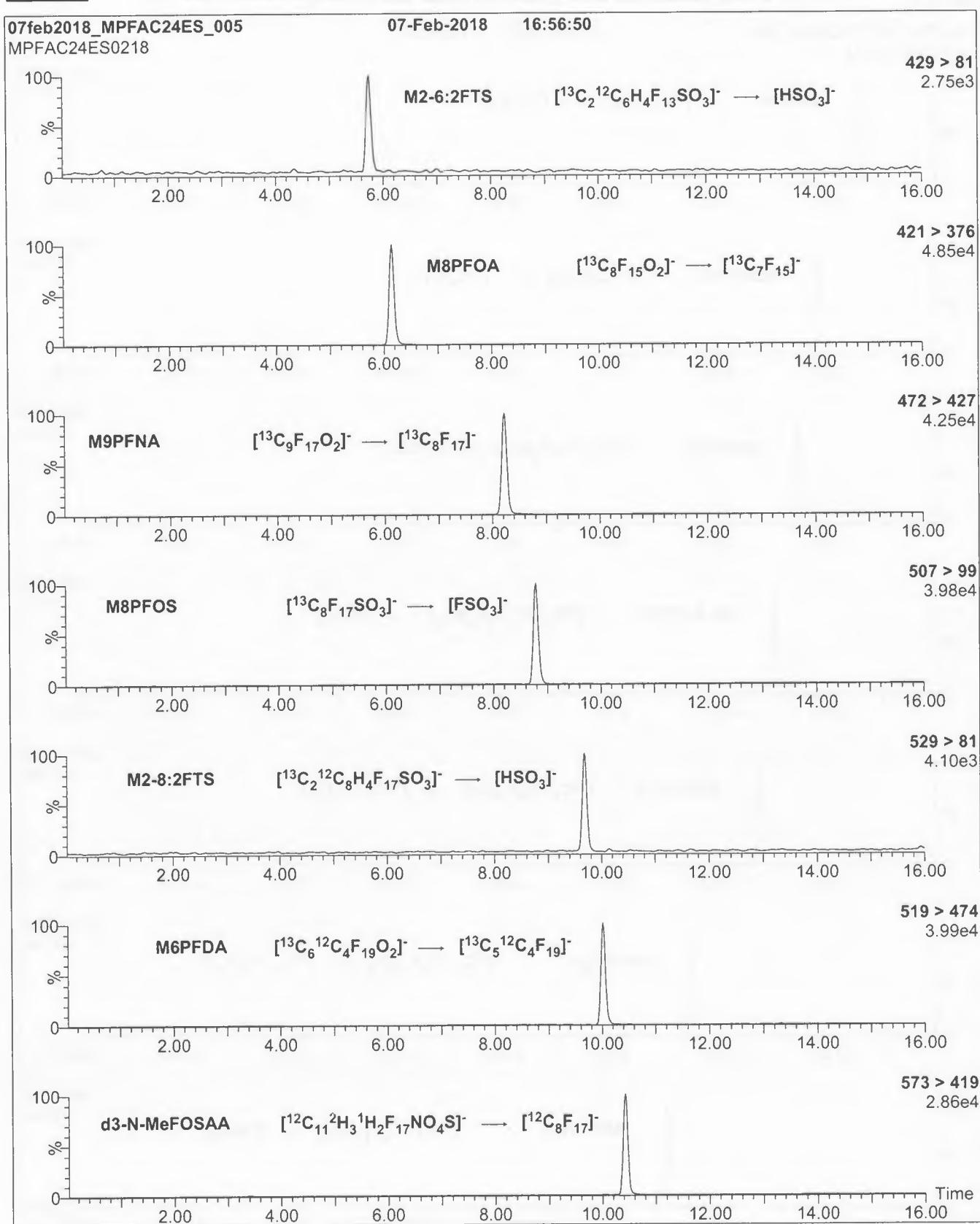
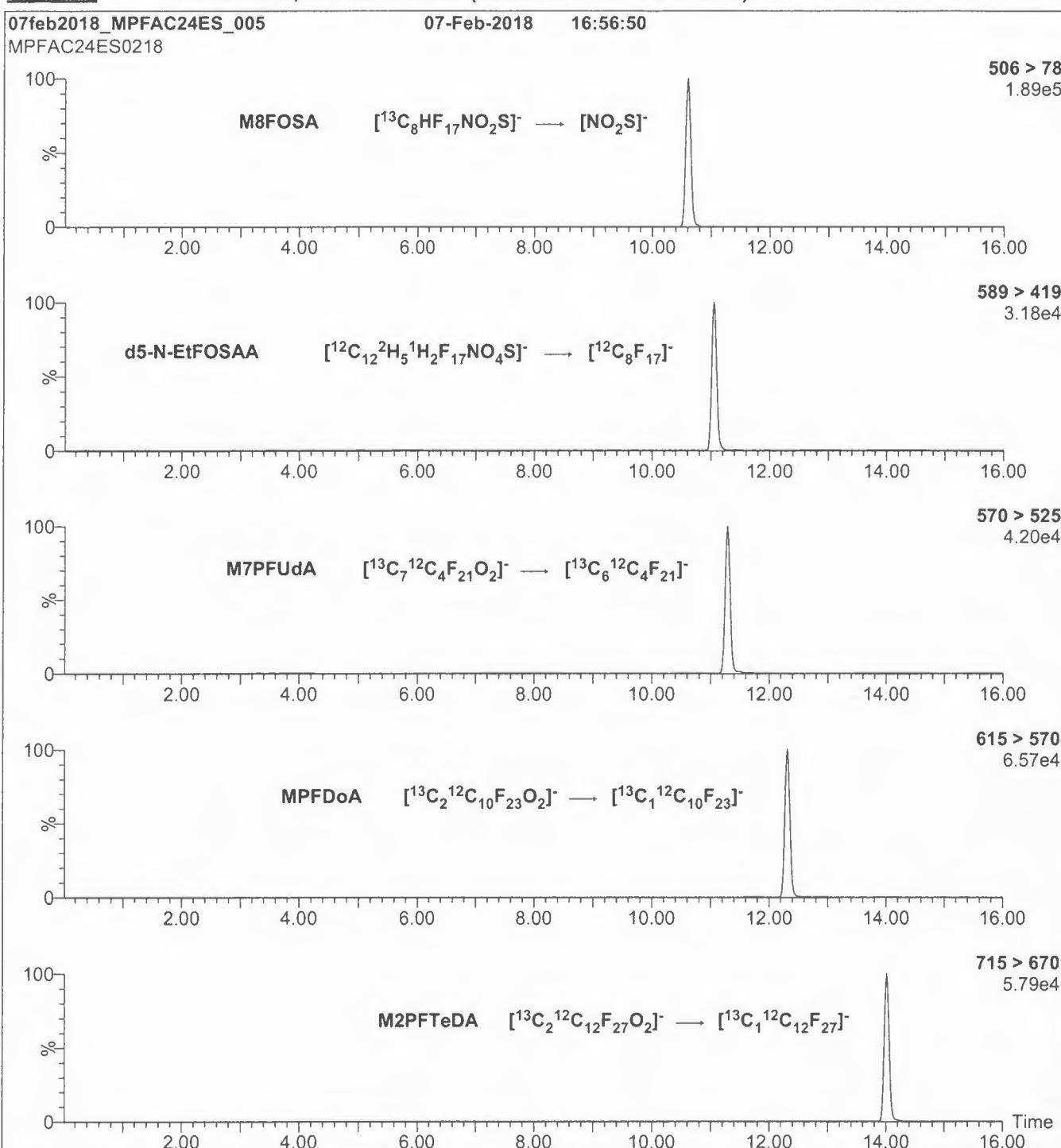
Figure 2: MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)

Figure 2: MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (MPFAC-24ES)

MS Parameters

Collision Gas (mbar) = 3.28e-3

Mobile phase: Same as Figure 1

Collision Energy (eV) = 8-40 (variable)

Flow: 300 $\mu\text{l}/\text{min}$



It can be done

Reagent Receipt Report

Approved: Authorized:

Name:	PFOA - 2nd source	Received:	10/1/2018
Vendor:	ABSOLUTE STANDARDS	Custodian:	Schumitz, Matt
Catalogue No:	99207	Expires:	9/20/2023
Type:	Solution	Consumed:	
Lot No:	092018	Stored In:	Sample Preparation - F0035
Quantity:	2 ea mL	% Moisture:	
Description:	PFOA - 2nd source		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
(Na) 1H,1H,2H,2H-Perfluorodecane	39108-34-4	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
(Na) 1H,1H,2H,2H-Perfluorohexane	414911-30-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
(Na) 1H,1H,2H,2H-Perfluoroctane s	27619-97-2	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
(Na) Perfluoro-1-decanesulfonate	2806-15-7	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
(NA) Perfluoro-1-heptanesulfonate	375-92-8	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
(Na) Perfluoro-1-nonanesulfonate	98789-57-2	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
N-ethylperfluoro-octanesulfonamidoa	2991-50-6	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
N-methylperfluoro-1-octanesulfonami	2355-31-9	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-1-butanesulfonate	375-73-5	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-1-hexanesulfonate	355-46-4	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			1
Perfluoro-1-octanesulfonamide	754-91-6	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-1-octanesulfonate	1763-23-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-butanoic Acid	375-22-4	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-decanoic Acid	335-76-2	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-dodecanoic acid	307-55-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-heptanoic Acid	375-85-9	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-hexanoic acid	307-24-4	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-octanoic Acid	335-67-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluorononanoic Acid	375-95-1	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-pentanoic acid	2706-90-3	1.0100	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-tetradecanoic acid	376-06-7	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-tridecanoic acid	72629-94-8	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Perfluoro-n-undecanoic acid	2058-94-8	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			
Sodium perfluoro-1-pentanesulfonate	2706-91-4	1.0000	100.00	--	--	<input checked="" type="checkbox"/>			2

Total Analytes: 24

Notes:

Analyte:	Comment:
1 Perfluoro-1-hexanesulfonate	17 on C of A
2 Sodium perfluoro-1-pentanesulfonate	16 on C of A

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____



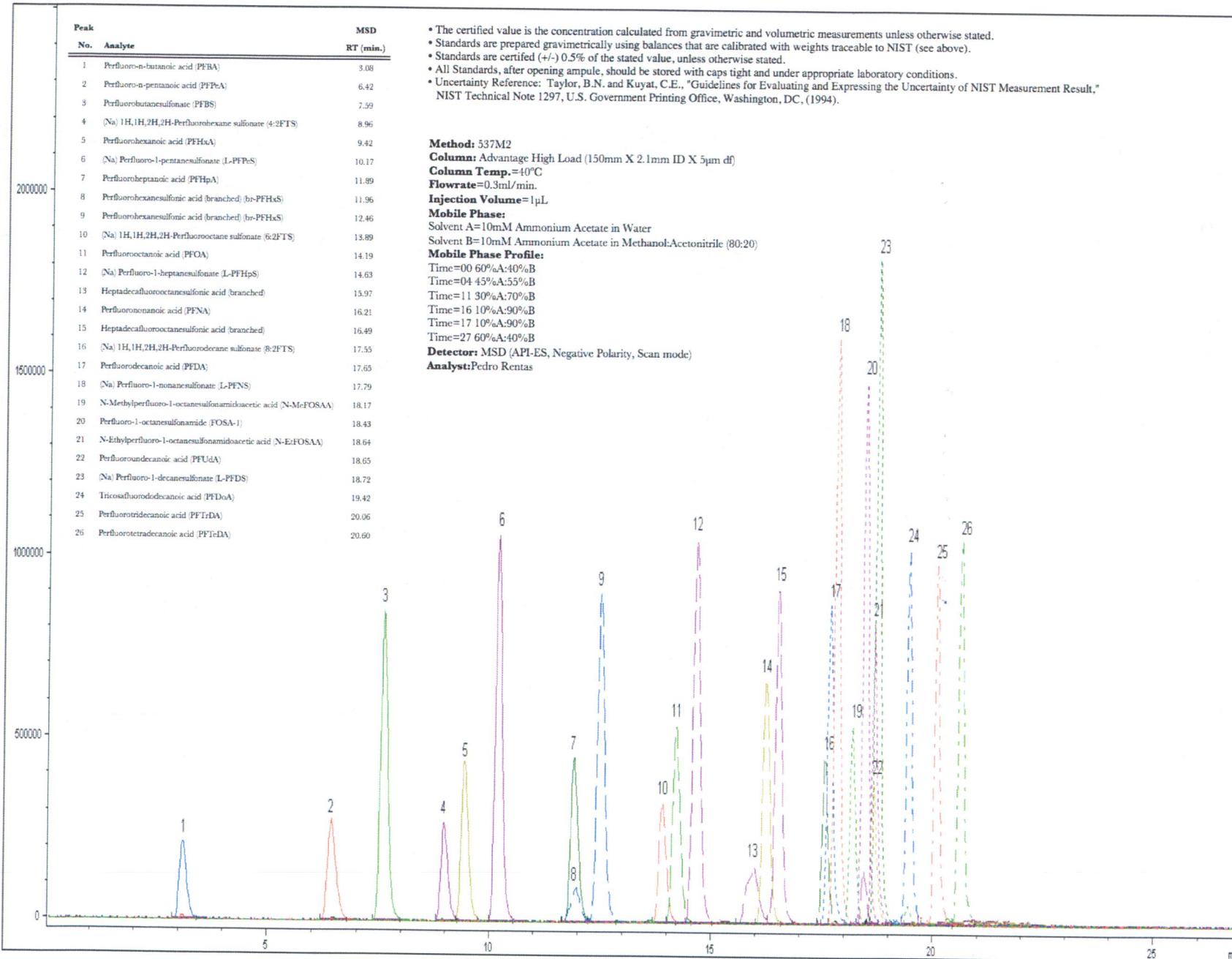
CERTIFIED WEIGHT REPORT

Part Number:	99207	Solvent(s):		Lot#	
Lot Number:	092018				
Description:	PFOA - DOD				
Expiration Date:	092023				
Recommended Storage:	Freezer (0 °C)				
Nominal Concentration (µg/mL):	1.0				
NIST Test ID#:	2684186	5E-05	Balance Uncertainty		
Volume(s) shown below were combined and diluted to (mL):	50.0	0.007	Flask Uncertainty		

Note: All assigned values are anion concentrations.

<i>Eli Aliaga</i>	092018
Formulated By:	Eli Aliaga
<i>Pedro Rentas</i>	092018
Reviewed By:	Pedro L. Rentas

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
									CAS#	OSHA PEL (TWA)	LDSO
1. Perfluoro-n-butanoic acid (linear)	99542	110317	0.02	1.00	0.004	50.2	1.00	0.01	375-22-4	N/A	N/A
2. Perfluoro-n-pentanoic acid	99543	110317	0.02	1.00	0.004	50.7	1.01	0.01	2706-90-3	N/A	N/A
3. Perfluorohexanoic acid	99199	030617	0.02	1.00	0.004	50.3	1.01	0.01	307-24-4	N/A	N/A
4. Perfluoroheptanoic acid	99197	030517	0.02	1.00	0.004	50.1	1.00	0.01	375-85-9	N/A	N/A
5. Perfluoroctanoic acid	99202	030617	0.02	1.00	0.004	50.2	1.00	0.01	335-67-1	N/A	ipr-rat 189mg/kg
6. Perfluorononanoic acid	99200	030617	0.02	1.00	0.004	50.1	1.00	0.01	375-95-1	N/A	N/A
7. Perfluorodecanoic acid	99195	030617	0.02	1.00	0.004	50.1	1.00	0.01	335-76-2	N/A	orl-rat 57mg/kg
8. Perfluoroundecanoic acid	99205	030617	0.02	1.00	0.004	50.1	1.00	0.01	2058-94-8	N/A	N/A
9. Tricosfluorododecanoic acid	99196	030617	0.02	1.00	0.004	50.1	1.00	0.01	307-55-1	N/A	N/A
10. Perfluorotridecanoic acid	99204	030617	0.02	1.00	0.004	50.1	1.00	0.01	72629-94-8	N/A	N/A
11. Perfluorotetradecanoic acid	99203	030617	0.02	1.00	0.004	50.1	1.00	0.01	376-06-7	N/A	N/A
12. Perfluoro-1-octanesulfonamide	3677	FOSA0618I	0.02	1.00	0.004	50.0	1.00	0.01	754-91-6	N/A	N/A
13. N-Methylperfluoro-1-octanesulfonamidoacetic acid	3667	NMeFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2355-31-9	N/A	N/A
14. N-Ethylperfluoro-1-octanesulfonamidoacetic acid	3664	NEtFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2991-50-6	N/A	N/A
15. Perfluorobutanesulfonic acid	99194	031017	0.02	1.00	0.004	50.7	1.01	0.01	375-73-5	N/A	N/A
•16. Perfluoro-1-pentanesulfonate	99544	111017	0.02	0.98	0.004	51.3	1.00	0.01	630402-22-1	N/A	N/A
*17. Perfluorohexanesulfonic acid (branched)	99198	030617	0.02	1.00	0.004	50.6	1.01	0.01	3871-99-6	N/A	N/A
18. Perfluoro-1-heptanesulfonic acid	3672	LPFHpS0817	0.021	1.05	0.004	47.6	1.00	0.01	375-92-8	N/A	N/A
19. Heptadecafluoroctanesulfonic acid (branched)	99201	030617	0.02	1.00	0.004	50.2	1.00	0.01	1763-23-1	N/A	N/A
20. Perfluoro-1-nonanesulfonic acid	3957	LPFNS0718	0.021	1.05	0.004	48.0	1.01	0.01	98789-57-2	N/A	N/A
21. Perfluoro-1-decanesulfonic acid	3671	LPFDS1117	0.021	1.05	0.004	48.2	1.01	0.01	2806-15-7	N/A	N/A
22. 1H,1H,2H,2H-Perfluorohexane sulfonic acid	3955	42FTS1216	0.0214	1.07	0.004	46.7	1.00	0.01	00-00-0	N/A	N/A
23. 1H,1H,2H,2H-Perfluorooctane sulfonic acid	3661	62FTS0616	0.021	1.05	0.004	47.4	1.00	0.01	27619-97-2	N/A	N/A
24. 1H,1H,2H,2H-Perfluorodecane sulfonic acid	3662	82FTS1216	0.021	1.05	0.004	47.9	1.01	0.01	39108-34-4	N/A	N/A



Sample Preparation



It can be done

BATTELLE - NORWELL OPERATIONS SAMPLE PREPARATION RECORDS

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

**CTO-4164: Analysis of Solids
SB, SS**

SOP Numbers (see workplan for modifications)

ExtractionSOP No. 5-370

This Batch Contains The Following Samples:

CR992PB-FS	J8702-FS	J8708-FS
CR993LCS-FS	J8703-FS	J8709-FS
J8698-FS	J8704-FS	J8710-FS
J8699-FS	J8705-FS	J8711-FS
J8700-FS	J8706-FS	J8712MS-FS
J8701-FS	J8707-FS	J8713MSD-FS

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Stephanie Schultz

Approved By:	Date	Initials
Jordan Tower	10/30/2018	JCT



It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE IDENTIFICATION PAGE

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Sample ID	Description
CR992PB-FS	Procedural Blank - Ottawa Sand (180507-02)
CR993LCS-FS	Laboratory Control Sample - Ottawa Sand (180507-02)
J8698-FS	VC-CS00-SB02-0102
J8699-FS	VC-CS00-SB02-0506
J8700-FS	VC-CS00-SS03-000H
J8701-FS	VC-CS00-SB03-0102
J8702-FS	VC-CS00-SB03-0506
J8703-FS	VC-CS00-SS04-000H
J8704-FS	VC-CS00-SB04-0102
J8705-FS	VC-CS00-SB04-0506
J8706-FS	VC-CS00-SS05-000H
J8707-FS	VC-CS00-SB05-0102
J8708-FS	VC-CS00-SB05-0506
J8709-FS	VC-CS00-SS06-000H
J8710-FS	VC-CS00-SB06-0102
J8711-FS	VC-CS00-SB06-0506
J8712MS-FS	Matrix Spike of VC-CS00-SB06-0506-MS
J8713MSD-FS	Matrix Spike Duplicate of VC-CS00-SB06-0506-MSD

Samples Assigned By:

Jonathan Thorn

Date : October 9, 2018

Comments:



It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE CUSTODY LOG

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Requested On/By:	10/10/2018 KB	Purpose:	Sample Preparation
Relinquished On/By:	10/10/2018 MDS	Last Activity:	Return
Accepted On/By:	10/10/2018 KB	Returned On/To:	10/10/2018 MDS
Stored In Facility:	Sample Preparation	Returned To Facility:	Custody: NA
Stored Until	10/10/2018	Returned Comment:	NA
Stored Comment:	NA		

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	J8698	1	--	Intact	NA
2	J8699	1	--	Intact	NA
3	J8700	1	--	Intact	NA
4	J8701	1	--	Intact	NA
5	J8702	1	--	Intact	NA
6	J8703	1	--	Intact	NA
7	J8704	1	--	Intact	NA
8	J8705	1	--	Intact	NA
9	J8706	1	--	Intact	NA
10	J8707	1	--	Intact	NA
11	J8708	1	--	Intact	NA
12	J8709	1	--	Intact	NA
13	J8710	1	--	Intact	NA
14	J8711	1	--	Intact	NA
Total Samples		14	*	* "C" = Consumed Container	



It can be done

**BATTELLE - NORWELL OPERATIONS
ELECTRONIC DRY WEIGHT DETERMINATION**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
CR992PB-FS	NA	--	NA	NA	NA	1.98	100.00	0.00	1.98
CR993LCS-FS	NA	--	NA	NA	NA	1.97	100.00	0.00	1.97
J8698-FS	1	--	1.08	6.06	5.72	1.95	93.17	6.83	1.82
J8699-FS	1	--	1.08	6.49	5.69	1.95	85.21	14.79	1.66
J8700-FS	1	--	1.10	5.97	5.82	2.01	96.92	3.08	1.95
J8701-FS	1	--	1.06	5.55	5.03	1.96	88.42	11.58	1.73
J8702-FS	1	--	1.10	6.10	5.45	1.92	87.00	13.00	1.67
J8703-FS	1	--	1.06	6.14	5.67	1.90	90.75	9.25	1.72
J8704-FS	1	--	1.11	5.85	5.42	1.91	90.93	9.07	1.74
J8705-FS	1	--	1.04	8.45	6.54	1.95	74.22	25.78	1.45
J8706-FS	1	--	1.06	5.59	5.45	1.98	96.91	3.09	1.92
J8707-FS	1	--	1.05	6.15	5.63	2.06	89.80	10.20	1.85
J8708-FS	1	--	1.07	6.34	5.09	1.92	76.28	23.72	1.46
J8709-FS	1	--	1.08	6.33	6.21	2.07	97.71	2.29	2.02
J8710-FS	1	--	1.07	5.32	5.09	1.92	94.59	5.41	1.82
J8711-FS	1	--	1.08	6.32	5.59	2.05	86.07	13.93	1.76
J8712MS-FS	1	--	1.08	6.59	5.84	2.06	86.39	13.61	1.78
J8713MSD-FS	1	--	1.08	6.03	5.35	2.10	86.26	13.74	1.81

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
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Task: **Wet Weight**

BNO-ID:	Date/Initials:	Battelle-ID:
CR992PB-FS	10/16/2018 KB	BAL-009
CR993LCS-FS	10/16/2018 KB	BAL-009
J8698-FS	10/10/2018 KB	BAL-015
J8699-FS	10/10/2018 KB	BAL-015
J8700-FS	10/10/2018 KB	BAL-015
J8701-FS	10/10/2018 KB	BAL-015
J8702-FS	10/10/2018 KB	BAL-015
J8703-FS	10/10/2018 KB	BAL-015
J8704-FS	10/10/2018 KB	BAL-015
J8705-FS	10/10/2018 KB	BAL-015
J8706-FS	10/10/2018 KB	BAL-015
J8707-FS	10/10/2018 KB	BAL-015
J8708-FS	10/10/2018 KB	BAL-015
J8709-FS	10/10/2018 KB	BAL-015
J8710-FS	10/10/2018 KB	BAL-015
J8711-FS	10/10/2018 KB	BAL-015
J8712MS-FS	10/10/2018 KB	BAL-015
J8713MSD-FS	10/10/2018 KB	BAL-015

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
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Task: **Tare Weight**

BNO-ID:	Date/Initials:	Battelle-ID:
CR992PB-FS	--	--
CR993LCS-FS	--	--
J8698-FS	10/10/2018 KB	BAL-015
J8699-FS	10/10/2018 KB	BAL-015
J8700-FS	10/10/2018 KB	BAL-015
J8701-FS	10/10/2018 KB	BAL-015
J8702-FS	10/10/2018 KB	BAL-015
J8703-FS	10/10/2018 KB	BAL-015
J8704-FS	10/10/2018 KB	BAL-015
J8705-FS	10/10/2018 KB	BAL-015
J8706-FS	10/10/2018 KB	BAL-015
J8707-FS	10/10/2018 KB	BAL-015
J8708-FS	10/10/2018 KB	BAL-015
J8709-FS	10/10/2018 KB	BAL-015
J8710-FS	10/10/2018 KB	BAL-015
J8711-FS	10/10/2018 KB	BAL-015
J8712MS-FS	10/10/2018 KB	BAL-015
J8713MSD-FS	10/10/2018 KB	BAL-015

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
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Task: Aliquot Wet Weight

BNO-ID:	Date/Initials:	Battelle-ID:
CR992PB-FS	--	--
CR993LCS-FS	--	--
J8698-FS	10/10/2018 KB	BAL-015
J8699-FS	10/10/2018 KB	BAL-015
J8700-FS	10/10/2018 KB	BAL-015
J8701-FS	10/10/2018 KB	BAL-015
J8702-FS	10/10/2018 KB	BAL-015
J8703-FS	10/10/2018 KB	BAL-015
J8704-FS	10/10/2018 KB	BAL-015
J8705-FS	10/10/2018 KB	BAL-015
J8706-FS	10/10/2018 KB	BAL-015
J8707-FS	10/10/2018 KB	BAL-015
J8708-FS	10/10/2018 KB	BAL-015
J8709-FS	10/10/2018 KB	BAL-015
J8710-FS	10/10/2018 KB	BAL-015
J8711-FS	10/10/2018 KB	BAL-015
J8712MS-FS	10/10/2018 KB	BAL-015
J8713MSD-FS	10/10/2018 KB	BAL-015

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
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Task: Aliquot Dry Weight

BNO-ID:	Date/Initials:	Battelle-ID:
CR992PB-FS	--	--
CR993LCS-FS	--	--
J8698-FS	10/11/2018 KB	BAL-015
J8699-FS	10/11/2018 KB	BAL-015
J8700-FS	10/11/2018 KB	BAL-015
J8701-FS	10/11/2018 KB	BAL-015
J8702-FS	10/11/2018 KB	BAL-015
J8703-FS	10/11/2018 KB	BAL-015
J8704-FS	10/11/2018 KB	BAL-015
J8705-FS	10/11/2018 KB	BAL-015
J8706-FS	10/11/2018 KB	BAL-015
J8707-FS	10/11/2018 KB	BAL-015
J8708-FS	10/11/2018 KB	BAL-015
J8709-FS	10/11/2018 KB	BAL-015
J8710-FS	10/11/2018 KB	BAL-015
J8711-FS	10/11/2018 KB	BAL-015
J8712MS-FS	10/11/2018 KB	BAL-015
J8713MSD-FS	10/11/2018 KB	BAL-015

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



It can be done

**BATTELLE - NORWELL OPERATIONS
SURROGATE SPIKE FORM**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/Spiked By	Witn'd By	Comment
CR992PB-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
CR993LCS-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
CR993LCS-FS	KC02	LCS/MS	1	150	10/16/18 KB	SAS	NA
J8698-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8699-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8700-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8701-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8702-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8703-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8704-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8705-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8706-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8707-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8708-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8709-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8710-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8711-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8712MS-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8712MS-FS	KC02	LCS/MS	1	250	10/16/18 KB	SAS	NA
J8713MSD-FS	KB71	SIS	1	50	10/16/18 KB	SAS	NA
J8713MSD-FS	KC02	LCS/MS	1	250	10/16/18 KB	SAS	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB71	Pipette	B814659662
KC02	Pipette	B814657482



It can be done

**BATTELLE - NORWELL OPERATIONS
SAMPLE EXTRACTION FORM**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Sample ID	1st Extraction	2nd Extraction	3rd Extraction	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comment
CR992PB-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
CR993LCS-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8698-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8699-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8700-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8701-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8702-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8703-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8704-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8705-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8706-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8707-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8708-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8709-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8710-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8711-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8712MS-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA
J8713MSD-FS	10/16/18 KB	10/16/18 KB	NA	NA	NA	NA	NA	NA

Solvents/Reagent Preparations:

Name	ID	Expires	Lot No	Procedure	Comments
0.4% NH3 in Methanol	RP-181016-3	10/17/18	183857	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
0.4% NH3 in Methanol	RP-181016-3	10/17/18	SHBJ0412	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	

Solvents/Reagents:



It can be done

BATTELLE - NORWELL OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Extract Id	Date	Init.	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comments
CR992PB-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
CR993LCS-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8698-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8699-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8700-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8701-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8702-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8703-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8704-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8705-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8706-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8707-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8708-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8709-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8710-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8711-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8712MS-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA
J8713MSD-FS(3)	10/16/18	KB	NA	NA	NA	NA	NA



It can be done

BATTELLE - NORWELL OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Extract Id	Date	Init.	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comments

Column Diameter: 13 mm **Procedure Comment:**

Elution Volume: 10 mL

Solvents

Reagents

Reagent Prep	Weight g	Name	Expires	Lot No	Procedure
RP-181016-5	Not Measured	0.4% NH3 in Methanol	10/17/18	183857	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-181016-5	Not Measured	0.4% NH3 in Methanol	10/17/18	SHBJ0412	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-181016-8	0.50	ENVI-CARB SPE	10/17/18	10215411	Rinse SPE cartridge with

Fractions



It can be done

**BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL) [^]	Final Dilution <small>*</small>	Date Spiked/ Spiked By	Witn'd By
CR992PB-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 KB	SAS
CR993LCS-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8698-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 KB	SAS
J8699-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8700-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8701-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8702-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8703-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8703-FS-D(5)	960	40	KC03	50	1	1000	50.000	10/18/18 SAS	KB
J8703-FS-D(7)	954	46	KC03	50	1	1000	625.000	10/18/18 SAS	KB
J8704-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8704-FS-D(5)	960	40	KC03	50	1	1000	50.000	10/18/18 SAS	KB
J8704-FS-D(7)	954	46	KC03	50	1	1000	625.000	10/18/18 SAS	KB
J8705-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8705-FS-D(5)	955	45	KC03	50	1	1000	100.000	10/18/18 SAS	KB
J8706-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8707-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8708-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8709-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.



It can be done

BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL) [^]	Final Dilution <small>*</small>	Date Spiked/ Spiked By	Witn'd By
J8710-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8711-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8712MS-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS
J8713MSD-FS(3)	950	50	KC03	50	1	1000	10.000	10/18/18 KB	SAS

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB72	Pipette	B814659662
KC03	Pipette	B814659662

* - Final Dilution is any HPLC, dilutions, or other manipulation

[^] - Pre Injection Volume (PIV) includes any RIS spikes.



It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT SPIKE FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Extract Id	DF	Std. ID	Type	Vial No.	Vol. Added (uL)	Conc (ug/mL)	Added (ng)	Date Spiked/Spiked By	Witn'd By
J8703-FS-D(5)	50	KB72	SIS	1	40	0	0	10/18/18 SAS	KB
J8703-FS-D(7)	625	KB72	SIS	1	46	0	0	10/18/18 SAS	KB
J8704-FS-D(5)	50	KB72	SIS	1	40	0	0	10/18/18 SAS	KB
J8704-FS-D(7)	625	KB72	SIS	1	46	0	0	10/18/18 SAS	KB
J8705-FS-D(5)	100	KB72	SIS	1	45	0	0	10/18/18 SAS	KB

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB72	Pipette	B814659662
KC03	Pipette	B814659662



BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612**CTO-4164: Analysis of Solids****SB, SS**

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CR992PB-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
CR992PB-FS	2	--	10/16/2018 5:53:00 PM	CR992PB-FS	0	10000	9000	1.111	1.111	10/16/18 KB
CR992PB-FS	3	--	10/16/2018 5:53:00 PM	CR992PB-FS	0	10000	1000	10.000	10.000	10/16/18 KB
CR993LCS-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
CR993LCS-FS	2	--	10/16/2018 5:53:00 PM	CR993LCS-FS	0	10000	9000	1.111	1.111	10/16/18 KB
CR993LCS-FS	3	--	10/16/2018 5:53:00 PM	CR993LCS-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8698-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8698-FS	2	--	10/16/2018 5:53:00 PM	J8698-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8698-FS	3	--	10/16/2018 5:53:00 PM	J8698-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8699-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8699-FS	2	--	10/16/2018 5:53:00 PM	J8699-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8699-FS	3	--	10/16/2018 5:53:00 PM	J8699-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8700-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8700-FS	2	--	10/16/2018 5:53:00 PM	J8700-FS	0	10000	9000	1.111	1.111	10/16/18 KB

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612**CTO-4164: Analysis of Solids****SB, SS**

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8700-FS	3	--	10/16/2018 5:53:00 PM	J8700-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8701-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8701-FS	2	--	10/16/2018 5:53:00 PM	J8701-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8701-FS	3	--	10/16/2018 5:53:00 PM	J8701-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8702-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8702-FS	2	--	10/16/2018 5:53:00 PM	J8702-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8702-FS	3	--	10/16/2018 5:53:00 PM	J8702-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8703-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8703-FS	2	--	10/16/2018 5:53:00 PM	J8703-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8703-FS	3	C	10/16/2018 5:53:00 PM	J8703-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8703-FS	4	--	10/18/2018 2:15:00 PM	J8703-FS	3	1000	800	1.250	12.500	10/18/18 SAS
J8703-FS-D	5	C	10/18/2018 2:15:00 PM	J8703-FS	3	1000	200	5.000	50.000	10/18/18 SAS
J8703-FS-D	6	--	10/18/2018 2:16:00 PM	J8703-FS-D	5	1000	920	1.087	54.348	10/18/18 SAS
J8703-FS-D	7	--	10/18/2018 2:16:00 PM	J8703-FS-D	5	1000	80	12.500	625.000	10/18/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612**CTO-4164: Analysis of Solids****SB, SS**

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8704-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8704-FS	2	--	10/16/2018 5:53:00 PM	J8704-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8704-FS	3	C	10/16/2018 5:53:00 PM	J8704-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8704-FS	4	--	10/18/2018 2:18:00 PM	J8704-FS	3	1000	800	1.250	12.500	10/18/18 SAS
J8704-FS-D	5	C	10/18/2018 2:18:00 PM	J8704-FS	3	1000	200	5.000	50.000	10/18/18 SAS
J8704-FS-D	6	--	10/18/2018 2:19:00 PM	J8704-FS-D	5	1000	920	1.087	54.348	10/18/18 SAS
J8704-FS-D	7	--	10/18/2018 2:19:00 PM	J8704-FS-D	5	1000	80	12.500	625.000	10/18/18 SAS
J8705-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8705-FS	2	--	10/16/2018 5:53:00 PM	J8705-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8705-FS	3	C	10/16/2018 5:53:00 PM	J8705-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8705-FS	4	--	10/18/2018 2:21:00 PM	J8705-FS	3	1000	900	1.111	11.111	10/18/18 SAS
J8705-FS-D	5	--	10/18/2018 2:21:00 PM	J8705-FS	3	1000	100	10.000	100.000	10/18/18 SAS
J8706-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8706-FS	2	--	10/16/2018 5:53:00 PM	J8706-FS	0	10000	9000	1.111	1.111	10/16/18 KB

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612**CTO-4164: Analysis of Solids****SB, SS**

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8706-FS	3	--	10/16/2018 5:53:00 PM	J8706-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8707-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8707-FS	2	--	10/16/2018 5:53:00 PM	J8707-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8707-FS	3	--	10/16/2018 5:53:00 PM	J8707-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8708-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8708-FS	2	--	10/16/2018 5:53:00 PM	J8708-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8708-FS	3	--	10/16/2018 5:53:00 PM	J8708-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8709-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8709-FS	2	--	10/16/2018 5:53:00 PM	J8709-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8709-FS	3	--	10/16/2018 5:53:00 PM	J8709-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8710-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8710-FS	2	--	10/16/2018 5:53:00 PM	J8710-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8710-FS	3	--	10/16/2018 5:53:00 PM	J8710-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8711-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612**CTO-4164: Analysis of Solids****SB, SS**

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8711-FS	2	--	10/16/2018 5:53:00 PM	J8711-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8711-FS	3	--	10/16/2018 5:53:00 PM	J8711-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8712MS-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8712MS-FS	2	--	10/16/2018 5:53:00 PM	J8712MS-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8712MS-FS	3	--	10/16/2018 5:53:00 PM	J8712MS-FS	0	10000	1000	10.000	10.000	10/16/18 KB
J8713MSD-FS	0	C	10/16/2018 1:20:00 PM	NA		NA	NA	1.000	1.000	10/16/18 KB
J8713MSD-FS	2	--	10/16/2018 5:53:00 PM	J8713MSD-FS	0	10000	9000	1.111	1.111	10/16/18 KB
J8713MSD-FS	3	--	10/16/2018 5:53:00 PM	J8713MSD-FS	0	10000	1000	10.000	10.000	10/16/18 KB

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

**BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Purpose:		Last Activity:			Prep->Inst
Relinquished On/By: Oct 22 2018 5:05PM KB		Received On/By:			Oct 22 2018 5:05PM LMG
Relinquished From: Sample Preparation: NA		Received Location:			LC Laboratory: NA
Relinquish Comment: NA		Received Comment:			NA
No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	CR992PB-FS(3)	1000	10	Intact	NA
2	CR993LCS-FS(3)	1000	10	Intact	NA
3	J8698-FS(3)	1000	10	Intact	NA
4	J8699-FS(3)	1000	10	Intact	NA
5	J8700-FS(3)	1000	10	Intact	NA
6	J8701-FS(3)	1000	10	Intact	NA
7	J8702-FS(3)	1000	10	Intact	NA
8	J8703-FS(3)	1000	10	Intact	NA
9	J8703-FS-D(5)	1000	50	Intact	NA
10	J8703-FS-D(7)	1000	625	Intact	NA
11	J8704-FS(3)	1000	10	Intact	NA
12	J8704-FS-D(5)	1000	50	Intact	NA
13	J8704-FS-D(7)	1000	625	Intact	NA
14	J8705-FS(3)	1000	10	Intact	NA
15	J8705-FS-D(5)	1000	100	Intact	NA
16	J8706-FS(3)	1000	10	Intact	NA
17	J8707-FS(3)	1000	10	Intact	NA
18	J8708-FS(3)	1000	10	Intact	NA
19	J8709-FS(3)	1000	10	Intact	NA
20	J8710-FS(3)	1000	10	Intact	NA
21	J8711-FS(3)	1000	10	Intact	NA
22	J8712MS-FS(3)	1000	10	Intact	NA
23	J8713MSD-FS(3)	1000	10	Intact	NA
Total Extracts:		23			



It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE SPECIFIC COMMENTS

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Comment:	Date/Initials:
CR992PB-FS	NA	NA
CR993LCS-FS	NA	NA
J8698-FS	NA	NA
J8699-FS	NA	NA
J8700-FS	NA	NA
J8701-FS	NA	NA
J8702-FS	NA	NA
J8703-FS	NA	NA
J8704-FS	NA	NA
J8705-FS	NA	NA
J8706-FS	NA	NA
J8707-FS	NA	NA
J8708-FS	NA	NA
J8709-FS	NA	NA
J8710-FS	NA	NA
J8711-FS	NA	NA
J8712MS-FS	NA	NA
J8713MSD-FS	NA	NA



It can be done

**BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0612

CTO-4164: Analysis of Solids

SB, SS

Entered By:

On:

Task Leader Approval:

On:

Supervisor Approval:

On:

PM Approval:

On:

Analytical Calibrations



Sequence Report

Created with Analyst Reporter
Printed: 31/10/2018 8:12:09 AM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	MeOH		10/17/2018 7:36:00 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
2	KB73	L1	10/17/2018 7:46:52 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
3	KB74	L2	10/17/2018 7:57:45 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
4	KB75	L3	10/17/2018 8:08:39 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
5	KB76	L4	10/17/2018 8:19:32 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
6	KB77	L5	10/17/2018 8:30:23 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
7	KB78	L6	10/17/2018 8:41:14 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
8	KB79	L7	10/17/2018 8:52:06 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
9	KB80 IB	IB	10/17/2018 9:02:57 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
10	KB81 ICC	ICC	10/17/2018 9:13:49 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
11	KB89 Branch	BRANCH	10/17/2018 9:24:41 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff



Sequence Report

Created with Analyst Reporter
Printed: 05/11/2018 1:31:36 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
13	KB77 CCV	CCV	10/22/2018 10:26:39 PM	5-0369.dam	10222018_5500.wiff
14	MeOH		10/22/2018 10:37:32 PM	5-0369.dam	10222018_5500.wiff
17	CR992PB-FS(3)	Procedural Blank	10/22/2018 10:48:24 PM	5-0369.dam	10222018_5500.wiff
18	CR993LCS-FS(3)	Laboratory Control Sample	10/22/2018 10:59:15 PM	5-0369.dam	10222018_5500.wiff
19	J8698-FS(3)	VC-CS00-SB02-0102	10/22/2018 11:10:06 PM	5-0369.dam	10222018_5500.wiff
20	J8699-FS(3)	VC-CS00-SB02-0506	10/22/2018 11:20:58 PM	5-0369.dam	10222018_5500.wiff
21	J8700-FS(3)	VC-CS00-SS03-000H	10/22/2018 11:31:51 PM	5-0369.dam	10222018_5500.wiff
22	J8701-FS(3)	VC-CS00-SB03-0102	10/22/2018 11:42:44 PM	5-0369.dam	10222018_5500.wiff
23	J8702-FS(3)	VC-CS00-SB03-0506	10/22/2018 11:53:34 PM	5-0369.dam	10222018_5500.wiff
24	J8703-FS(3)	VC-CS00-SS04-000H	10/23/2018 12:04:26 AM	5-0369.dam	10222018_5500.wiff
25	J8703-FS-D(5)	VC-CS00-SS04-000H	10/23/2018 12:15:17 AM	5-0369.dam	10222018_5500.wiff
26	J8703-FS-D(7)	VC-CS00-SS04-000H	10/23/2018 12:26:10 AM	5-0369.dam	10222018_5500.wiff
(1)					
27	KB76 CCV	CCV	10/23/2018 12:37:00 AM	5-0369.dam	10222018_5500.wiff
28	MeOH		10/23/2018 12:47:52 AM	5-0369.dam	10222018_5500.wiff
29	J8704-FS(3)	VC-CS00-SB04-0102	10/23/2018 12:58:45 AM	5-0369.dam	10222018_5500.wiff
30	J8704-FS-D(5)	VC-CS00-SB04-0102	10/23/2018 1:09:37 AM	5-0369.dam	10222018_5500.wiff
31	J8704-FS-D(7)	VC-CS00-SB04-0102	10/23/2018 1:20:29 AM	5-0369.dam	10222018_5500.wiff
(1)					
32	J8705-FS(3)	VC-CS00-SB04-0506	10/23/2018 1:31:20 AM	5-0369.dam	10222018_5500.wiff
33	J8705-FS-D(5)	VC-CS00-SB04-0506	10/23/2018 1:42:11 AM	5-0369.dam	10222018_5500.wiff
(1)					
34	J8706-FS(3)	VC-CS00-SS05-000H	10/23/2018 1:53:02 AM	5-0369.dam	10222018_5500.wiff
35	J8707-FS(3)	VC-CS00-SB05-0102	10/23/2018 2:03:54 AM	5-0369.dam	10222018_5500.wiff
36	J8708-FS(3)	VC-CS00-SB05-0506	10/23/2018 2:14:46 AM	5-0369.dam	10222018_5500.wiff
37	J8709-FS(3)	VC-CS00-SS06-000H	10/23/2018 2:25:37 AM	5-0369.dam	10222018_5500.wiff
38	J8710-FS(3)	VC-CS00-SB06-0102	10/23/2018 2:36:28 AM	5-0369.dam	10222018_5500.wiff
39	KB77 CCV	CCV	10/23/2018 2:47:20 AM	5-0369.dam	10222018_5500.wiff
40	MeOH		10/23/2018 2:58:12 AM	5-0369.dam	10222018_5500.wiff
41	J8711-FS(3)	VC-CS00-SB06-0506	10/23/2018 3:09:04	5-0369.dam	10222018_5500.wiff



Sequence Report

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Created with Analyst Reporter
Printed: 05/11/2018 1:31:36 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			AM		
42	J8712MS-FS(3)	VC-CS00-SB06-0506-MS	10/23/2018 3:19:56 AM	5-0369.dam	10222018_5500.wiff
43	J8713MSD-FS(3)	VC-CS00-SB06-0506-MSD	10/23/2018 3:30:48 AM	5-0369.dam	10222018_5500.wiff
44	KB76 CCV	CCV	10/23/2018 3:41:40 AM	5-0369.dam	10222018_5500.wiff

(1) These dilutions were not needed and not reported. LMG 10/24/18



Sequence Report

Created with Analyst Reporter
Printed: 05/11/2018 1:30:08 PM

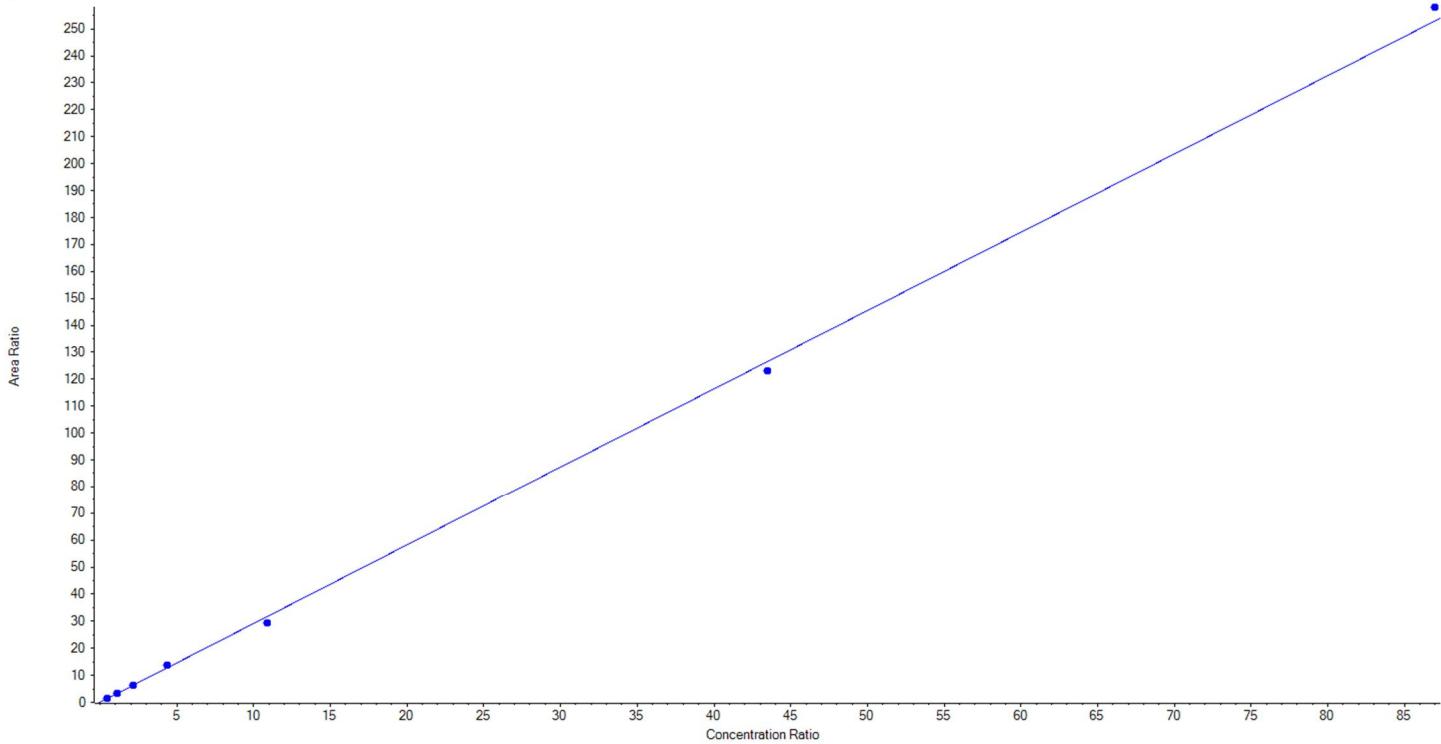
Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	KB75 ISC	ISC	10/23/2018 6:42:12 PM	5-0369.dam	5-0369_10232018_5500.wiff
2	KB80 IB	IB	10/23/2018 6:53:06 PM	5-0369.dam	5-0369_10232018_5500.wiff
3	MeOH		10/23/2018 7:04:00 PM	5-0369.dam	5-0369_10232018_5500.wiff
13	KB77 CCV	CCV	10/23/2018 8:52:42 PM	5-0369.dam	5-0369_10232018_5500.wiff
14	MeOH		10/23/2018 9:03:34 PM	5-0369.dam	5-0369_10232018_5500.wiff
15	CR992PB-FS(3)	Procedural Blank	10/23/2018 9:14:25 PM	5-0369.dam	5-0369_10232018_5500.wiff
16	CR993LCS-FS(3)	Laboratory Control Sample	10/23/2018 9:25:17 PM	5-0369.dam	5-0369_10232018_5500.wiff
17	J8698-FS(3)	VC-CS00-SB02-0102	10/23/2018 9:36:10 PM	5-0369.dam	5-0369_10232018_5500.wiff
18	J8699-FS(3)	VC-CS00-SB02-0506	10/23/2018 9:47:02 PM	5-0369.dam	5-0369_10232018_5500.wiff
19	J8700-FS(3)	VC-CS00-SS03-000H	10/23/2018 9:57:53 PM	5-0369.dam	5-0369_10232018_5500.wiff
20	J8701-FS(3)	VC-CS00-SB03-0102	10/23/2018 10:08:46 PM	5-0369.dam	5-0369_10232018_5500.wiff
21	J8702-FS(3)	VC-CS00-SB03-0506	10/23/2018 10:19:38 PM	5-0369.dam	5-0369_10232018_5500.wiff
22	J8703-FS(3)	VC-CS00-SS04-000H	10/23/2018 10:30:31 PM	5-0369.dam	5-0369_10232018_5500.wiff
23	KB76 CCV	CCV	10/23/2018 10:41:25 PM	5-0369.dam	5-0369_10232018_5500.wiff



Analyte Name	PFBS_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	298.9 / 80.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C3-PFBS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 2.90746 x + 0.06970$ ($r = 0.99940$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	104.635578	103.6
3	KB74	L2	True	252.50	249.370464	98.8
4	KB75	L3	True	505.00	495.098560	98.0
5	KB76	L4	True	1010.00	1091.288759	108.1
6	KB77	L5	True	2525.00	2332.691625	92.4
7	KB78	L6	True	10100.00	9811.581725	97.1
8	KB79	L7	True	20200.00	20608.833290	102.0

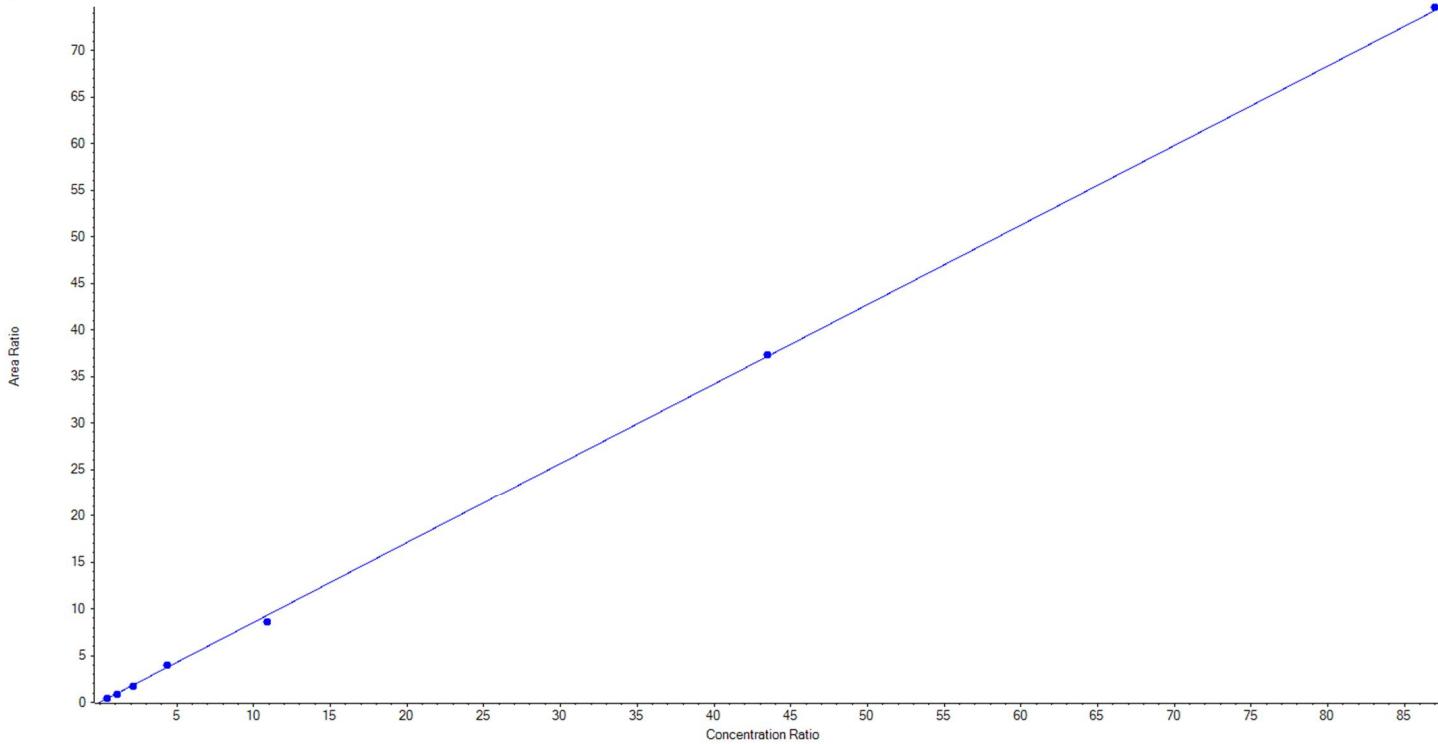




Analyte Name	PFBS_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	298.9 / 99.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C3-PFBS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.85386 x + 0.01367$ ($r = 0.99964$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	109.976962	108.9
3	KB74	L2	True	252.50	242.180085	95.9
4	KB75	L3	True	505.00	475.121472	94.1
5	KB76	L4	True	1010.00	1086.381545	107.6
6	KB77	L5	True	2525.00	2339.199841	92.6
7	KB78	L6	True	10100.00	10143.472130	100.4
8	KB79	L7	True	20200.00	20297.167965	100.5

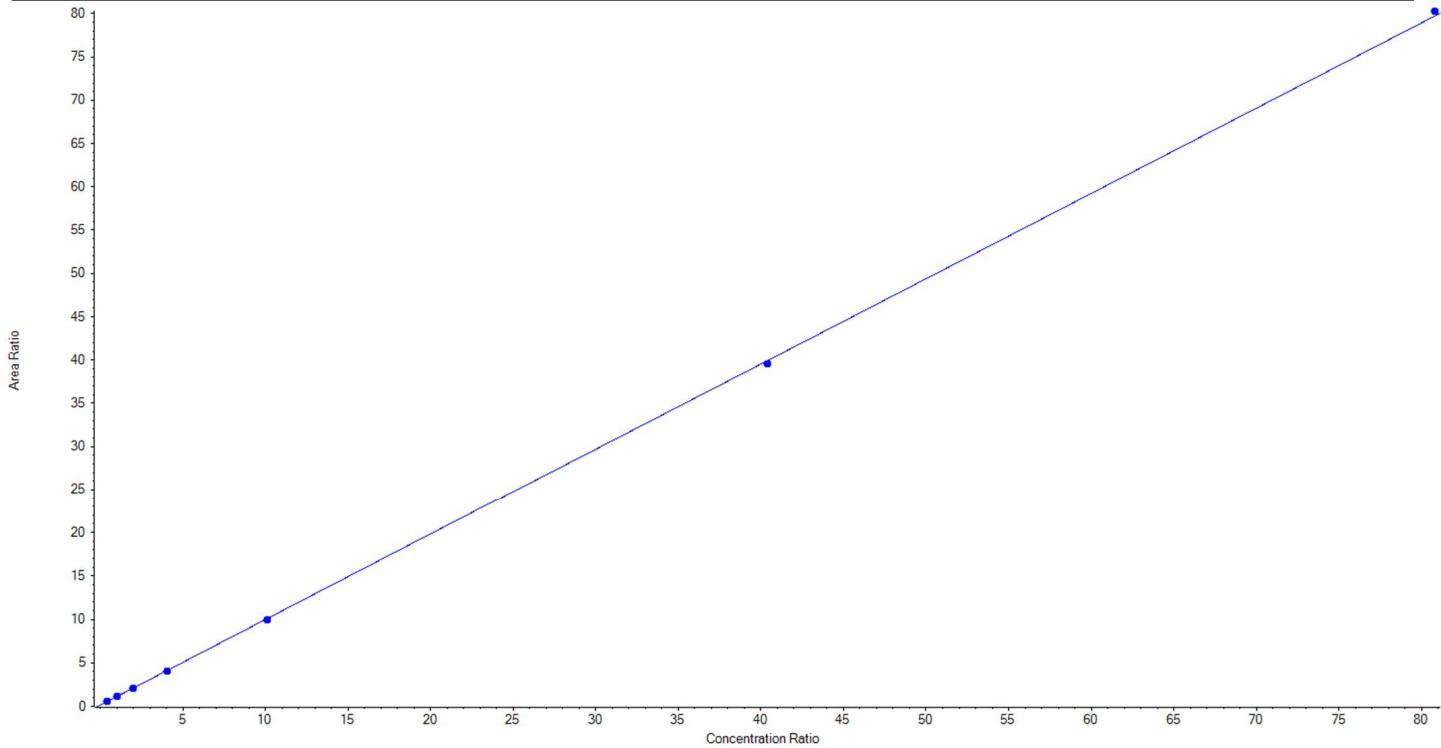




Analyte Name	PFHxA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	313.0 / 269.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C5-PFHxA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.98501 x + 0.13333$ ($r = 0.99994$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	98.968181	98.0
3	KB74	L2	True	252.50	269.910942	106.9
4	KB75	L3	True	505.00	490.752146	97.2
5	KB76	L4	True	1010.00	1004.472242	99.5
6	KB77	L5	True	2525.00	2495.865956	98.9
7	KB78	L6	True	10100.00	9993.499522	99.0
8	KB79	L7	True	20200.00	20340.031011	100.7

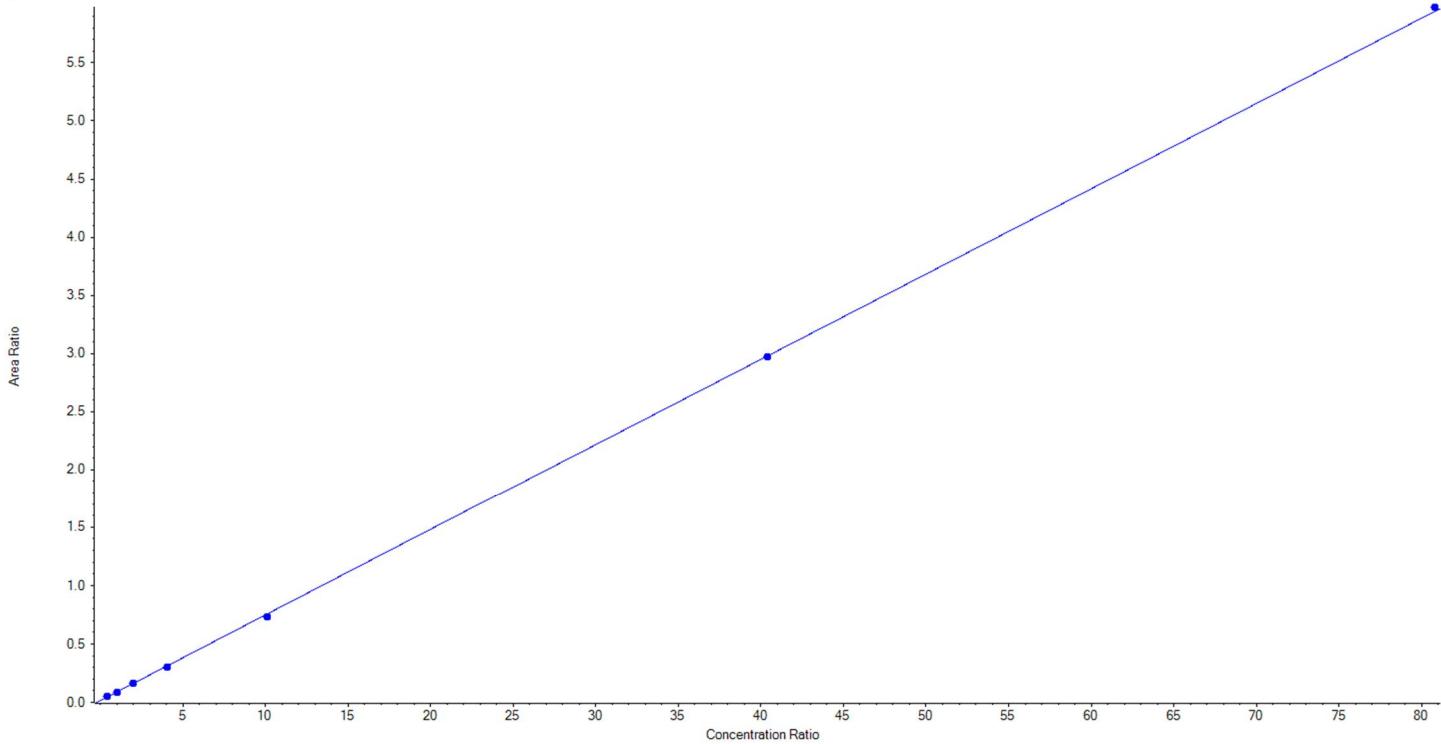




Analyte Name	PFHxA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	313.0 / 119.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C5-PFHxA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.07336x + 0.01493$ ($r = 0.99989$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	113.183087	112.1
3	KB74	L2	True	252.50	230.645561	91.3
4	KB75	L3	True	505.00	514.901118	102.0
5	KB76	L4	True	1010.00	980.952621	97.1
6	KB77	L5	True	2525.00	2451.366061	97.1
7	KB78	L6	True	10100.00	10083.260482	99.8
8	KB79	L7	True	20200.00	20319.191070	100.6

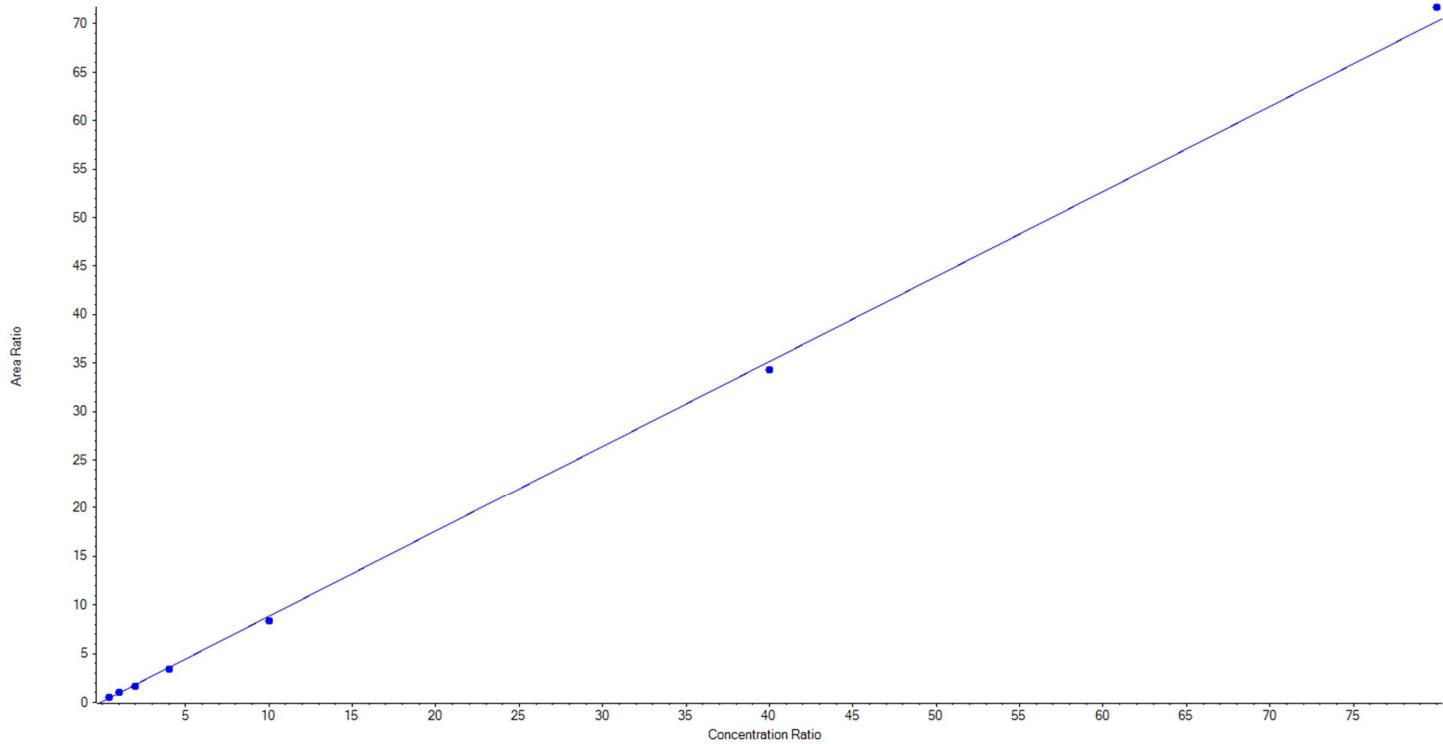




Analyte Name	PFHpA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	363.0 / 319.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C4-PFHpA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.87722 x + 0.06760$ ($r = 0.99955$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	113.465532	113.5
3	KB74	L2	True	250.00	261.922885	104.8
4	KB75	L3	True	500.00	452.888167	90.6
5	KB76	L4	True	1000.00	963.772233	96.4
6	KB77	L5	True	2500.00	2376.996854	95.1
7	KB78	L6	True	10000.00	9765.162244	97.7
8	KB79	L7	True	20000.00	20415.792084	102.1

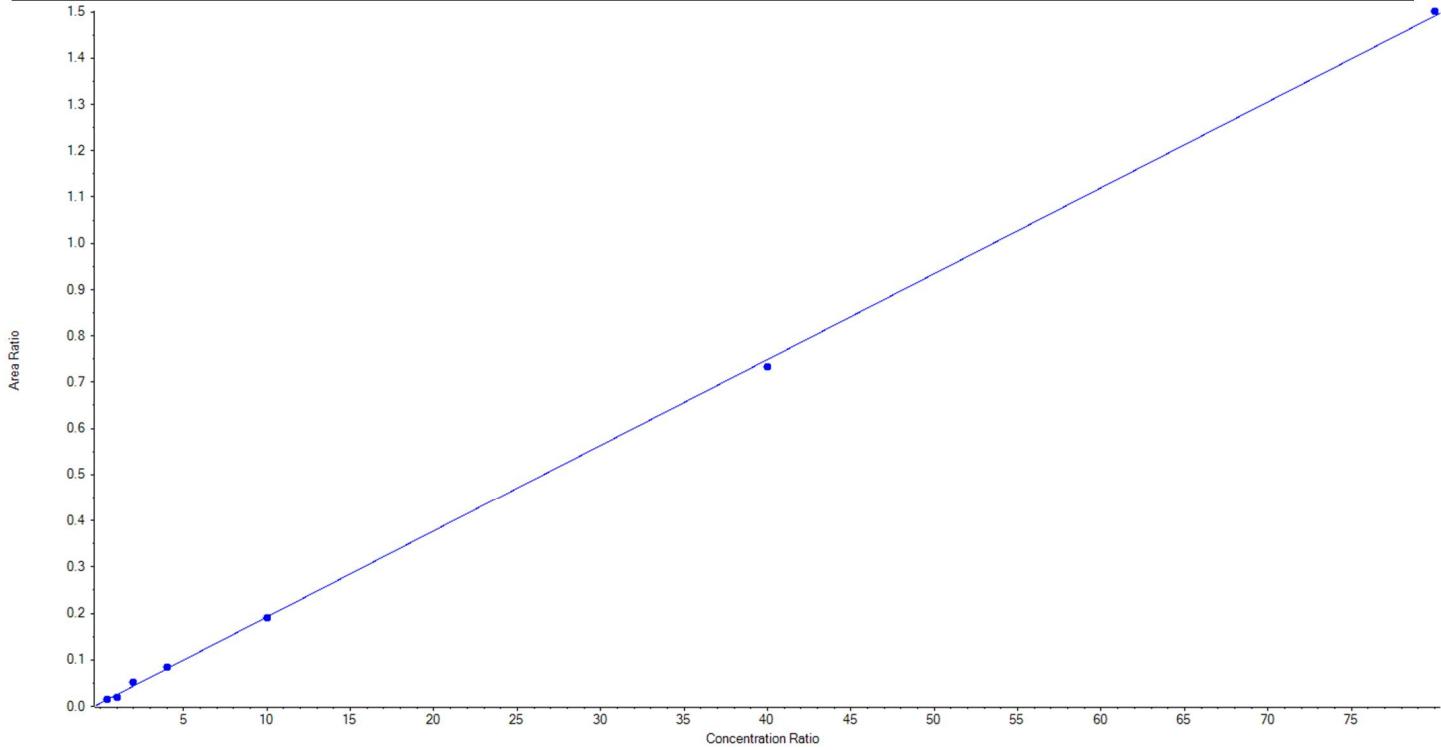




Analyte Name	PFHpA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	363.0 / 169.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C4-PFHpA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.01856 x + 0.00664$ ($r = 0.99907$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	103.311634	103.3
3	KB74	L2	True	250.00	175.823351	70.3
4	KB75	L3	True	500.00	618.850678	123.8
5	KB76	L4	True	1000.00	1051.701356	105.2
6	KB77	L5	True	2500.00	2469.602759	98.8
7	KB78	L6	True	10000.00	9796.218447	98.0
8	KB79	L7	True	20000.00	20134.491774	100.7

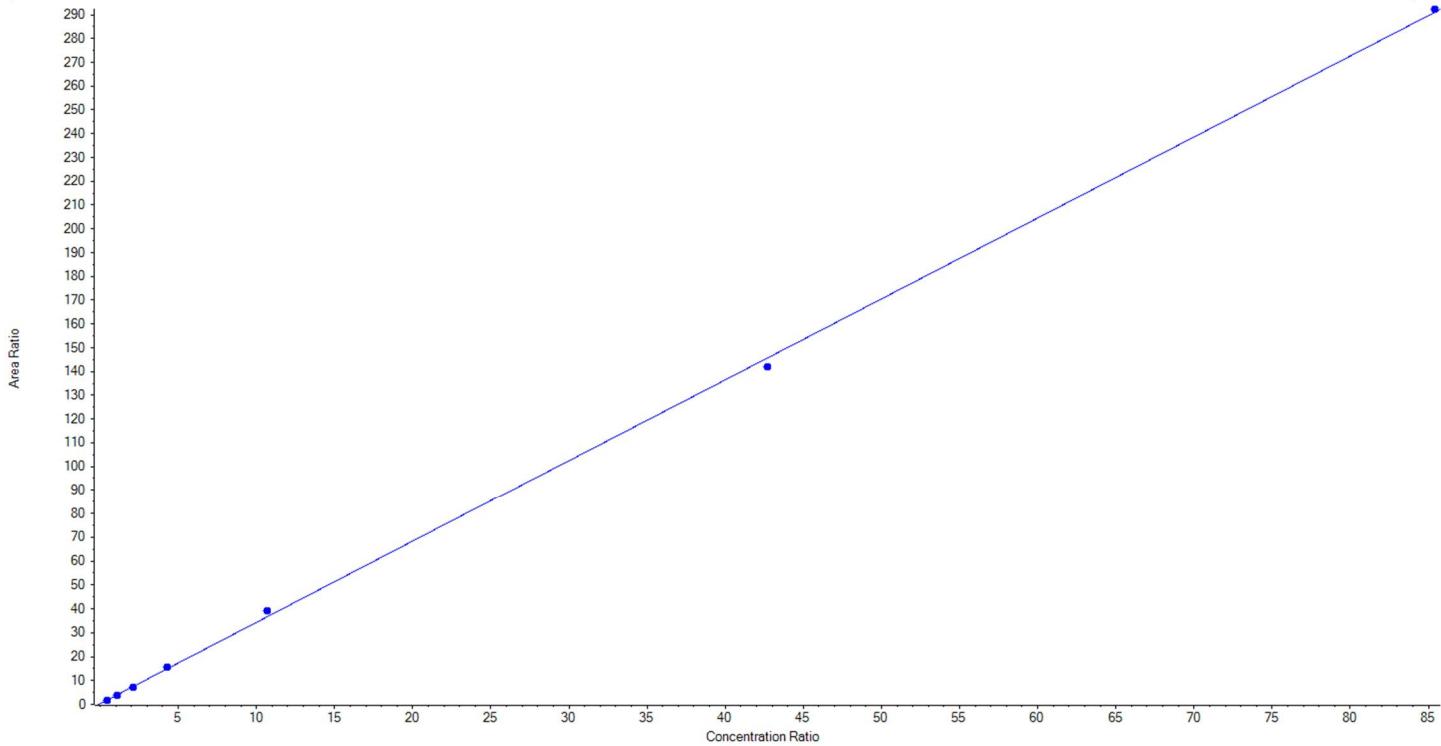




Analyte Name	PFHxS_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	399.0 / 80.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C3-PFHxS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 3.40443 x + 0.28942$ ($r = 0.99956$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	105.225987	104.2
3	KB74	L2	True	252.50	232.865372	92.2
4	KB75	L3	True	505.00	467.824000	92.6
5	KB76	L4	True	1010.00	1074.776448	106.4
6	KB77	L5	True	2525.00	2696.493262	106.8
7	KB78	L6	True	10100.00	9828.822898	97.3
8	KB79	L7	True	20200.00	20287.492034	100.4

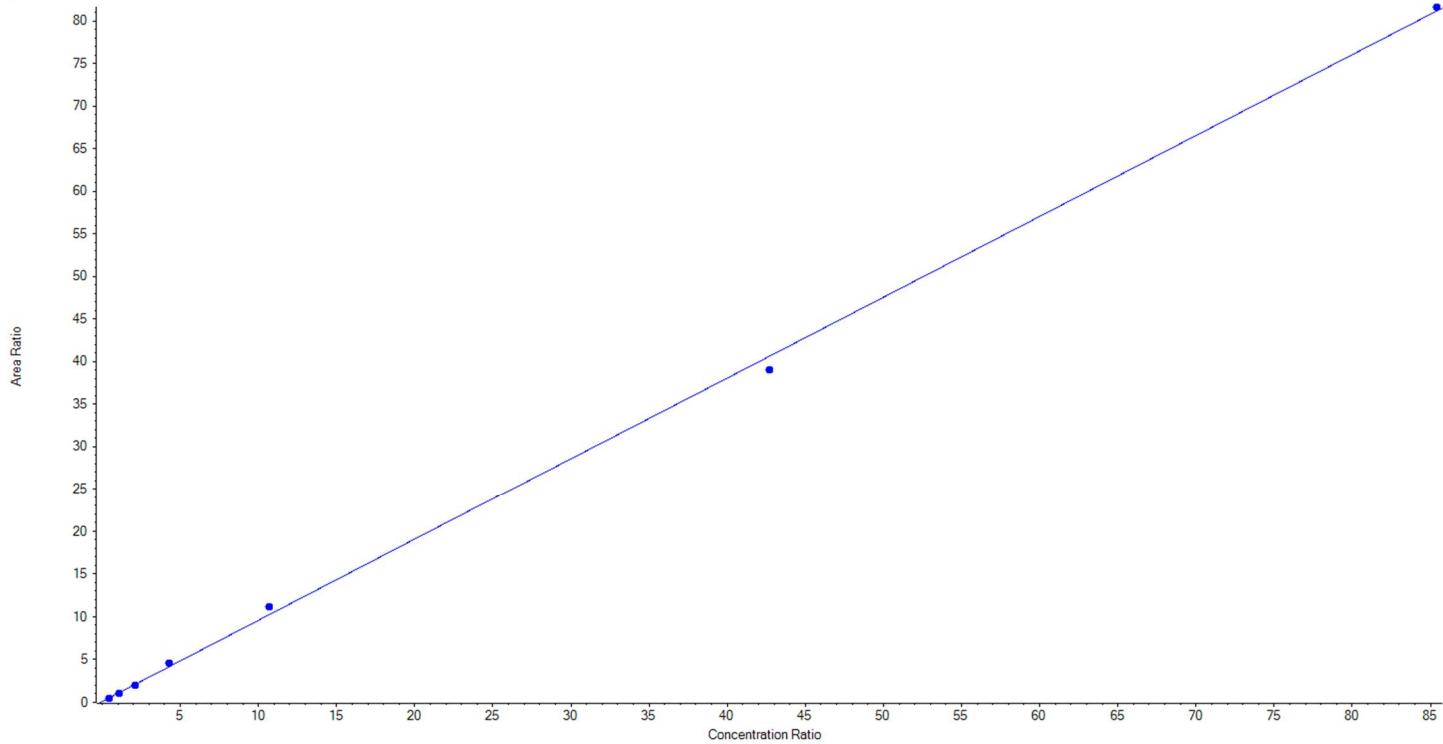




Analyte Name	PFHxS_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	399.0 / 99.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C3-PFHxS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.94916 x + 0.10161$ ($r = 0.99926$) (weighting: 1 / x)

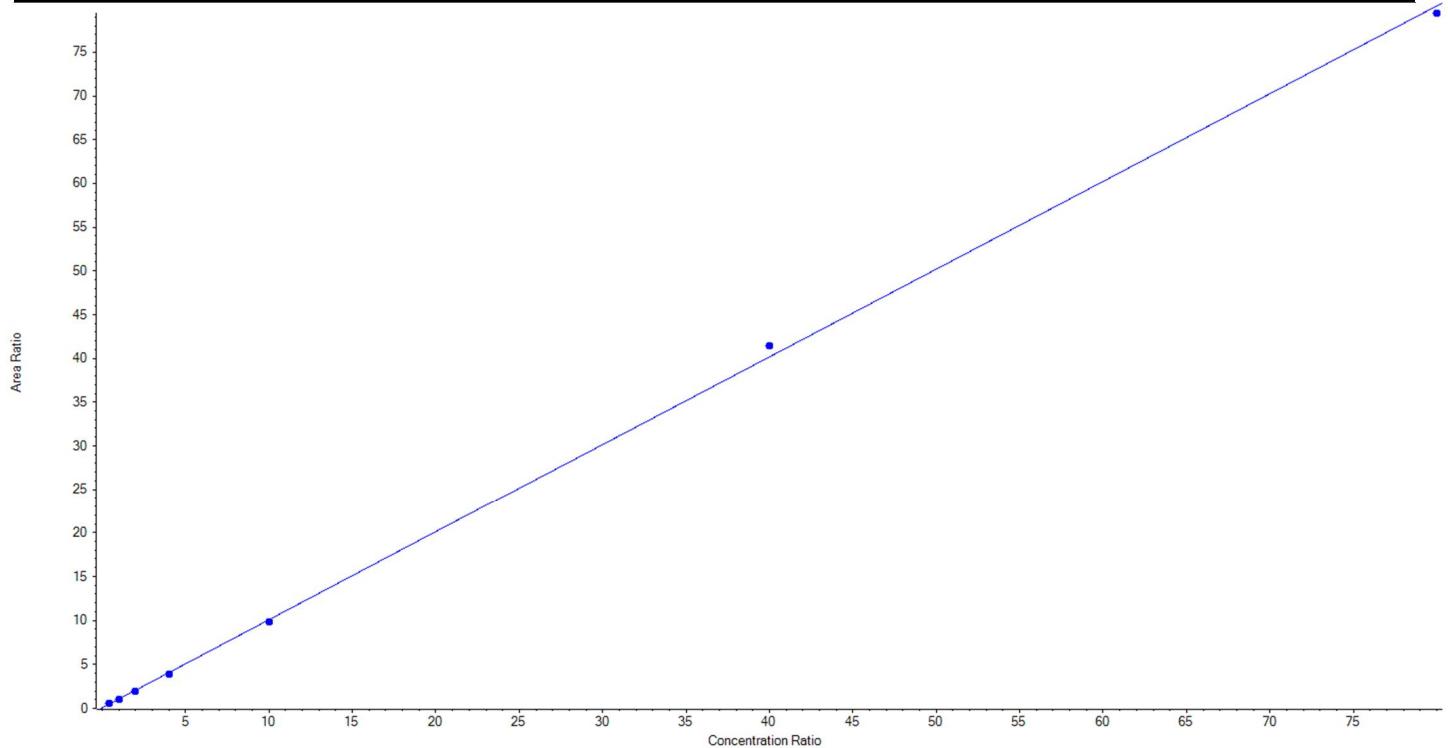
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	98.139274	97.2
3	KB74	L2	True	252.50	231.314187	91.6
4	KB75	L3	True	505.00	484.563583	96.0
5	KB76	L4	True	1010.00	1107.476178	109.7
6	KB77	L5	True	2525.00	2749.725828	108.9
7	KB78	L6	True	10100.00	9714.855919	96.2
8	KB79	L7	True	20200.00	20307.425032	100.5



Analyte Name	PFOA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	413.0 / 369.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C8-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.00279 x + 0.06080$ ($r = 0.99969$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	113.608497	113.6
3	KB74	L2	True	250.00	242.259718	96.9
4	KB75	L3	True	500.00	467.456638	93.5
5	KB76	L4	True	1000.00	956.844142	95.7
6	KB77	L5	True	2500.00	2452.232813	98.1
7	KB78	L6	True	10000.00	10326.914009	103.3
8	KB79	L7	True	20000.00	19790.684183	99.0

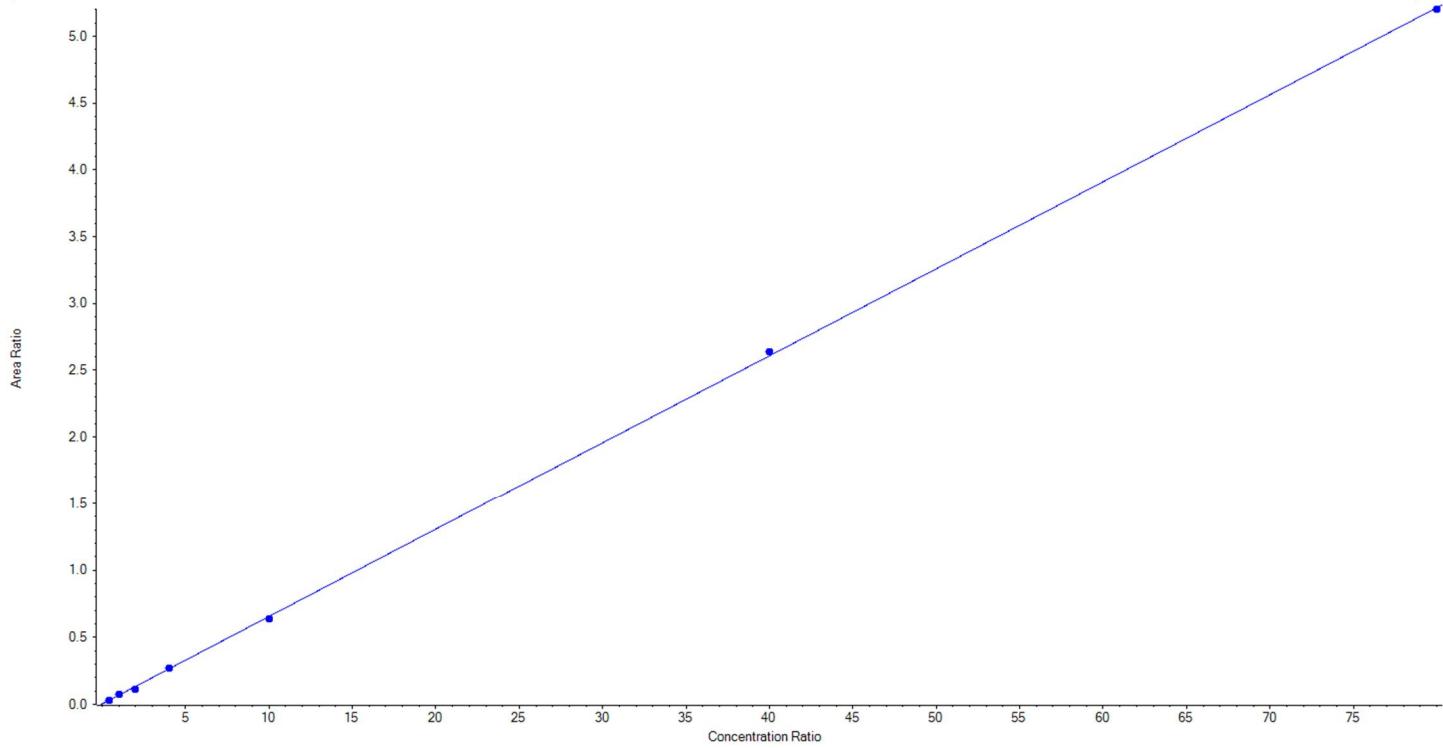




Analyte Name	PFOA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	413.0 / 169.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C8-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.06512 x + 0.00376$ ($r = 0.99971$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	104.849376	104.9
3	KB74	L2	True	250.00	273.238913	109.3
4	KB75	L3	True	500.00	421.303706	84.3
5	KB76	L4	True	1000.00	1028.034772	102.8
6	KB77	L5	True	2500.00	2444.883328	97.8
7	KB78	L6	True	10000.00	10121.411629	101.2
8	KB79	L7	True	20000.00	19956.278277	99.8

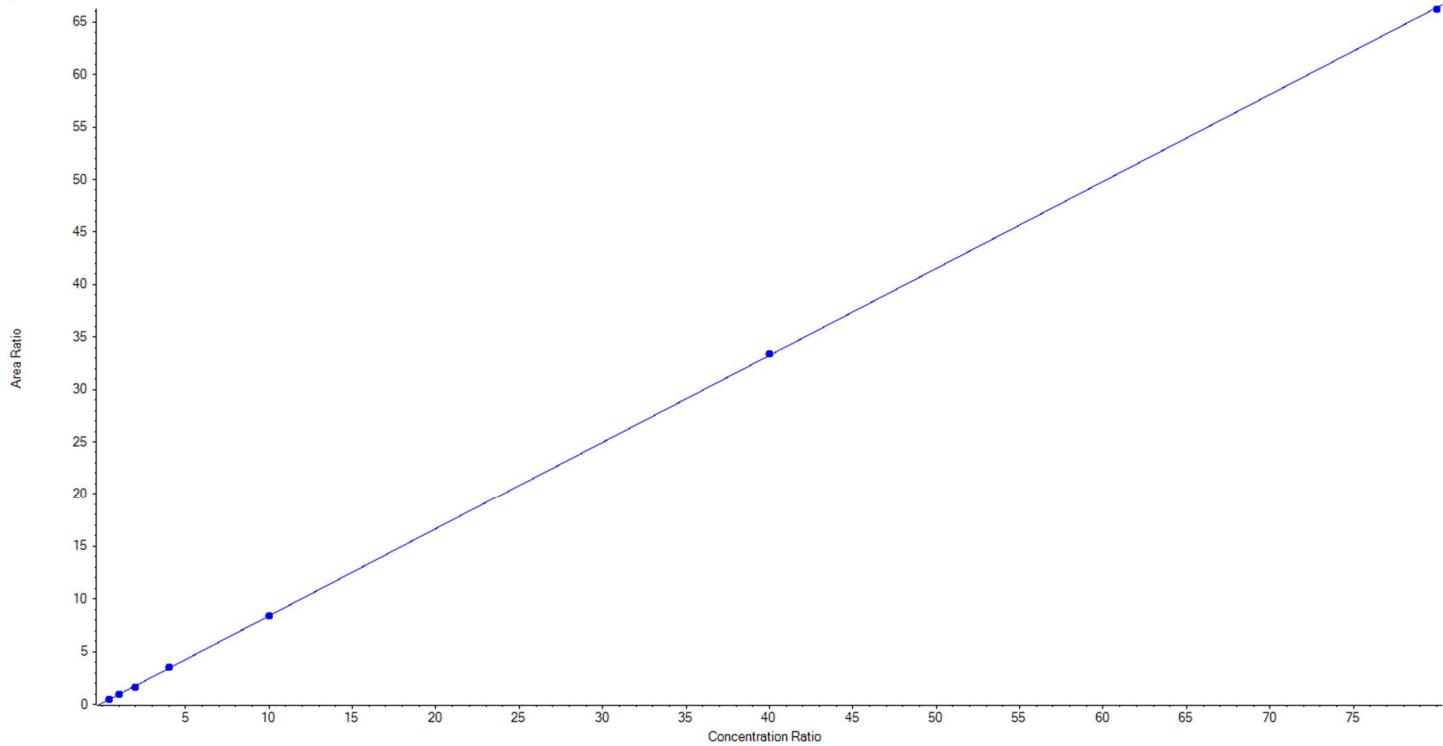




Analyte Name	PFNA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	463.0 / 419.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C9-PFNA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.82839 x + 0.10849$ ($r = 0.99987$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	100.132667	100.1
3	KB74	L2	True	250.00	263.216231	105.3
4	KB75	L3	True	500.00	450.336433	90.1
5	KB76	L4	True	1000.00	1046.243999	104.6
6	KB77	L5	True	2500.00	2491.510736	99.7
7	KB78	L6	True	10000.00	10047.185055	100.5
8	KB79	L7	True	20000.00	19951.374879	99.8

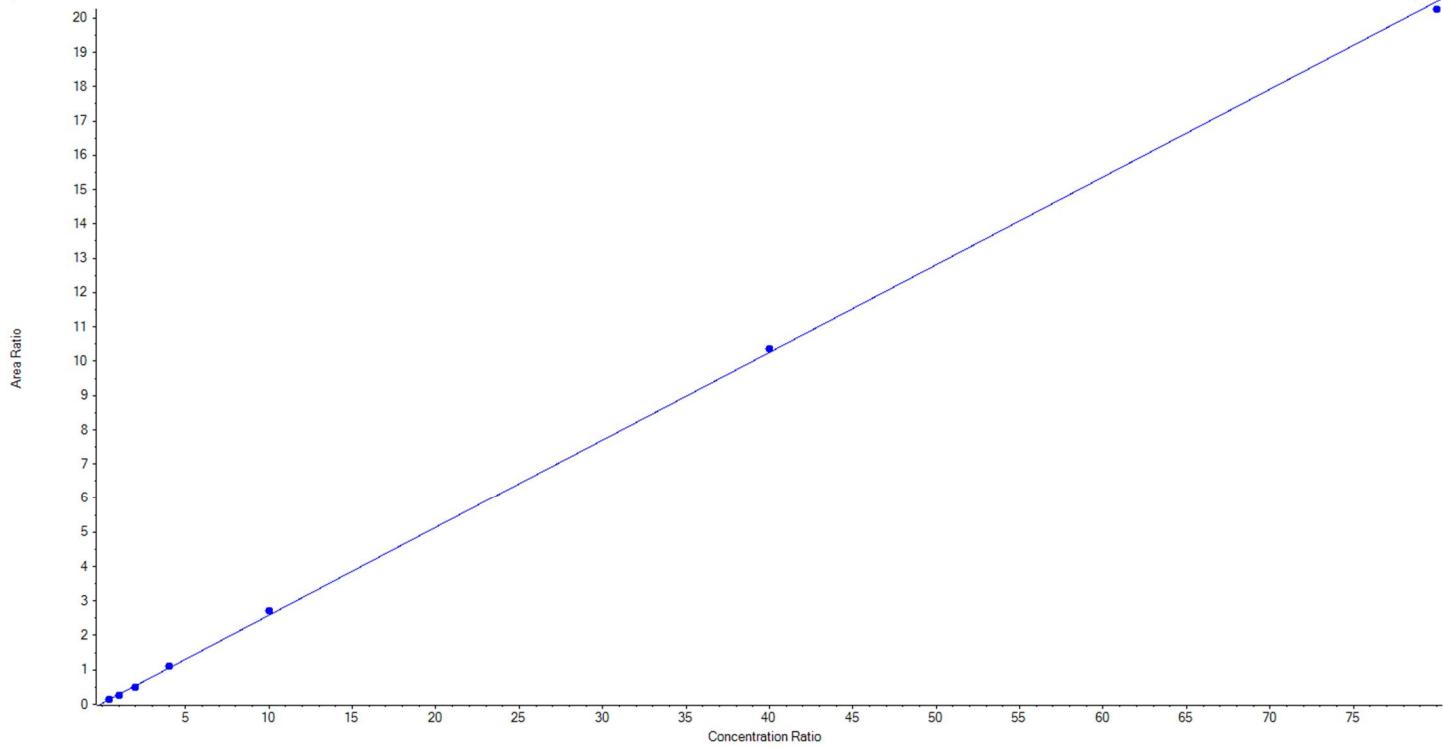




Analyte Name	PFNA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	463.0 / 219.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C9-PFNA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.25566x + 0.02957$ ($r = 0.99963$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	111.702594	111.7
3	KB74	L2	True	250.00	220.916460	88.4
4	KB75	L3	True	500.00	448.287193	89.7
5	KB76	L4	True	1000.00	1050.052047	105.0
6	KB77	L5	True	2500.00	2632.290752	105.3
7	KB78	L6	True	10000.00	10108.558837	101.1
8	KB79	L7	True	20000.00	19778.192118	98.9

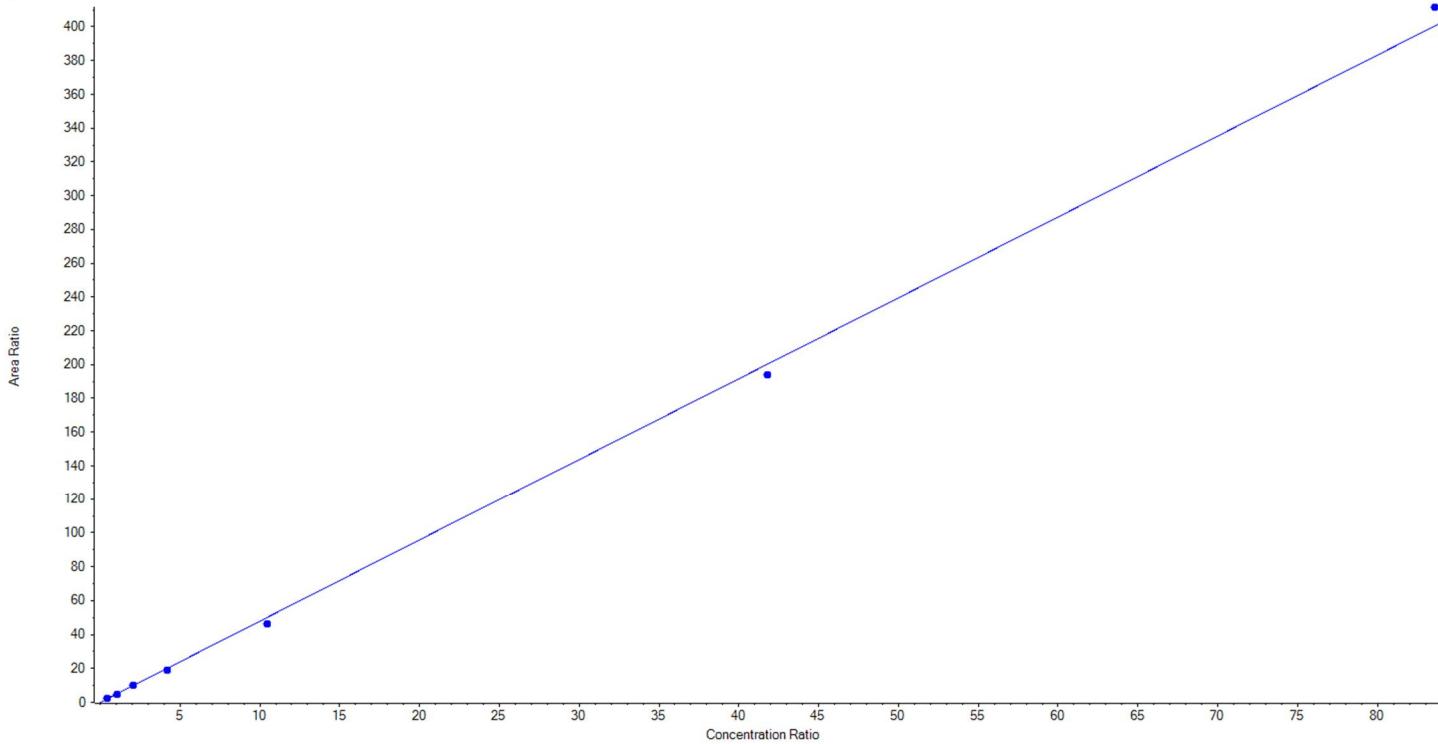




Analyte Name	PFOS_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	499.0 / 80.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C8-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 4.79098x + -0.03583$ ($r = 0.99927$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	112.998705	113.0
3	KB74	L2	True	250.00	245.807613	98.3
4	KB75	L3	True	500.00	508.954098	101.8
5	KB76	L4	True	1000.00	953.422687	95.3
6	KB77	L5	True	2500.00	2300.880982	92.0
7	KB78	L6	True	10000.00	9674.048541	96.7
8	KB79	L7	True	20000.00	20553.887374	102.8

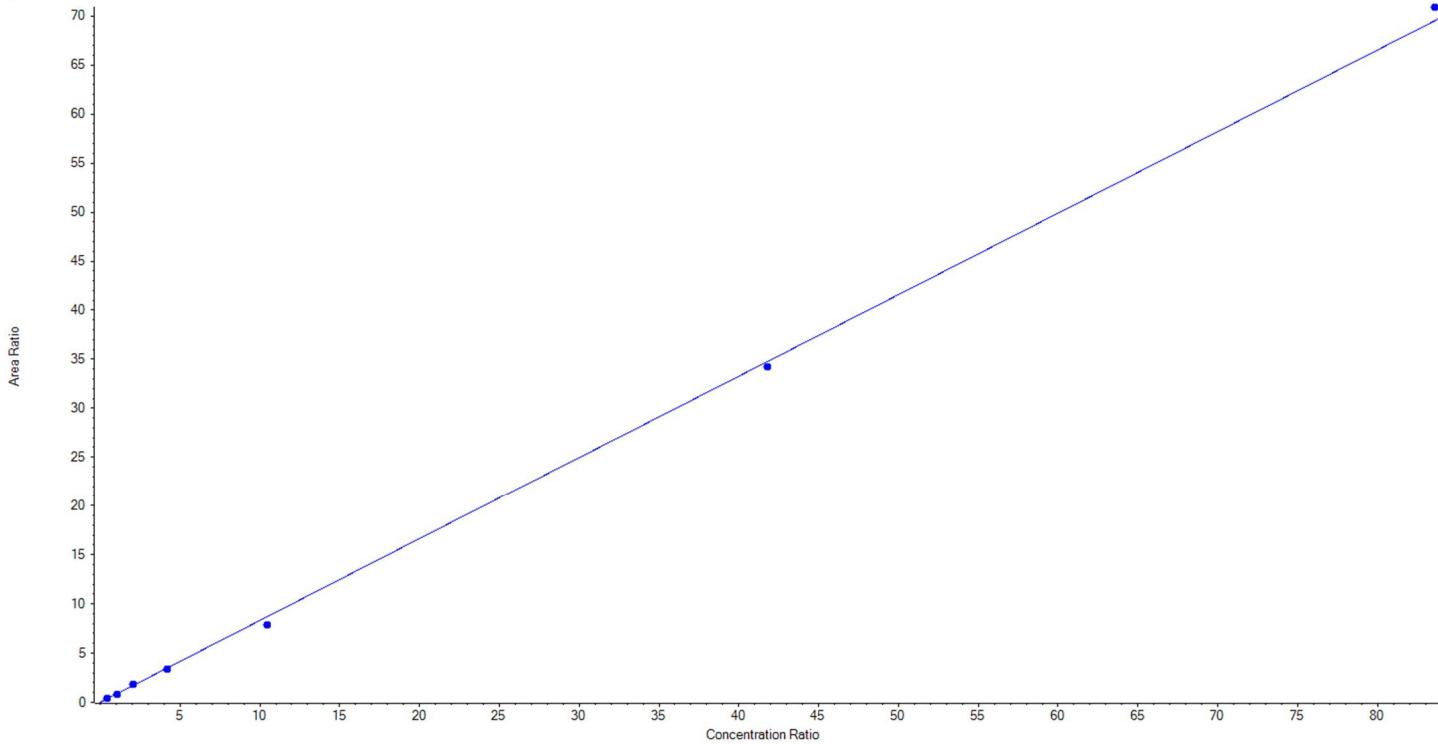




Analyte Name	PFOS_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	499.0 / 99.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C8-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.83172 x + -0.00135$ ($r = 0.99945$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	110.962710	111.0
3	KB74	L2	True	250.00	244.538081	97.8
4	KB75	L3	True	500.00	520.238814	104.1
5	KB76	L4	True	1000.00	958.547975	95.9
6	KB77	L5	True	2500.00	2271.299000	90.9
7	KB78	L6	True	10000.00	9849.093945	98.5
8	KB79	L7	True	20000.00	20395.319474	102.0

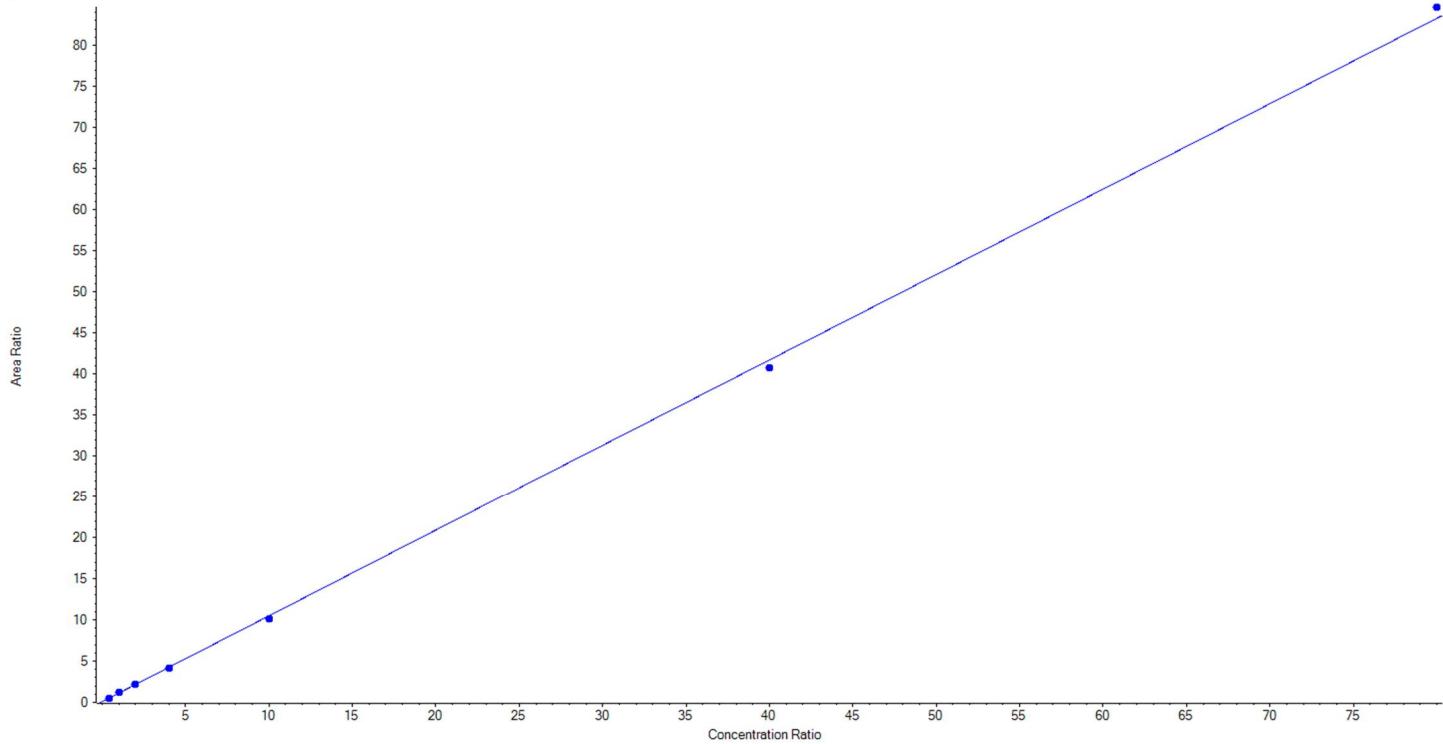




Analyte Name	PFDA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	513.0 / 469.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C6-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.03992x + 0.08967$ ($r = 0.99977$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	100.375074	100.4
3	KB74	L2	True	250.00	264.467518	105.8
4	KB75	L3	True	500.00	495.556524	99.1
5	KB76	L4	True	1000.00	987.592944	98.8
6	KB77	L5	True	2500.00	2418.646707	96.8
7	KB78	L6	True	10000.00	9760.929085	97.6
8	KB79	L7	True	20000.00	20322.432148	101.6

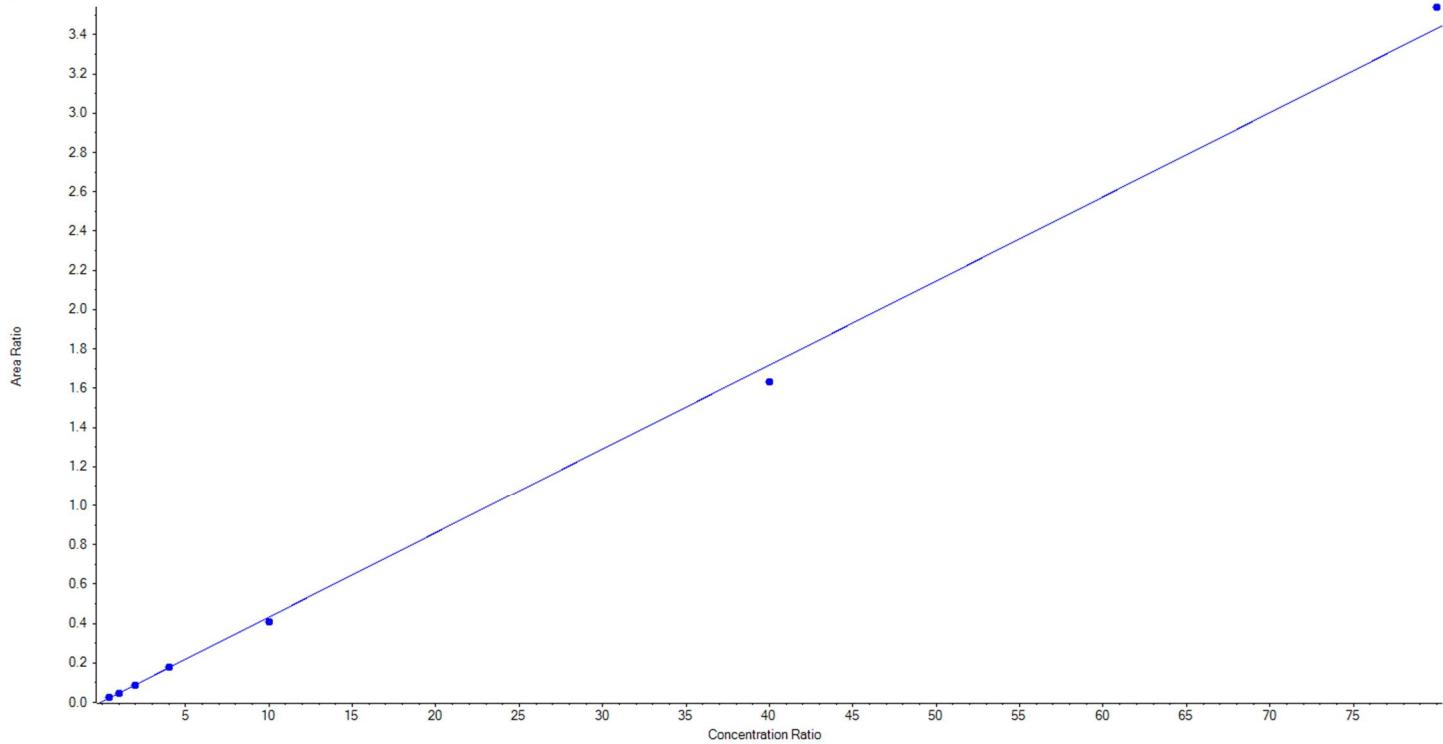




Analyte Name	PFDA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	513.0 / 219.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C6-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.04284 x + 0.00408$ ($r = 0.99914$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	112.406023	112.4
3	KB74	L2	True	250.00	245.500787	98.2
4	KB75	L3	True	500.00	479.073328	95.8
5	KB76	L4	True	1000.00	1010.924950	101.1
6	KB77	L5	True	2500.00	2354.317167	94.2
7	KB78	L6	True	10000.00	9514.985150	95.2
8	KB79	L7	True	20000.00	20632.792594	103.2

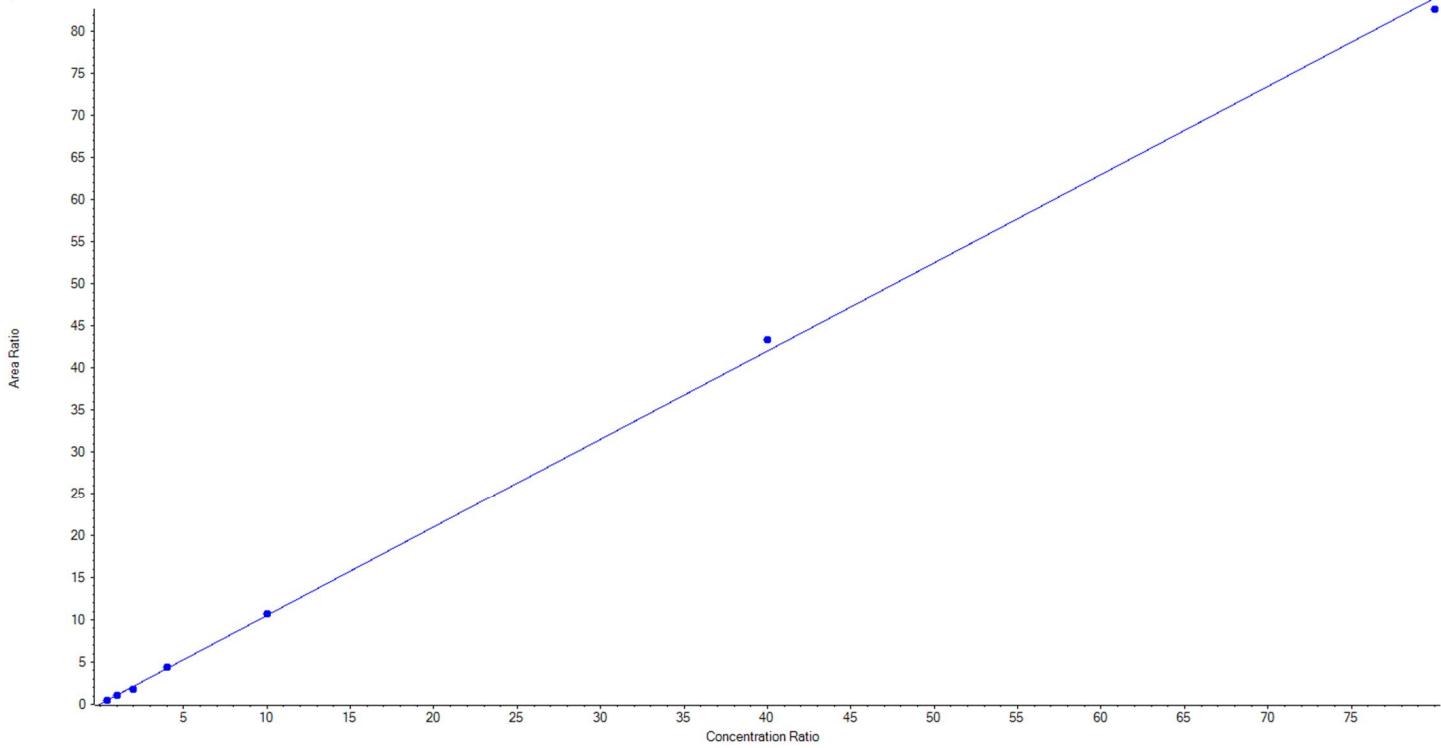




Analyte Name	PFUnA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	563.0 / 519.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C7-PFUnA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.04939 x + 0.04151$ ($r = 0.99953$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	111.527231	111.5
3	KB74	L2	True	250.00	244.824605	97.9
4	KB75	L3	True	500.00	423.690587	84.7
5	KB76	L4	True	1000.00	1026.343861	102.6
6	KB77	L5	True	2500.00	2538.187940	101.5
7	KB78	L6	True	10000.00	10323.155375	103.2
8	KB79	L7	True	20000.00	19682.270401	98.4

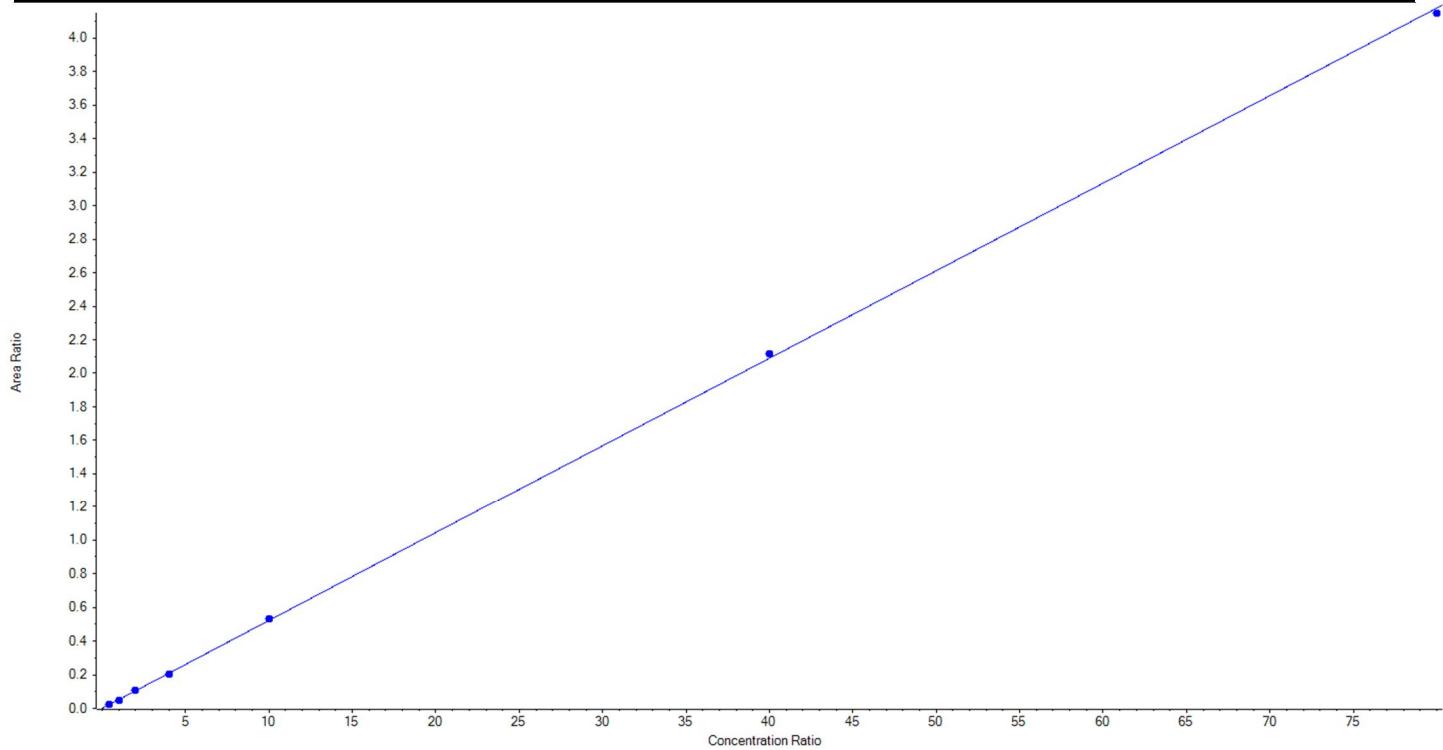




Analyte Name	PFUnA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	563.0 / 269.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C7-PFUnA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05225x + -5.79528e-5$ ($r = 0.99994$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	102.220892	102.2
3	KB74	L2	True	250.00	242.442598	97.0
4	KB75	L3	True	500.00	501.608235	100.3
5	KB76	L4	True	1000.00	981.918474	98.2
6	KB77	L5	True	2500.00	2544.385755	101.8
7	KB78	L6	True	10000.00	10125.204796	101.3
8	KB79	L7	True	20000.00	19852.219250	99.3

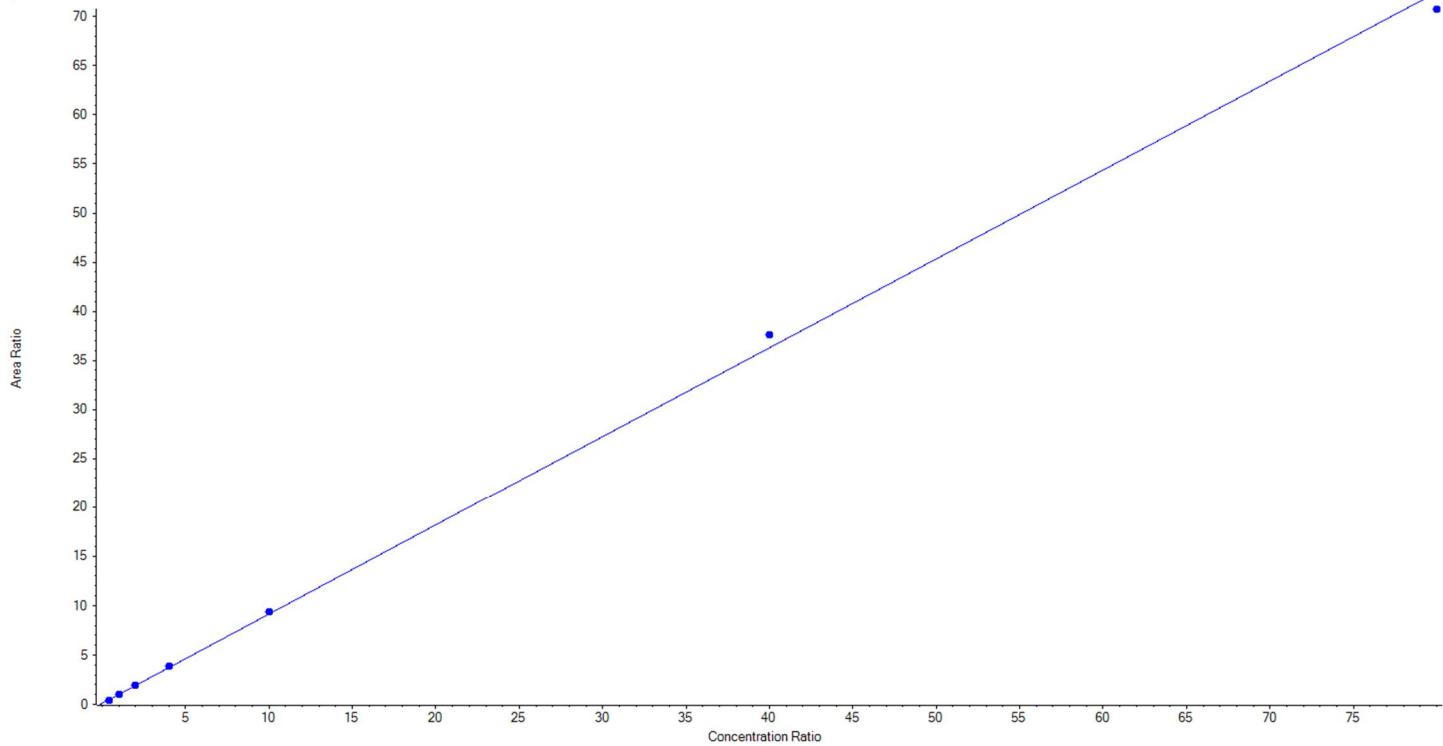




Analyte Name	PFDoA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	613.0 / 569.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C2-PFDoA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.90471 x + 0.10550$ ($r = 0.99952$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	90.939755	90.9
3	KB74	L2	True	250.00	247.072023	98.8
4	KB75	L3	True	500.00	506.360909	101.3
5	KB76	L4	True	1000.00	1050.478389	105.1
6	KB77	L5	True	2500.00	2565.539851	102.6
7	KB78	L6	True	10000.00	10368.355085	103.7
8	KB79	L7	True	20000.00	19521.253987	97.6

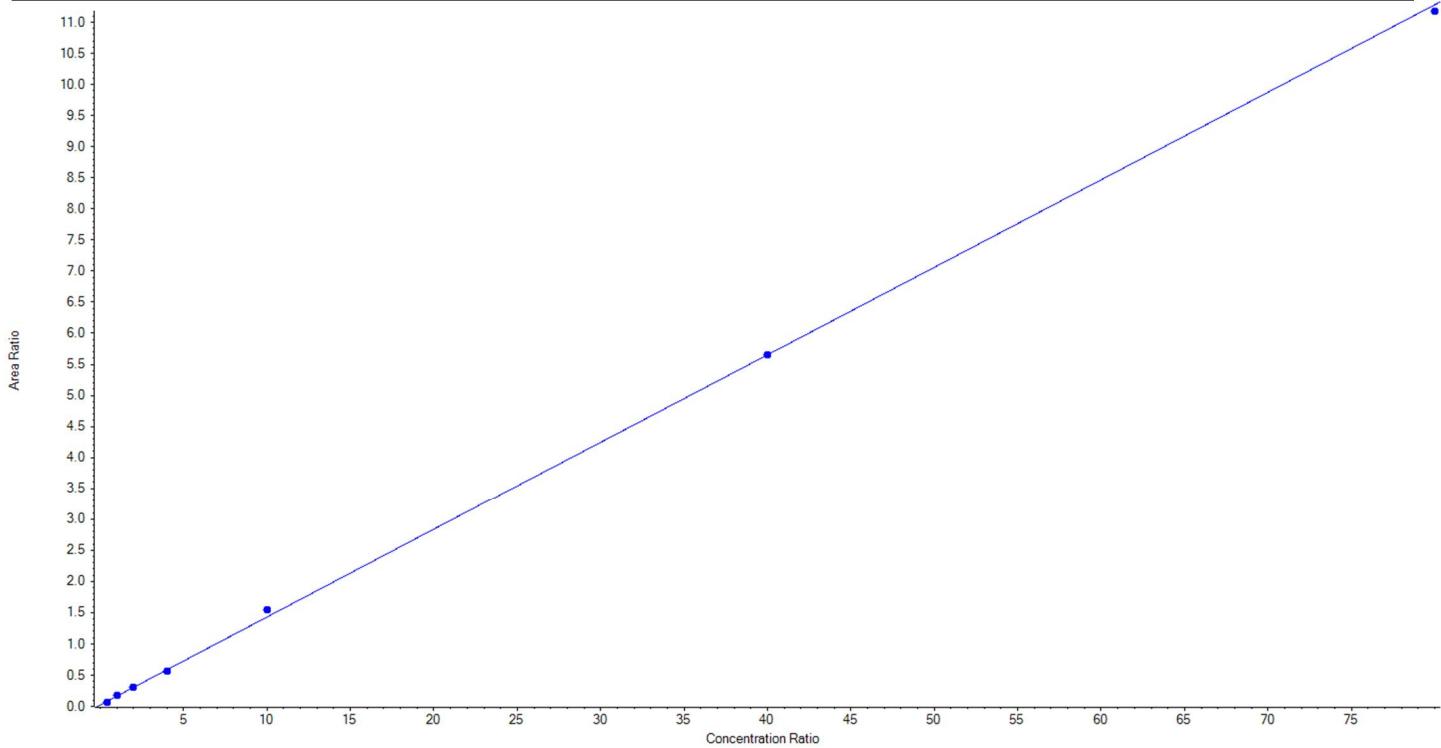




Analyte Name	PFDoA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	613.0 / 319.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C2-PFDoA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.14074 x + 0.02292$ ($r = 0.99961$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	86.545687	86.6
3	KB74	L2	True	250.00	274.615048	109.9
4	KB75	L3	True	500.00	494.661881	98.9
5	KB76	L4	True	1000.00	971.395687	97.1
6	KB77	L5	True	2500.00	2712.576260	108.5
7	KB78	L6	True	10000.00	9996.454238	100.0
8	KB79	L7	True	20000.00	19813.751199	99.1

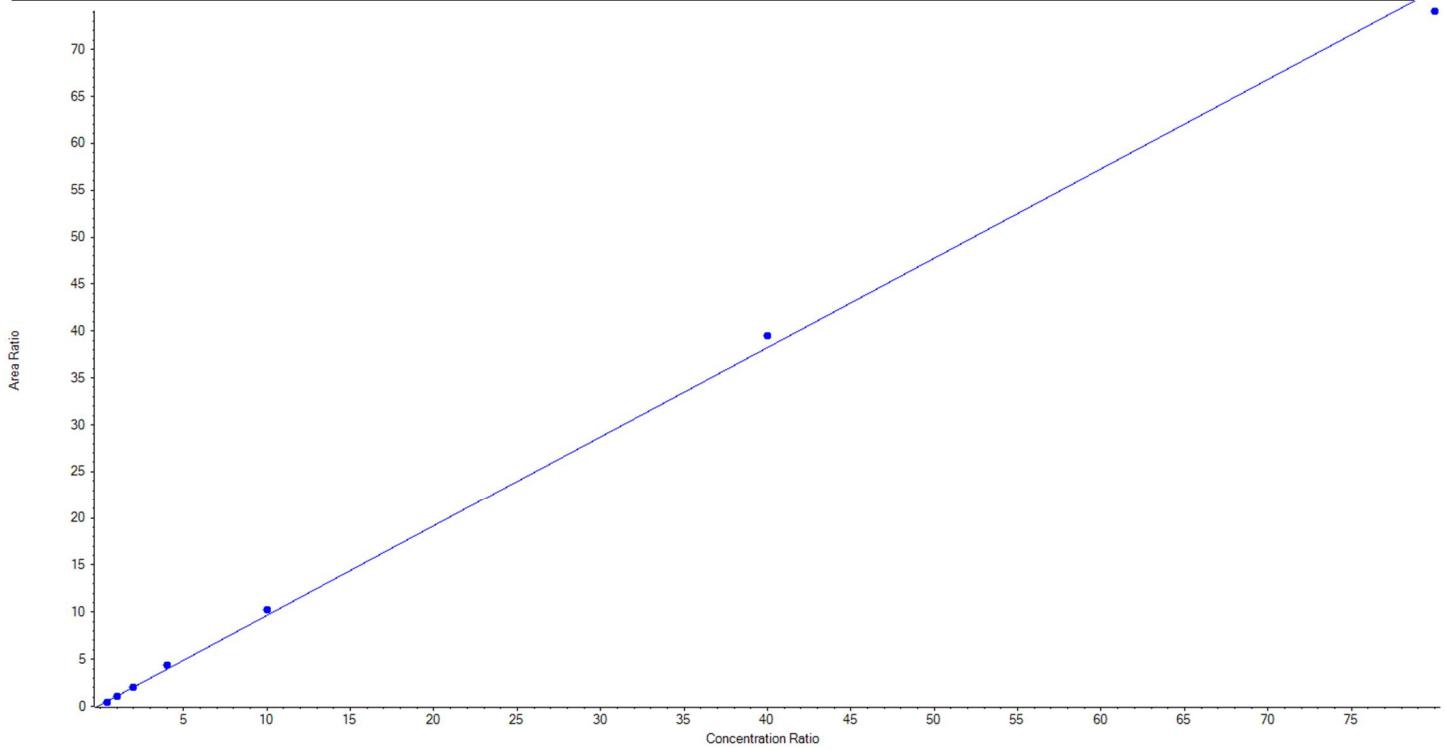




Analyte Name	PFTDA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	663.0 / 619.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.95260 x + 0.12887$ ($r = 0.99908$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	85.967911	86.0
3	KB74	L2	True	250.00	241.563939	96.6
4	KB75	L3	True	500.00	488.700899	97.7
5	KB76	L4	True	1000.00	1126.764608	112.7
6	KB77	L5	True	2500.00	2664.921530	106.6
7	KB78	L6	True	10000.00	10336.521146	103.4
8	KB79	L7	True	20000.00	19405.559967	97.0

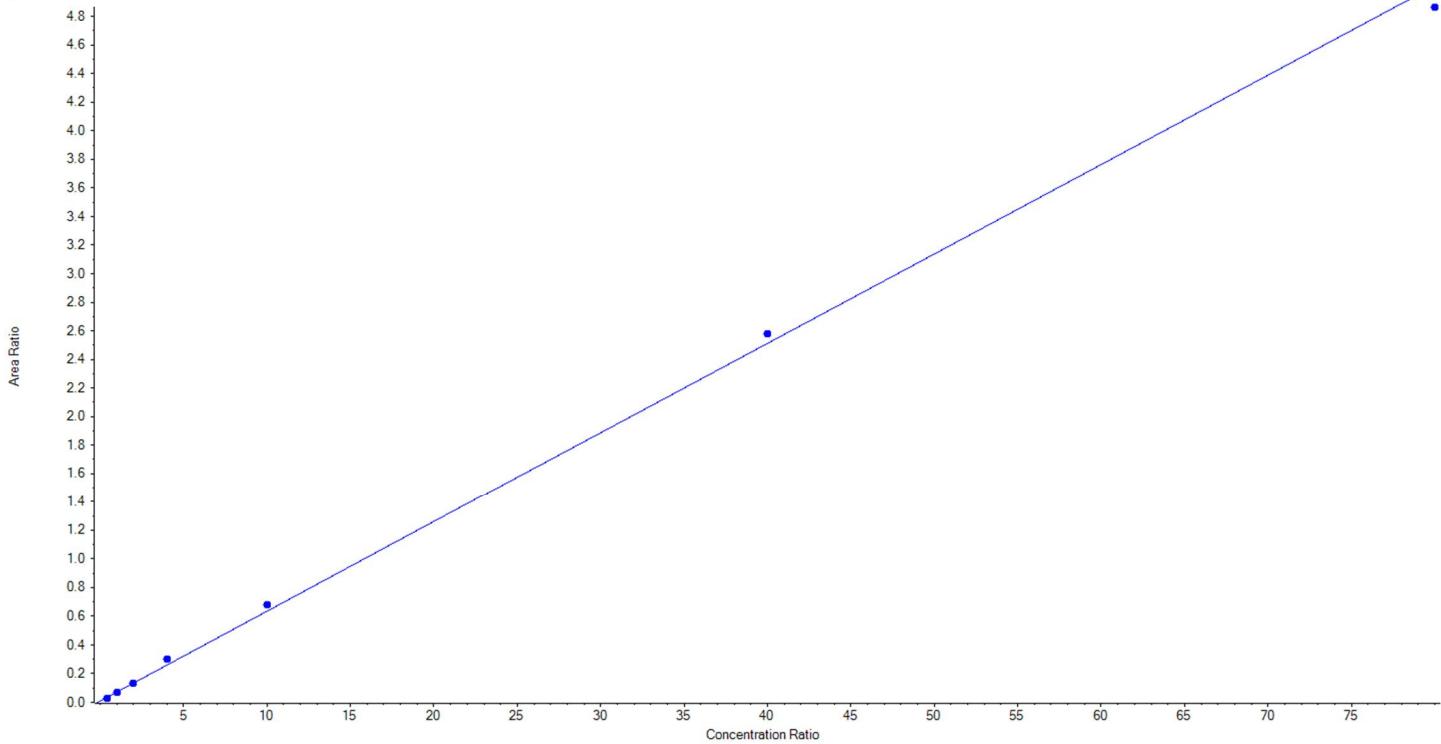




Analyte Name	PFTrDA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	663.0 / 169.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.06256 x + 0.00941$ ($r = 0.99887$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	78.198175	78.2
3	KB74	L2	True	250.00	247.986856	99.2
4	KB75	L3	True	500.00	495.036348	99.0
5	KB76	L4	True	1000.00	1164.067670	116.4
6	KB77	L5	True	2500.00	2684.712399	107.4
7	KB78	L6	True	10000.00	10280.911529	102.8
8	KB79	L7	True	20000.00	19399.087023	97.0

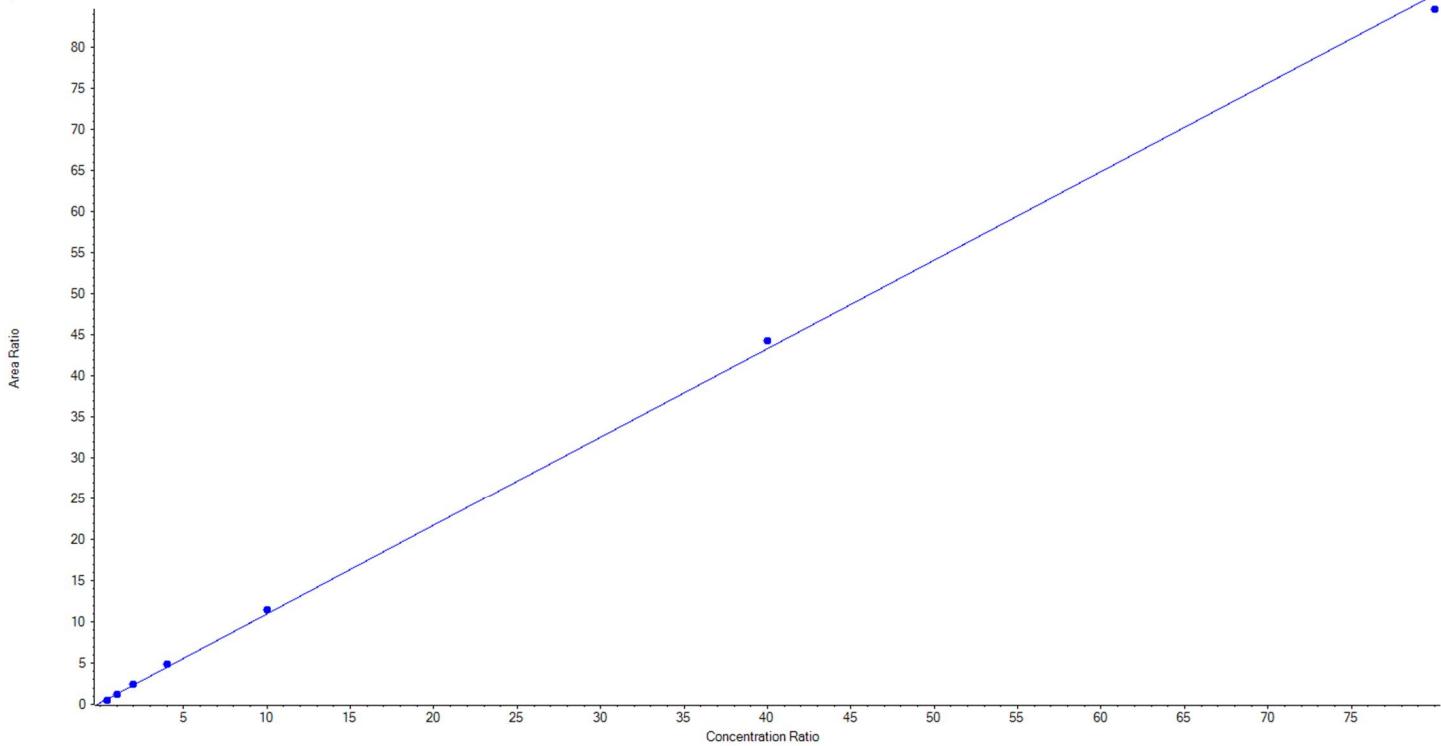




Analyte Name	PFTeDA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	713.0 / 669.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.07817x + 0.18334$ ($r = 0.99951$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	81.728327	81.7
3	KB74	L2	True	250.00	253.645310	101.5
4	KB75	L3	True	500.00	515.154084	103.0
5	KB76	L4	True	1000.00	1095.645152	109.6
6	KB77	L5	True	2500.00	2603.218162	104.1
7	KB78	L6	True	10000.00	10217.289136	102.2
8	KB79	L7	True	20000.00	19583.319829	97.9

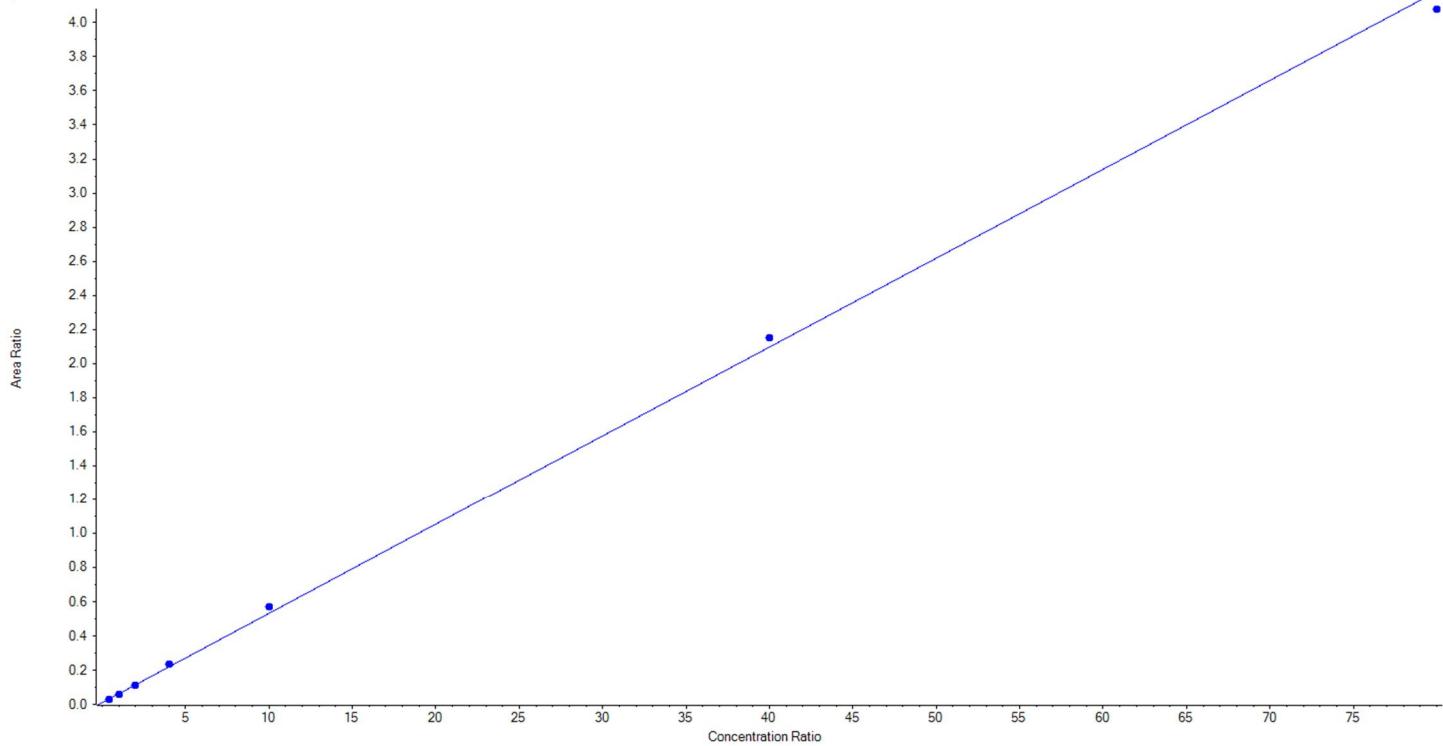




Analyte Name	PFTeDA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	713.0 / 169.0	Result Table	18-0610_18-0611_BASE
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05216 x + 0.01003$ ($r = 0.99933$) (weighting: 1 / x)

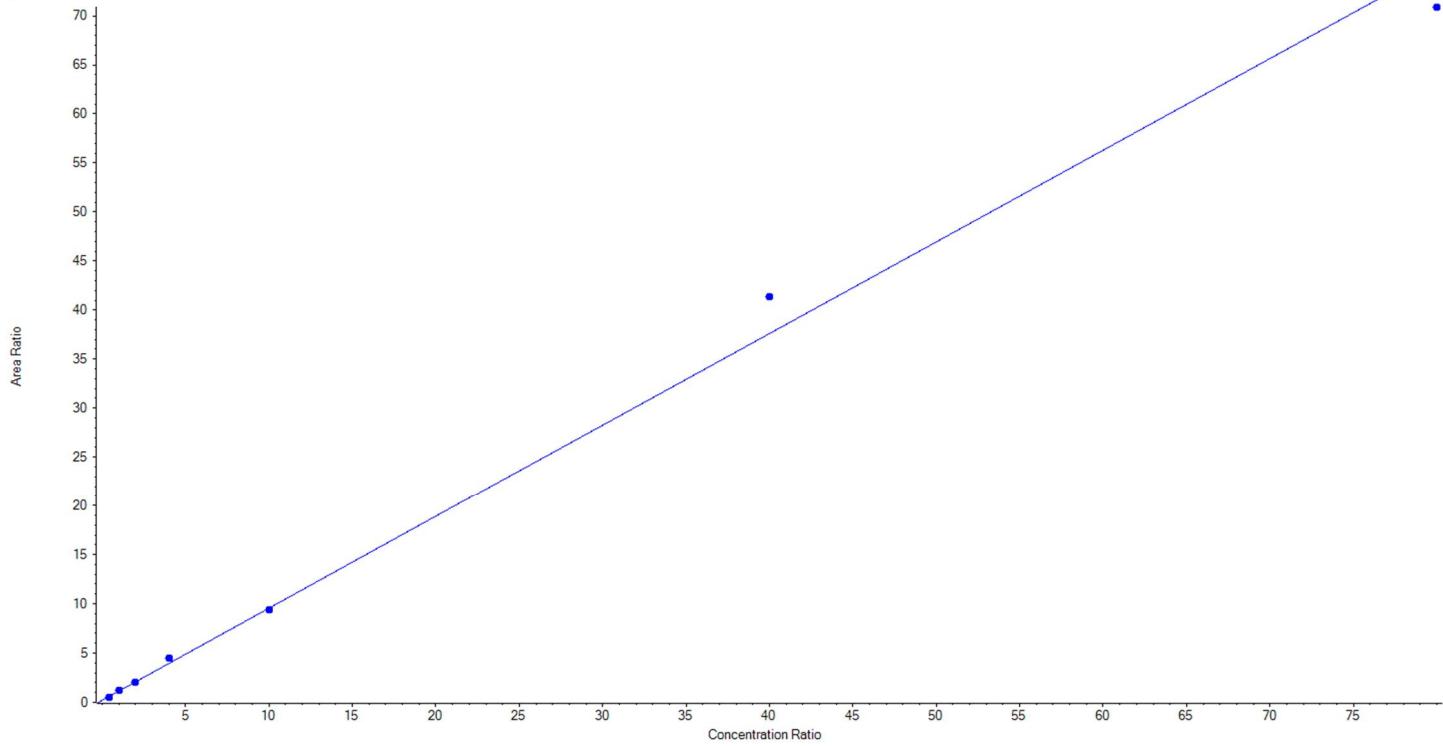
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	89.886117	89.9
3	KB74	L2	True	250.00	238.937138	95.6
4	KB75	L3	True	500.00	490.005825	98.0
5	KB76	L4	True	1000.00	1092.239213	109.2
6	KB77	L5	True	2500.00	2680.771848	107.2
7	KB78	L6	True	10000.00	10258.453725	102.6
8	KB79	L7	True	20000.00	19499.706134	97.5



Analyte Name	NMeFOSAA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	570.0 / 419.0	Result Table	18-0610_18-0611_BASE
Internal Standard	d3-MeFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.93472 x + 0.21431 (r = 0.99704)$ (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	75.824991	75.8
3	KB74	L2	True	250.00	268.876365	107.6
4	KB75	L3	True	500.00	500.524214	100.1
5	KB76	L4	True	1000.00	1133.404189	113.3
6	KB77	L5	True	2500.00	2465.257046	98.6
7	KB78	L6	True	10000.00	11007.670601	110.1
8	KB79	L7	True	20000.00	18898.442593	94.5

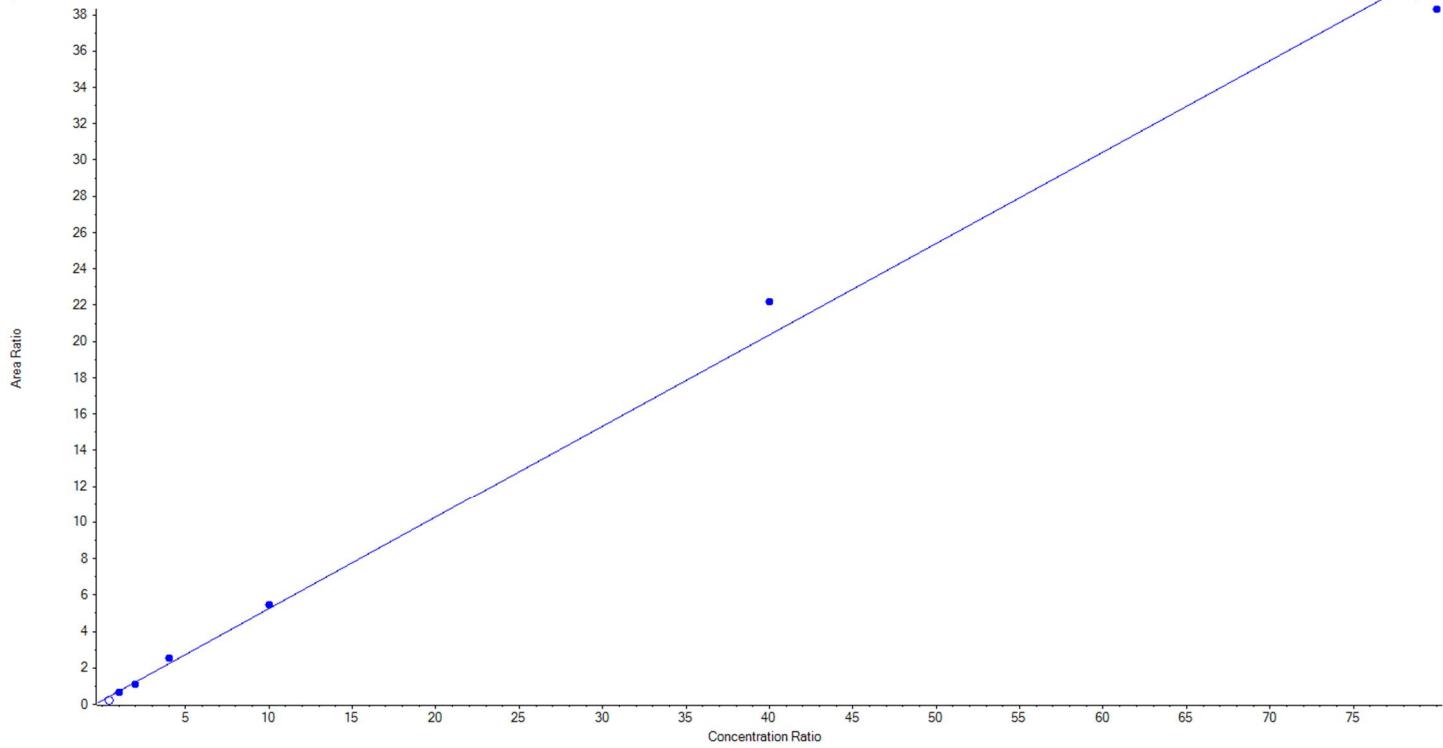




Analyte Name	NMeFOSAA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	570.0 / 512.0	Result Table	18-0610_18-0611_BASE
Internal Standard	d3-MeFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.50367x + 0.21759$ ($r = 0.99687$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	3.453918	3.5
3	KB74	L2	True	250.00	218.419800	87.4
4	KB75	L3	True	500.00	439.990383	88.0
5	KB76	L4	True	1000.00	1163.925478	116.4
6	KB77	L5	True	2500.00	2616.439396	104.7
7	KB78	L6	True	10000.00	10905.550987	109.1
8	KB79	L7	True	20000.00	18905.673956	94.5

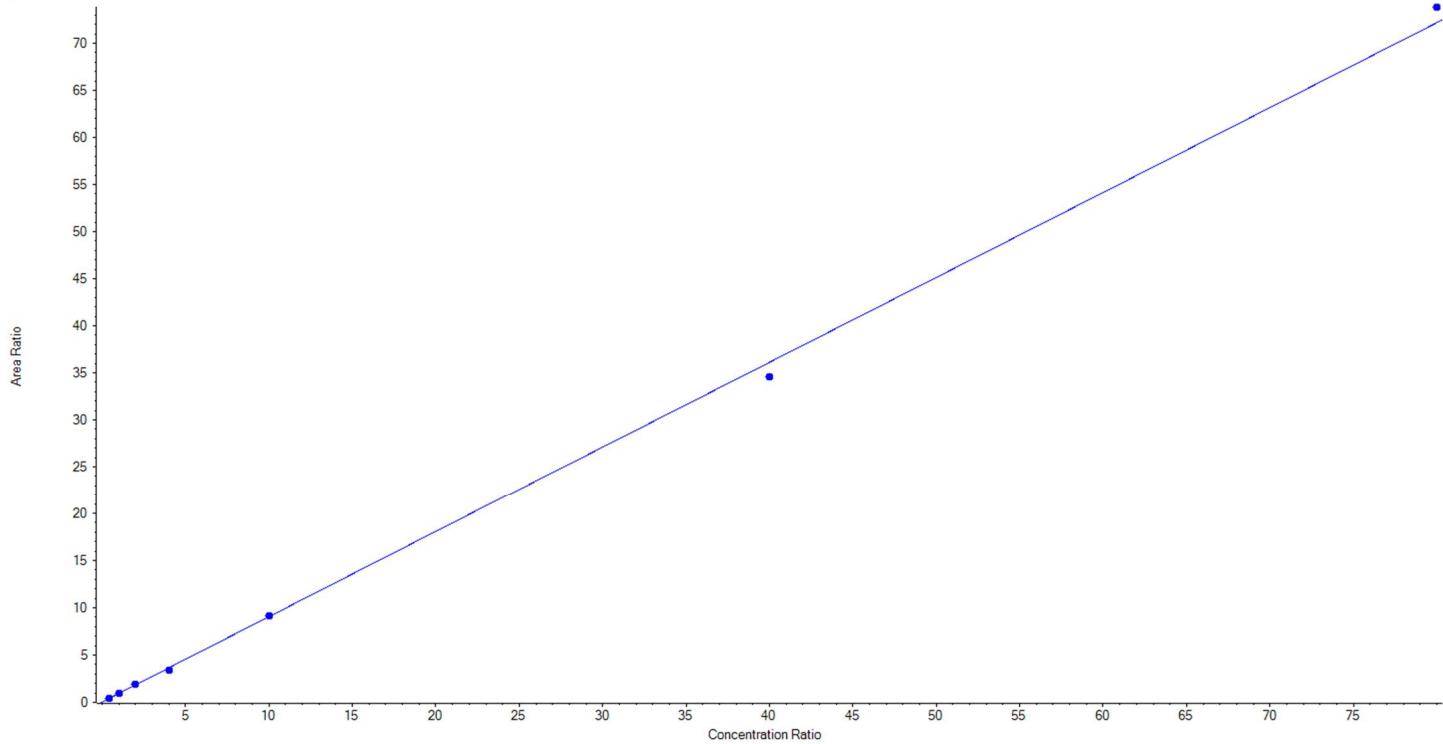




Analyte Name	NEtFOSAA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	584.0 / 419.0	Result Table	18-0610_18-0611_BASE
Internal Standard	d5-EtFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.90168x + 0.04836$ ($r = 0.99948$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	104.771450	104.8
3	KB74	L2	True	250.00	251.018896	100.4
4	KB75	L3	True	500.00	508.056535	101.6
5	KB76	L4	True	1000.00	943.782521	94.4
6	KB77	L5	True	2500.00	2522.760733	100.9
7	KB78	L6	True	10000.00	9564.590700	95.7
8	KB79	L7	True	20000.00	20455.019164	102.3

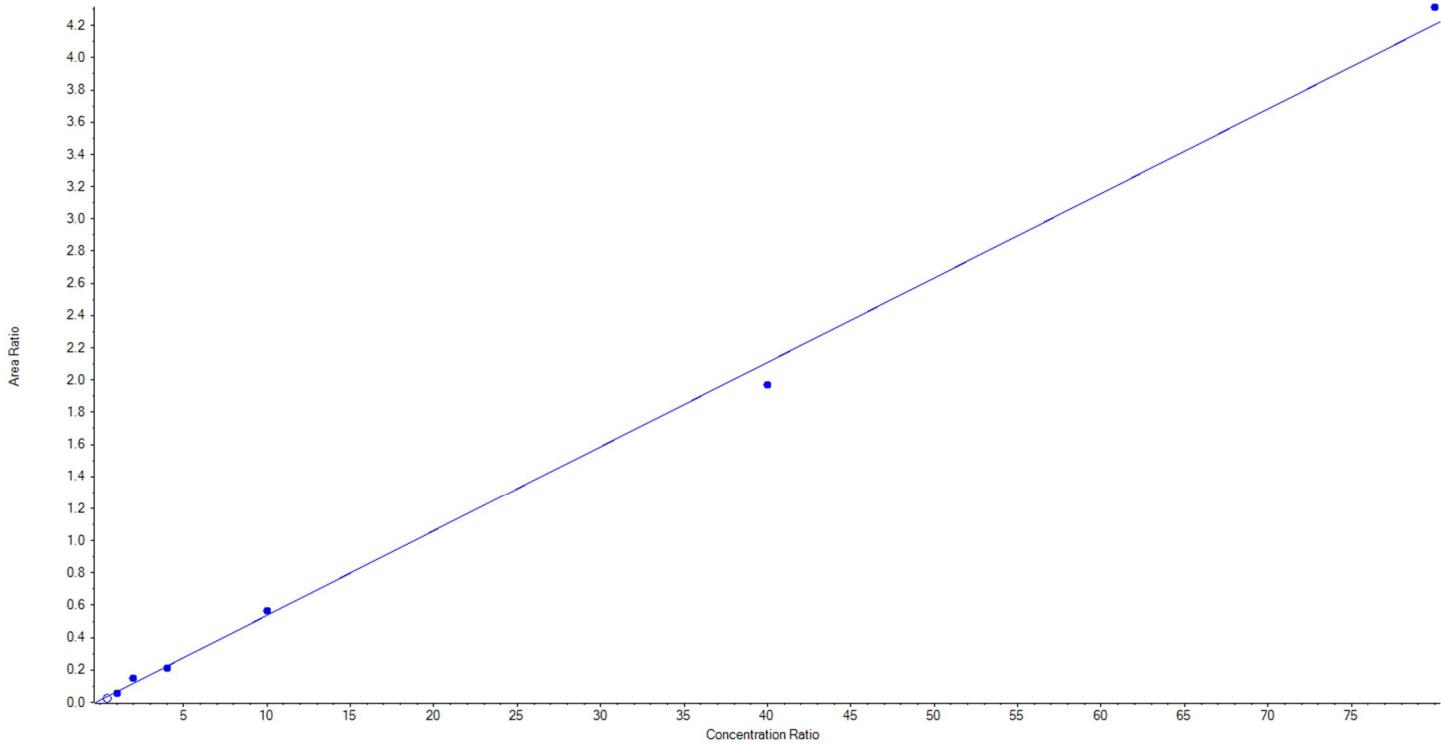




Analyte Name	NEtFOSAA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	584.0 / 483.0	Result Table	18-0610_18-0611_BASE
Internal Standard	d5-EtFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05241 x + 0.01326$ ($r = 0.99796$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	41.412646	41.4
3	KB74	L2	True	250.00	191.667209	76.7
4	KB75	L3	True	500.00	637.470069	127.5
5	KB76	L4	True	1000.00	945.207707	94.5
6	KB77	L5	True	2500.00	2637.389496	105.5
7	KB78	L6	True	10000.00	9326.284871	93.3
8	KB79	L7	True	20000.00	20511.980648	102.6

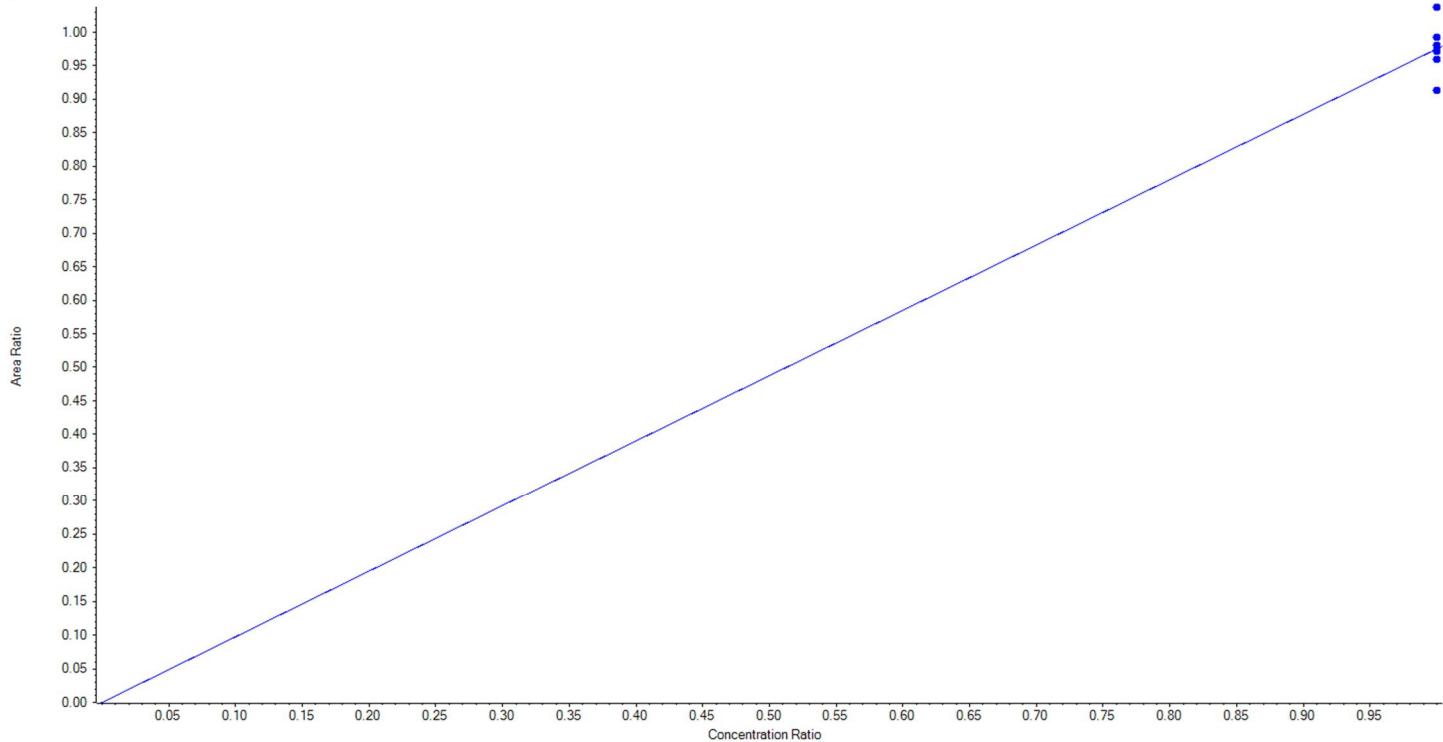




Analyte Name	13C2-PFDoA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	615.0 / 570.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.97505 x$ (std. dev. = 0.03727) (weighting: 1 / x)

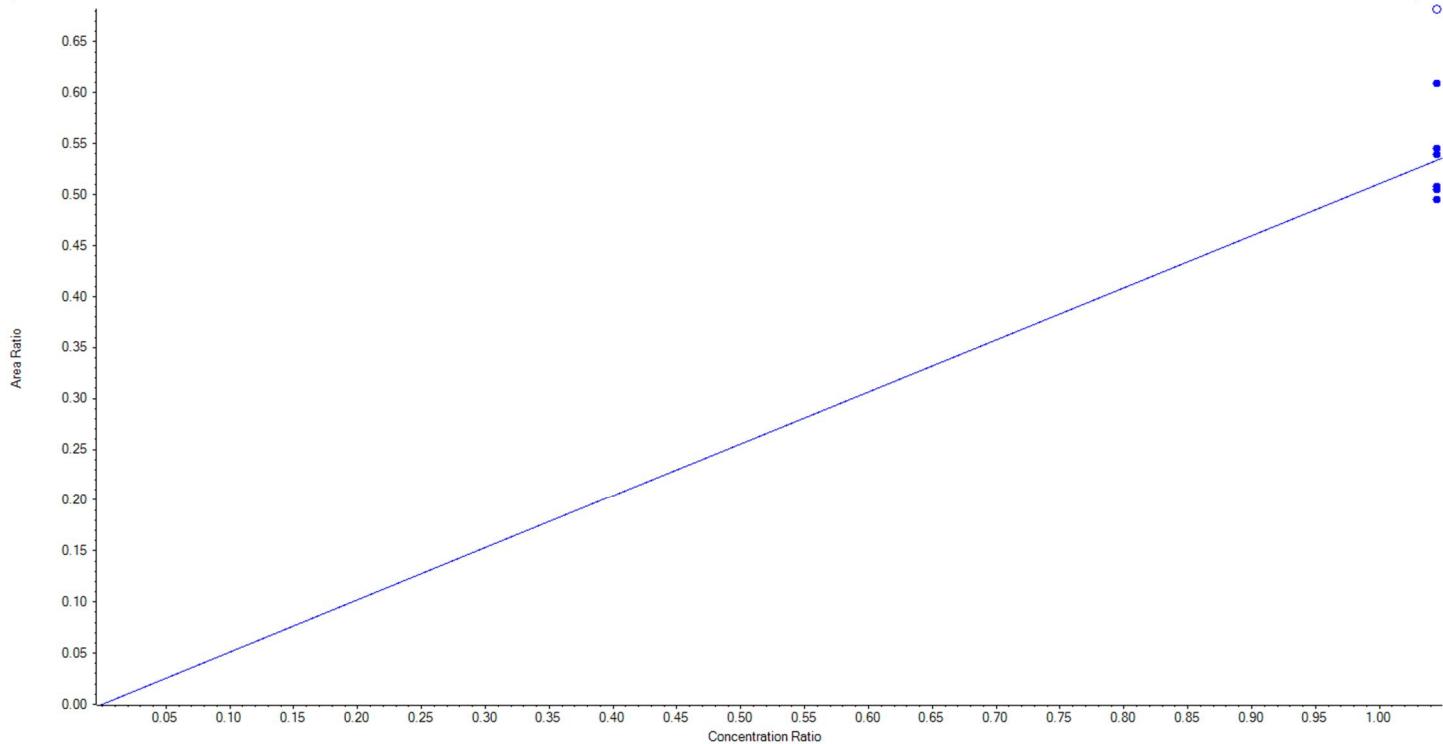
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	234.027671	93.6
3	KB74	L2	True	250.00	265.932266	106.4
4	KB75	L3	True	250.00	249.447374	99.8
5	KB76	L4	True	250.00	245.945631	98.4
6	KB77	L5	True	250.00	248.975274	99.6
7	KB78	L6	True	250.00	251.235272	100.5
8	KB79	L7	True	250.00	254.436513	101.8



Analyte Name	d3-MeFOSAA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	573.0 / 419.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.51076 x$ (std. dev. = 0.04023) (weighting: 1 / x)

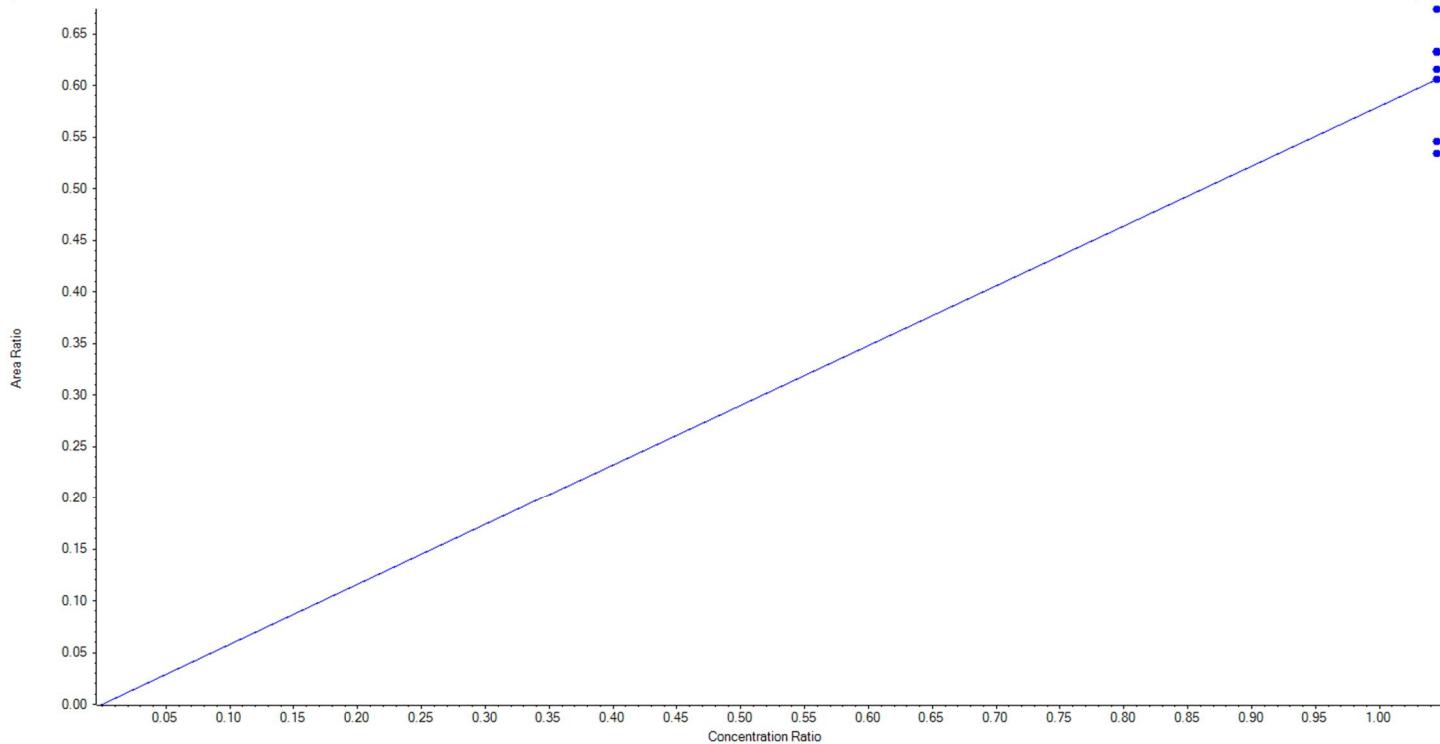
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	252.745204	101.1
3	KB74	L2	True	250.00	237.867686	95.2
4	KB75	L3	True	250.00	255.434971	102.2
5	KB76	L4	True	250.00	232.186572	92.9
6	KB77	L5	True	250.00	236.383719	94.6
7	KB78	L6	True	250.00	285.381847	114.2
8	KB79	L7	False	250.00	319.413436	127.8



Analyte Name	d5-EtFOSAA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	589.0 / 419.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.57975 x$ (std. dev. = 0.04771) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	261.116785	104.5
3	KB74	L2	True	250.00	260.842878	104.3
4	KB75	L3	True	250.00	225.192349	90.1
5	KB76	L4	True	250.00	254.251713	101.7
6	KB77	L5	True	250.00	220.425706	88.2
7	KB78	L6	True	250.00	278.106701	111.2
8	KB79	L7	True	250.00	250.063868	100.0

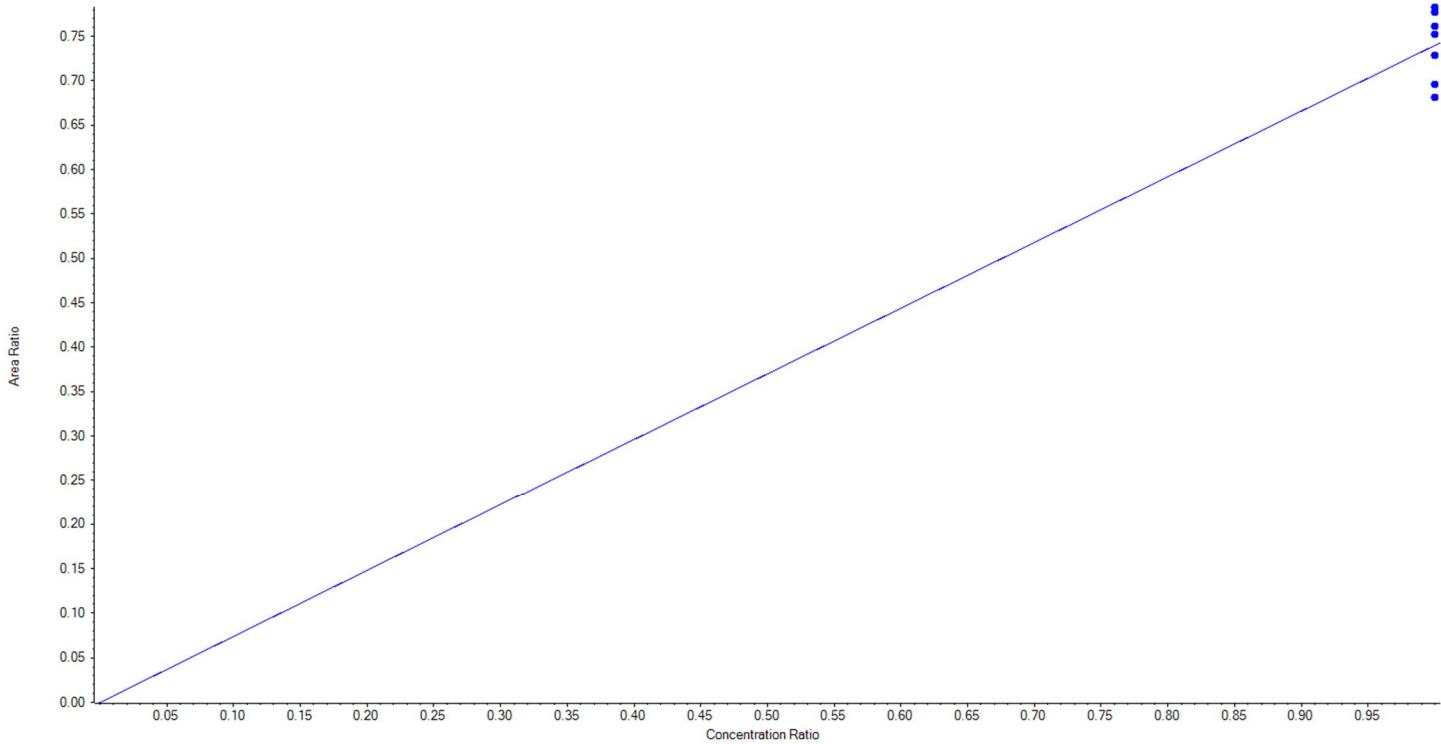




Analyte Name	13C5-PFHxA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	318.0 / 273.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.73994 x$ (std. dev. = 0.03937) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	262.567314	105.0
3	KB74	L2	True	250.00	254.187234	101.7
4	KB75	L3	True	250.00	230.325952	92.1
5	KB76	L4	True	250.00	235.058052	94.0
6	KB77	L5	True	250.00	257.145365	102.9
7	KB78	L6	True	250.00	264.503275	105.8
8	KB79	L7	True	250.00	246.212808	98.5

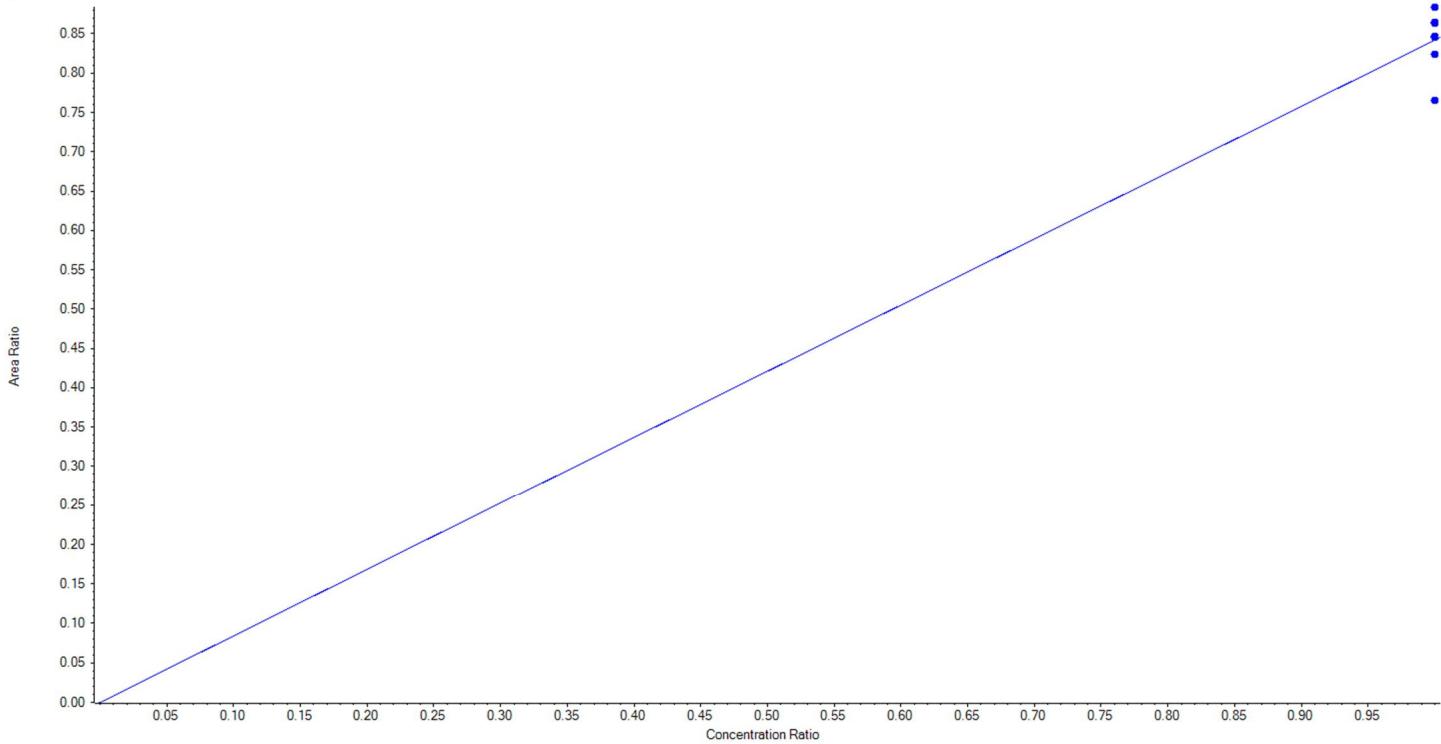




Analyte Name	13C4-PFHpA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	367.0 / 322.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.84182 x$ (std. dev. = 0.03866) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	262.427043	105.0
3	KB74	L2	True	250.00	251.075240	100.4
4	KB75	L3	True	250.00	244.763156	97.9
5	KB76	L4	True	250.00	256.507439	102.6
6	KB77	L5	True	250.00	256.669677	102.7
7	KB78	L6	True	250.00	251.342992	100.5
8	KB79	L7	True	250.00	227.214453	90.9

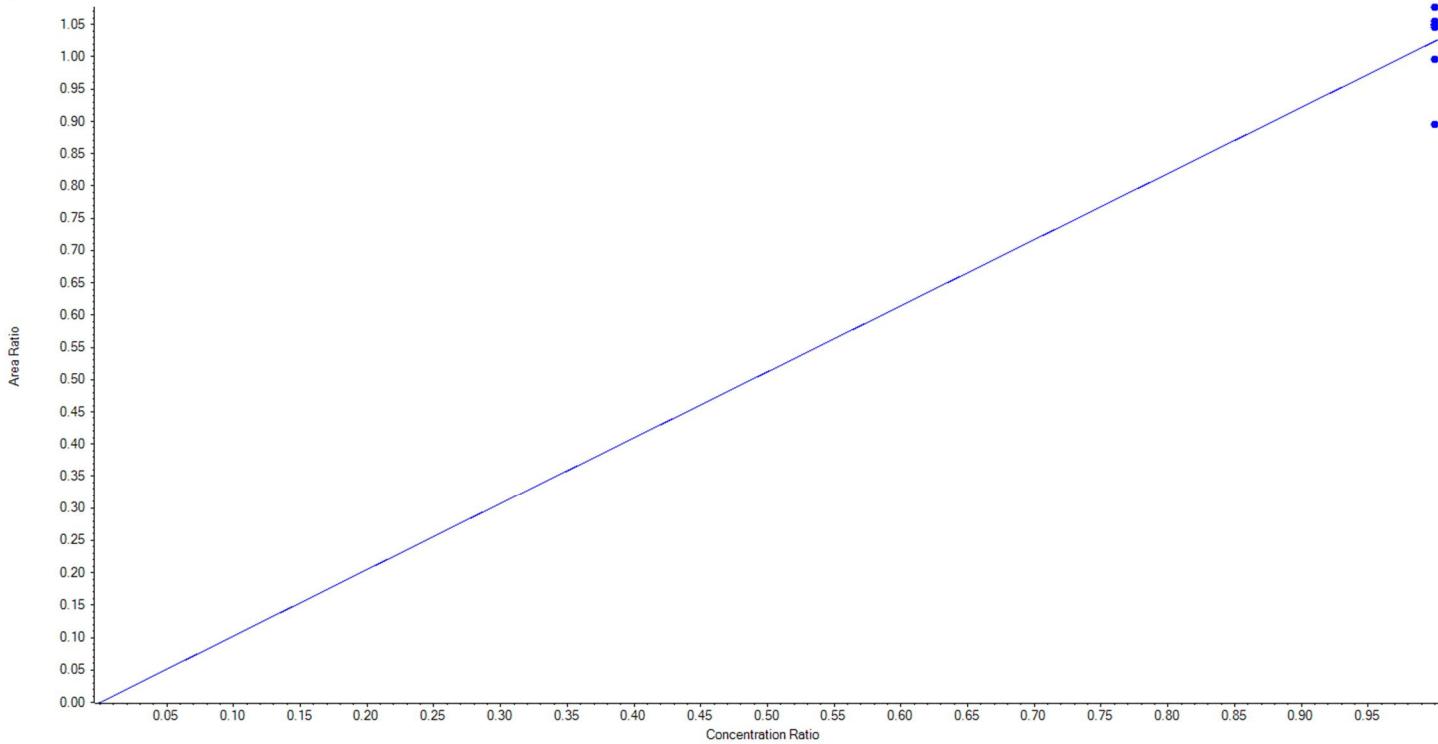




Analyte Name	13C8-PFOA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	421.0 / 376.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.02405 x$ (std. dev. = 0.06175) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	255.212785	102.1
3	KB74	L2	True	250.00	262.875155	105.2
4	KB75	L3	True	250.00	256.482263	102.6
5	KB76	L4	True	250.00	257.662297	103.1
6	KB77	L5	True	250.00	256.019871	102.4
7	KB78	L6	True	250.00	243.157749	97.3
8	KB79	L7	True	250.00	218.589880	87.4

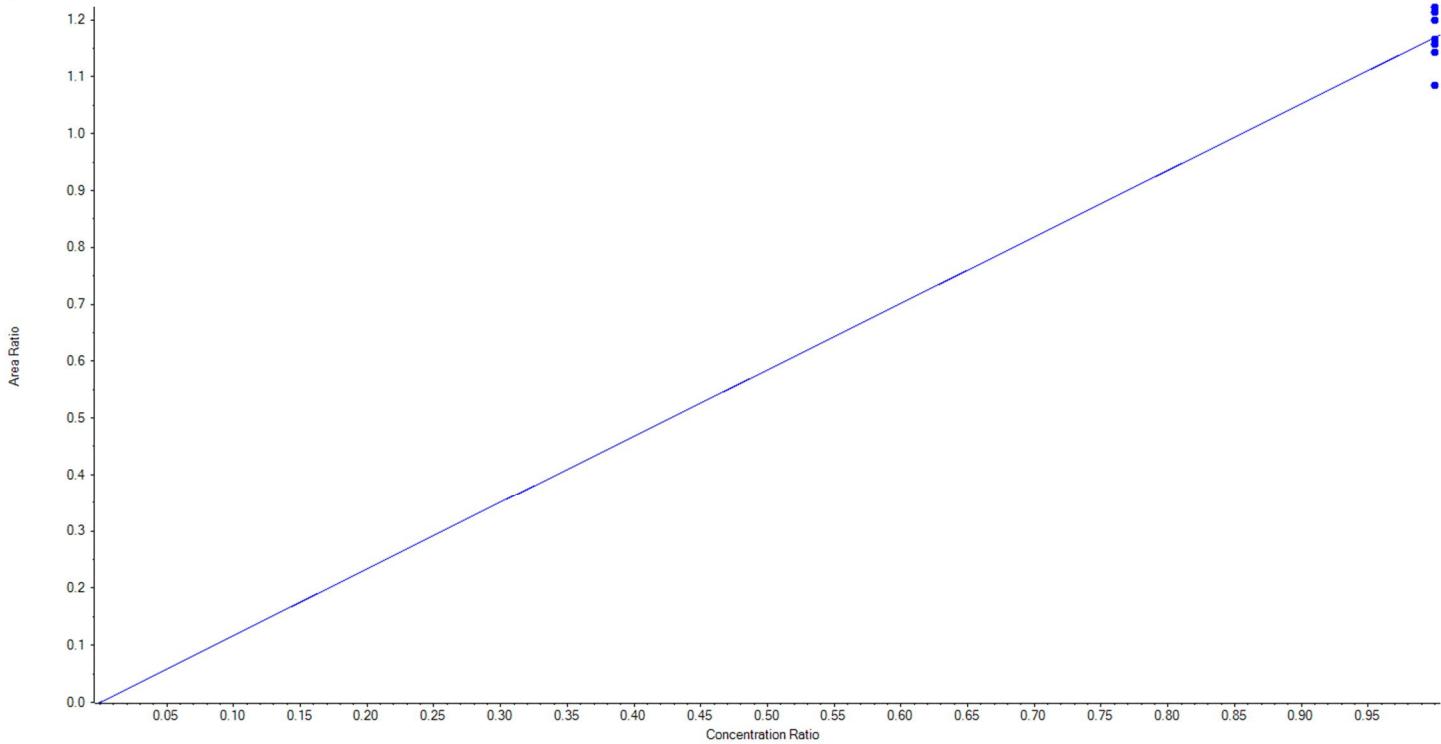




Analyte Name	13C9-PFNA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	472.0 / 427.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.16930 x$ (std. dev. = 0.04759) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	247.430463	99.0
3	KB74	L2	True	250.00	261.328420	104.5
4	KB75	L3	True	250.00	259.384215	103.8
5	KB76	L4	True	250.00	244.372857	97.8
6	KB77	L5	True	250.00	249.179395	99.7
7	KB78	L6	True	250.00	256.344825	102.5
8	KB79	L7	True	250.00	231.959824	92.8

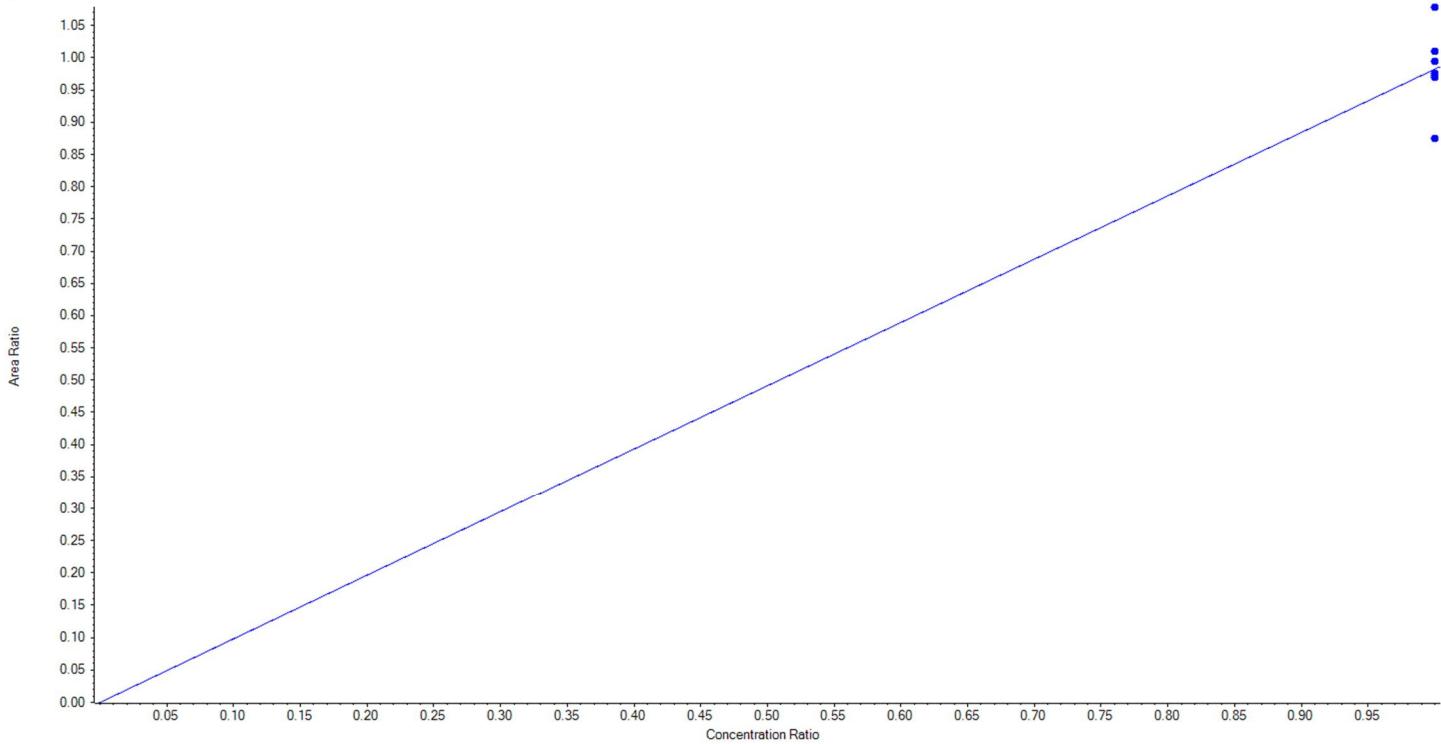




Analyte Name	13C6-PFDA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	519.0 / 474.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.98235 x$ (std. dev. = 0.06079) (weighting: 1 / x)

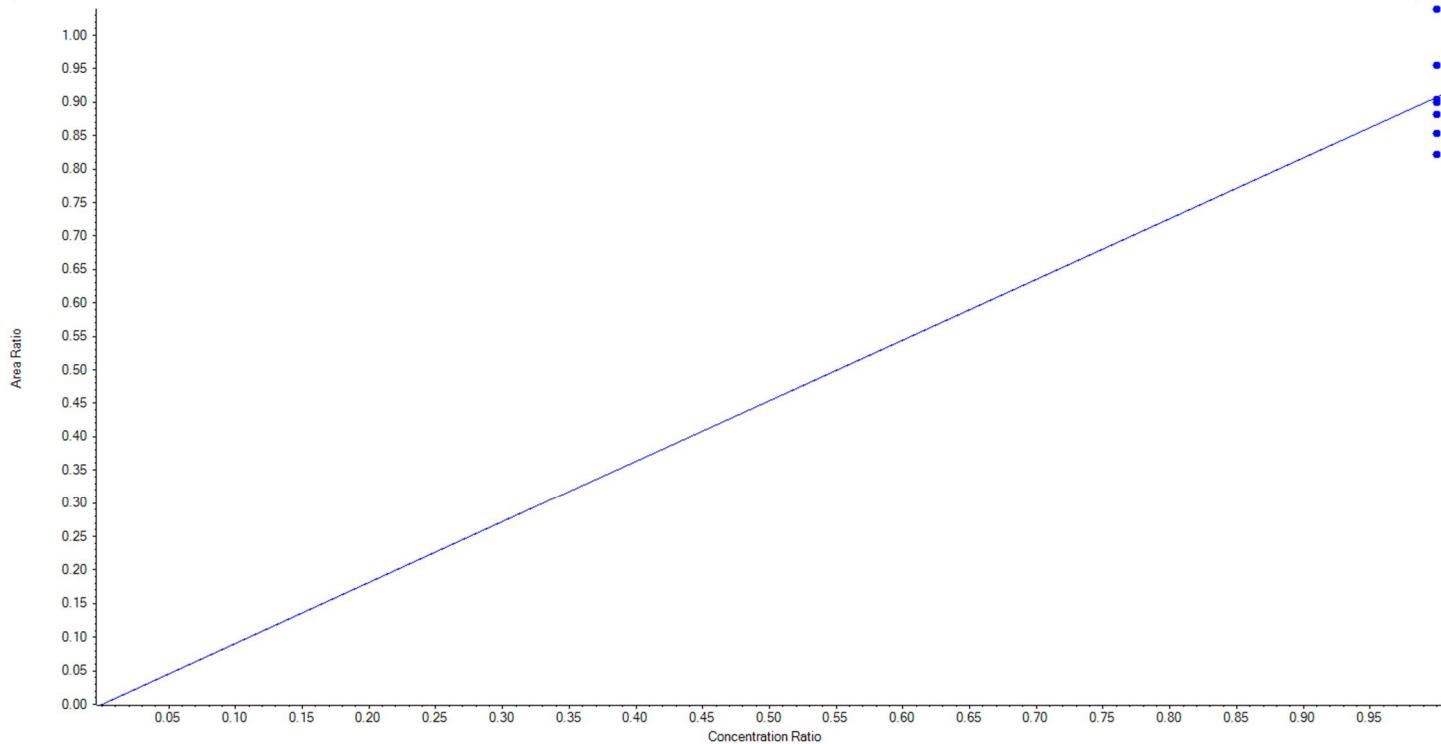
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	246.733475	98.7
3	KB74	L2	True	250.00	253.248818	101.3
4	KB75	L3	True	250.00	257.192135	102.9
5	KB76	L4	True	250.00	248.450649	99.4
6	KB77	L5	True	250.00	274.445566	109.8
7	KB78	L6	True	250.00	247.435316	99.0
8	KB79	L7	True	250.00	222.494042	89.0



Analyte Name	13C7-PFUnA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	570.0 / 525.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.90743 x$ (std. dev. = 0.07148) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	247.760751	99.1
3	KB74	L2	True	250.00	262.960755	105.2
4	KB75	L3	True	250.00	286.201660	114.5
5	KB76	L4	True	250.00	234.954208	94.0
6	KB77	L5	True	250.00	249.135582	99.7
7	KB78	L6	True	250.00	242.726450	97.1
8	KB79	L7	True	250.00	226.260594	90.5

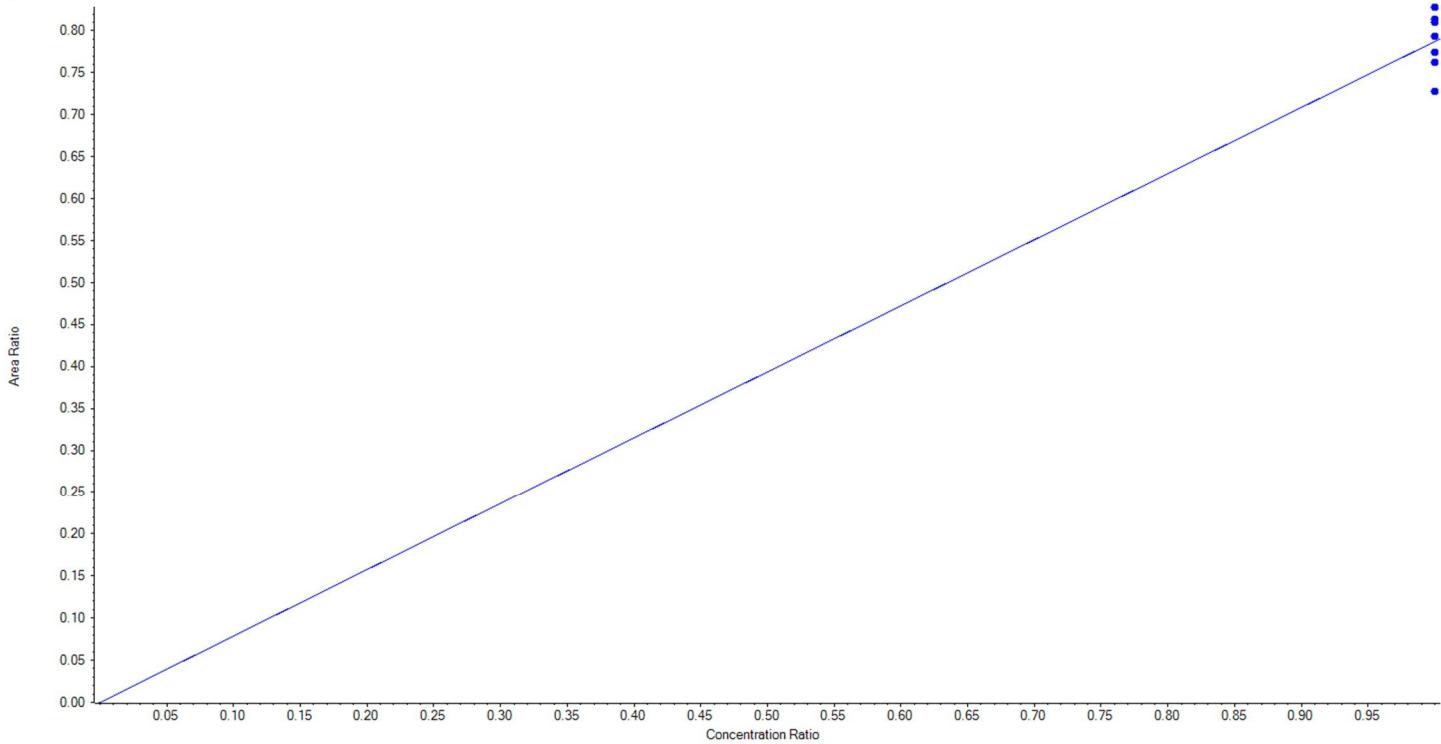




Analyte Name	13C2-PFTeDA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	715.0 / 670.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.78723 x$ (std. dev. = 0.03476) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	242.249601	96.9
3	KB74	L2	True	250.00	262.922814	105.2
4	KB75	L3	True	250.00	245.975733	98.4
5	KB76	L4	True	250.00	231.048930	92.4
6	KB77	L5	True	250.00	252.097071	100.8
7	KB78	L6	True	250.00	258.482884	103.4
8	KB79	L7	True	250.00	257.222966	102.9

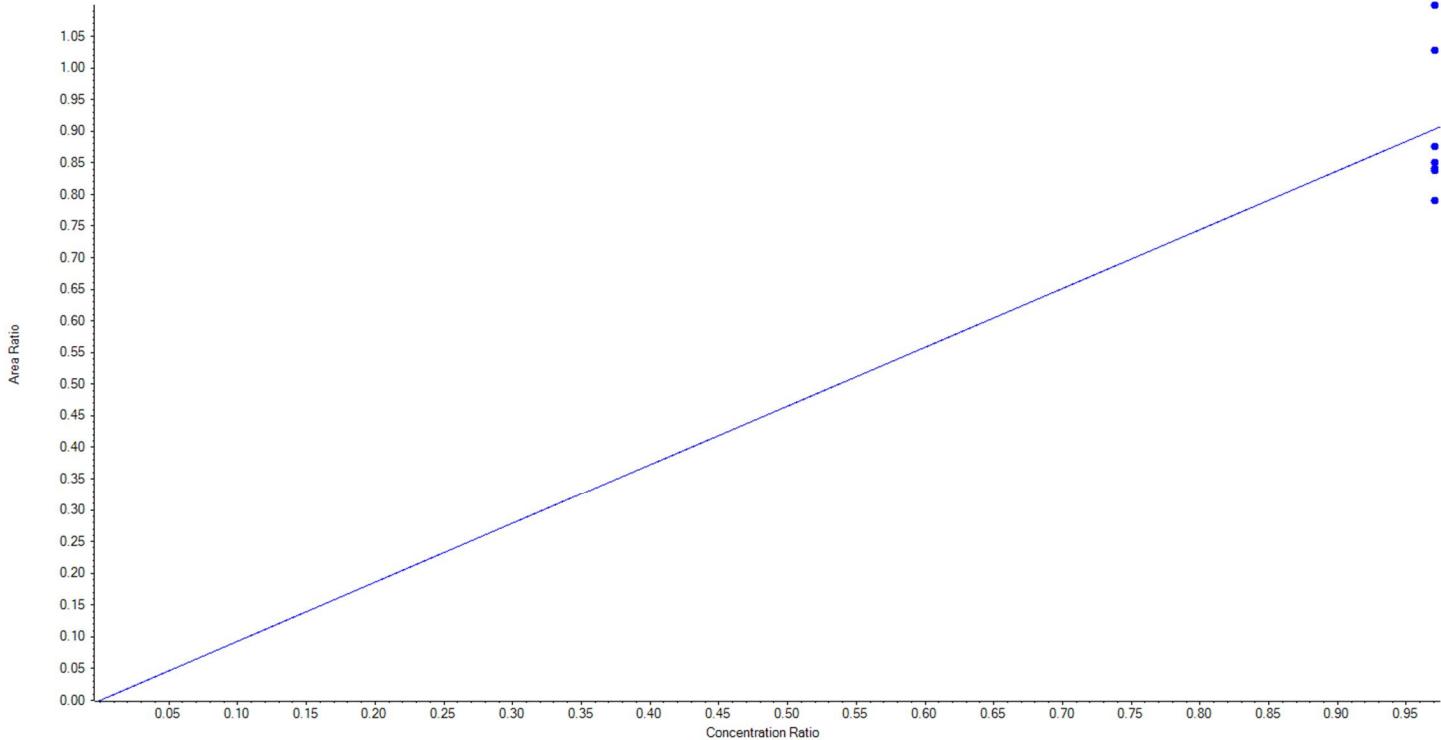




Analyte Name	13C3-PFBS	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	302.0 / 99.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.93048 x$ (std. dev. = 0.11752) (weighting: 1 / x)

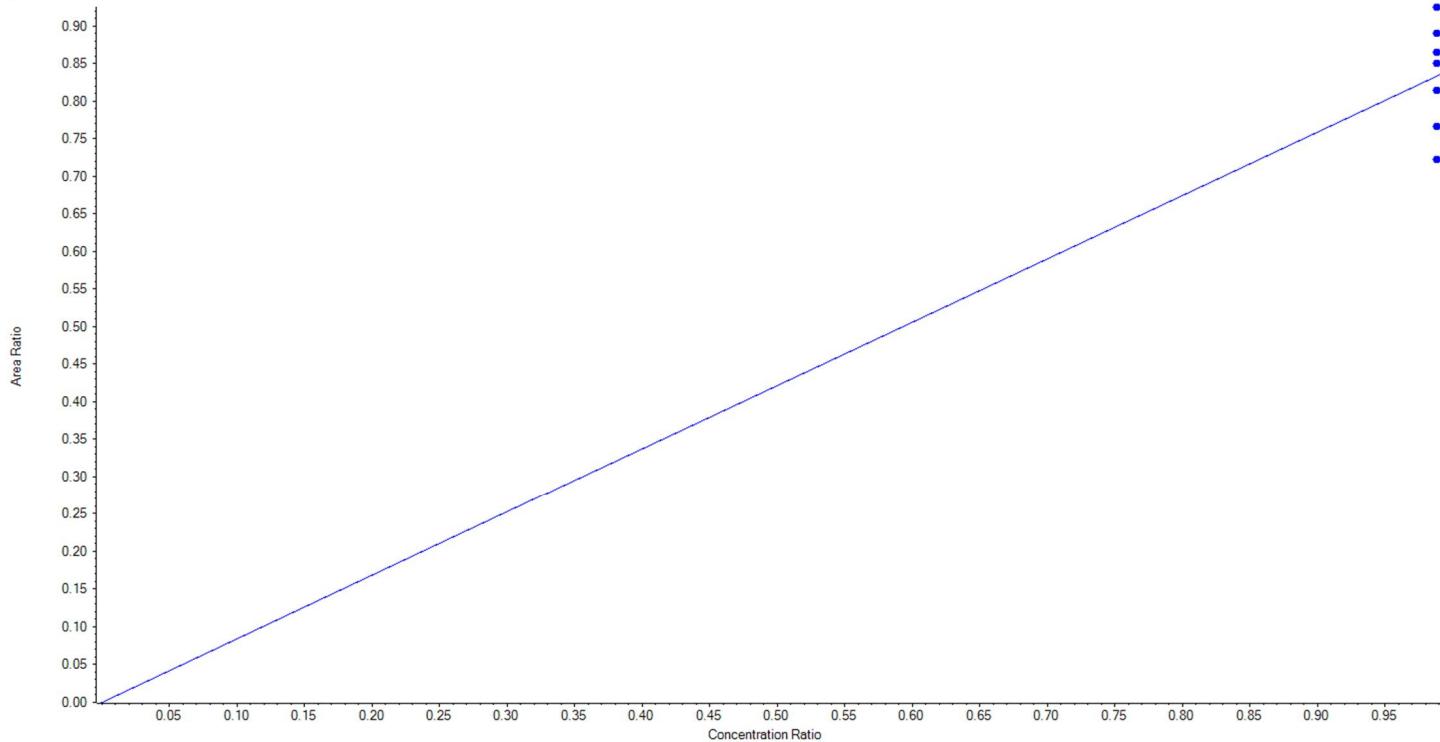
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	232.25	225.022462	96.9
3	KB74	L2	True	232.25	215.609121	92.8
4	KB75	L3	True	232.25	218.748838	94.2
5	KB76	L4	True	232.25	203.233433	87.5
6	KB77	L5	True	232.25	216.348971	93.2
7	KB78	L6	True	232.25	264.163371	113.7
8	KB79	L7	True	232.25	282.623804	121.7



Analyte Name	13C3-PFHxS	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	402.0 / 99.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.84316 x$ (std. dev. = 0.07172) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	236.50	231.144826	97.7
3	KB74	L2	True	236.50	241.172849	102.0
4	KB75	L3	True	236.50	245.474666	103.8
5	KB76	L4	True	236.50	217.481590	92.0
6	KB77	L5	True	236.50	204.966129	86.7
7	KB78	L6	True	236.50	262.529838	111.0
8	KB79	L7	True	236.50	252.730102	106.9

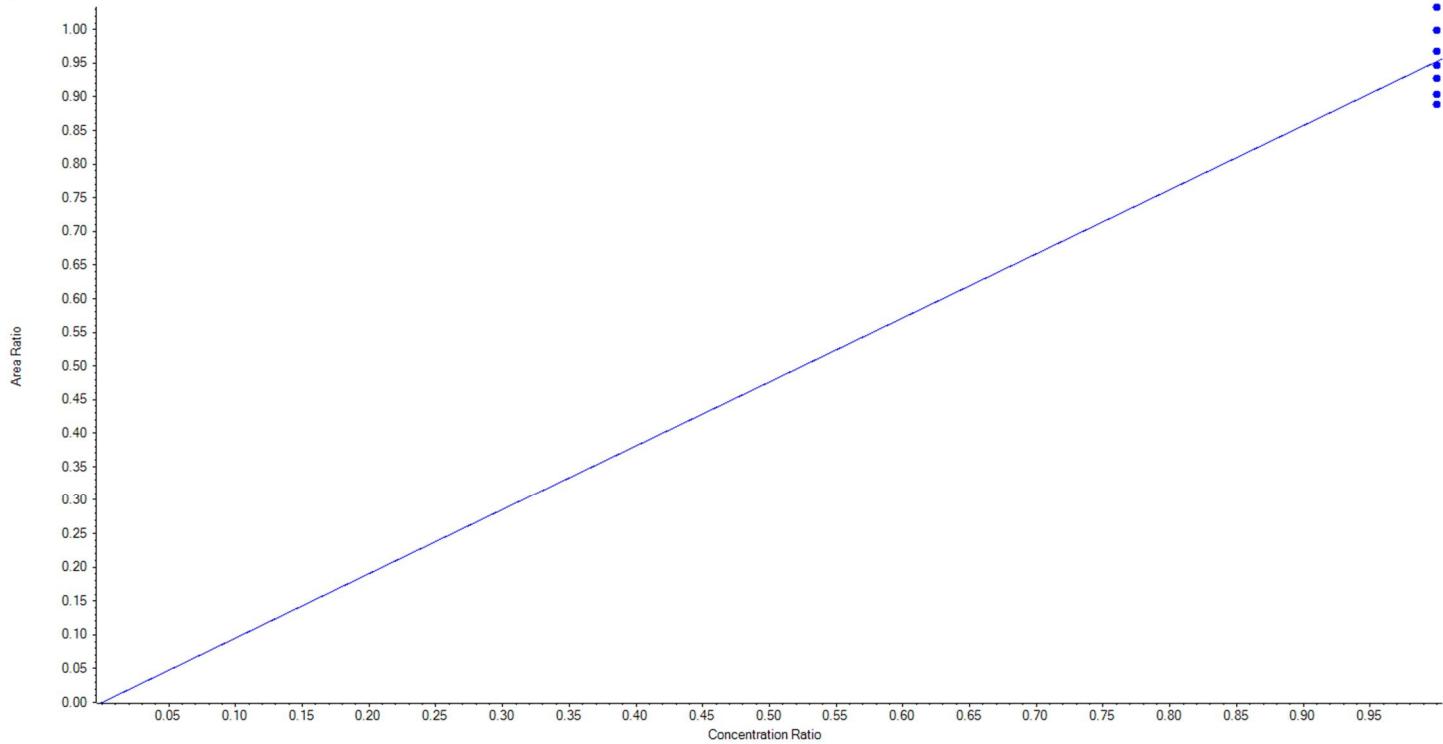




Analyte Name	13C8-PFOS	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	507.0 / 99.0	Result Table	18-0610_18-0611_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.95250 x$ (std. dev. = 0.05159) (weighting: 1 / x)

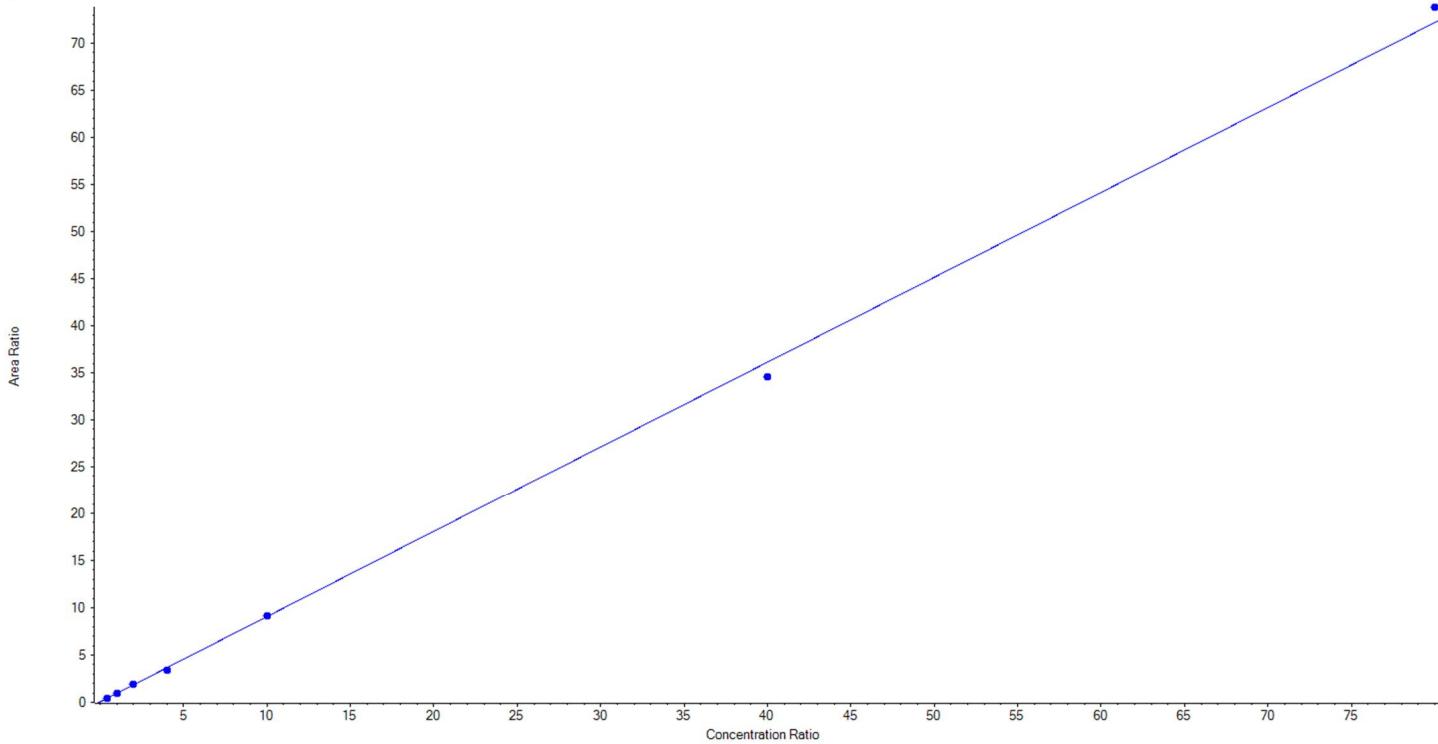
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	239.25	250.871078	104.9
3	KB74	L2	True	239.25	243.225761	101.7
4	KB75	L3	True	239.25	223.367998	93.4
5	KB76	L4	True	239.25	233.089271	97.4
6	KB77	L5	True	239.25	226.800752	94.8
7	KB78	L6	True	239.25	259.494294	108.5
8	KB79	L7	True	239.25	237.900846	99.4



Analyte Name	NEtFOSAA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	584.0 / 419.0	Result Table	18-0612A_BASE
Internal Standard	d5-EtFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.90179 x + 0.05555$ ($r = 0.99946$) (weighting: 1 / x)

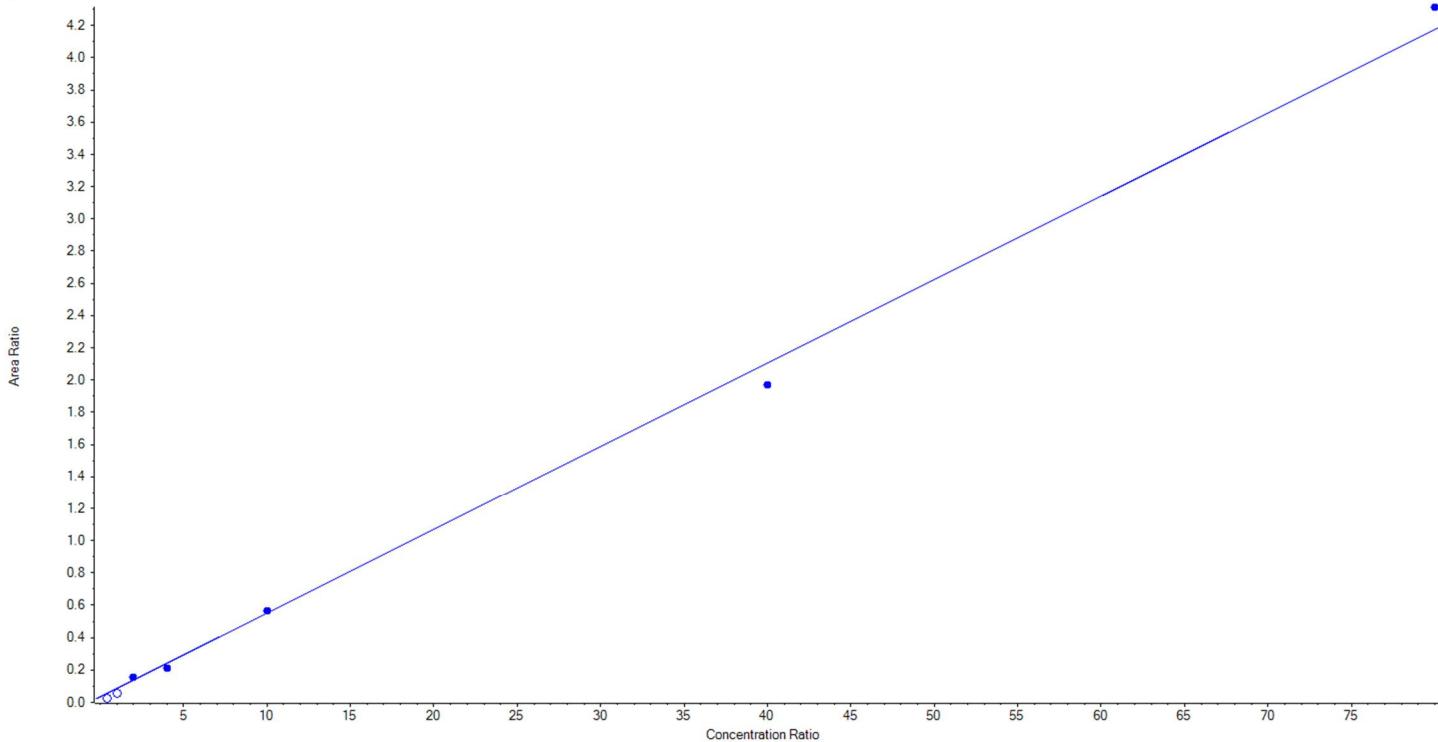
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	102.765216	102.8
3	KB74	L2	True	250.00	248.995881	99.6
4	KB75	L3	True	500.00	523.904836	104.8
5	KB76	L4	True	1000.00	941.680018	94.2
6	KB77	L5	True	2500.00	2520.477059	100.8
7	KB78	L6	True	10000.00	9561.499046	95.6
8	KB79	L7	True	20000.00	20450.677943	102.3



Analyte Name	NEtFOSAA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	584.0 / 483.0	Result Table	18-0612A_BASE
Internal Standard	d5-EtFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05177 x + 0.03453$ ($r = 0.99815$) (weighting: 1 / x)

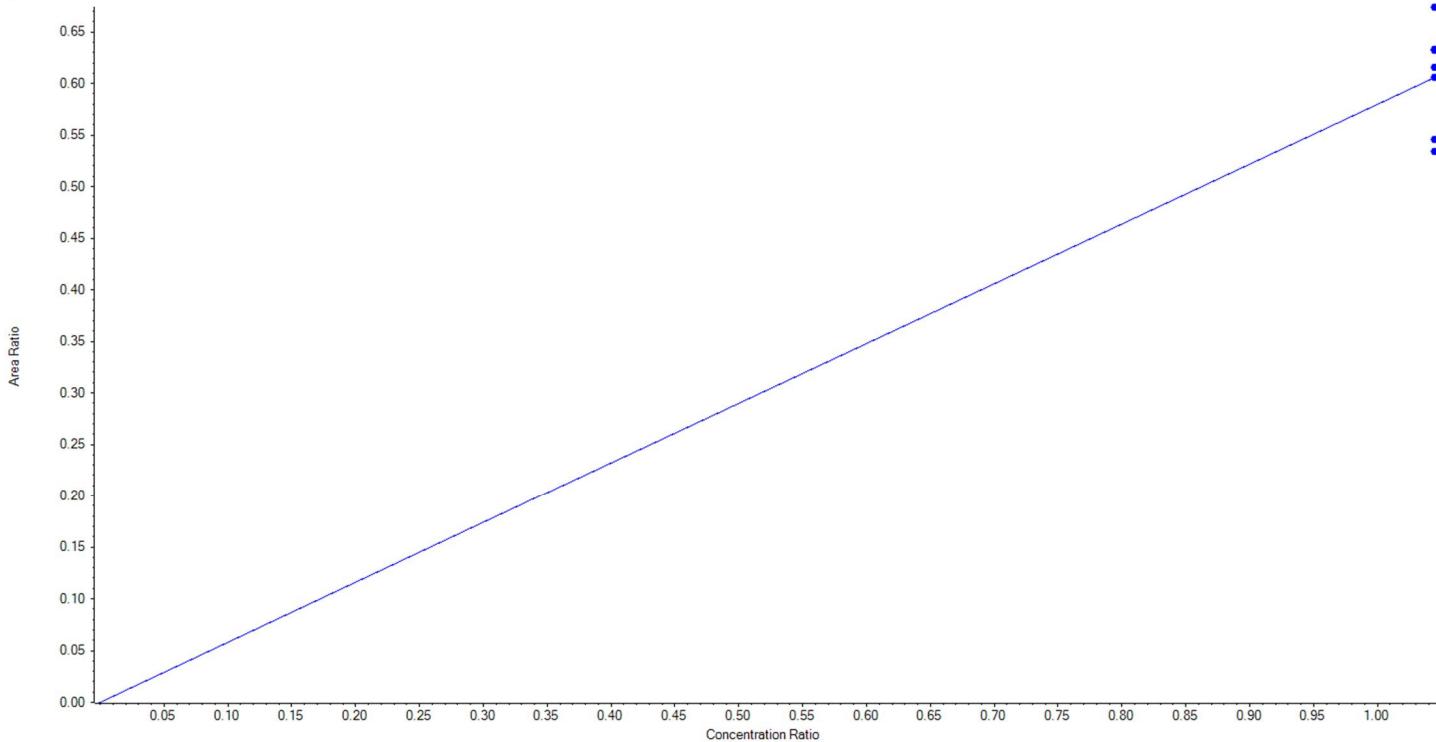
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	< 0	N/A
3	KB74	L2	False	250.00	91.347524	36.5
4	KB75	L3	True	500.00	575.872817	115.2
5	KB76	L4	True	1000.00	854.223413	85.4
6	KB77	L5	True	2500.00	2567.369144	102.7
7	KB78	L6	True	10000.00	9339.131276	93.4
8	KB79	L7	True	20000.00	20663.403349	103.3



Analyte Name	d5-EtFOSAA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	589.0 / 419.0	Result Table	18-0612A_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:36:00 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.57975 x$ (std. dev. = 0.04771) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	261.116785	104.5
3	KB74	L2	True	250.00	260.842878	104.3
4	KB75	L3	True	250.00	225.192349	90.1
5	KB76	L4	True	250.00	254.251713	101.7
6	KB77	L5	True	250.00	220.425706	88.2
7	KB78	L6	True	250.00	278.106701	111.2
8	KB79	L7	True	250.00	250.063868	100.0





Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	36035.22	104.635578	126.2	true
PFBS_2	298.9 / 99.0	1.57	10918.15	109.976962	78.2	true
PFHxA_1	313.0 / 269.0	1.90	32164.19	98.968181	3.3	false
PFHxA_2	313.0 / 119.0	1.91	2959.44	113.183087	3.5	false
PFHpA_1	363.0 / 319.0	2.32	32551.91	113.465532	39.8	false
PFHpA_2	363.0 / 169.0	2.32	1000.19	103.311634	29.1	false
PFHxS_1	399.0 / 80.0	2.34	44418.07	105.225987	134.5	false
PFHxS_2	399.0 / 99.0	2.34	12198.64	98.139274	86.9	false
PFOA_1	413.0 / 369.0	2.73	42708.15	113.608497	67.5	false
PFOA_2	413.0 / 169.0	2.73	2568.95	104.849376	46.6	false
PFNA_1	463.0 / 419.0	3.14	40302.36	100.132667	94.3	false
PFNA_2	463.0 / 219.0	3.14	13162.53	111.702594	118.3	false
PFOS_1	499.0 / 80.0	3.13	65728.52	112.998705	102.9	false
PFOS_2	499.0 / 99.0	3.13	11345.50	110.962710	100.1	false
PFDA_1	513.0 / 469.0	3.50	49242.60	100.375074	136.7	false
PFDA_2	513.0 / 219.0	3.49	2266.31	112.406023	88.7	false
PFUnA_1	563.0 / 519.0	3.83	45897.49	111.527231	163.3	false
PFUnA_2	563.0 / 269.0	3.82	1918.57	102.220892	42.6	true
PFDoA_1	613.0 / 569.0	4.11	39723.04	90.939755	179.1	false
PFDoA_2	613.0 / 319.0	4.11	6547.85	86.545687	145.5	false
PFTrDA_1	663.0 / 619.0	4.37	34866.78	85.967911	309.6	false
PFTrDA_2	663.0 / 169.0	4.36	2214.00	78.198175	110.2	false
PFTeDA_1	713.0 / 669.0	4.59	40930.04	81.728327	685.4	false
PFTeDA_2	713.0 / 169.0	4.58	2198.76	89.886117	212.0	false
NMeFOSAA_1	570.0 / 419.0	3.65	8081.03	75.824991	298.4	false
NMeFOSAA_2	570.0 / 512.0	3.65	3645.21	3.453918	224.2	false
NEtFOSAA_1	584.0 / 419.0	3.82	8180.80	104.771450	524.6	false
NEtFOSAA_2	584.0 / 483.0	3.82	421.19	41.412646	48.5	false

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	93283.23	249.370464	246.3	false
PFBS_2	298.9 / 99.0	1.57	26423.99	242.180085	146.1	false
PFHxA_1	313.0 / 269.0	1.90	81008.49	269.910942	7.1	false
PFHxA_2	313.0 / 119.0	1.89	5592.03	230.645561	6.5	false
PFHpA_1	363.0 / 319.0	2.31	75049.99	261.922885	57.6	false
PFHpA_2	363.0 / 169.0	2.31	1497.90	175.823351	28.9	true
PFHxS_1	399.0 / 80.0	2.33	108184.43	232.865372	188.9	false
PFHxS_2	399.0 / 99.0	2.33	30598.50	231.314187	310.4	false
PFOA_1	413.0 / 369.0	2.73	100033.19	242.259718	128.9	false
PFOA_2	413.0 / 169.0	2.73	7259.40	273.238913	110.3	false
PFNA_1	463.0 / 419.0	3.13	107846.09	263.216231	192.5	false
PFNA_2	463.0 / 219.0	3.12	28095.55	220.916460	213.9	false
PFOS_1	499.0 / 80.0	3.12	165271.40	245.807613	161.0	false
PFOS_2	499.0 / 99.0	3.12	28706.92	244.538081	211.7	true
PFDA_1	513.0 / 469.0	3.49	122994.62	264.467518	236.7	false
PFDA_2	513.0 / 219.0	3.48	4770.77	245.500787	791.7	false
PFUnA_1	563.0 / 519.0	3.82	106014.14	244.824605	237.3	false
PFUnA_2	563.0 / 269.0	3.81	5018.00	242.442598	81.5	false
PFDoA_1	613.0 / 569.0	4.10	107705.01	247.072023	318.6	false
PFDoA_2	613.0 / 319.0	4.10	19126.54	274.615048	276.9	false
PFTrDA_1	663.0 / 619.0	4.35	90249.73	241.563939	481.4	false
PFTrDA_2	663.0 / 169.0	4.35	6147.30	247.986856	208.6	false
PFTeDA_1	713.0 / 669.0	4.58	109852.37	253.645310	931.4	false
PFTeDA_2	713.0 / 169.0	4.58	5150.42	238.937138	369.4	false
NMeFOSAA_1	570.0 / 419.0	3.65	21539.90	268.876365	843.1	false
NMeFOSAA_2	570.0 / 512.0	3.65	11614.86	218.419800	528.2	false
NEtFOSAA_1	584.0 / 419.0	3.81	21525.62	251.018896	397.7	false
NEtFOSAA_2	584.0 / 483.0	3.80	1206.24	191.667209	290.9	false

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	163617.84	495.098560	296.3	false
PFBS_2	298.9 / 99.0	1.57	45956.46	475.121472	212.6	false
PFHxA_1	313.0 / 269.0	1.89	123711.77	490.752146	10.9	false
PFHxA_2	313.0 / 119.0	1.89	9937.29	514.901118	10.8	false
PFHpA_1	363.0 / 319.0	2.31	119885.50	452.888167	85.7	false
PFHpA_2	363.0 / 169.0	2.31	3804.54	618.850678	67.0	false
PFHxS_1	399.0 / 80.0	2.33	185842.71	467.824000	256.2	false
PFHxS_2	399.0 / 99.0	2.33	54144.25	484.563583	238.2	false
PFOA_1	413.0 / 369.0	2.72	178566.76	467.456638	160.8	false
PFOA_2	413.0 / 169.0	2.72	10469.56	421.303706	138.9	false
PFNA_1	463.0 / 419.0	3.12	170504.46	450.336433	203.9	false
PFNA_2	463.0 / 219.0	3.12	51980.47	448.287193	301.6	false
PFOS_1	499.0 / 80.0	3.12	275067.90	508.954098	204.8	false
PFOS_2	499.0 / 99.0	3.12	48946.70	520.238814	287.5	false
PFDA_1	513.0 / 469.0	3.48	213151.42	495.556524	301.2	false
PFDA_2	513.0 / 219.0	3.48	8539.13	479.073328	239.1	false
PFUnA_1	563.0 / 519.0	3.81	185383.49	423.690587	269.5	false
PFUnA_2	563.0 / 269.0	3.81	10671.72	501.608235	165.4	false
PFDoA_1	613.0 / 569.0	4.09	184868.00	506.360909	343.9	false
PFDoA_2	613.0 / 319.0	4.09	28751.08	494.661881	331.3	false
PFTrDA_1	663.0 / 619.0	4.35	151211.59	488.700899	597.4	false
PFTrDA_2	663.0 / 169.0	4.34	10123.70	495.036348	322.3	false
PFTeDA_1	713.0 / 669.0	4.57	182656.44	515.154084	1232.8	false
PFTeDA_2	713.0 / 169.0	4.56	8526.49	490.005825	501.7	false
NMeFOSAA_1	570.0 / 419.0	3.63	34656.73	500.524214	2338.0	false
NMeFOSAA_2	570.0 / 512.0	3.64	18345.00	439.990383	658.5	false
NEtFOSAA_1	584.0 / 419.0	3.80	31971.45	508.056535	633.3	false
NEtFOSAA_2	584.0 / 483.0	3.80	2497.16	637.470069	8056.1	true

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	336045.72	1091.288759	552.2	false
PFBS_2	298.9 / 99.0	1.56	98081.89	1086.381545	407.4	false
PFHxA_1	313.0 / 269.0	1.89	240693.36	1004.472242	18.1	false
PFHxA_2	313.0 / 119.0	1.89	17814.42	980.952621	16.5	false
PFHpA_1	363.0 / 319.0	2.30	251954.77	963.772233	144.8	false
PFHpA_2	363.0 / 169.0	2.30	6187.13	1051.701356	84.1	false
PFHxS_1	399.0 / 80.0	2.32	369801.30	1074.776448	333.3	false
PFHxS_2	399.0 / 99.0	2.32	106671.06	1107.476178	416.8	false
PFOA_1	413.0 / 369.0	2.71	347996.75	956.844142	237.9	false
PFOA_2	413.0 / 169.0	2.71	24237.17	1028.034772	244.5	false
PFNA_1	463.0 / 419.0	3.11	345587.51	1046.243999	410.7	false
PFNA_2	463.0 / 219.0	3.11	106652.75	1050.052047	427.7	false
PFOS_1	499.0 / 80.0	3.11	549475.41	953.422687	298.0	false
PFOS_2	499.0 / 99.0	3.11	96044.01	958.547975	432.6	false
PFDA_1	513.0 / 469.0	3.47	409723.46	987.592944	454.6	false
PFDA_2	513.0 / 219.0	3.47	17306.29	1010.924950	319.9	false
PFUnA_1	563.0 / 519.0	3.80	370869.35	1026.343861	315.7	false
PFUnA_2	563.0 / 269.0	3.80	17491.40	981.918474	206.5	false
PFDoA_1	613.0 / 569.0	4.09	374694.74	1050.478389	498.6	false
PFDoA_2	613.0 / 319.0	4.09	54643.36	971.395687	458.0	false
PFTrDA_1	663.0 / 619.0	4.34	321677.62	1126.764608	812.9	false
PFTrDA_2	663.0 / 169.0	4.34	21874.98	1164.067670	449.0	false
PFTeDA_1	713.0 / 669.0	4.56	357047.01	1095.645152	1545.8	false
PFTeDA_2	713.0 / 169.0	4.56	17306.66	1092.239213	701.8	false
NMeFOSAA_1	570.0 / 419.0	3.63	68030.30	1133.404189	751.5	false
NMeFOSAA_2	570.0 / 512.0	3.63	39158.03	1163.925478	709.7	false
NEtFOSAA_1	584.0 / 419.0	3.80	66289.88	943.782521	754.6	false
NEtFOSAA_2	584.0 / 483.0	3.80	4059.44	945.207707	43600.8	false

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	776289.58	2332.691625	927.0	false
PFBS_2	298.9 / 99.0	1.56	228434.75	2339.199841	734.2	false
PFHxA_1	313.0 / 269.0	1.89	609668.03	2495.865956	39.8	false
PFHxA_2	313.0 / 119.0	1.89	44913.51	2451.366061	32.3	false
PFHpA_1	363.0 / 319.0	2.30	584043.68	2376.996854	232.0	false
PFHpA_2	363.0 / 169.0	2.30	13193.99	2469.602759	211.4	false
PFHxS_1	399.0 / 80.0	2.32	886495.01	2696.493262	388.0	false
PFHxS_2	399.0 / 99.0	2.32	252473.06	2749.725828	571.1	false
PFOA_1	413.0 / 369.0	2.71	834165.44	2452.232813	357.8	false
PFOA_2	413.0 / 169.0	2.71	53993.69	2444.883328	444.0	false
PFNA_1	463.0 / 419.0	3.11	783461.97	2491.510736	552.9	false
PFNA_2	463.0 / 219.0	3.11	254909.55	2632.290752	603.7	false
PFOS_1	499.0 / 80.0	3.11	1306443.89	2300.880982	452.4	false
PFOS_2	499.0 / 99.0	3.11	224020.69	2271.299000	545.6	false
PFDA_1	513.0 / 469.0	3.47	986588.88	2418.646707	564.2	false
PFDA_2	513.0 / 219.0	3.47	39607.95	2354.317167	415.6	false
PFUnA_1	563.0 / 519.0	3.80	871741.30	2538.187940	460.9	false
PFUnA_2	563.0 / 269.0	3.80	43333.05	2544.385755	300.0	false
PFDoA_1	613.0 / 569.0	4.09	821796.76	2565.539851	662.4	false
PFDoA_2	613.0 / 319.0	4.09	135656.47	2712.576260	522.0	false
PFTrDA_1	663.0 / 619.0	4.33	735746.86	2664.921530	986.7	false
PFTrDA_2	663.0 / 169.0	4.33	48743.98	2684.712399	618.7	false
PFTeDA_1	713.0 / 669.0	4.56	816378.76	2603.218162	1929.9	false
PFTeDA_2	713.0 / 169.0	4.55	40737.36	2680.771848	1193.3	false
NMeFOSAA_1	570.0 / 419.0	3.63	151508.36	2465.257046	2245.1	false
NMeFOSAA_2	570.0 / 512.0	3.63	88173.15	2616.439396	615.9	false
NEtFOSAA_1	584.0 / 419.0	3.79	155433.42	2522.760733	648.0	false
NEtFOSAA_2	584.0 / 483.0	3.79	9620.27	2637.389496	1231310.6	false

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	3735985.71	9811.581725	1503.9	false
PFBS_2	298.9 / 99.0	1.56	1134069.29	10143.472130	1449.0	false
PFHxA_1	313.0 / 269.0	1.88	2658827.36	9993.499522	90.8	false
PFHxA_2	313.0 / 119.0	1.88	200130.60	10083.260482	76.5	false
PFHpA_1	363.0 / 319.0	2.30	2497856.31	9765.162244	436.5	false
PFHpA_2	363.0 / 169.0	2.30	53385.07	9796.218447	441.5	false
PFHxS_1	399.0 / 80.0	2.32	3854430.51	9828.822898	984.2	false
PFHxS_2	399.0 / 99.0	2.32	1062752.95	9714.855919	1104.6	false
PFOA_1	413.0 / 369.0	2.71	3551933.53	10326.914009	921.2	false
PFOA_2	413.0 / 169.0	2.71	226064.95	10121.411629	875.1	false
PFNA_1	463.0 / 419.0	3.11	3442576.47	10047.185055	870.1	false
PFNA_2	463.0 / 219.0	3.11	1068510.97	10108.558837	1018.0	false
PFOS_1	499.0 / 80.0	3.10	5888305.73	9674.048541	719.2	false
PFOS_2	499.0 / 99.0	3.10	1040866.54	9849.093945	1187.7	false
PFDA_1	513.0 / 469.0	3.47	4121337.28	9760.929085	867.9	false
PFDA_2	513.0 / 219.0	3.46	165545.81	9514.985150	1080.3	false
PFUnA_1	563.0 / 519.0	3.79	3980687.38	10323.155375	894.2	false
PFUnA_2	563.0 / 269.0	3.79	194191.57	10125.204796	674.2	false
PFDoA_1	613.0 / 569.0	4.08	3840657.97	10368.355085	1057.4	false
PFDoA_2	613.0 / 319.0	4.08	576764.61	9996.454238	1020.7	false
PFTrDA_1	663.0 / 619.0	4.33	3350407.66	10336.521146	1444.2	false
PFTrDA_2	663.0 / 169.0	4.33	218945.29	10280.911529	1007.9	false
PFTeDA_1	713.0 / 669.0	4.55	3751651.69	10217.289136	2725.0	false
PFTeDA_2	713.0 / 169.0	4.54	182332.73	10258.453725	1759.6	false
NMeFOSAA_1	570.0 / 419.0	3.62	753927.92	11007.670601	2278.1	false
NMeFOSAA_2	570.0 / 512.0	3.62	404364.11	10905.550987	1426.8	false
NEtFOSAA_1	584.0 / 419.0	3.79	707833.72	9564.590700	1144.3	false
NEtFOSAA_2	584.0 / 483.0	3.79	40332.26	9326.284871	2770.2	false

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	7654212.63	20608.833290	2863.5	false
PFBS_2	298.9 / 99.0	1.56	2213700.05	20297.167965	1861.8	false
PFHxA_1	313.0 / 269.0	1.89	5068064.70	20340.031011	123.0	false
PFHxA_2	313.0 / 119.0	1.88	377383.63	20319.191070	98.6	false
PFHpA_1	363.0 / 319.0	2.29	4752932.81	20415.792084	545.6	false
PFHpA_2	363.0 / 169.0	2.30	99502.18	20134.491774	637.6	false
PFHxS_1	399.0 / 80.0	2.32	6929917.90	20287.492034	1348.5	false
PFHxS_2	399.0 / 99.0	2.32	1934460.53	20307.425032	1153.9	false
PFOA_1	413.0 / 369.0	2.71	6162786.15	19790.684183	1174.3	false
PFOA_2	413.0 / 169.0	2.71	403546.52	19956.278277	1429.0	false
PFNA_1	463.0 / 419.0	3.11	6224206.25	19951.374879	1314.8	false
PFNA_2	463.0 / 219.0	3.11	1903895.81	19778.192118	1655.3	false
PFOS_1	499.0 / 80.0	3.10	10402856.43	20553.887374	904.0	true
PFOS_2	499.0 / 99.0	3.10	1792140.82	20395.319474	1641.5	false
PFDA_1	513.0 / 469.0	3.47	7455074.70	20322.432148	1181.3	false
PFDA_2	513.0 / 219.0	3.47	311824.53	20632.792594	1380.7	false
PFUnA_1	563.0 / 519.0	3.79	6840458.50	19682.270401	830.9	false
PFUnA_2	563.0 / 269.0	3.79	343323.53	19852.219250	642.0	false
PFDoA_1	613.0 / 569.0	4.07	7074590.20	19521.253987	1036.7	false
PFDoA_2	613.0 / 319.0	4.07	1117673.36	19813.751199	984.9	false
PFTrDA_1	663.0 / 619.0	4.32	6045542.29	19405.559967	1420.4	false
PFTrDA_2	663.0 / 169.0	4.32	396998.36	19399.087023	1127.9	false
PFTeDA_1	713.0 / 669.0	4.54	6908120.06	19583.319829	2951.8	false
PFTeDA_2	713.0 / 169.0	4.54	332887.97	19499.706134	2522.7	false
NMeFOSAA_1	570.0 / 419.0	3.62	1331189.45	18898.442593	2363.5	false
NMeFOSAA_2	570.0 / 512.0	3.62	719500.36	18905.673956	1612.0	false
NEtFOSAA_1	584.0 / 419.0	3.78	1231583.02	20455.019164	1168.4	false
NEtFOSAA_2	584.0 / 483.0	3.78	71957.40	20511.980648	877.0	false

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.10	91402.83	234.027671	1231.7	false
d3-MeFOSAA	573.0 / 419.0	3.65	16104.22	252.745204	203.5	false
d5-EtFOSAA	589.0 / 419.0	3.81	18885.04	261.116785	197.5	false
13C5-PFHxA	318.0 / 273.0	1.89	61468.01	262.567314	846.3	false
13C4-PFHxA	367.0 / 322.0	2.30	69894.37	262.427043	1233.4	false
13C8-PFOA	421.0 / 376.0	2.72	82686.75	255.212785	7328.7	false
13C9-PFNA	472.0 / 427.0	3.12	91536.04	247.430463	984.5	false
13C6-PFDA	519.0 / 474.0	3.48	97086.56	246.733475	862.5	false
13C7-PFUaA	570.0 / 525.0	3.81	90055.69	247.760751	681.9	false
13C2-PFTeDA	715.0 / 670.0	4.58	76389.03	242.249601	2670.6	false
13C3-PFBS	302.0 / 99.0	1.55	26120.14	225.022462	521.2	false
13C3-PFHxS	402.0 / 99.0	2.33	24312.83	231.144826	504.5	false
13C8-PFOS	507.0 / 99.0	3.12	29809.56	250.871078	289.5	false

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.09	107747.25	265.932266	1391.1	false
d3-MeFOSAA	573.0 / 419.0	3.64	17700.53	237.867686	243.9	false
d5-EtFOSAA	589.0 / 419.0	3.80	22032.11	260.842878	257.9	false
13C5-PFHxA	318.0 / 273.0	1.89	67688.32	254.187234	641.8	false
13C4-PFHxA	367.0 / 322.0	2.30	76065.72	251.075240	798.7	false
13C8-PFOA	421.0 / 376.0	2.72	96880.10	262.875155	404.7	false
13C9-PFNA	472.0 / 427.0	3.11	109970.74	261.328420	1372.3	false
13C6-PFDA	519.0 / 474.0	3.48	103376.35	253.248818	1556.3	false
13C7-PFUuA	570.0 / 525.0	3.80	99154.47	262.960755	932.2	false
13C2-PFTeDA	715.0 / 670.0	4.57	86008.02	262.922814	1938.6	false
13C3-PFBS	302.0 / 99.0	1.55	29228.78	215.609121	465.4	false
13C3-PFHxS	402.0 / 99.0	2.32	29626.05	241.172849	441.9	false
13C8-PFOS	507.0 / 99.0	3.11	33752.70	243.225761	275.4	false

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	95394.66	249.447374	1919.0	false
d3-MeFOSAA	573.0 / 419.0	3.63	16732.69	255.434971	259.5	false
d5-EtFOSAA	589.0 / 419.0	3.79	16744.24	225.192349	304.7	false
13C5-PFHxA	318.0 / 273.0	1.88	59853.55	230.325952	495.7	false
13C4-PFHxA	367.0 / 322.0	2.29	72363.27	244.763156	5134.6	false
13C8-PFOA	421.0 / 376.0	2.71	92242.14	256.482263	3147.3	false
13C9-PFNA	472.0 / 427.0	3.10	106517.52	259.384215	1506.1	false
13C6-PFDA	519.0 / 474.0	3.47	99092.64	257.192135	1016.5	false
13C7-PFUaA	570.0 / 525.0	3.79	101859.96	286.201660	947.8	false
13C2-PFTeDA	715.0 / 670.0	4.56	75947.40	245.975733	2310.8	false
13C3-PFBS	302.0 / 99.0	1.55	26105.02	218.748838	604.7	false
13C3-PFHxS	402.0 / 99.0	2.32	26545.24	245.474666	396.8	false
13C8-PFOS	507.0 / 99.0	3.10	27286.93	223.367998	263.5	false

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	95903.63	245.945631	1244.5	false
d3-MeFOSAA	573.0 / 419.0	3.62	15347.55	232.186572	188.7	false
d5-EtFOSAA	589.0 / 419.0	3.79	19076.22	254.251713	210.8	false
13C5-PFHxA	318.0 / 273.0	1.88	58835.13	235.058052	1009.1	false
13C4-PFHxA	367.0 / 322.0	2.29	73044.35	256.507439	778.8	false
13C8-PFOA	421.0 / 376.0	2.70	89256.01	257.662297	1337.8	false
13C9-PFNA	472.0 / 427.0	3.10	96659.60	244.372857	1496.3	false
13C6-PFDA	519.0 / 474.0	3.46	97605.58	248.450649	1104.6	false
13C7-PFUaA	570.0 / 525.0	3.78	85263.94	234.954208	671.4	false
13C2-PFTeDA	715.0 / 670.0	4.55	72740.35	231.048930	2036.8	false
13C3-PFBS	302.0 / 99.0	1.55	24473.16	203.233433	669.1	false
13C3-PFHxS	402.0 / 99.0	2.32	23731.17	217.481590	485.7	false
13C8-PFOS	507.0 / 99.0	3.10	28732.45	233.089271	315.7	false

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	87520.82	248.975274	984.0	false
d3-MeFOSAA	573.0 / 419.0	3.62	15905.32	236.383719	163.7	false
d5-EtFOSAA	589.0 / 419.0	3.78	16835.01	220.425706	271.8	false
13C5-PFHxA	318.0 / 273.0	1.88	61167.94	257.145365	677.6	false
13C4-PFHxA	367.0 / 322.0	2.29	69461.61	256.669677	849.4	false
13C8-PFOA	421.0 / 376.0	2.70	84283.75	256.019871	1295.1	false
13C9-PFNA	472.0 / 427.0	3.10	93667.25	249.179395	1439.8	false
13C6-PFDA	519.0 / 474.0	3.46	97196.35	274.445566	2304.2	false
13C7-PFUaA	570.0 / 525.0	3.78	81503.66	249.135582	792.6	false
13C2-PFTeDA	715.0 / 670.0	4.55	71548.15	252.097071	2268.3	false
13C3-PFBS	302.0 / 99.0	1.55	26519.94	216.348971	787.4	false
13C3-PFHxS	402.0 / 99.0	2.31	22766.78	204.966129	549.1	false
13C8-PFOS	507.0 / 99.0	3.10	28458.87	226.800752	280.5	false

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	102072.61	251.235272	905.7	false
d3-MeFOSAA	573.0 / 419.0	3.61	18026.94	285.381847	140.7	false
d5-EtFOSAA	589.0 / 419.0	3.78	19940.39	278.106701	245.9	false
13C5-PFHxA	318.0 / 273.0	1.87	67298.42	264.503275	733.1	false
13C4-PFHxA	367.0 / 322.0	2.28	72755.48	251.342992	508.8	false
13C8-PFOA	421.0 / 376.0	2.70	85622.31	243.157749	1201.3	false
13C9-PFNA	472.0 / 427.0	3.09	103069.19	256.344825	1142.1	false
13C6-PFDA	519.0 / 474.0	3.45	101281.21	247.435316	1442.1	false
13C7-PFUuA	570.0 / 525.0	3.78	91776.59	242.726450	856.9	false
13C2-PFTeDA	715.0 / 670.0	4.54	84788.29	258.482884	1567.2	false
13C3-PFBS	302.0 / 99.0	1.54	30399.13	264.163371	680.5	false
13C3-PFHxS	402.0 / 99.0	2.31	27375.94	262.529838	495.9	false
13C8-PFOS	507.0 / 99.0	3.09	30568.34	259.494294	315.3	false

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	99995.01	254.436513	1141.6	false
d3-MeFOSAA	573.0 / 419.0	3.62	18400.21	319.413436	102.1	false
d5-EtFOSAA	589.0 / 419.0	3.78	16351.10	250.063868	251.7	false
13C5-PFHxA	318.0 / 273.0	1.87	63134.84	246.212808	622.1	false
13C4-PFHxA	367.0 / 322.0	2.28	66285.64	227.214453	928.8	false
13C8-PFOA	421.0 / 376.0	2.70	77573.52	218.589880	452635.8	false
13C9-PFNA	472.0 / 427.0	3.09	93994.33	231.959824	113653.9	false
13C6-PFDA	519.0 / 474.0	3.45	88095.93	222.494042	731.4	false
13C7-PFUaA	570.0 / 525.0	3.78	82754.96	226.260594	1283.3	false
13C2-PFTeDA	715.0 / 670.0	4.54	81617.66	257.222966	1991.1	false
13C3-PFBS	302.0 / 99.0	1.54	29660.00	282.623804	815.0	false
13C3-PFHxS	402.0 / 99.0	2.31	24033.73	252.730102	656.4	false
13C8-PFOS	507.0 / 99.0	3.09	25557.23	237.900846	289.4	false

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NEtFOSAA_1	584.0 / 419.0	3.82	8180.80	102.765216	524.6	false
NEtFOSAA_2	584.0 / 483.0	3.82	421.19	< 0	48.5	false

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NEtFOSAA_1	584.0 / 419.0	3.81	21525.62	248.995881	397.7	false
NEtFOSAA_2	584.0 / 483.0	3.80	1206.24	91.347524	290.9	false

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NEtFOSAA_1	584.0 / 419.0	3.80	31971.45	523.904836	633.3	false
NEtFOSAA_2	584.0 / 483.0	3.80	2527.25	575.872817	8091.0	false



Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NEtFOSAA_1	584.0 / 419.0	3.80	66289.88	941.680018	754.6	false
NEtFOSAA_2	584.0 / 483.0	3.80	4059.44	854.223413	43600.8	false

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NEtFOSAA_1	584.0 / 419.0	3.79	155433.42	2520.477059	648.0	false
NEtFOSAA_2	584.0 / 483.0	3.79	9620.27	2567.369144	1231310.6	false

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NEtFOSAA_1	584.0 / 419.0	3.79	707833.72	9561.499046	1144.3	false
NEtFOSAA_2	584.0 / 483.0	3.79	40332.26	9339.131276	2770.2	false

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NEtFOSAA_1	584.0 / 419.0	3.78	1231583.02	20450.677943	1168.4	false
NEtFOSAA_2	584.0 / 483.0	3.78	71957.40	20663.403349	877.0	false

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.81	18885.04	261.116785	197.5	false

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.80	22032.11	260.842878	257.9	false

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.79	16744.24	225.192349	304.7	false

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.79	19076.22	254.251713	210.8	false

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.78	16835.01	220.425706	271.8	false

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.78	19940.39	278.106701	245.9	false

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.78	16351.10	250.063868	251.7	false

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.91	PFHxA	0.090	0.077	ü
PFHpA_1	363.0 / 319.0	2.32	PFHpA			
PFHpA_2	363.0 / 169.0	2.32	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.34	PFHxS			
PFHxS_2	399.0 / 99.0	2.34	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.14	PFNA			
PFNA_2	463.0 / 219.0	3.14	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.13	PFOS			
PFOS_2	499.0 / 99.0	3.13	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.50	PFDA			
PFDA_2	513.0 / 219.0	3.49	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.83	PFUnA			
PFUnA_2	563.0 / 269.0	3.82	PFUnA	0.040	0.049	ü
PFDoA_1	613.0 / 569.0	4.11	PFDoA			
PFDoA_2	613.0 / 319.0	4.11	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.37	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.36	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.59	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.58	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.65	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.450	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.82	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.82	NEtFOSAA	0.050	0.062	ü

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.260	0.306	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.49	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.82	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.10	PFDoA			
PFDoA_2	613.0 / 319.0	4.10	PFDoA	0.180	0.160	ü
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.35	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.58	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.58	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.65	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.060	0.062	ü

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.48	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.81	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.060	0.049	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.57	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.64	NMeFOSAA	0.530	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.080	0.062	ü

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.150	0.160	ü
PFTrDA_1	663.0 / 619.0	4.34	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.060	0.062	ü

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.170	0.160	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.55	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.062	ü

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.08	PFDoA	0.150	0.160	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.062	ü

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.062	ü



Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.82	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.82	NEtFOSAA	0.050	0.064	ü



Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.060	0.064	ü



Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.080	0.064	ü



Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.060	0.064	ü

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.064	ü



Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.064	ü



Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.064	ü

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26120.14	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	26120.14	232.25
PFHxA_1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	61468.01	250.00
PFHxA_2	313.0 / 119.0	1.91	13C5-PFHxA	318.0 / 273.0	61468.01	250.00
PFHpA_1	363.0 / 319.0	2.32	13C4-PFHpA	367.0 / 322.0	69894.37	250.00
PFHpA_2	363.0 / 169.0	2.32	13C4-PFHpA	367.0 / 322.0	69894.37	250.00
PFHxS_1	399.0 / 80.0	2.34	13C3-PFHxS	402.0 / 99.0	24619.85	236.50
PFHxS_2	399.0 / 99.0	2.34	13C3-PFHxS	402.0 / 99.0	24619.85	236.50
PFOA_1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	82686.75	250.00
PFOA_2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	82686.75	250.00
PFNA_1	463.0 / 419.0	3.14	13C9-PFNA	472.0 / 427.0	91536.04	250.00
PFNA_2	463.0 / 219.0	3.14	13C9-PFNA	472.0 / 427.0	91536.04	250.00
PFOS_1	499.0 / 80.0	3.13	13C8-PFOS	507.0 / 99.0	29514.87	239.25
PFOS_2	499.0 / 99.0	3.13	13C8-PFOS	507.0 / 99.0	29514.87	239.25
PFDA_1	513.0 / 469.0	3.50	13C6-PFDA	519.0 / 474.0	97086.56	250.00
PFDA_2	513.0 / 219.0	3.49	13C6-PFDA	519.0 / 474.0	97086.56	250.00
PFUnA_1	563.0 / 519.0	3.83	13C7-PFUnA	570.0 / 525.0	90055.69	250.00
PFUnA_2	563.0 / 269.0	3.82	13C7-PFUnA	570.0 / 525.0	90055.69	250.00
PFDoA_1	613.0 / 569.0	4.11	13C2-PFDoA	615.0 / 570.0	91402.83	250.00
PFDoA_2	613.0 / 319.0	4.11	13C2-PFDoA	615.0 / 570.0	91402.83	250.00
PFTrDA_1	663.0 / 619.0	4.37	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
PFTrDA_2	663.0 / 169.0	4.36	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
PFTeDA_1	713.0 / 669.0	4.59	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
PFTeDA_2	713.0 / 169.0	4.58	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
NMeFOSAA_1	570.0 / 419.0	3.65	d3-MeFOSAA	573.0 / 419.0	16233.26	250.00
NMeFOSAA_2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	16233.26	250.00
NEtFOSAA_1	584.0 / 419.0	3.82	d5-EtFOSAA	589.0 / 419.0	19192.99	250.00
NEtFOSAA_2	584.0 / 483.0	3.82	d5-EtFOSAA	589.0 / 419.0	19192.99	250.00

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	29228.78	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	29228.78	232.25
PFHxA_1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	67688.32	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	67688.32	250.00
PFHpA_1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	76065.72	250.00
PFHpA_2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	76065.72	250.00
PFHxS_1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	29708.48	236.50
PFHxS_2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	29708.48	236.50
PFOA_1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	96880.10	250.00
PFOA_2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	96880.10	250.00
PFNA_1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	109970.74	250.00
PFNA_2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	109970.74	250.00
PFOS_1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	33822.33	239.25
PFOS_2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	33822.33	239.25
PFDA_1	513.0 / 469.0	3.49	13C6-PFDA	519.0 / 474.0	103376.35	250.00
PFDA_2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	103376.35	250.00
PFUnA_1	563.0 / 519.0	3.82	13C7-PFUnA	570.0 / 525.0	99154.47	250.00
PFUnA_2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	99154.47	250.00
PFDoA_1	613.0 / 569.0	4.10	13C2-PFDoA	615.0 / 570.0	107747.25	250.00
PFDoA_2	613.0 / 319.0	4.10	13C2-PFDoA	615.0 / 570.0	107747.25	250.00
PFTrDA_1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
PFTrDA_2	663.0 / 169.0	4.35	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
PFTeDA_1	713.0 / 669.0	4.58	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
PFTeDA_2	713.0 / 169.0	4.58	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
NMeFOSAA_1	570.0 / 419.0	3.65	d3-MeFOSAA	573.0 / 419.0	17661.42	250.00
NMeFOSAA_2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	17661.42	250.00
NEtFOSAA_1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	22570.27	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	22570.27	250.00

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26105.02	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	26105.02	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	59853.55	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	59853.55	250.00
PFHpA_1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	72363.27	250.00
PFHpA_2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	72363.27	250.00
PFHxS_1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	26459.07	236.50
PFHxS_2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	26459.07	236.50
PFOA_1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	92242.14	250.00
PFOA_2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	92242.14	250.00
PFNA_1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	106517.52	250.00
PFNA_2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	106517.52	250.00
PFOS_1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	27084.38	239.25
PFOS_2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	27084.38	239.25
PFDA_1	513.0 / 469.0	3.48	13C6-PFDA	519.0 / 474.0	99092.64	250.00
PFDA_2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	99092.64	250.00
PFUnA_1	563.0 / 519.0	3.81	13C7-PFUnA	570.0 / 525.0	101859.96	250.00
PFUnA_2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	101859.96	250.00
PFDoA_1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	95394.66	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	95394.66	250.00
PFTrDA_1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
PFTrDA_2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
PFTeDA_1	713.0 / 669.0	4.57	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
PFTeDA_2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	16616.33	250.00
NMeFOSAA_2	570.0 / 512.0	3.64	d3-MeFOSAA	573.0 / 419.0	16616.33	250.00
NEtFOSAA_1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	16999.01	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	16999.01	250.00

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	24473.16	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	24473.16	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	58835.13	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	58835.13	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	73044.35	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	73044.35	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	23463.21	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	23463.21	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	89256.01	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	89256.01	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	96659.60	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	96659.60	250.00
PFOS_1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	28834.11	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	28834.11	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	97605.58	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	97605.58	250.00
PFUnA_1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	85263.94	250.00
PFUnA_2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	85263.94	250.00
PFDoA_1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	95903.63	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	95903.63	250.00
PFTrDA_1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
PFTrDA_2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
PFTeDA_1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
PFTeDA_2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	15280.98	250.00
NMeFOSAA_2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	15280.98	250.00
NEtFOSAA_1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	19201.47	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	19201.47	250.00

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26519.94	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	26519.94	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	61167.94	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	61167.94	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	69461.61	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	69461.61	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	22669.25	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	22669.25	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	84283.75	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	84283.75	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	93667.25	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	93667.25	250.00
PFOS_1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	28376.74	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	28376.74	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	97196.35	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	97196.35	250.00
PFUnA_1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	81503.66	250.00
PFUnA_2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	81503.66	250.00
PFDoA_1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	87520.82	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	87520.82	250.00
PFTrDA_1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
PFTrDA_2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
PFTeDA_1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
PFTeDA_2	713.0 / 169.0	4.55	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	16063.93	250.00
NMeFOSAA_2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	16063.93	250.00
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	16992.28	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	16992.28	250.00

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	30399.13	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	30399.13	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	67298.42	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	67298.42	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	72755.48	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	72755.48	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	27186.76	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	27186.76	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	85622.31	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	85622.31	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	103069.19	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	103069.19	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	30401.17	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	30401.17	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	101281.21	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	101281.21	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	91776.59	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	91776.59	250.00
PFDoA_1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	102072.61	250.00
PFDoA_2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	102072.61	250.00
PFTrDA_1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
PFTrDA_2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
PFTeDA_1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
NMeFOSAA_1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	18223.77	250.00
NMeFOSAA_2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	18223.77	250.00
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	20489.99	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	20489.99	250.00

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	29660.00	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	29660.00	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	63134.84	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	63134.84	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	66285.64	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	66285.64	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	23705.87	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	23705.87	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	77573.52	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	77573.52	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	93994.33	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	93994.33	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	25276.93	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	25276.93	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	88095.93	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	88095.93	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	82754.96	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	82754.96	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	99995.01	250.00
PFDoA_2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	99995.01	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
PFTrDA_2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
PFTeDA_1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
NMeFOSAA_1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	18782.71	250.00
NMeFOSAA_2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	18782.71	250.00
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	16682.63	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	16682.63	250.00

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.10	13C2-PFDA	515.0 / 470.0	100139.46	250.00
d3-MeFOSAA	573.0 / 419.0	3.65	13C4-PFOS	503.0 / 99.0	29846.55	239.25
d5-EtFOSAA	589.0 / 419.0	3.81	13C4-PFOS	503.0 / 99.0	29846.55	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C4-PFHxA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C9-PFNA	472.0 / 427.0	3.12	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	100139.46	250.00
13C7-PFUuA	570.0 / 525.0	3.81	13C2-PFDA	515.0 / 470.0	100139.46	250.00
13C2-PFTeDA	715.0 / 670.0	4.58	13C2-PFDA	515.0 / 470.0	100139.46	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	29846.55	239.25
13C3-PFHxS	402.0 / 99.0	2.33	13C4-PFOS	503.0 / 99.0	29846.55	239.25
13C8-PFOS	507.0 / 99.0	3.12	13C4-PFOS	503.0 / 99.0	29846.55	239.25

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.09	13C2-PFDA	515.0 / 470.0	103883.83	250.00
d3-MeFOSAA	573.0 / 419.0	3.64	13C4-PFOS	503.0 / 99.0	34856.85	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	34856.85	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C4-PFHxA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	103883.83	250.00
13C7-PFUuA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	103883.83	250.00
13C2-PFTeDA	715.0 / 670.0	4.57	13C2-PFDA	515.0 / 470.0	103883.83	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	34856.85	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	34856.85	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	34856.85	239.25

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	98052.33	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	30684.77	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	30684.77	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C4-PFHxA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	98052.33	250.00
13C7-PFUuA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	98052.33	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	98052.33	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	30684.77	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	30684.77	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	30684.77	239.25

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	99978.99	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	30962.75	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	30962.75	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C4-PFHxA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	99978.99	250.00
13C7-PFUuA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	99978.99	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	99978.99	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	30962.75	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	30962.75	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	30962.75	239.25

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	90129.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	31518.26	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	31518.26	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C4-PFHxA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	90129.70	250.00
13C7-PFUuA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	90129.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	90129.70	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	31518.26	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	31518.26	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	31518.26	239.25

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	104169.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	29589.19	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	29589.19	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	104169.70	250.00
13C7-PFUuA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	104169.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	104169.70	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	29589.19	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	29589.19	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	29589.19	239.25

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0610_18-0611_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	100765.46	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	26984.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	26984.04	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	100765.46	250.00
13C7-PFUuA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	100765.46	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	100765.46	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	26984.04	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	26984.04	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	26984.04	239.25

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.82	d5-EtFOSAA	589.0 / 419.0	19192.99	250.00
NEtFOSAA_2	584.0 / 483.0	3.82	d5-EtFOSAA	589.0 / 419.0	19192.99	250.00

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	22570.27	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	22570.27	250.00

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	16434.77	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	16434.77	250.00

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	19201.47	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	19201.47	250.00

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	16992.28	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	16992.28	250.00

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	20489.99	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	20489.99	250.00



Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	16682.63	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	16682.63	250.00



Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.81	13C4-PFOS	503.0 / 99.0	29846.55	239.25

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	34856.85	239.25

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	30684.77	239.25



Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	30962.75	239.25



Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	31518.26	239.25

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	29589.19	239.25



Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	26984.04	239.25

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.56	877.420602	1010.00	86.87
PFBS_2	298.9 / 99.0	1.56	838.659062	1010.00	83.04
PFHxA_1	313.0 / 269.0	1.89	1006.652936	1010.00	99.67
PFHxA_2	313.0 / 119.0	1.89	896.376115	1010.00	88.75
PFHpA_1	363.0 / 319.0	2.30	856.292979	1000.00	85.63
PFHpA_2	363.0 / 169.0	2.29	976.724688	1000.00	97.67
PFHxS_1	399.0 / 80.0	2.32	998.233289	1010.00	98.83
PFHxS_2	399.0 / 99.0	2.32	992.688608	1010.00	98.29
PF OA_1	413.0 / 369.0	2.71	930.879127	1000.00	93.09
PF OA_2	413.0 / 169.0	2.71	872.168076	1000.00	87.22
PFNA_1	463.0 / 419.0	3.11	1034.052055	1000.00	103.41
PFNA_2	463.0 / 219.0	3.10	1037.625087	1000.00	103.76
PFOS_1	499.0 / 80.0	3.10	906.626239	1000.00	90.66
PFOS_2	499.0 / 99.0	3.10	919.881718	1000.00	91.99
PFDA_1	513.0 / 469.0	3.46	983.979238	1000.00	98.40
PFDA_2	513.0 / 219.0	3.46	976.593938	1000.00	97.66
PFUnA_1	563.0 / 519.0	3.79	923.159866	1000.00	92.32
PFUnA_2	563.0 / 269.0	3.79	975.741234	1000.00	97.57
PFDoA_1	613.0 / 569.0	4.07	980.552902	1000.00	98.06
PFDoA_2	613.0 / 319.0	4.07	934.947666	1000.00	93.49
PFTrDA_1	663.0 / 619.0	4.32	1073.075185	1000.00	107.31
PFTrDA_2	663.0 / 169.0	4.32	1041.820014	1000.00	104.18
PFTeDA_1	713.0 / 669.0	4.54	1020.055697	1000.00	102.01
PFTeDA_2	713.0 / 169.0	4.54	1079.815842	1000.00	107.98
NMeFOSAA_1	570.0 / 419.0	3.62	945.129517	1000.00	94.51
NMeFOSAA_2	570.0 / 512.0	3.62	965.108458	1000.00	96.51
NetFOSAA_1	584.0 / 419.0	3.78	1244.646852	1000.00	124.46
NetFOSAA_2	584.0 / 483.0	3.78	1233.660110	1000.00	123.37

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:26:39	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.56	2408.307858	2525.00	95.38
PFBS_2	298.9 / 99.0	1.56	2450.111093	2525.00	97.03
PFHxA_1	313.0 / 269.0	1.88	2574.384832	2525.00	101.96
PFHxA_2	313.0 / 119.0	1.88	2493.711115	2525.00	98.76
PFHpA_1	363.0 / 319.0	2.30	2345.820872	2500.00	93.83
PFHpA_2	363.0 / 169.0	2.29	2282.653647	2500.00	91.31
PFHxS_1	399.0 / 80.0	2.32	2549.426937	2525.00	100.97
PFHxS_2	399.0 / 99.0	2.32	2563.412774	2525.00	101.52
PFOA_1	413.0 / 369.0	2.71	2484.409120	2500.00	99.38
PFOA_2	413.0 / 169.0	2.71	2273.536480	2500.00	90.94
PFNA_1	463.0 / 419.0	3.11	2503.750351	2500.00	100.15
PFNA_2	463.0 / 219.0	3.10	2569.707596	2500.00	102.79
PFOS_1	499.0 / 80.0	3.10	2590.856831	2500.00	103.63
PFOS_2	499.0 / 99.0	3.10	2660.380071	2500.00	106.42
PFDA_1	513.0 / 469.0	3.46	2724.202487	2500.00	108.97
PFDA_2	513.0 / 219.0	3.46	2710.446926	2500.00	108.42
PFUnA_1	563.0 / 519.0	3.79	2464.155021	2500.00	98.57
PFUnA_2	563.0 / 269.0	3.79	2412.346764	2500.00	96.49
PFDoA_1	613.0 / 569.0	4.07	2440.639211	2500.00	97.63
PFDoA_2	613.0 / 319.0	4.07	2545.526310	2500.00	101.82
PFTrDA_1	663.0 / 619.0	4.31	2612.834897	2500.00	104.51
PFTrDA_2	663.0 / 169.0	4.31	2713.248334	2500.00	108.53
PFTeDA_1	713.0 / 669.0	4.53	2638.919307	2500.00	105.56
PFTeDA_2	713.0 / 169.0	4.52	2736.898954	2500.00	109.48
NMeFOSAA_1	570.0 / 419.0	3.62	2590.861741	2500.00	103.63
NMeFOSAA_2	570.0 / 512.0	3.62	2589.546238	2500.00	103.58
NetFOSAA_1	584.0 / 419.0	3.78	2714.113199	2500.00	108.56
NetFOSAA_2	584.0 / 483.0	3.78	3216.028121	2500.00	128.64

Sample Name	KB76 CCV	Injection Vial	27
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:37:00	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.55	1049.634157	1010.00	103.92
PFBS_2	298.9 / 99.0	1.55	1086.076226	1010.00	107.53
PFHxA_1	313.0 / 269.0	1.87	950.212616	1010.00	94.08
PFHxA_2	313.0 / 119.0	1.87	963.173885	1010.00	95.36
PFHpA_1	363.0 / 319.0	2.28	930.883740	1000.00	93.09
PFHpA_2	363.0 / 169.0	2.28	883.168183	1000.00	88.32
PFHxS_1	399.0 / 80.0	2.30	1037.167600	1010.00	102.69
PFHxS_2	399.0 / 99.0	2.31	1062.447244	1010.00	105.19
PFoa_1	413.0 / 369.0	2.70	1022.872171	1000.00	102.29
PFoa_2	413.0 / 169.0	2.70	999.390501	1000.00	99.94
PFNA_1	463.0 / 419.0	3.09	1032.437322	1000.00	103.24
PFNA_2	463.0 / 219.0	3.09	1041.028729	1000.00	104.10
PFOS_1	499.0 / 80.0	3.09	1015.416535	1000.00	101.54
PFOS_2	499.0 / 99.0	3.09	1013.733759	1000.00	101.37
PFDA_1	513.0 / 469.0	3.45	912.703551	1000.00	91.27
PFDA_2	513.0 / 219.0	3.45	1054.673737	1000.00	105.47
PFUnA_1	563.0 / 519.0	3.77	1076.268804	1000.00	107.63
PFUnA_2	563.0 / 269.0	3.77	1046.100931	1000.00	104.61
PFDoA_1	613.0 / 569.0	4.05	1008.525264	1000.00	100.85
PFDoA_2	613.0 / 319.0	4.05	1031.375663	1000.00	103.14
PFTrDA_1	663.0 / 619.0	4.29	1039.464972	1000.00	103.95
PFTrDA_2	663.0 / 169.0	4.29	1016.035645	1000.00	101.60
PFTeDA_1	713.0 / 669.0	4.51	1056.111869	1000.00	105.61
PFTeDA_2	713.0 / 169.0	4.50	1092.747665	1000.00	109.27
NMeFOSAA_1	570.0 / 419.0	3.60	1124.842366	1000.00	112.48
NMeFOSAA_2	570.0 / 512.0	3.60	1021.442847	1000.00	102.14
NetFOSAA_1	584.0 / 419.0	3.76	917.310874	1000.00	91.73
NetFOSAA_2	584.0 / 483.0	3.76	1056.311788	1000.00	105.63

Sample Name	KB77 CCV	Injection Vial	39
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:47:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.55	2505.258701	2525.00	99.22
PFBS_2	298.9 / 99.0	1.55	2505.428631	2525.00	99.22
PFHxA_1	313.0 / 269.0	1.87	2450.886695	2525.00	97.06
PFHxA_2	313.0 / 119.0	1.87	2492.017520	2525.00	98.69
PFHpA_1	363.0 / 319.0	2.28	2343.971793	2500.00	93.76
PFHpA_2	363.0 / 169.0	2.28	2068.654288	2500.00	82.75
PFHxS_1	399.0 / 80.0	2.30	2707.167004	2525.00	107.21
PFHxS_2	399.0 / 99.0	2.30	2767.208199	2525.00	109.59
PFOA_1	413.0 / 369.0	2.69	2432.262222	2500.00	97.29
PFOA_2	413.0 / 169.0	2.69	2210.113875	2500.00	88.40
PFNA_1	463.0 / 419.0	3.09	2559.314181	2500.00	102.37
PFNA_2	463.0 / 219.0	3.09	2614.156794	2500.00	104.57
PFOS_1	499.0 / 80.0	3.09	2535.038746	2500.00	101.40
PFOS_2	499.0 / 99.0	3.08	2599.456684	2500.00	103.98
PFDA_1	513.0 / 469.0	3.44	2480.225944	2500.00	99.21
PFDA_2	513.0 / 219.0	3.44	2493.088885	2500.00	99.72
PFUnA_1	563.0 / 519.0	3.76	2488.602367	2500.00	99.54
PFUnA_2	563.0 / 269.0	3.76	2371.419421	2500.00	94.86
PFDoA_1	613.0 / 569.0	4.04	2673.724217	2500.00	106.95
PFDoA_2	613.0 / 319.0	4.04	2541.349472	2500.00	101.65
PFTrDA_1	663.0 / 619.0	4.29	2612.851716	2500.00	104.51
PFTrDA_2	663.0 / 169.0	4.28	2679.676209	2500.00	107.19
PFTeDA_1	713.0 / 669.0	4.50	2663.471328	2500.00	106.54
PFTeDA_2	713.0 / 169.0	4.50	2595.801361	2500.00	103.83
NMeFOSAA_1	570.0 / 419.0	3.60	2807.489092	2500.00	112.30
NMeFOSAA_2	570.0 / 512.0	3.60	2860.105544	2500.00	114.40
NetFOSAA_1	584.0 / 419.0	3.76	2834.547595	2500.00	113.38
NetFOSAA_2	584.0 / 483.0	3.76	3015.856769	2500.00	120.63

Sample Name	KB76 CCV	Injection Vial	44
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:41:40	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.55	970.502253	1010.00	96.09
PFBS_2	298.9 / 99.0	1.55	975.811899	1010.00	96.62
PFHxA_1	313.0 / 269.0	1.87	1021.796315	1010.00	101.17
PFHxA_2	313.0 / 119.0	1.87	1040.344218	1010.00	103.00
PFHpA_1	363.0 / 319.0	2.28	1025.565325	1000.00	102.56
PFHpA_2	363.0 / 169.0	2.27	925.115481	1000.00	92.51
PFHxS_1	399.0 / 80.0	2.30	1028.011162	1010.00	101.78
PFHxS_2	399.0 / 99.0	2.30	1027.510384	1010.00	101.73
PFoa_1	413.0 / 369.0	2.69	1089.152356	1000.00	108.92
PFoa_2	413.0 / 169.0	2.69	972.981810	1000.00	97.30
PFNA_1	463.0 / 419.0	3.09	1096.274135	1000.00	109.63
PFNA_2	463.0 / 219.0	3.09	1176.854645	1000.00	117.69
PFOS_1	499.0 / 80.0	3.08	966.409606	1000.00	96.64
PFOS_2	499.0 / 99.0	3.08	1005.667125	1000.00	100.57
PFDA_1	513.0 / 469.0	3.44	930.784113	1000.00	93.08
PFDA_2	513.0 / 219.0	3.44	949.281973	1000.00	94.93
PFUnA_1	563.0 / 519.0	3.76	929.129524	1000.00	92.91
PFUnA_2	563.0 / 269.0	3.76	1022.431921	1000.00	102.24
PFDoA_1	613.0 / 569.0	4.04	1021.513275	1000.00	102.15
PFDoA_2	613.0 / 319.0	4.04	1009.419650	1000.00	100.94
PFTrDA_1	663.0 / 619.0	4.28	1040.929741	1000.00	104.09
PFTrDA_2	663.0 / 169.0	4.28	1132.866294	1000.00	113.29
PFTeDA_1	713.0 / 669.0	4.50	1052.743365	1000.00	105.27
PFTeDA_2	713.0 / 169.0	4.49	1055.013855	1000.00	105.50
NMeFOSAA_1	570.0 / 419.0	3.60	966.391560	1000.00	96.64
NMeFOSAA_2	570.0 / 512.0	3.59	1055.504283	1000.00	105.55
NetFOSAA_1	584.0 / 419.0	3.76	891.166983	1000.00	89.12
NetFOSAA_2	584.0 / 483.0	3.76	747.072688	1000.00	74.71

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.06	231.611603	250.00	92.64
d3-MeFOSAA	573.0 / 419.0	3.61	244.423694	250.00	97.77
d5-EtFOSAA	589.0 / 419.0	3.78	176.181506	250.00	70.47
13C5-PFHxA	318.0 / 273.0	1.88	233.905404	250.00	93.56
13C4-PFHpA	367.0 / 322.0	2.29	244.843738	250.00	97.94
13C8-PFOA	421.0 / 376.0	2.70	255.222211	250.00	102.09
13C9-PFNA	472.0 / 427.0	3.09	253.115276	250.00	101.25
13C6-PFDA	519.0 / 474.0	3.45	223.796875	250.00	89.52
13C7-PFUnA	570.0 / 525.0	3.77	237.910809	250.00	95.16
13C2-PFTeDA	715.0 / 670.0	4.54	218.862217	250.00	87.54
13C3-PFBS	302.0 / 99.0	1.55	206.860264	232.25	89.07
13C3-PFHxS	402.0 / 99.0	2.31	210.154754	236.50	88.86
13C8-PFOS	507.0 / 99.0	3.09	222.736043	239.25	93.10

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:26:39	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.06	280.276084	250.00	112.11
d3-MeFOSAA	573.0 / 419.0	3.61	192.899038	250.00	77.16
d5-EtFOSAA	589.0 / 419.0	3.77	162.046707	250.00	64.82 (1)
13C5-PFHxA	318.0 / 273.0	1.87	234.047535	250.00	93.62
13C4-PFHpA	367.0 / 322.0	2.28	248.902410	250.00	99.56
13C8-PFOA	421.0 / 376.0	2.70	246.428073	250.00	98.57
13C9-PFNA	472.0 / 427.0	3.09	233.156231	250.00	93.26
13C6-PFDA	519.0 / 474.0	3.45	232.697638	250.00	93.08
13C7-PFUnA	570.0 / 525.0	3.77	257.754388	250.00	103.10
13C2-PFTeDA	715.0 / 670.0	4.52	281.575897	250.00	112.63
13C3-PFBS	302.0 / 99.0	1.54	200.077864	232.25	86.15
13C3-PFHxS	402.0 / 99.0	2.31	198.151560	236.50	83.79
13C8-PFOS	507.0 / 99.0	3.09	191.585938	239.25	80.08

(1) bracketed samples were reanalyzed for d5-EtFOSAA and reported from the reanalysis. JRT 10/25/2018

Sample Name	KB76 CCV	Injection Vial	27
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:37:00	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.04	258.965465	250.00	103.59
d3-MeFOSAA	573.0 / 419.0	3.59	180.887288	250.00	72.35
d5-EtFOSAA	589.0 / 419.0	3.75	194.134613	250.00	77.65
13C5-PFHxA	318.0 / 273.0	1.86	264.055578	250.00	105.62
13C4-PFHpA	367.0 / 322.0	2.27	267.855821	250.00	107.14
13C8-PFOA	421.0 / 376.0	2.68	263.375562	250.00	105.35
13C9-PFNA	472.0 / 427.0	3.08	255.120895	250.00	102.05
13C6-PFDA	519.0 / 474.0	3.43	257.594181	250.00	103.04
13C7-PFUnA	570.0 / 525.0	3.75	241.026524	250.00	96.41
13C2-PFTeDA	715.0 / 670.0	4.50	276.512674	250.00	110.61
13C3-PFBS	302.0 / 99.0	1.53	191.706179	232.25	82.54
13C3-PFHxS	402.0 / 99.0	2.30	205.346182	236.50	86.83
13C8-PFOS	507.0 / 99.0	3.08	199.231608	239.25	83.27

Sample Name	KB77 CCV	Injection Vial	39
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:47:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.03	248.709638	250.00	99.48
d3-MeFOSAA	573.0 / 419.0	3.59	220.653164	250.00	88.26
d5-EtFOSAA	589.0 / 419.0	3.75	192.776735	250.00	77.11
13C5-PFHxA	318.0 / 273.0	1.86	246.430350	250.00	98.57
13C4-PFHpA	367.0 / 322.0	2.27	249.895719	250.00	99.96
13C8-PFOA	421.0 / 376.0	2.68	251.868463	250.00	100.75
13C9-PFNA	472.0 / 427.0	3.07	236.131301	250.00	94.45
13C6-PFDA	519.0 / 474.0	3.43	242.876826	250.00	97.15
13C7-PFUnA	570.0 / 525.0	3.74	242.769099	250.00	97.11
13C2-PFTeDA	715.0 / 670.0	4.49	270.532797	250.00	108.21
13C3-PFBS	302.0 / 99.0	1.53	236.962173	232.25	102.03
13C3-PFHxS	402.0 / 99.0	2.29	221.860980	236.50	93.81
13C8-PFOS	507.0 / 99.0	3.07	217.269919	239.25	90.81

Sample Name	KB76 CCV	Injection Vial	44
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:41:40	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.03	251.496245	250.00	100.60
d3-MeFOSAA	573.0 / 419.0	3.59	206.513415	250.00	82.61
d5-EtFOSAA	589.0 / 419.0	3.75	215.522596	250.00	86.21
13C5-PFHxA	318.0 / 273.0	1.86	243.853168	250.00	97.54
13C4-PFHpA	367.0 / 322.0	2.27	251.499403	250.00	100.60
13C8-PFOA	421.0 / 376.0	2.68	252.596966	250.00	101.04
13C9-PFNA	472.0 / 427.0	3.07	235.055860	250.00	94.02
13C6-PFDA	519.0 / 474.0	3.42	263.529523	250.00	105.41
13C7-PFUnA	570.0 / 525.0	3.74	264.759638	250.00	105.90
13C2-PFTeDA	715.0 / 670.0	4.49	274.563043	250.00	109.83
13C3-PFBS	302.0 / 99.0	1.53	208.968650	232.25	89.98
13C3-PFHxS	402.0 / 99.0	2.29	203.875863	236.50	86.21
13C8-PFOS	507.0 / 99.0	3.07	211.103660	239.25	88.24

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
NETFOSAA_1	584.0 / 419.0	3.78	1288.125958	1000.00	128.81
NETFOSAA_2	584.0 / 483.0	3.78	1146.249368	1000.00	114.62

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:42:12	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
NETFOSAA_1	584.0 / 419.0	3.80	545.866359	500.00	109.17
NETFOSAA_2	584.0 / 483.0	3.80	519.938890	500.00	103.99

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T20:52:42	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
NETFOSAA_1	584.0 / 419.0	3.76	2911.632083	2500.00	116.47
NETFOSAA_2	584.0 / 483.0	3.76	3093.267708	2500.00	123.73

Sample Name	KB76 CCV	Injection Vial	23
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:41:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
NETFOSAA_1	584.0 / 419.0	3.74	1113.218641	1000.00	111.32
NETFOSAA_2	584.0 / 483.0	3.75	1281.795587	1000.00	128.18

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
d5-EtFOSAA	589.0 / 419.0	3.78	176.181506	250.00	70.47

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:42:12	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
d5-EtFOSAA	589.0 / 419.0	3.79	228.368242	250.00	91.35

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T20:52:42	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
d5-EtFOSAA	589.0 / 419.0	3.75	206.321331	250.00	82.53

Sample Name	KB76 CCV	Injection Vial	23
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:41:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
d5-EtFOSAA	589.0 / 419.0	3.74	222.495152	250.00	89.00

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	299608.43	877.420602	544.9	false
PFBS_2	298.9 / 99.0	1.56	83942.08	838.659062	365.9	false
PFHxA_1	313.0 / 269.0	1.89	241930.51	1006.652936	19.8	false
PFHxA_2	313.0 / 119.0	1.89	16403.84	896.376115	16.0	false
PFHpA_1	363.0 / 319.0	2.30	215911.99	856.292979	126.4	false
PFHpA_2	363.0 / 169.0	2.29	5561.78	976.724688	99.7	false
PFHxS_1	399.0 / 80.0	2.32	361966.55	998.233289	454.9	false
PFHxS_2	399.0 / 99.0	2.32	100883.75	992.688608	416.4	false
PFOA_1	413.0 / 369.0	2.71	338169.16	930.879127	304.4	false
PFOA_2	413.0 / 169.0	2.71	20580.91	872.168076	223.7	false
PFNA_1	463.0 / 419.0	3.11	356729.03	1034.052055	304.0	false
PFNA_2	463.0 / 219.0	3.10	110066.88	1037.625087	466.5	false
PFOS_1	499.0 / 80.0	3.10	539708.03	906.626239	343.1	false
PFOS_2	499.0 / 99.0	3.10	95211.86	919.881718	450.1	false
PFDA_1	513.0 / 469.0	3.46	380336.88	983.979238	327.0	false
PFDA_2	513.0 / 219.0	3.46	15587.84	976.593938	361.3	false
PFUnA_1	563.0 / 519.0	3.79	349720.15	923.159866	376.6	false
PFUnA_2	563.0 / 269.0	3.79	18202.70	975.741234	188.3	false
PFDoA_1	613.0 / 569.0	4.07	341302.82	980.552902	460.6	false
PFDoA_2	613.0 / 319.0	4.07	51304.06	934.947666	412.2	false
PFTrDA_1	663.0 / 619.0	4.32	300565.45	1073.075185	751.7	false
PFTrDA_2	663.0 / 169.0	4.32	19250.55	1041.820014	533.2	false
PFTeDA_1	713.0 / 669.0	4.54	326564.00	1020.055697	1259.1	false
PFTeDA_2	713.0 / 169.0	4.54	16770.44	1079.815842	804.1	false
NMeFOSAA_1	570.0 / 419.0	3.62	66944.31	945.129517	505.3	false
NMeFOSAA_2	570.0 / 512.0	3.62	38615.63	965.108458	1105.4	false
NEtFOSAA_1	584.0 / 419.0	3.78	66942.43	1244.646852	673.7	true
NEtFOSAA_2	584.0 / 483.0	3.78	4011.16	1233.660110	1226.3	false

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:26:39	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	640459.84	2408.307858	551.7	false
PFBS_2	298.9 / 99.0	1.56	191203.29	2450.111093	483.3	false
PFHxA_1	313.0 / 269.0	1.88	465831.89	2574.384832	86.6	false
PFHxA_2	313.0 / 119.0	1.88	33847.43	2493.711115	59.2	false
PFHpA_1	363.0 / 319.0	2.30	455143.08	2345.820872	243.1	false
PFHpA_2	363.0 / 169.0	2.29	9656.53	2282.653647	187.6	false
PFHxS_1	399.0 / 80.0	2.32	697814.99	2549.426937	626.3	false
PFHxS_2	399.0 / 99.0	2.32	196005.15	2563.412774	936.4	false
PFOA_1	413.0 / 369.0	2.71	662263.77	2484.409120	471.5	false
PFOA_2	413.0 / 169.0	2.71	39366.84	2273.536480	335.0	false
PFNA_1	463.0 / 419.0	3.11	599775.85	2503.750351	402.9	false
PFNA_2	463.0 / 219.0	3.10	189636.17	2569.707596	453.9	false
PFOS_1	499.0 / 80.0	3.10	1049355.45	2590.856831	405.4	false
PFOS_2	499.0 / 99.0	3.10	187160.03	2660.380071	665.7	false
PFDA_1	513.0 / 469.0	3.46	756923.67	2724.202487	497.4	false
PFDA_2	513.0 / 219.0	3.46	31050.30	2710.446926	264.7	false
PFUnA_1	563.0 / 519.0	3.79	704200.84	2464.155021	433.3	false
PFUnA_2	563.0 / 269.0	3.79	34181.21	2412.346764	262.9	false
PFDoA_1	613.0 / 569.0	4.07	708129.08	2440.639211	590.7	false
PFDoA_2	613.0 / 319.0	4.07	115353.52	2545.526310	425.1	false
PFTrDA_1	663.0 / 619.0	4.31	648090.77	2612.834897	840.8	false
PFTrDA_2	663.0 / 169.0	4.31	44240.61	2713.248334	478.5	false
PFTeDA_1	713.0 / 669.0	4.53	743163.24	2638.919307	1481.1	false
PFTeDA_2	713.0 / 169.0	4.52	37342.75	2736.898954	862.1	false
NMeFOSAA_1	570.0 / 419.0	3.62	111915.97	2590.861741	914.8	false
NMeFOSAA_2	570.0 / 512.0	3.62	61429.96	2589.546238	892.6	false
NEtFOSAA_1	584.0 / 419.0	3.78	105996.53	2714.113199	651.0	false
NEtFOSAA_2	584.0 / 483.0	3.78	7407.23	3216.028121	525.4	true

Sample Name	KB76 CCV	Injection Vial	27
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:37:00	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	293853.05	1049.634157	423.0	false
PFBS_2	298.9 / 99.0	1.55	89127.82	1086.076226	389.5	false
PFHxA_1	313.0 / 269.0	1.87	211244.74	950.212616	50.4	false
PFHxA_2	313.0 / 119.0	1.87	16212.69	963.173885	43.6	false
PFHpA_1	363.0 / 319.0	2.28	209631.51	930.883740	160.5	false
PFHpA_2	363.0 / 169.0	2.28	4539.44	883.168183	129.5	false
PFHxS_1	399.0 / 80.0	2.30	324861.83	1037.167600	343.7	false
PFHxS_2	399.0 / 99.0	2.31	93183.96	1062.447244	473.1	false
PFOA_1	413.0 / 369.0	2.70	313150.98	1022.872171	267.3	false
PFOA_2	413.0 / 169.0	2.70	19861.74	999.390501	232.0	false
PFNA_1	463.0 / 419.0	3.09	293608.93	1032.437322	339.2	false
PFNA_2	463.0 / 219.0	3.09	91018.38	1041.028729	571.8	false
PFOS_1	499.0 / 80.0	3.09	483723.27	1015.416535	248.7	false
PFOS_2	499.0 / 99.0	3.09	83951.80	1013.733759	328.5	false
PFDA_1	513.0 / 469.0	3.45	339265.93	912.703551	338.8	false
PFDA_2	513.0 / 219.0	3.45	16133.38	1054.673737	223.8	false
PFUnA_1	563.0 / 519.0	3.77	344016.49	1076.268804	342.8	false
PFUnA_2	563.0 / 269.0	3.77	16491.23	1046.100931	206.0	false
PFDoA_1	613.0 / 569.0	4.05	327121.21	1008.525264	505.0	false
PFDoA_2	613.0 / 319.0	4.05	52575.69	1031.375663	344.0	false
PFTrDA_1	663.0 / 619.0	4.29	307122.28	1039.464972	620.2	false
PFTrDA_2	663.0 / 169.0	4.29	19801.90	1016.035645	328.4	false
PFTeDA_1	713.0 / 669.0	4.51	355815.15	1056.111869	1023.5	false
PFTeDA_2	713.0 / 169.0	4.50	17875.54	1092.747665	666.5	false
NMeFOSAA_1	570.0 / 419.0	3.60	51678.71	1124.842366	635.5	false
NMeFOSAA_2	570.0 / 512.0	3.60	26605.23	1021.442847	957.7	false
NEtFOSAA_1	584.0 / 419.0	3.76	48313.99	917.310874	530.8	false
NEtFOSAA_2	584.0 / 483.0	3.76	3378.01	1056.311788	1054.0	false

Sample Name	KB77 CCV	Injection Vial	39
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:47:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	856720.11	2505.258701	800.9	false
PFBS_2	298.9 / 99.0	1.55	251433.04	2505.428631	579.9	false
PFHxA_1	313.0 / 269.0	1.87	601169.77	2450.886695	106.0	false
PFHxA_2	313.0 / 119.0	1.87	45821.67	2492.017520	67.1	false
PFHpA_1	363.0 / 319.0	2.28	587465.25	2343.971793	252.2	false
PFHpA_2	363.0 / 169.0	2.28	11348.39	2068.654288	194.7	false
PFHxS_1	399.0 / 80.0	2.30	893145.48	2707.167004	646.0	false
PFHxS_2	399.0 / 99.0	2.30	254967.79	2767.208199	723.2	false
PFOA_1	413.0 / 369.0	2.69	852712.34	2432.262222	552.8	false
PFOA_2	413.0 / 169.0	2.69	50332.64	2210.113875	381.2	false
PFNA_1	463.0 / 419.0	3.09	798639.09	2559.314181	547.5	false
PFNA_2	463.0 / 219.0	3.09	251326.15	2614.156794	764.4	false
PFOS_1	499.0 / 80.0	3.09	1311775.99	2535.038746	328.8	false
PFOS_2	499.0 / 99.0	3.08	233643.12	2599.456684	524.2	false
PFDA_1	513.0 / 469.0	3.44	994956.01	2480.225944	648.6	false
PFDA_2	513.0 / 219.0	3.44	41234.16	2493.088885	325.2	false
PFUnA_1	563.0 / 519.0	3.76	925816.36	2488.602367	463.3	false
PFUnA_2	563.0 / 269.0	3.76	43743.46	2371.419421	310.9	false
PFDoA_1	613.0 / 569.0	4.04	950507.28	2673.724217	594.2	false
PFDoA_2	613.0 / 319.0	4.04	141255.70	2541.349472	474.0	false
PFTrDA_1	663.0 / 619.0	4.29	860663.90	2612.851716	989.1	false
PFTrDA_2	663.0 / 169.0	4.28	58034.10	2679.676209	658.6	false
PFTeDA_1	713.0 / 669.0	4.50	995950.25	2663.471328	1664.1	false
PFTeDA_2	713.0 / 169.0	4.50	47078.35	2595.801361	994.1	false
NMeFOSAA_1	570.0 / 419.0	3.60	151426.00	2807.489092	997.8	false
NMeFOSAA_2	570.0 / 512.0	3.60	84537.83	2860.105544	538.3	false
NEtFOSAA_1	584.0 / 419.0	3.76	145274.39	2834.547595	967.6	false
NEtFOSAA_2	584.0 / 483.0	3.76	9129.24	3015.856769	2262.6	false

Sample Name	KB76 CCV	Injection Vial	44
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:41:40	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	308578.35	970.502253	411.5	false
PFBS_2	298.9 / 99.0	1.55	90944.48	975.811899	376.8	false
PFHxA_1	313.0 / 269.0	1.87	220663.38	1021.796315	53.4	false
PFHxA_2	313.0 / 119.0	1.87	16988.54	1040.344218	47.1	false
PFHpA_1	363.0 / 319.0	2.28	228224.33	1025.565325	162.7	false
PFHpA_2	363.0 / 169.0	2.27	4688.03	925.115481	120.2	false
PFHxS_1	399.0 / 80.0	2.30	333665.89	1028.011162	412.3	false
PFHxS_2	399.0 / 99.0	2.30	93444.61	1027.510384	591.9	false
PFOA_1	413.0 / 369.0	2.69	336901.46	1089.152356	347.8	false
PFOA_2	413.0 / 169.0	2.69	19562.41	972.981810	214.5	false
PFNA_1	463.0 / 419.0	3.09	302334.04	1096.274135	338.6	false
PFNA_2	463.0 / 219.0	3.09	99649.03	1176.854645	486.1	false
PFOS_1	499.0 / 80.0	3.08	513907.57	966.409606	205.8	false
PFOS_2	499.0 / 99.0	3.08	92975.59	1005.667125	445.2	false
PFDA_1	513.0 / 469.0	3.44	377207.79	930.784113	382.9	false
PFDA_2	513.0 / 219.0	3.44	15877.49	949.281973	243.4	false
PFUnA_1	563.0 / 519.0	3.76	348313.37	929.129524	312.6	false
PFUnA_2	563.0 / 269.0	3.76	18876.47	1022.431921	223.3	false
PFDoA_1	613.0 / 569.0	4.04	342943.90	1021.513275	488.7	false
PFDoA_2	613.0 / 319.0	4.04	53322.52	1009.419650	394.7	false
PFTrDA_1	663.0 / 619.0	4.28	325576.70	1040.929741	681.7	false
PFTrDA_2	663.0 / 169.0	4.28	23287.58	1132.866294	418.1	false
PFTeDA_1	713.0 / 669.0	4.50	375526.42	1052.743365	1384.7	false
PFTeDA_2	713.0 / 169.0	4.49	18297.90	1055.013855	610.0	false
NMeFOSAA_1	570.0 / 419.0	3.60	52969.18	966.391560	582.1	false
NMeFOSAA_2	570.0 / 512.0	3.59	32440.07	1055.504283	440.3	false
NEtFOSAA_1	584.0 / 419.0	3.76	53306.56	891.166983	869.0	false
NEtFOSAA_2	584.0 / 483.0	3.76	2775.59	747.072688	249.5	false

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.06	93406.68	231.611603	1689.5	false
d3-MeFOSAA	573.0 / 419.0	3.61	17579.80	244.423694	175.3	false
d5-EtFOSAA	589.0 / 419.0	3.78	14383.26	176.181506	200.6	false
13C5-PFHxA	318.0 / 273.0	1.88	59013.59	233.905404	685.2	false
13C4-PFHxA	367.0 / 322.0	2.29	70279.06	244.843738	1118.6	false
13C8-PFOA	421.0 / 376.0	2.70	89115.92	255.222211	9011.3	false
13C9-PFNA	472.0 / 427.0	3.09	100916.15	253.115276	1888.1	false
13C6-PFDA	519.0 / 474.0	3.45	90930.64	223.796875	1073.3	false
13C7-PFUxA	570.0 / 525.0	3.77	89293.12	237.910809	829.4	false
13C2-PFTeDA	715.0 / 670.0	4.54	71262.97	218.862217	1767.1	false
13C3-PFBS	302.0 / 99.0	1.55	27104.45	206.860264	624.1	false
13C3-PFHxS	402.0 / 99.0	2.31	24951.95	210.154754	577.2	false
13C8-PFOS	507.0 / 99.0	3.09	29875.11	222.736043	244.5	false

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:26:39	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.06	79229.13	280.276084	959.3	false
d3-MeFOSAA	573.0 / 419.0	3.61	11216.48	192.899038	183.6	false
d5-EtFOSAA	589.0 / 419.0	3.77	10695.30	162.046707	155.7	false
13C5-PFHxA	318.0 / 273.0	1.87	45329.89	234.047535	616.5	false
13C4-PFHxA	367.0 / 322.0	2.28	54844.72	248.902410	821.3	false
13C8-PFOA	421.0 / 376.0	2.70	66053.50	246.428073	943.3	false
13C9-PFNA	472.0 / 427.0	3.09	71360.54	233.156231	1149.9	false
13C6-PFDA	519.0 / 474.0	3.45	66271.90	232.697638	1264.1	false
13C7-PFUxA	570.0 / 525.0	3.77	67809.59	257.754388	584.9	false
13C2-PFTeDA	715.0 / 670.0	4.52	64264.31	281.575897	1283.0	false
13C3-PFBS	302.0 / 99.0	1.54	21194.27	200.077864	421.7	false
13C3-PFHxS	402.0 / 99.0	2.31	19020.36	198.151560	341.1	false
13C8-PFOS	507.0 / 99.0	3.09	20774.88	191.585938	251.6	false

Sample Name	KB76 CCV	Injection Vial	27
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:37:00	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	87112.19	258.965465	1408.2	false
d3-MeFOSAA	573.0 / 419.0	3.59	11521.67	180.887288	262.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	14035.78	194.134613	213.9	false
13C5-PFHxA	318.0 / 273.0	1.86	54483.90	264.055578	1230.1	false
13C4-PFHxA	367.0 / 322.0	2.27	62878.04	267.855821	950.9	false
13C8-PFOA	421.0 / 376.0	2.68	75209.60	263.375562	1200.3	false
13C9-PFNA	472.0 / 427.0	3.08	83185.82	255.120895	3675.4	false
13C6-PFDA	519.0 / 474.0	3.43	87299.50	257.594181	862.9	false
13C7-PFUxA	570.0 / 525.0	3.75	75455.02	241.026524	914.9	false
13C2-PFTeDA	715.0 / 670.0	4.50	75097.87	276.512674	1575.0	false
13C3-PFBS	302.0 / 99.0	1.53	22245.19	191.706179	306.3	false
13C3-PFHxS	402.0 / 99.0	2.30	21591.78	205.346182	322.1	false
13C8-PFOS	507.0 / 99.0	3.08	23665.39	199.231608	219.5	false

Sample Name	KB77 CCV	Injection Vial	39
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:47:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	97176.67	248.709638	1467.4	false
d3-MeFOSAA	573.0 / 419.0	3.59	13931.63	220.653164	180.5	false
d5-EtFOSAA	589.0 / 419.0	3.75	13815.70	192.776735	169.5	false
13C5-PFHxA	318.0 / 273.0	1.86	61407.16	246.430350	698.0	false
13C4-PFHxA	367.0 / 322.0	2.27	70844.92	249.895719	891.9	false
13C8-PFOA	421.0 / 376.0	2.68	86860.76	251.868463	4539.0	false
13C9-PFNA	472.0 / 427.0	3.07	92984.14	236.131301	1346.0	false
13C6-PFDA	519.0 / 474.0	3.43	95607.96	242.876826	1435.5	false
13C7-PFUxA	570.0 / 525.0	3.74	88277.29	242.769099	789.9	false
13C2-PFTeDA	715.0 / 670.0	4.49	85342.39	270.532797	1785.2	false
13C3-PFBS	302.0 / 99.0	1.53	27256.10	236.962173	359.4	false
13C3-PFHxS	402.0 / 99.0	2.29	23124.24	221.860980	419.3	false
13C8-PFOS	507.0 / 99.0	3.07	25582.31	217.269919	277.0	false

Sample Name	KB76 CCV	Injection Vial	44
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:41:40	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	90196.83	251.496245	868.5	false
d3-MeFOSAA	573.0 / 419.0	3.59	13699.36	206.513415	220.4	false
d5-EtFOSAA	589.0 / 419.0	3.75	16228.23	215.522596	229.9	false
13C5-PFHxA	318.0 / 273.0	1.86	53053.80	243.853168	883.4	false
13C4-PFHxA	367.0 / 322.0	2.27	62251.55	251.499403	822.5	false
13C8-PFOA	421.0 / 376.0	2.68	76057.36	252.596966	4120.8	false
13C9-PFNA	472.0 / 427.0	3.07	80814.57	235.055860	883.7	false
13C6-PFDA	519.0 / 474.0	3.42	95219.88	263.529523	914.8	false
13C7-PFUuA	570.0 / 525.0	3.74	88368.55	264.759638	626.1	false
13C2-PFTeDA	715.0 / 670.0	4.49	79501.87	274.563043	1411.1	false
13C3-PFBS	302.0 / 99.0	1.53	25253.76	208.968650	588.5	false
13C3-PFHxS	402.0 / 99.0	2.29	22326.08	203.875863	301.6	false
13C8-PFOS	507.0 / 99.0	3.07	26115.36	211.103660	229.0	false



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Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	3.78	69369.99	1288.125958	677.5	false
NETFOSAA_2	584.0 / 483.0	3.78	4011.16	1146.249368	1226.3	false



Summary Quant Report

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Sample Name	KB75 ISC	Injection Vial	1
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:42:12	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	3.80	32959.58	545.866359	365.9	false
NETFOSAA_2	584.0 / 483.0	3.80	2314.86	519.938890	718.2	true

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T20:52:42	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	3.76	163068.14	2911.632083	1334.2	false
NETFOSAA_2	584.0 / 483.0	3.76	10425.94	3093.267708	138154.6	true

Sample Name	KB76 CCV	Injection Vial	23
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:41:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	3.74	59813.44	1113.218641	505.4	false
NETFOSAA_2	584.0 / 483.0	3.75	4406.94	1281.795587	412.3	true



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Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.78	14383.26	176.181506	200.6	false



Summary Quant Report

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Sample Name	KB75 ISC	Injection Vial	1
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:42:12	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.79	15749.83	228.368242	165.6	false

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T20:52:42	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.75	15097.53	206.321331	203.2	false



Summary Quant Report

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Sample Name	KB76 CCV	Injection Vial	23
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:41:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.74	14440.04	222.495152	182.2	false

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.150	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.062	ü

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:26:39	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.31	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.31	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.550	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.070	0.062	ü

Sample Name	KB76 CCV	Injection Vial	27
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:37:00	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.510	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.070	0.062	ü

Sample Name	KB77 CCV	Injection Vial	39
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:47:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.04	PFDoA			
PFDoA_2	613.0 / 319.0	4.04	PFDoA	0.150	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.28	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.560	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.060	0.062	ü

Sample Name	KB76 CCV	Injection Vial	44
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:41:40	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.04	PFDoA			
PFDoA_2	613.0 / 319.0	4.04	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.28	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.49	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.610	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.050	0.062	ü

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.064	ü

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:42:12	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.070	0.064	ü

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T20:52:42	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.060	0.064	ü

Sample Name	KB76 CCV	Injection Vial	23
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:41:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.74	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.75	NEtFOSAA	0.070	0.064	ü

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	27104.45	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	27104.45	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	59013.59	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	59013.59	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	70279.06	250.00
PFHpA_2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	70279.06	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	24692.35	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	24692.35	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	89115.92	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	89115.92	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	100916.15	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	100916.15	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	29786.30	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	29786.30	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	90930.64	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	90930.64	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	89293.12	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	89293.12	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	93406.68	250.00
PFDoA_2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	93406.68	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
PFTrDA_2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
PFTeDA_1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
NMeFOSAA_1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	17861.22	250.00
NMeFOSAA_2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	17861.22	250.00
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	14753.24	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	14753.24	250.00

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:26:39	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	21194.27	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	21194.27	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	45329.89	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	45329.89	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	54844.72	250.00
PFHpA_2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	54844.72	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	18865.68	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	18865.68	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	66053.50	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	66053.50	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	71360.54	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	71360.54	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	20239.85	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	20239.85	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	66271.90	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	66271.90	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	67809.59	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	67809.59	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	79229.13	250.00
PFDoA_2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	79229.13	250.00
PFTrDA_1	663.0 / 619.0	4.31	13C2-PFTeDA	715.0 / 670.0	64264.31	250.00
PFTrDA_2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	64264.31	250.00
PFTeDA_1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	64264.31	250.00
PFTeDA_2	713.0 / 169.0	4.52	13C2-PFTeDA	715.0 / 670.0	64264.31	250.00
NMeFOSAA_1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	11303.27	250.00
NMeFOSAA_2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	11303.27	250.00
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	10774.79	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	10774.79	250.00

Sample Name	KB76 CCV	Injection Vial	27
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:37:00	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	22245.19	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	22245.19	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	54483.90	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	54483.90	250.00
PFHpA_1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	62878.04	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	62878.04	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	21345.08	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	21345.08	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	75209.60	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	75209.60	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	83185.82	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	83185.82	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	23831.24	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	23831.24	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	87299.50	250.00
PFDA_2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	87299.50	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	75455.02	250.00
PFUnA_2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	75455.02	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	87112.19	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	87112.19	250.00
PFTrDA_1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	75097.87	250.00
PFTrDA_2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	75097.87	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	75097.87	250.00
PFTeDA_2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	75097.87	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	11692.15	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	11692.15	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	14392.63	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	14392.63	250.00

Sample Name	KB77 CCV	Injection Vial	39
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:47:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	27256.10	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	27256.10	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	61407.16	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	61407.16	250.00
PFHpA_1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	70844.92	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	70844.92	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	22749.92	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	22749.92	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	86860.76	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	86860.76	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	92984.14	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	92984.14	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	25858.88	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	25858.88	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	95607.96	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	95607.96	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	88277.29	250.00
PFUnA_2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	88277.29	250.00
PFDoA_1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	97176.67	250.00
PFDoA_2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	97176.67	250.00
PFTrDA_1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	85342.39	250.00
PFTrDA_2	663.0 / 169.0	4.28	13C2-PFTeDA	715.0 / 670.0	85342.39	250.00
PFTeDA_1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	85342.39	250.00
PFTeDA_2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	85342.39	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	14137.23	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	14137.23	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	14142.99	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	14142.99	250.00

Sample Name	KB76 CCV	Injection Vial	44
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:41:40	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	25253.76	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	25253.76	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	53053.80	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	53053.80	250.00
PFHpA_1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	62251.55	250.00
PFHpA_2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	62251.55	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	22115.08	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	22115.08	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	76057.36	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	76057.36	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	80814.57	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	80814.57	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	26604.59	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	26604.59	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	95219.88	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	95219.88	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	88368.55	250.00
PFUnA_2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	88368.55	250.00
PFDoA_1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	90196.83	250.00
PFDoA_2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	90196.83	250.00
PFTrDA_1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	79501.87	250.00
PFTrDA_2	663.0 / 169.0	4.28	13C2-PFTeDA	715.0 / 670.0	79501.87	250.00
PFTeDA_1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	79501.87	250.00
PFTeDA_2	713.0 / 169.0	4.49	13C2-PFTeDA	715.0 / 670.0	79501.87	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	13839.03	250.00
NMeFOSAA_2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	13839.03	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	16338.86	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	16338.86	250.00

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.06	13C2-PFDA	515.0 / 470.0	103402.36	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	33690.55	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	33690.55	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C4-PFHxA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	103402.36	250.00
13C7-PFUuA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	103402.36	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	103402.36	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	33690.55	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	33690.55	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	33690.55	239.25

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:26:39	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.06	13C2-PFDA	515.0 / 470.0	72478.91	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	27237.29	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	27237.29	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	65437.19	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	65437.19	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	65437.19	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	65437.19	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	72478.91	250.00
13C7-PFUuA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	72478.91	250.00
13C2-PFTeDA	715.0 / 670.0	4.52	13C2-PFDA	515.0 / 470.0	72478.91	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	27237.29	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	27237.29	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	27237.29	239.25

Sample Name	KB76 CCV	Injection Vial	27
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:37:00	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	86248.17	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	29836.28	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	29836.28	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	69713.49	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	69713.49	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	69713.49	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	69713.49	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	86248.17	250.00
13C7-PFUuA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	86248.17	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	86248.17	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	29836.28	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	29836.28	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	29836.28	239.25

Sample Name	KB77 CCV	Injection Vial	39
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:47:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	100180.27	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	29575.31	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	29575.31	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	84191.62	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	84191.62	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	84191.62	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	84191.62	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	100180.27	250.00
13C7-PFUuA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	100180.27	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	100180.27	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	29575.31	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	29575.31	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	29575.31	239.25

Sample Name	KB76 CCV	Injection Vial	44
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:41:40	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	91954.41	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	31073.45	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	31073.45	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	73507.58	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	73507.58	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	73507.58	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	73507.58	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	91954.41	250.00
13C7-PFUuA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	91954.41	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	91954.41	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	31073.45	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	31073.45	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	31073.45	239.25

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	14753.24	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	14753.24	250.00

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:42:12	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	16279.77	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	16279.77	250.00

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T20:52:42	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	15444.61	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	15444.61	250.00

Sample Name	KB76 CCV	Injection Vial	23
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:41:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NEtFOSAA_1	584.0 / 419.0	3.74	d5-EtFOSAA	589.0 / 419.0	14692.21	250.00
NEtFOSAA_2	584.0 / 483.0	3.75	d5-EtFOSAA	589.0 / 419.0	14692.21	250.00



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Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	33690.55	239.25



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Sample Name	KB75 ISC	Injection Vial	1
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:42:12	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	28461.06	239.25

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T20:52:42	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	30197.62	239.25

Sample Name	KB76 CCV	Injection Vial	23
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:41:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	26782.97	239.25

Raw Analytical Data

Sample Name	KB80 IB	Injection Vial	9
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	4270.08	7.967207	23.4	true
PFBS_2	298.9 / 99.0	1.57	1751.65	15.187213	22.1	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	3.11	5116.99	< 0	29.4	false
PFNA_2	463.0 / 219.0	3.11	1412.81	< 0	28.4	false
PFOS_1	499.0 / 80.0	3.10	10007.21	20.457445	28.3	false
PFOS_2	499.0 / 99.0	3.11	2107.71	23.036162	36.0	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.08	4132.45	< 0	50.7	false
PFDoA_2	613.0 / 319.0	4.08	648.21	< 0	25.1	false
PFTrDA_1	663.0 / 619.0	4.32	3827.82	< 0	101.8	false
PFTrDA_2	663.0 / 169.0	4.34	292.14	< 0	21.8	false
PFTeDA_1	713.0 / 669.0	4.54	4005.90	< 0	149.6	false
PFTeDA_2	713.0 / 169.0	4.54	211.66	< 0	28.3	false
NMeFOSAA_1	570.0 / 419.0	3.63	1091.61	< 0	277.3	false
NMeFOSAA_2	570.0 / 512.0	3.61	558.08	< 0	27.6	false
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	CR992PB-FS(3)	Injection Vial	17
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:48:24	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	2.70	3228.69	< 0	12.0	false
PFOA_2	413.0 / 169.0	2.69	190.55	< 0	9.2	true
PFNA_1	463.0 / 419.0	3.11	2532.78	< 0	12.4	false
PFNA_2	463.0 / 219.0	3.10	548.12	< 0	14.3	false
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	3.46	2204.54	< 0	14.6	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.07	555.43	< 0	11.2	false
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.29	959.66	< 0	30.1	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.51	522.67	< 0	11.1	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	CR993LCS-FS(3)	Injection Vial	18
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:59:15	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	909830.89	3604.794795	867.0	false
PFBS_2	298.9 / 99.0	1.55	267580.57	3611.801321	561.4	false
PFHxA_1	313.0 / 269.0	1.88	614437.82	3285.543706	93.8	false
PFHxA_2	313.0 / 119.0	1.88	43829.51	3128.357484	69.9	false
PFHpA_1	363.0 / 319.0	2.29	638355.77	3437.889618	285.3	false
PFHpA_2	363.0 / 169.0	2.29	13474.79	3360.347428	243.8	false
PFHxS_1	399.0 / 80.0	2.32	940886.89	3679.125845	870.6	false
PFHxS_2	399.0 / 99.0	2.32	262937.00	3682.610845	908.0	false
PFOA_1	413.0 / 369.0	2.71	888731.74	3118.023440	546.4	false
PFOA_2	413.0 / 169.0	2.70	56440.84	3049.600536	459.6	false
PFNA_1	463.0 / 419.0	3.10	829794.79	3228.896112	494.0	false
PFNA_2	463.0 / 219.0	3.10	272138.47	3437.114774	1096.2	false
PFOS_1	499.0 / 80.0	3.10	1447138.19	3250.710315	446.1	false
PFOS_2	499.0 / 99.0	3.10	259109.11	3351.263793	657.6	false
PFDA_1	513.0 / 469.0	3.46	1016014.93	3171.809596	523.2	false
PFDA_2	513.0 / 219.0	3.46	42381.14	3209.777772	362.4	false
PFUnA_1	563.0 / 519.0	3.78	947491.25	3223.668163	465.1	false
PFUnA_2	563.0 / 269.0	3.78	49801.75	3414.102803	339.2	false
PFDoA_1	613.0 / 569.0	4.06	963808.00	3386.898836	648.5	false
PFDoA_2	613.0 / 319.0	4.06	164326.81	3703.252305	482.6	false
PFTrDA_1	663.0 / 619.0	4.31	900385.93	3358.112728	863.2	false
PFTrDA_2	663.0 / 169.0	4.30	58905.21	3341.156003	537.2	false
PFTeDA_1	713.0 / 669.0	4.52	1059427.19	3483.718043	1966.7	false
PFTeDA_2	713.0 / 169.0	4.52	52939.52	3594.022242	826.0	false
NMeFOSAA_1	570.0 / 419.0	3.61	154709.75	3226.808153	876.1	false
NMeFOSAA_2	570.0 / 512.0	3.61	84135.14	3206.461169	715.5	false
NetFOSAA_1	584.0 / 419.0	3.78	147365.99	3071.179194	1056.5	false
NetFOSAA_2	584.0 / 483.0	3.78	8510.52	3001.549172	602.6	false

Sample Name	J8698-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:10:06	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	2245.80	2.132522	16.7	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	2.30	4158.73	1.793351	12.0	false
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.32	5746.75	< 0	25.4	false
PFHxS_2	399.0 / 99.0	2.31	1672.30	< 0	27.2	false
PFOA_1	413.0 / 369.0	2.70	7393.22	11.123559	25.9	false
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	3.09	4169.87	< 0	19.9	false
PFNA_2	463.0 / 219.0	3.10	1811.19	< 0	36.6	false
PFOS_1	499.0 / 80.0	3.10	15439.81	29.560107	46.0	false
PFOS_2	499.0 / 99.0	3.10	3520.51	36.862624	39.6	false
PFDA_1	513.0 / 469.0	3.46	4585.64	< 0	29.1	false
PFDA_2	513.0 / 219.0	3.45	424.09	5.911623	10.9	false
PFUnA_1	563.0 / 519.0	3.78	3113.05	0.595197	29.5	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.07	2718.86	< 0	30.4	false
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.30	3074.87	< 0	74.3	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.51	2546.91	< 0	31.8	true
PFTeDA_2	713.0 / 169.0	4.51	210.63	< 0	23.6	false
NMeFOSAA_1	570.0 / 419.0	3.61	396.34	< 0	5444.3	false
NMeFOSAA_2	570.0 / 512.0	3.59	355.03	< 0	14.8	true
NetFOSAA_1	584.0 / 419.0	3.78	605.65	< 0	24.4	false
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8699-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:20:58	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	2.70	5171.03	3.778540	11.4	false
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	3.10	2874.67	< 0	17.9	false
PFNA_2	463.0 / 219.0	3.09	1311.40	< 0	19.5	false
PFOS_1	499.0 / 80.0	3.09	10217.97	24.583608	23.7	false
PFOS_2	499.0 / 99.0	3.10	1156.23	15.245150	26.3	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.77	1565.26	< 0	12.9	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.04	1163.46	< 0	16.0	false
PFDoA_2	613.0 / 319.0	4.04	531.77	< 0	17.7	false
PFTrDA_1	663.0 / 619.0	4.31	421.56	< 0	17.1	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.51	474.45	< 0	12.2	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8700-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:31:51	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.31	5977.16	0.303912	26.4	false
PFHxS_2	399.0 / 99.0	2.31	2581.12	6.293609	32.5	true
PFOA_1	413.0 / 369.0	2.70	19777.59	51.924835	50.2	false
PFOA_2	413.0 / 169.0	2.71	910.43	33.131519	27.2	false
PFNA_1	463.0 / 419.0	3.10	5846.38	< 0	24.6	false
PFNA_2	463.0 / 219.0	3.09	1549.09	< 0	32.1	false
PFOS_1	499.0 / 80.0	3.10	51743.63	109.824231	76.6	false
PFOS_2	499.0 / 99.0	3.10	6338.01	76.614139	83.5	false
PFDA_1	513.0 / 469.0	3.46	4183.50	< 0	30.7	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.78	2593.12	< 0	17.8	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.07	1723.77	< 0	28.1	false
PFDoA_2	613.0 / 319.0	4.04	561.88	< 0	12.1	false
PFTrDA_1	663.0 / 619.0	4.29	1012.42	< 0	33.8	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.51	872.72	< 0	21.9	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8701-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:42:44	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.30	2354.19	< 0	22.6	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	2.69	11593.96	15.743731	31.2	false
PFOA_2	413.0 / 169.0	2.69	675.04	13.284919	19.2	true
PFNA_1	463.0 / 419.0	3.08	3326.99	< 0	15.6	false
PFNA_2	463.0 / 219.0	3.07	311.76	< 0	7.3	false
PFOS_1	499.0 / 80.0	3.09	11746.07	20.749747	29.9	false
PFOS_2	499.0 / 99.0	3.10	1830.83	17.410992	24.8	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.05	933.83	< 0	16.4	false
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.29	1102.60	< 0	39.6	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.50	582.28	< 0	12.6	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8702-FS(3)	Injection Vial	23
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:53:34	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.32	1301.91	< 0	12.0	false
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	2.69	3657.78	< 0	11.2	false
PFOA_2	413.0 / 169.0	2.71	574.95	16.725075	11.0	false
PFNA_1	463.0 / 419.0	3.09	1959.53	< 0	11.5	false
PFNA_2	463.0 / 219.0	3.09	201.92	< 0	7.0	false
PFOS_1	499.0 / 80.0	3.09	3172.92	8.745473	13.7	false
PFOS_2	499.0 / 99.0	3.10	671.67	8.869660	13.5	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.05	771.50	< 0	14.1	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.32	916.05	< 0	32.9	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8703-FS(3)	Injection Vial	24
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:04:26	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	7855.14	22.770235	45.6	true
PFBS_2	298.9 / 99.0	1.55	3733.65	42.145622	46.9	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	2.29	8145.74	20.508264	17.4	false
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.31	432528.14	1486.186470	566.9	false
PFHxS_2	399.0 / 99.0	2.31	120353.92	1478.033698	462.8	false
PFOA_1	413.0 / 369.0	2.70	55970.11	175.161160	96.2	false
PFOA_2	413.0 / 169.0	2.70	4056.99	198.008328	69.0	false
PFNA_1	463.0 / 419.0	3.10	32099.65	102.154696	73.9	false
PFNA_2	463.0 / 219.0	3.10	10699.63	116.784518	110.4	false
PFOS_1	499.0 / 80.0	3.10	12934241.76	25183.067089	1434.4	false
PFOS_2	499.0 / 99.0	3.10	2425087.98	27196.752478	2248.2	false
PFDA_1	513.0 / 469.0	3.45	10228.56	11.779422	48.1	false
PFDA_2	513.0 / 219.0	3.46	447.90	11.616247	16.3	false
PFUnA_1	563.0 / 519.0	3.78	93526.53	303.134025	177.2	false
PFUnA_2	563.0 / 269.0	3.77	4723.33	317.805829	86.7	false
PFDoA_1	613.0 / 569.0	4.05	8981.09	1.732355	83.7	false
PFDoA_2	613.0 / 319.0	4.04	813.09	< 0	22.9	true
PFTrDA_1	663.0 / 619.0	4.30	34532.88	101.963978	234.6	false
PFTrDA_2	663.0 / 169.0	4.29	2810.24	130.629330	130.7	false
PFTeDA_1	713.0 / 669.0	4.51	1836.42	< 0	37.2	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8703-FS-D(5)	Injection Vial	25
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:15:17	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	3083.63	4.450095	23.8	true
PFBS_2	298.9 / 99.0	1.54	1013.73	7.495558	17.2	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.31	96145.33	280.010234	215.7	false
PFHxS_2	399.0 / 99.0	2.31	26749.20	274.168046	204.3	false
PFOA_1	413.0 / 369.0	2.70	16343.61	37.273422	46.9	false
PFOA_2	413.0 / 169.0	2.70	1198.58	44.789593	29.1	false
PFNA_1	463.0 / 419.0	3.10	11515.00	8.708239	39.4	false
PFNA_2	463.0 / 219.0	3.10	2944.21	5.429635	46.6	false
PFOS_1	499.0 / 80.0	3.10	2914950.08	5381.618479	801.9	false
PFOS_2	499.0 / 99.0	3.10	587555.69	6246.833158	1121.7	false
PFDA_1	513.0 / 469.0	3.45	4076.51	< 0	27.3	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.78	22952.52	63.143174	89.1	false
PFUnA_2	563.0 / 269.0	3.78	1832.93	117.423060	34.4	false
PFDoA_1	613.0 / 569.0	4.05	2214.46	< 0	32.6	false
PFDoA_2	613.0 / 319.0	4.02	441.83	< 0	12.9	true
PFTrDA_1	663.0 / 619.0	4.30	8897.02	< 0	173.9	false
PFTrDA_2	663.0 / 169.0	4.30	713.56	< 0	35.9	false
PFTeDA_1	713.0 / 669.0	4.50	577.84	< 0	21.7	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8704-FS(3)	Injection Vial	29
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:58:45	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	25530.38	71.991436	87.7	false
PFBS_2	298.9 / 99.0	1.54	7873.23	77.724774	81.4	false
PFHxA_1	313.0 / 269.0	1.87	48459.99	174.663455	17.6	false
PFHxA_2	313.0 / 119.0	1.87	3668.93	161.066121	13.0	false
PFHpA_1	363.0 / 319.0	2.29	16797.31	52.658454	31.7	false
PFHpA_2	363.0 / 169.0	2.29	965.56	105.962490	33.2	false
PFHxS_1	399.0 / 80.0	2.31	924891.11	2553.338222	674.4	false
PFHxS_2	399.0 / 99.0	2.31	262740.76	2596.829478	729.4	false
PFOA_1	413.0 / 369.0	2.69	66352.28	165.865184	122.7	false
PFOA_2	413.0 / 169.0	2.68	3468.09	131.276811	83.0	true
PFNA_1	463.0 / 419.0	3.09	17989.00	25.512354	52.4	false
PFNA_2	463.0 / 219.0	3.10	5348.64	27.212018	72.8	false
PFOS_1	499.0 / 80.0	3.09	13436798.63	23231.921212	1009.0	false
PFOS_2	499.0 / 99.0	3.09	2271236.88	22618.943269	1838.4	false
PFDA_1	513.0 / 469.0	3.44	3791.58	< 0	27.8	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.77	9506.14	14.448270	60.5	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.05	1978.43	< 0	28.0	false
PFDoA_2	613.0 / 319.0	4.02	324.04	< 0	9.8	false
PFTrDA_1	663.0 / 619.0	4.29	3149.23	< 0	70.2	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.49	595.10	< 0	12.7	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8704-FS-D(5)	Injection Vial	30
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:09:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	3735.09	6.012362	24.4	true
PFBS_2	298.9 / 99.0	1.55	989.08	6.723241	16.8	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	2.30	5166.92	4.234885	11.3	false
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.31	160537.27	442.695231	217.3	false
PFHxS_2	399.0 / 99.0	2.31	49045.03	481.811130	263.8	false
PFOA_1	413.0 / 369.0	2.69	17499.47	37.624749	46.4	false
PFOA_2	413.0 / 169.0	2.68	895.48	27.171214	23.8	true
PFNA_1	463.0 / 419.0	3.10	9415.55	1.073281	36.6	false
PFNA_2	463.0 / 219.0	3.09	2662.77	2.075775	37.8	false
PFOS_1	499.0 / 80.0	3.09	2413631.74	4486.363583	435.6	false
PFOS_2	499.0 / 99.0	3.09	424810.58	4547.043601	757.6	false
PFDA_1	513.0 / 469.0	3.45	2134.61	< 0	19.8	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.76	2915.99	< 0	24.8	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.05	1077.82	< 0	22.7	false
PFDoA_2	613.0 / 319.0	4.05	234.81	< 0	8.9	false
PFTrDA_1	663.0 / 619.0	4.29	1516.21	< 0	47.2	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.50	347.51	< 0	16.6	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8705-FS(3)	Injection Vial	32
Sample ID	VC-CS00-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:31:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	16622.29	64.205214	65.5	true
PFBS_2	298.9 / 99.0	1.54	5667.11	77.281282	55.8	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	2.29	5667.92	11.732350	14.3	false
PFHpA_2	363.0 / 169.0	2.28	167.27	< 0	8.6	false
PFHxS_1	399.0 / 80.0	2.31	206305.67	908.684405	262.6	false
PFHxS_2	399.0 / 99.0	2.31	58111.03	913.044046	250.0	false
PFOA_1	413.0 / 369.0	2.69	17215.95	56.293891	44.1	false
PFOA_2	413.0 / 169.0	2.69	1053.12	52.884047	28.5	false
PFNA_1	463.0 / 419.0	3.10	2782.28	< 0	16.3	false
PFNA_2	463.0 / 219.0	3.08	987.32	< 0	17.9	false
PFOS_1	499.0 / 80.0	3.08	1910827.04	4431.610039	338.2	false
PFOS_2	499.0 / 99.0	3.09	343579.71	4588.550570	647.7	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.30	774.50	< 0	21.7	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.49	531.20	< 0	13.7	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8706-FS(3)	Injection Vial	34
Sample ID	VC-CS00-SS05-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:53:02	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.31	3825.05	< 0	32.4	false
PFHxS_2	399.0 / 99.0	2.30	1267.07	< 0	16.2	false
PFOA_1	413.0 / 369.0	2.70	7933.50	9.619094	26.2	false
PFOA_2	413.0 / 169.0	2.69	904.40	29.074024	25.2	false
PFNA_1	463.0 / 419.0	3.10	4345.21	< 0	24.8	false
PFNA_2	463.0 / 219.0	3.09	1637.39	< 0	23.7	false
PFOS_1	499.0 / 80.0	3.09	51235.29	103.317280	107.7	false
PFOS_2	499.0 / 99.0	3.09	10432.55	119.471503	97.6	false
PFDA_1	513.0 / 469.0	3.44	4261.74	< 0	27.3	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.75	2295.15	< 0	20.8	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.04	1481.88	< 0	27.9	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.28	720.55	< 0	19.8	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.49	816.03	< 0	20.2	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8707-FS(3)	Injection Vial	35
Sample ID	VC-CS00-SB05-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:03:54	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	2778.80	4.661149	19.3	true
PFBS_2	298.9 / 99.0	1.55	979.40	8.557598	16.6	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	2.31	1236.87	< 0	17.5	true
PFOA_1	413.0 / 369.0	2.67	6521.63	6.307311	17.7	false
PFOA_2	413.0 / 169.0	2.71	285.36	0.042307	8.5	true
PFNA_1	463.0 / 419.0	3.09	2806.98	< 0	14.1	false
PFNA_2	463.0 / 219.0	3.08	448.65	< 0	11.7	true
PFOS_1	499.0 / 80.0	3.09	7743.17	17.354156	23.5	false
PFOS_2	499.0 / 99.0	3.08	1879.07	22.145206	21.1	false
PFDA_1	513.0 / 469.0	3.49	1263.13	< 0	12.2	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.30	280.52	< 0	14.7	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8708-FS(3)	Injection Vial	36
Sample ID	VC-CS00-SB05-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:14:46	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	27824.00	66.692951	103.2	false
PFBS_2	298.9 / 99.0	1.54	9295.63	78.484511	85.3	false
PFHxA_1	313.0 / 269.0	1.86	28484.16	83.067822	12.1	false
PFHxA_2	313.0 / 119.0	1.87	2209.82	70.888771	9.8	false
PFHpA_1	363.0 / 319.0	2.27	7690.20	10.065604	15.6	false
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.30	187346.21	460.302980	309.8	false
PFHxS_2	399.0 / 99.0	2.30	55920.08	489.008534	356.3	false
PFOA_1	413.0 / 369.0	2.68	10576.14	12.124965	28.1	false
PFOA_2	413.0 / 169.0	2.69	704.96	13.583049	20.0	true
PFNA_1	463.0 / 419.0	3.09	3016.94	< 0	16.4	false
PFNA_2	463.0 / 219.0	3.10	1555.89	< 0	32.1	false
PFOS_1	499.0 / 80.0	3.09	16938.04	29.658554	35.8	false
PFOS_2	499.0 / 99.0	3.09	5127.66	48.986381	40.4	false
PFDA_1	513.0 / 469.0	3.44	1831.17	< 0	13.1	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.76	1032.49	< 0	11.1	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.28	431.24	< 0	19.5	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8709-FS(3)	Injection Vial	37
Sample ID	VC-CS00-SS06-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:25:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.30	3803.35	< 0	27.5	false
PFHxS_2	399.0 / 99.0	2.29	864.69	< 0	11.2	true
PFOA_1	413.0 / 369.0	2.69	12015.25	29.352584	36.0	false
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	3.09	7500.76	< 0	37.1	false
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.09	33703.94	68.848156	55.6	false
PFOS_2	499.0 / 99.0	3.09	6320.18	72.822911	58.9	false
PFDA_1	513.0 / 469.0	3.44	3273.23	< 0	24.0	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.76	1554.62	< 0	15.4	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.05	1581.09	< 0	20.2	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.28	953.91	< 0	33.4	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8710-FS(3)	Injection Vial	38
Sample ID	VC-CS00-SB06-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:36:28	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.32	2360.08	< 0	16.3	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	2.69	7116.56	8.274997	23.6	false
PFOA_2	413.0 / 169.0	2.69	232.87	< 0	12.2	false
PFNA_1	463.0 / 419.0	3.08	2444.11	< 0	16.9	false
PFNA_2	463.0 / 219.0	3.08	1055.12	< 0	18.2	false
PFOS_1	499.0 / 80.0	3.08	10263.44	21.298597	20.6	false
PFOS_2	499.0 / 99.0	3.10	2068.53	23.036779	24.5	false
PFDA_1	513.0 / 469.0	3.45	1003.92	< 0	13.6	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.27	382.27	< 0	14.8	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	3.57	191.29	< 0	97.9	false
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8711-FS(3)	Injection Vial	41
Sample ID	VC-CS00-SB06-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:09:04	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	2.70	2519.70	< 0	11.4	false
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	3.08	3747.16	< 0	22.1	false
PFNA_2	463.0 / 219.0	3.08	825.35	< 0	19.0	false
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	3.47	2192.33	< 0	15.4	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.75	1869.68	< 0	15.4	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.28	760.28	< 0	20.7	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NetFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NetFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8712MS-FS(3)	Injection Vial	42
Sample ID	VC-CS00-SB06-0506-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:19:56	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	1540425.86	5199.936246	973.0	false
PFBS_2	298.9 / 99.0	1.54	459205.61	5280.188952	879.0	false
PFHxA_1	313.0 / 269.0	1.86	1088133.17	4869.058179	129.7	false
PFHxA_2	313.0 / 119.0	1.86	82039.82	4912.446688	100.1	false
PFHpA_1	363.0 / 319.0	2.27	1043494.44	4897.343296	372.0	false
PFHpA_2	363.0 / 169.0	2.27	22259.69	4868.606229	259.7	false
PFHxS_1	399.0 / 80.0	2.30	1563094.01	5452.710953	750.5	false
PFHxS_2	399.0 / 99.0	2.30	429676.34	5370.693201	851.9	false
PFOA_1	413.0 / 369.0	2.69	1516714.74	5025.474945	732.4	false
PFOA_2	413.0 / 169.0	2.69	95153.73	4855.147562	495.3	false
PFNA_1	463.0 / 419.0	3.08	1463835.44	6104.721196	696.0	false
PFNA_2	463.0 / 219.0	3.08	456157.39	6168.183973	831.3	false
PFOS_1	499.0 / 80.0	3.08	2372906.58	4770.585451	569.6	false
PFOS_2	499.0 / 99.0	3.08	404906.91	4687.764387	689.7	false
PFDA_1	513.0 / 469.0	3.44	1697071.18	4972.606521	716.6	false
PFDA_2	513.0 / 219.0	3.44	69476.94	4939.451913	470.2	false
PFUnA_1	563.0 / 519.0	3.76	1680756.72	5194.395955	602.0	false
PFUnA_2	563.0 / 269.0	3.76	88407.69	5498.693199	431.5	false
PFDoA_1	613.0 / 569.0	4.04	1649985.16	5172.251055	783.1	false
PFDoA_2	613.0 / 319.0	4.04	265963.49	5348.828137	539.3	false
PFTrDA_1	663.0 / 619.0	4.28	1531465.32	5008.521416	1162.7	false
PFTrDA_2	663.0 / 169.0	4.28	101423.33	5046.900069	751.2	false
PFTeDA_1	713.0 / 669.0	4.49	1753797.93	5059.314163	1879.8	false
PFTeDA_2	713.0 / 169.0	4.49	85154.86	5072.129215	1270.6	false
NMeFOSAA_1	570.0 / 419.0	3.59	235805.22	5124.703290	1199.4	false
NMeFOSAA_2	570.0 / 512.0	3.59	139211.41	5569.460423	915.1	false
NetFOSAA_1	584.0 / 419.0	3.76	232397.54	5626.594796	912.4	false
NetFOSAA_2	584.0 / 483.0	3.76	15280.70	6317.014953	735.7	false

Sample Name	J8713MSD-FS(3)	Injection Vial	43
Sample ID	VC-CS00-SB06-0506-MSD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:30:48	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	1809172.63	5005.695173	1183.8	false
PFBS_2	298.9 / 99.0	1.54	524767.21	4945.765334	833.1	false
PFHxA_1	313.0 / 269.0	1.87	1249202.66	5175.096507	132.6	false
PFHxA_2	313.0 / 119.0	1.86	98623.75	5470.849637	111.0	false
PFHpA_1	363.0 / 319.0	2.28	1215893.63	4798.453899	409.4	false
PFHpA_2	363.0 / 169.0	2.28	22282.80	4084.352089	269.2	false
PFHxS_1	399.0 / 80.0	2.30	1793924.08	4931.319864	946.7	false
PFHxS_2	399.0 / 99.0	2.30	501843.74	4942.896175	1339.9	false
PFOA_1	413.0 / 369.0	2.69	1694852.97	4869.581039	799.2	false
PFOA_2	413.0 / 169.0	2.69	102689.11	4542.979847	577.4	false
PFNA_1	463.0 / 419.0	3.08	1593791.33	5155.905001	736.9	false
PFNA_2	463.0 / 219.0	3.08	517488.08	5429.921939	928.5	false
PFOS_1	499.0 / 80.0	3.08	2708729.12	4966.000010	562.8	false
PFOS_2	499.0 / 99.0	3.08	501731.32	5297.051267	995.1	false
PFDA_1	513.0 / 469.0	3.44	1992252.00	5027.697993	770.0	false
PFDA_2	513.0 / 219.0	3.44	79737.39	4881.978789	524.7	false
PFUnA_1	563.0 / 519.0	3.76	1967337.02	4982.219713	629.1	false
PFUnA_2	563.0 / 269.0	3.76	93336.15	4757.423432	403.0	false
PFDoA_1	613.0 / 569.0	4.04	1885536.26	5035.704271	869.3	false
PFDoA_2	613.0 / 319.0	4.04	304272.00	5213.207908	674.1	false
PFTrDA_1	663.0 / 619.0	4.28	1810836.33	5185.016871	1097.9	false
PFTrDA_2	663.0 / 169.0	4.28	113875.93	4959.427852	716.7	false
PFTeDA_1	713.0 / 669.0	4.49	2037925.75	5146.729729	2260.7	false
PFTeDA_2	713.0 / 169.0	4.49	99119.39	5168.745082	1240.3	false
NMeFOSAA_1	570.0 / 419.0	3.59	291070.31	5217.382827	777.0	false
NMeFOSAA_2	570.0 / 512.0	3.59	163886.96	5403.601714	655.0	false
NetFOSAA_1	584.0 / 419.0	3.75	278661.92	5170.294393	952.7	false
NetFOSAA_2	584.0 / 483.0	3.75	16707.24	5283.803624	790.3	false

Sample Name	KB80 IB	Injection Vial	9
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	91698.47	244.195426	1281.1	false
d3-MeFOSAA	573.0 / 419.0	3.61	16302.89	260.004961	195.5	false
d5-EtFOSAA	589.0 / 419.0	3.78	17051.45	239.580705	212.6	false
13C5-PFHxA	318.0 / 273.0	1.87	61987.66	244.293373	826.7	false
13C4-PFHxA	367.0 / 322.0	2.28	70438.43	244.000657	1152.0	false
13C8-PFOA	421.0 / 376.0	2.70	88535.23	252.114367	1604.4	false
13C9-PFNA	472.0 / 427.0	3.09	100138.19	249.732890	1149.5	false
13C6-PFDA	519.0 / 474.0	3.45	97258.51	257.077741	4005.3	false
13C7-PFUnA	570.0 / 525.0	3.78	88898.52	254.380465	800.7	false
13C2-PFTeDA	715.0 / 670.0	4.54	70451.22	232.374509	2131.0	false
13C3-PFBS	302.0 / 99.0	1.55	25201.92	220.626542	798.1	false
13C3-PFHxS	402.0 / 99.0	2.31	25094.63	242.439381	606.8	false
13C8-PFOS	507.0 / 99.0	3.09	26831.98	229.467599	276.5	false

Sample Name	CR992PB-FS(3)	Injection Vial	17
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:48:24	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	85252.48	269.312819	781.1	false
d3-MeFOSAA	573.0 / 419.0	3.61	11620.13	225.069742	219.7	false
d5-EtFOSAA	589.0 / 419.0	3.77	11935.10	203.660157	165.2	false
13C5-PFHxA	318.0 / 273.0	1.87	47387.62	226.244132	606.5	false
13C4-PFHxA	367.0 / 322.0	2.28	58429.34	245.198779	867.4	false
13C8-PFOA	421.0 / 376.0	2.70	75701.63	261.151609	932.2	false
13C9-PFNA	472.0 / 427.0	3.09	74974.95	226.515638	1044.4	false
13C6-PFDA	519.0 / 474.0	3.45	82907.29	259.958573	766.9	false
13C7-PFUnA	570.0 / 525.0	3.77	71911.76	244.097718	618.3	false
13C2-PFTeDA	715.0 / 670.0	4.52	72926.43	285.337913	1664.9	false
13C3-PFBS	302.0 / 99.0	1.54	21330.87	226.788987	332.7	false
13C3-PFHxS	402.0 / 99.0	2.31	20343.96	238.697048	381.3	false
13C8-PFOS	507.0 / 99.0	3.09	26627.84	276.562851	230.0	false

Sample Name	CR993LCS-FS(3)	Injection Vial	18
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:59:15	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	77964.87	228.201102	1358.4	false
d3-MeFOSAA	573.0 / 419.0	3.61	12639.02	230.974599	157.9	false
d5-EtFOSAA	589.0 / 419.0	3.77	13269.95	213.645545	160.6	false
13C5-PFHxA	318.0 / 273.0	1.87	46980.86	219.660535	621.3	false
13C4-PFHxA	367.0 / 322.0	2.28	52623.26	216.263730	1717.4	false
13C8-PFOA	421.0 / 376.0	2.70	70715.53	238.902579	1256.4	false
13C9-PFNA	472.0 / 427.0	3.09	76778.15	227.163320	1413.3	false
13C6-PFDA	519.0 / 474.0	3.44	76487.62	222.213975	13629.1	false
13C7-PFUnA	570.0 / 525.0	3.76	69806.64	219.547906	682.8	false
13C2-PFTeDA	715.0 / 670.0	4.51	69664.70	252.555054	1276.0	false
13C3-PFBS	302.0 / 99.0	1.54	20130.35	201.933939	402.8	false
13C3-PFHxS	402.0 / 99.0	2.30	17936.51	198.561093	324.6	false
13C8-PFOS	507.0 / 99.0	3.09	22182.42	217.375957	217.1	false

Sample Name	J8698-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:10:06	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	83870.70	236.789588	1793.1	false
d3-MeFOSAA	573.0 / 419.0	3.60	11579.63	200.818199	230.7	false
d5-EtFOSAA	589.0 / 419.0	3.77	13639.13	208.386102	178.6	false
13C5-PFHxA	318.0 / 273.0	1.86	48301.74	233.422261	637.0	false
13C4-PFHxA	367.0 / 322.0	2.28	56284.39	239.079544	721.0	false
13C8-PFOA	421.0 / 376.0	2.69	70129.98	244.882786	1121.3	false
13C9-PFNA	472.0 / 427.0	3.09	78561.56	240.247644	1901.2	false
13C6-PFDA	519.0 / 474.0	3.44	83237.40	233.255703	3085.6	false
13C7-PFUnA	570.0 / 525.0	3.76	70732.06	214.576627	813.3	false
13C2-PFTeDA	715.0 / 670.0	4.51	69641.85	243.527025	1662.3	false
13C3-PFBS	302.0 / 99.0	1.53	23298.59	221.791690	379.7	false
13C3-PFHxS	402.0 / 99.0	2.30	20401.84	214.330116	285.9	false
13C8-PFOS	507.0 / 99.0	3.08	27611.37	256.772290	246.7	false

Sample Name	J8699-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:20:58	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	77801.80	224.626333	835.0	false
d3-MeFOSAA	573.0 / 419.0	3.60	9457.21	161.870162	202.4	false
d5-EtFOSAA	589.0 / 419.0	3.76	9069.37	136.758474	178.1	false
13C5-PFHxA	318.0 / 273.0	1.87	43613.05	189.811428	784.7	false
13C4-PFHxA	367.0 / 322.0	2.28	54365.34	207.971031	957.4	false
13C8-PFOA	421.0 / 376.0	2.69	68076.12	214.079794	1140.9	false
13C9-PFNA	472.0 / 427.0	3.08	68631.39	189.015821	821.2	false
13C6-PFDA	519.0 / 474.0	3.44	75644.30	216.774725	913.0	false
13C7-PFUnA	570.0 / 525.0	3.76	68631.95	212.917403	670.8	false
13C2-PFTeDA	715.0 / 670.0	4.51	62921.70	225.006994	1217.2	false
13C3-PFBS	302.0 / 99.0	1.53	19928.32	187.232549	485.0	false
13C3-PFHxS	402.0 / 99.0	2.30	18151.65	188.202352	292.9	false
13C8-PFOS	507.0 / 99.0	3.08	22027.41	202.170968	199.7	false

Sample Name	J8700-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:31:51	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	82852.06	240.464469	1183.4	false
d3-MeFOSAA	573.0 / 419.0	3.60	9050.22	138.223886	139.1	false
d5-EtFOSAA	589.0 / 419.0	3.76	12159.40	163.609857	166.8	false
13C5-PFHxA	318.0 / 273.0	1.86	46362.87	190.843398	529.5	false
13C4-PFHxA	367.0 / 322.0	2.28	54607.50	197.575902	844.7	false
13C8-PFOA	421.0 / 376.0	2.69	73500.18	218.610095	1421.5	false
13C9-PFNA	472.0 / 427.0	3.09	76992.69	200.551449	1311.8	false
13C6-PFDA	519.0 / 474.0	3.44	80156.12	230.911588	1012.8	false
13C7-PFUnA	570.0 / 525.0	3.76	77729.26	242.407428	862.6	false
13C2-PFTeDA	715.0 / 670.0	4.51	73376.38	263.771829	1441.1	false
13C3-PFBS	302.0 / 99.0	1.53	23209.18	194.576669	357.3	false
13C3-PFHxS	402.0 / 99.0	2.30	20943.50	193.766432	283.8	false
13C8-PFOS	507.0 / 99.0	3.09	23934.61	196.020691	217.6	false

Sample Name	J8701-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:42:44	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	105720.61	252.999975	1057.5	false
d3-MeFOSAA	573.0 / 419.0	3.60	13848.94	187.302051	219.6	false
d5-EtFOSAA	589.0 / 419.0	3.76	13308.95	158.578182	281.9	false
13C5-PFHxA	318.0 / 273.0	1.86	69503.27	276.783468	783.3	false
13C4-PFHxA	367.0 / 322.0	2.27	78160.08	273.586557	1705.4	false
13C8-PFOA	421.0 / 376.0	2.69	93534.47	269.142042	5918.7	false
13C9-PFNA	472.0 / 427.0	3.08	97945.94	246.825952	1009.2	false
13C6-PFDA	519.0 / 474.0	3.44	110931.50	263.497871	1271.1	false
13C7-PFUnA	570.0 / 525.0	3.76	97760.43	251.384051	1102.1	false
13C2-PFTeDA	715.0 / 670.0	4.50	92901.35	275.364141	1711.2	false
13C3-PFBS	302.0 / 99.0	1.53	28930.76	214.779533	487.4	false
13C3-PFHxS	402.0 / 99.0	2.30	27500.67	225.306954	298.1	false
13C8-PFOS	507.0 / 99.0	3.08	30757.29	223.062074	201.2	false

Sample Name	J8702-FS(3)	Injection Vial	23
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:53:34	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	79108.86	251.558273	1199.9	false
d3-MeFOSAA	573.0 / 419.0	3.60	7787.34	149.016234	139.6	false
d5-EtFOSAA	589.0 / 419.0	3.76	8775.05	147.933886	164.4	false
13C5-PFHxA	318.0 / 273.0	1.86	47764.38	219.804372	675.3	false
13C4-PFHxA	367.0 / 322.0	2.28	52857.80	213.804183	633.5	false
13C8-PFOA	421.0 / 376.0	2.69	70866.13	235.638328	868.5	false
13C9-PFNA	472.0 / 427.0	3.08	72052.37	209.821516	953.5	false
13C6-PFDA	519.0 / 474.0	3.44	74172.83	234.109880	1313.3	false
13C7-PFUnA	570.0 / 525.0	3.76	68623.00	234.475209	660.7	false
13C2-PFTeDA	715.0 / 670.0	4.51	68483.05	269.724924	1293.7	false
13C3-PFBS	302.0 / 99.0	1.53	22372.96	235.003761	516.8	false
13C3-PFHxA	402.0 / 99.0	2.30	19452.23	225.485726	279.6	false
13C8-PFOS	507.0 / 99.0	3.08	22922.89	235.215161	197.9	false

Sample Name	J8703-FS(3)	Injection Vial	24
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:04:26	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	80355.13	230.288876	1052.7	false
d3-MeFOSAA	573.0 / 419.0	3.60	10531.98	196.914073	135.1	false
d5-EtFOSAA	589.0 / 419.0	3.76	11567.53	190.537730	194.1	false
13C5-PFHxA	318.0 / 273.0	1.87	50024.43	216.120302	923.0	false
13C4-PFHxA	367.0 / 322.0	2.28	58369.01	221.651497	886.4	false
13C8-PFOA	421.0 / 376.0	2.69	73316.58	228.870935	1842.3	false
13C9-PFNA	472.0 / 427.0	3.08	71812.94	196.329567	953.5	false
13C6-PFDA	519.0 / 474.0	3.44	73760.03	209.817582	1986.9	false
13C7-PFUnA	570.0 / 525.0	3.76	71180.24	219.196000	606.7	false
13C2-PFTeDA	715.0 / 670.0	4.50	66744.62	236.919146	1576.3	false
13C3-PFBS	302.0 / 99.0	1.54	22142.80	227.251401	402.2	false
13C3-PFHxS	402.0 / 99.0	2.30	20174.97	228.499381	264.9	false
13C8-PFOS	507.0 / 99.0	3.08	25285.39	253.506019	202.2	false

Sample Name	J8703-FS-D(5)	Injection Vial	25
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:15:17	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	87461.19	223.194964	1249.3	false
d3-MeFOSAA	573.0 / 419.0	3.60	12412.03	191.499007	197.2	false
d5-EtFOSAA	589.0 / 419.0	3.76	13021.83	176.998404	196.1	false
13C5-PFHxA	318.0 / 273.0	1.86	52445.09	216.041680	700.4	false
13C4-PFHxA	367.0 / 322.0	2.28	61715.05	223.459433	1568.9	false
13C8-PFOA	421.0 / 376.0	2.69	77710.90	231.307457	1185.0	false
13C9-PFNA	472.0 / 427.0	3.08	83838.41	218.547194	3689.4	false
13C6-PFDA	519.0 / 474.0	3.44	85866.70	217.497943	1052.8	false
13C7-PFUnA	570.0 / 525.0	3.76	74870.89	205.303217	704.9	false
13C2-PFTeDA	715.0 / 670.0	4.51	77756.60	245.771071	1757.0	false
13C3-PFBS	302.0 / 99.0	1.53	24589.32	208.246339	469.7	false
13C3-PFHxS	402.0 / 99.0	2.30	22445.11	209.773671	414.4	false
13C8-PFOS	507.0 / 99.0	3.08	26621.95	220.249694	236.2	false

Sample Name	J8704-FS(3)	Injection Vial	29
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:58:45	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	92367.72	206.228091	1451.7	false
d3-MeFOSAA	573.0 / 419.0	3.59	12100.75	194.565738	200.9	false
d5-EtFOSAA	589.0 / 419.0	3.75	12577.38	178.163245	221.7	false
13C5-PFHxA	318.0 / 273.0	1.86	58989.01	208.279637	607.1	false
13C4-PFHxA	367.0 / 322.0	2.27	66559.20	206.565926	1801.4	false
13C8-PFOA	421.0 / 376.0	2.69	91379.79	233.131435	1240.6	false
13C9-PFNA	472.0 / 427.0	3.08	93193.13	208.223178	1959.0	false
13C6-PFDA	519.0 / 474.0	3.43	97593.81	216.277465	986.9	false
13C7-PFUnA	570.0 / 525.0	3.75	93050.47	223.233798	1010.5	false
13C2-PFTeDA	715.0 / 670.0	4.50	84382.78	233.348977	1783.3	false
13C3-PFBS	302.0 / 99.0	1.53	26294.67	232.075334	366.8	false
13C3-PFHxS	402.0 / 99.0	2.30	25271.15	246.141281	389.8	false
13C8-PFOS	507.0 / 99.0	3.08	28581.25	246.426289	218.5	false

Sample Name	J8704-FS-D(5)	Injection Vial	30
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:09:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	92782.96	271.468389	1418.1	false
d3-MeFOSAA	573.0 / 419.0	3.60	12301.34	225.664821	264.4	false
d5-EtFOSAA	589.0 / 419.0	3.76	12693.93	205.154494	214.9	false
13C5-PFHxA	318.0 / 273.0	1.86	61610.21	269.083385	940.7	false
13C4-PFHxA	367.0 / 322.0	2.27	62663.60	240.560561	1044.5	false
13C8-PFOA	421.0 / 376.0	2.69	82652.97	260.836072	937.1	false
13C9-PFNA	472.0 / 427.0	3.08	84031.06	232.243479	721.6	false
13C6-PFDA	519.0 / 474.0	3.44	91244.52	264.983745	848.2	false
13C7-PFUnA	570.0 / 525.0	3.75	86209.04	271.030172	1076.0	false
13C2-PFTeDA	715.0 / 670.0	4.50	80923.83	293.259424	1926.1	false
13C3-PFBS	302.0 / 99.0	1.53	25765.89	259.455978	480.4	false
13C3-PFHxS	402.0 / 99.0	2.30	24226.32	269.218128	275.8	false
13C8-PFOS	507.0 / 99.0	3.08	26578.17	261.449739	224.2	false

Sample Name	J8705-FS(3)	Injection Vial	32
Sample ID	VC-CS00-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:31:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	70483.83	207.672554	1161.4	false
d3-MeFOSAA	573.0 / 419.0	3.59	9307.63	169.919720	192.8	false
d5-EtFOSAA	589.0 / 419.0	3.75	10683.78	171.831689	186.0	false
13C5-PFHxA	318.0 / 273.0	1.86	41177.15	184.796398	644.5	false
13C4-PFHxA	367.0 / 322.0	2.27	52112.90	205.568847	717.8	false
13C8-PFOA	421.0 / 376.0	2.68	60068.10	194.785271	1092.2	false
13C9-PFNA	472.0 / 427.0	3.08	64760.50	183.914901	3594.3	false
13C6-PFDA	519.0 / 474.0	3.43	73853.97	215.985639	960.9	false
13C7-PFUnA	570.0 / 525.0	3.75	63795.03	201.971575	823.2	false
13C2-PFTeDA	715.0 / 670.0	4.50	60666.33	221.391976	1370.2	false
13C3-PFBS	302.0 / 99.0	1.53	19030.38	190.703852	325.1	false
13C3-PFHxS	402.0 / 99.0	2.30	15905.24	175.893767	385.8	false
13C8-PFOS	507.0 / 99.0	3.08	21288.56	208.402473	199.2	false

Sample Name	J8706-FS(3)	Injection Vial	34
Sample ID	VC-CS00-SS05-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:53:02	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	83959.80	243.798587	1212.1	false
d3-MeFOSAA	573.0 / 419.0	3.60	9523.73	160.061954	172.5	false
d5-EtFOSAA	589.0 / 419.0	3.76	11337.40	167.868089	216.7	false
13C5-PFHxA	318.0 / 273.0	1.86	52222.46	225.639814	824.8	false
13C4-PFHxA	367.0 / 322.0	2.28	59554.17	226.175460	881.2	false
13C8-PFOA	421.0 / 376.0	2.69	79824.34	249.211899	1270.7	false
13C9-PFNA	472.0 / 427.0	3.08	78936.76	215.827728	1355.9	false
13C6-PFDA	519.0 / 474.0	3.44	82985.76	239.179943	1088.5	false
13C7-PFUnA	570.0 / 525.0	3.75	71861.66	224.218175	773.9	false
13C2-PFTeDA	715.0 / 670.0	4.50	71537.72	257.287908	1303.6	false
13C3-PFBS	302.0 / 99.0	1.54	22980.30	212.003926	359.6	false
13C3-PFHxS	402.0 / 99.0	2.30	20247.86	206.141533	271.0	false
13C8-PFOS	507.0 / 99.0	3.08	25022.48	225.508635	261.4	false

Sample Name	J8707-FS(3)	Injection Vial	35
Sample ID	VC-CS00-SB05-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:03:54	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	94852.87	312.856147	951.8	false
d3-MeFOSAA	573.0 / 419.0	3.59	9826.88	191.428043	203.7	false
d5-EtFOSAA	589.0 / 419.0	3.75	11673.43	200.337402	141.0	false
13C5-PFHxA	318.0 / 273.0	1.86	49455.91	242.795338	573.5	false
13C4-PFHxA	367.0 / 322.0	2.27	61630.07	265.943691	1150.2	false
13C8-PFOA	421.0 / 376.0	2.69	75742.34	268.680313	4598.7	false
13C9-PFNA	472.0 / 427.0	3.08	82873.97	257.460001	1006.2	false
13C6-PFDA	519.0 / 474.0	3.43	84364.65	276.195189	1578.7	false
13C7-PFUnA	570.0 / 525.0	3.75	84049.09	297.879770	926.6	false
13C2-PFTeDA	715.0 / 670.0	4.49	75136.20	306.950232	1364.0	false
13C3-PFBS	302.0 / 99.0	1.53	21701.37	232.051304	353.8	false
13C3-PFHxS	402.0 / 99.0	2.30	22005.52	259.672982	280.7	false
13C8-PFOS	507.0 / 99.0	3.08	25027.46	261.431734	195.3	false

Sample Name	J8708-FS(3)	Injection Vial	36
Sample ID	VC-CS00-SB05-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:14:46	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	110845.72	273.377706	986.9	false
d3-MeFOSAA	573.0 / 419.0	3.59	15914.31	235.965074	226.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	17454.82	228.007383	250.6	false
13C5-PFHxA	318.0 / 273.0	1.85	61838.83	240.942171	658.0	false
13C4-PFHxA	367.0 / 322.0	2.27	74724.51	255.911303	1143.8	false
13C8-PFOA	421.0 / 376.0	2.68	96640.11	272.072051	1740.8	false
13C9-PFNA	472.0 / 427.0	3.07	98347.69	242.485189	1295.7	false
13C6-PFDA	519.0 / 474.0	3.43	111888.01	273.898148	1109.0	false
13C7-PFUnA	570.0 / 525.0	3.75	97144.37	257.439731	701.5	false
13C2-PFTeDA	715.0 / 670.0	4.49	98174.12	299.892549	1515.2	false
13C3-PFBS	302.0 / 99.0	1.52	30758.22	250.338777	503.4	false
13C3-PFHxS	402.0 / 99.0	2.29	27201.96	244.323564	331.3	false
13C8-PFOS	507.0 / 99.0	3.07	30044.14	238.875331	259.9	false

Sample Name	J8709-FS(3)	Injection Vial	37
Sample ID	VC-CS00-SS06-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:25:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	81256.33	199.957787	928.5	false
d3-MeFOSAA	573.0 / 419.0	3.59	8754.29	131.285384	190.3	false
d5-EtFOSAA	589.0 / 419.0	3.75	10611.86	140.204052	145.5	false
13C5-PFHxA	318.0 / 273.0	1.86	48079.30	212.080081	824.1	false
13C4-PFHxA	367.0 / 322.0	2.27	54916.90	212.923051	1015.6	false
13C8-PFOA	421.0 / 376.0	2.68	67296.79	214.491993	1459.2	false
13C9-PFNA	472.0 / 427.0	3.08	75270.46	210.104751	2103.8	false
13C6-PFDA	519.0 / 474.0	3.43	75799.67	185.144089	991.2	false
13C7-PFUnA	570.0 / 525.0	3.75	72689.28	192.205280	871.6	false
13C2-PFTeDA	715.0 / 670.0	4.49	69388.07	211.490291	1299.1	false
13C3-PFBS	302.0 / 99.0	1.53	21995.79	181.068080	334.1	false
13C3-PFHxS	402.0 / 99.0	2.30	19262.51	174.990150	419.5	false
13C8-PFOS	507.0 / 99.0	3.07	24921.93	200.414295	232.6	false

Sample Name	J8710-FS(3)	Injection Vial	38
Sample ID	VC-CS00-SB06-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:36:28	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	82900.18	212.101249	1054.6	false
d3-MeFOSAA	573.0 / 419.0	3.59	12750.71	193.786995	239.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	11291.90	151.192660	211.3	false
13C5-PFHxA	318.0 / 273.0	1.86	51294.72	216.754644	793.0	false
13C4-PFHxA	367.0 / 322.0	2.27	57987.69	215.380532	1104.6	false
13C8-PFOA	421.0 / 376.0	2.68	75711.68	231.171148	1495.5	false
13C9-PFNA	472.0 / 427.0	3.07	77475.89	207.172351	958.8	false
13C6-PFDA	519.0 / 474.0	3.43	84529.06	214.662032	955.5	false
13C7-PFUnA	570.0 / 525.0	3.74	75672.71	208.037129	794.3	false
13C2-PFTeDA	715.0 / 670.0	4.49	79215.34	251.027660	1414.3	false
13C3-PFBS	302.0 / 99.0	1.53	22374.48	186.659520	369.2	false
13C3-PFHxS	402.0 / 99.0	2.29	20734.56	190.893151	273.8	false
13C8-PFOS	507.0 / 99.0	3.07	25820.42	210.428757	246.9	false

Sample Name	J8711-FS(3)	Injection Vial	41
Sample ID	VC-CS00-SB06-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:09:04	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	84884.28	212.666822	1267.1	false
d3-MeFOSAA	573.0 / 419.0	3.58	11687.53	182.405170	146.8	false
d5-EtFOSAA	589.0 / 419.0	3.74	14109.26	193.995770	206.1	false
13C5-PFHxA	318.0 / 273.0	1.85	53418.73	204.437598	829.2	false
13C4-PFHxA	367.0 / 322.0	2.27	60950.94	205.032371	1028.1	false
13C8-PFOA	421.0 / 376.0	2.68	74759.23	206.731648	1661.1	false
13C9-PFNA	472.0 / 427.0	3.07	76893.41	186.219773	1177.9	false
13C6-PFDA	519.0 / 474.0	3.42	80408.90	199.957631	695.3	false
13C7-PFUnA	570.0 / 525.0	3.74	79089.23	212.913681	706.2	false
13C2-PFTeDA	715.0 / 670.0	4.49	73232.06	227.247030	2456.5	false
13C3-PFBS	302.0 / 99.0	1.53	21599.41	185.039131	351.3	false
13C3-PFHxS	402.0 / 99.0	2.29	21278.52	201.169078	303.9	false
13C8-PFOS	507.0 / 99.0	3.07	26539.81	222.107946	267.6	false

Sample Name	J8712MS-FS(3)	Injection Vial	42
Sample ID	VC-CS00-SB06-0506-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:19:56	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	87658.15	208.369378	951.9	false
d3-MeFOSAA	573.0 / 419.0	3.59	12069.13	192.813263	124.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	11216.84	157.872021	159.6	false
13C5-PFHxA	318.0 / 273.0	1.85	56328.69	227.894204	840.0	false
13C4-PFHxA	367.0 / 322.0	2.26	60486.47	215.098193	52343.9	false
13C8-PFOA	421.0 / 376.0	2.68	75015.07	219.294182	1649.4	false
13C9-PFNA	472.0 / 427.0	3.07	71979.04	184.280410	1046.0	false
13C6-PFDA	519.0 / 474.0	3.43	81691.56	192.743708	1289.0	false
13C7-PFUnA	570.0 / 525.0	3.74	76938.88	196.517517	629.7	false
13C2-PFTeDA	715.0 / 670.0	4.49	79708.79	234.677957	1719.2	false
13C3-PFBS	302.0 / 99.0	1.52	23638.47	207.294454	388.8	false
13C3-PFHxS	402.0 / 99.0	2.29	19960.14	193.165691	322.5	false
13C8-PFOS	507.0 / 99.0	3.07	24819.47	212.620608	273.4	false

Sample Name	J8713MSD-FS(3)	Injection Vial	43
Sample ID	VC-CS00-SB06-0506-MSD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:30:48	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	102872.79	270.934137	1312.8	false
d3-MeFOSAA	573.0 / 419.0	3.58	14643.22	216.241670	112.5	false
d5-EtFOSAA	589.0 / 419.0	3.74	14895.37	193.788332	175.2	false
13C5-PFHxA	318.0 / 273.0	1.85	60867.34	261.833863	615.3	false
13C4-PFHxA	367.0 / 322.0	2.27	71926.32	271.959500	783.9	false
13C8-PFOA	421.0 / 376.0	2.68	86500.84	268.866573	4426.8	false
13C9-PFNA	472.0 / 427.0	3.07	92700.06	252.342863	1285.2	false
13C6-PFDA	519.0 / 474.0	3.43	94854.27	247.959915	3864.9	false
13C7-PFUnA	570.0 / 525.0	3.74	93885.13	265.689141	1119.4	false
13C2-PFTeDA	715.0 / 670.0	4.49	91061.91	297.046512	1326.7	false
13C3-PFBS	302.0 / 99.0	1.53	28838.60	233.767484	599.7	false
13C3-PFHxS	402.0 / 99.0	2.29	25402.98	227.244213	289.7	false
13C8-PFOS	507.0 / 99.0	3.07	27044.12	214.154546	200.7	false



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Sample Name	KB80 IB	Injection Vial	2
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:53:06	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NETFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true



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Sample Name	CR992PB-FS(3)	Injection Vial	15
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:14:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NETFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true



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Sample Name	CR993LCS-FS(3)	Injection Vial	16
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:25:17	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	3.76	178055.65	3257.702066	909.3	false
NETFOSAA_2	584.0 / 483.0	3.76	11540.72	3528.832395	2458.1	false



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Sample Name	J8698-FS(3)	Injection Vial	17
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:36:10	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NETFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8699-FS(3)	Injection Vial	18
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:47:02	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NETFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8700-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:57:53	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NETFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true



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Sample Name	J8701-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:08:46	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NETFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true



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Sample Name	J8702-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:19:38	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NETFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8703-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:30:31	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
NETFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NETFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true



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Sample Name	KB80 IB	Injection Vial	2
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:53:06	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.78	13508.86	183.301666	186.9	false



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Sample Name	CR992PB-FS(3)	Injection Vial	15
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:14:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.74	16510.62	227.068096	168.0	false



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Sample Name	CR993LCS-FS(3)	Injection Vial	16
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:25:17	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.75	15045.60	211.245720	183.9	false



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Sample Name	J8698-FS(3)	Injection Vial	17
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:36:10	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.74	16036.66	219.243399	212.7	false

Sample Name	J8699-FS(3)	Injection Vial	18
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:47:02	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.74	13630.14	161.666453	184.1	false

Sample Name	J8700-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:57:53	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.74	13180.43	200.179647	189.1	false



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Sample Name	J8701-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:08:46	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.74	16513.23	212.039748	245.3	false



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Sample Name	J8702-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:19:38	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.74	12580.89	154.033064	206.3	false



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Sample Name	J8703-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:30:31	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
d5-EtFOSAA	589.0 / 419.0	3.75	14094.99	236.894297	222.7	false

Sample Name	KB80 IB	Injection Vial	9
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.410	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.280	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.210	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.08	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.080	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.510	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	CR992PB-FS(3)	Injection Vial	17
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:48:24	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.220	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.174	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	CR993LCS-FS(3)	Injection Vial	18
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:59:15	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.78	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.06	PFDoA			
PFDoA_2	613.0 / 319.0	4.06	PFDoA	0.170	0.160	ü
PFTrDA_1	663.0 / 619.0	4.31	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.062	ü

Sample Name	J8698-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:10:06	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.430	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.230	0.174	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.090	0.041	
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.080	0.049	
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.900	0.551	
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	

Sample Name	J8699-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:20:58	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.460	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.110	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	4.04	PFDoA			
PFDoA_2	613.0 / 319.0	4.04	PFDoA	0.460	0.160	
PFTrDA_1	663.0 / 619.0	4.31	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8700-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:31:51	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.430	0.282	
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.260	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.120	0.174	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.04	PFDoA	0.330	0.160	
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8701-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:42:44	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.090	0.306	
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.160	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8702-FS(3)	Injection Vial	23
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:53:34	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.160	0.065	
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.100	0.306	
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.210	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8703-FS(3)	Injection Vial	24
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:04:26	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.480	0.292	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.04	PFDoA	0.090	0.160	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.080	0.066	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8703-FS-D(5)	Injection Vial	25
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:15:17	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.330	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.260	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.200	0.174	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.78	PFUnA	0.080	0.049	
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.200	0.160	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.080	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8704-FS(3)	Injection Vial	29
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:58:45	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.310	0.292	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.060	0.025	
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.49	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8704-FS-D(5)	Injection Vial	30
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:09:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.260	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.310	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.280	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.220	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8705-FS(3)	Injection Vial	32
Sample ID	VC-CS00-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:31:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.340	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.350	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.49	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8706-FS(3)	Injection Vial	34
Sample ID	VC-CS00-SS05-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:53:02	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.330	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.110	0.065	
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.380	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.200	0.174	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.75	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	4.04	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.49	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8707-FS(3)	Injection Vial	35
Sample ID	VC-CS00-SB05-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:03:54	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.350	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	N/A	0.282	
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.040	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.160	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.240	0.174	ü
PFDA_1	513.0 / 469.0	3.49	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8708-FS(3)	Injection Vial	36
Sample ID	VC-CS00-SB05-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:14:46	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.54	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.330	0.292	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.300	0.282	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.520	0.306	
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.300	0.174	
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8709-FS(3)	Injection Vial	37
Sample ID	VC-CS00-SS06-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:25:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.230	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8710-FS(3)	Injection Vial	38
Sample ID	VC-CS00-SB06-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:36:28	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.030	0.065	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.430	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.200	0.174	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8711-FS(3)	Injection Vial	41
Sample ID	VC-CS00-SB06-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:09:04	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.220	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.75	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8712MS-FS(3)	Injection Vial	42
Sample ID	VC-CS00-SB06-0506-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:19:56	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.54	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.04	PFDoA			
PFDoA_2	613.0 / 319.0	4.04	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.28	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.49	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.49	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.590	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.070	0.062	ü

Sample Name	J8713MSD-FS(3)	Injection Vial	43
Sample ID	VC-CS00-SB06-0506-MSD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:30:48	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.54	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.04	PFDoA			
PFDoA_2	613.0 / 319.0	4.04	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.28	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.49	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.49	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.560	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.75	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.75	NEtFOSAA	0.060	0.062	ü

Sample Name	KB80 IB	Injection Vial	2
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:53:06	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.064	ü

Sample Name	CR992PB-FS(3)	Injection Vial	15
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:14:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.064	ü

Sample Name	CR993LCS-FS(3)	Injection Vial	16
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:25:17	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.060	0.064	ü

Sample Name	J8698-FS(3)	Injection Vial	17
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:36:10	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.064	ü

Sample Name	J8699-FS(3)	Injection Vial	18
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:47:02	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.064	ü

Sample Name	J8700-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:57:53	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.064	ü

Sample Name	J8701-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:08:46	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.064	ü

Sample Name	J8702-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:19:38	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.064	ü

Sample Name	J8703-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:30:31	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.064	ü

Sample Name	KB80 IB	Injection Vial	9
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	25201.92	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	25201.92	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61987.66	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61987.66	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	70438.43	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	70438.43	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	24683.15	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	24683.15	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	88535.23	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	88535.23	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	100138.19	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	100138.19	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	26769.68	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	26769.68	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	97258.51	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	97258.51	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	88898.52	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	88898.52	250.00
PFDoA_1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	91698.47	250.00
PFDoA_2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	91698.47	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	70451.22	250.00
PFTrDA_2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	70451.22	250.00
PFTeDA_1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	70451.22	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	70451.22	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	16454.46	250.00
NMeFOSAA_2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	16454.46	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	17612.55	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17612.55	250.00

Sample Name	CR992PB-FS(3)	Injection Vial	17
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:48:24	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	21330.87	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	21330.87	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	47387.62	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	47387.62	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	58429.34	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	58429.34	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	19811.25	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	19811.25	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	75701.63	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	75701.63	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	74974.95	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	74974.95	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	25656.76	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	25656.76	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	82907.29	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	82907.29	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	71911.76	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	71911.76	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	85252.48	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	85252.48	250.00
PFTrDA_1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	72926.43	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	72926.43	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	72926.43	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	72926.43	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11735.18	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11735.18	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	12136.56	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	12136.56	250.00

Sample Name	CR993LCS-FS(3)	Injection Vial	18
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:59:15	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	20130.35	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	20130.35	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	46980.86	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	46980.86	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	52623.26	250.00
PFHpA_2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	52623.26	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	17669.01	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	17669.01	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	70715.53	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	70715.53	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	76778.15	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	76778.15	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	22243.28	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	22243.28	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	76487.62	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	76487.62	250.00
PFUnA_1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	69806.64	250.00
PFUnA_2	563.0 / 269.0	3.78	13C7-PFUnA	570.0 / 525.0	69806.64	250.00
PFDoA_1	613.0 / 569.0	4.06	13C2-PFDoA	615.0 / 570.0	77964.87	250.00
PFDoA_2	613.0 / 319.0	4.06	13C2-PFDoA	615.0 / 570.0	77964.87	250.00
PFTrDA_1	663.0 / 619.0	4.31	13C2-PFTeDA	715.0 / 670.0	69664.70	250.00
PFTrDA_2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	69664.70	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	69664.70	250.00
PFTeDA_2	713.0 / 169.0	4.52	13C2-PFTeDA	715.0 / 670.0	69664.70	250.00
NMeFOSAA_1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	12599.61	250.00
NMeFOSAA_2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	12599.61	250.00
NetFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	13246.02	250.00
NetFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	13246.02	250.00

Sample Name	J8698-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:10:06	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	23298.59	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	23298.59	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	48301.74	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	48301.74	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	56284.39	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	56284.39	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	20259.91	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	20259.91	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	70129.98	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	70129.98	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	78561.56	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	78561.56	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	27764.11	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	27764.11	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	83237.40	250.00
PFDA_2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	83237.40	250.00
PFUnA_1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	70732.06	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	70732.06	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	83870.70	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	83870.70	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	69641.85	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69641.85	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	69641.85	250.00
PFTeDA_2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	69641.85	250.00
NMeFOSAA_1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	11720.52	250.00
NMeFOSAA_2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	11720.52	250.00
NetFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	13811.66	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13811.66	250.00

Sample Name	J8699-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:20:58	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	19928.32	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	19928.32	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	43613.05	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	43613.05	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	54365.34	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	54365.34	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	18153.70	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	18153.70	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	68076.12	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	68076.12	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	68631.39	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	68631.39	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	22385.63	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	22385.63	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	75644.30	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	75644.30	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	68631.95	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	68631.95	250.00
PFDoA_1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	77801.80	250.00
PFDoA_2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	77801.80	250.00
PFTrDA_1	663.0 / 619.0	4.31	13C2-PFTeDA	715.0 / 670.0	62921.70	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	62921.70	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	62921.70	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	62921.70	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	9604.27	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	9604.27	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	9350.79	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	9350.79	250.00

Sample Name	J8700-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:31:51	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	23209.18	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	23209.18	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	46362.87	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	46362.87	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	54607.50	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	54607.50	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	20344.61	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	20344.61	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	73500.18	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	73500.18	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	76992.69	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	76992.69	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	23917.80	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	23917.80	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	80156.12	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	80156.12	250.00
PFUnA_1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	77729.26	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	77729.26	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	82852.06	250.00
PFDoA_2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	82852.06	250.00
PFTrDA_1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	73376.38	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73376.38	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	73376.38	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73376.38	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	9154.12	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	9154.12	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13223.26	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13223.26	250.00

Sample Name	J8701-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:42:44	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	28930.76	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	28930.76	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	69503.27	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	69503.27	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	78160.08	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	78160.08	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	27318.14	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	27318.14	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	93534.47	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	93534.47	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	97945.94	250.00
PFNA_2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	97945.94	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	30936.80	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	30936.80	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	110931.50	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	110931.50	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	97760.43	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	97760.43	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	105720.61	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	105720.61	250.00
PFTrDA_1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	92901.35	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	92901.35	250.00
PFTeDA_1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	92901.35	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	92901.35	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14056.58	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14056.58	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13595.45	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13595.45	250.00

Sample Name	J8702-FS(3)	Injection Vial	23
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:53:34	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	22372.96	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	22372.96	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	47764.38	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	47764.38	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	52857.80	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	52857.80	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	19085.72	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	19085.72	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	70866.13	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	70866.13	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	72052.37	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	72052.37	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	22778.58	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	22778.58	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	74172.83	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	74172.83	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	68623.00	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	68623.00	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	79108.86	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	79108.86	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	68483.05	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68483.05	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	68483.05	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68483.05	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	8150.54	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	8150.54	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	8664.44	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8664.44	250.00

Sample Name	J8703-FS(3)	Injection Vial	24
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:04:26	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	22142.80	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	22142.80	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	50024.43	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	50024.43	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	58369.01	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	58369.01	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	19947.64	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	19947.64	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	73316.58	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	73316.58	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	71812.94	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	71812.94	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	25650.22	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	25650.22	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	73760.03	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	73760.03	250.00
PFUnA_1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	71180.24	250.00
PFUnA_2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	71180.24	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	80355.13	250.00
PFDoA_2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	80355.13	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	66744.62	250.00
PFTrDA_2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	66744.62	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	66744.62	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66744.62	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	10975.62	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	10975.62	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	11872.66	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	11872.66	250.00

Sample Name	J8703-FS-D(5)	Injection Vial	25
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:15:17	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	24589.32	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	24589.32	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	52445.09	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	52445.09	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	61715.05	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	61715.05	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	22254.90	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	22254.90	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	77710.90	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	77710.90	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	83838.41	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	83838.41	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	27057.68	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	27057.68	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	85866.70	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	85866.70	250.00
PFUnA_1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	74870.89	250.00
PFUnA_2	563.0 / 269.0	3.78	13C7-PFUnA	570.0 / 525.0	74870.89	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	87461.19	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	87461.19	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	77756.60	250.00
PFTrDA_2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	77756.60	250.00
PFTeDA_1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	77756.60	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	77756.60	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12699.13	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12699.13	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13540.48	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13540.48	250.00

Sample Name	J8704-FS(3)	Injection Vial	29
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:58:45	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	26294.67	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	26294.67	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	58989.01	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	58989.01	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	66559.20	250.00
PFHpA_2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	66559.20	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	24966.76	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	24966.76	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	91379.79	250.00
PFOA_2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	91379.79	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	93193.13	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	93193.13	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	28884.98	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	28884.98	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	97593.81	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	97593.81	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	93050.47	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	93050.47	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	92367.72	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	92367.72	250.00
PFTrDA_1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	84382.78	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	84382.78	250.00
PFTeDA_1	713.0 / 669.0	4.49	13C2-PFTeDA	715.0 / 670.0	84382.78	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	84382.78	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12356.83	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12356.83	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	12686.17	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	12686.17	250.00

Sample Name	J8704-FS-D(5)	Injection Vial	30
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:09:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	25765.89	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	25765.89	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61610.21	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61610.21	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	62663.60	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	62663.60	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	24097.28	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	24097.28	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	82652.97	250.00
PFOA_2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	82652.97	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	84031.06	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	84031.06	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	26876.81	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	26876.81	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	91244.52	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	91244.52	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	86209.04	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	86209.04	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	92782.96	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	92782.96	250.00
PFTrDA_1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	80923.83	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	80923.83	250.00
PFTeDA_1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	80923.83	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	80923.83	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12524.70	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12524.70	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	12665.83	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	12665.83	250.00

Sample Name	J8705-FS(3)	Injection Vial	32
Sample ID	VC-CS00-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:31:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	19030.38	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	19030.38	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	41177.15	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	41177.15	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	52112.90	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	52112.90	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	15430.50	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	15430.50	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	60068.10	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	60068.10	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	64760.50	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	64760.50	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	21540.87	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	21540.87	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	73853.97	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	73853.97	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	63795.03	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	63795.03	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	70483.83	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	70483.83	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	60666.33	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	60666.33	250.00
PFTeDA_1	713.0 / 669.0	4.49	13C2-PFTeDA	715.0 / 670.0	60666.33	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	60666.33	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	9487.79	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	9487.79	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	10983.63	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	10983.63	250.00

Sample Name	J8706-FS(3)	Injection Vial	34
Sample ID	VC-CS00-SS05-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:53:02	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	22980.30	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	22980.30	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	52222.46	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	52222.46	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	59554.17	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	59554.17	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	20192.02	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	20192.02	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	79824.34	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	79824.34	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	78936.76	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	78936.76	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	25200.67	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	25200.67	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	82985.76	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	82985.76	250.00
PFUnA_1	563.0 / 519.0	3.75	13C7-PFUnA	570.0 / 525.0	71861.66	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	71861.66	250.00
PFDoA_1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	83959.80	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	83959.80	250.00
PFTrDA_1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	71537.72	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71537.72	250.00
PFTeDA_1	713.0 / 669.0	4.49	13C2-PFTeDA	715.0 / 670.0	71537.72	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71537.72	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	9897.32	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	9897.32	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	11605.35	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	11605.35	250.00

Sample Name	J8707-FS(3)	Injection Vial	35
Sample ID	VC-CS00-SB05-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:03:54	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	21701.37	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	21701.37	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	49455.91	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	49455.91	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	61630.07	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	61630.07	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	21953.16	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	21953.16	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	75742.34	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	75742.34	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	82873.97	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	82873.97	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	24843.11	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	24843.11	239.25
PFDA_1	513.0 / 469.0	3.49	13C6-PFDA	519.0 / 474.0	84364.65	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	84364.65	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	84049.09	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	84049.09	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	94852.87	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	94852.87	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	75136.20	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75136.20	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	75136.20	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75136.20	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	9865.65	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	9865.65	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	12038.09	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	12038.09	250.00

Sample Name	J8708-FS(3)	Injection Vial	36
Sample ID	VC-CS00-SB05-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:14:46	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.54	13C3-PFBS	302.0 / 99.0	30758.22	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	30758.22	232.25
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	61838.83	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	61838.83	250.00
PFHpA_1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	74724.51	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	74724.51	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	27090.71	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	27090.71	236.50
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	96640.11	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	96640.11	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	98347.69	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	98347.69	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	30350.66	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	30350.66	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	111888.01	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	111888.01	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	97144.37	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	97144.37	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	110845.72	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	110845.72	250.00
PFTrDA_1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	98174.12	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	98174.12	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	98174.12	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	98174.12	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16210.11	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16210.11	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	18244.71	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	18244.71	250.00

Sample Name	J8709-FS(3)	Injection Vial	37
Sample ID	VC-CS00-SS06-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:25:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	21995.79	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	21995.79	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	48079.30	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	48079.30	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	54916.90	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	54916.90	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	18753.44	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	18753.44	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	67296.79	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	67296.79	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	75270.46	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	75270.46	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	25098.83	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	25098.83	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	75799.67	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	75799.67	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	72689.28	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	72689.28	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	81256.33	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	81256.33	250.00
PFTrDA_1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	69388.07	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69388.07	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	69388.07	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69388.07	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	9028.49	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	9028.49	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	10422.92	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	10422.92	250.00

Sample Name	J8710-FS(3)	Injection Vial	38
Sample ID	VC-CS00-SB06-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:36:28	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	22374.48	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	22374.48	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	51294.72	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	51294.72	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	57987.69	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	57987.69	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	20399.02	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	20399.02	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	75711.68	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	75711.68	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	77475.89	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	77475.89	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	26271.35	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	26271.35	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	84529.06	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	84529.06	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	75672.71	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	75672.71	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	82900.18	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	82900.18	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	79215.34	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	79215.34	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	79215.34	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	79215.34	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	13002.75	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13002.75	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	11454.32	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	11454.32	250.00

Sample Name	J8711-FS(3)	Injection Vial	41
Sample ID	VC-CS00-SB06-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:09:04	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	21599.41	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	21599.41	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	53418.73	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	53418.73	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	60950.94	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	60950.94	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	21077.06	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	21077.06	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	74759.23	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	74759.23	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	76893.41	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	76893.41	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	26816.49	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	26816.49	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	80408.90	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	80408.90	250.00
PFUnA_1	563.0 / 519.0	3.75	13C7-PFUnA	570.0 / 525.0	79089.23	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	79089.23	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	84884.28	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	84884.28	250.00
PFTrDA_1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	73232.06	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73232.06	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	73232.06	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73232.06	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11733.72	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11733.72	250.00
NetFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14375.87	250.00
NetFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14375.87	250.00

Sample Name	J8712MS-FS(3)	Injection Vial	42
Sample ID	VC-CS00-SB06-0506-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:19:56	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.54	13C3-PFBS	302.0 / 99.0	23638.47	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	23638.47	232.25
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	56328.69	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	56328.69	250.00
PFHpA_1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	60486.47	250.00
PFHpA_2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	60486.47	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	19840.86	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	19840.86	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	75015.07	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	75015.07	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	71979.04	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	71979.04	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	24848.48	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	24848.48	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	81691.56	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	81691.56	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	76938.88	250.00
PFUnA_2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	76938.88	250.00
PFDoA_1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	87658.15	250.00
PFDoA_2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	87658.15	250.00
PFTrDA_1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	79708.79	250.00
PFTrDA_2	663.0 / 169.0	4.28	13C2-PFTeDA	715.0 / 670.0	79708.79	250.00
PFTeDA_1	713.0 / 669.0	4.49	13C2-PFTeDA	715.0 / 670.0	79708.79	250.00
PFTeDA_2	713.0 / 169.0	4.49	13C2-PFTeDA	715.0 / 670.0	79708.79	250.00
NMeFOSAA_1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	12170.65	250.00
NMeFOSAA_2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	12170.65	250.00
NetFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	11424.51	250.00
NetFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	11424.51	250.00

Sample Name	J8713MSD-FS(3)	Injection Vial	43
Sample ID	VC-CS00-SB06-0506-MSD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:30:48	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.54	13C3-PFBS	302.0 / 99.0	28838.60	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	28838.60	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	60867.34	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	60867.34	250.00
PFHpA_1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	71926.32	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	71926.32	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25168.66	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25168.66	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	86500.84	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	86500.84	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	92700.06	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	92700.06	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	27248.54	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	27248.54	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	94854.27	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	94854.27	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	93885.13	250.00
PFUnA_2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	93885.13	250.00
PFDoA_1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	102872.79	250.00
PFDoA_2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	102872.79	250.00
PFTrDA_1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	91061.91	250.00
PFTrDA_2	663.0 / 169.0	4.28	13C2-PFTeDA	715.0 / 670.0	91061.91	250.00
PFTeDA_1	713.0 / 669.0	4.49	13C2-PFTeDA	715.0 / 670.0	91061.91	250.00
PFTeDA_2	713.0 / 169.0	4.49	13C2-PFTeDA	715.0 / 670.0	91061.91	250.00
NMeFOSAA_1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	14759.09	250.00
NMeFOSAA_2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	14759.09	250.00
NetFOSAA_1	584.0 / 419.0	3.75	d5-EtFOSAA	589.0 / 419.0	14904.69	250.00
NetFOSAA_2	584.0 / 483.0	3.75	d5-EtFOSAA	589.0 / 419.0	14904.69	250.00

Sample Name	KB80 IB	Injection Vial	9
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	96280.28	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	29371.12	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	29371.12	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	96280.28	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	96280.28	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	96280.28	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	29371.12	239.25
13C3-PFHxA	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	29371.12	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	29371.12	239.25

Sample Name	CR992PB-FS(3)	Injection Vial	17
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:48:24	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	81163.88	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	24184.17	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	24184.17	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	70767.13	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	70767.13	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	70767.13	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	70767.13	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	81163.88	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	81163.88	250.00
13C2-PFTeDA	715.0 / 670.0	4.52	13C2-PFDA	515.0 / 470.0	81163.88	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	24184.17	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	24184.17	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	24184.17	239.25

Sample Name	CR993LCS-FS(3)	Injection Vial	18
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:59:15	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	87597.96	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	25632.24	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	25632.24	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	72262.50	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	72262.50	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	72262.50	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	72262.50	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	87597.96	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	87597.96	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	87597.96	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	25632.24	239.25
13C3-PFHxA	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	25632.24	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	25632.24	239.25

Sample Name	J8698-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:10:06	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	90815.60	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	27010.27	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	27010.27	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	69914.06	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	69914.06	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	69914.06	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	69914.06	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	90815.60	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	90815.60	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	90815.60	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	27010.27	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	27010.27	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	27010.27	239.25

Sample Name	J8699-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:20:58	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	88805.89	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	27367.42	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	27367.42	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	77631.54	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	77631.54	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	77631.54	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	77631.54	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	88805.89	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	88805.89	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	88805.89	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	27367.42	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	27367.42	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	27367.42	239.25

Sample Name	J8700-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:31:51	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	88341.58	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	30669.98	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	30669.98	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	82079.98	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	82079.98	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	82079.98	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	82079.98	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	88341.58	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	88341.58	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	88341.58	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	30669.98	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	30669.98	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	30669.98	239.25

Sample Name	J8701-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:42:44	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	107140.08	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	34634.70	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	34634.70	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	84841.66	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	84841.66	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	84841.66	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	84841.66	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	107140.08	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	107140.08	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	107140.08	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	34634.70	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	34634.70	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	34634.70	239.25



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Sample Name	J8702-FS(3)	Injection Vial	23
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:53:34	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	80630.50	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	24478.97	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	24478.97	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	73419.57	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	73419.57	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	73419.57	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	73419.57	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	80630.50	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	80630.50	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	80630.50	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	24478.97	239.25
13C3-PFHxA	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	24478.97	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	24478.97	239.25

Sample Name	J8703-FS(3)	Injection Vial	24
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:04:26	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	89465.05	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	25053.62	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	25053.62	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	78204.29	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	78204.29	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	78204.29	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	78204.29	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	89465.05	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	89465.05	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	89465.05	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	25053.62	239.25
13C3-PFHxA	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	25053.62	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	25053.62	239.25

Sample Name	J8703-FS-D(5)	Injection Vial	25
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:15:17	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	100471.71	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	30360.83	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	30360.83	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	82018.41	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	82018.41	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	82018.41	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	82018.41	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	100471.71	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	100471.71	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	100471.71	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	30360.83	239.25
13C3-PFHxA	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	30360.83	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	30360.83	239.25

Sample Name	J8704-FS(3)	Injection Vial	29
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:58:45	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	114837.89	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	29132.87	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	29132.87	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	95690.40	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	95690.40	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	95690.40	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	95690.40	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	114837.89	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	114837.89	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	114837.89	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	29132.87	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	29132.87	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	29132.87	239.25

Sample Name	J8704-FS-D(5)	Injection Vial	30
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:09:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	87631.80	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	25534.42	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	25534.42	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	77358.82	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	77358.82	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	77358.82	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	77358.82	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	87631.80	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	87631.80	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	87631.80	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	25534.42	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	25534.42	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	25534.42	239.25

Sample Name	J8705-FS(3)	Injection Vial	32
Sample ID	VC-CS00-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:31:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	87020.82	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	25658.58	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	25658.58	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	75284.72	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	75284.72	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	75284.72	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	75284.72	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	87020.82	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	87020.82	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	87020.82	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	25658.58	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	25658.58	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	25658.58	239.25

Sample Name	J8706-FS(3)	Injection Vial	34
Sample ID	VC-CS00-SS05-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:53:02	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	88298.44	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	27871.25	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	27871.25	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	78196.19	250.00
13C4-PFHxA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	78196.19	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	78196.19	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	78196.19	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	88298.44	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	88298.44	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	88298.44	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	27871.25	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	27871.25	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	27871.25	239.25



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Sample Name	J8707-FS(3)	Injection Vial	35
Sample ID	VC-CS00-SB05-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:03:54	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	77735.36	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	24046.26	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	24046.26	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	68821.15	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	68821.15	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	68821.15	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	68821.15	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	77735.36	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	77735.36	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	77735.36	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	24046.26	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	24046.26	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	24046.26	239.25

Sample Name	J8708-FS(3)	Injection Vial	36
Sample ID	VC-CS00-SB05-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:14:46	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	103960.57	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	31592.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	31592.04	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	86714.66	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	86714.66	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	86714.66	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	86714.66	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	103960.57	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	103960.57	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	103960.57	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	31592.04	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	31592.04	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	31592.04	239.25

Sample Name	J8709-FS(3)	Injection Vial	37
Sample ID	VC-CS00-SS06-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:25:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	104191.35	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	31235.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	31235.04	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	76595.33	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	76595.33	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	76595.33	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	76595.33	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	104191.35	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	104191.35	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	104191.35	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	31235.04	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	31235.04	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	31235.04	239.25

Sample Name	J8710-FS(3)	Injection Vial	38
Sample ID	VC-CS00-SB06-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:36:28	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	100213.22	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	30821.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	30821.04	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	79955.49	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	79955.49	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	79955.49	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	79955.49	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	100213.22	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	100213.22	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	100213.22	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	30821.04	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	30821.04	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	30821.04	239.25

Sample Name	J8711-FS(3)	Injection Vial	41
Sample ID	VC-CS00-SB06-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:09:04	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	102338.80	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	30013.93	239.25
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	30013.93	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	88282.96	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	88282.96	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	88282.96	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	88282.96	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	102338.80	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	102338.80	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	102338.80	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	30013.93	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	30013.93	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	30013.93	239.25

Sample Name	J8712MS-FS(3)	Injection Vial	42
Sample ID	VC-CS00-SB06-0506-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:19:56	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	107862.68	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	29320.83	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	29320.83	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	83510.37	250.00
13C4-PFHxA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	83510.37	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	83510.37	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	83510.37	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	107862.68	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	107862.68	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	107862.68	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	29320.83	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	29320.83	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	29320.83	239.25

Sample Name	J8713MSD-FS(3)	Injection Vial	43
Sample ID	VC-CS00-SB06-0506-MSD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:30:48	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	97353.06	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	31720.11	239.25
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	31720.11	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	78542.11	250.00
13C4-PFHxA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	78542.11	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	78542.11	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	78542.11	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	97353.06	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	97353.06	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	97353.06	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	31720.11	239.25
13C3-PFHxA	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	31720.11	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	31720.11	239.25



Summary Internal Standard Report

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Sample Name	KB80 IB	Injection Vial	2
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:53:06	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NETFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13889.61	250.00
NETFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13889.61	250.00



Summary Internal Standard Report

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Sample Name	CR992PB-FS(3)	Injection Vial	15
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:14:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NETFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	17013.37	250.00
NETFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17013.37	250.00



Summary Internal Standard Report

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Sample Name	CR993LCS-FS(3)	Injection Vial	16
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:25:17	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NETFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	15081.05	250.00
NETFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	15081.05	250.00



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Sample Name	J8698-FS(3)	Injection Vial	17
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:36:10	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NETFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16087.15	250.00
NETFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16087.15	250.00



Summary Internal Standard Report

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Sample Name	J8699-FS(3)	Injection Vial	18
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:47:02	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NETFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13906.95	250.00
NETFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13906.95	250.00



Summary Internal Standard Report

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Sample Name	J8700-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:57:53	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NETFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13077.47	250.00
NETFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13077.47	250.00



Summary Internal Standard Report

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Sample Name	J8701-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:08:46	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NETFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16736.03	250.00
NETFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16736.03	250.00



Summary Internal Standard Report

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Printed: 24/10/2018 4:15:42 PM

Sample Name	J8702-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:19:38	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NETFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	12928.96	250.00
NETFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	12928.96	250.00



Summary Internal Standard Report

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Printed: 24/10/2018 4:15:46 PM

Sample Name	J8703-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:30:31	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
NETFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14516.92	250.00
NETFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14516.92	250.00



Summary Internal Standard Report

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Printed: 24/10/2018 4:14:05 PM

Sample Name	KB80 IB	Injection Vial	2
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:53:06	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	30413.28	239.25



Summary Internal Standard Report

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Sample Name	CR992PB-FS(3)	Injection Vial	15
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:14:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	30006.71	239.25



Summary Internal Standard Report

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Printed: 24/10/2018 4:14:13 PM

Sample Name	CR993LCS-FS(3)	Injection Vial	16
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:25:17	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	29392.23	239.25



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Sample Name	J8698-FS(3)	Injection Vial	17
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:36:10	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	30185.51	239.25



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Sample Name	J8699-FS(3)	Injection Vial	18
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:47:02	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	34792.97	239.25



Summary Internal Standard Report

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Sample Name	J8700-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:57:53	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	27171.95	239.25



Summary Internal Standard Report

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Sample Name	J8701-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:08:46	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	32138.52	239.25



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Sample Name	J8702-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:19:38	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	33706.11	239.25



Summary Internal Standard Report

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Printed: 24/10/2018 4:14:38 PM

Sample Name	J8703-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:30:31	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Results Summary

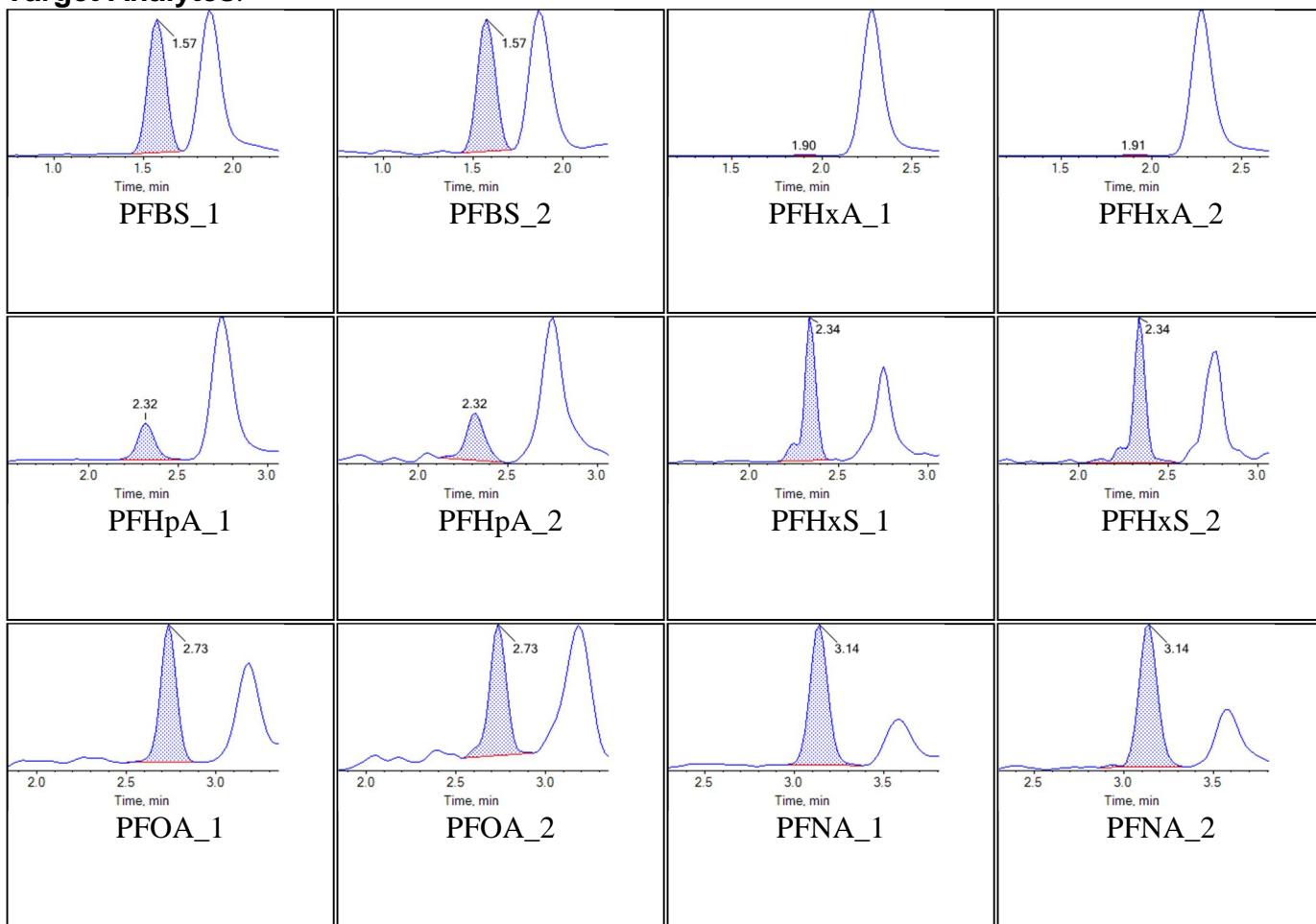
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d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	24553.93	239.25

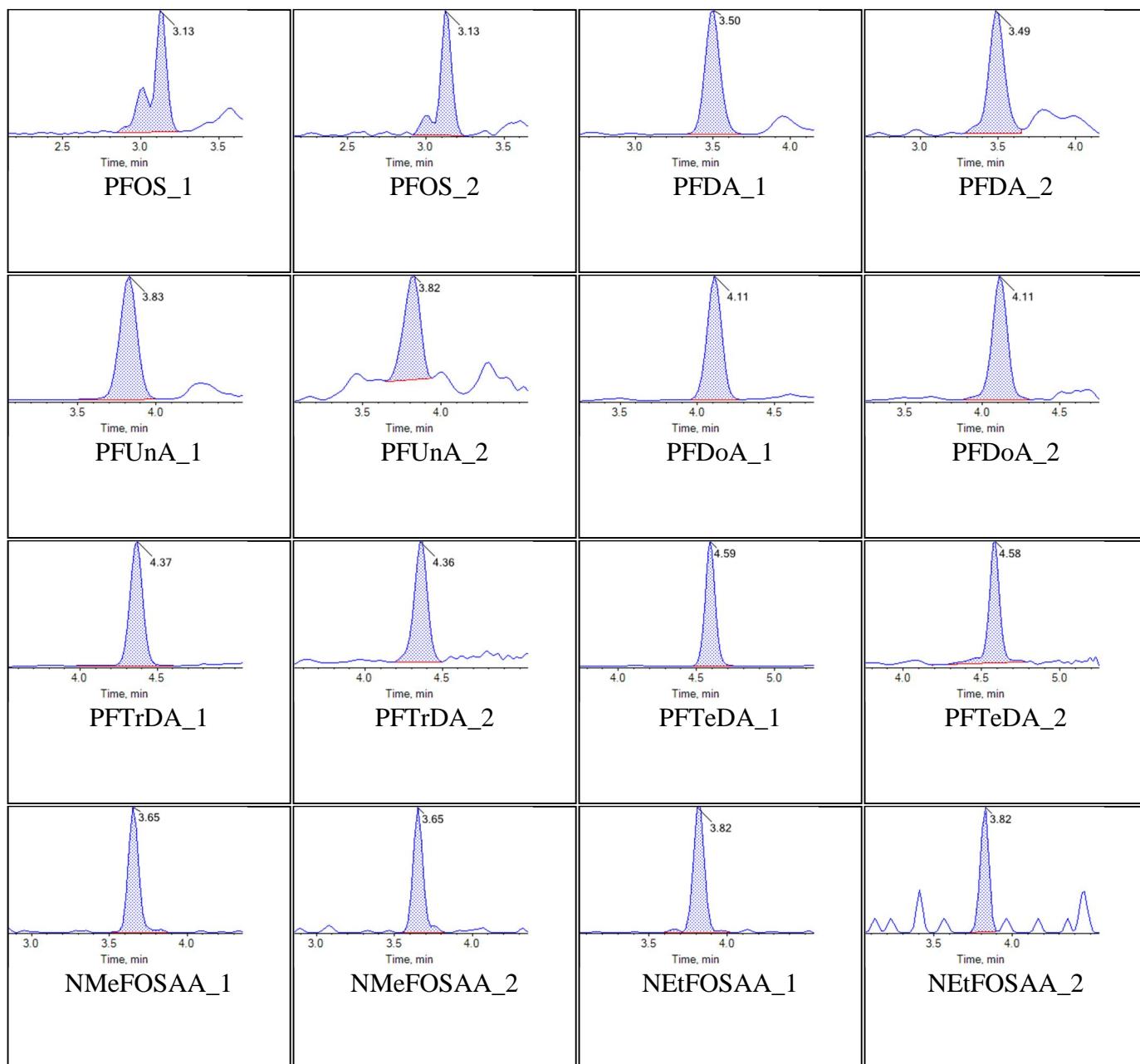
Chromatograms

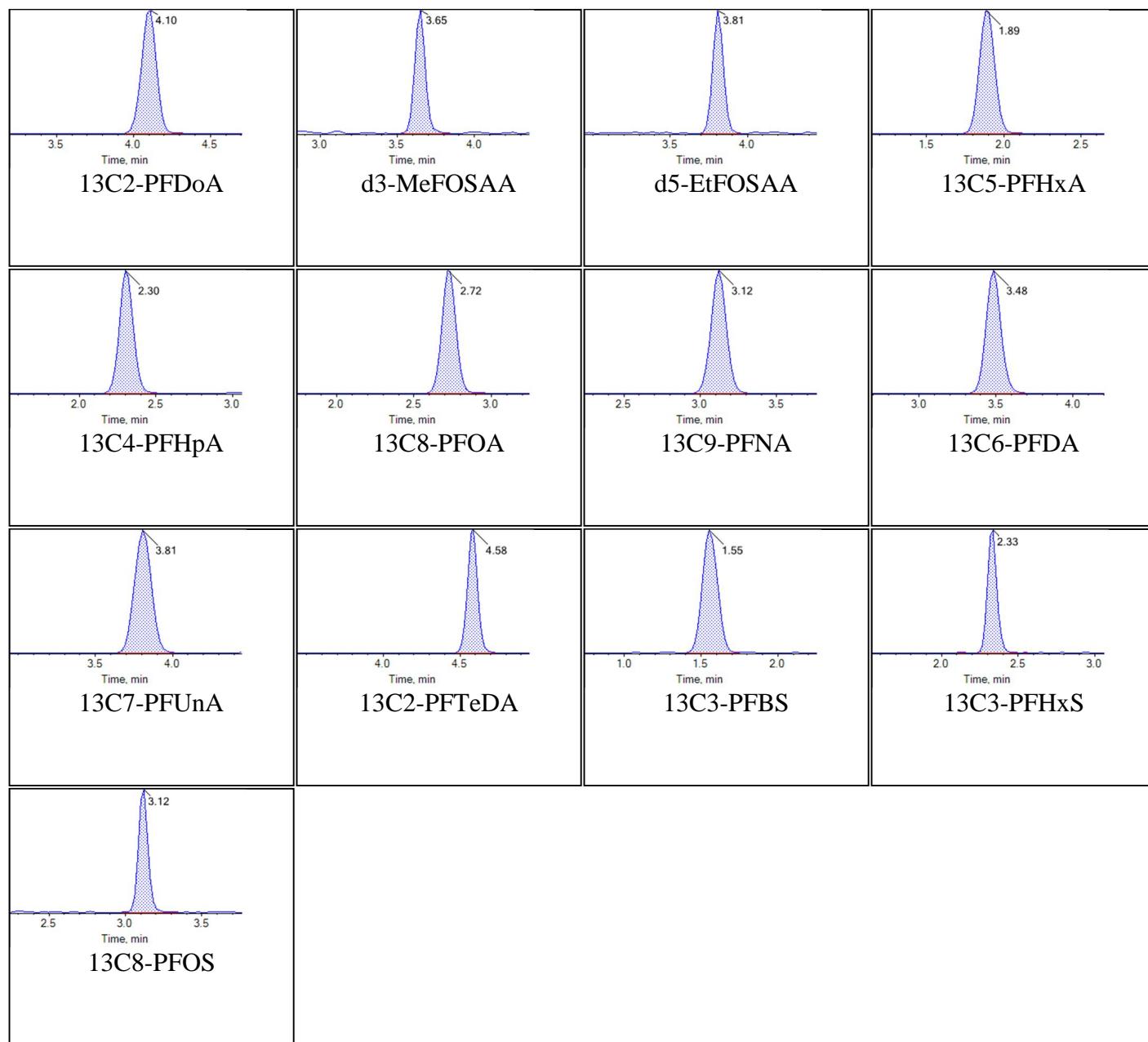
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Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

Target Analytes:



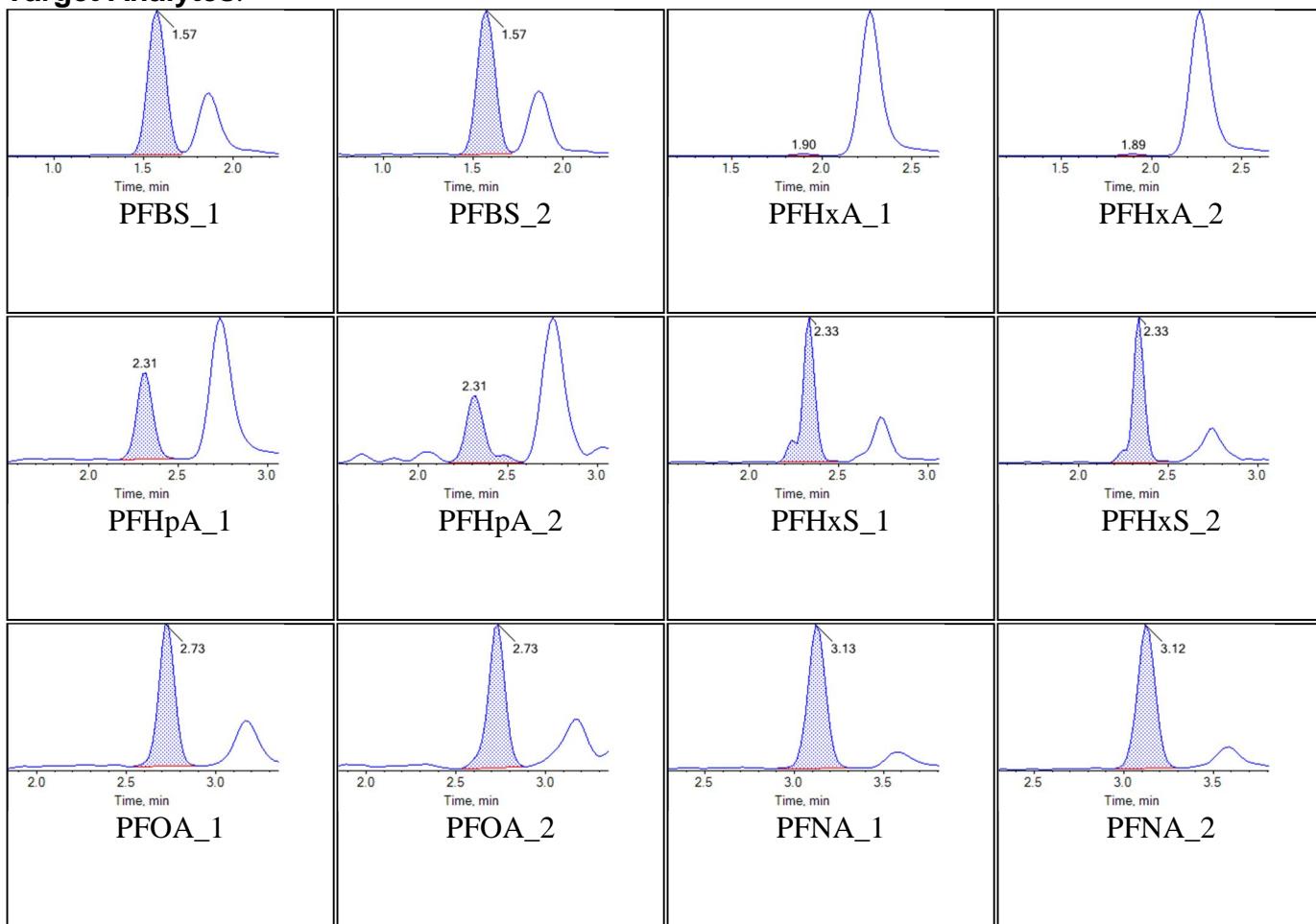
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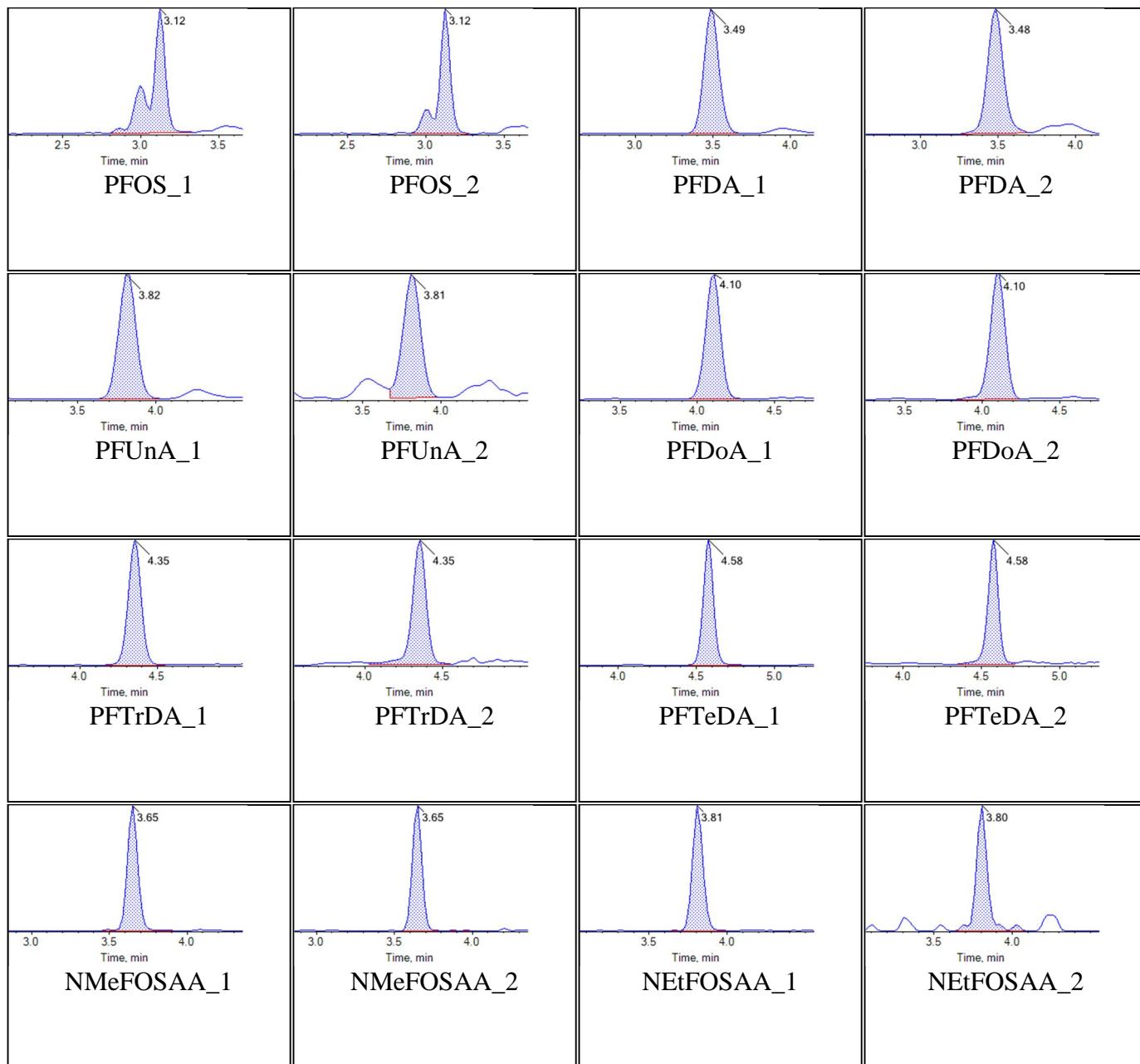


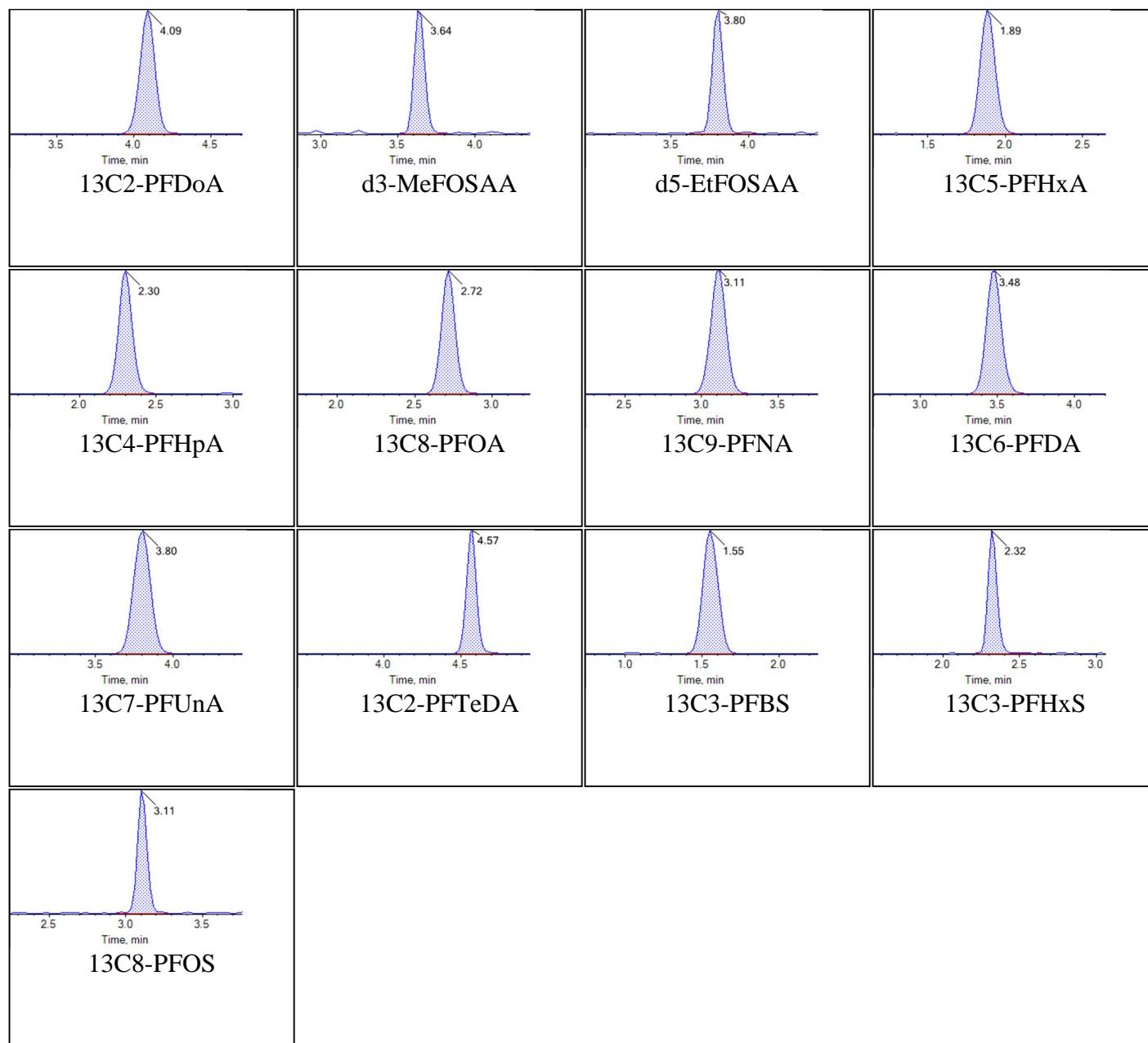
Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

Target Analytes:



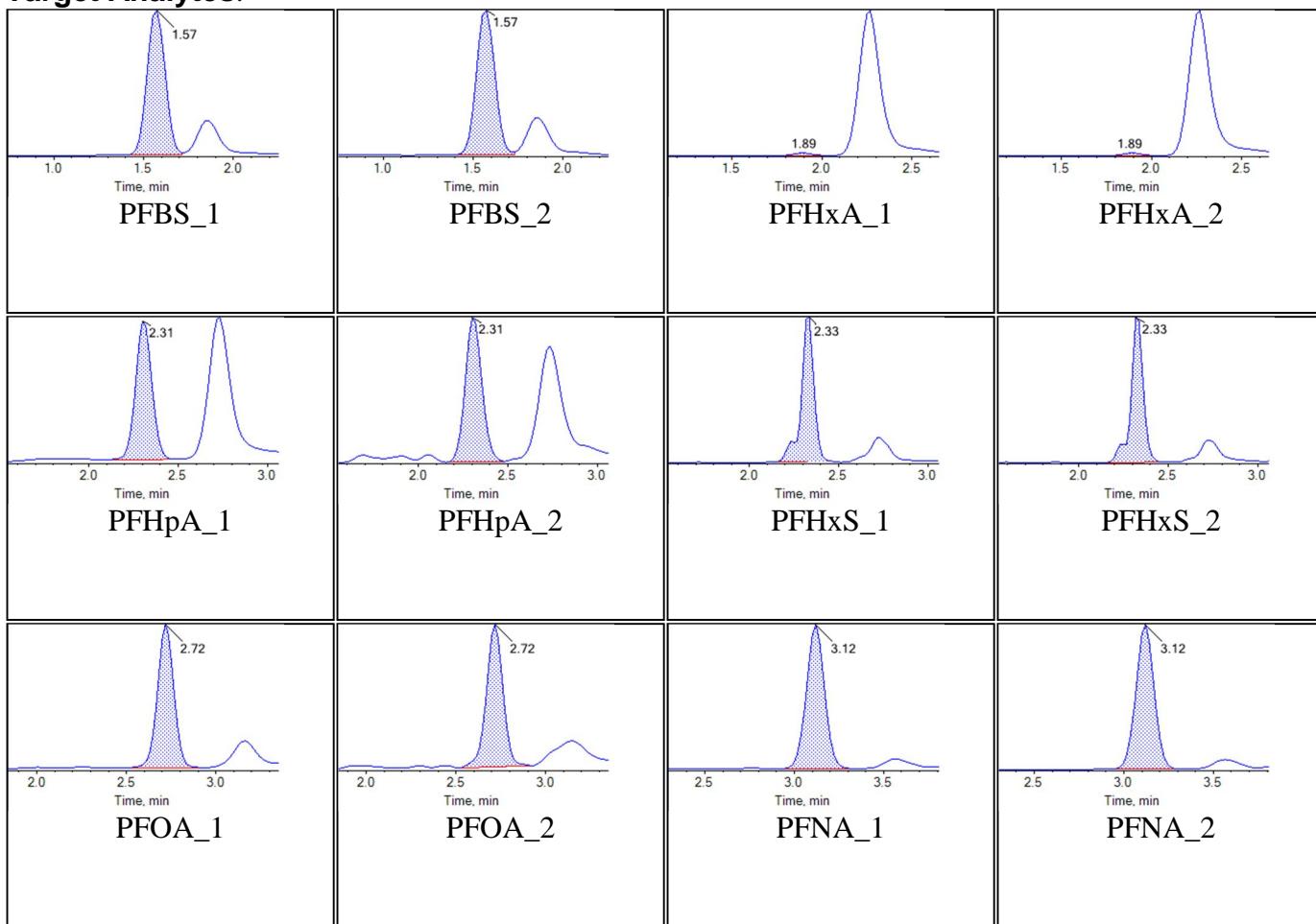
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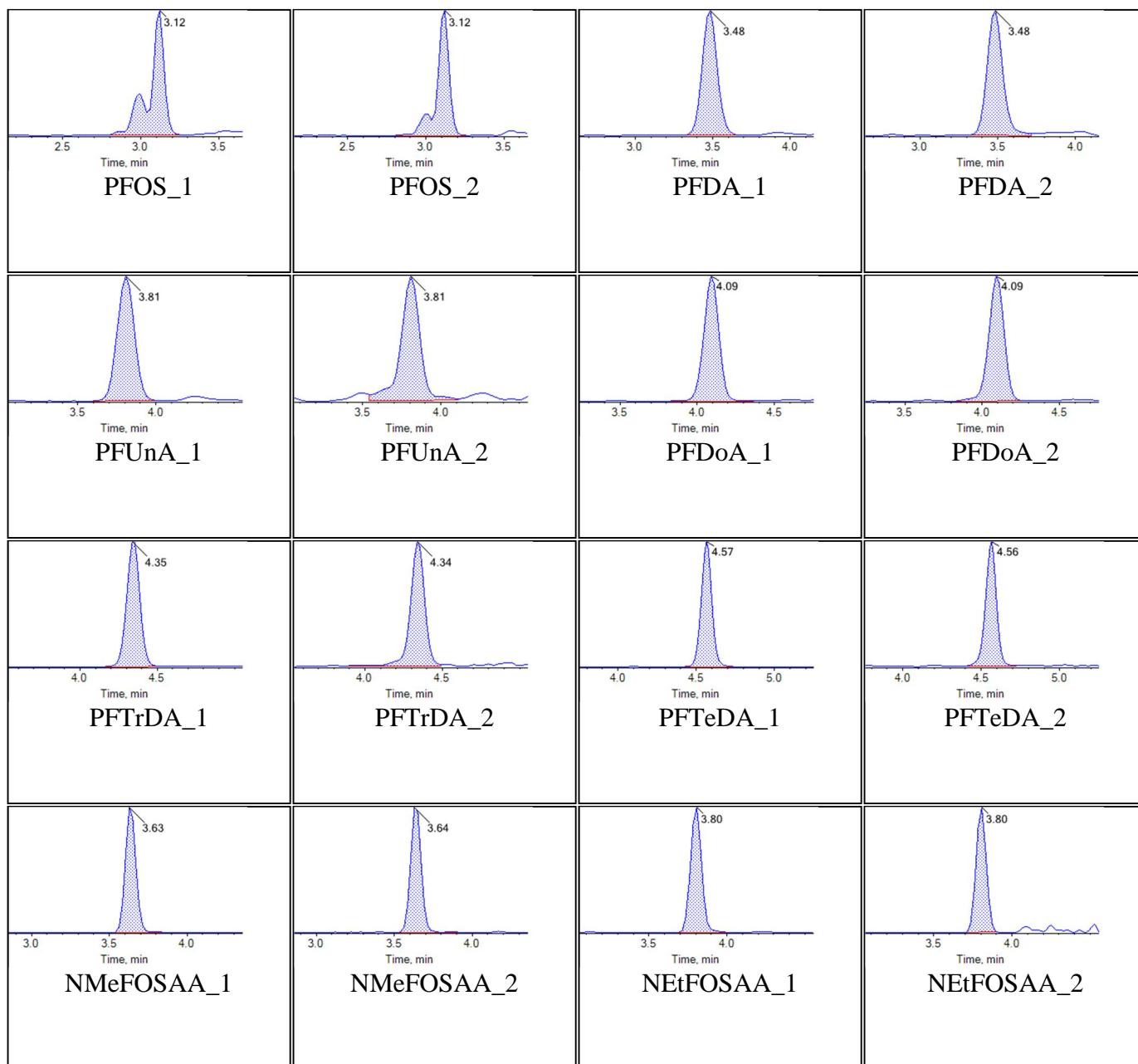


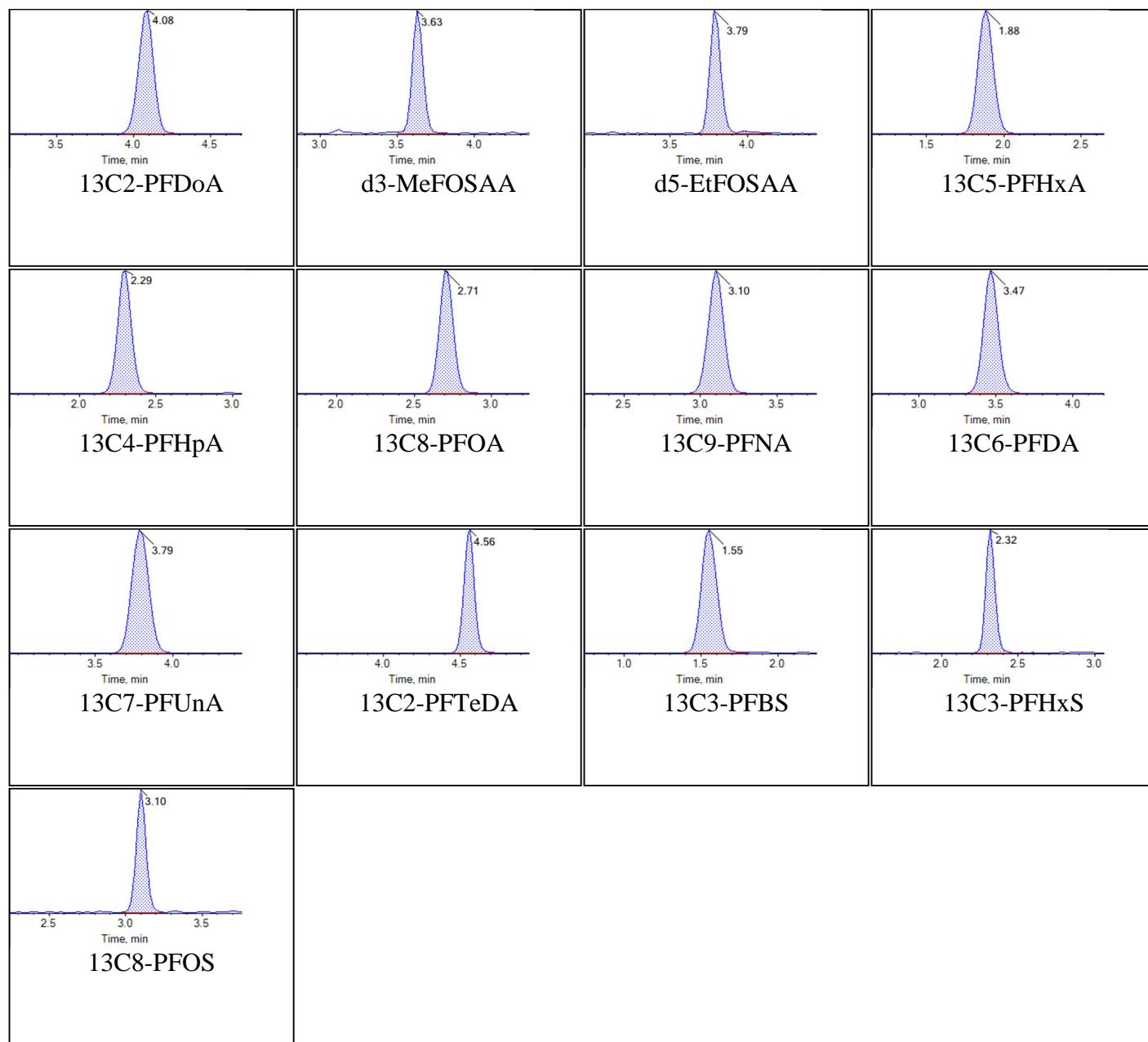
Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

Target Analytes:



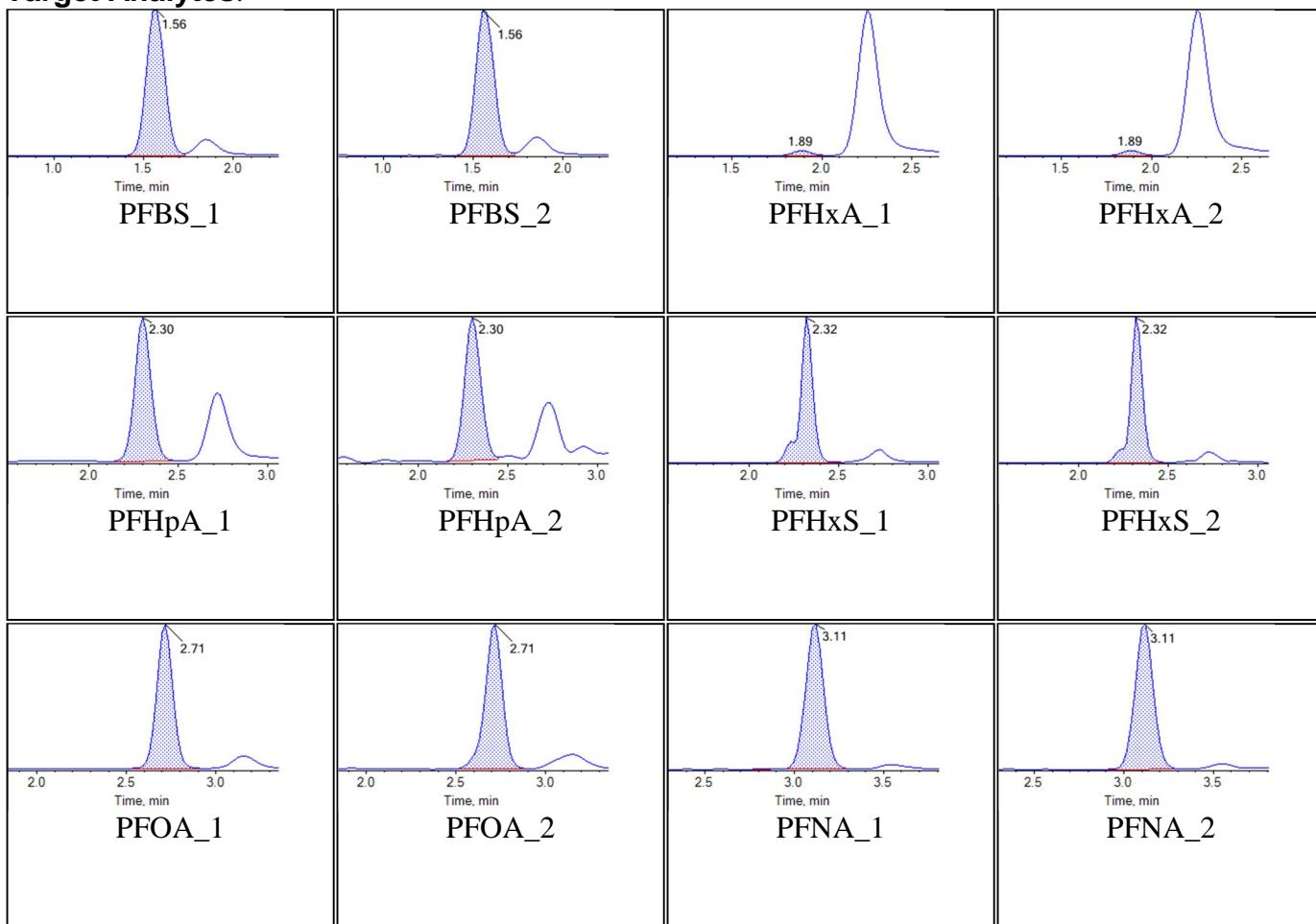
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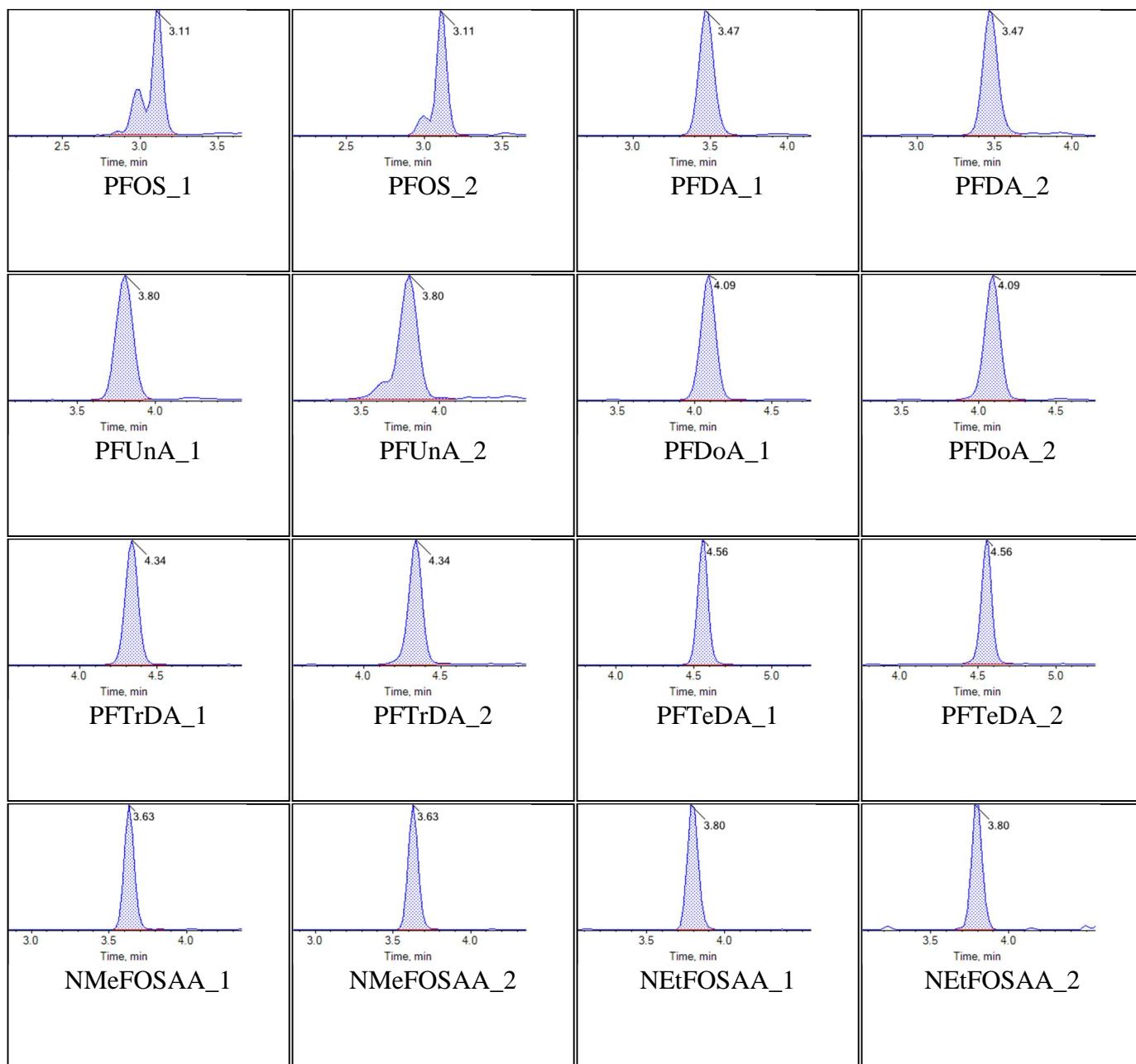


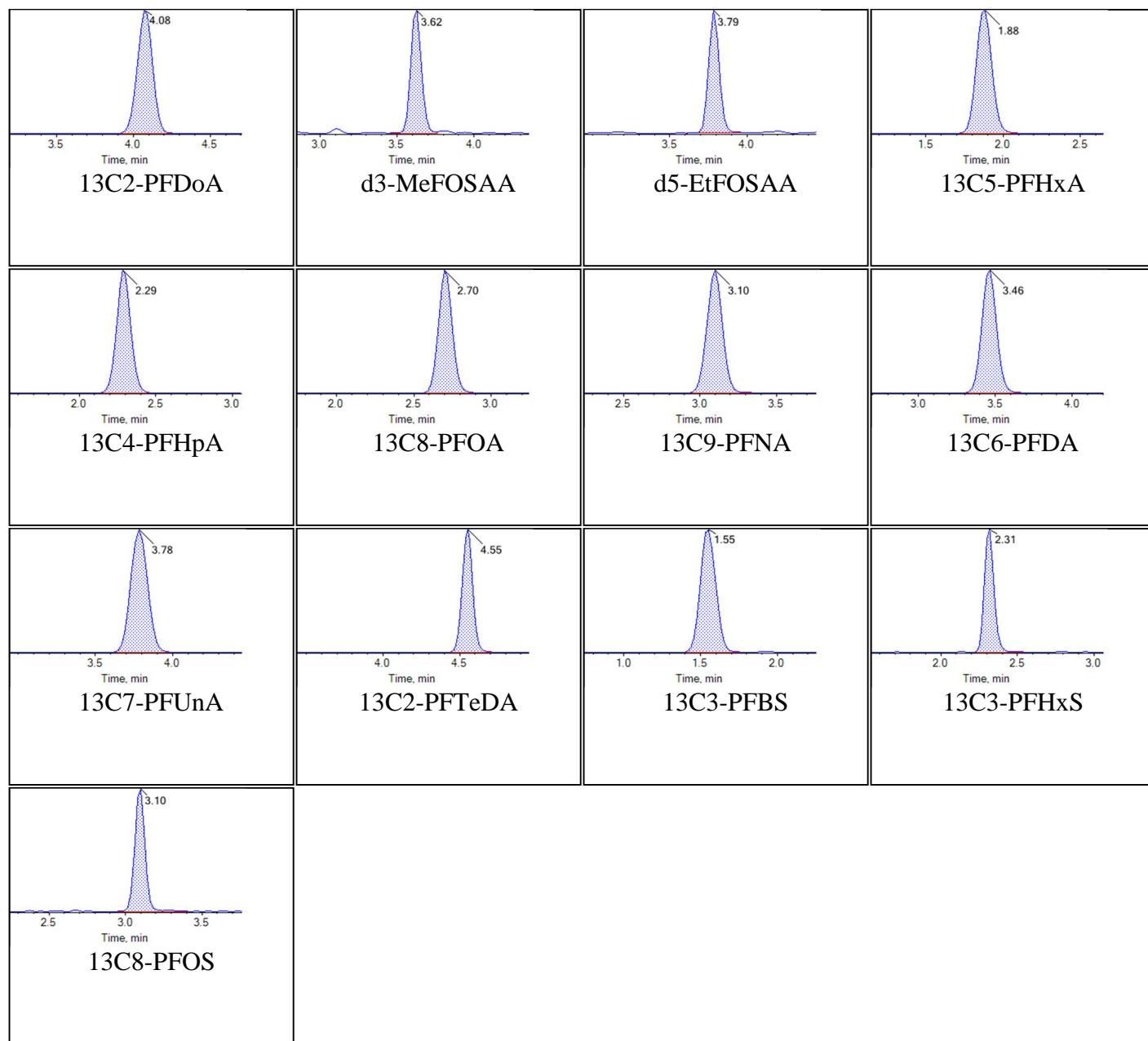
Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

Target Analytes:



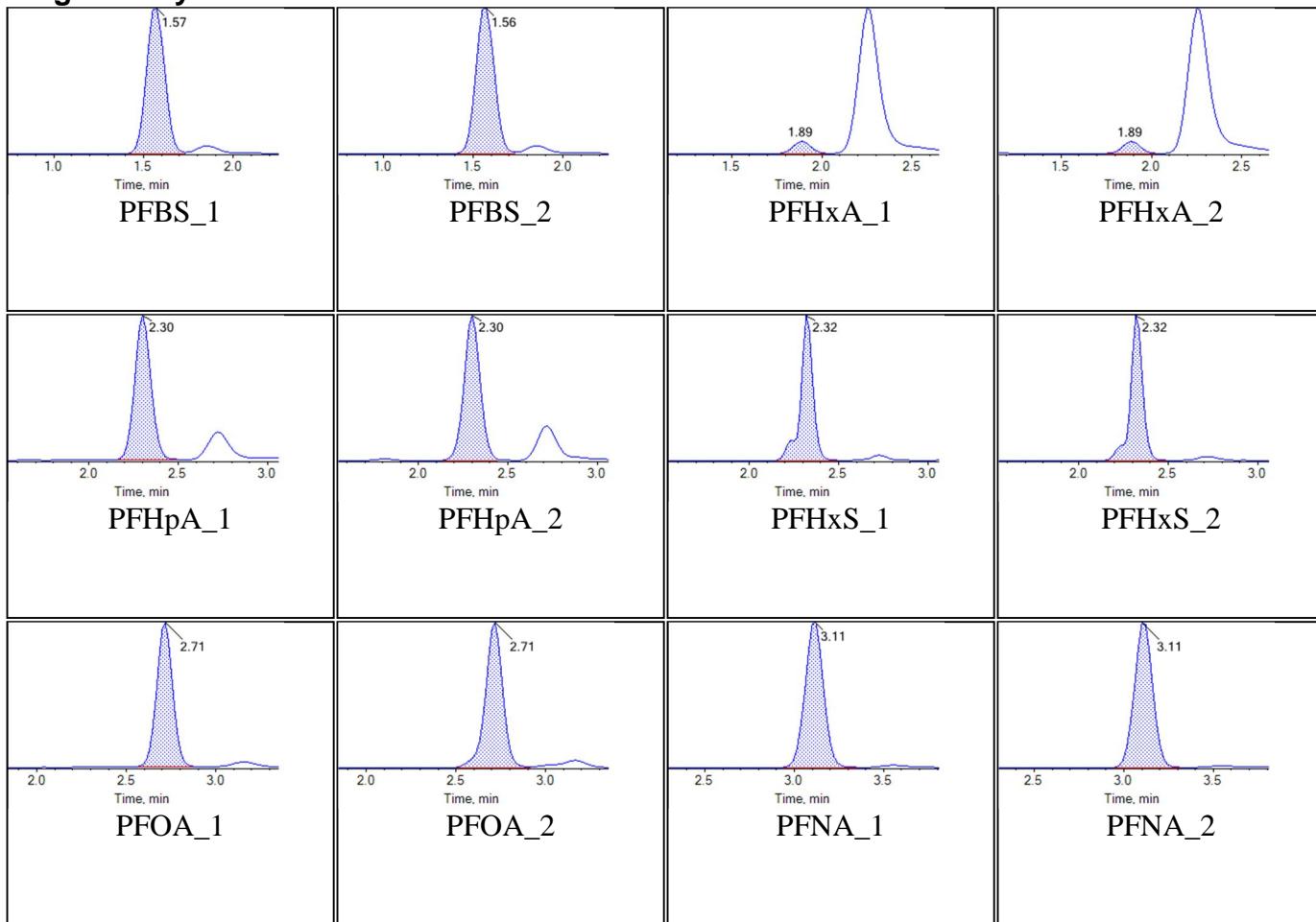
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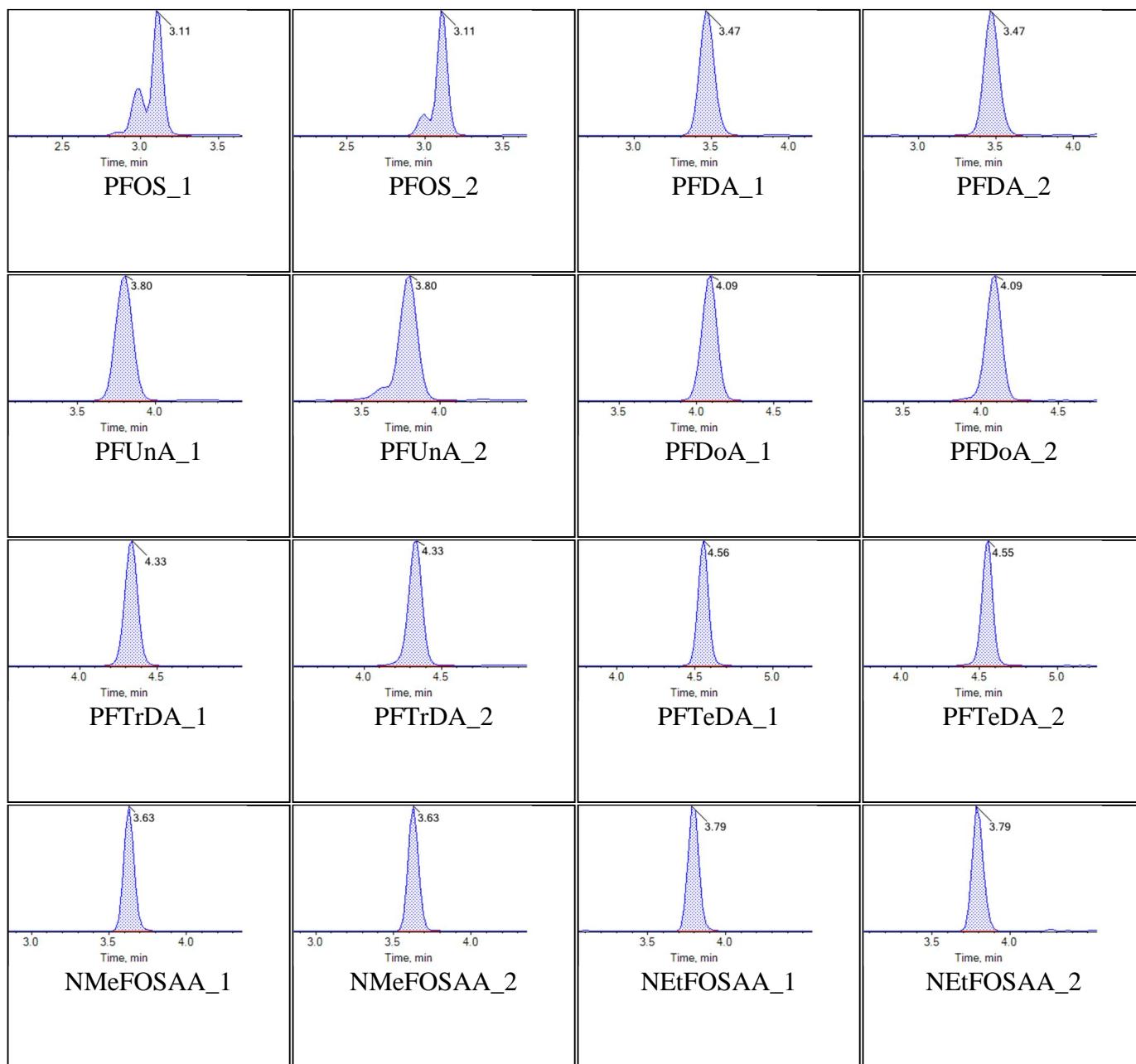


Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

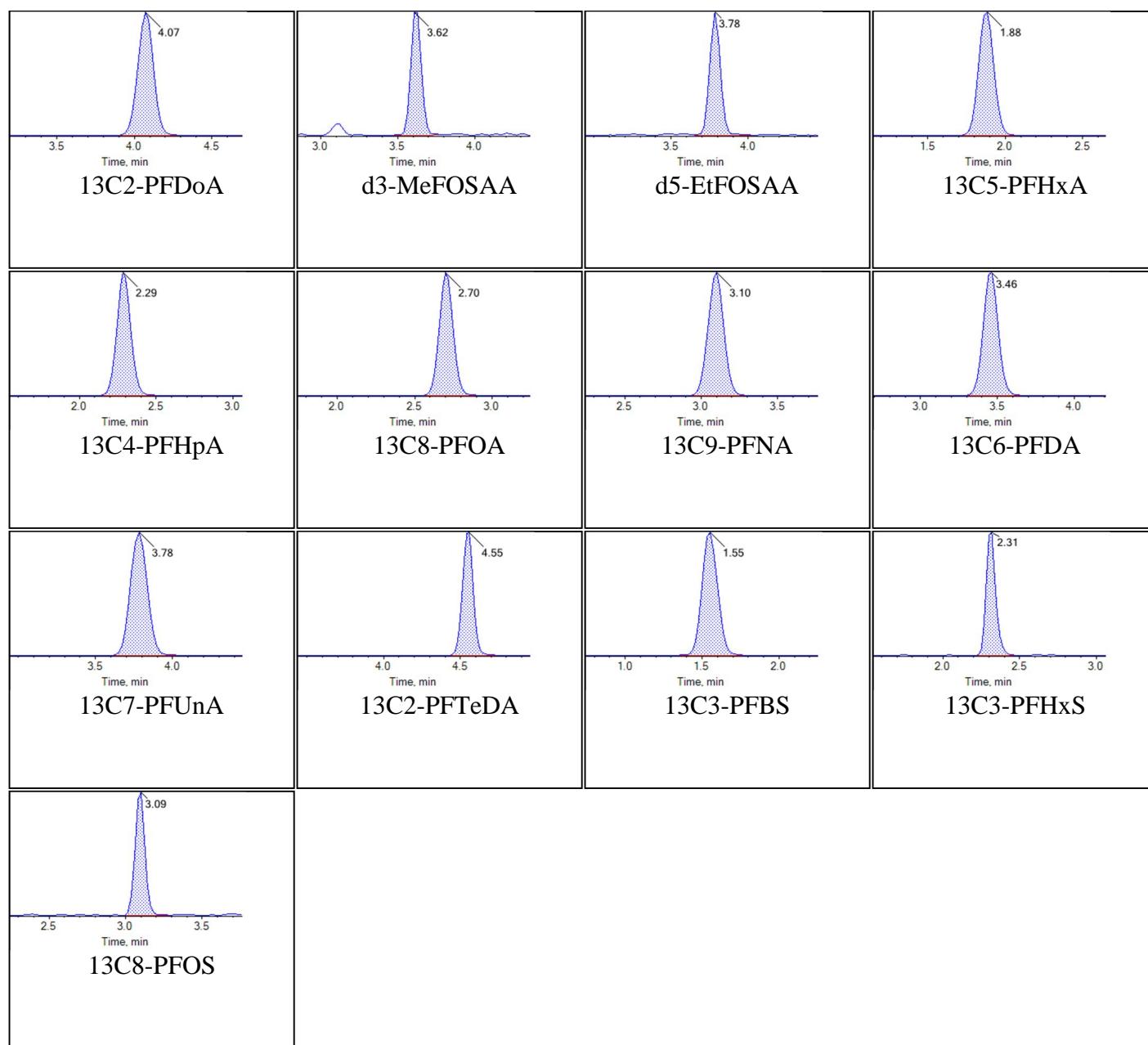
Chromatograms

Target Analytes:



**Internal Standards:**

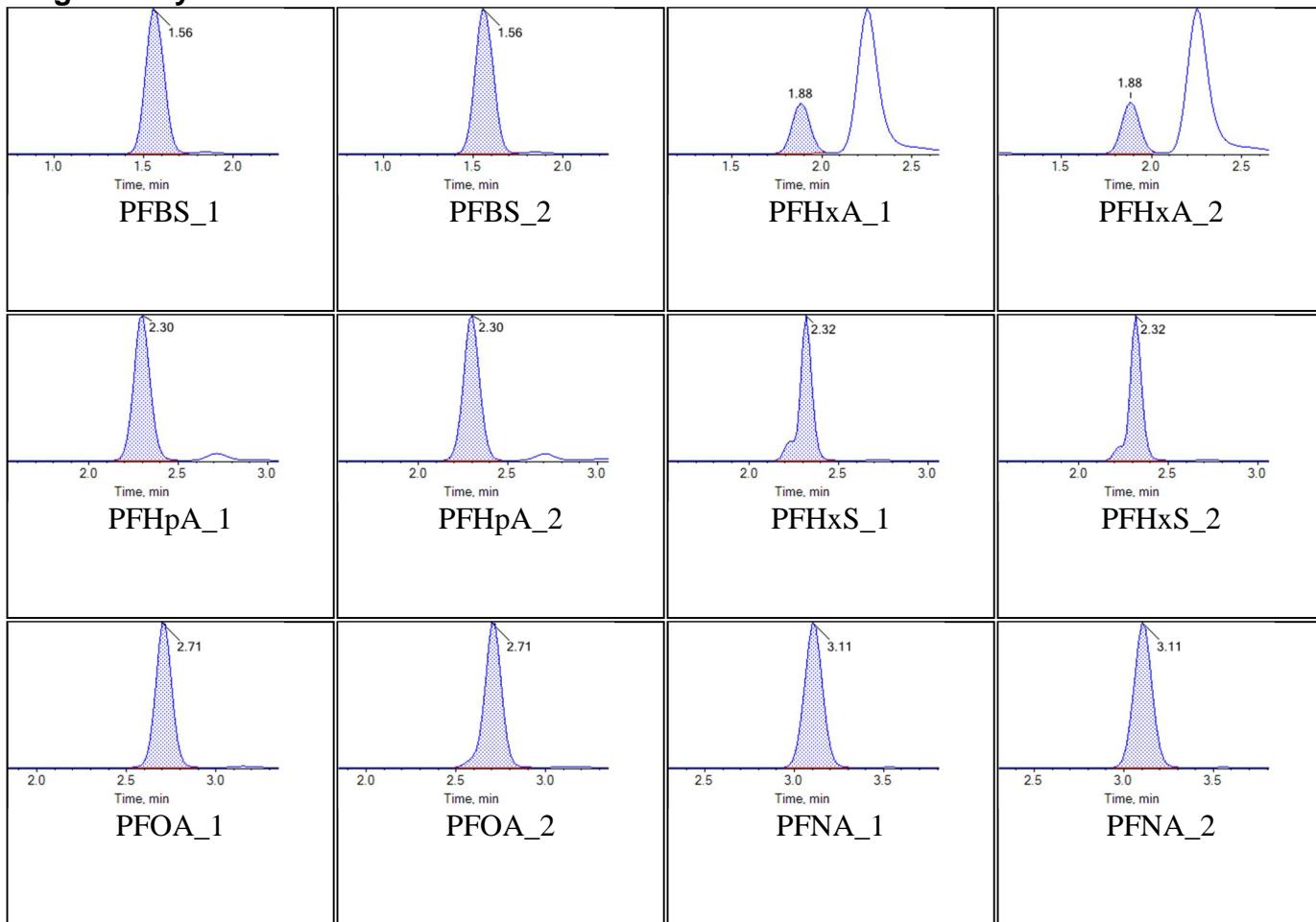
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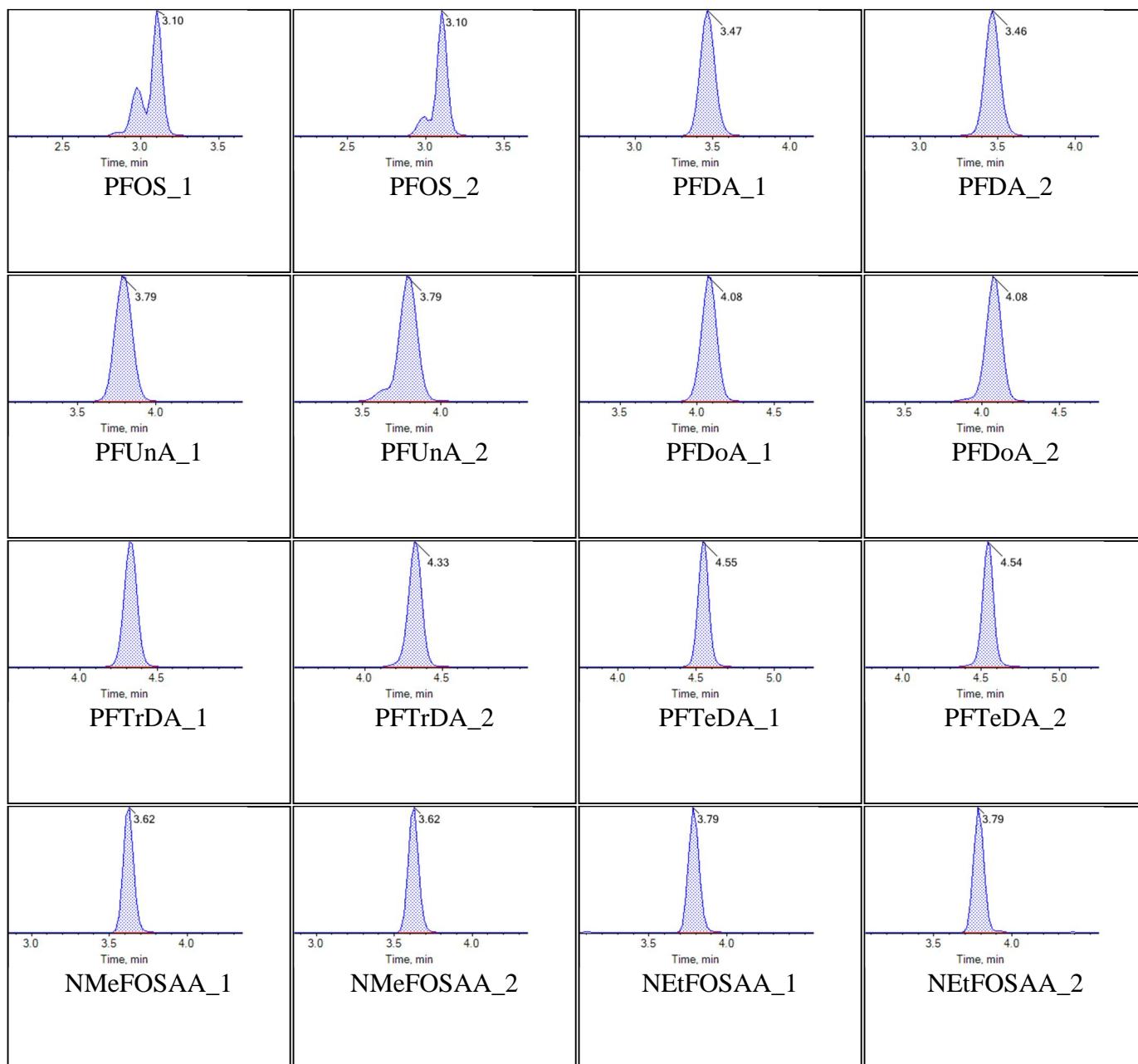
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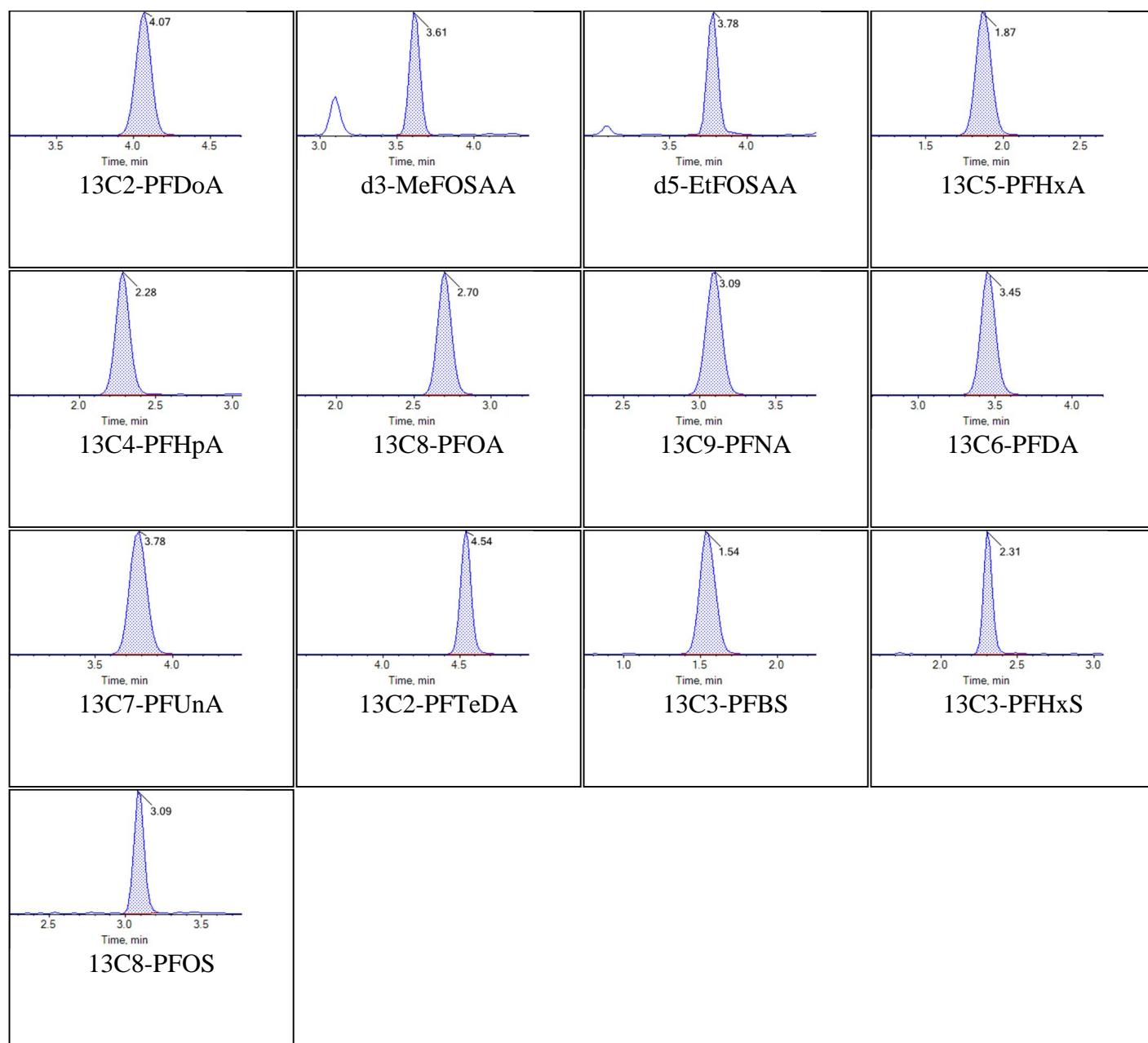
Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
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Sample Comment			

Chromatograms

Target Analytes:



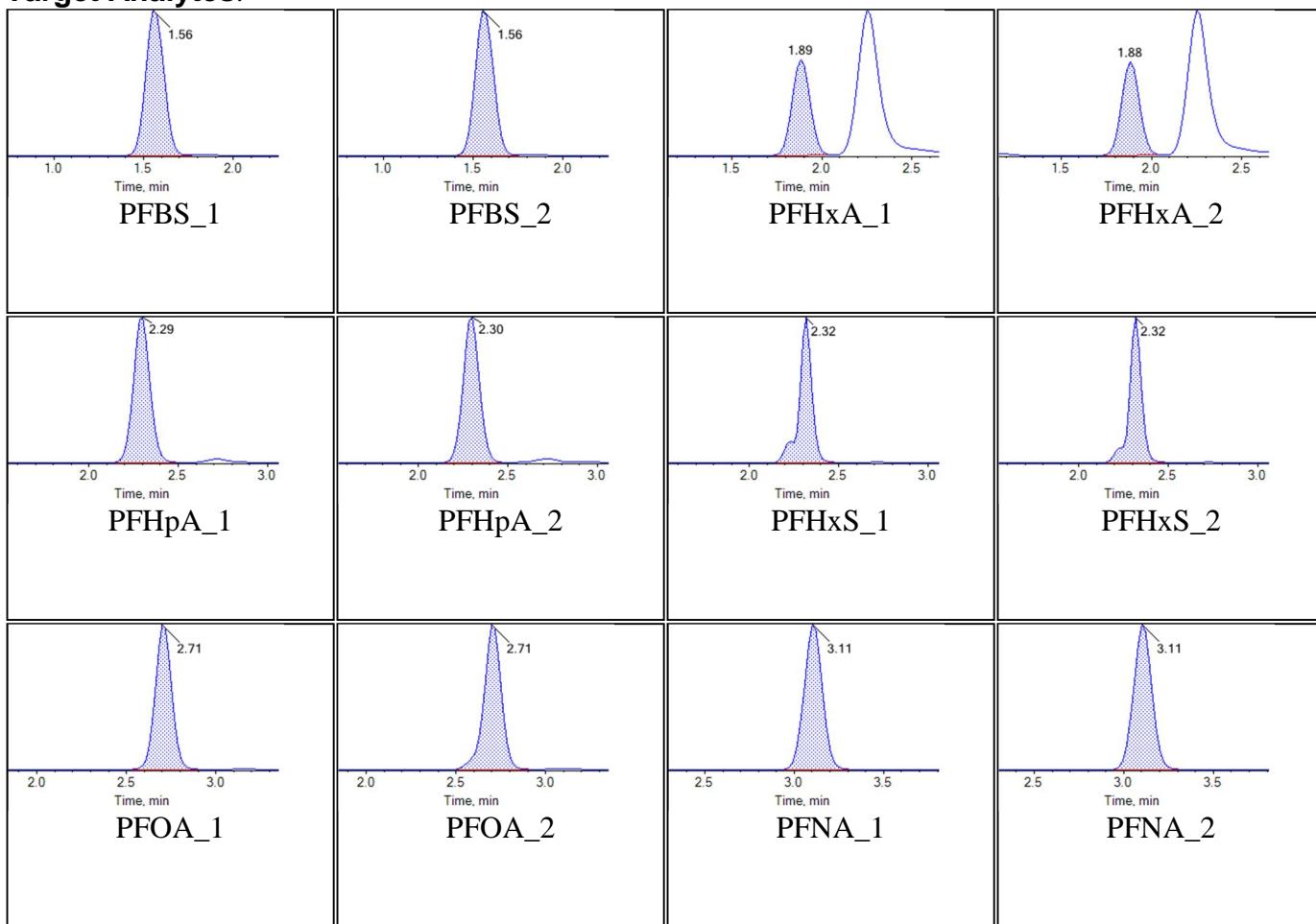
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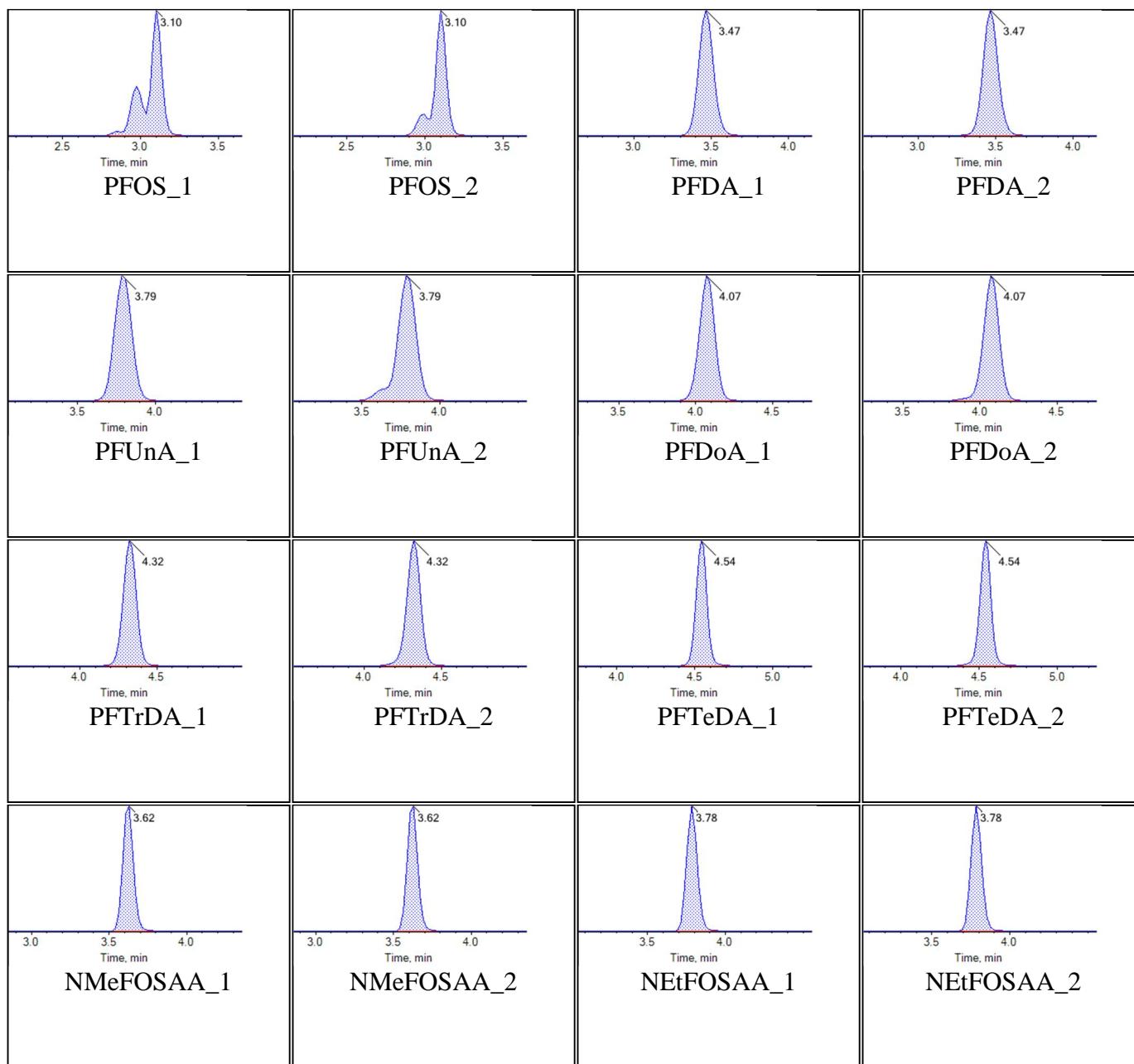


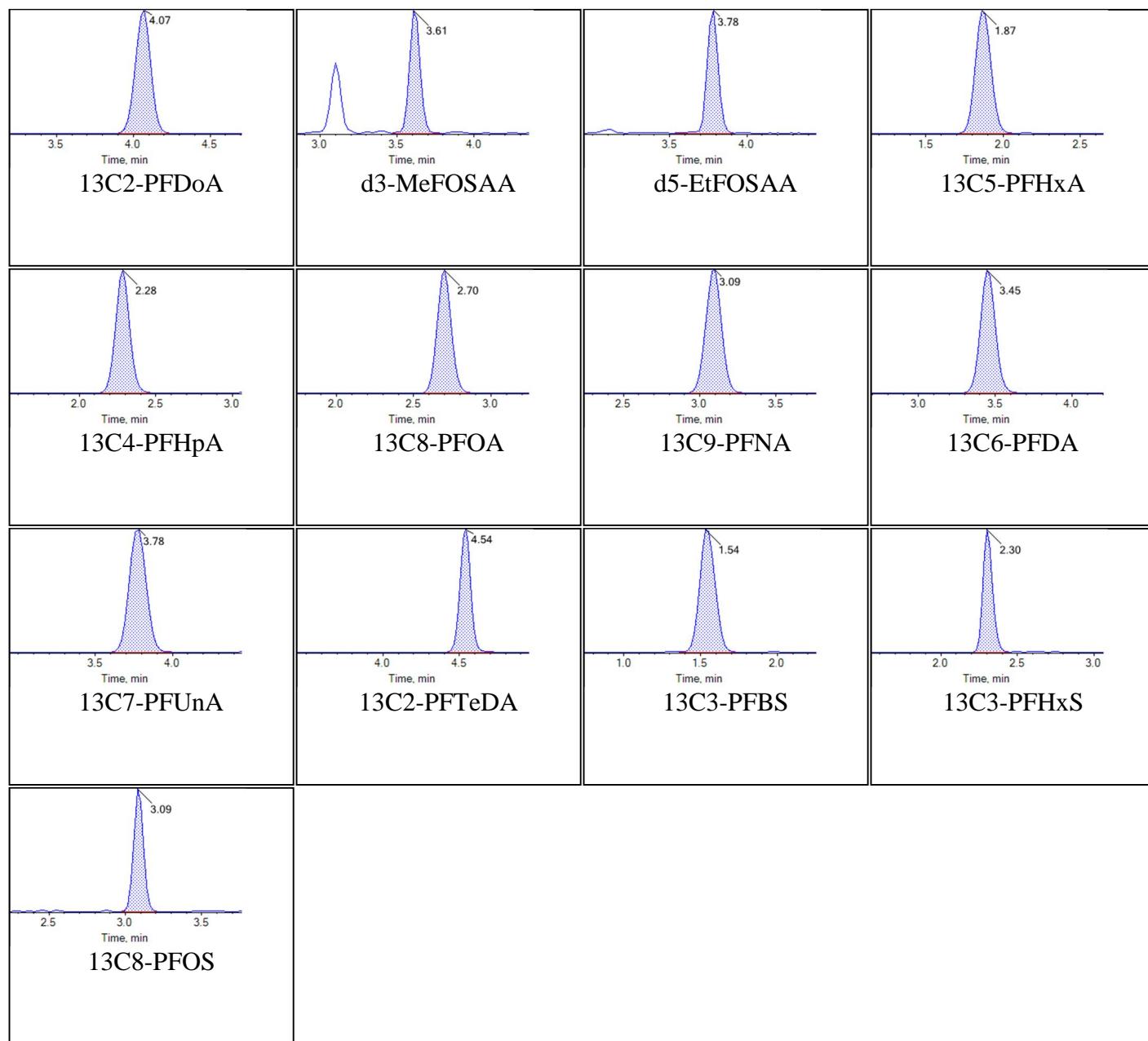
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Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

Target Analytes:



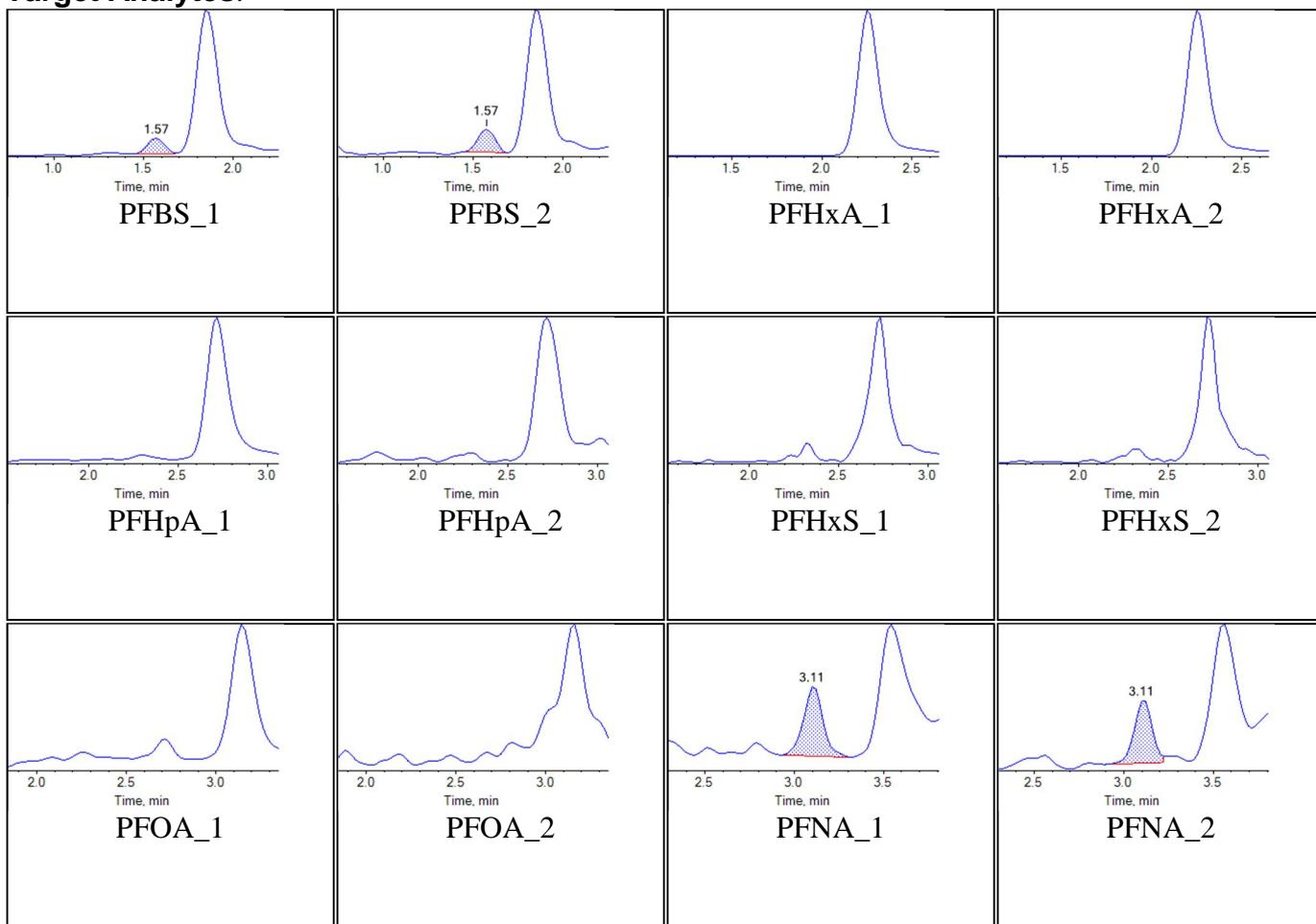
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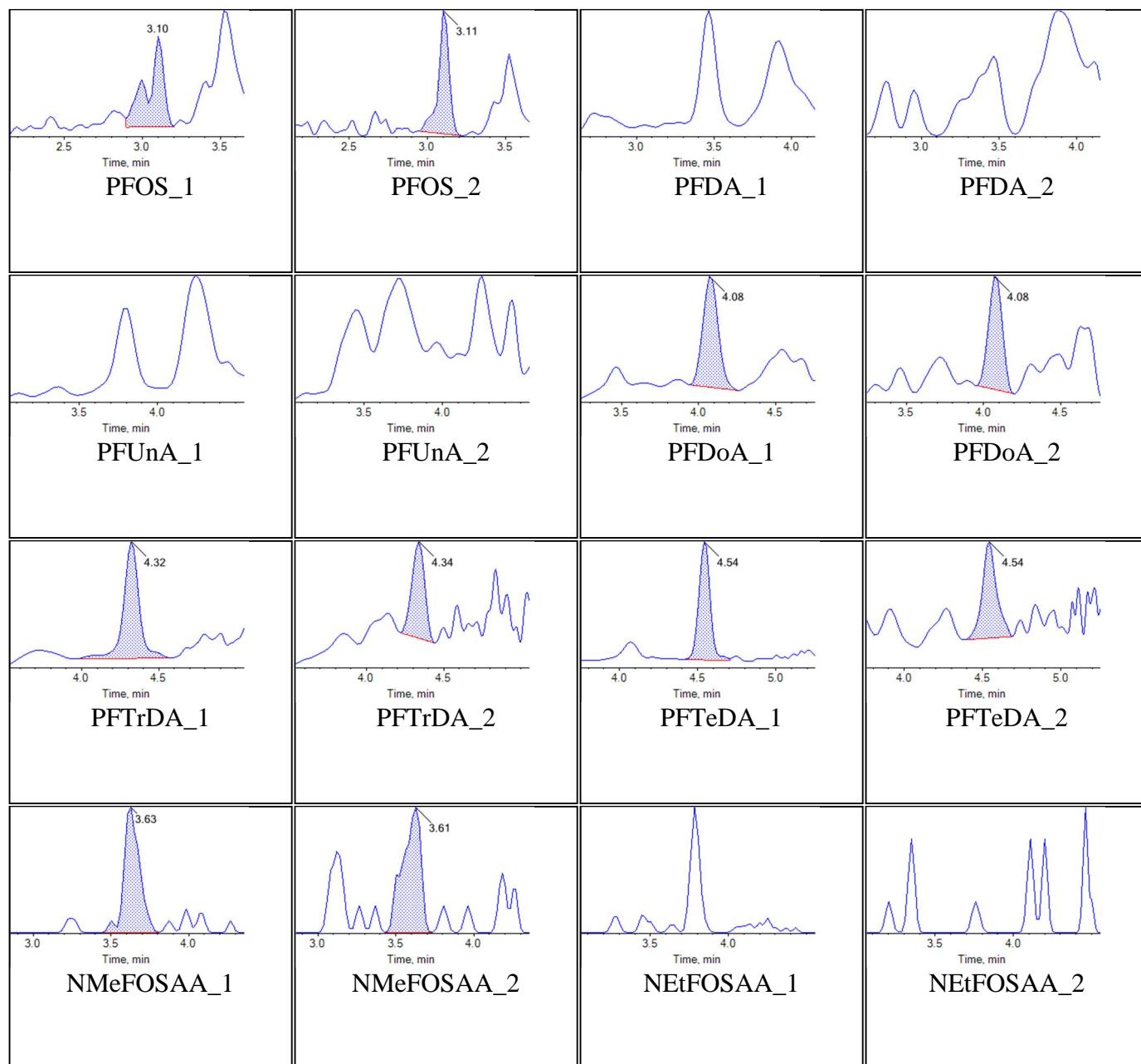


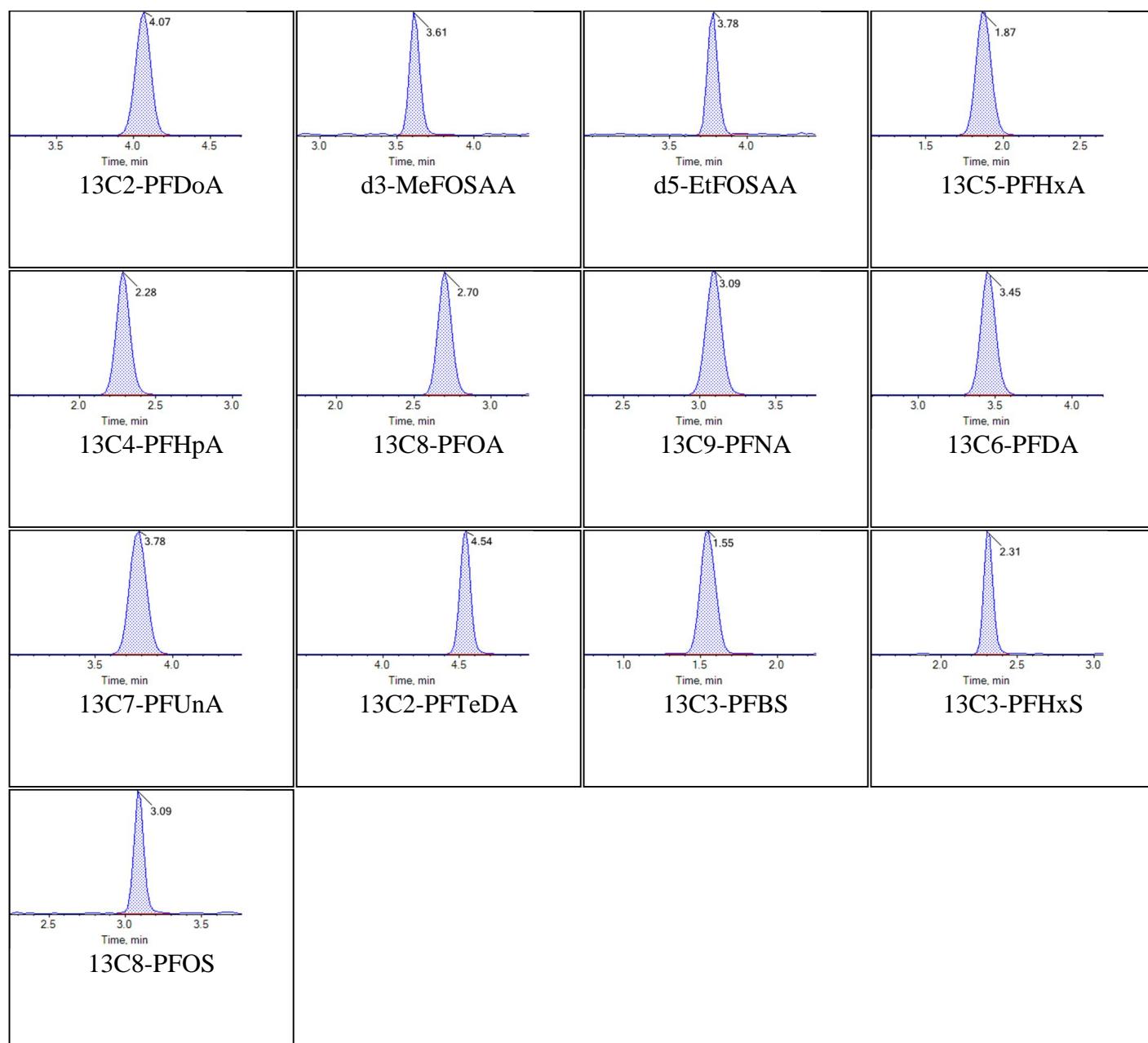
Sample Name	KB80 IB	Injection Vial	9
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

Target Analytes:



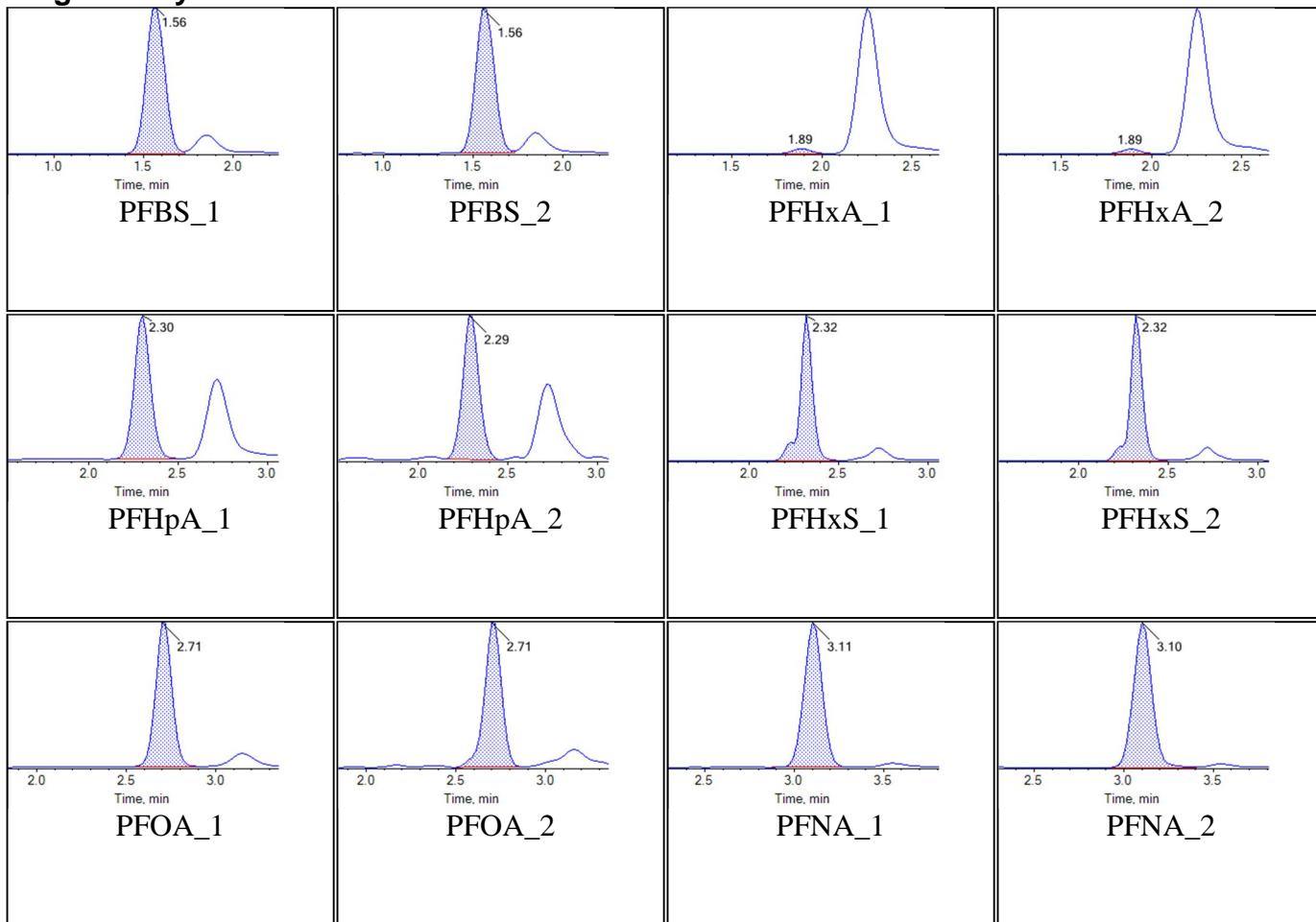
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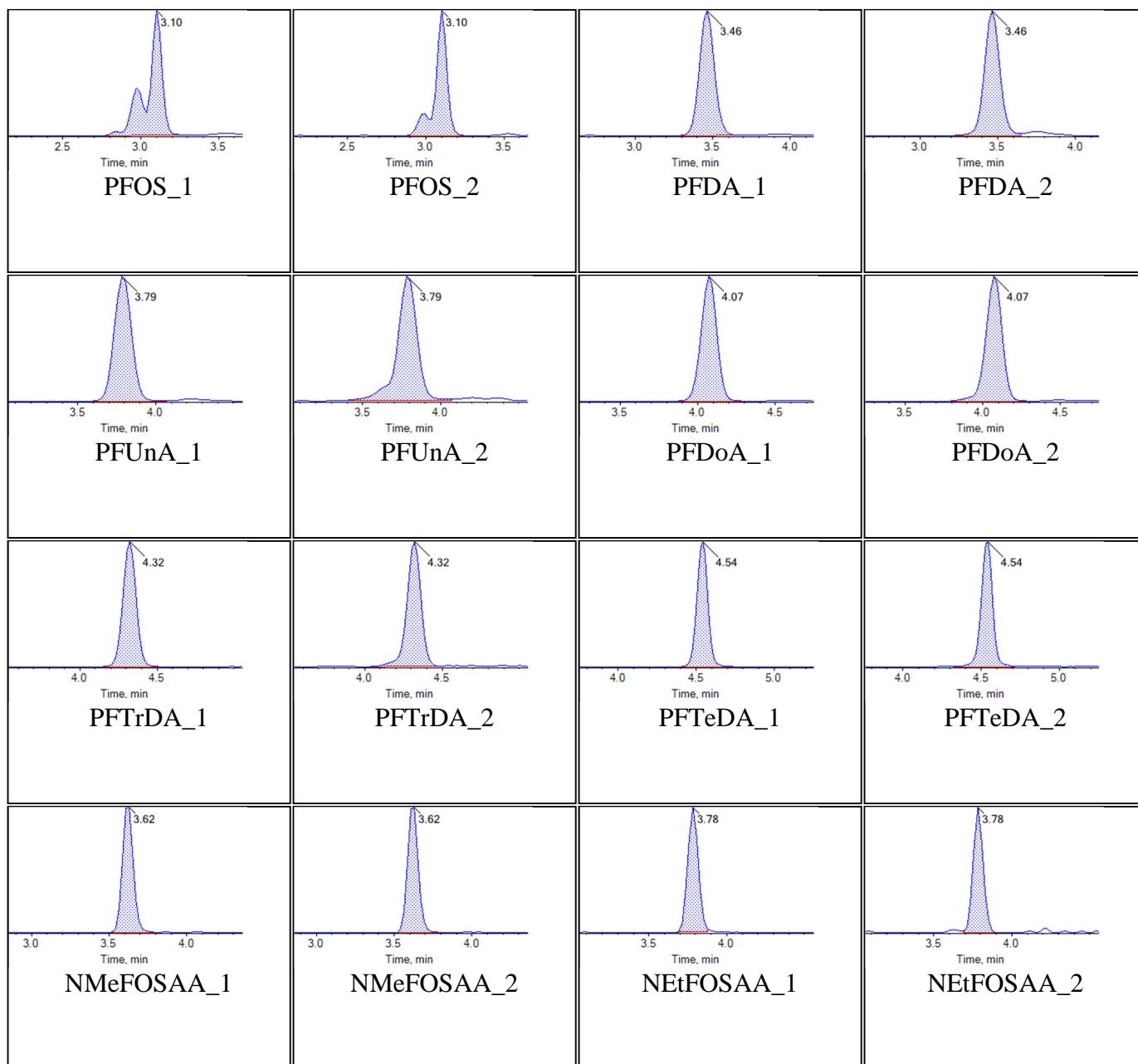


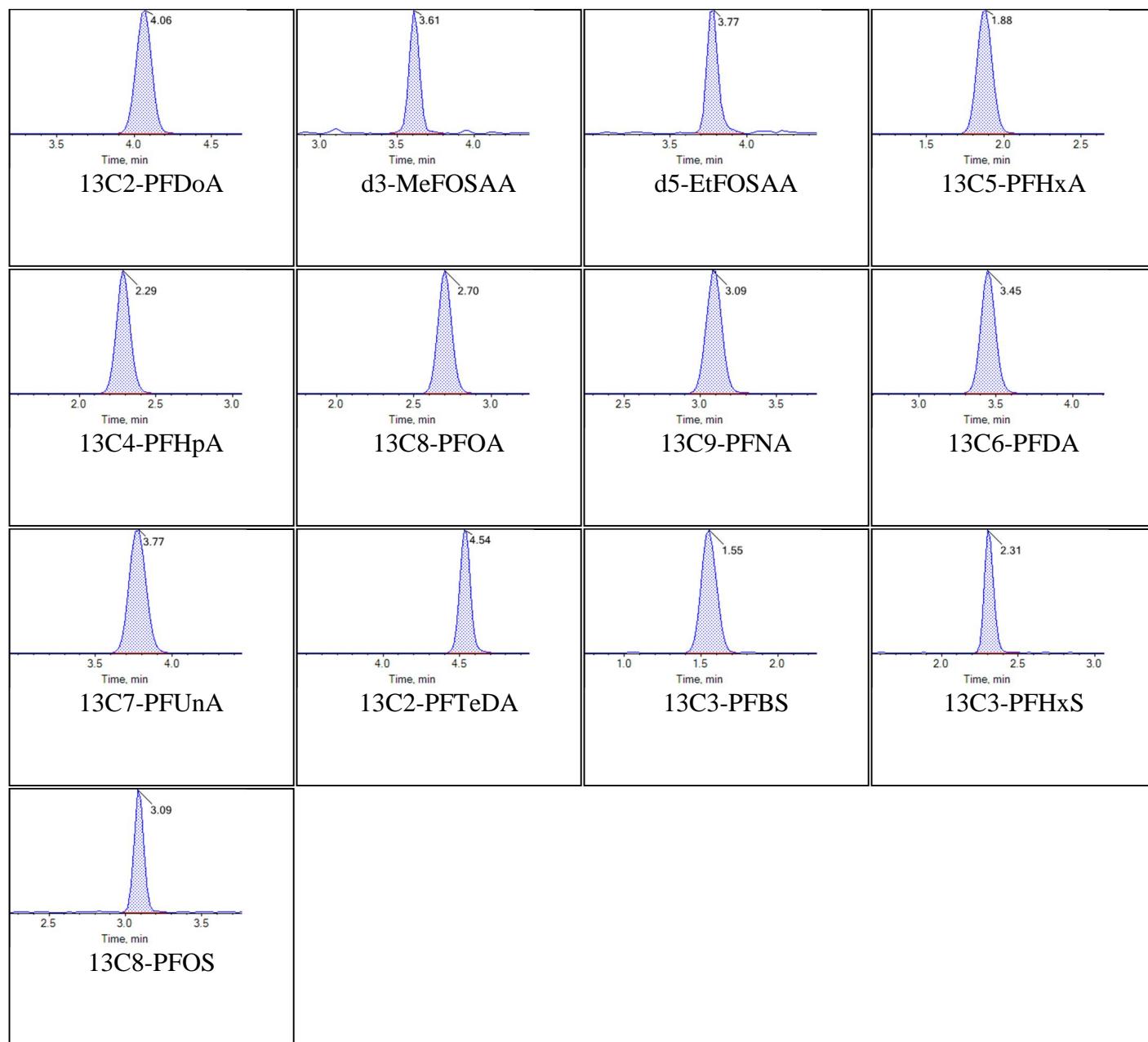
Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

Target Analytes:



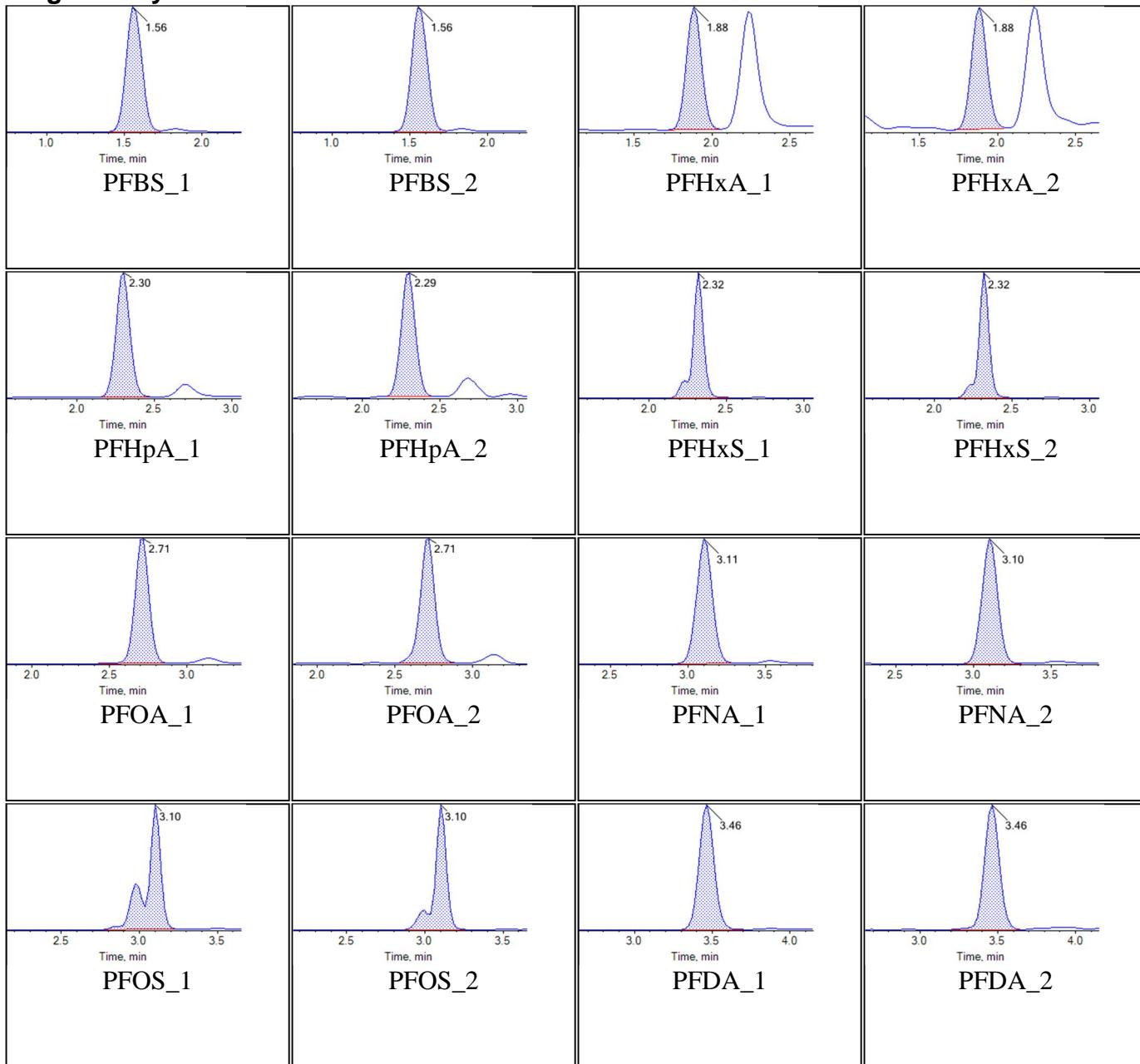
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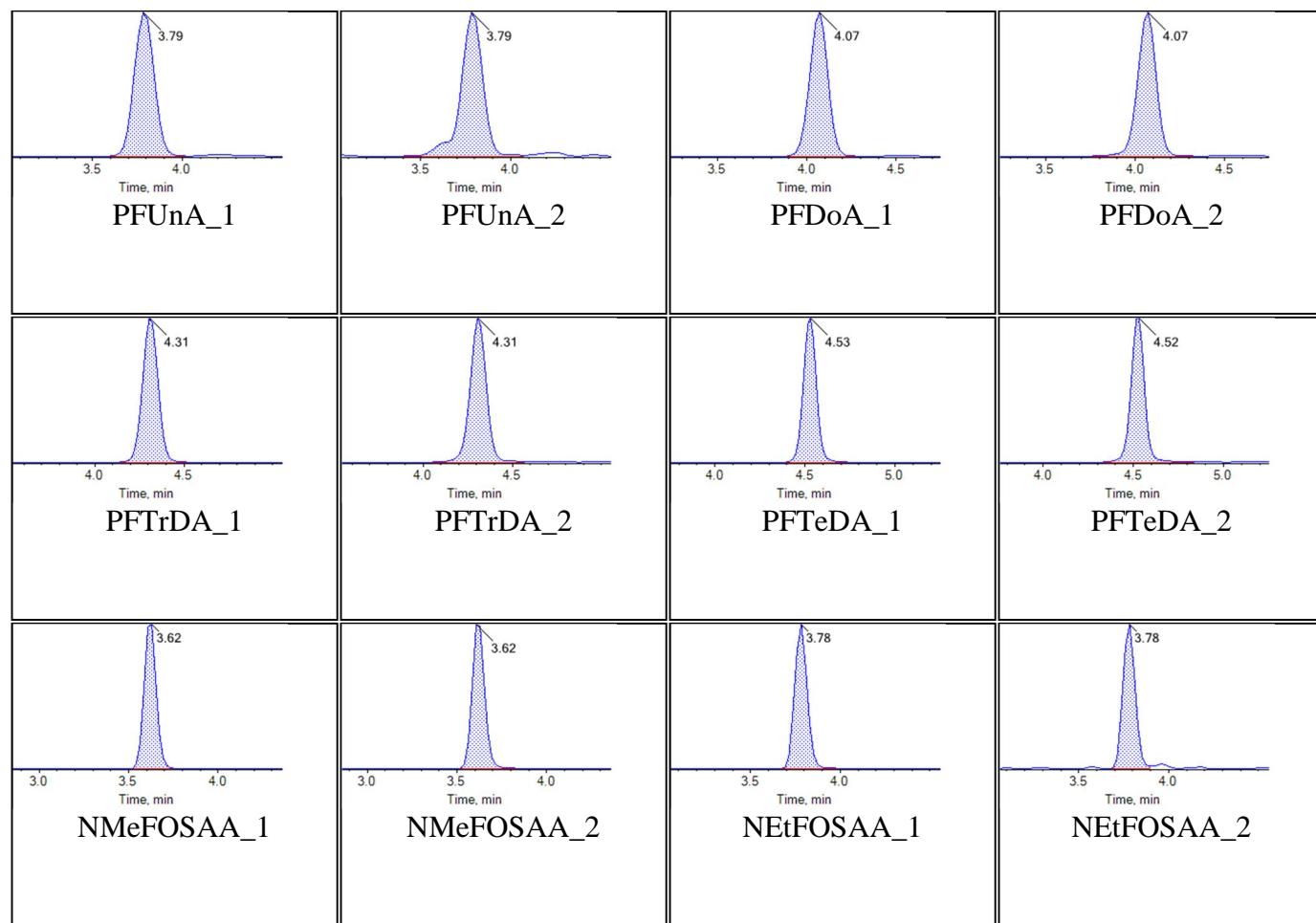
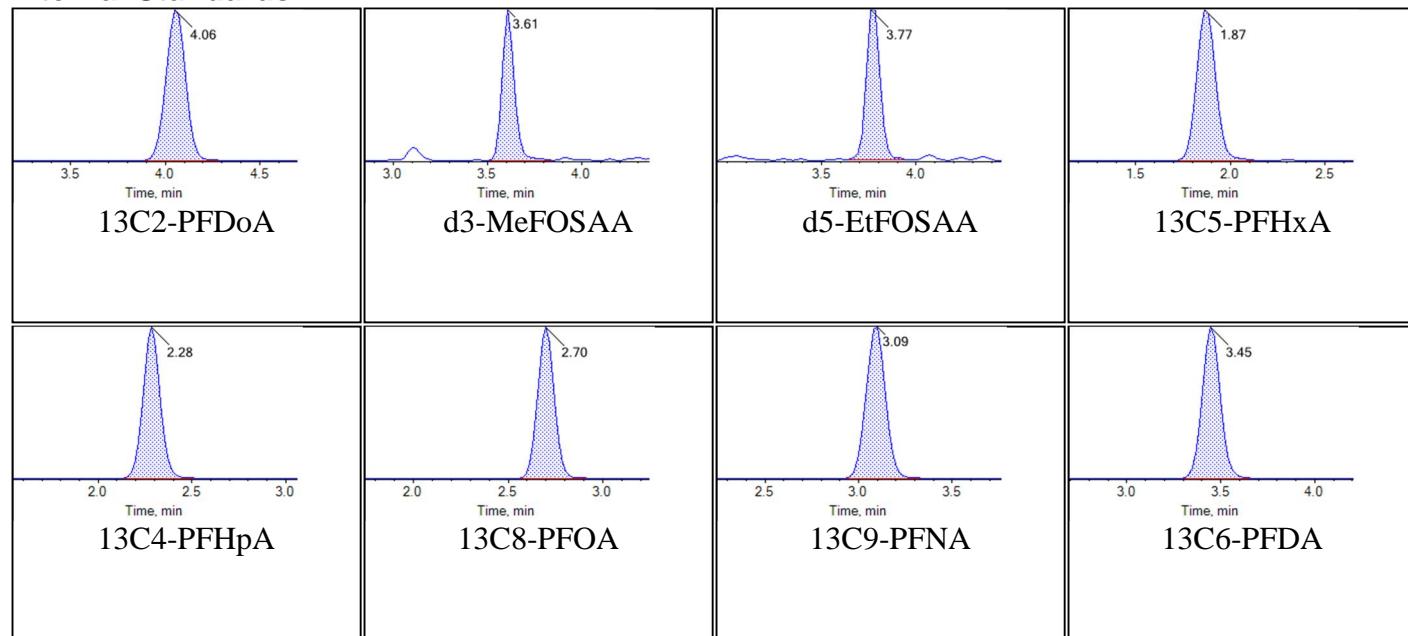


Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:26:39	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

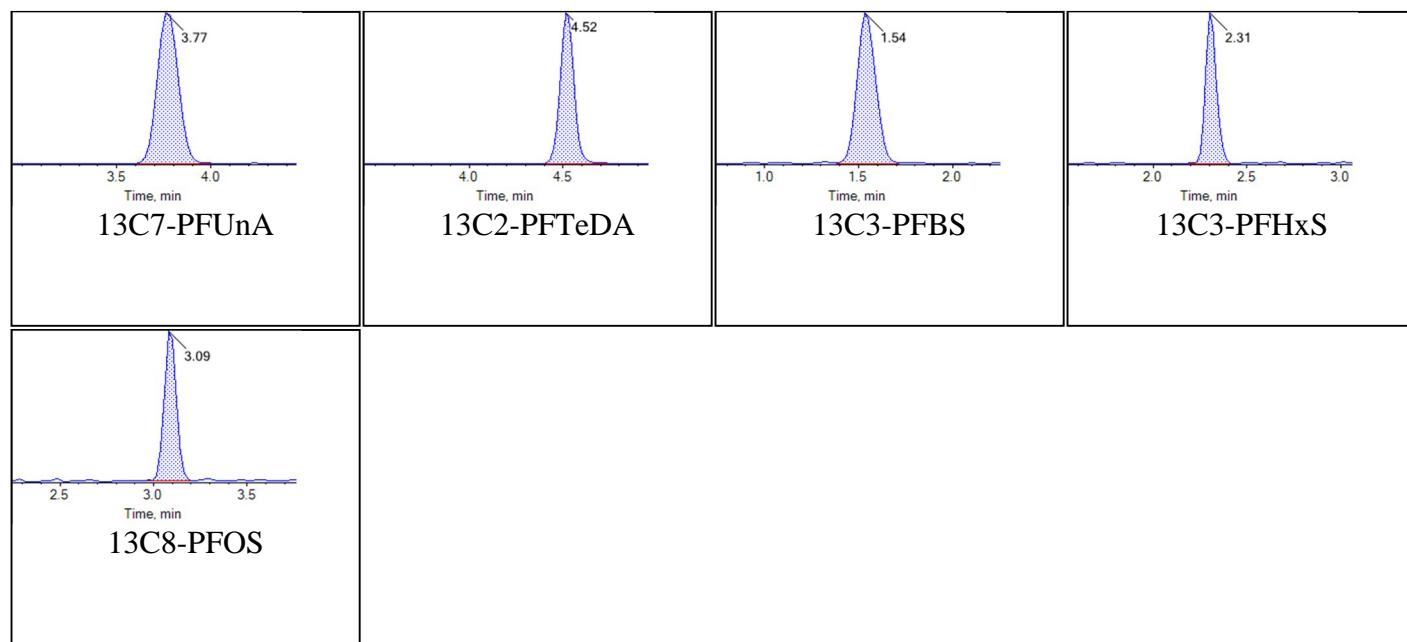
Chromatograms

Target Analytes:



**Internal Standards:**

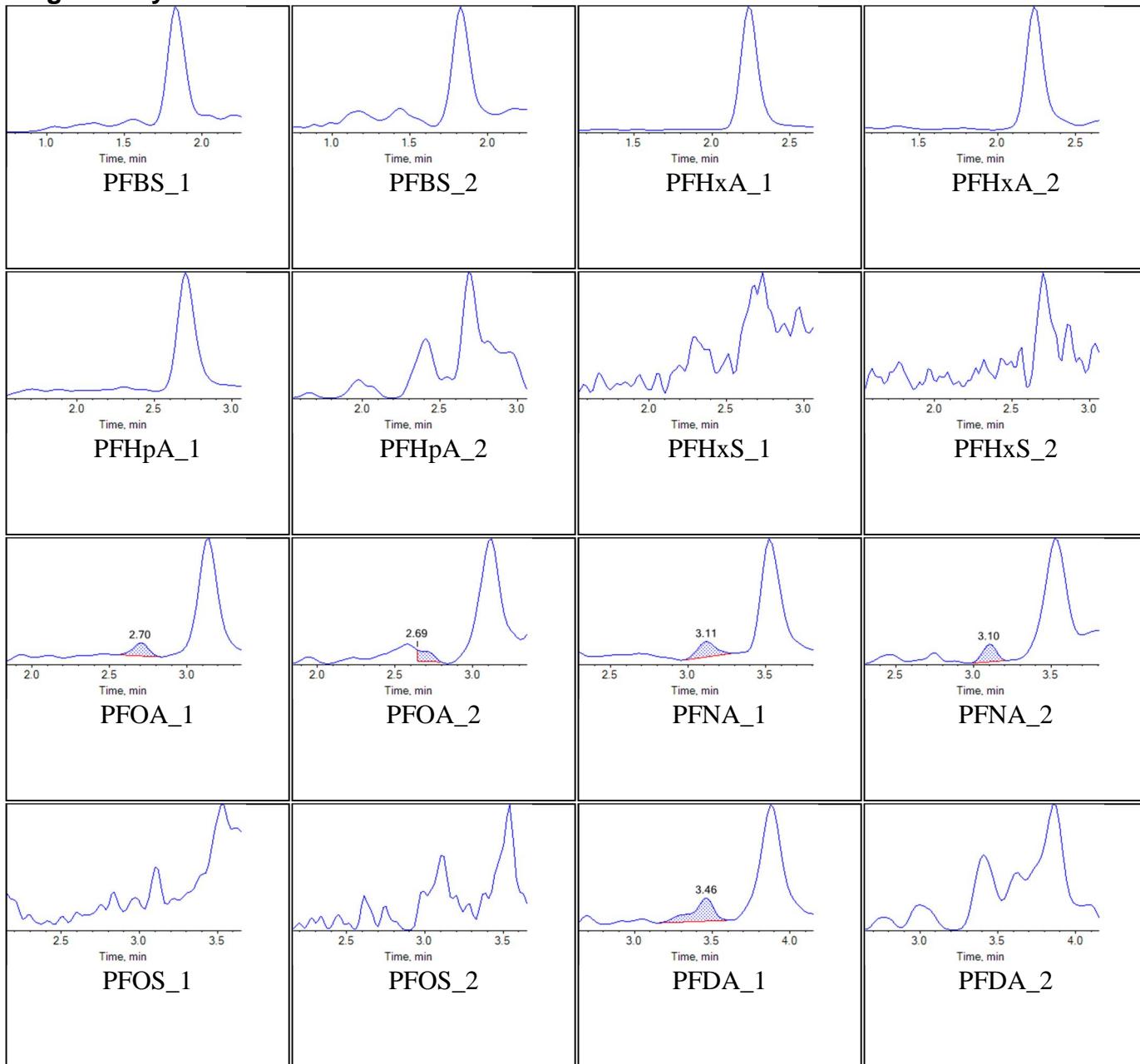
Chromatogram Report

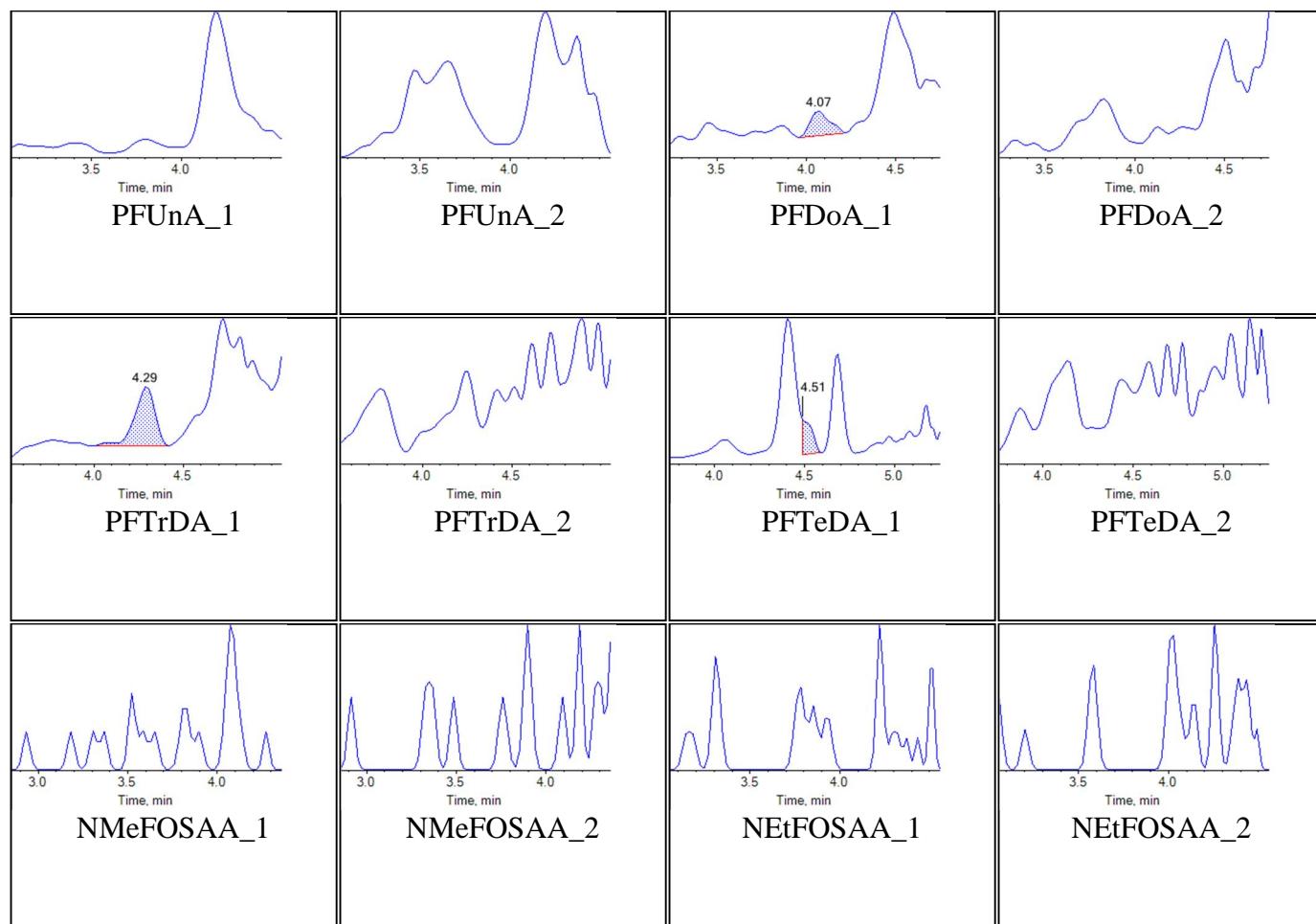
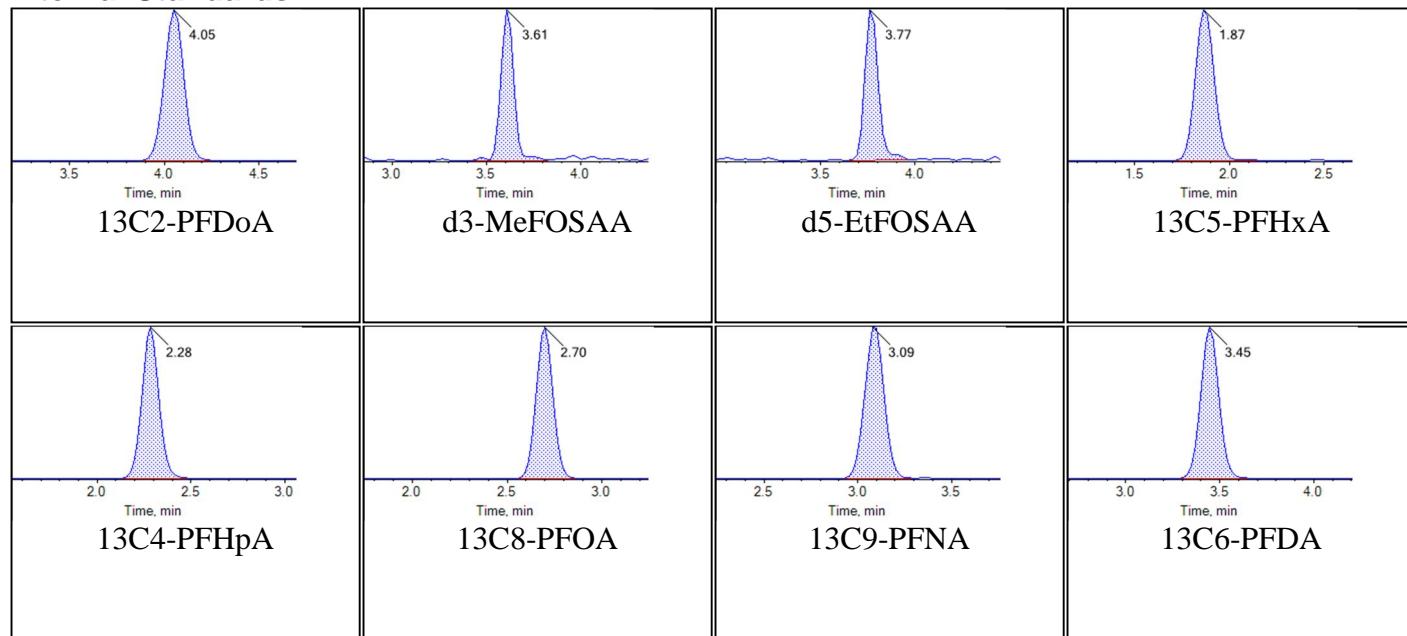
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Sample Name	CR992PB-FS(3)	Injection Vial	17
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:48:24	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

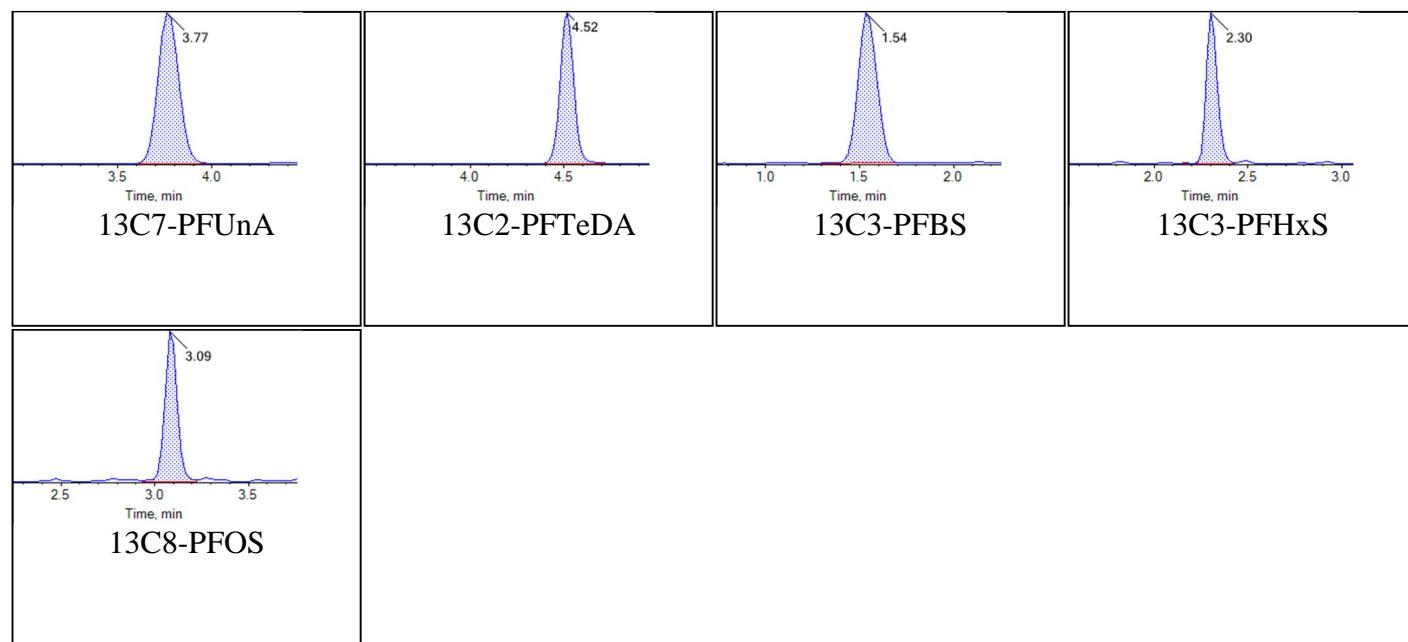
Chromatograms

Target Analytes:



**Internal Standards:**

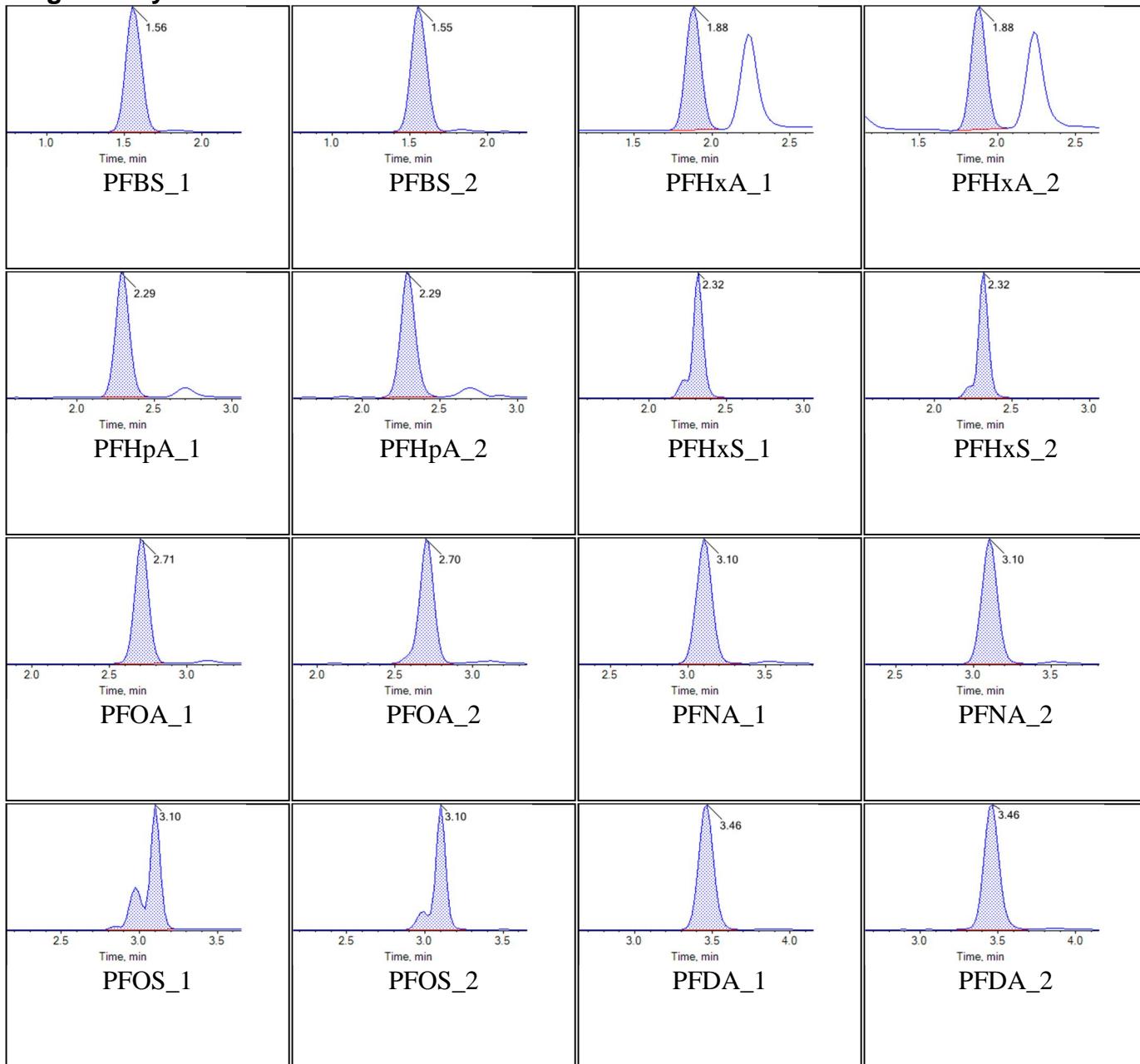
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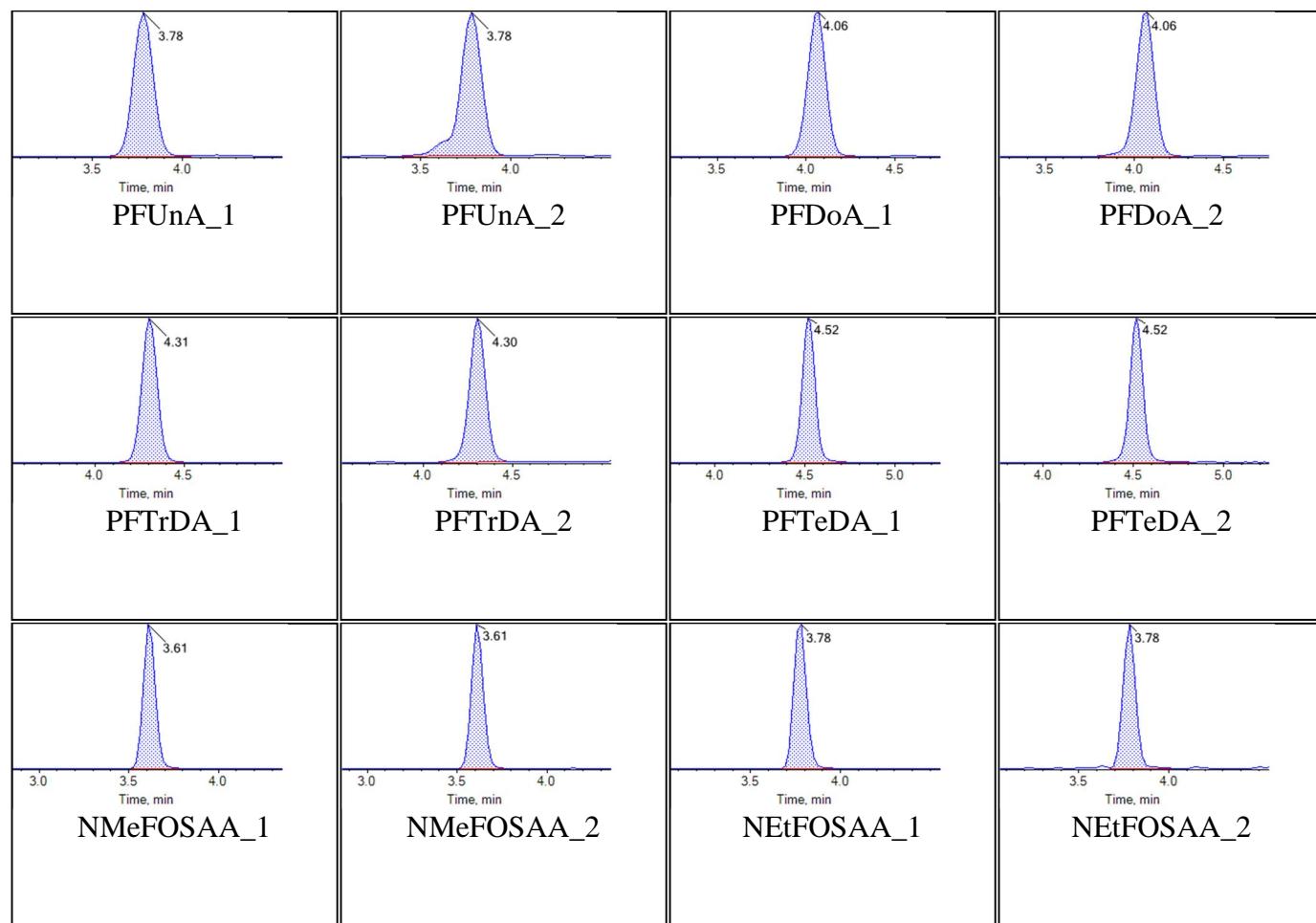
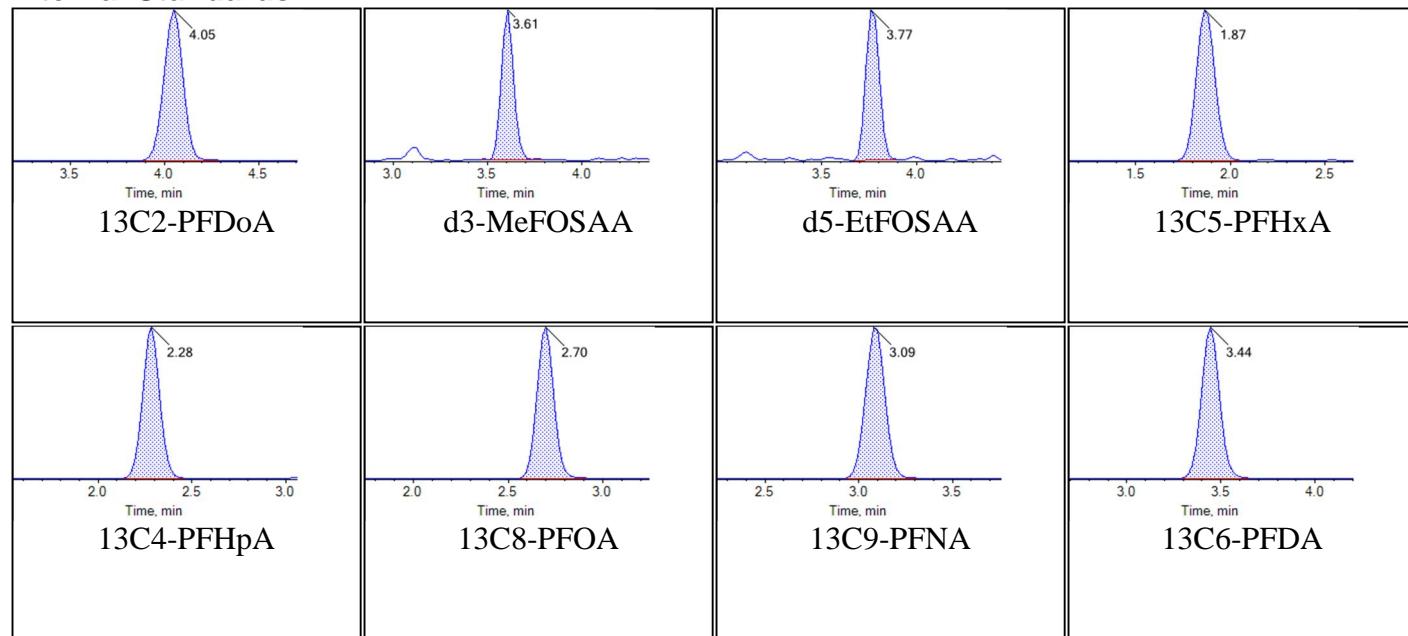
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Sample Name	CR993LCS-FS(3)	Injection Vial	18
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:59:15	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

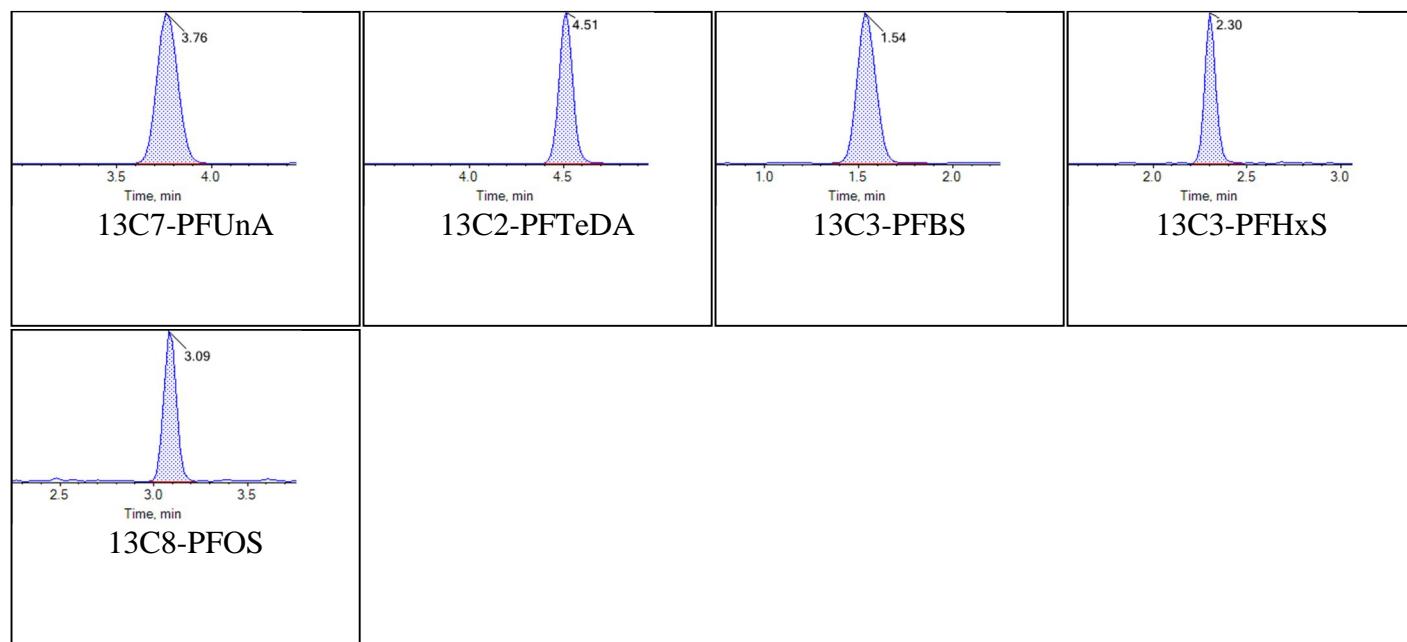
Chromatograms

Target Analytes:



**Internal Standards:**

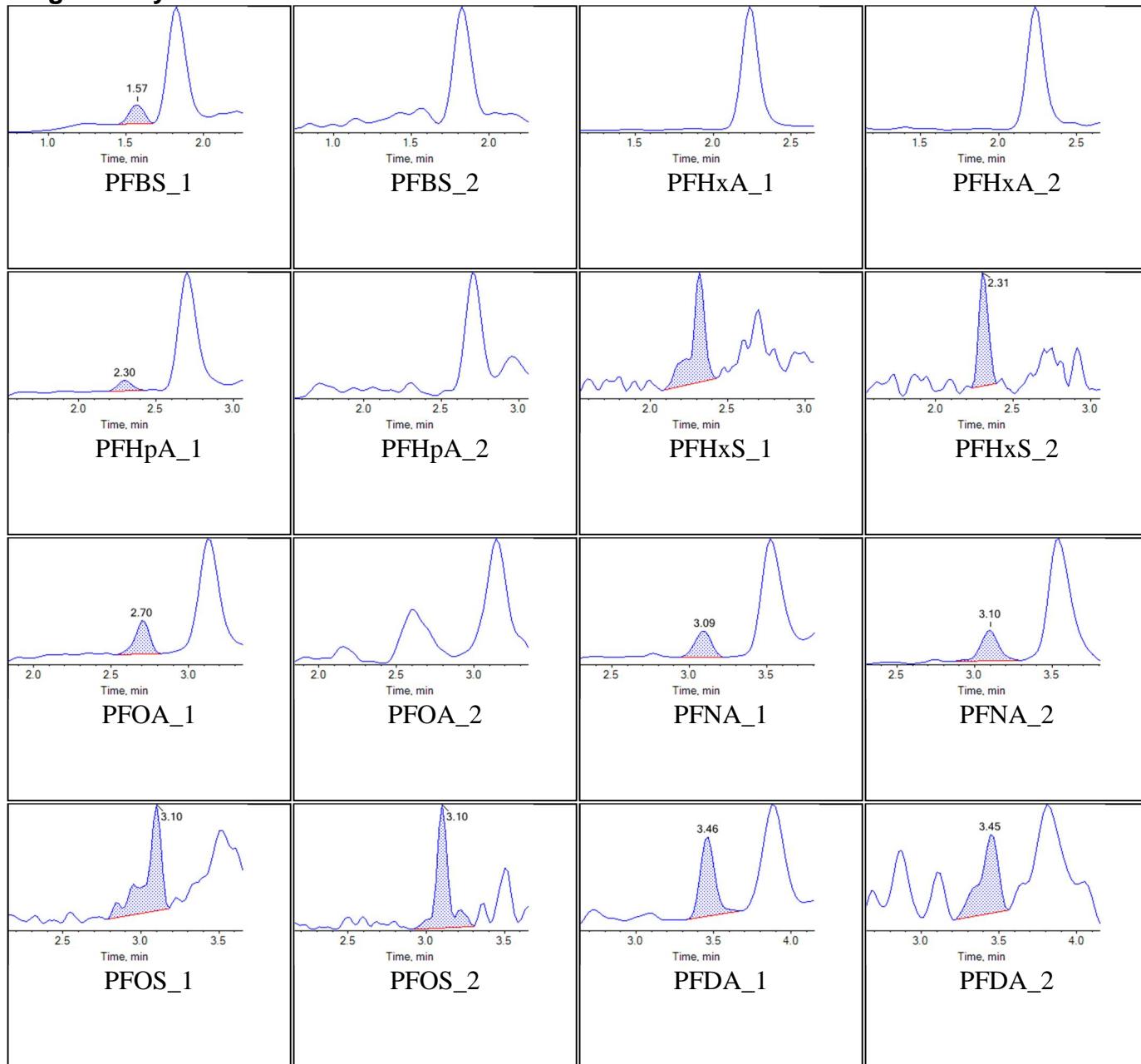
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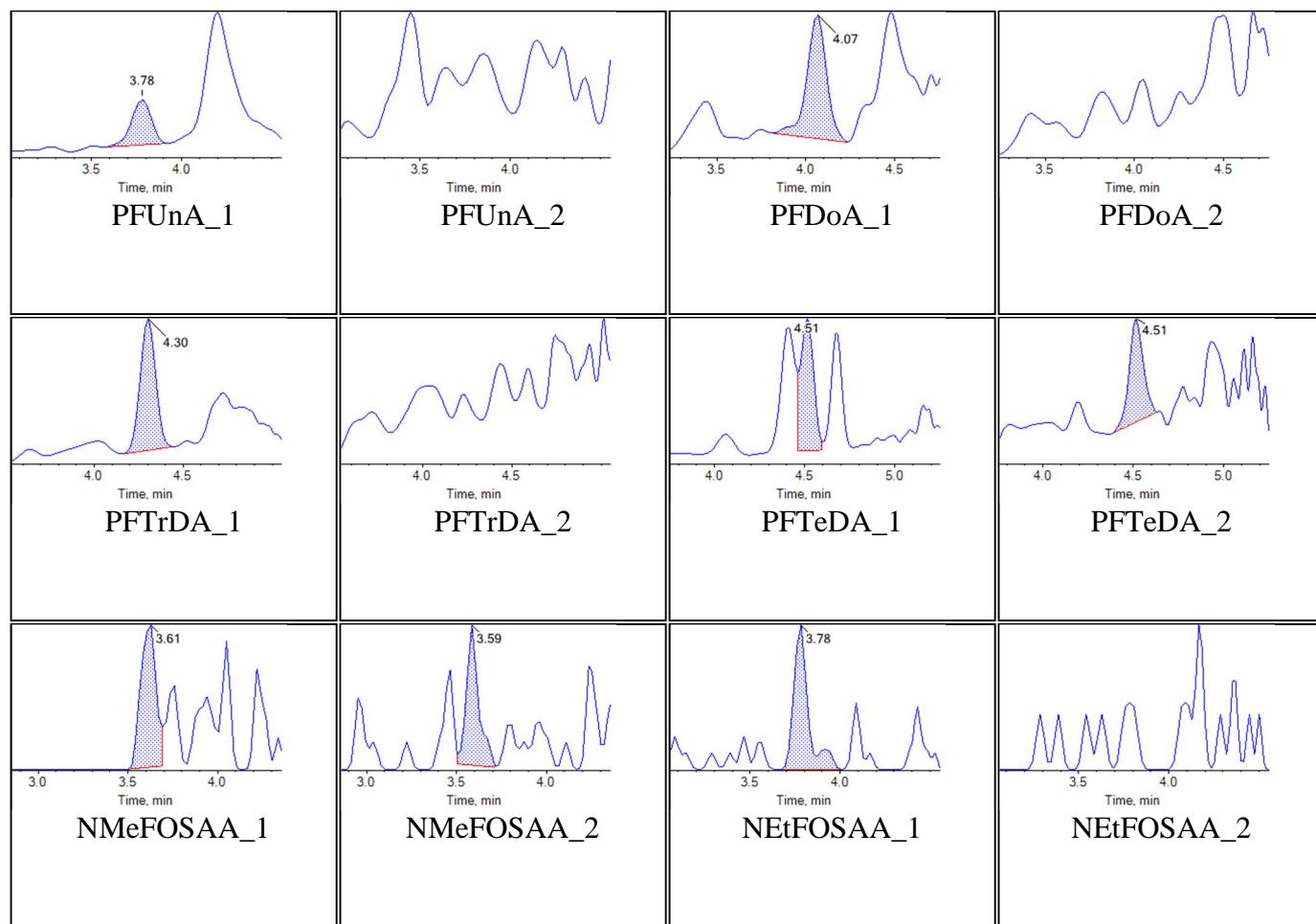
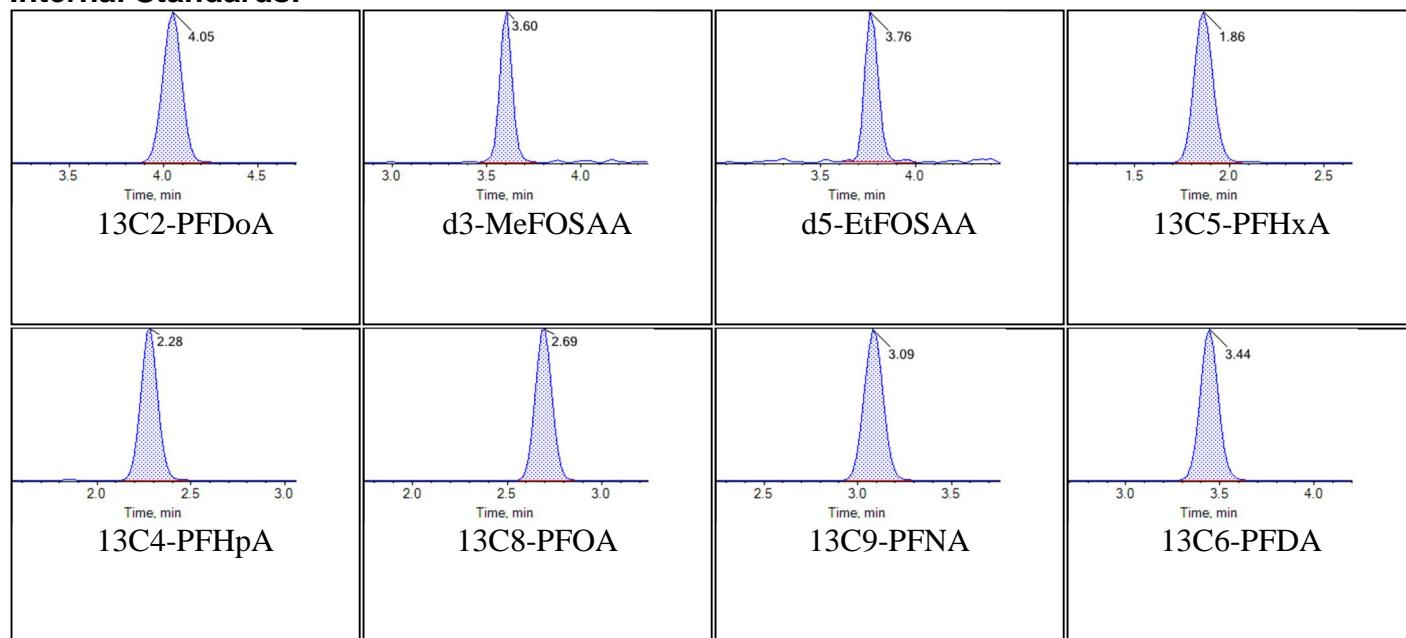
Sample Name	J8698-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:10:06	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

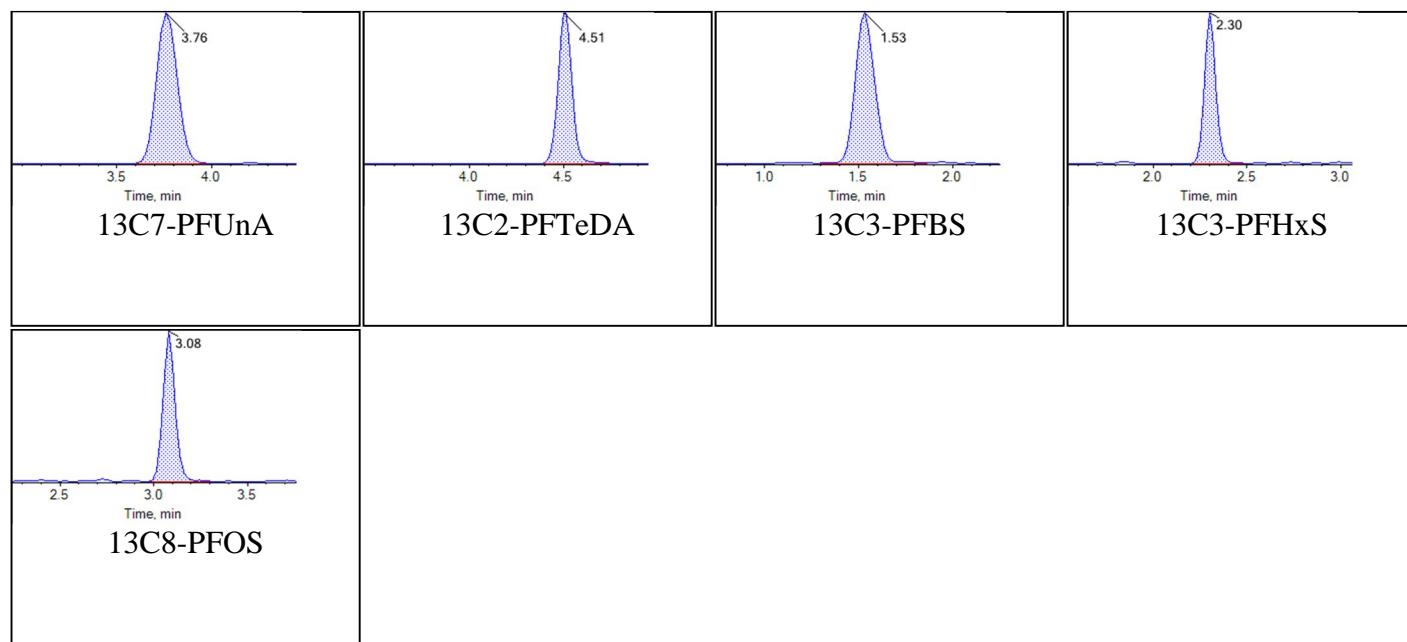
Chromatograms

Target Analytes:



Chromatogram Report

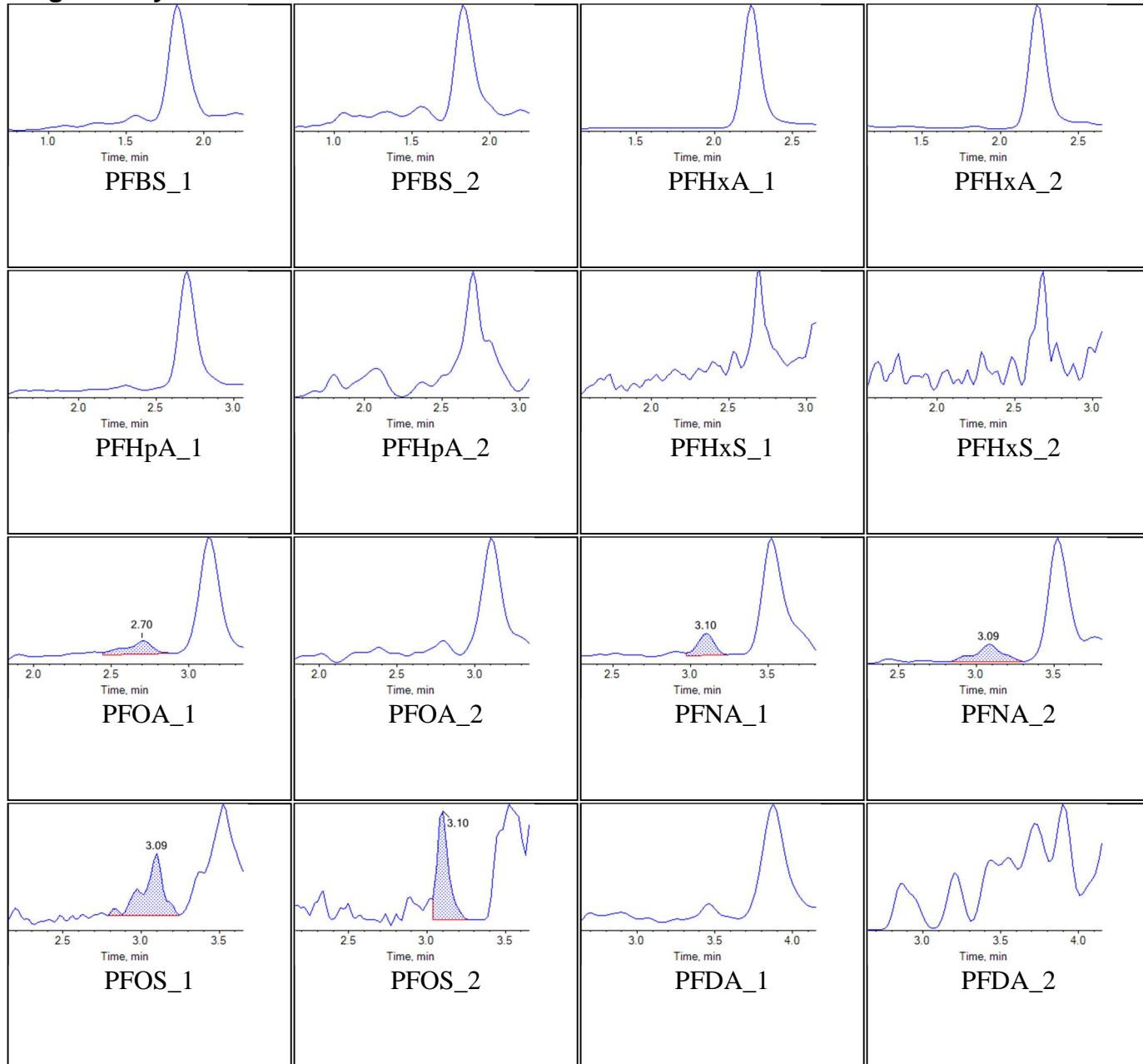
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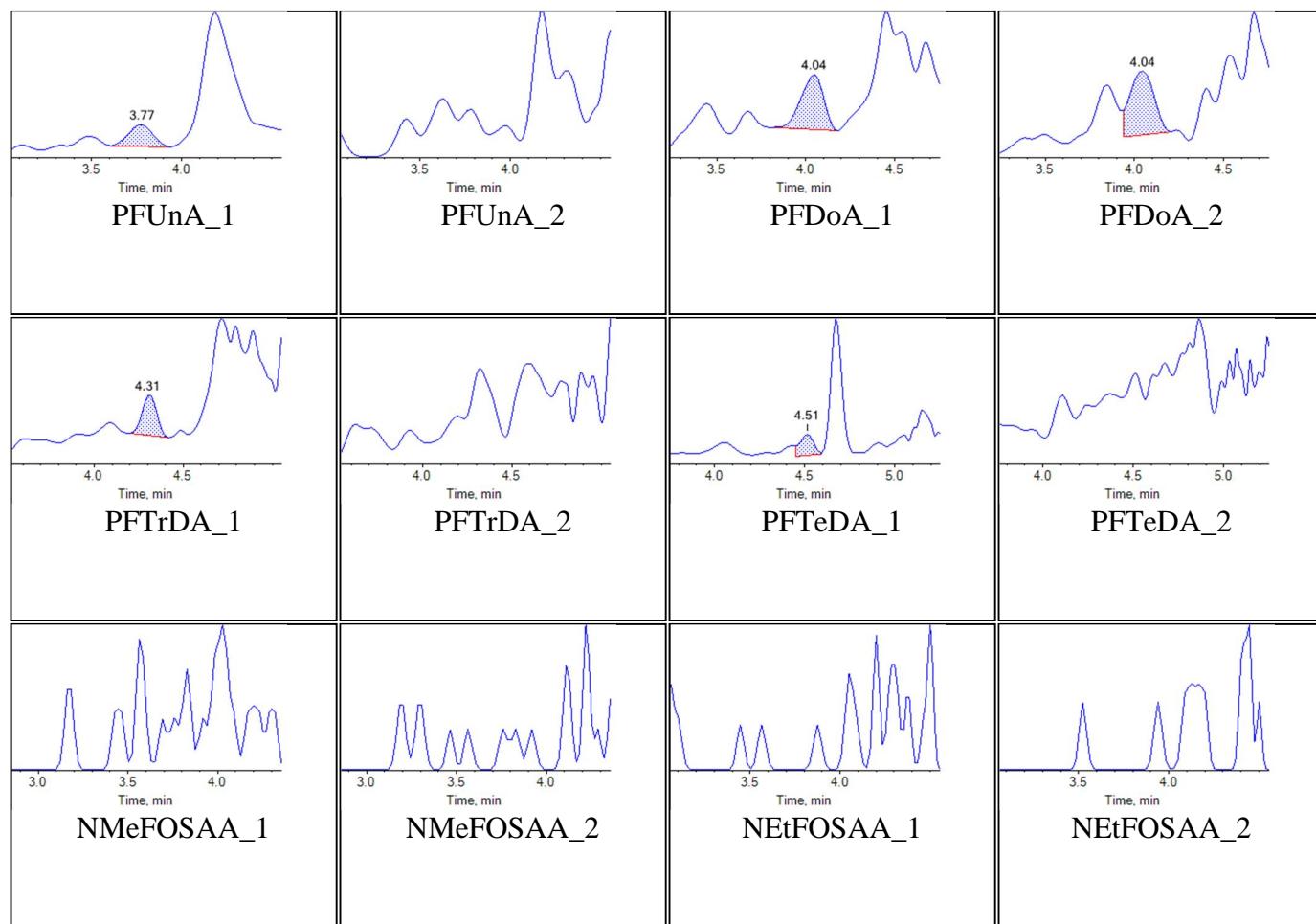
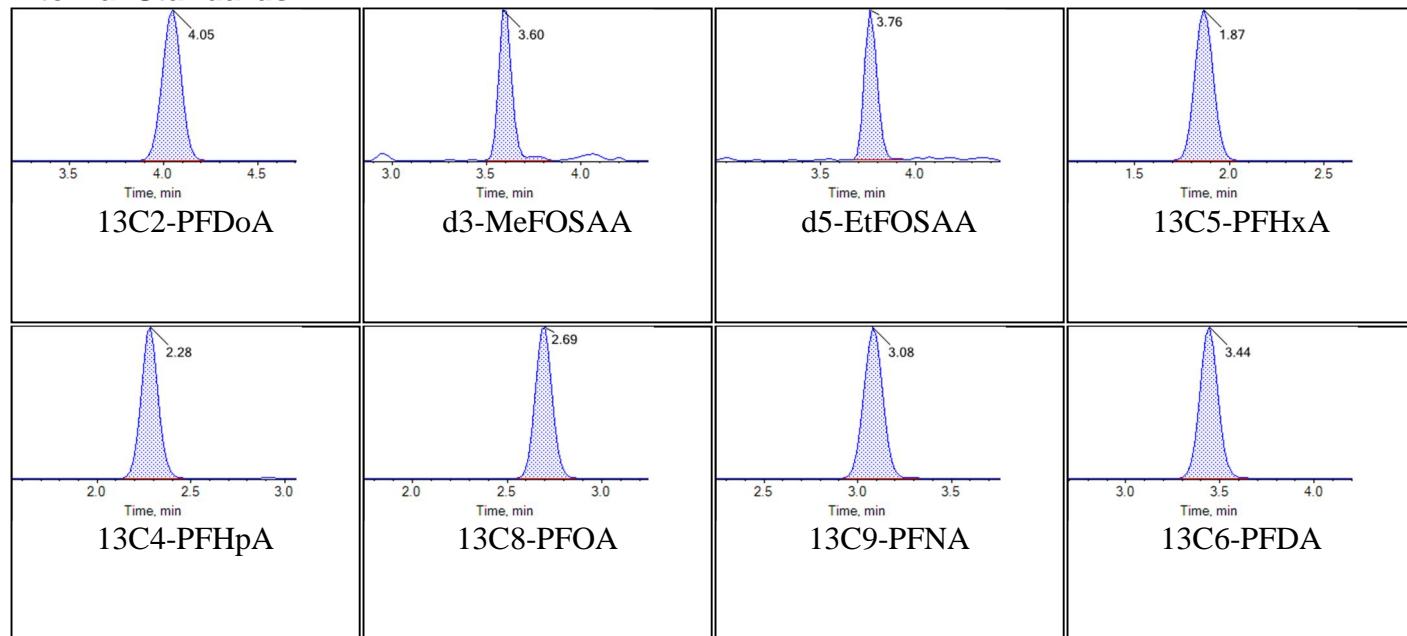


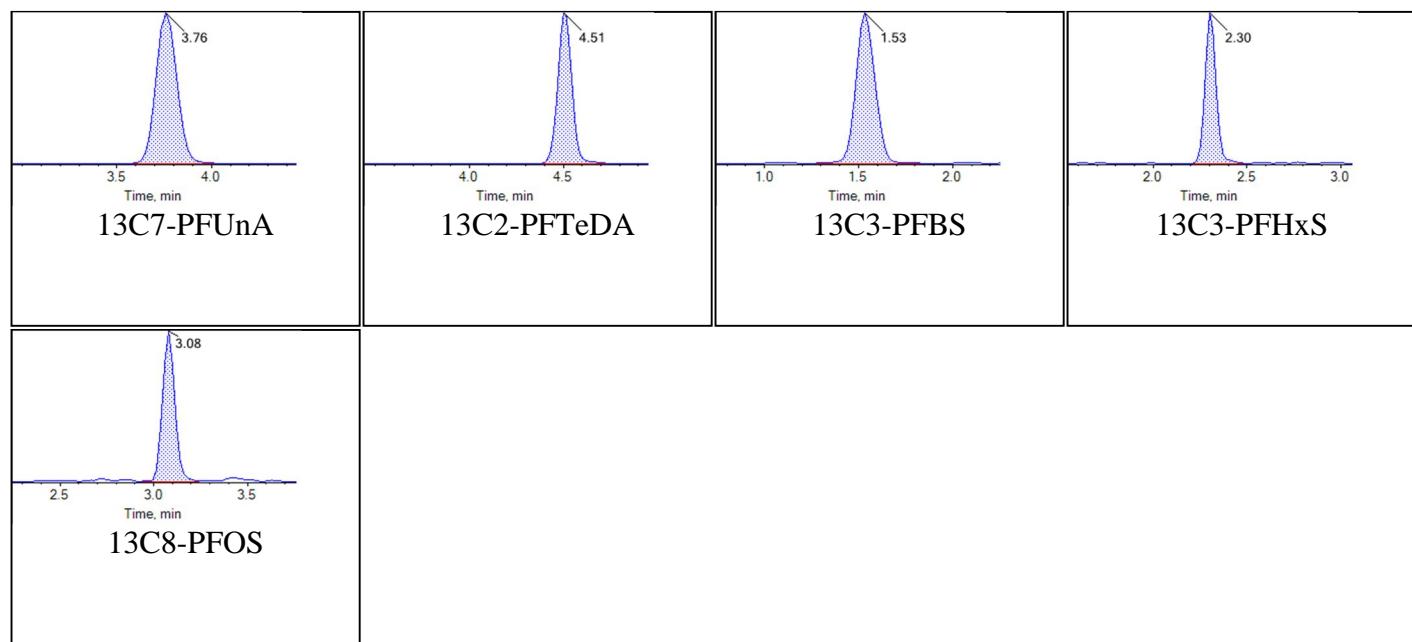
Sample Name	J8699-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:20:58	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

Target Analytes:



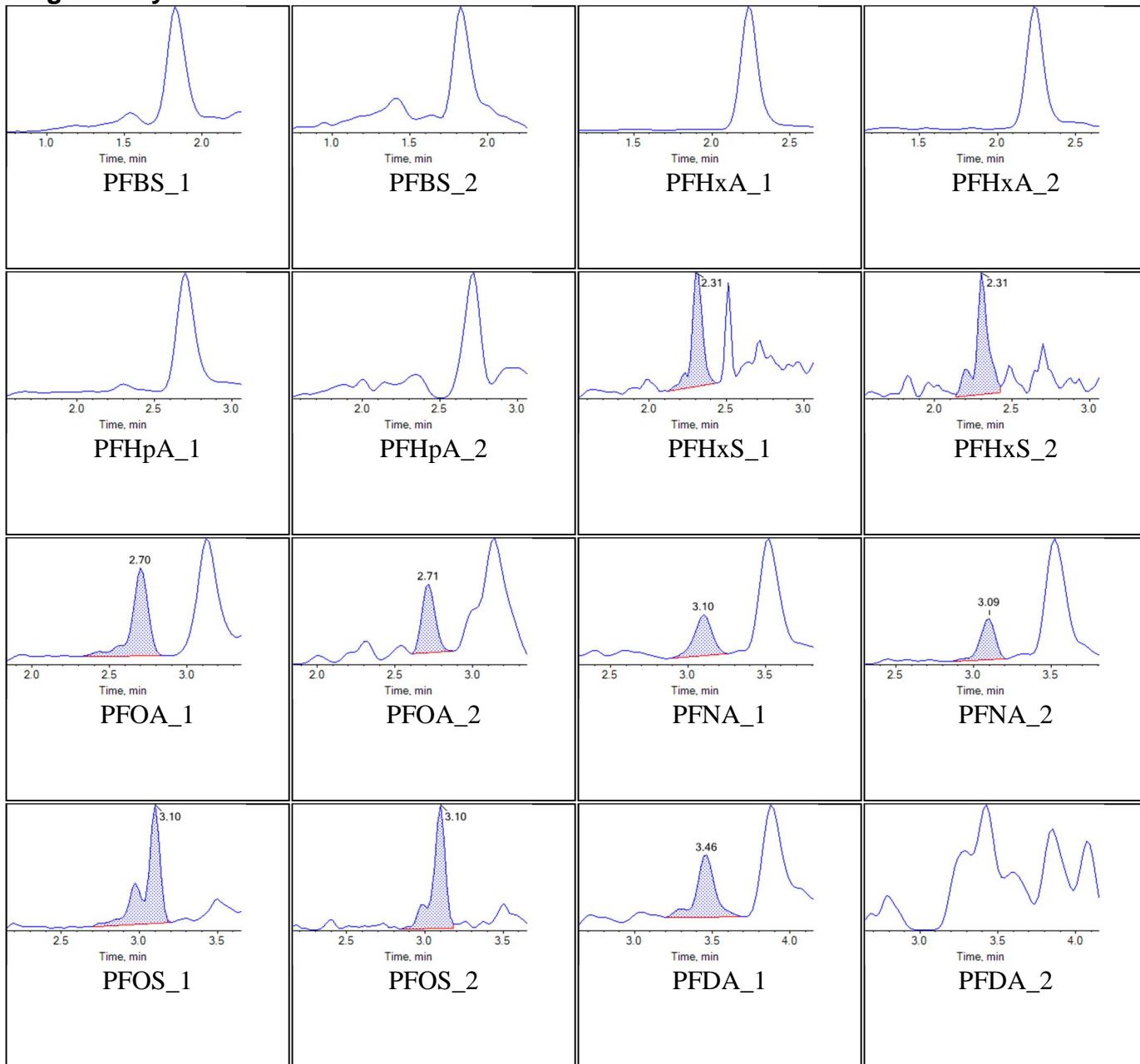
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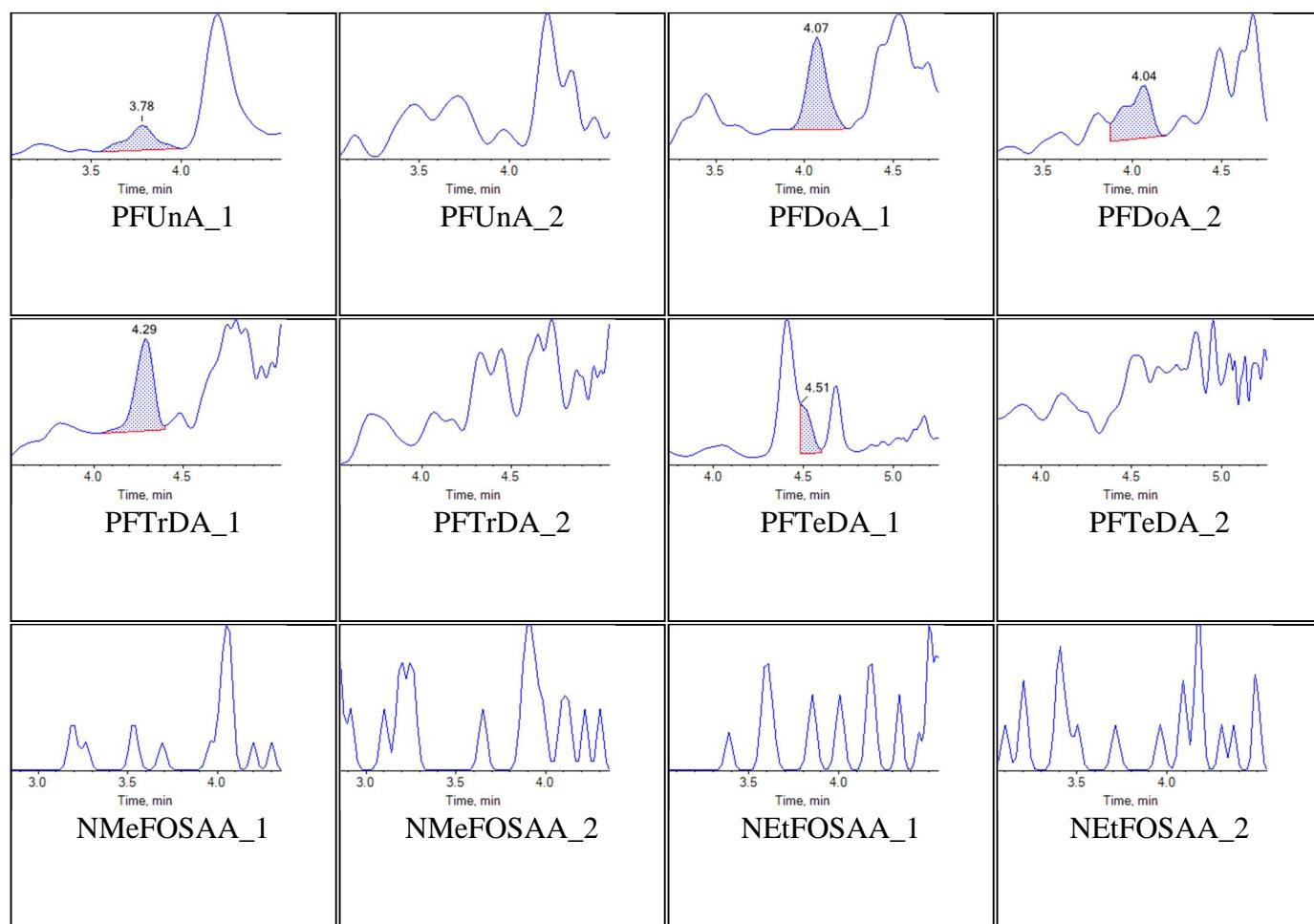
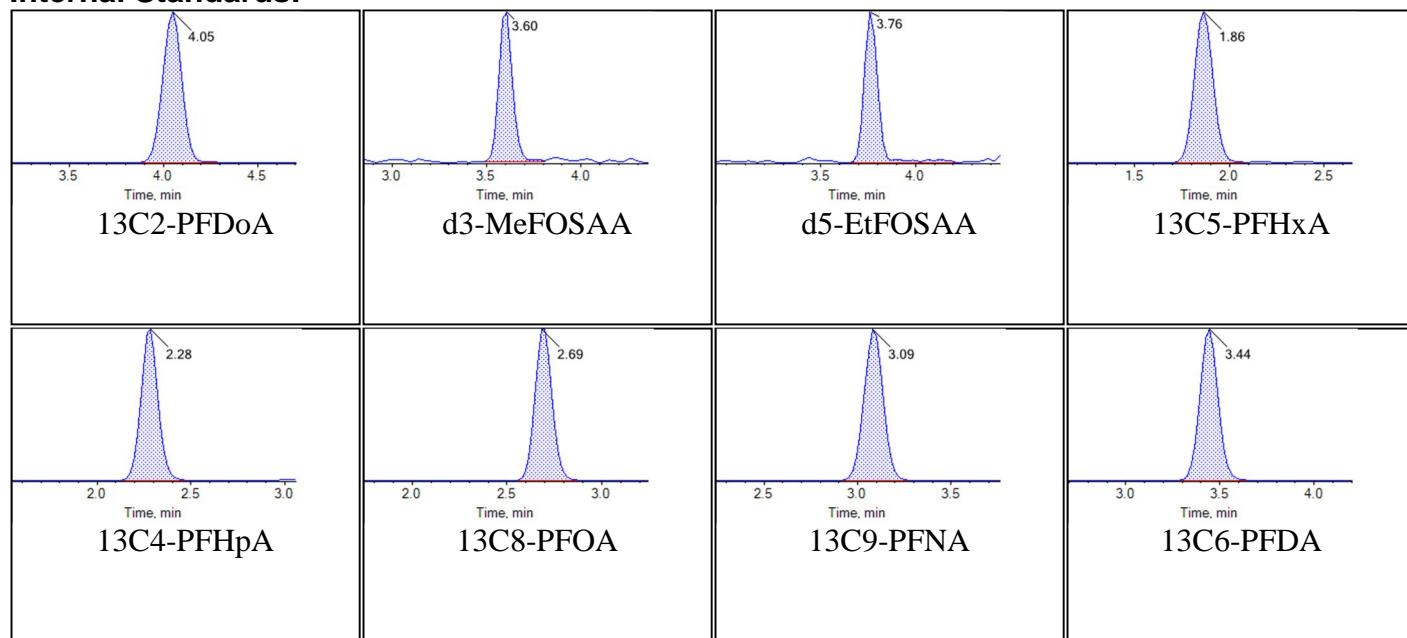
Sample Name	J8700-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:31:51	Data File	10222018_5500.wiff
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Sample Comment			

Chromatograms

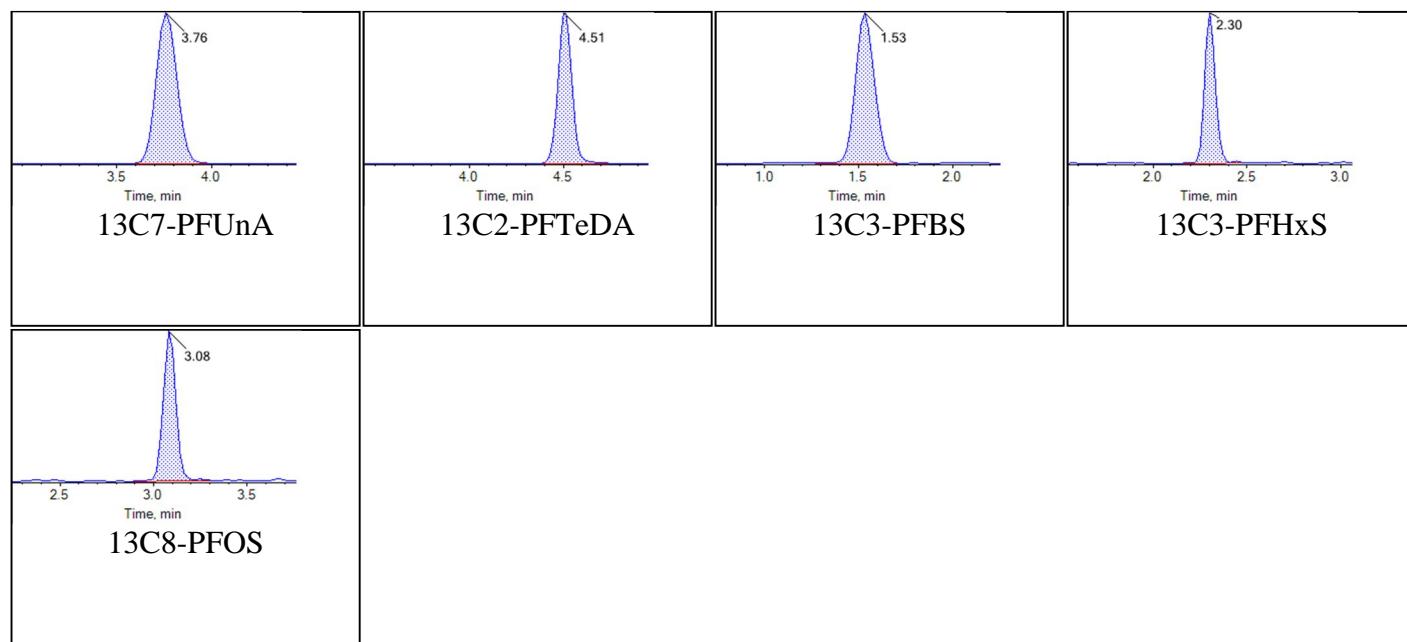
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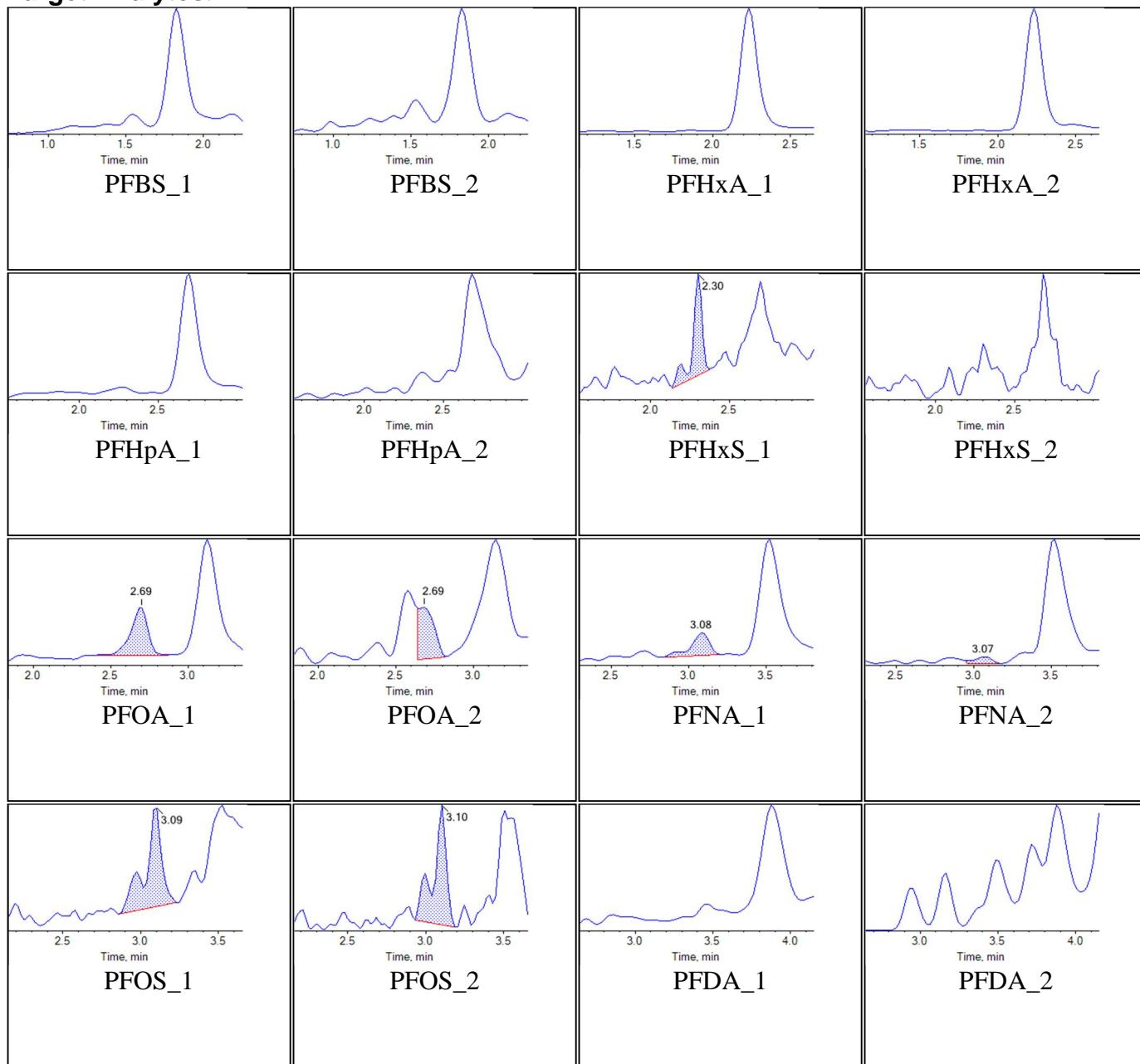
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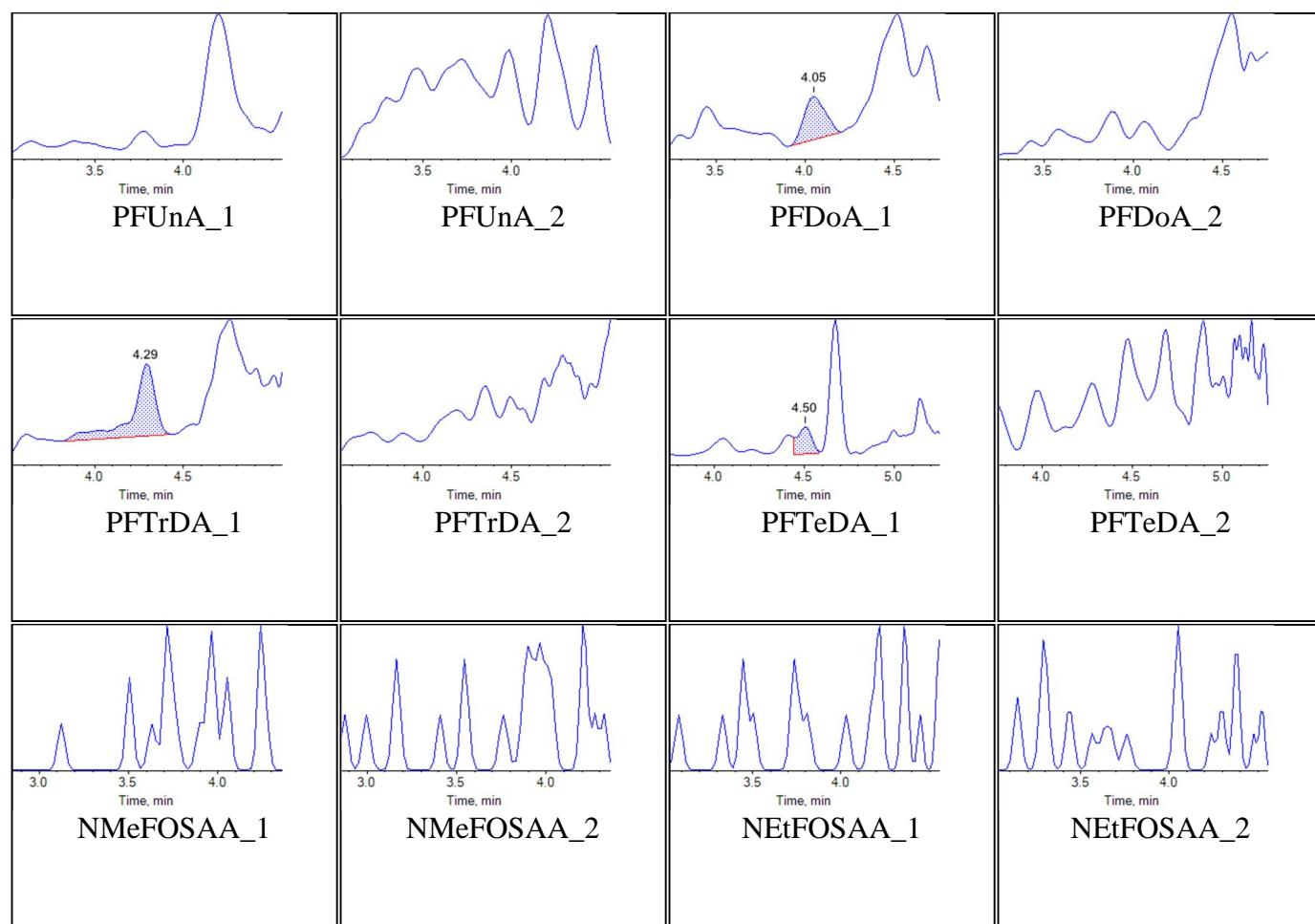
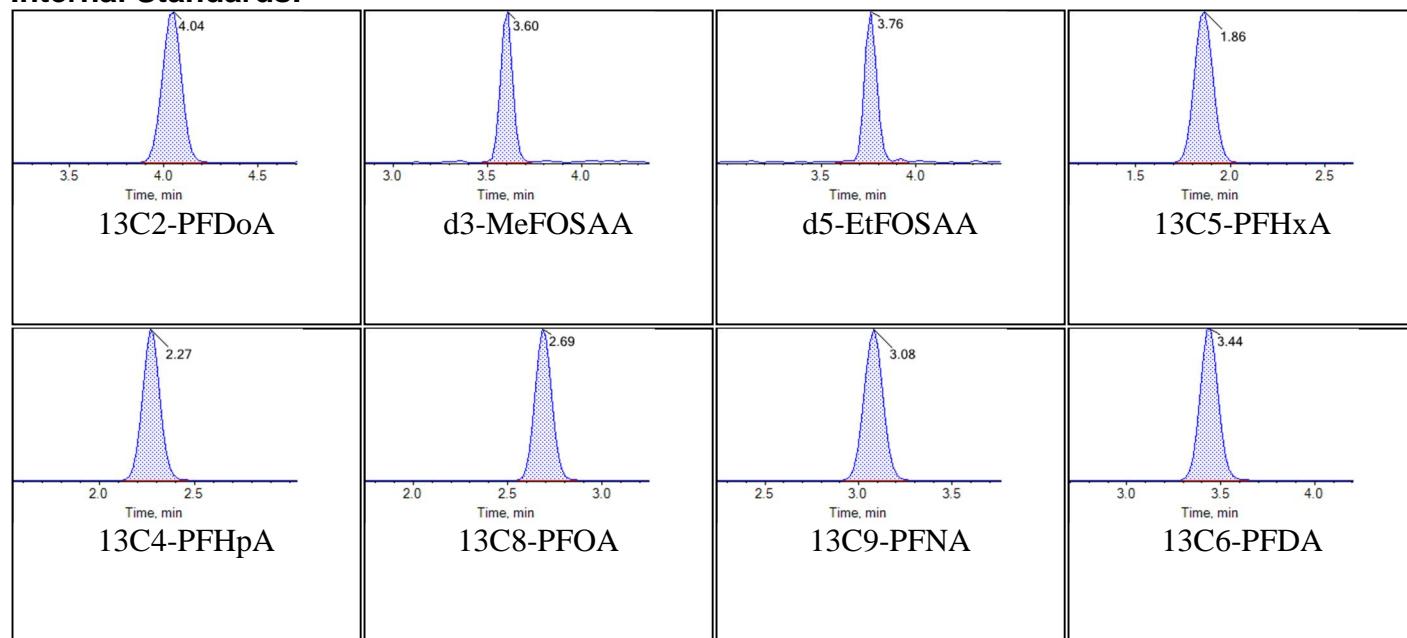
Sample Name	J8701-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
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Sample Comment			

Chromatograms

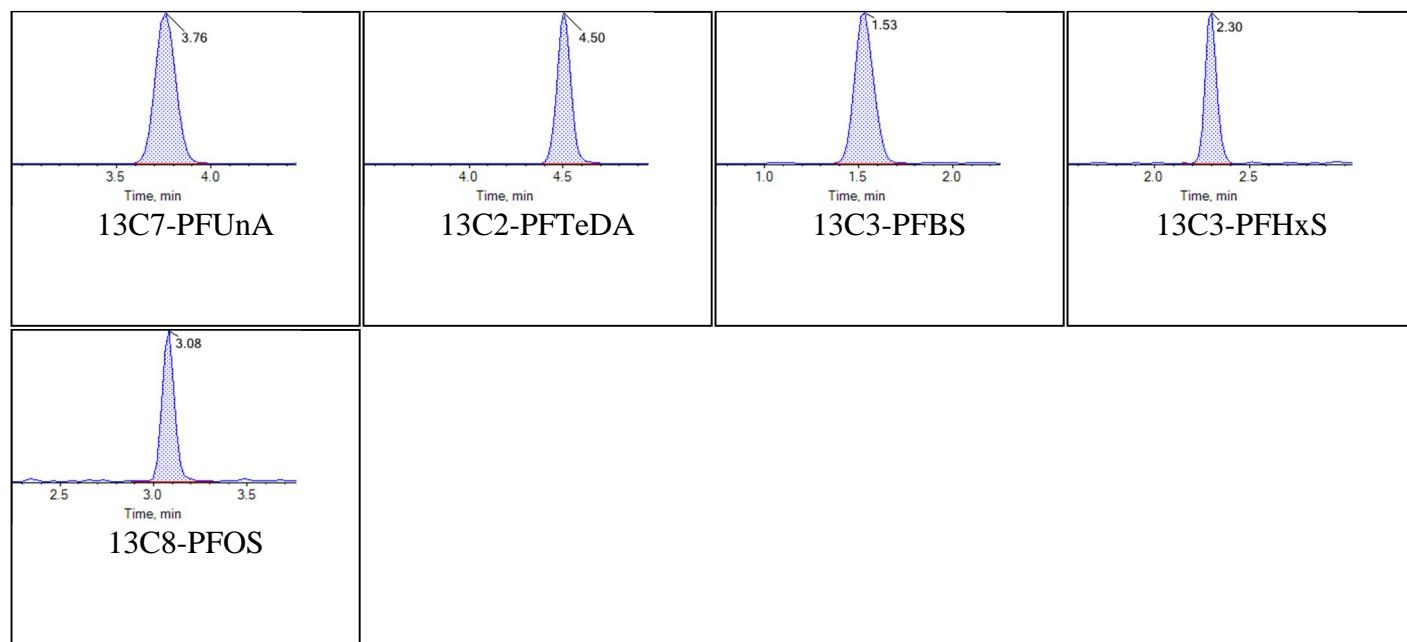
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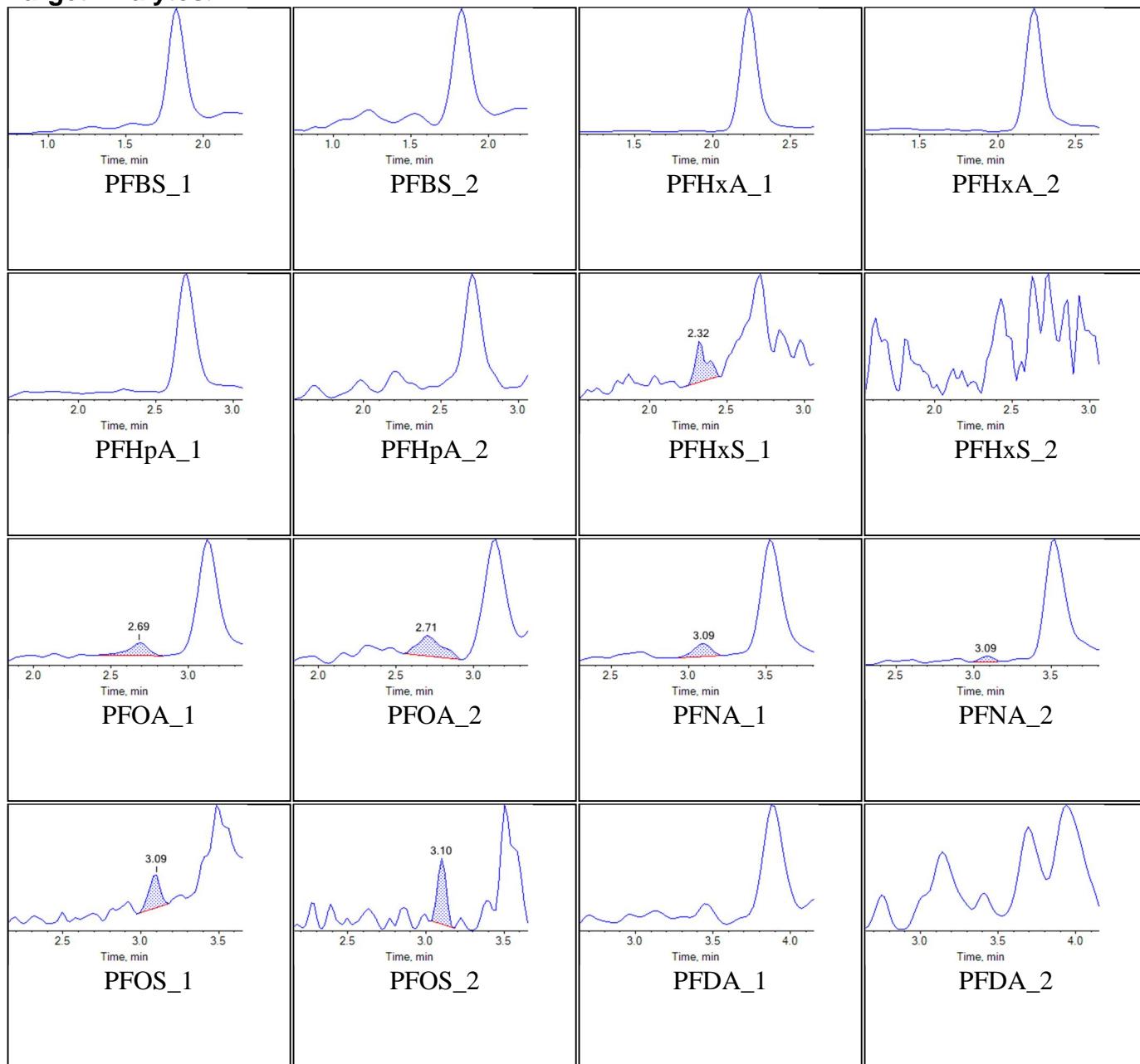
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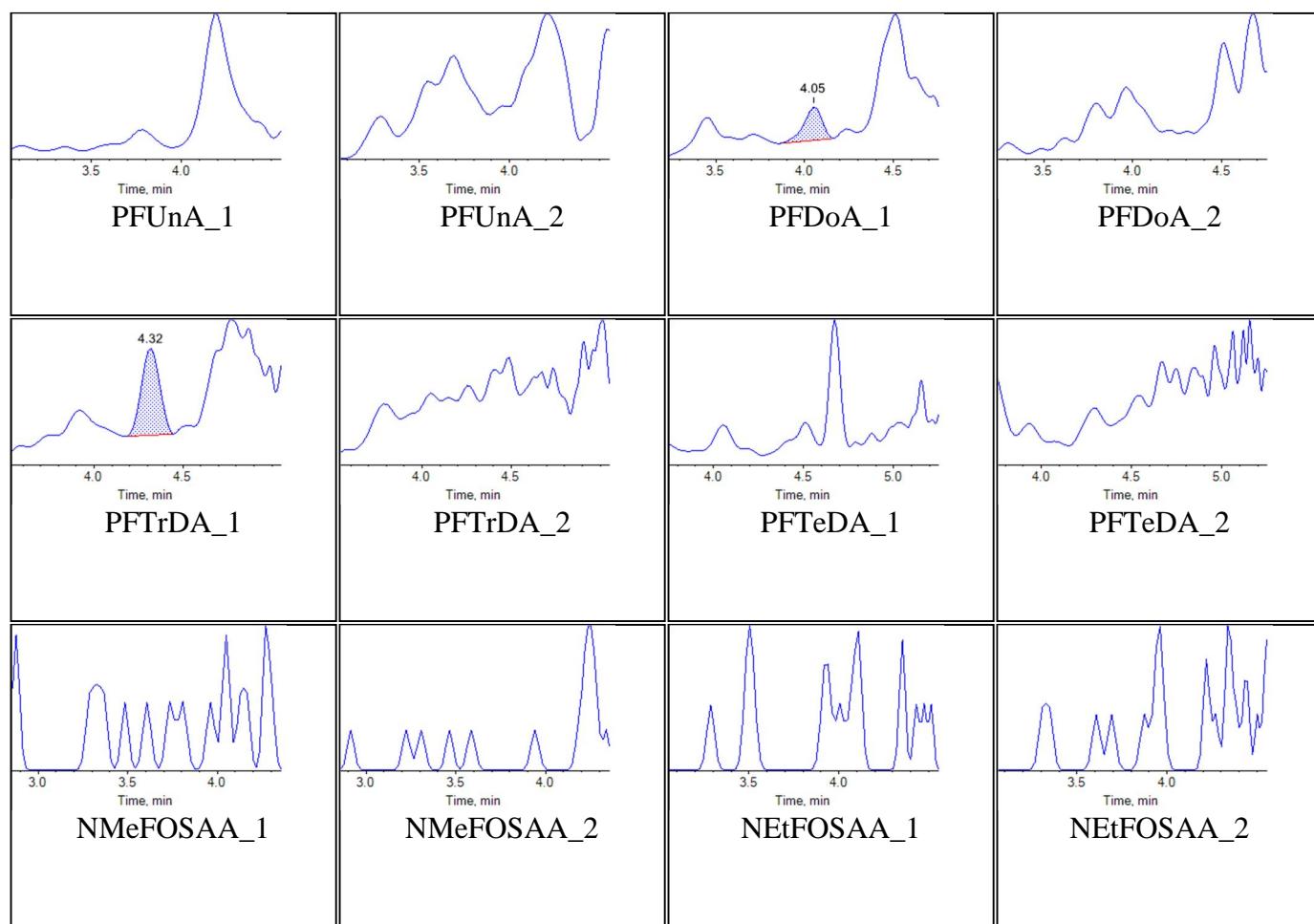
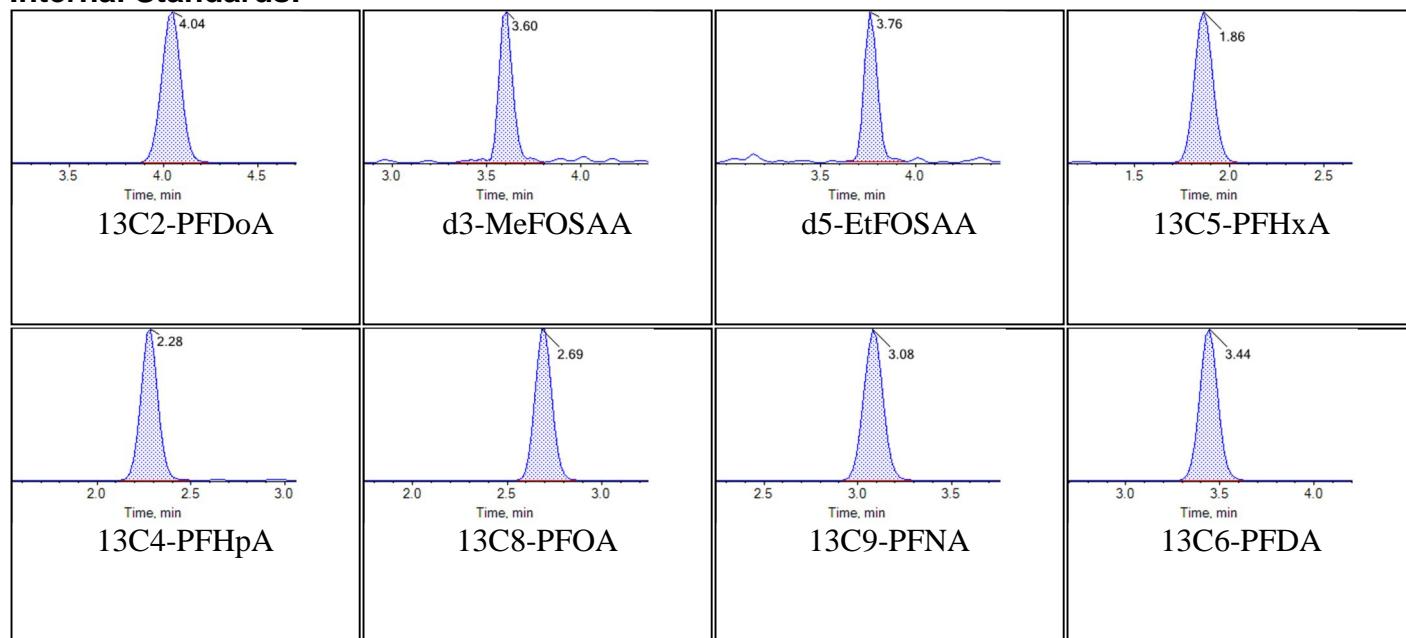
Sample Name	J8702-FS(3)	Injection Vial	23
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
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Sample Comment			

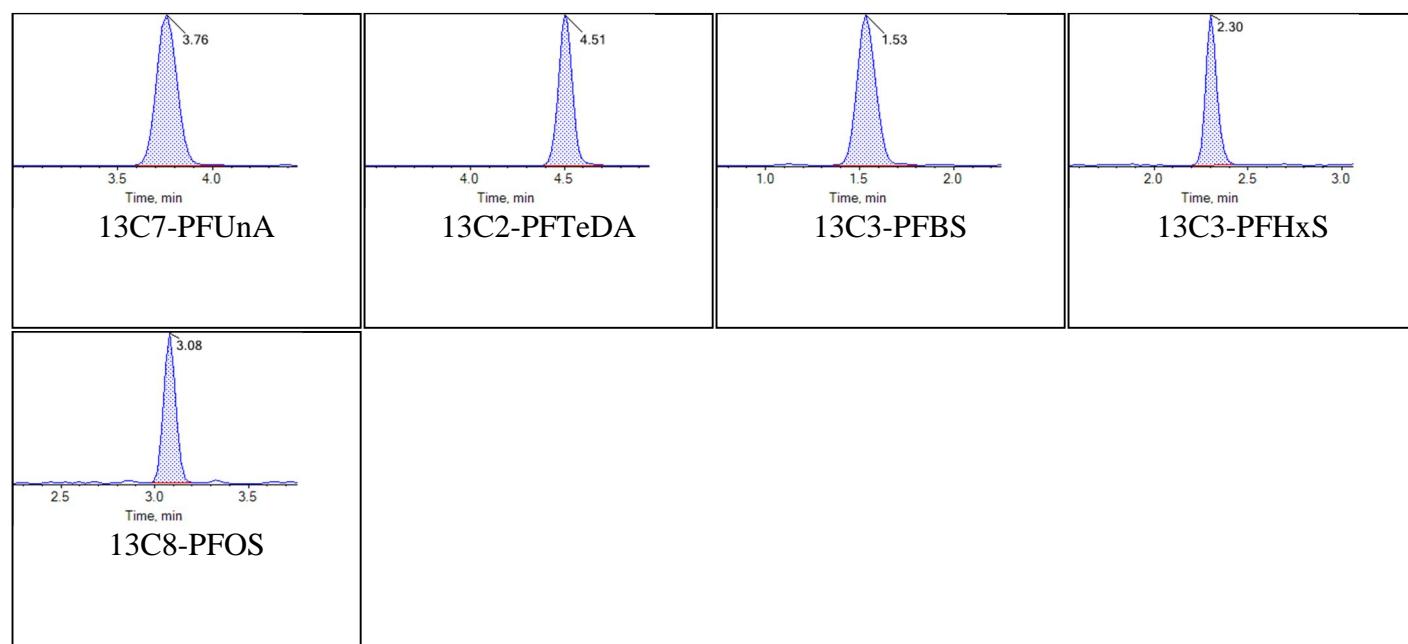
Chromatograms

Target Analytes:



Chromatogram Report

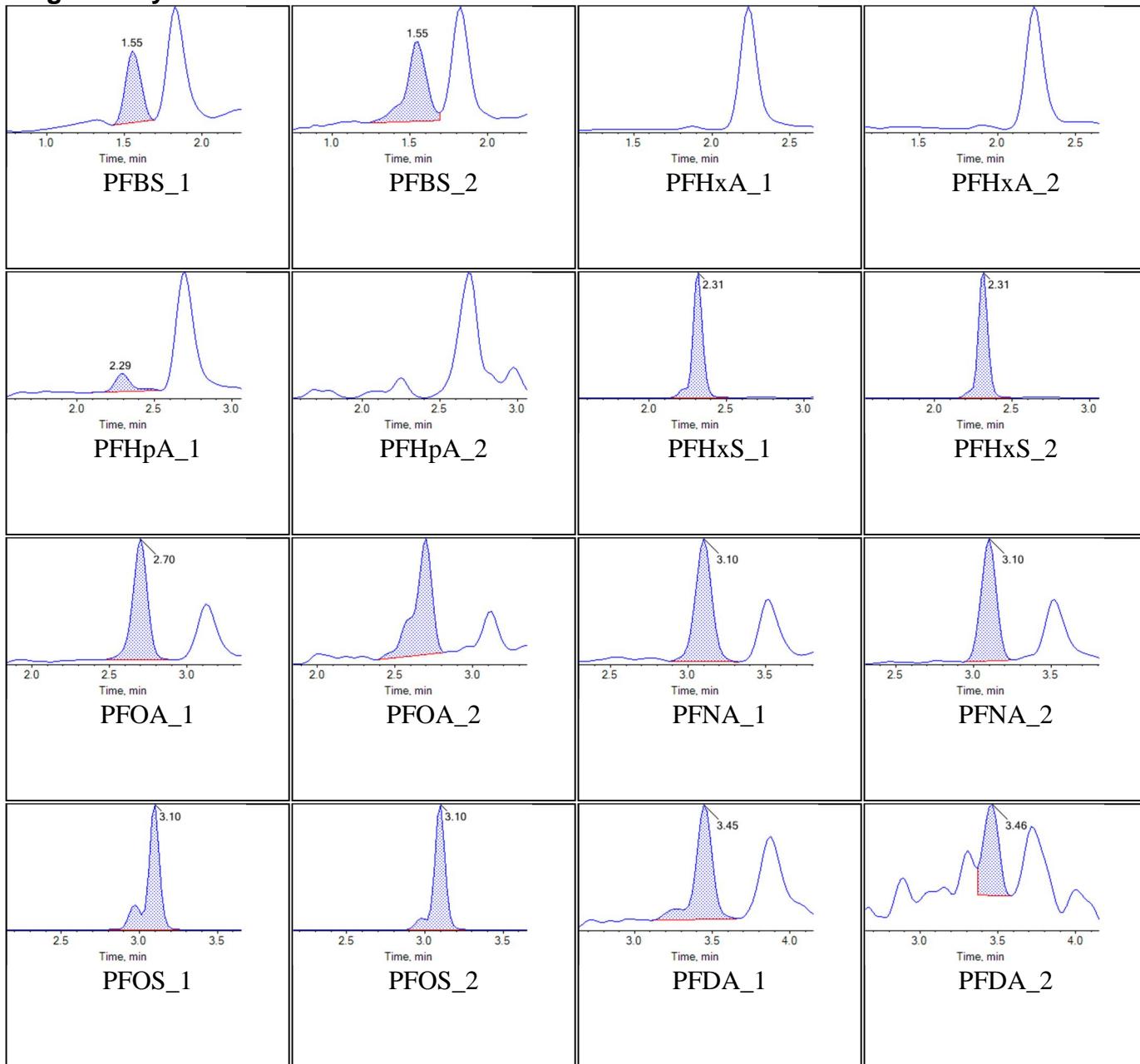
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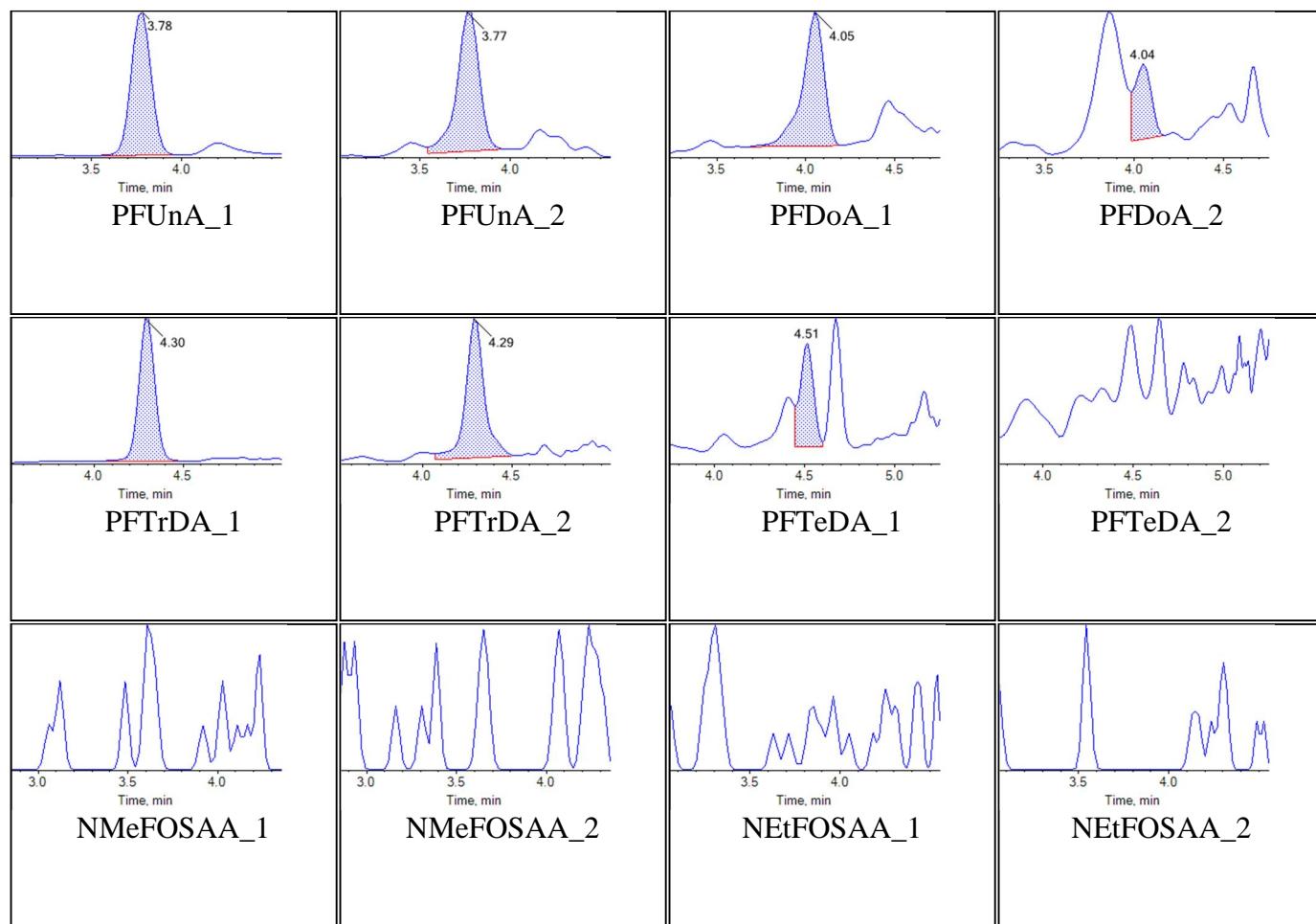
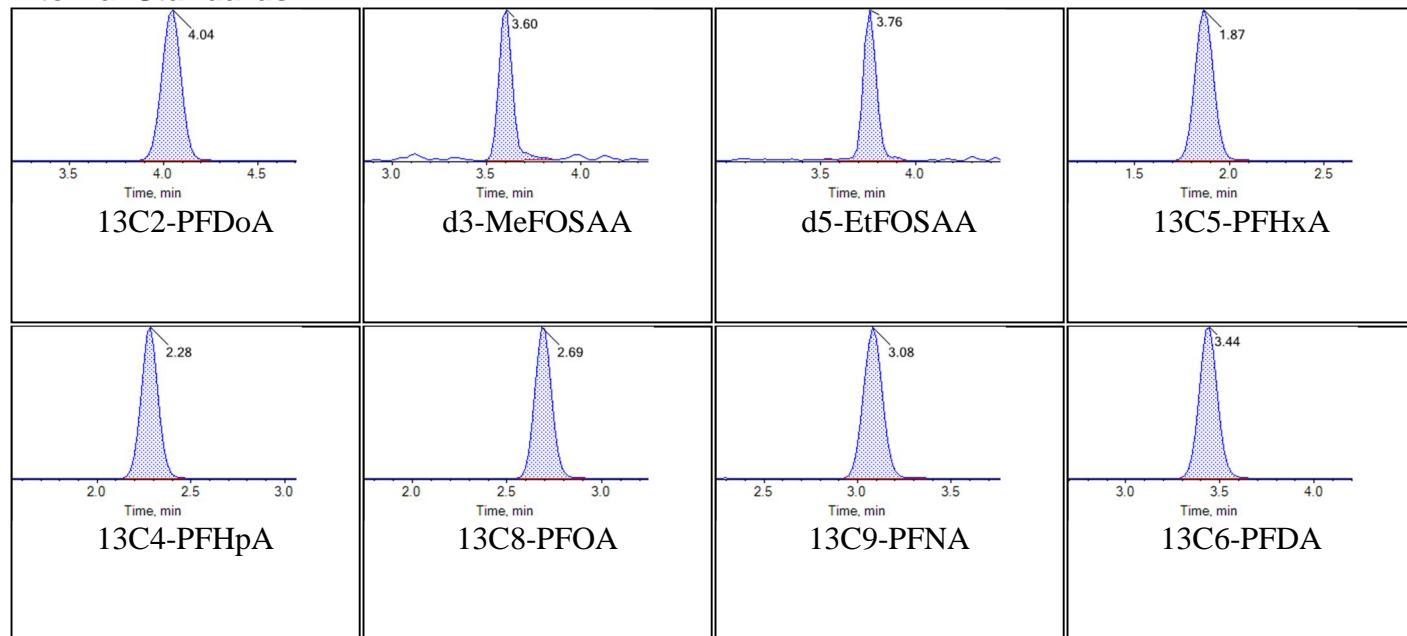


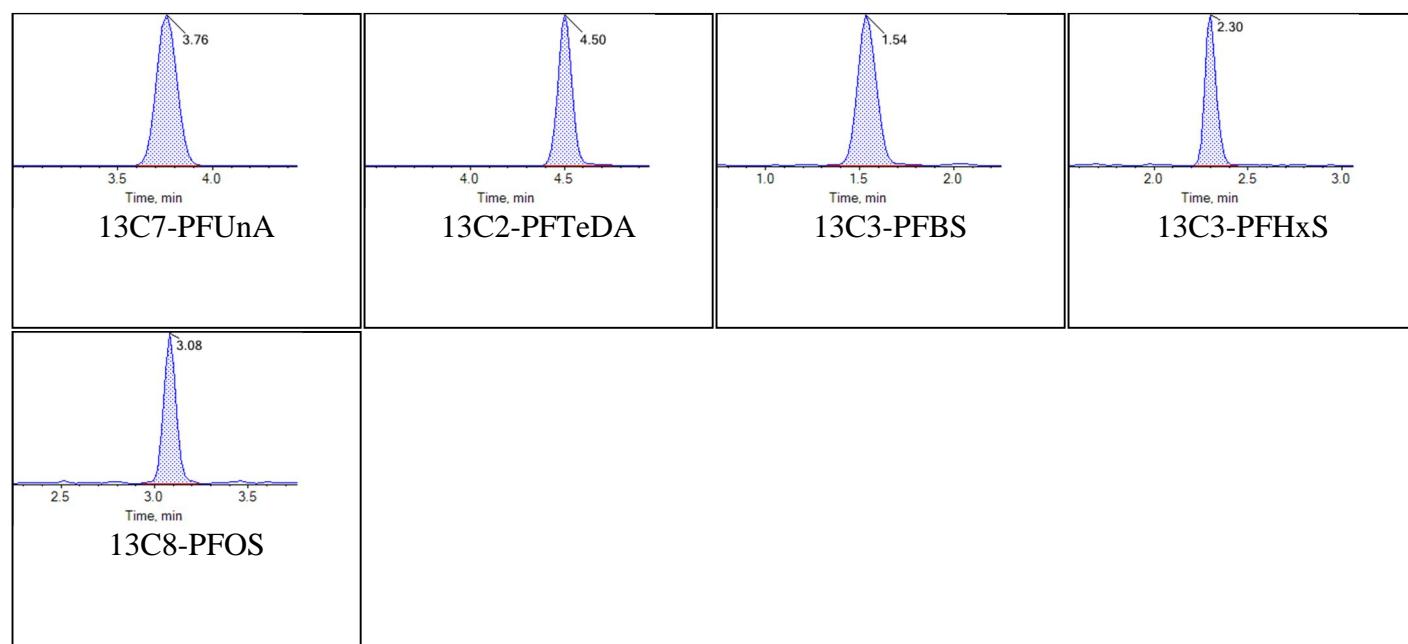
Sample Name	J8703-FS(3)	Injection Vial	24
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:04:26	Data File	10222018_5500.wiff
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Sample Comment			

Chromatograms

Target Analytes:



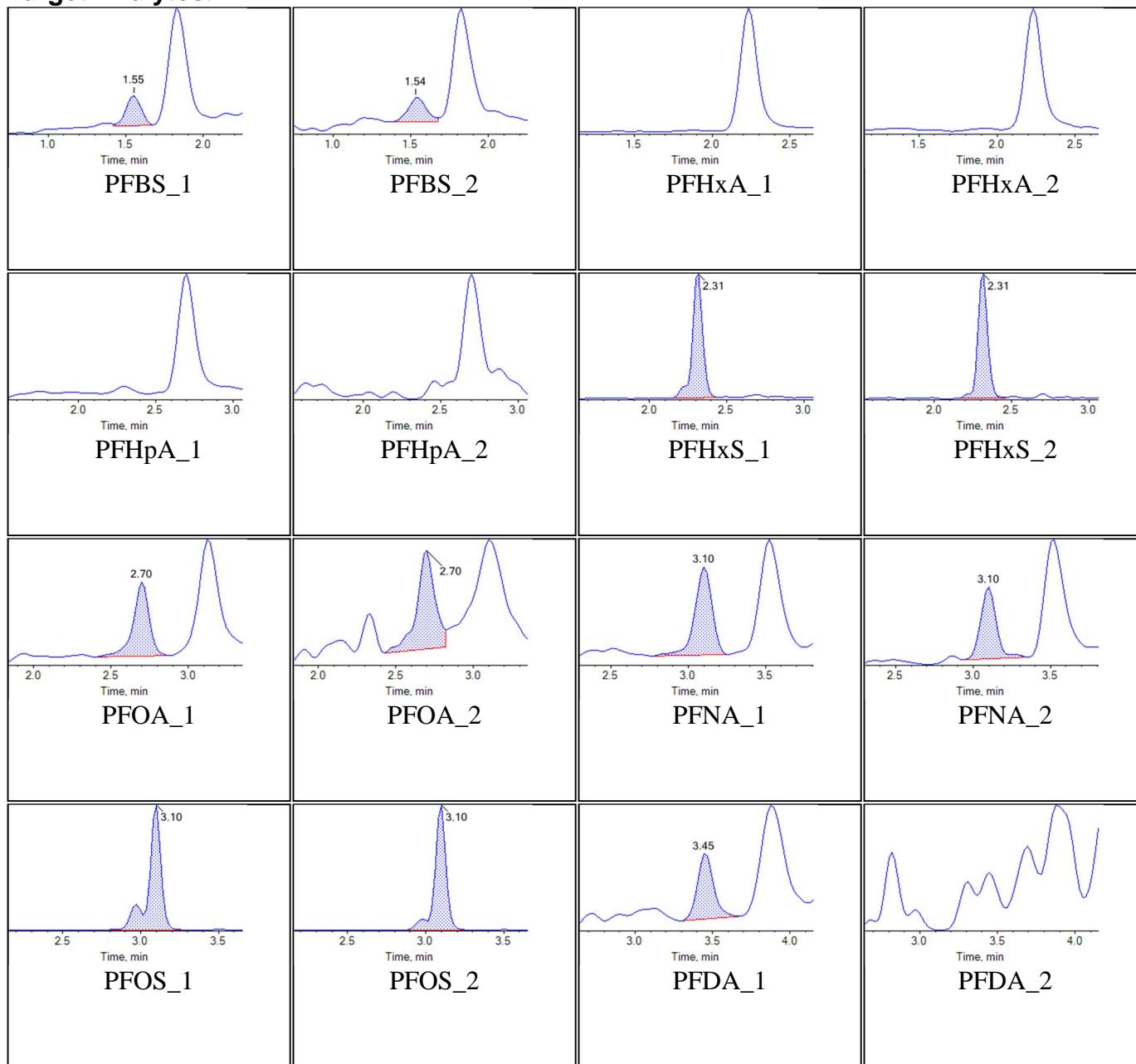
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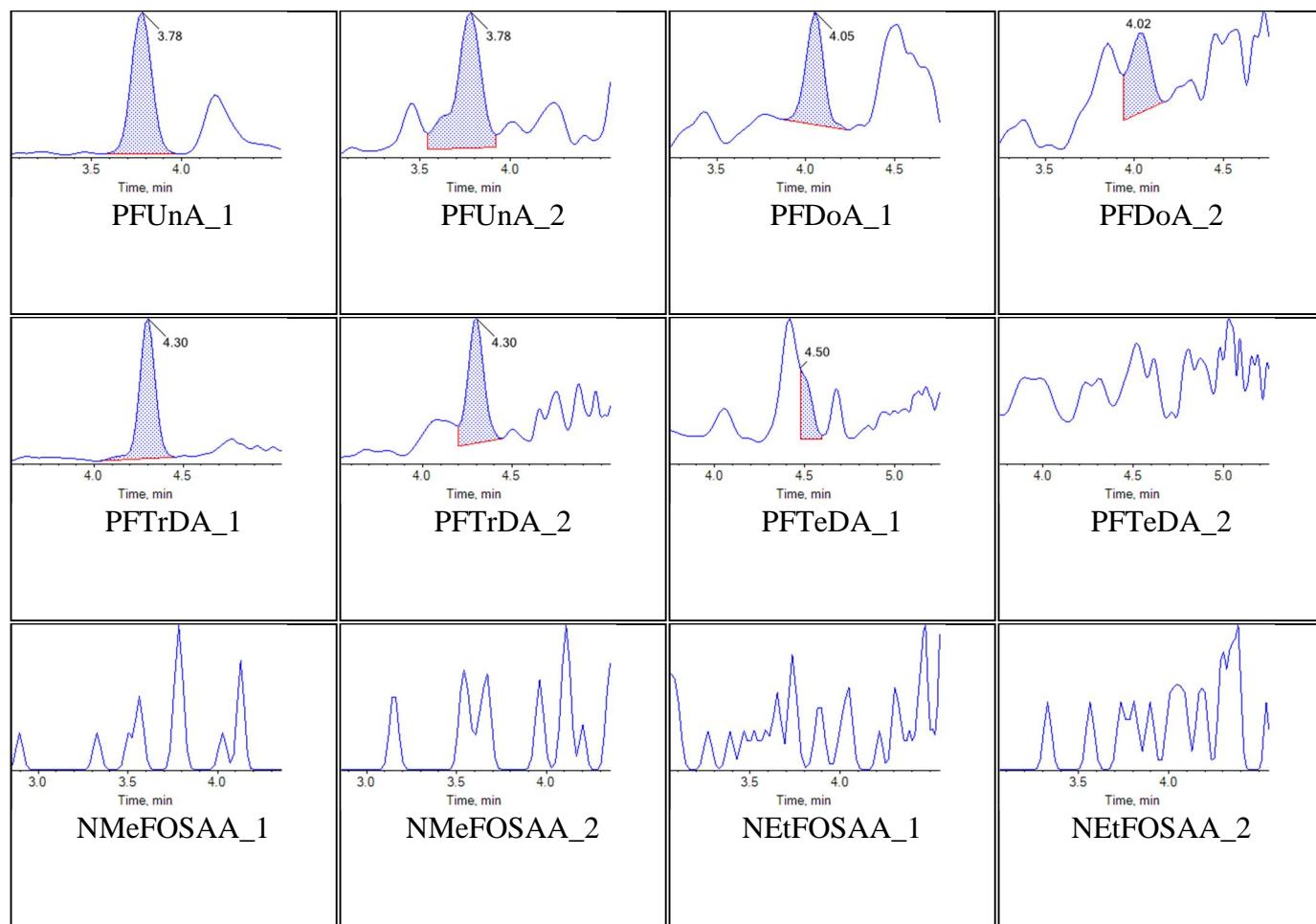
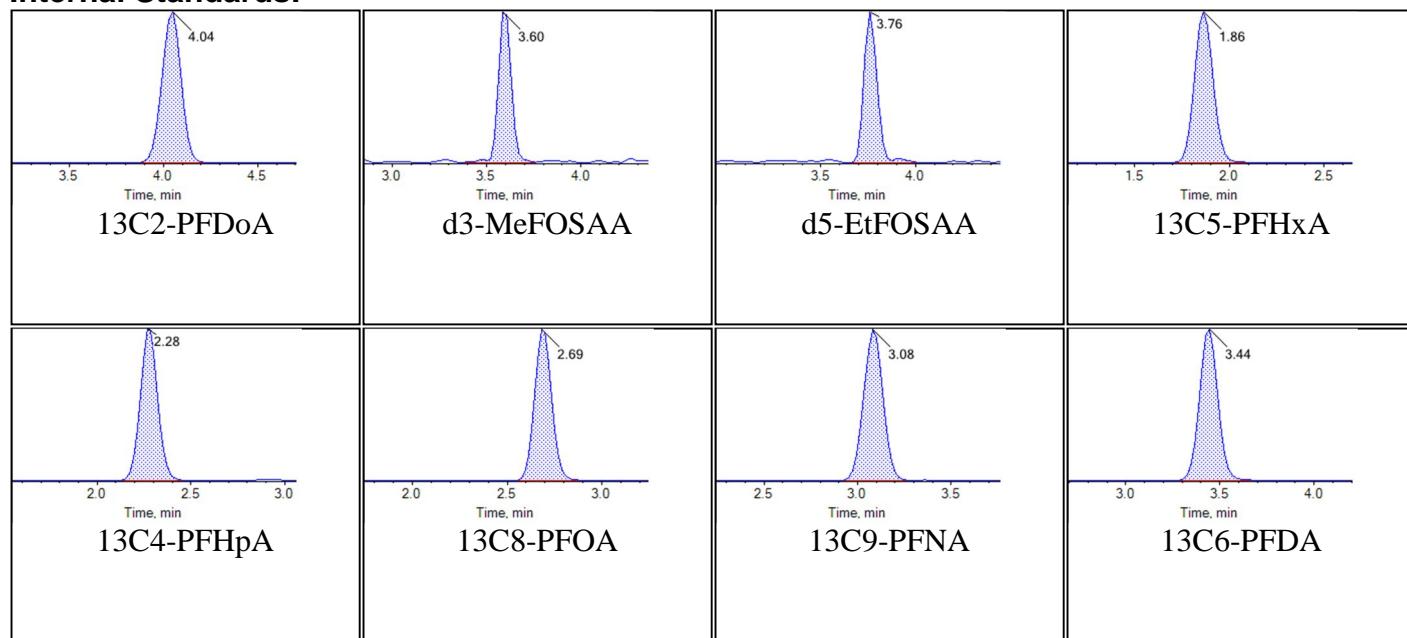


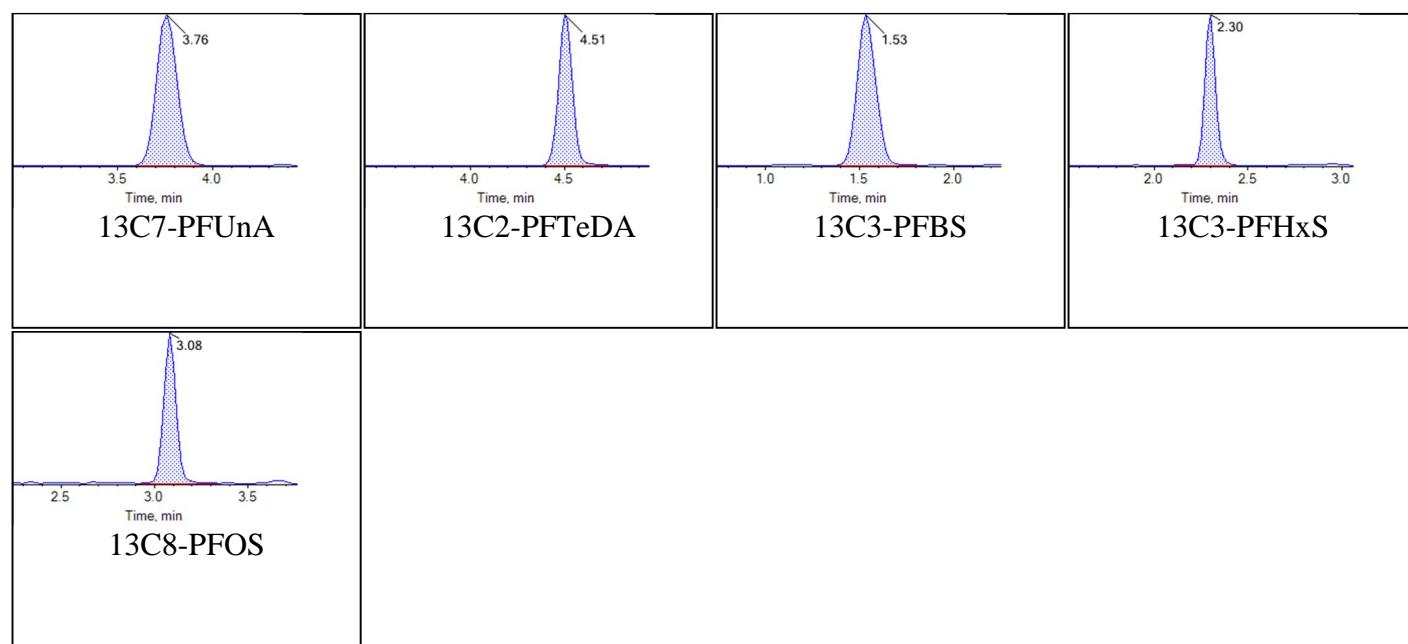
Sample Name	J8703-FS-D(5)	Injection Vial	25
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:15:17	Data File	10222018_5500.wiff
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Sample Comment			

Chromatograms

Target Analytes:



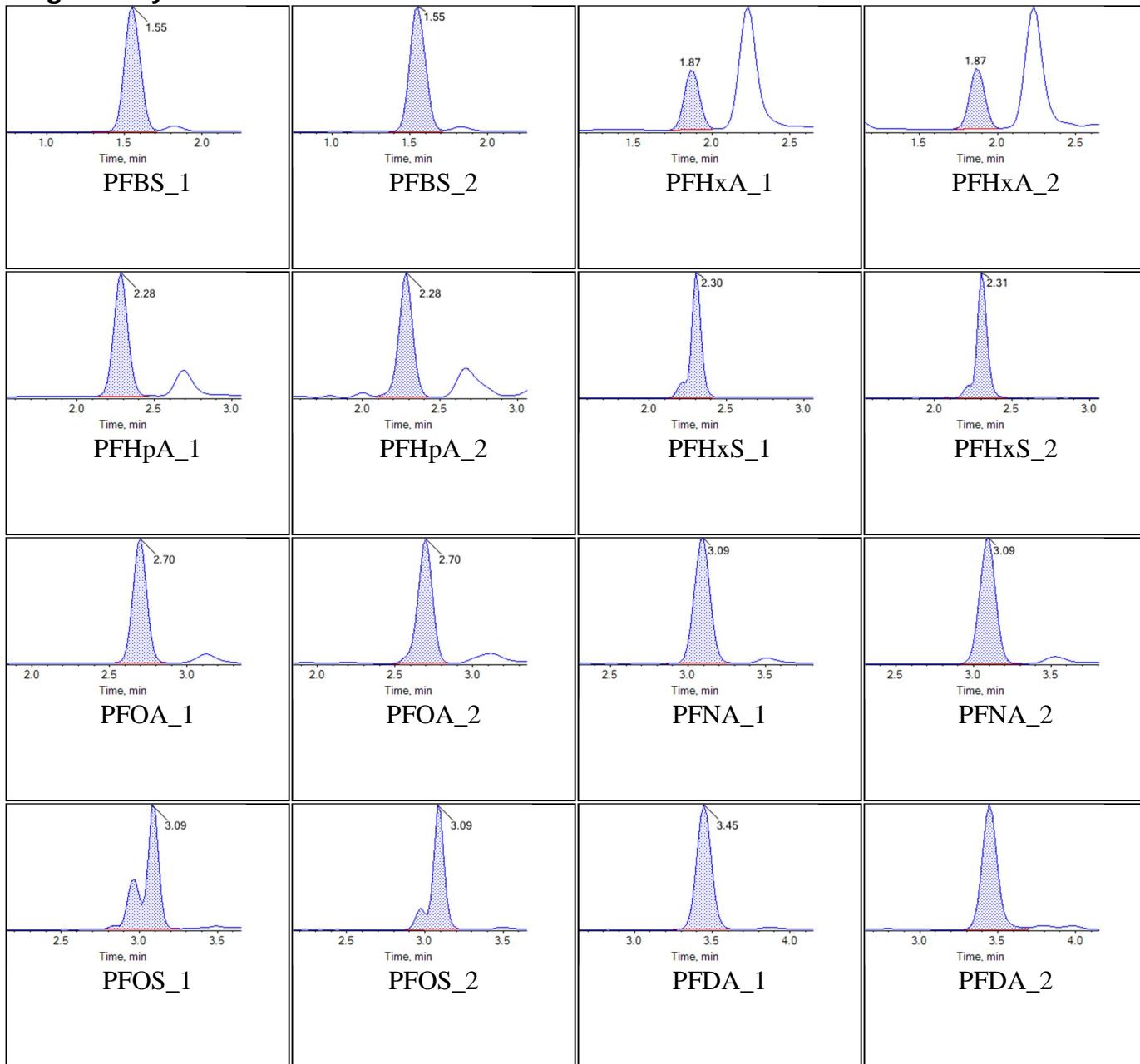
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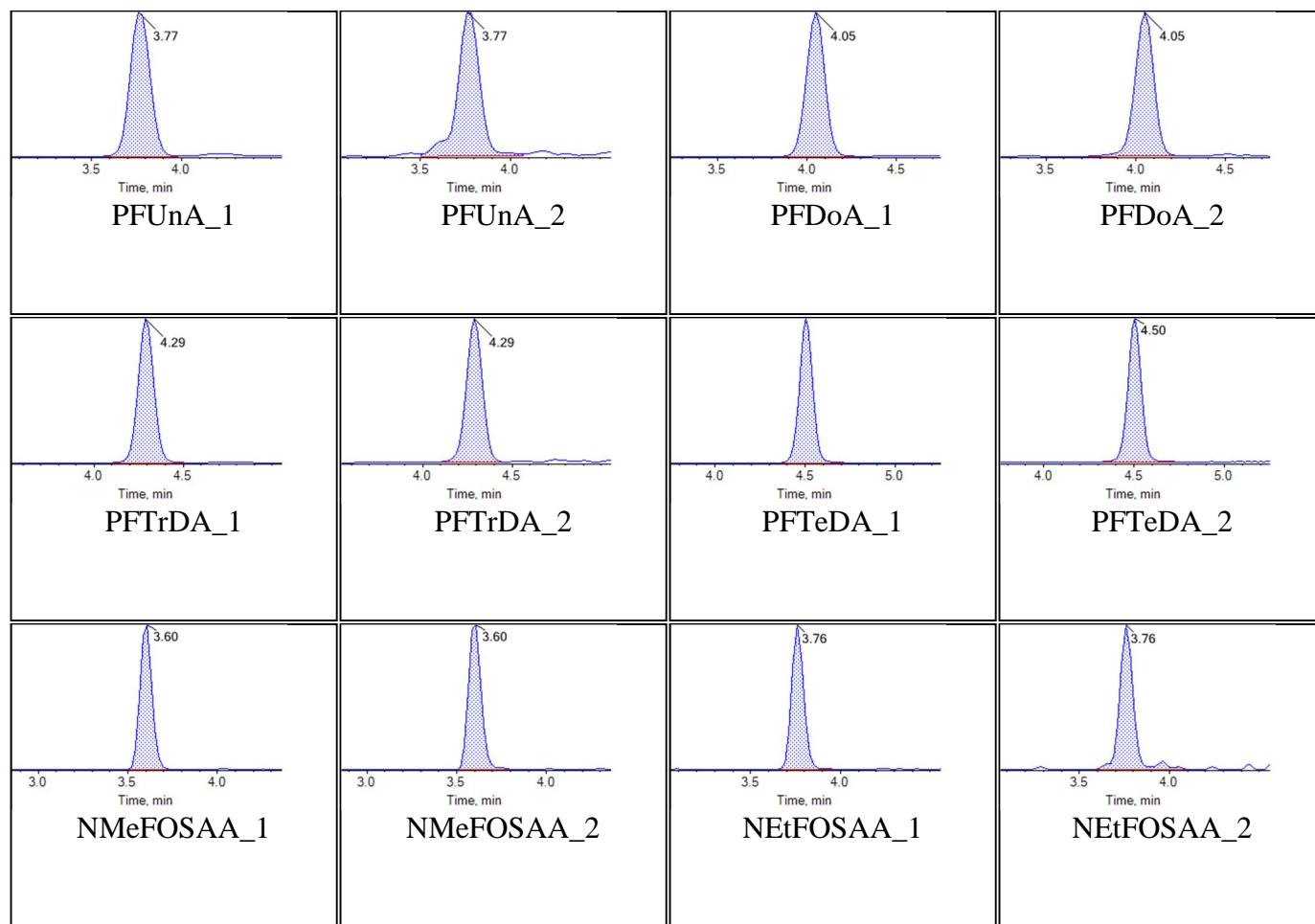
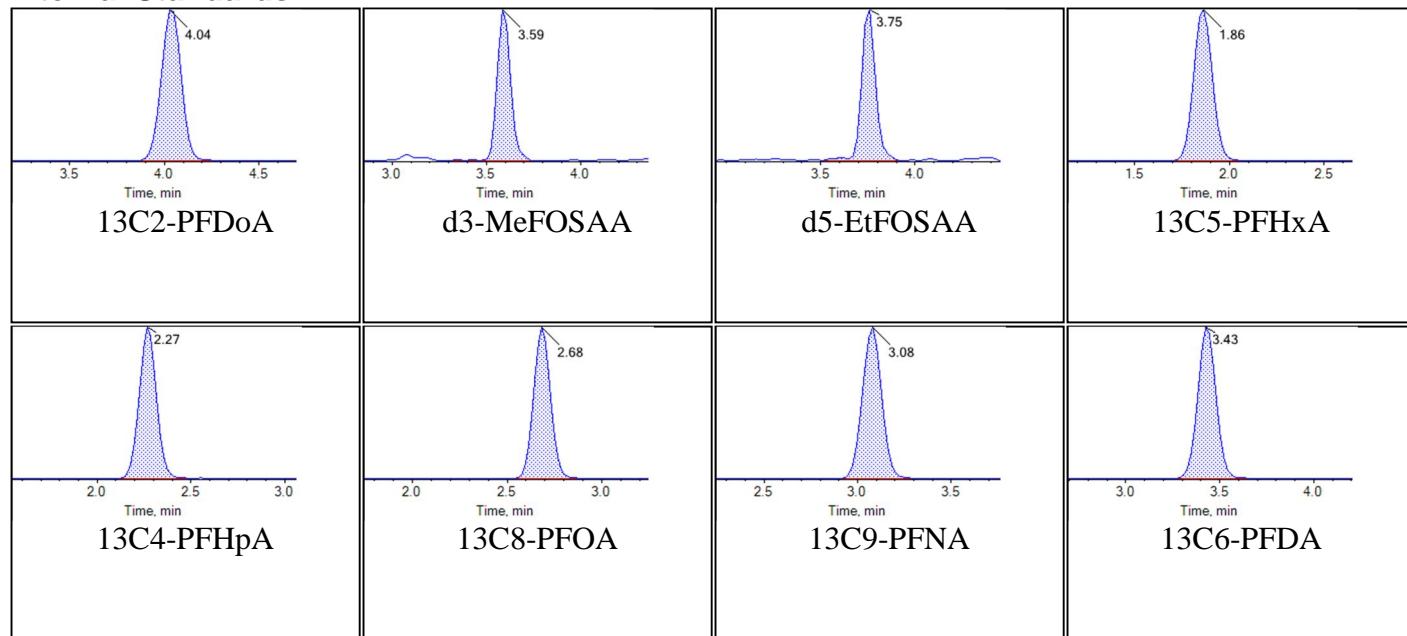


Sample Name	KB76 CCV	Injection Vial	27
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
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Sample Comment			

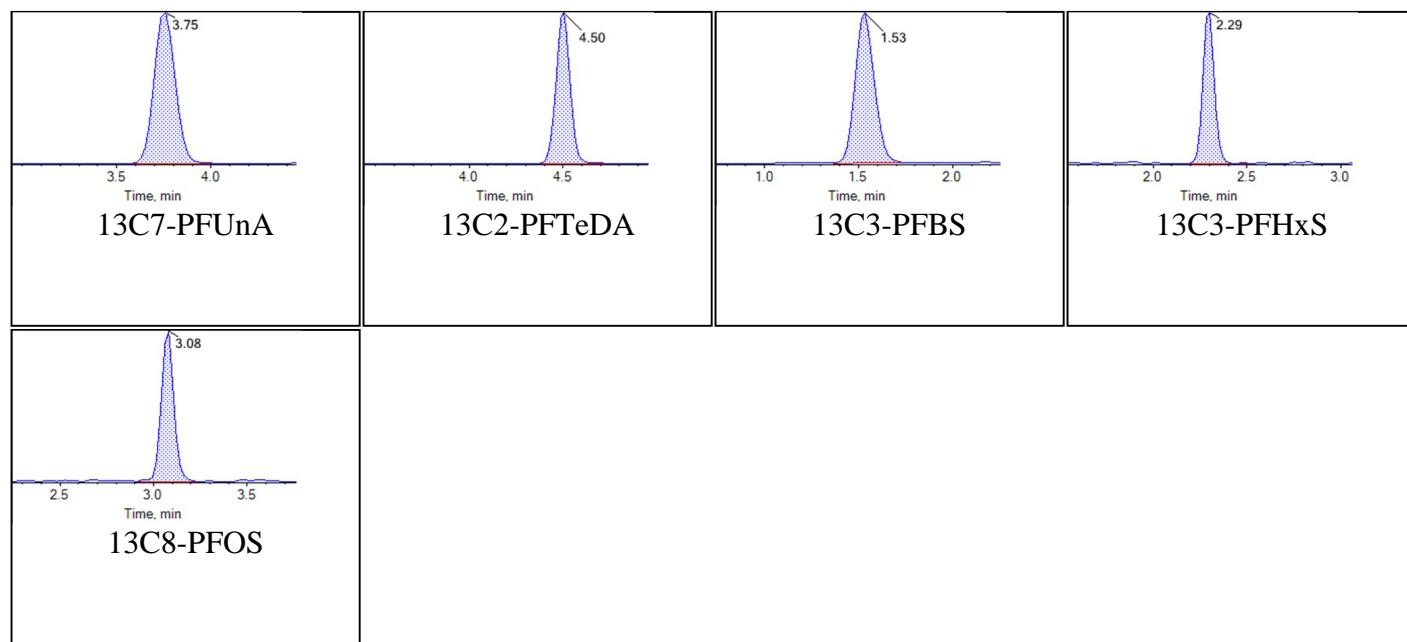
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Target Analytes:



**Internal Standards:**

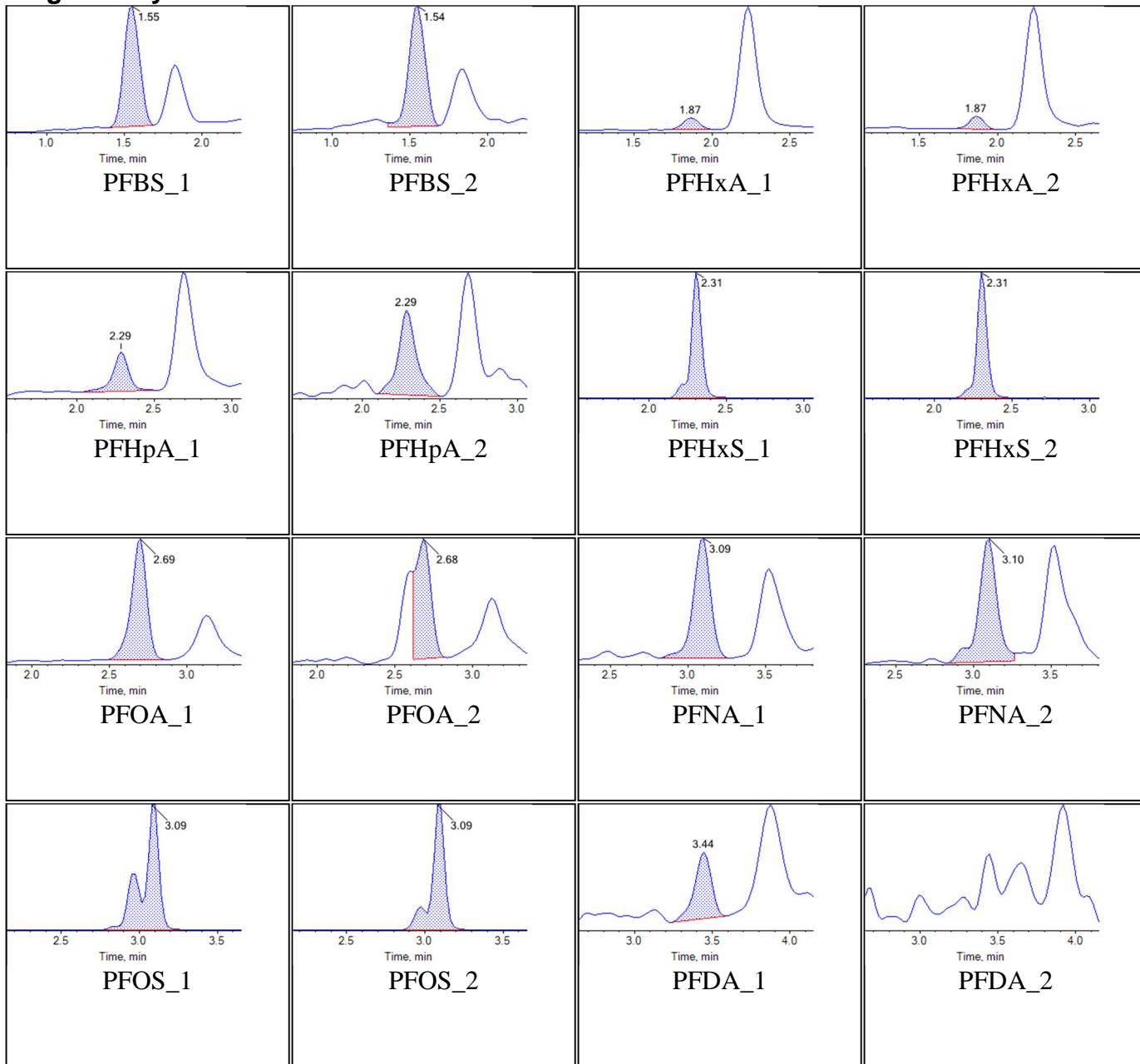
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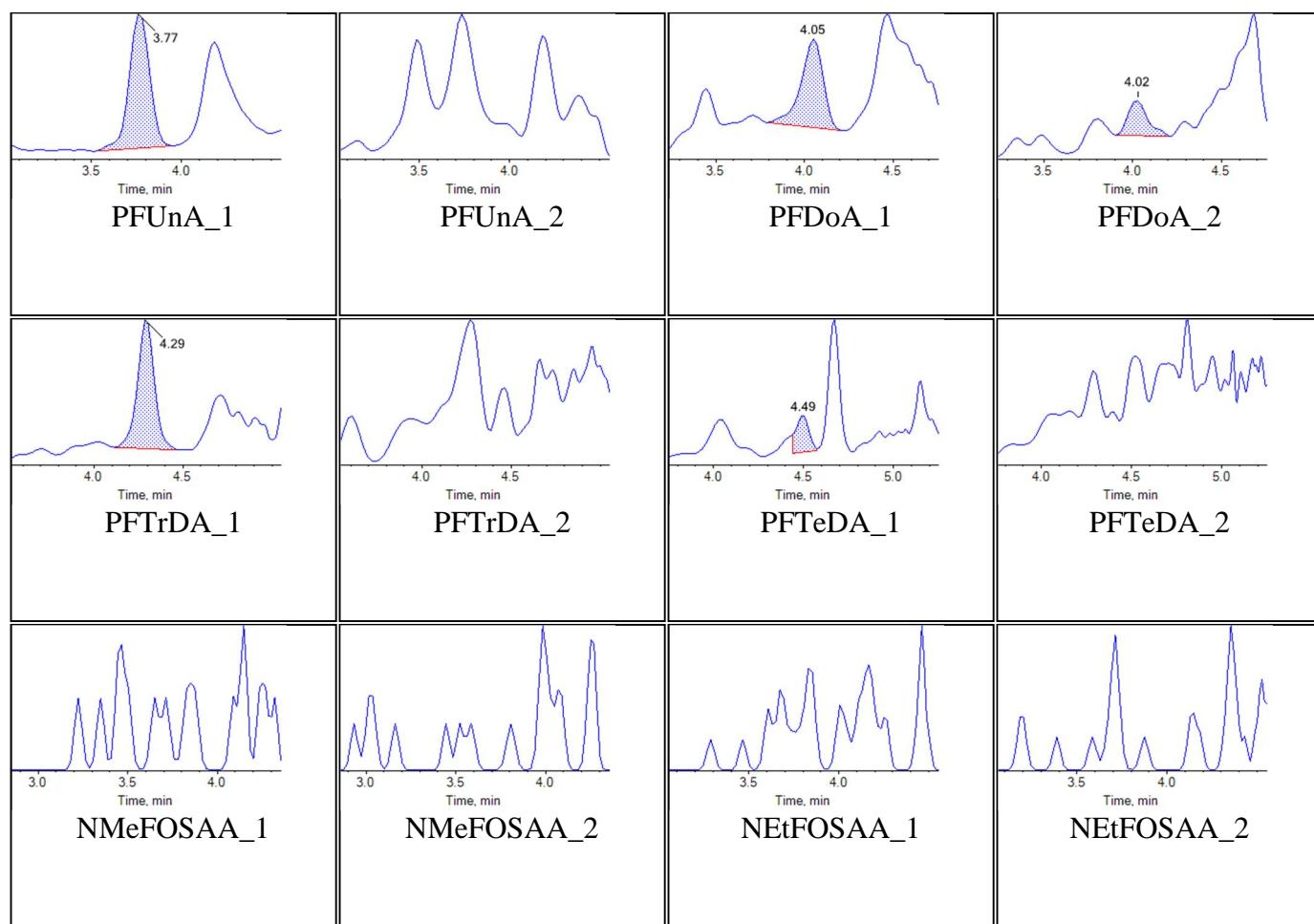
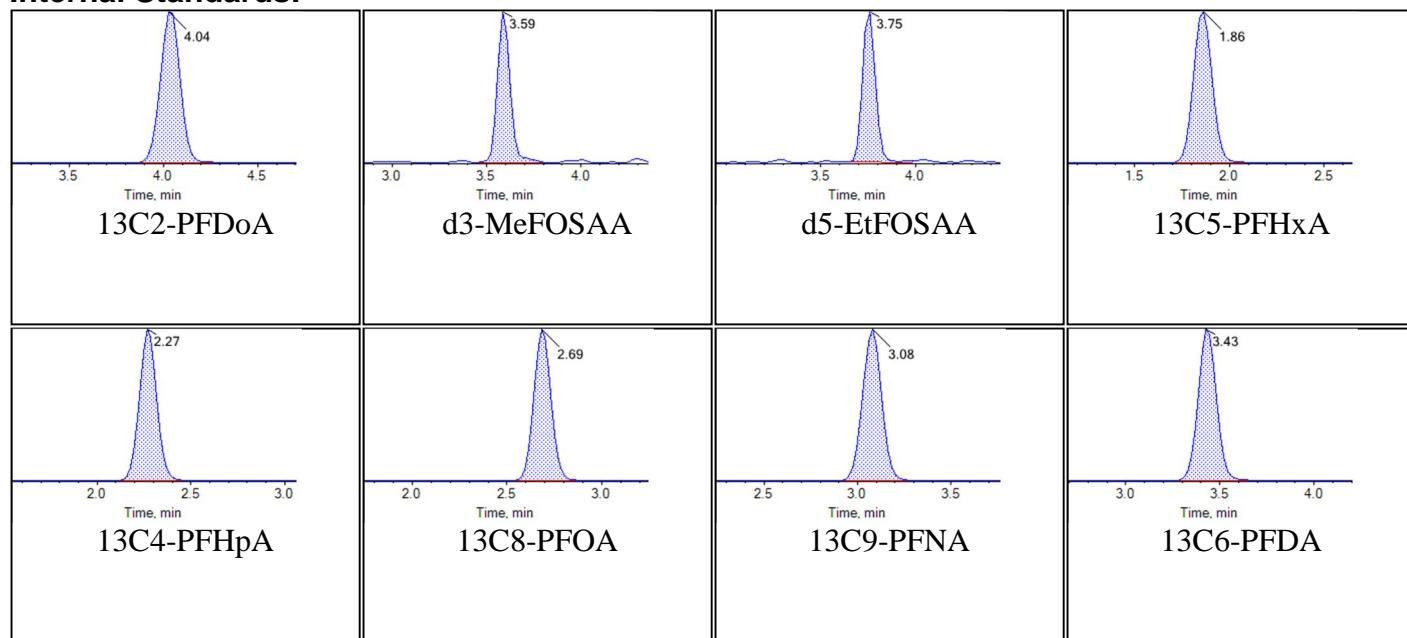
Sample Name	J8704-FS(3)	Injection Vial	29
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:58:45	Data File	10222018_5500.wiff
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Sample Comment			

Chromatograms

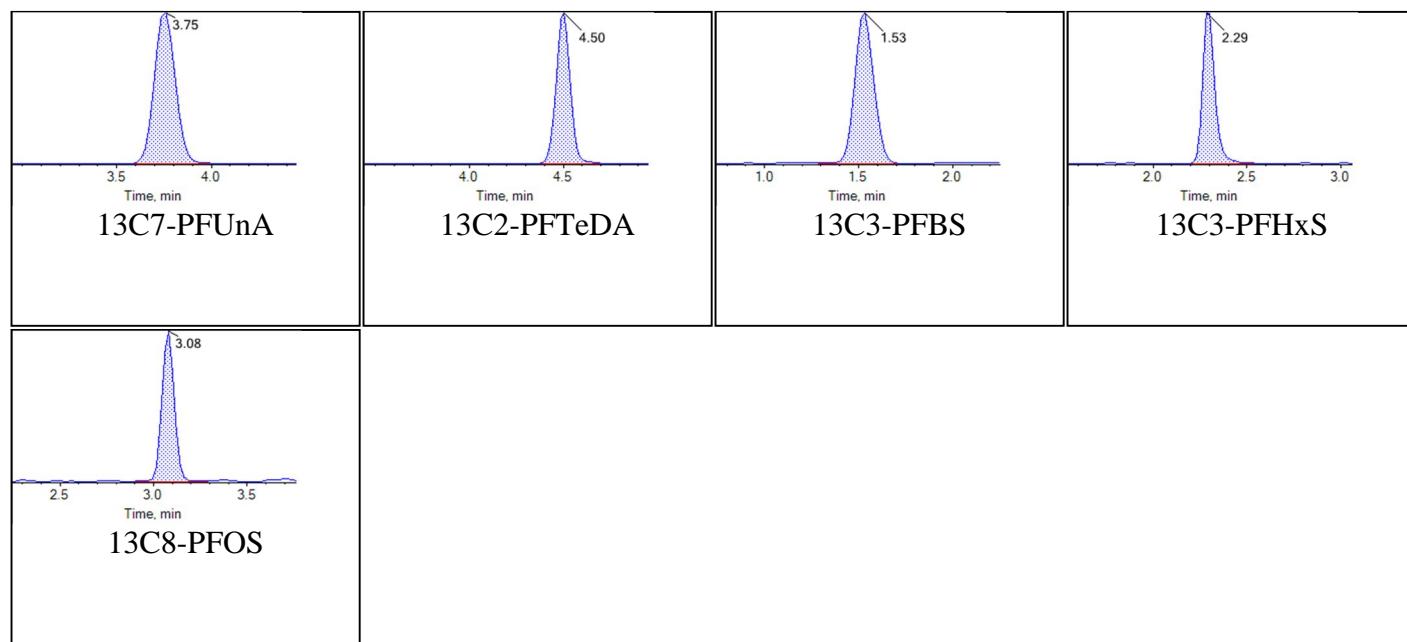
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Chromatogram Report

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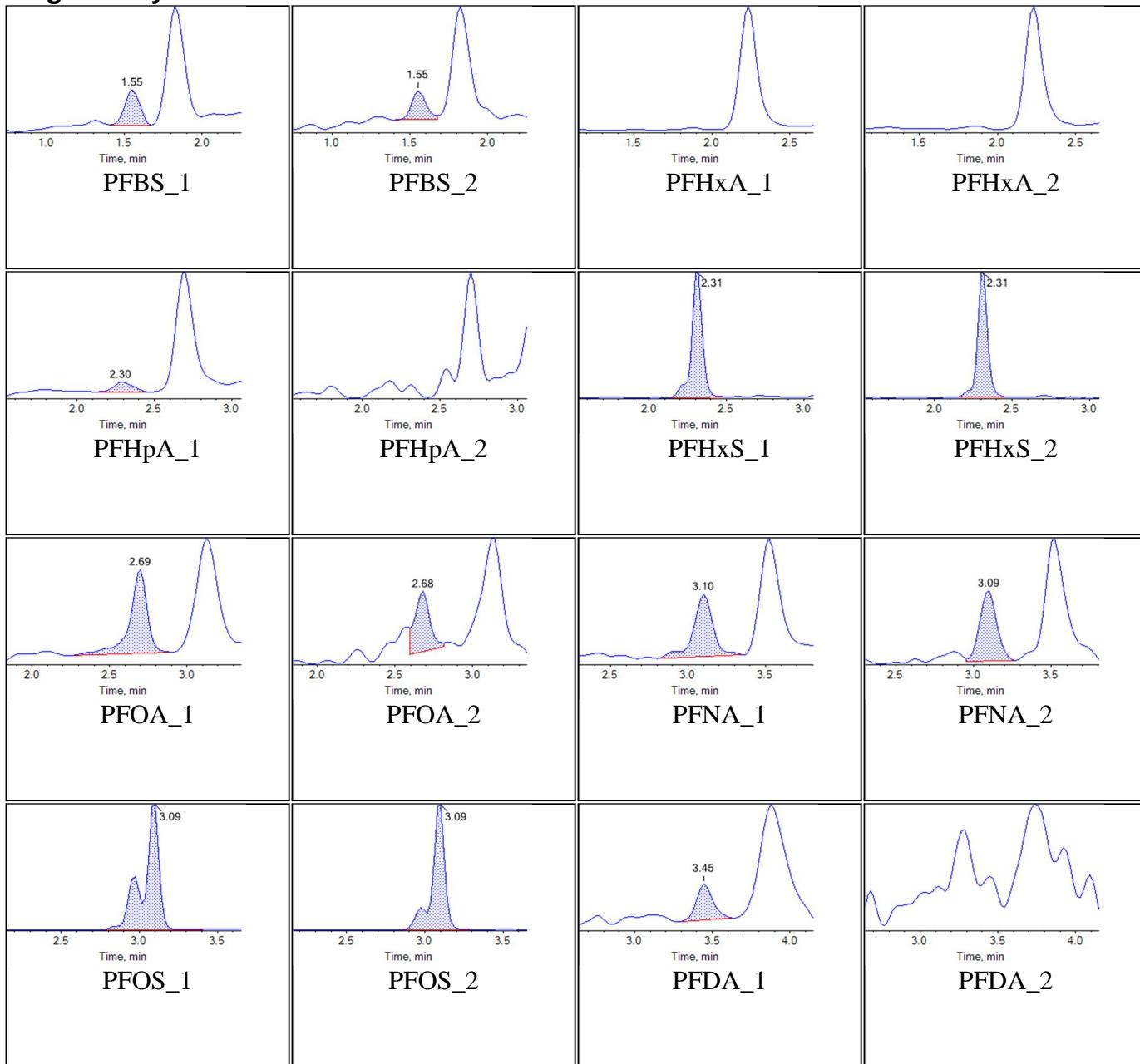
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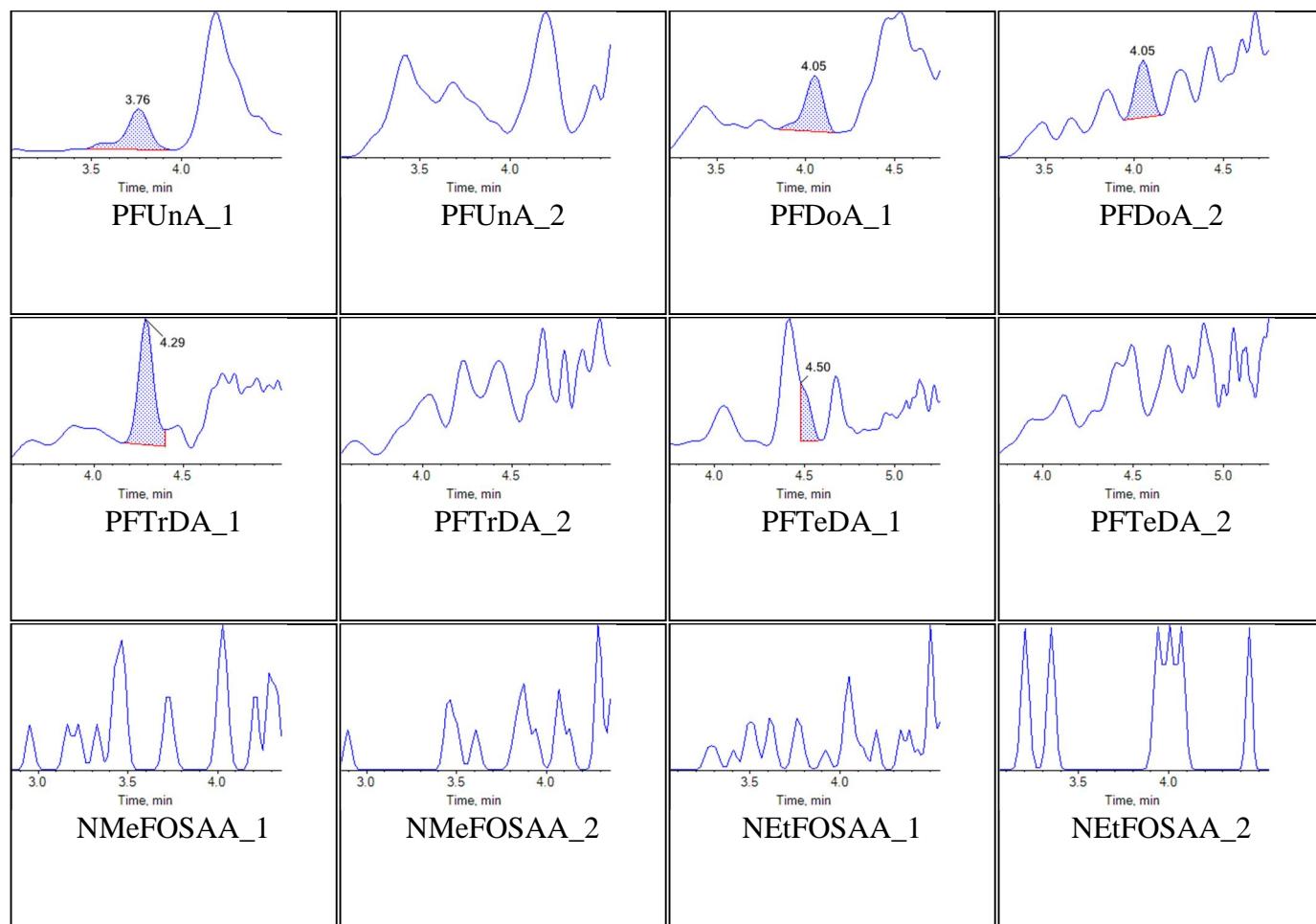
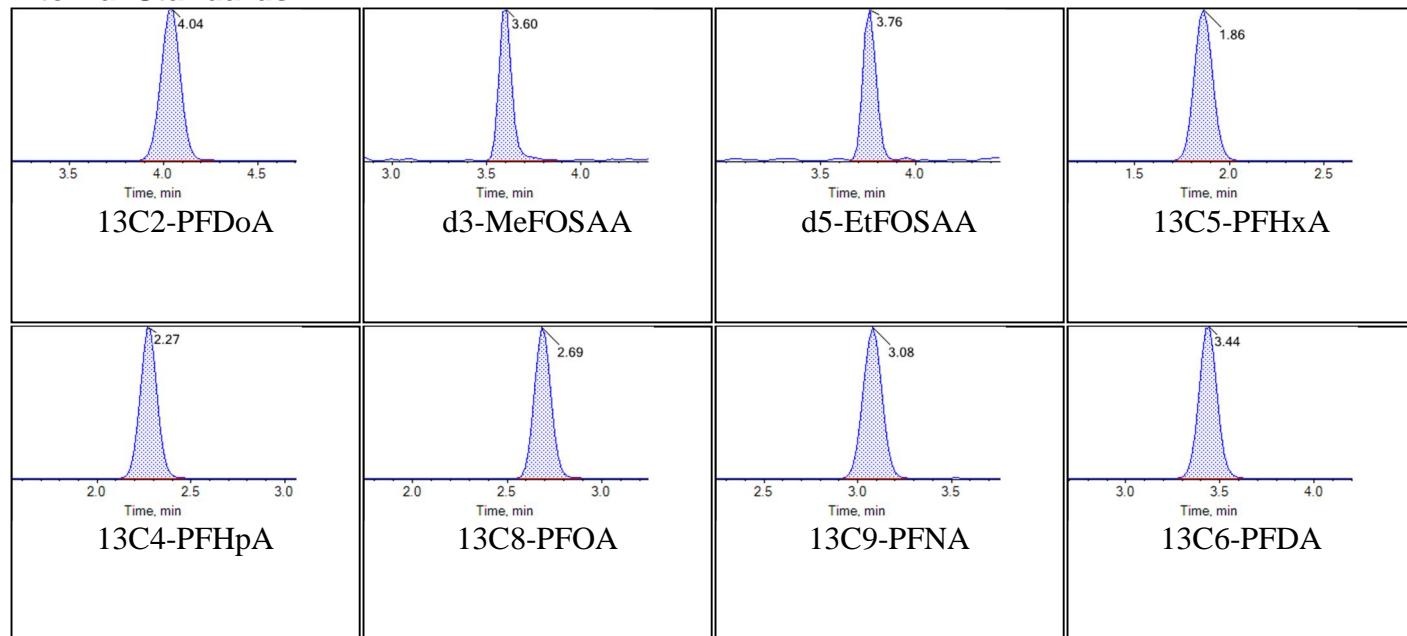
Sample Name	J8704-FS-D(5)	Injection Vial	30
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
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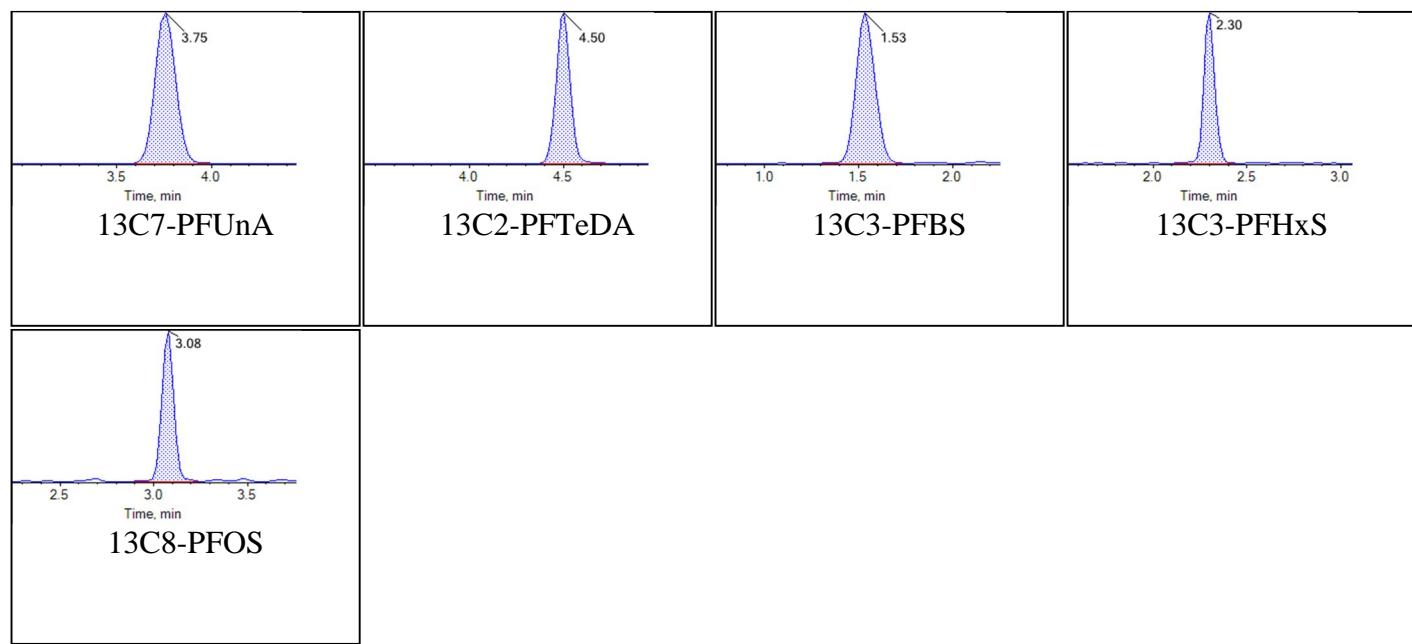
Chromatograms

Target Analytes:



Chromatogram Report

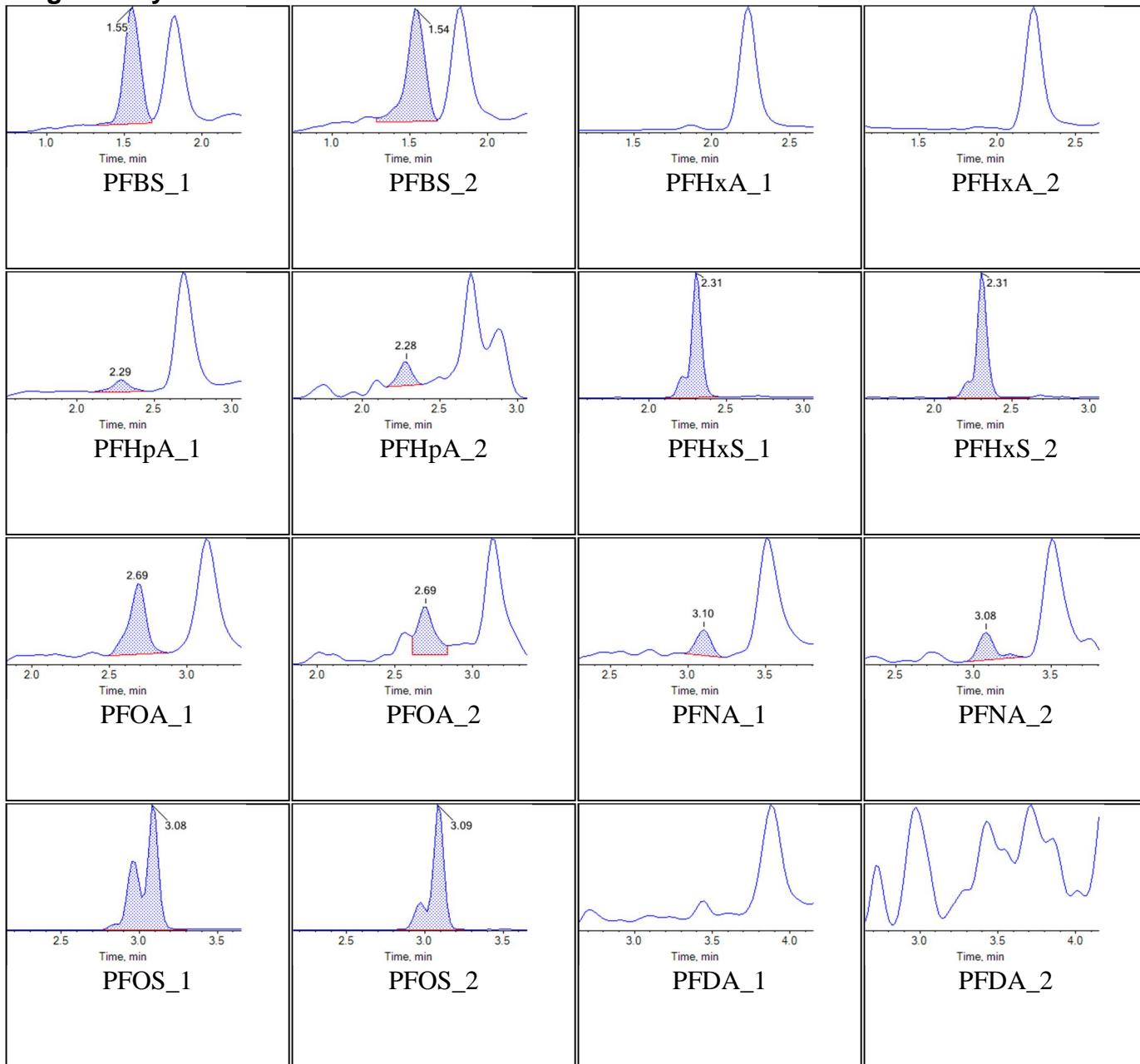
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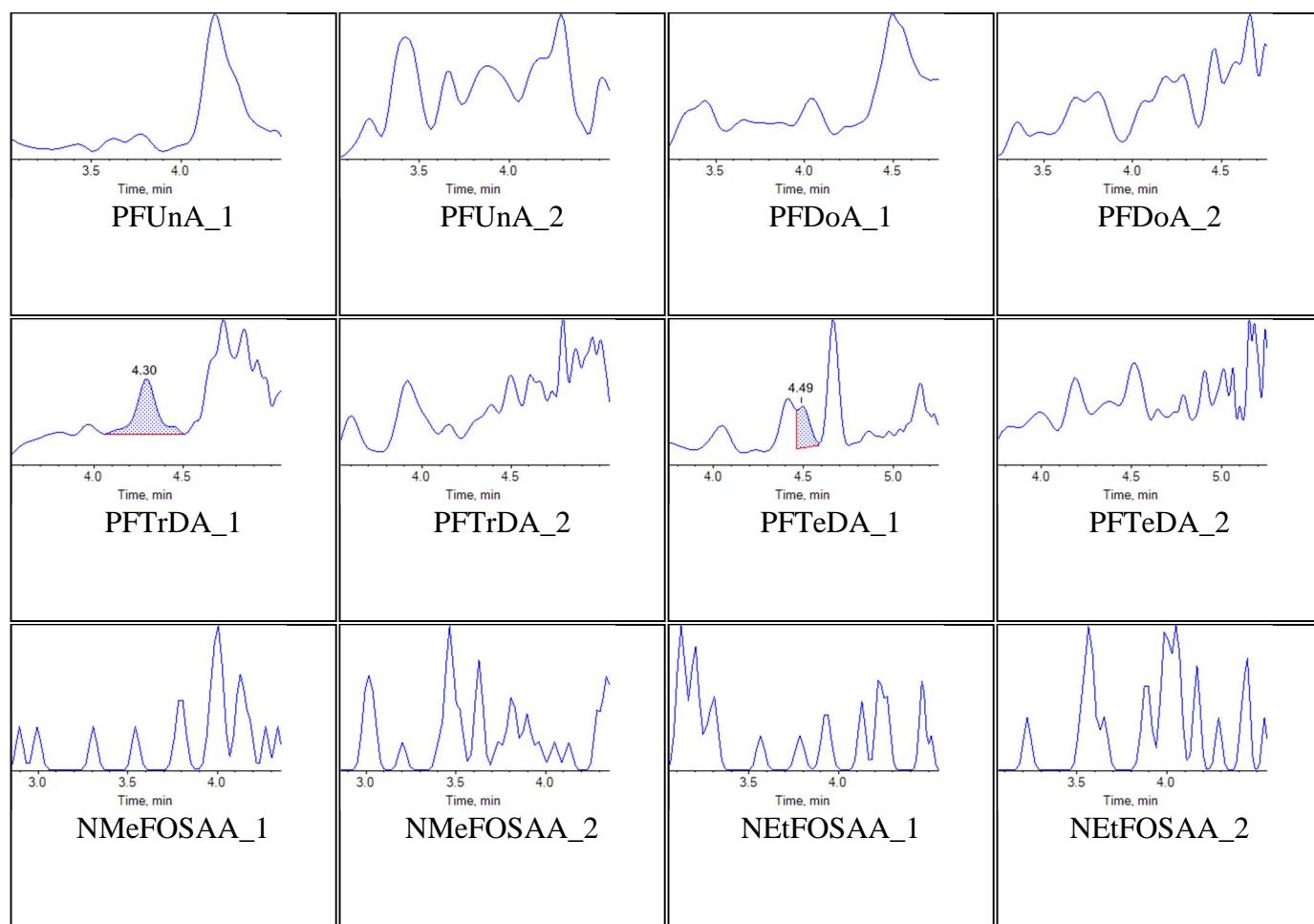
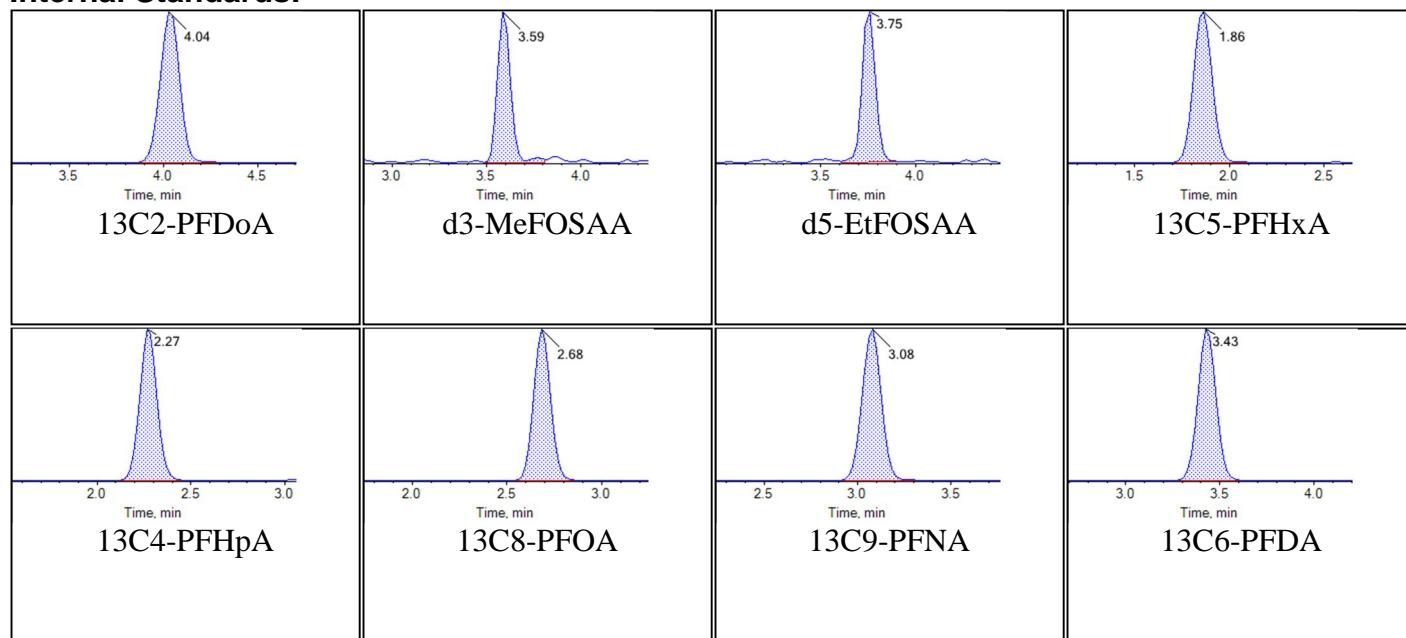
Sample Name	J8705-FS(3)	Injection Vial	32
Sample ID	VC-CS00-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
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Sample Comment			

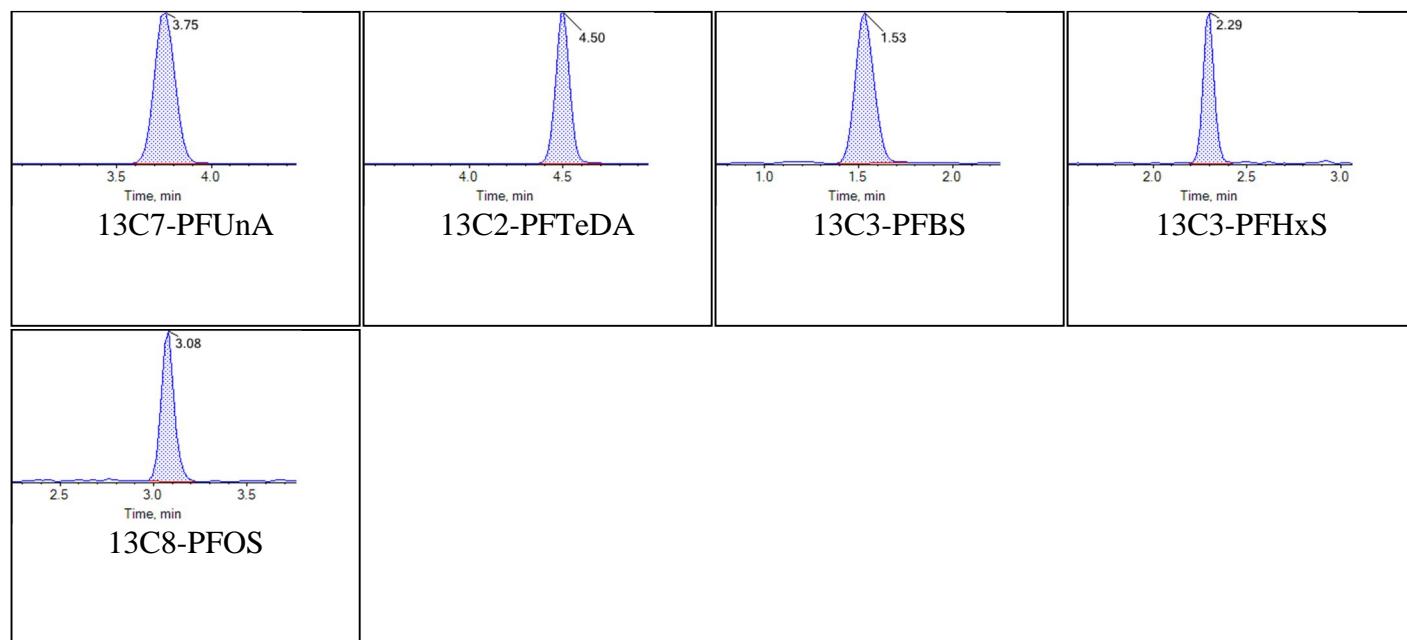
Chromatograms

Target Analytes:



Chromatogram Report

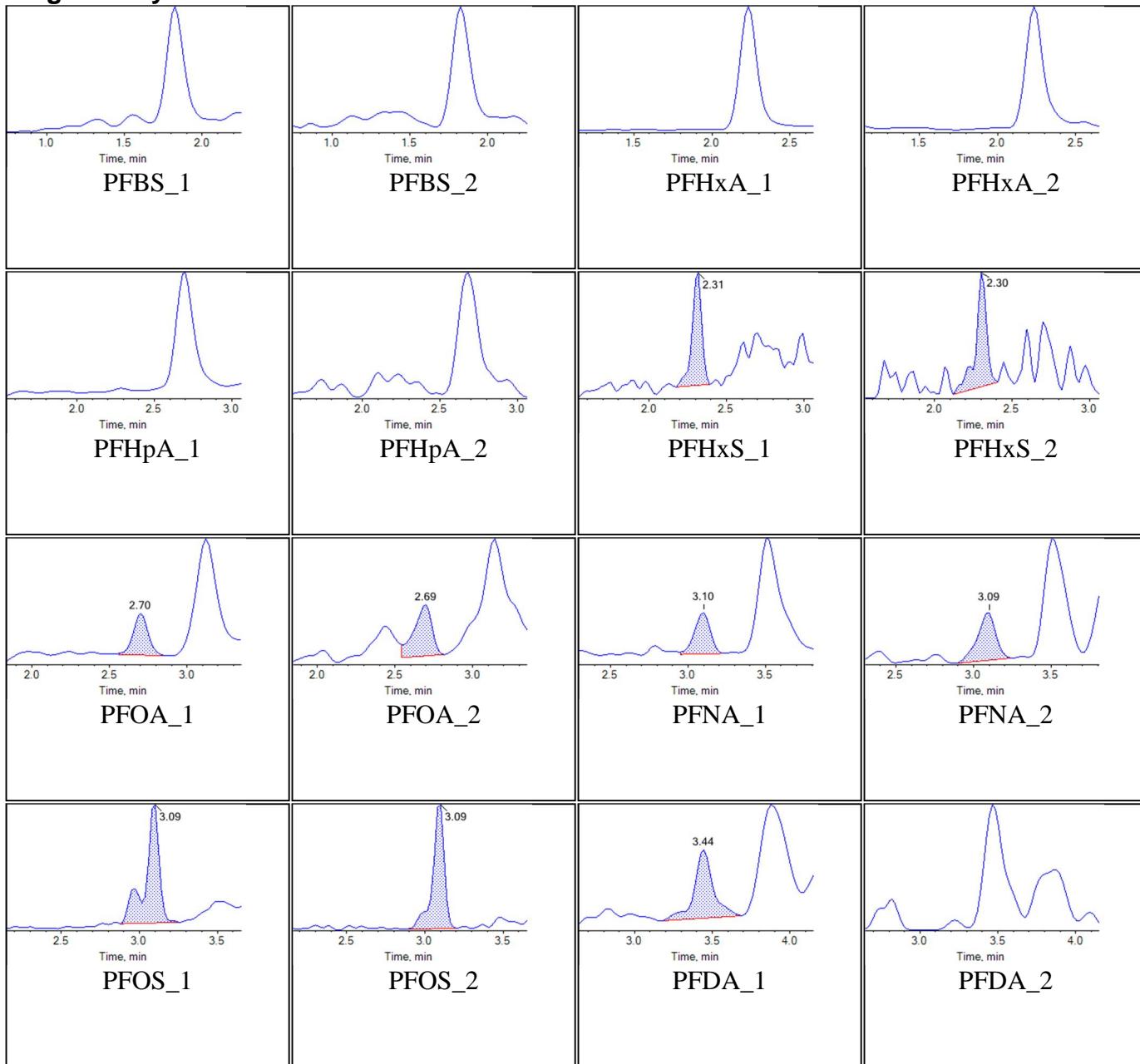
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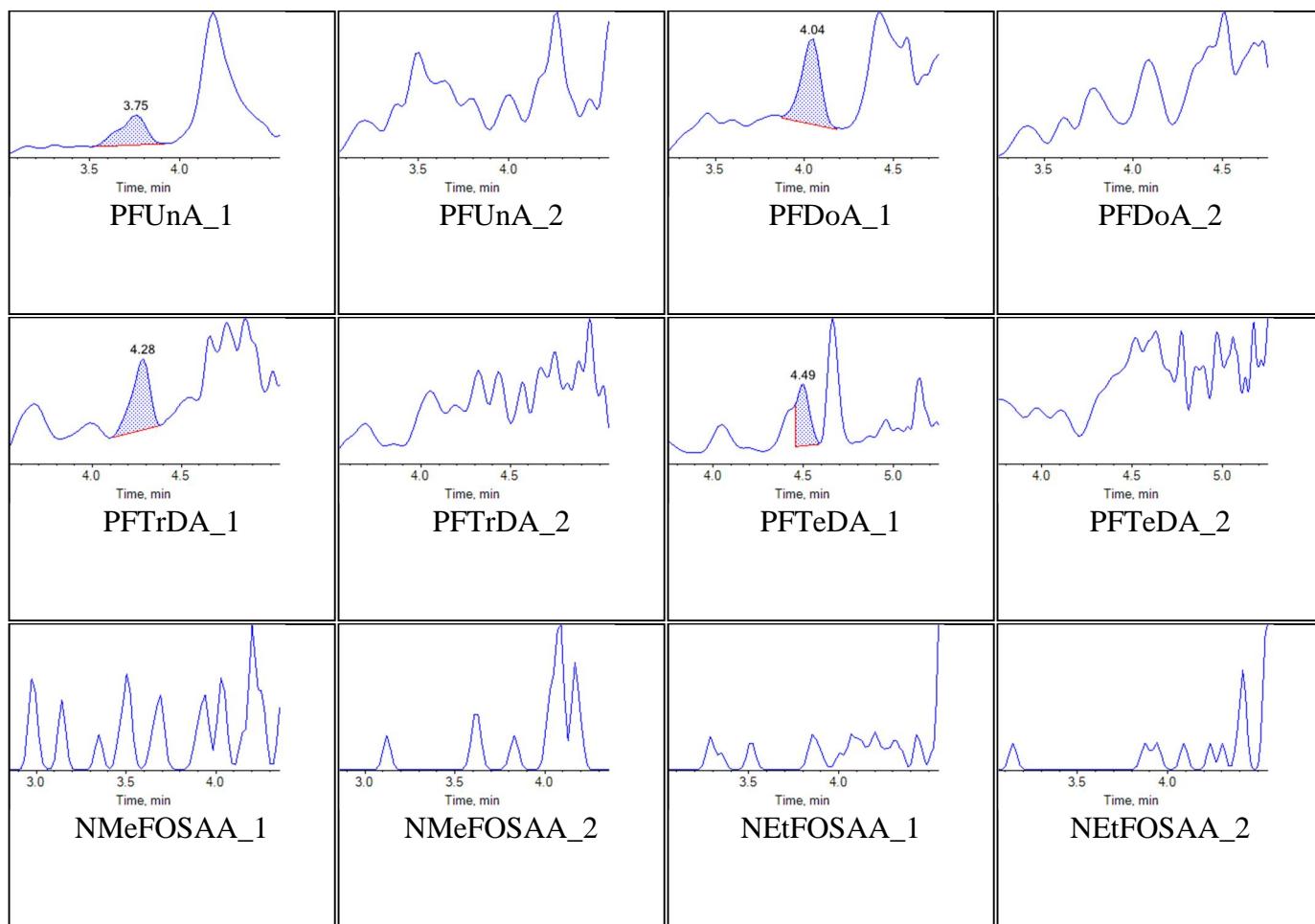
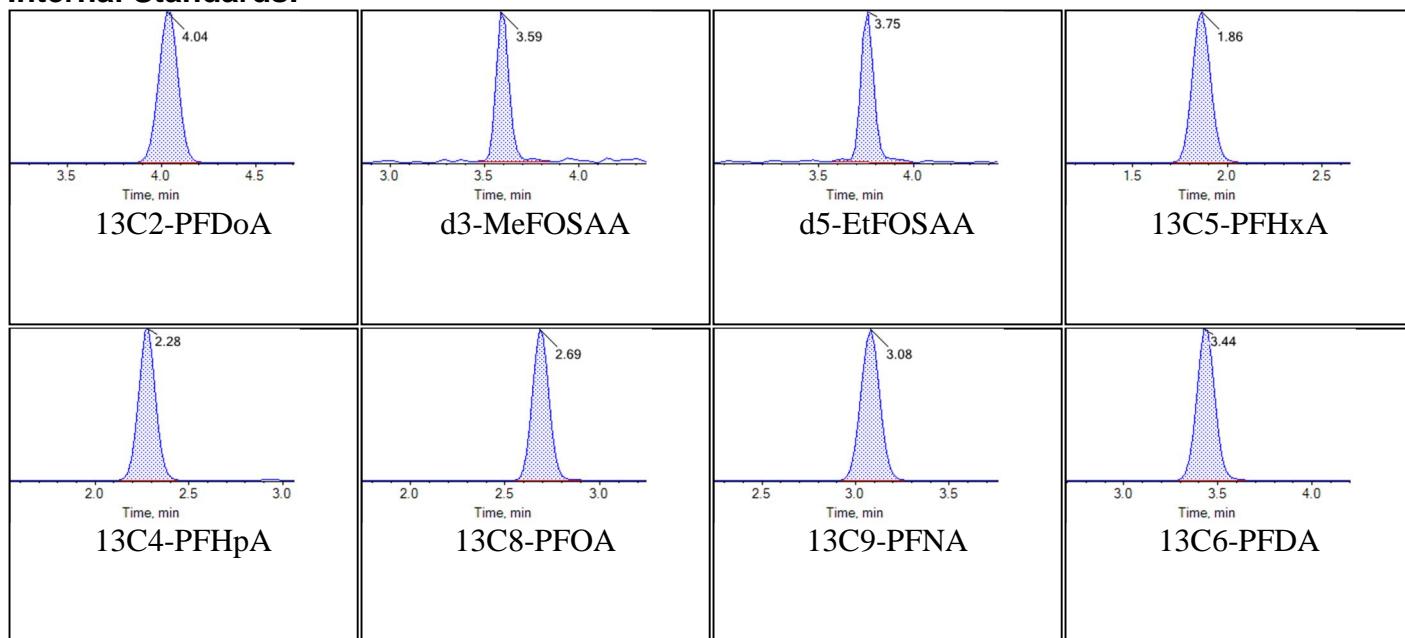


Sample Name	J8706-FS(3)	Injection Vial	34
Sample ID	VC-CS00-SS05-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:53:02	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

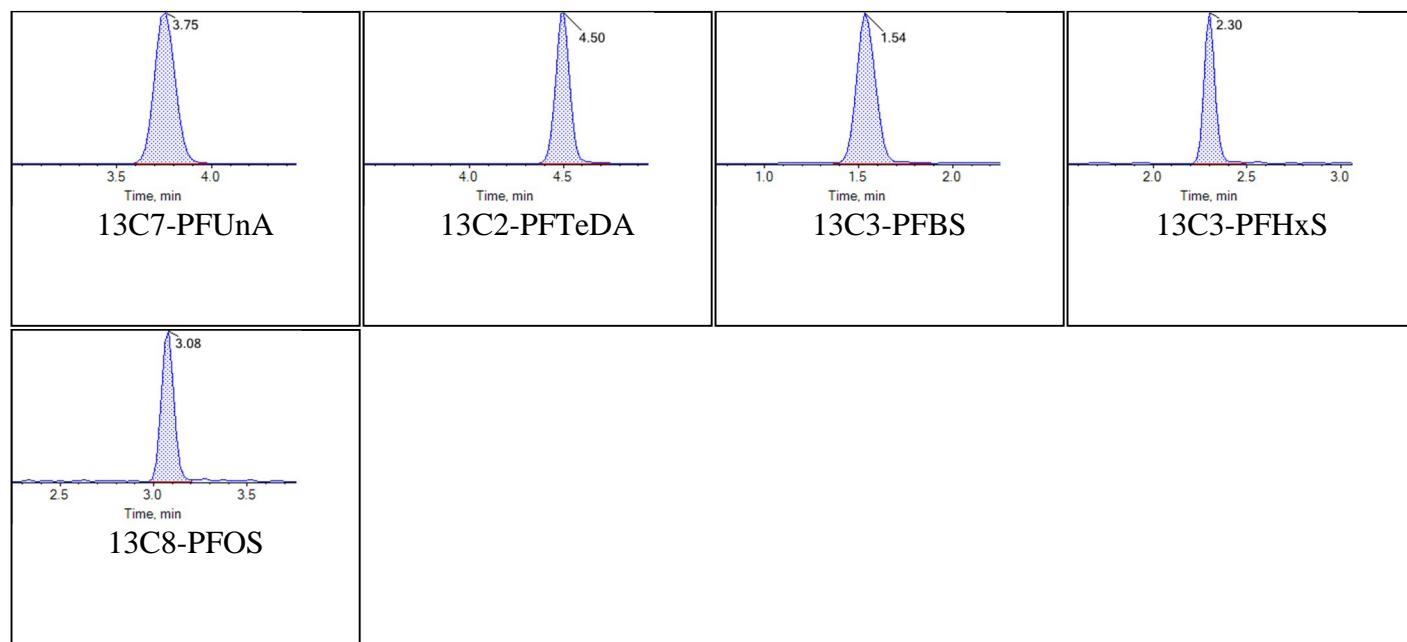
Chromatograms

Target Analytes:



**Internal Standards:**

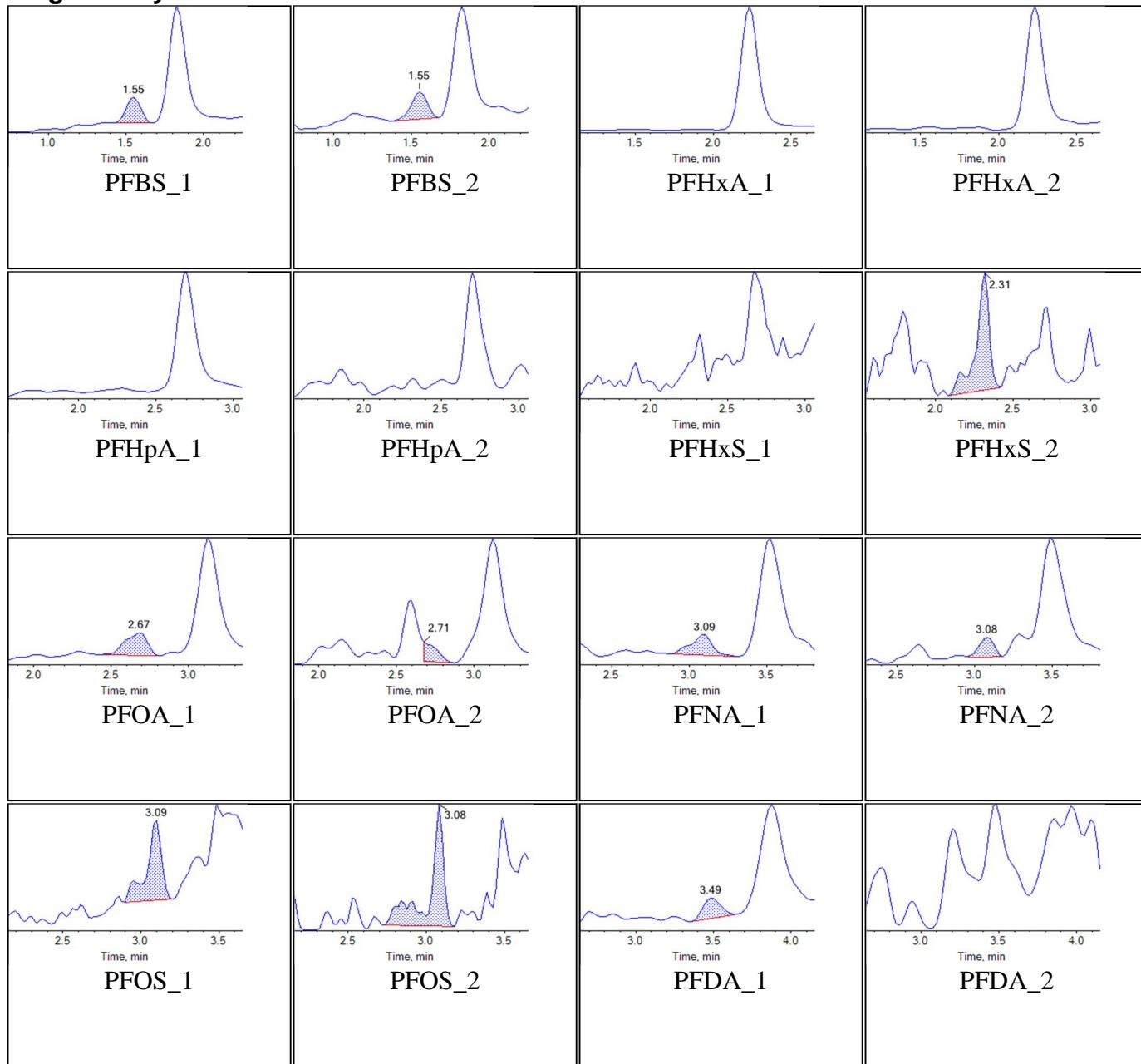
Chromatogram Report

Created with Analyst Reporter
Printed: 24/10/2018 4:23:42 PM

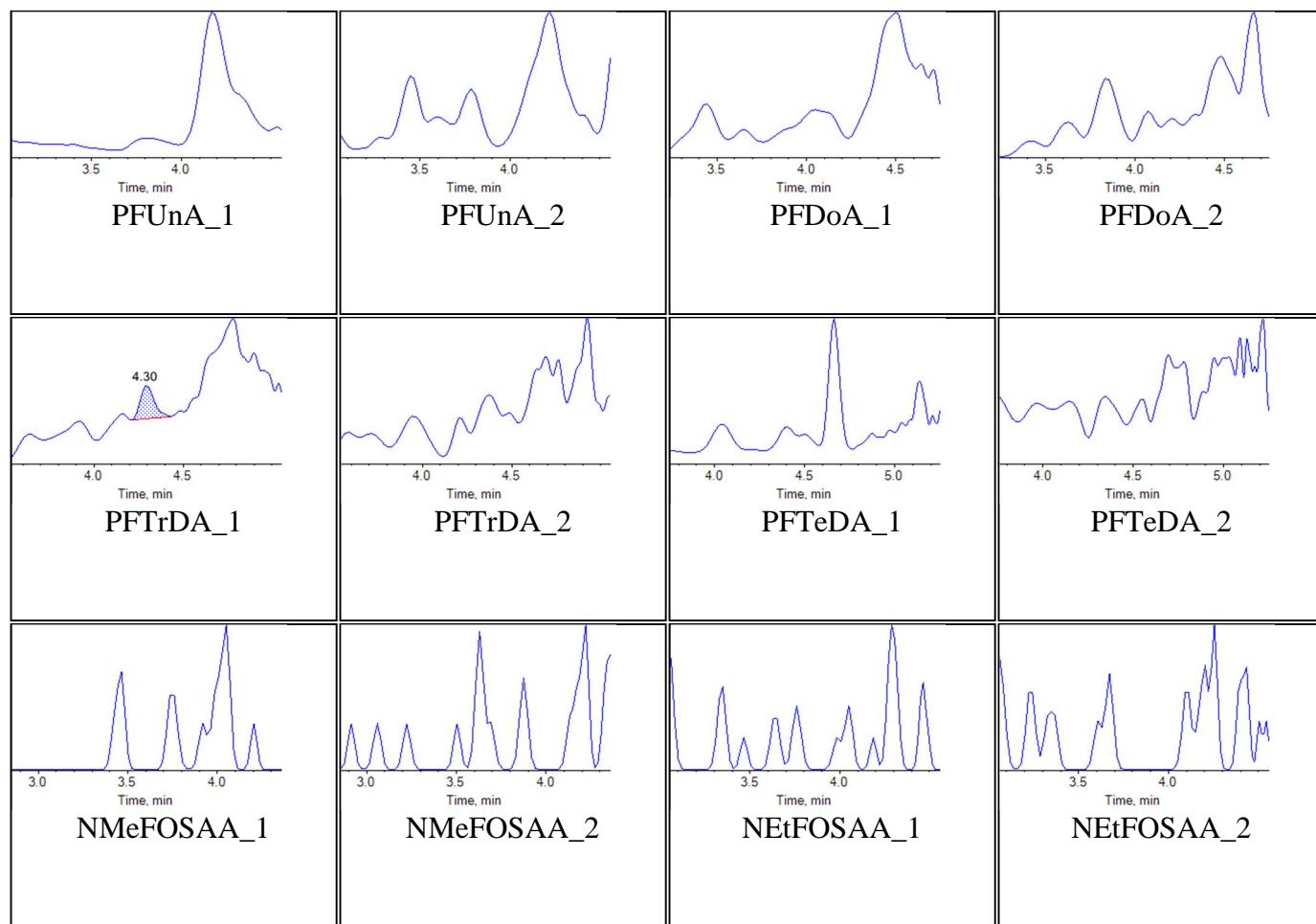
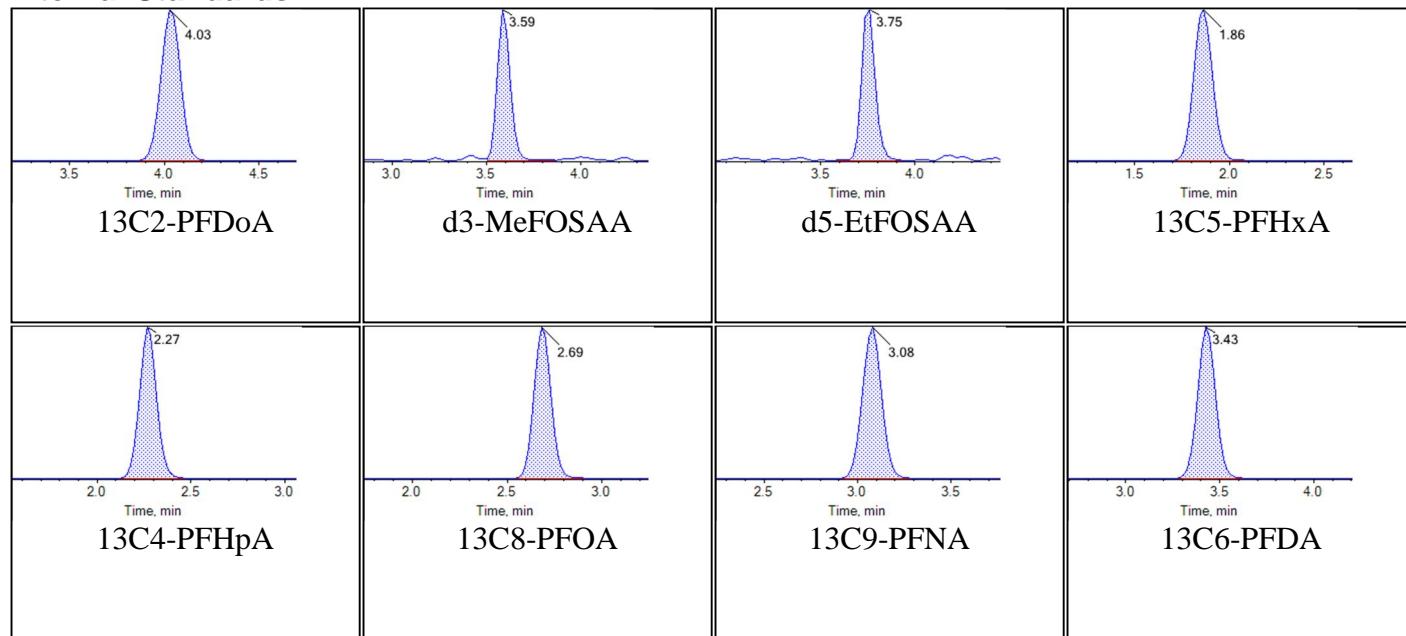
Sample Name	J8707-FS(3)	Injection Vial	35
Sample ID	VC-CS00-SB05-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:03:54	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

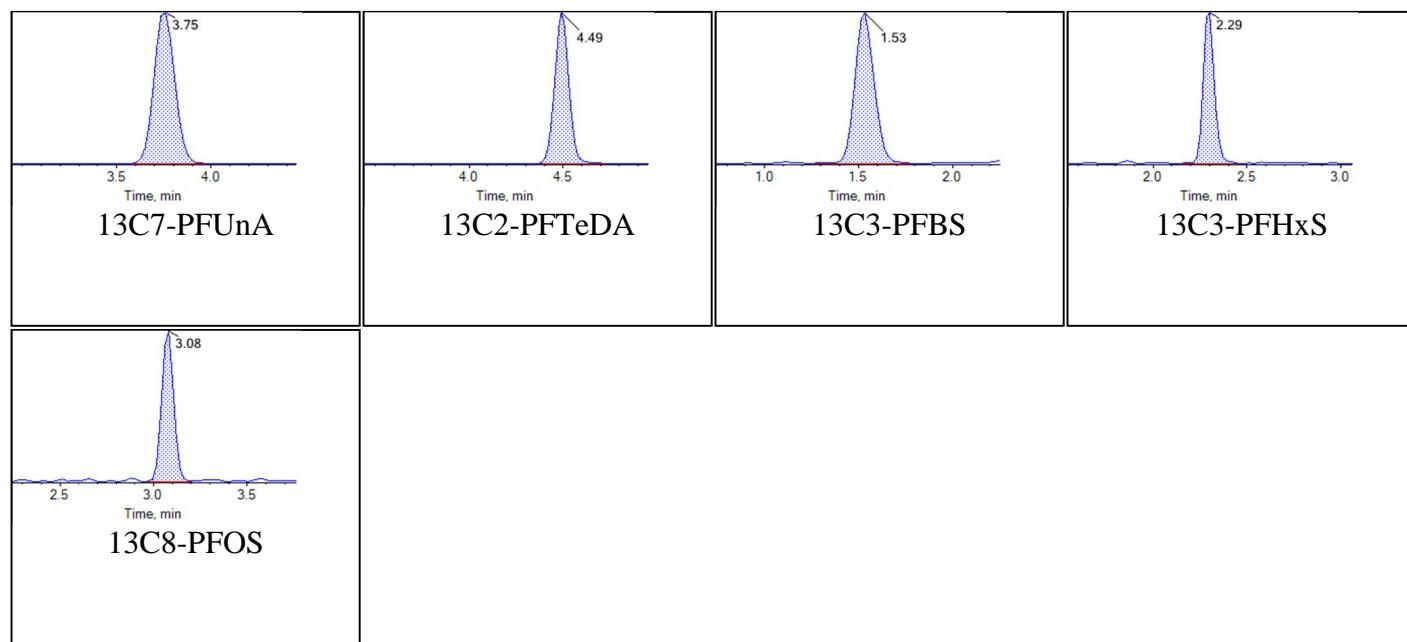
Target Analytes:



Chromatogram Report

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Printed: 24/10/2018 4:23:47 PM**Internal Standards:**

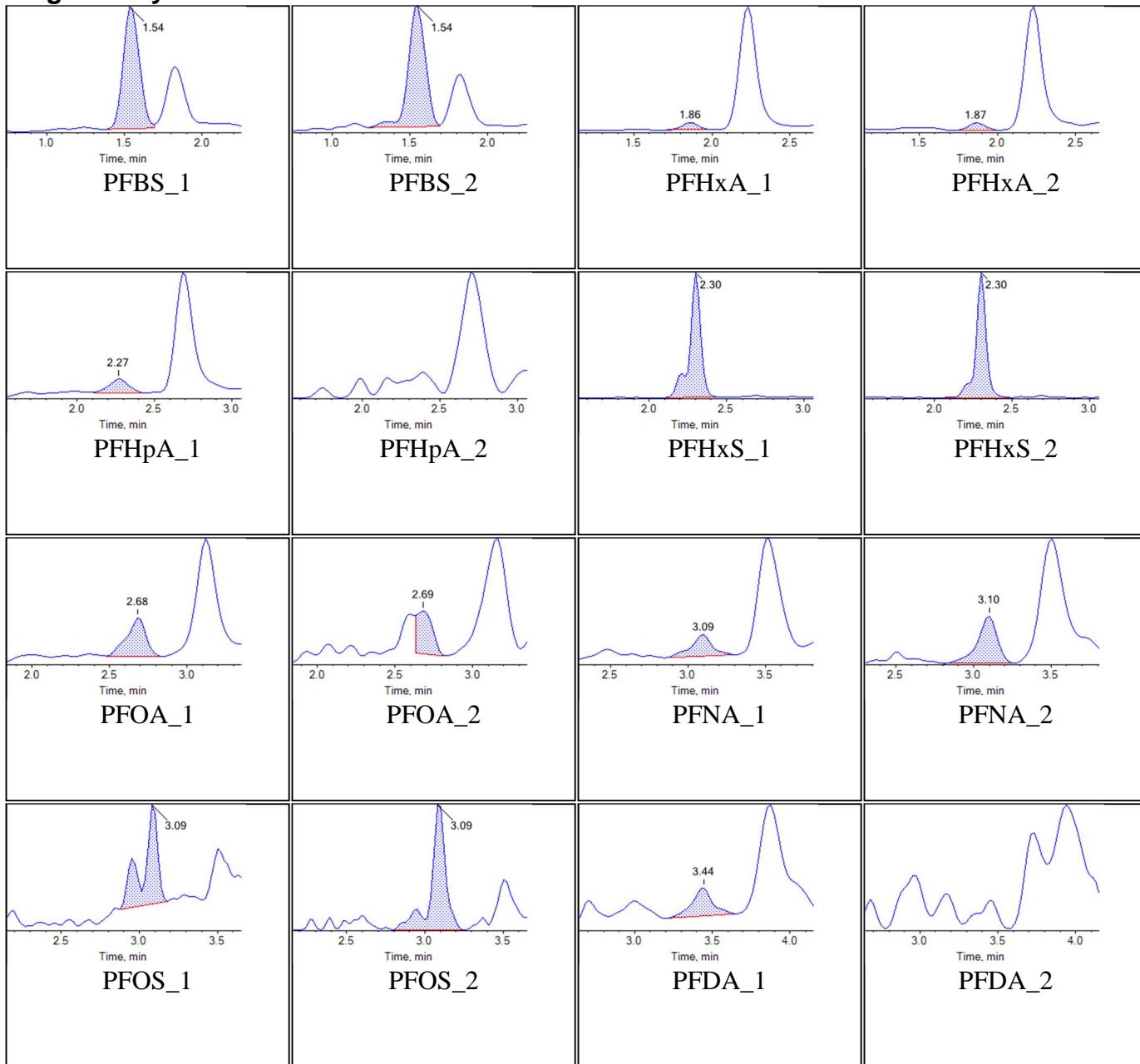
Chromatogram Report

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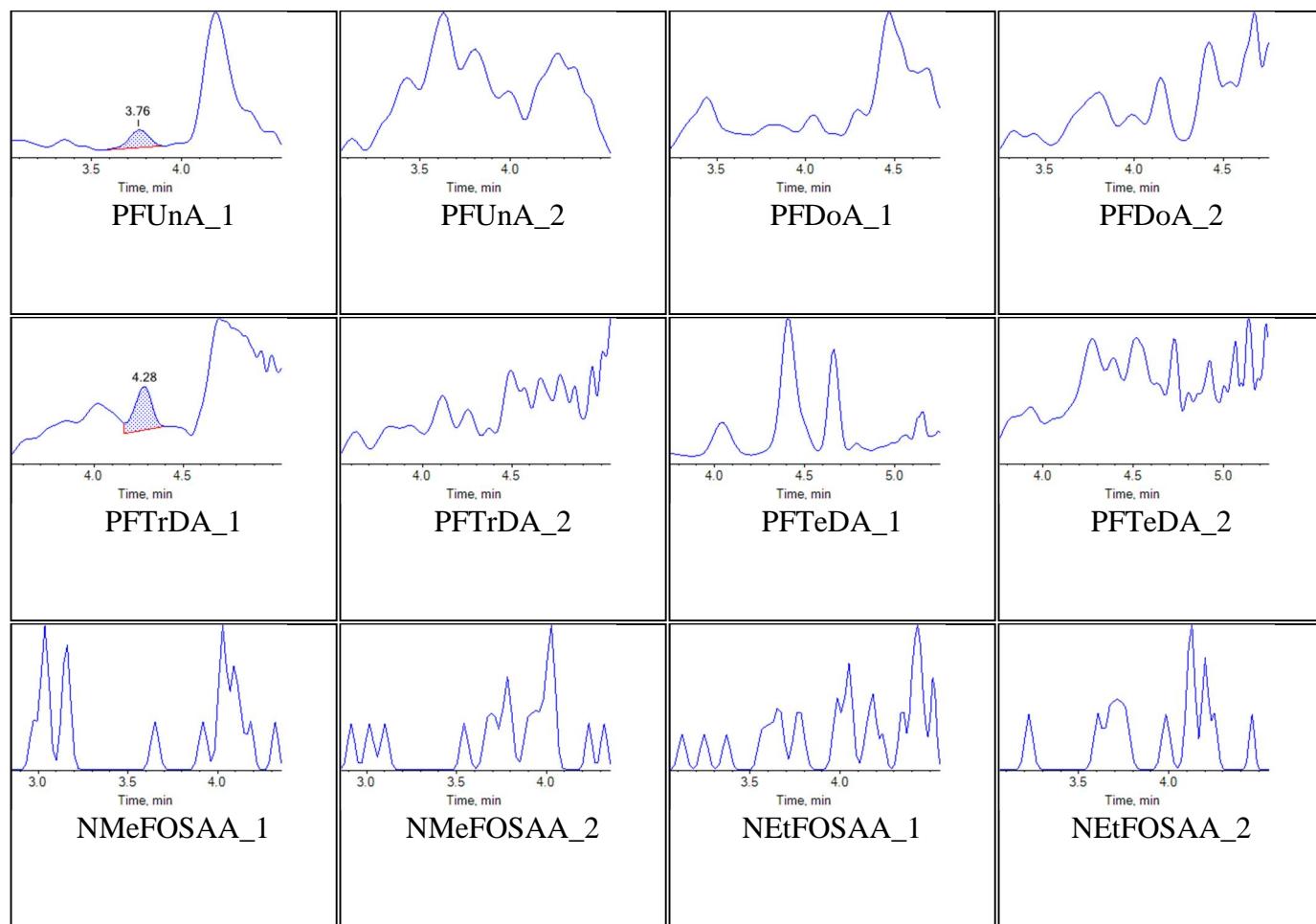
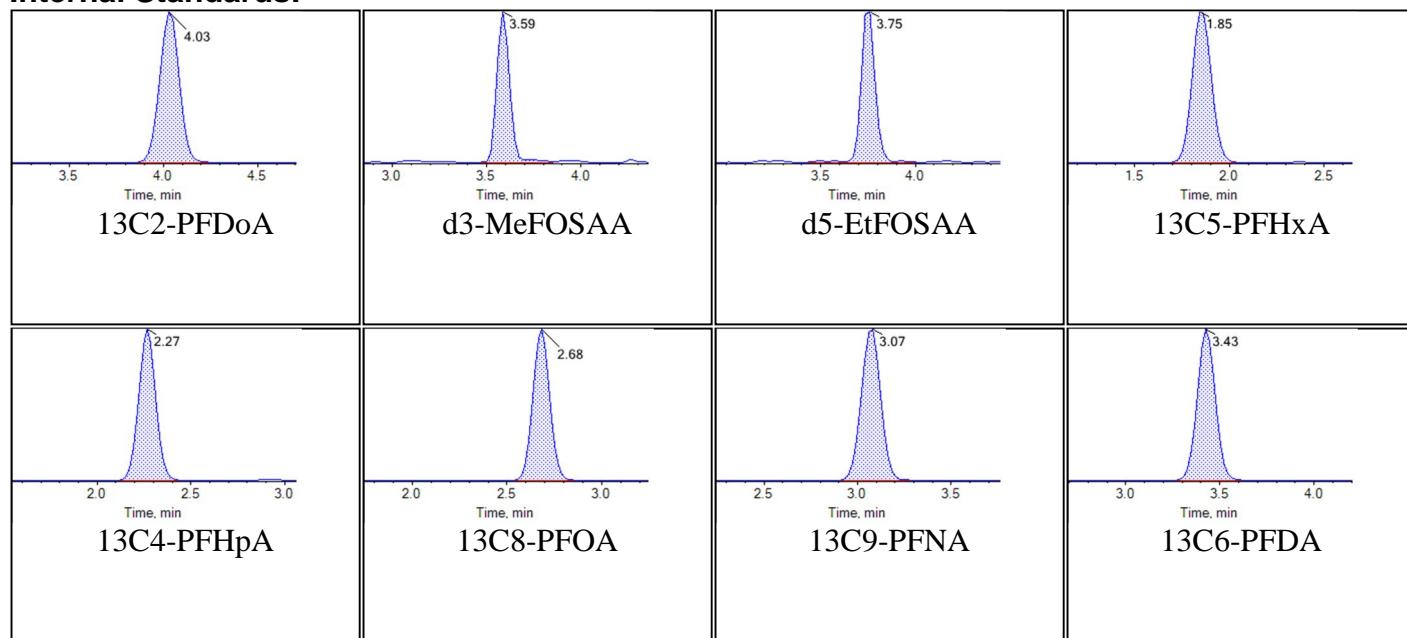
Sample Name	J8708-FS(3)	Injection Vial	36
Sample ID	VC-CS00-SB05-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:14:46	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

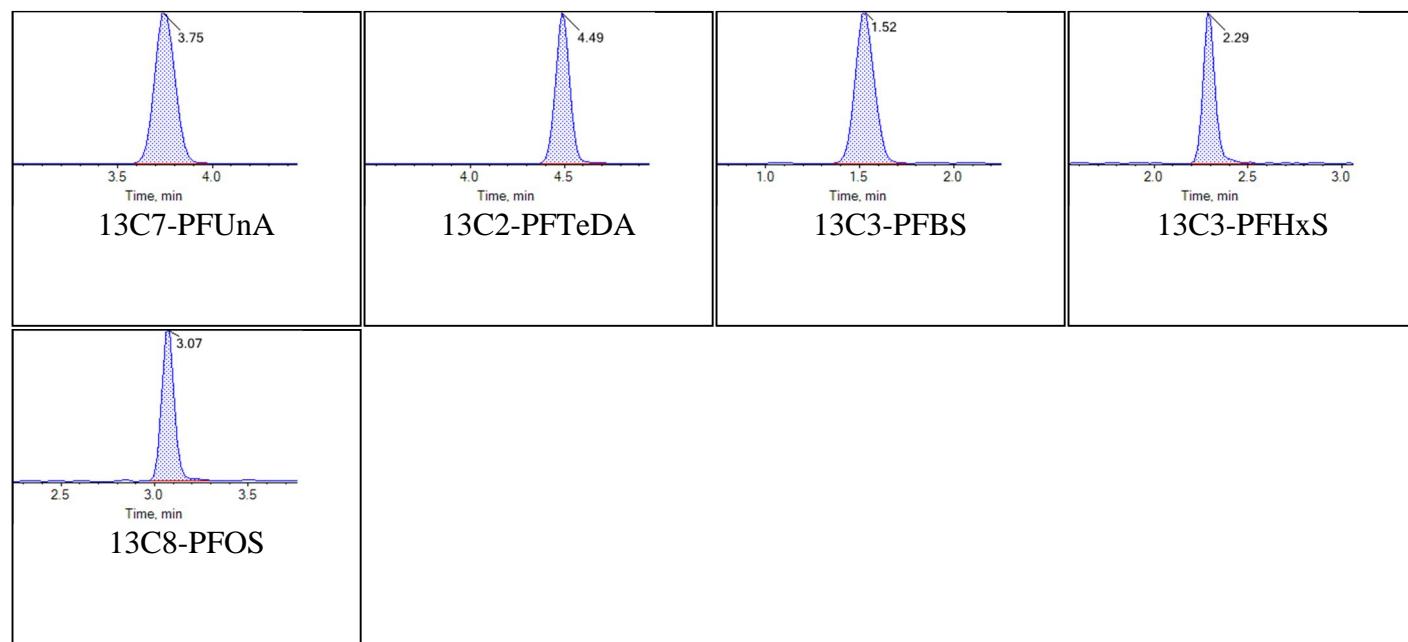
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Chromatogram Report

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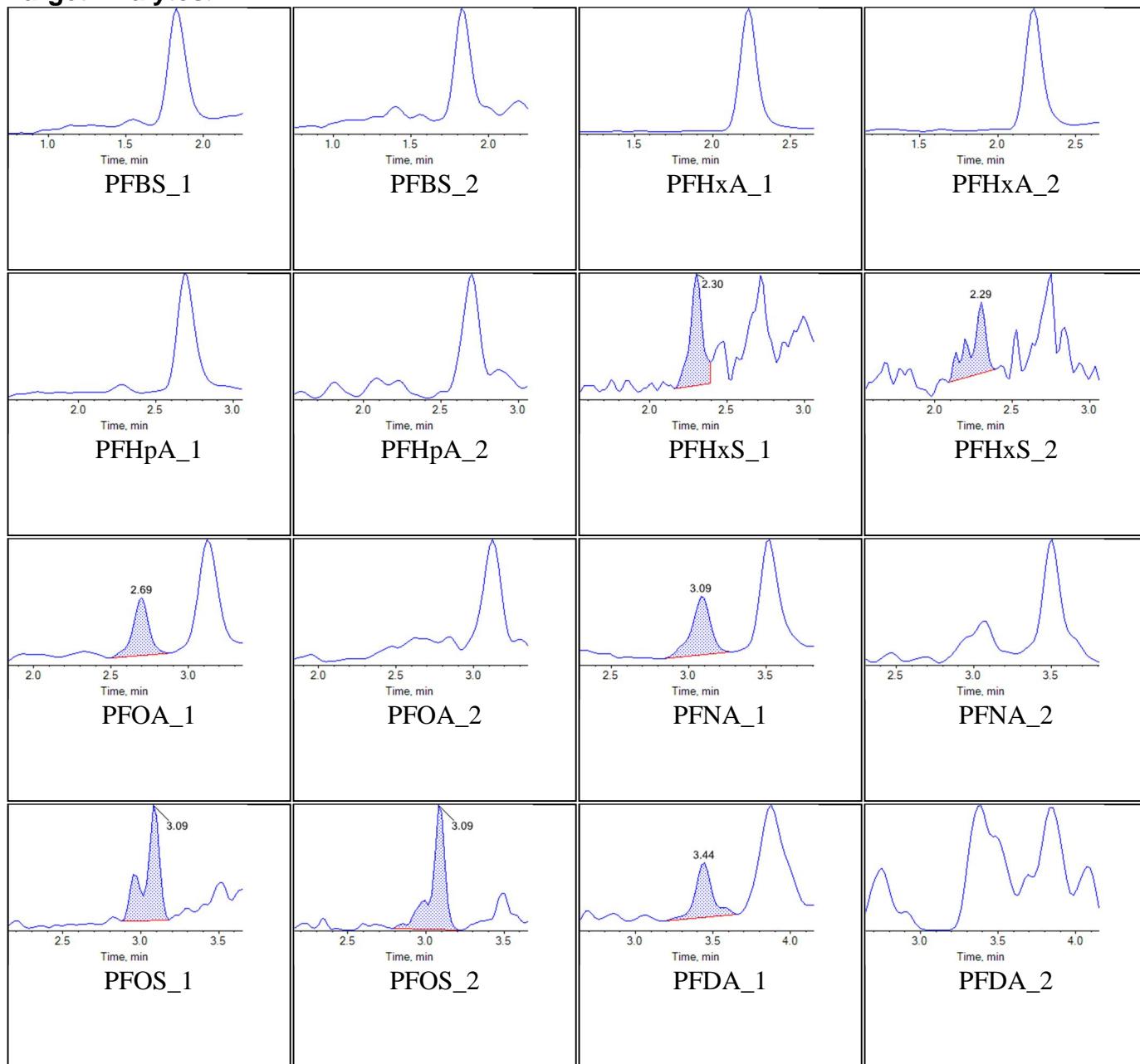
Chromatogram Report

Created with Analyst Reporter
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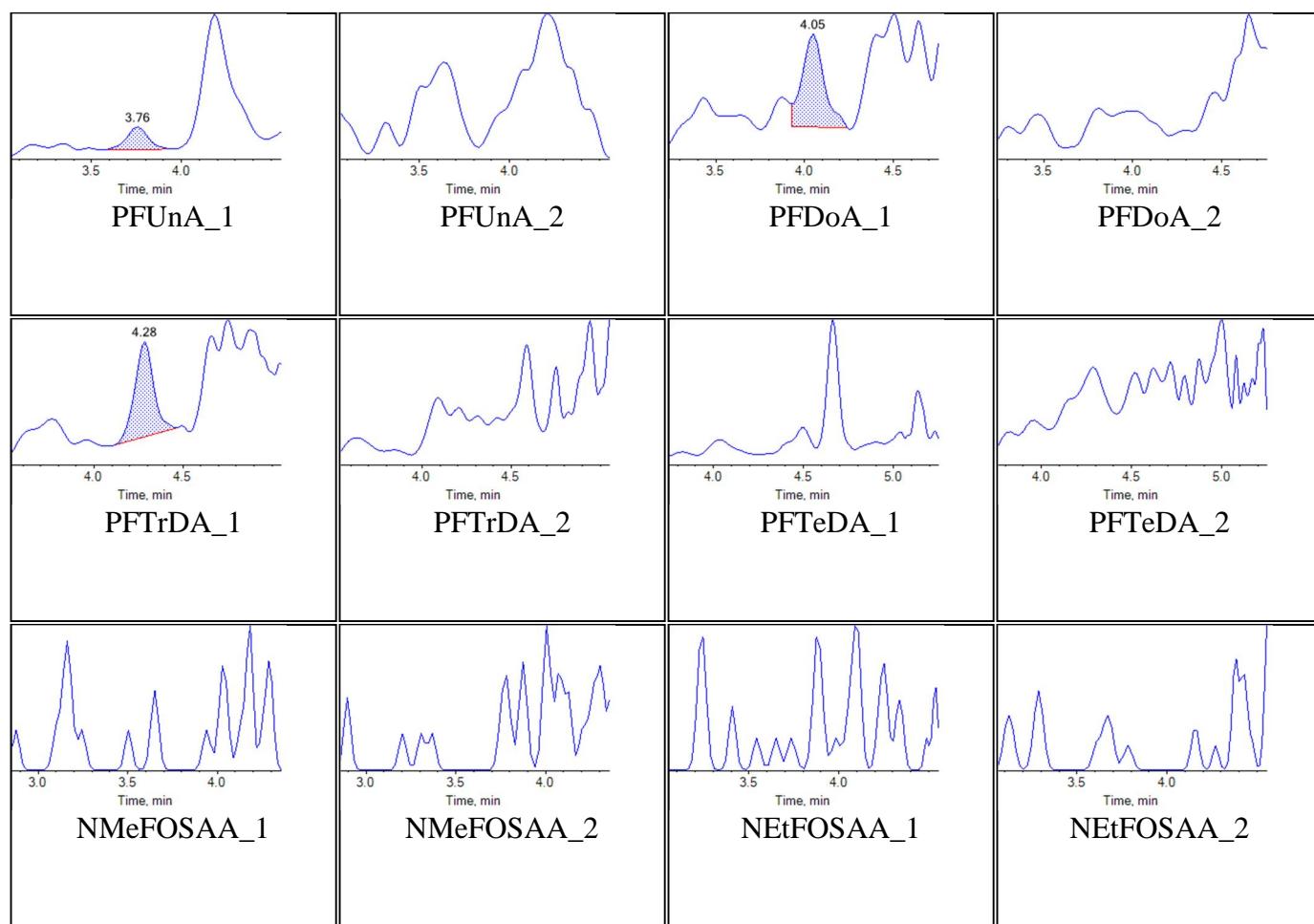
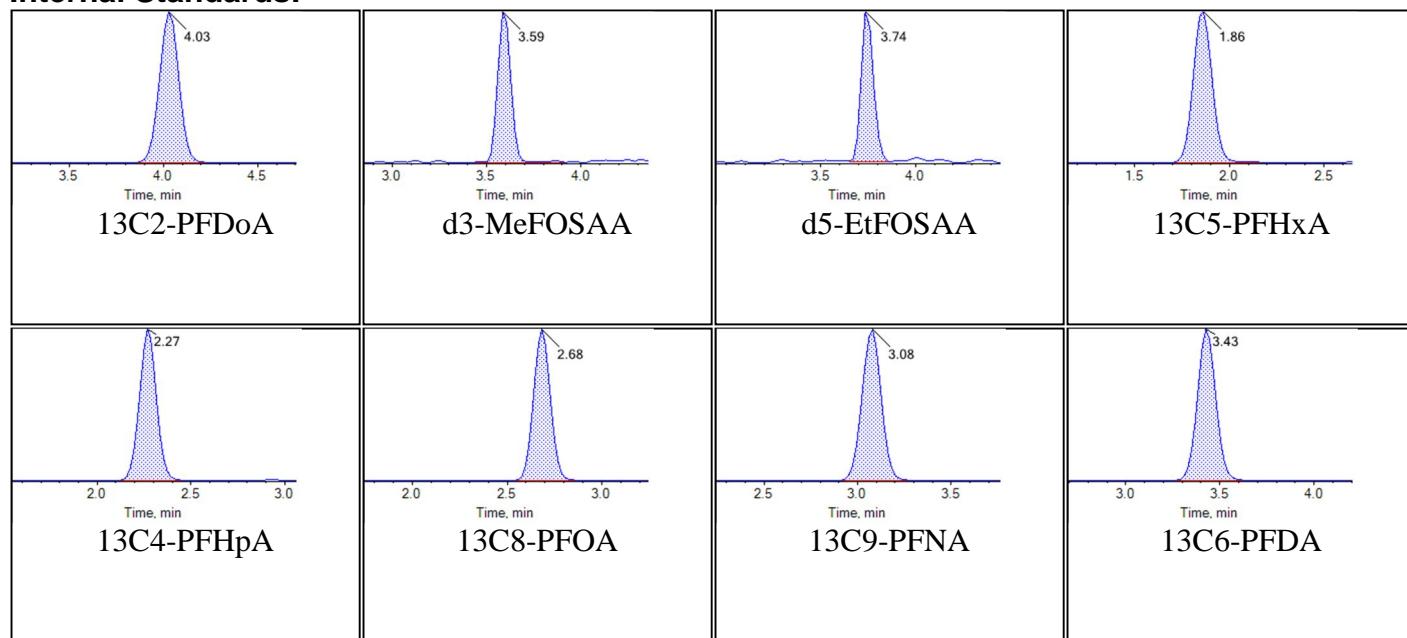
Sample Name	J8709-FS(3)	Injection Vial	37
Sample ID	VC-CS00-SS06-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:25:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

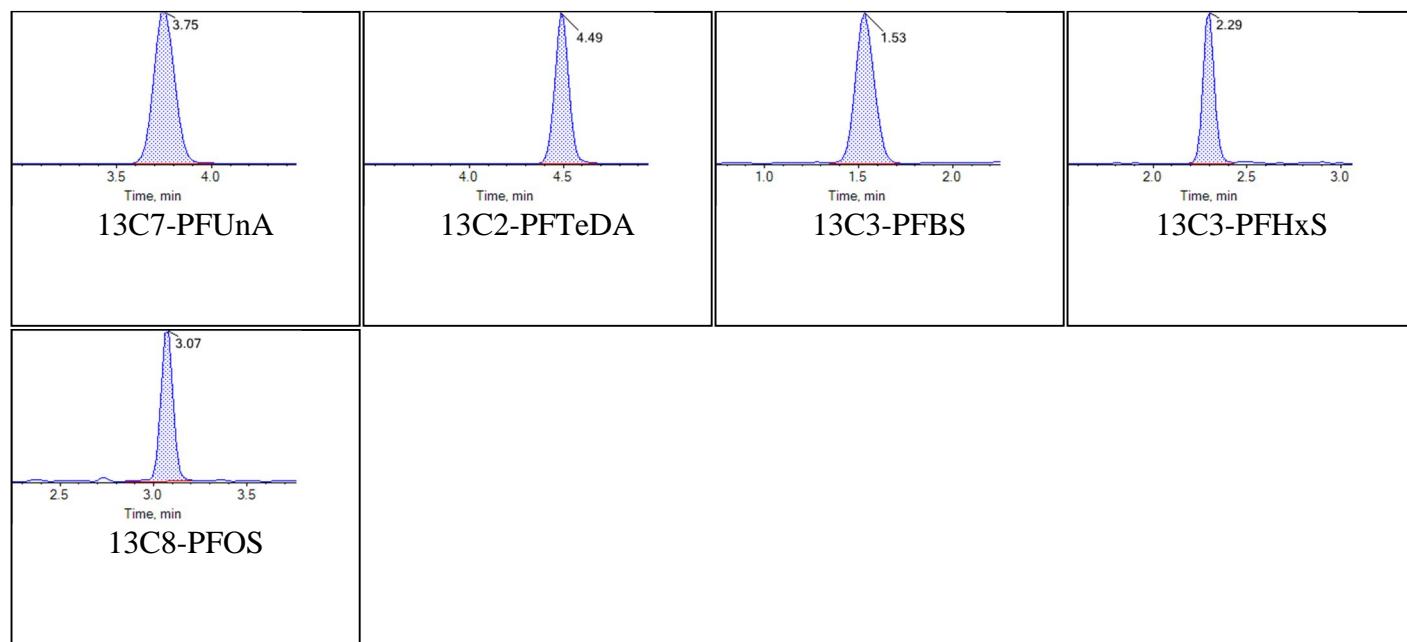
Target Analytes:



Chromatogram Report

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Printed: 24/10/2018 4:23:57 PM**Internal Standards:**

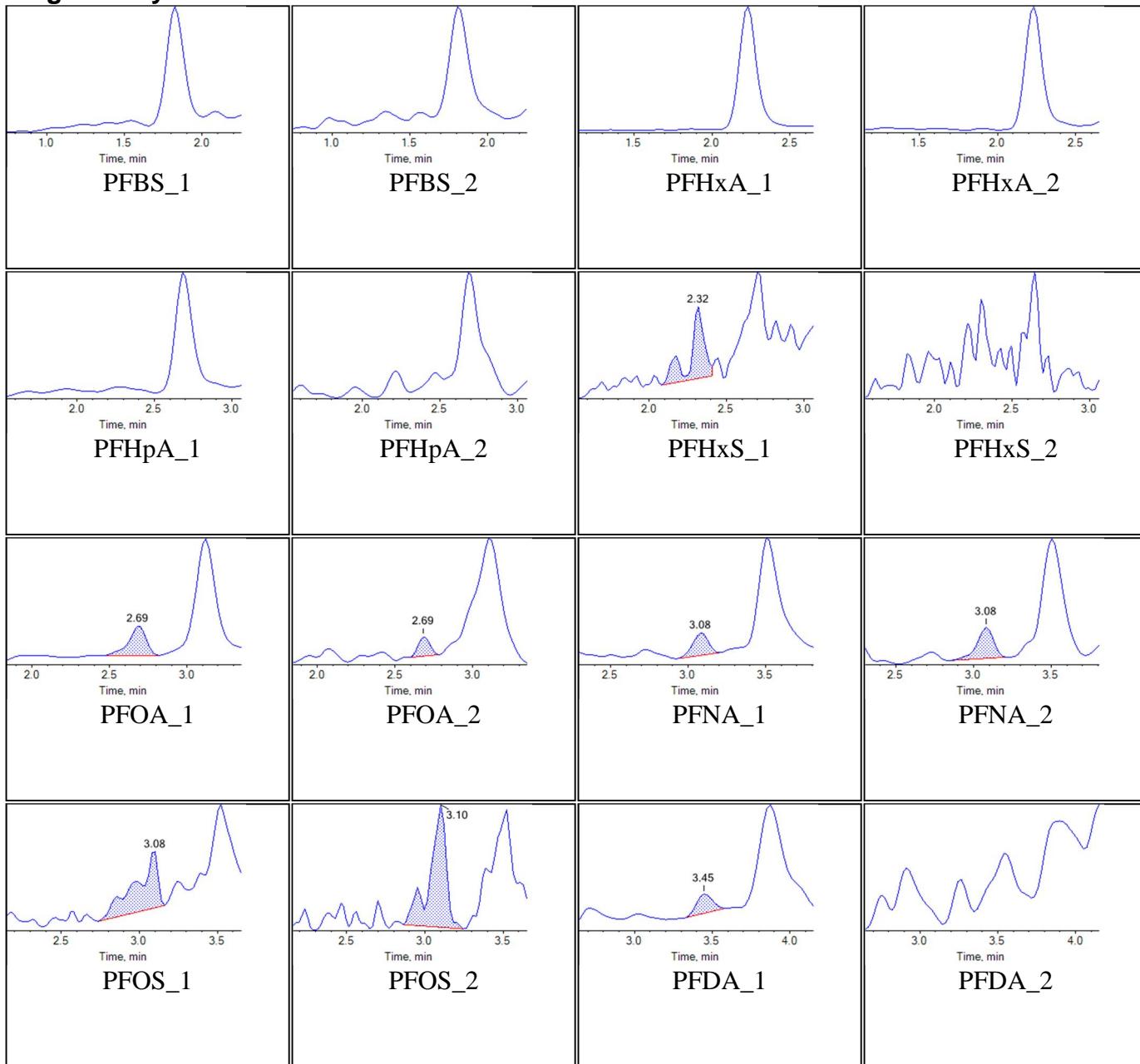
Chromatogram Report

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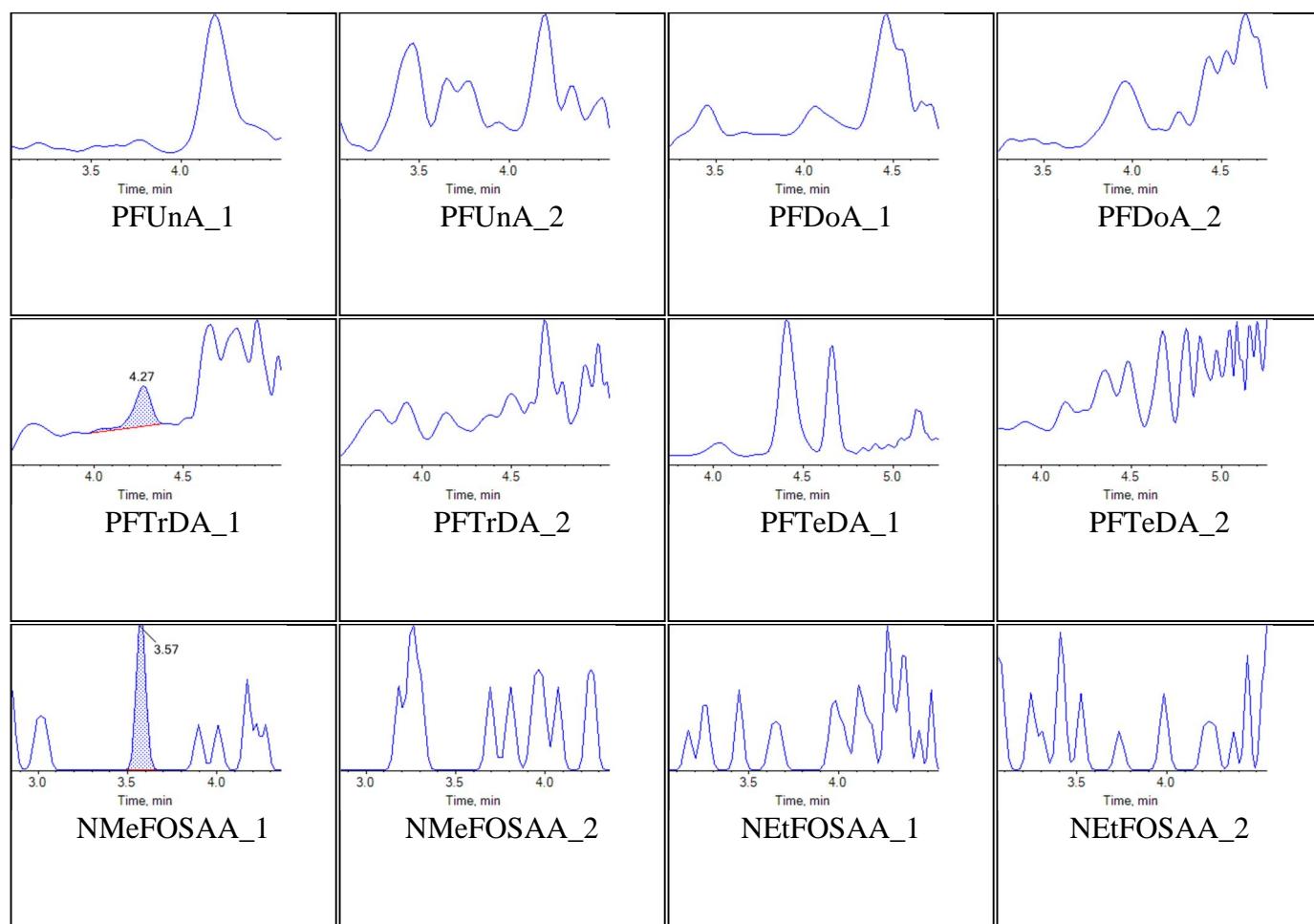
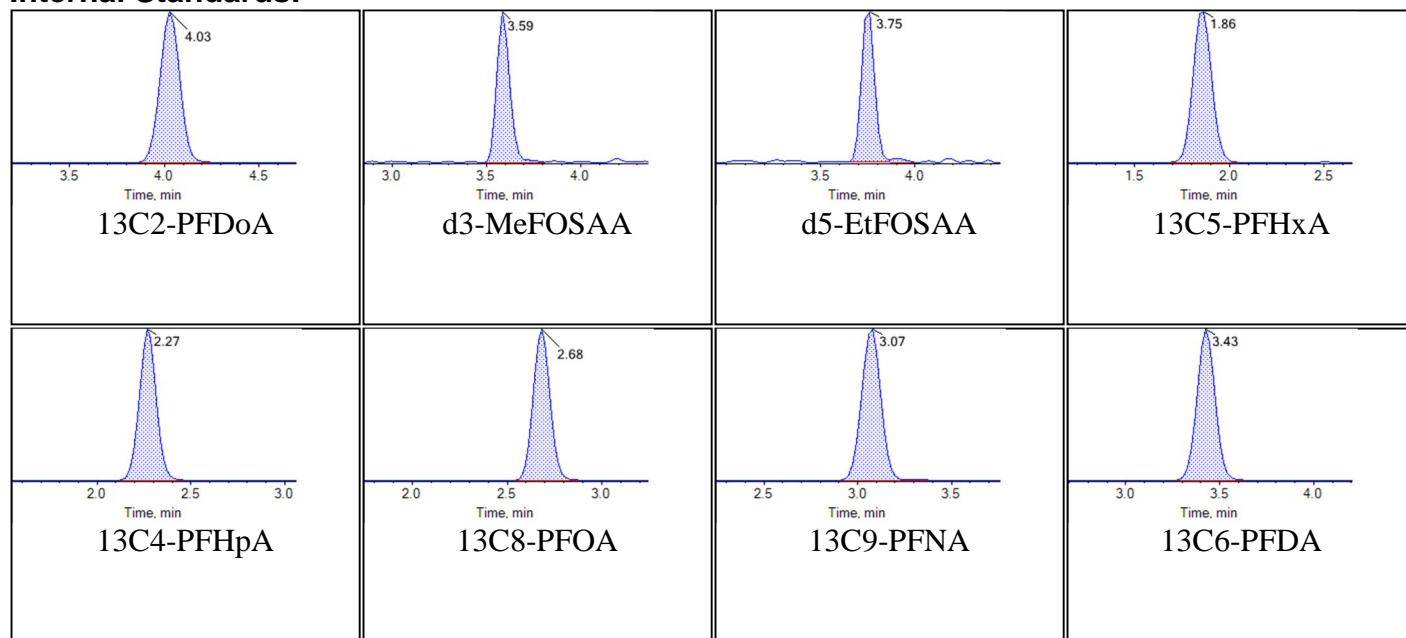
Sample Name	J8710-FS(3)	Injection Vial	38
Sample ID	VC-CS00-SB06-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:36:28	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

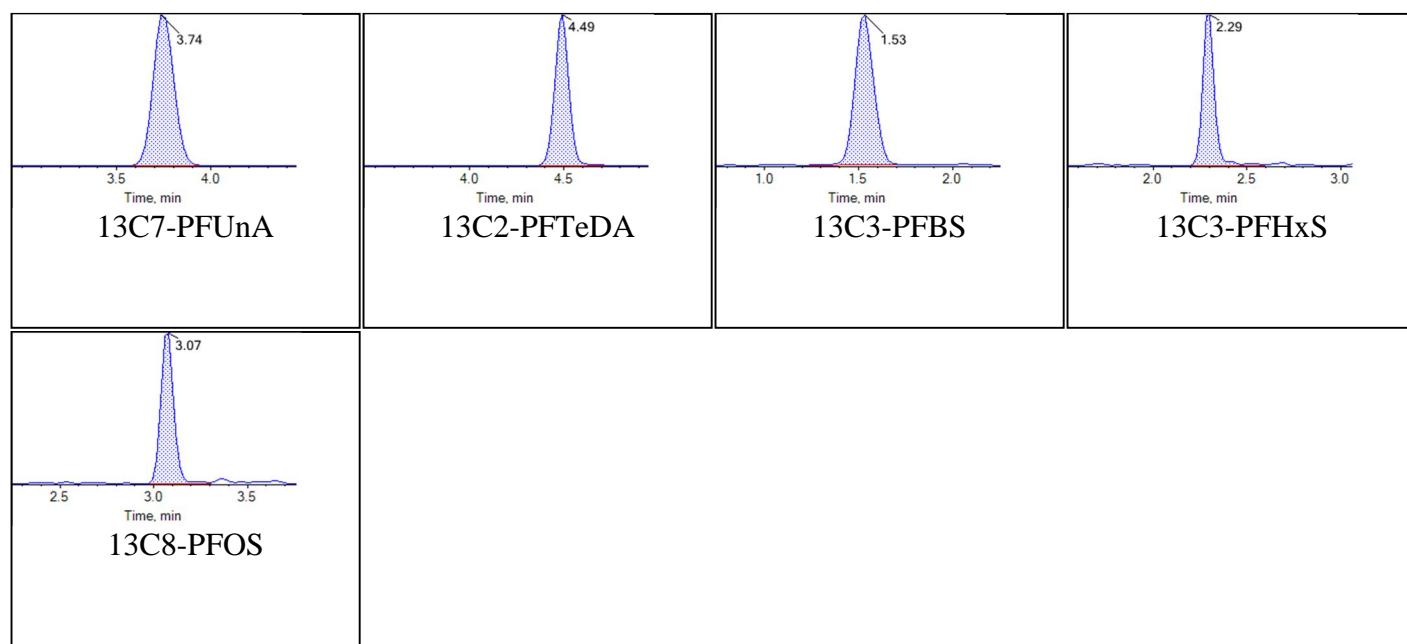
Target Analytes:



Chromatogram Report

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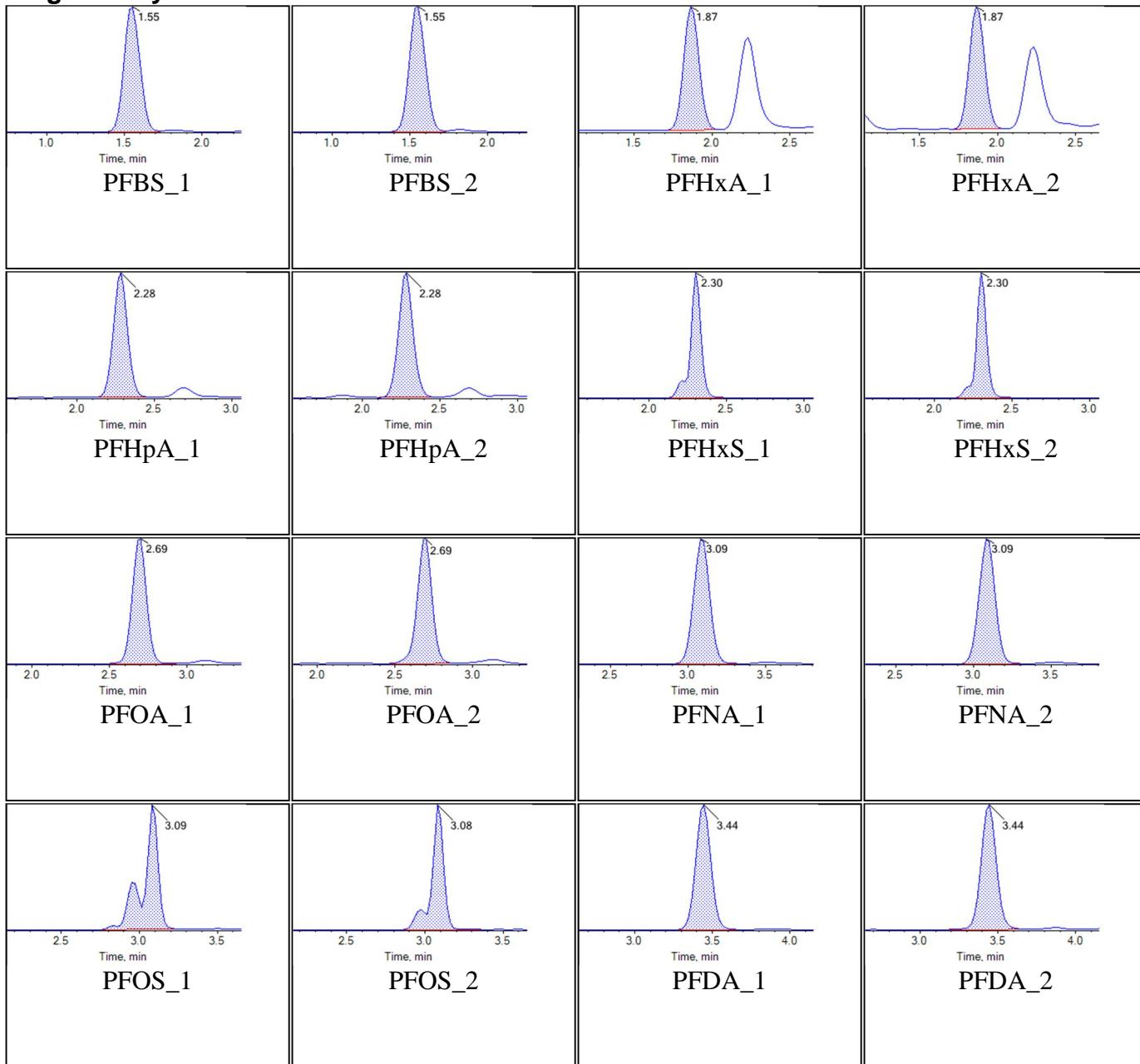
Chromatogram Report

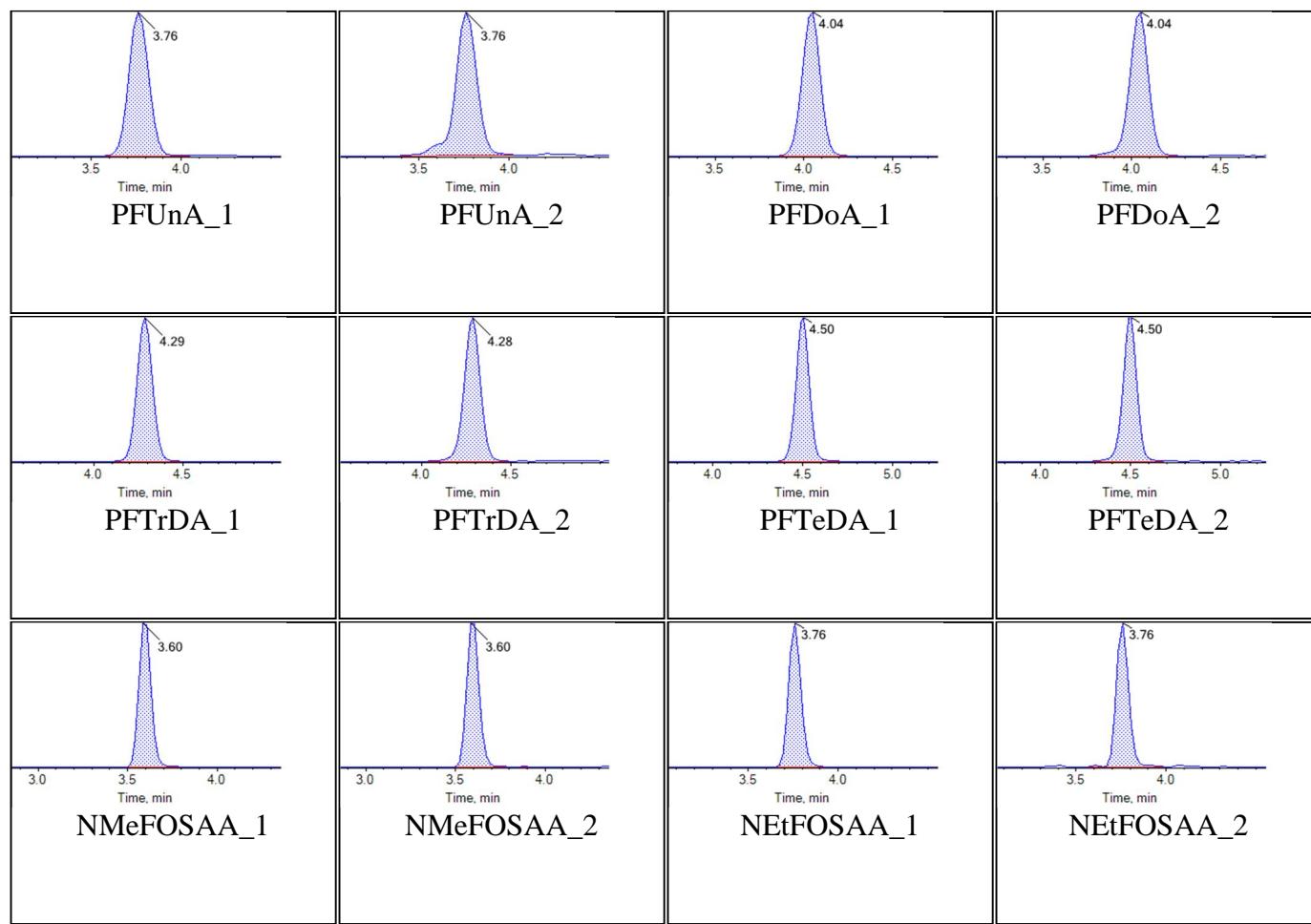
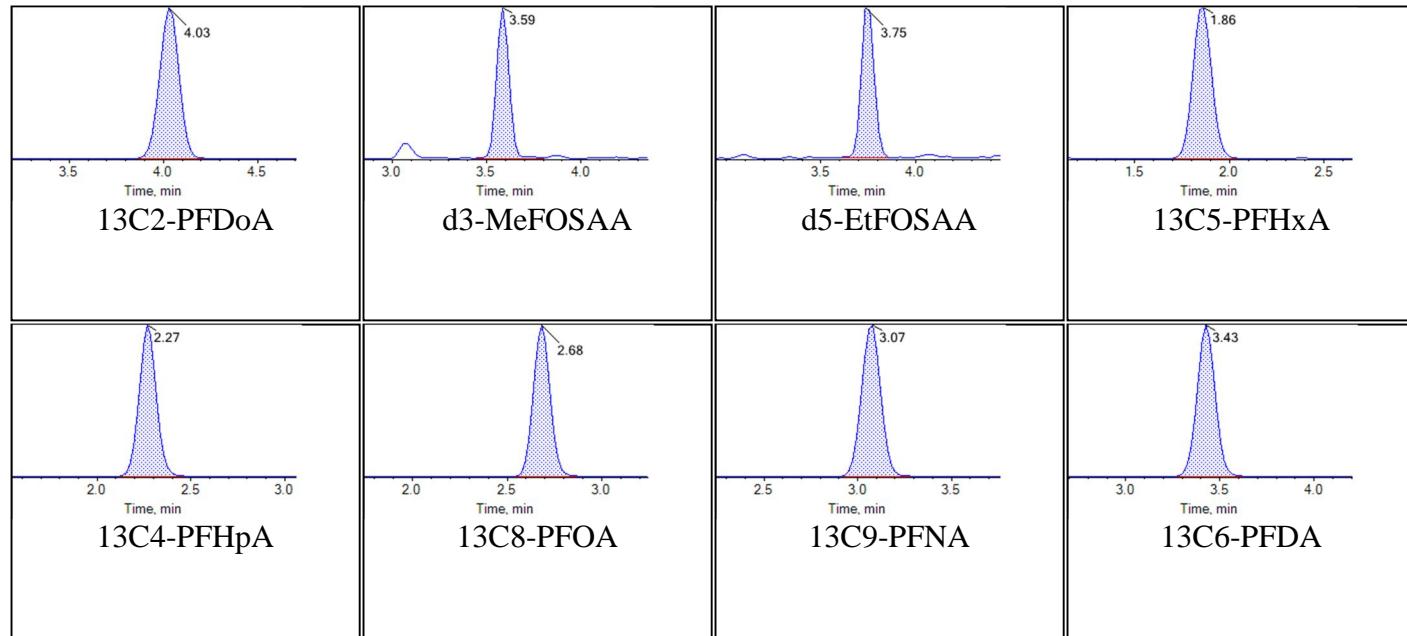
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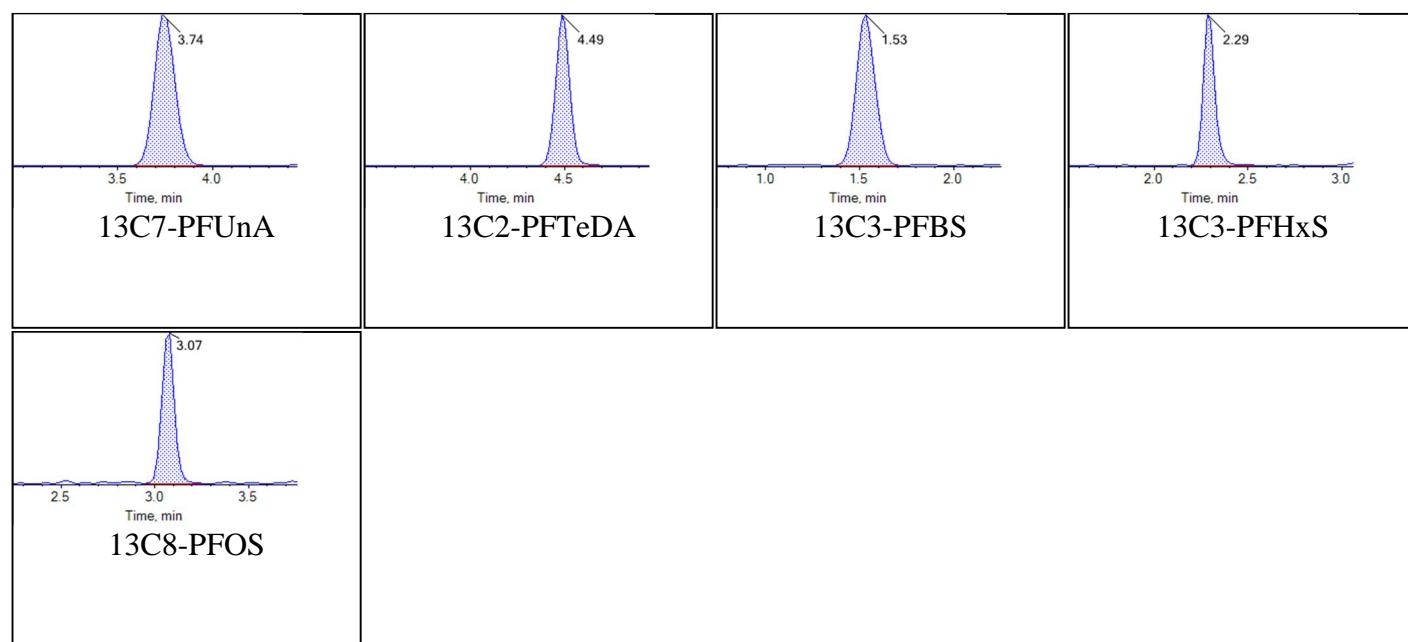
Sample Name	KB77 CCV	Injection Vial	39
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:47:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

Chromatograms

Target Analytes:



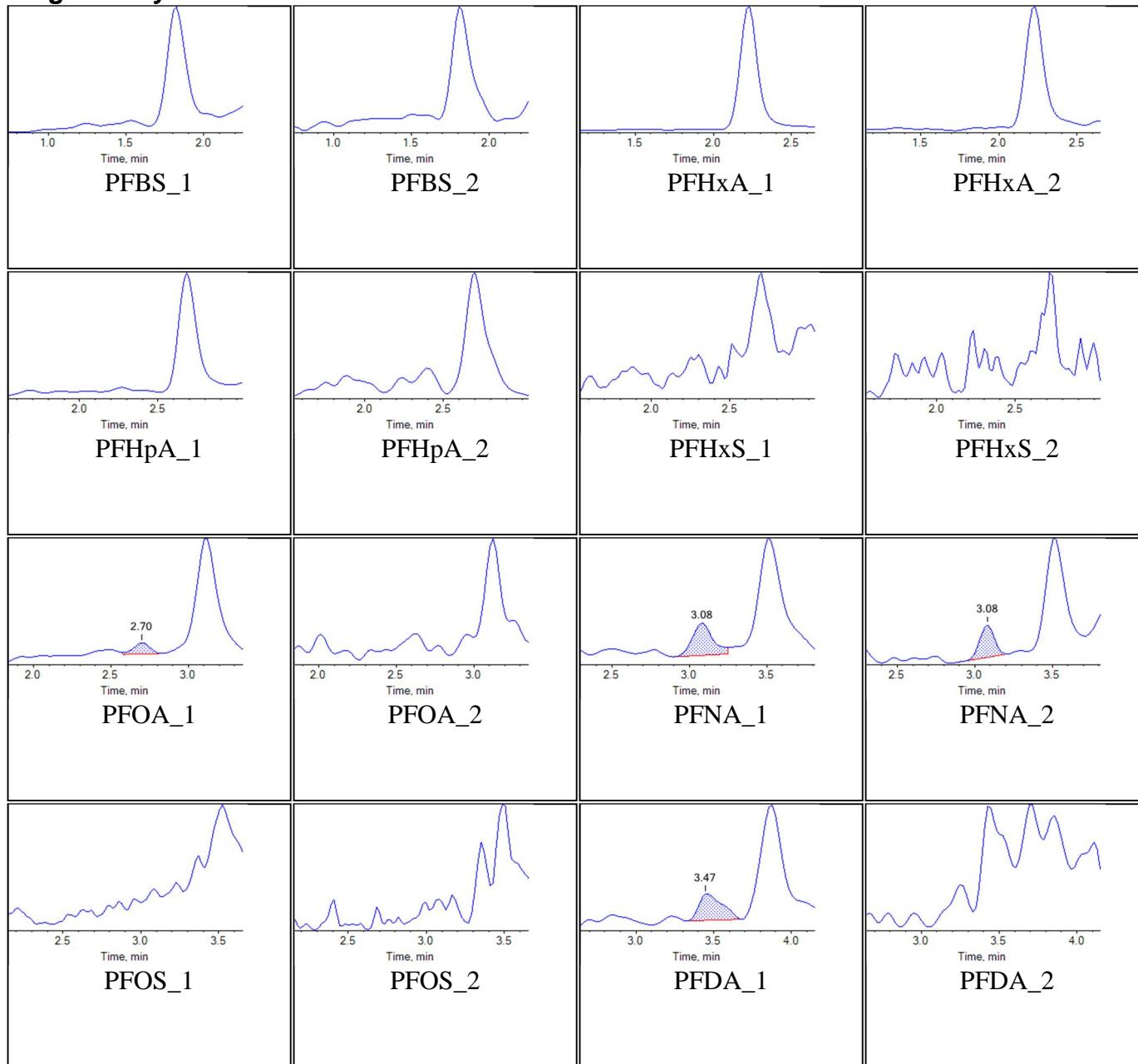
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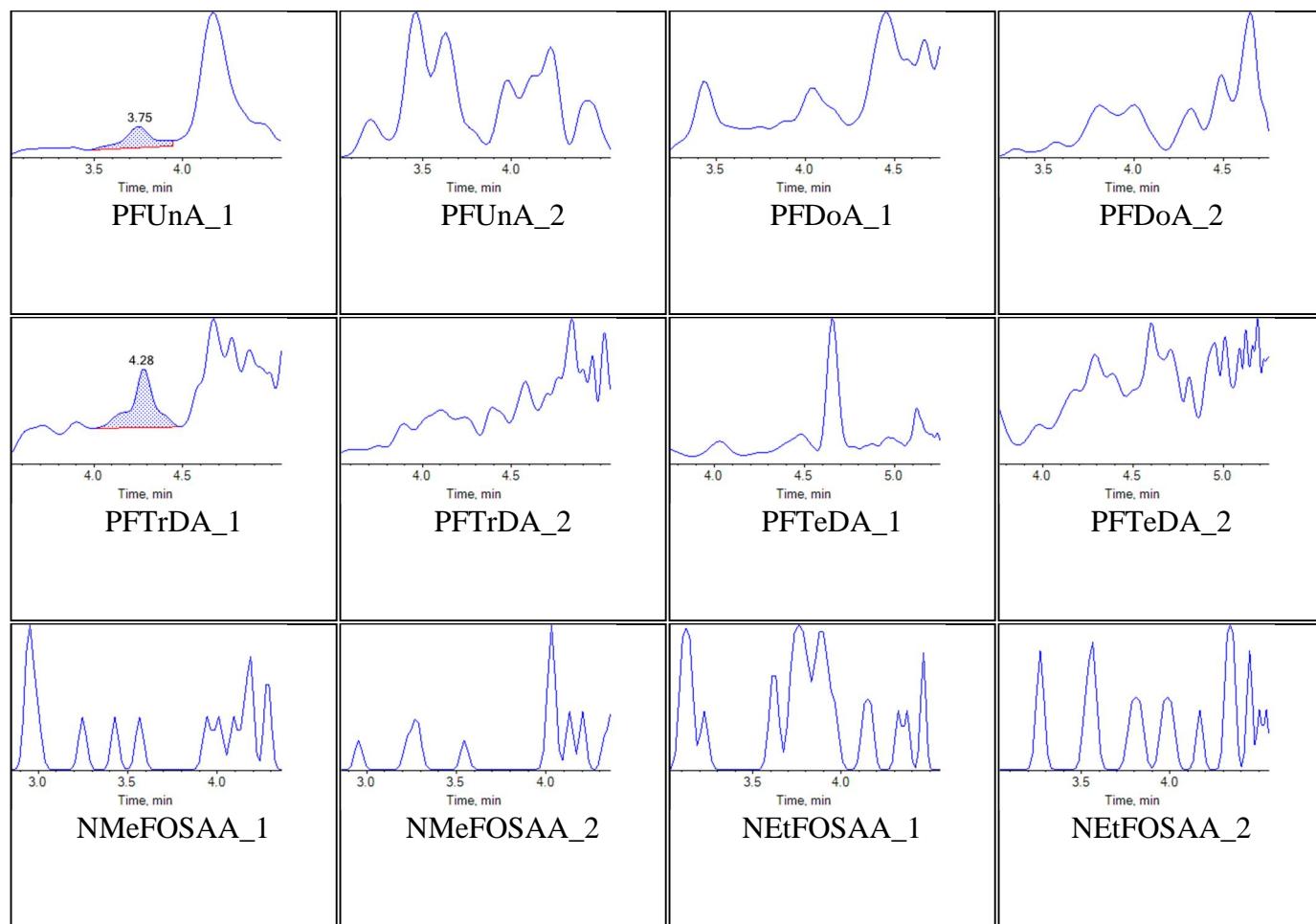
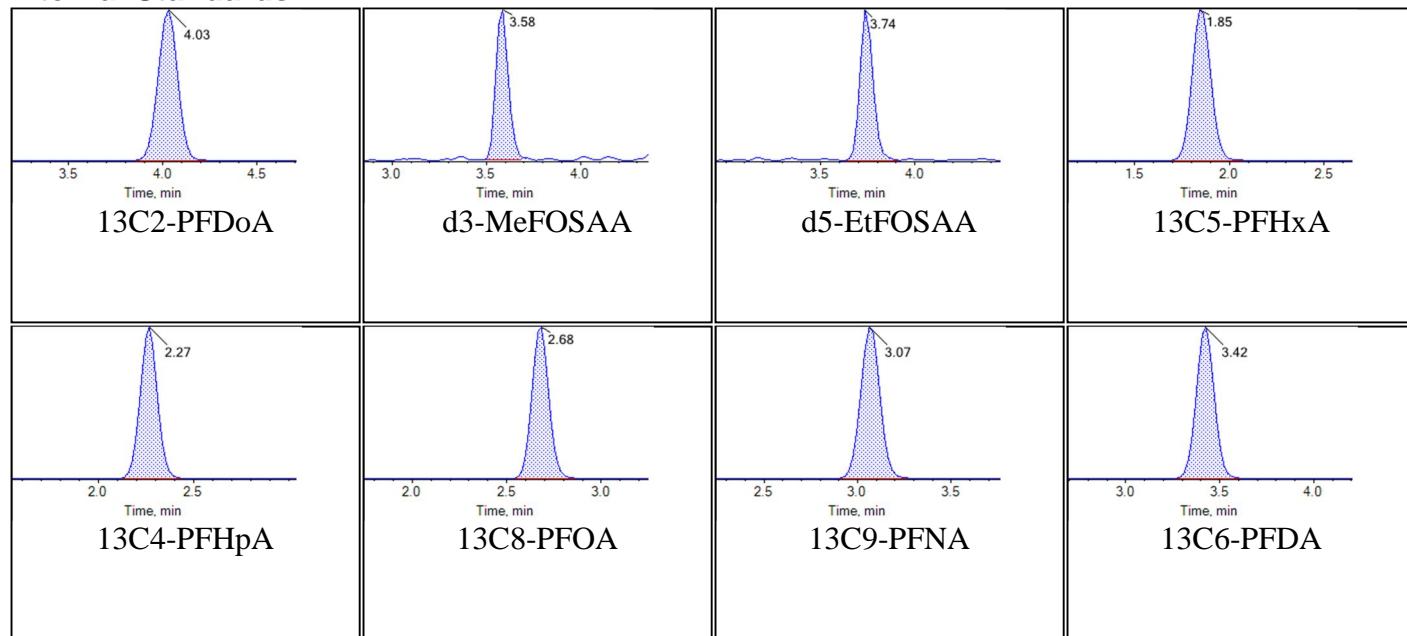
Sample Name	J8711-FS(3)	Injection Vial	41
Sample ID	VC-CS00-SB06-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:09:04	Data File	10222018_5500.wiff
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Sample Comment			

Chromatograms

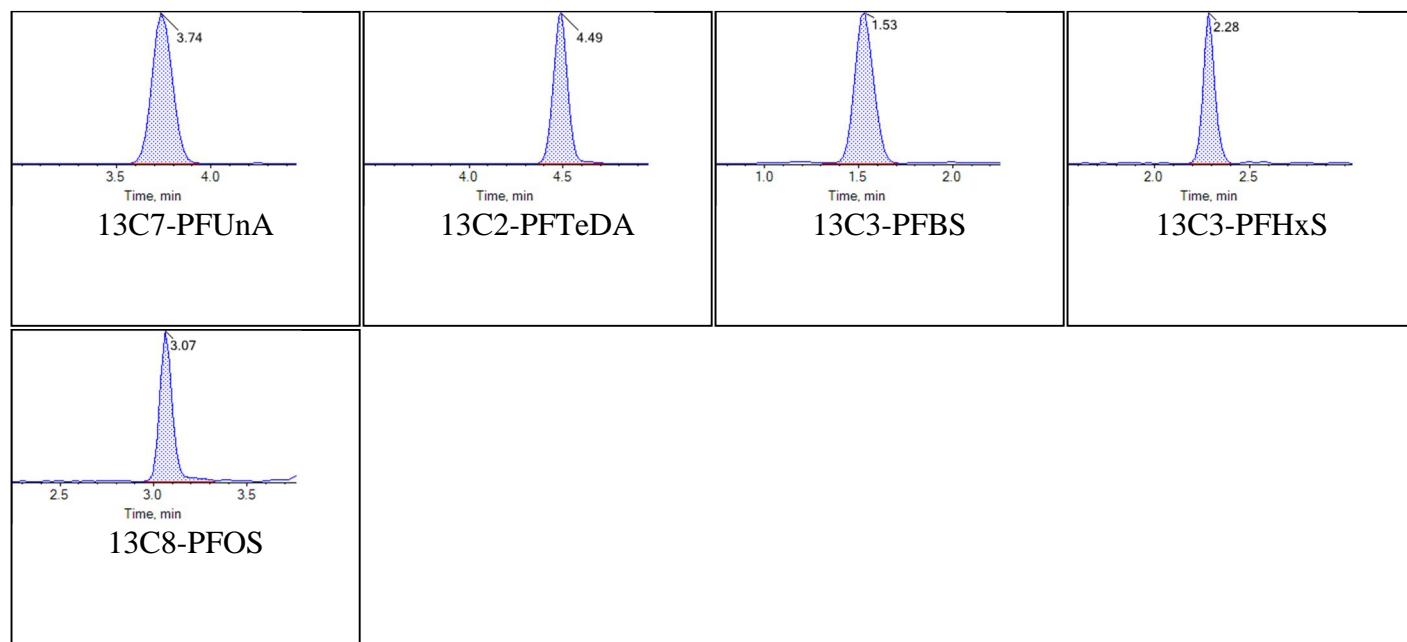
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Chromatogram Report

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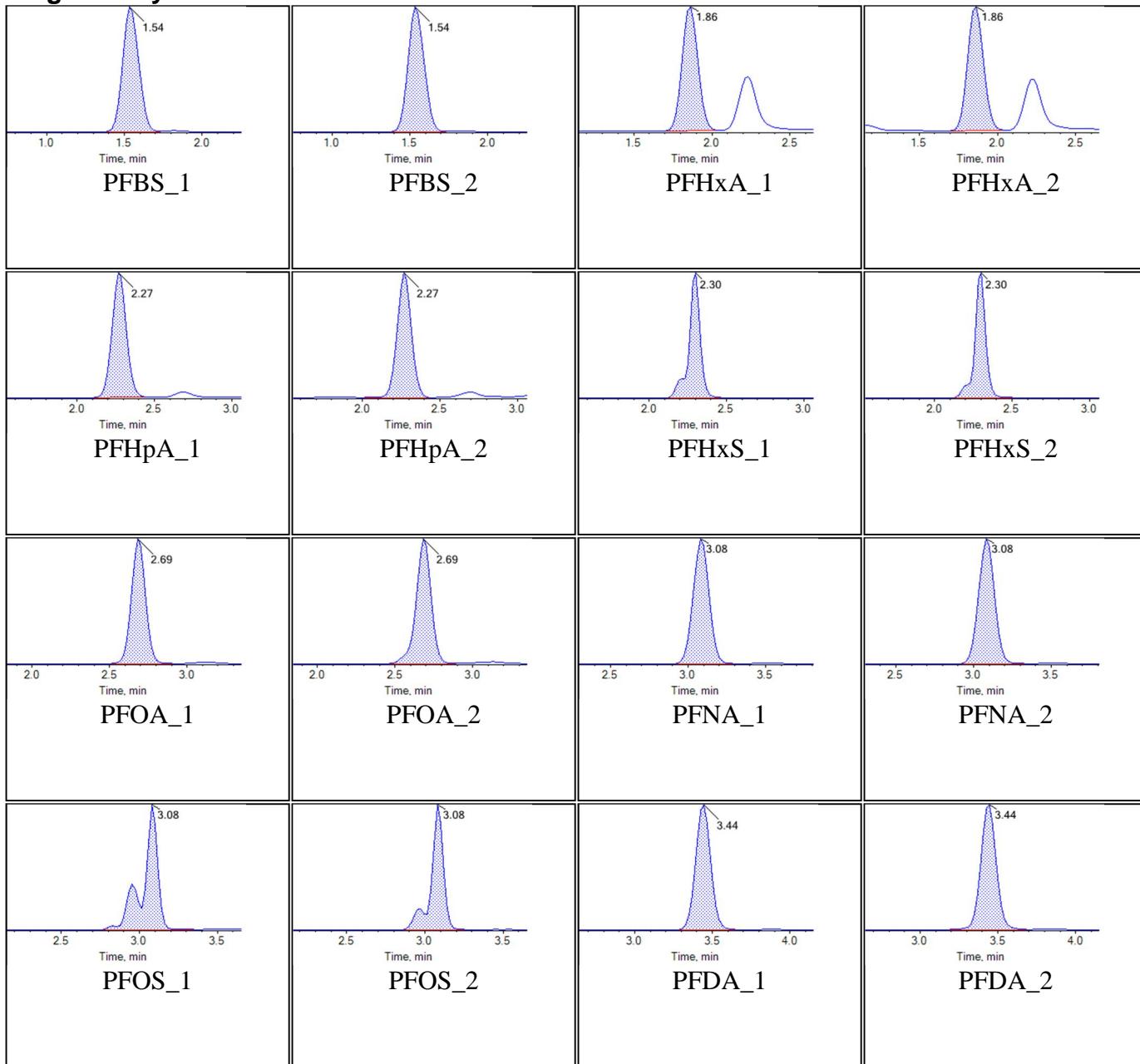
Chromatogram Report

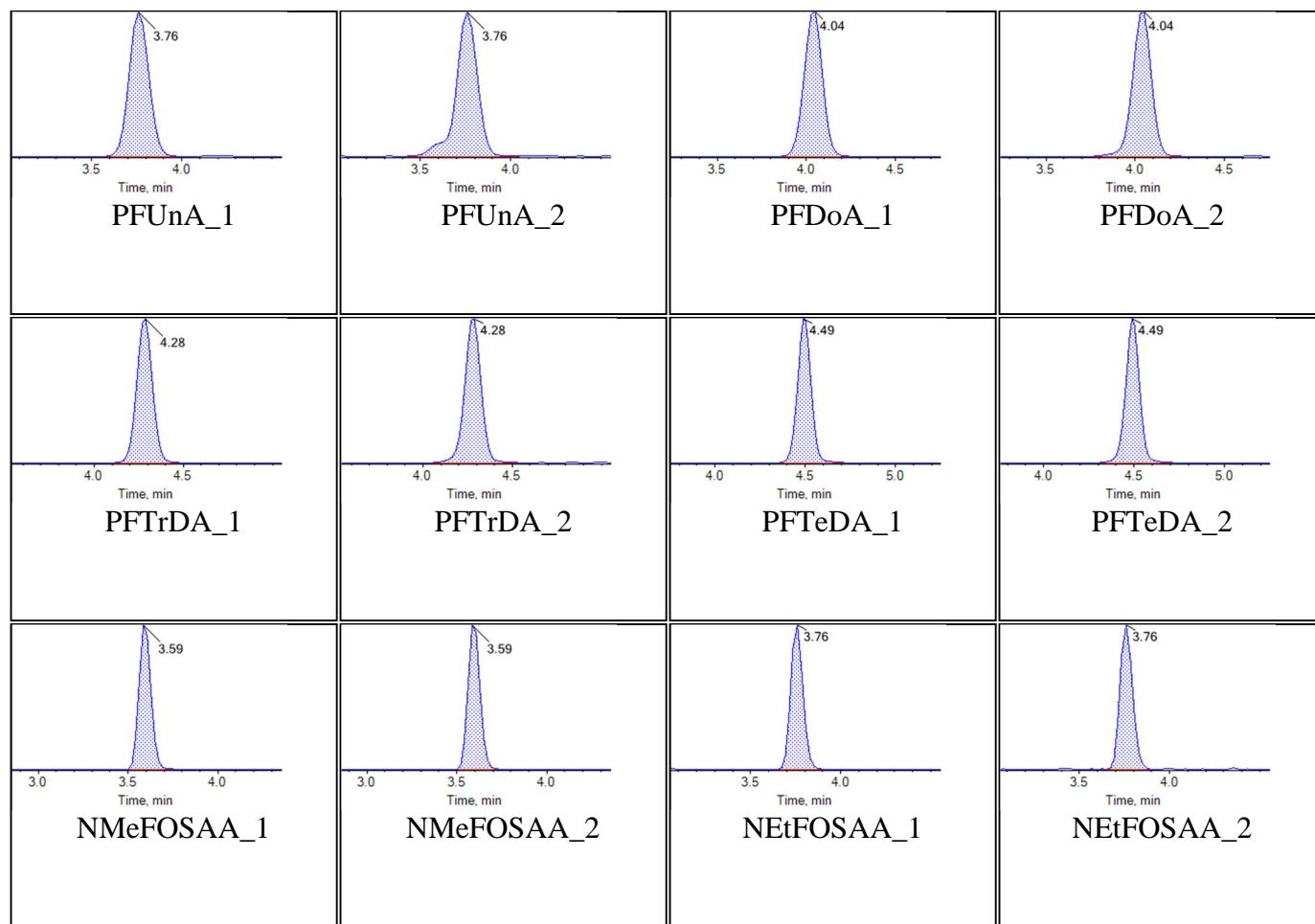
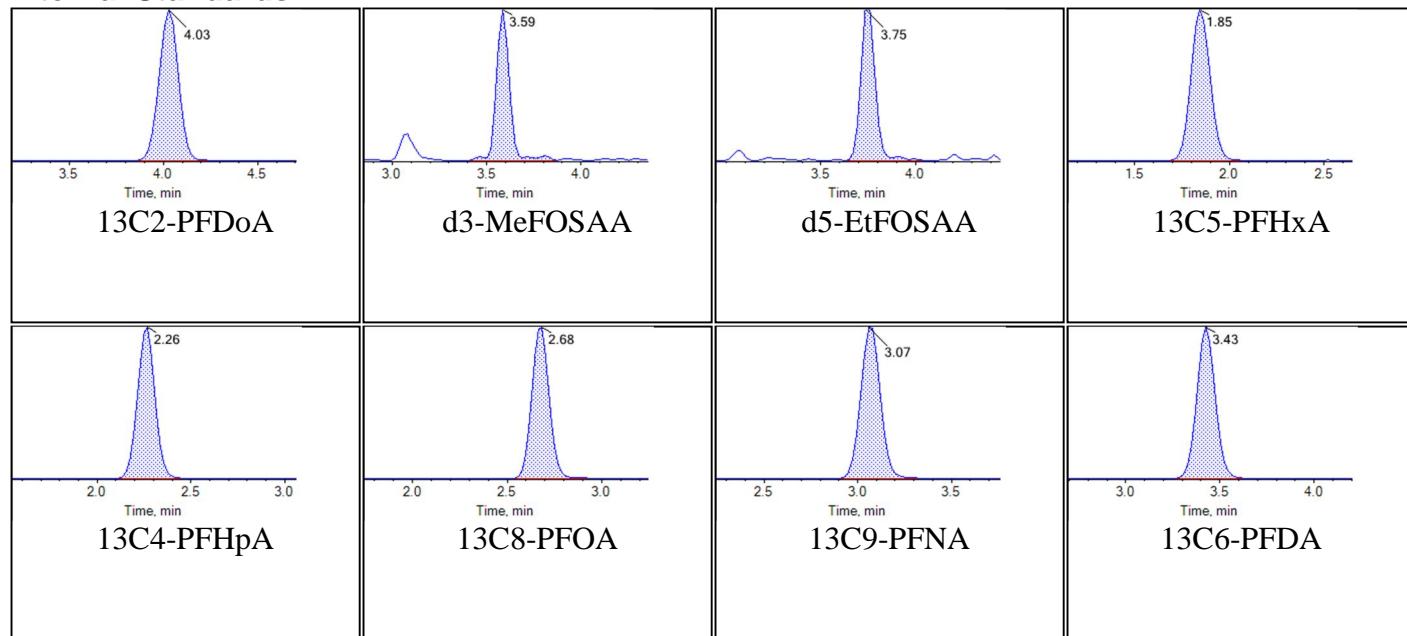
Created with Analyst Reporter
Printed: 24/10/2018 4:24:21 PM

Sample Name	J8712MS-FS(3)	Injection Vial	42
Sample ID	VC-CS00-SB06-0506-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:19:56	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

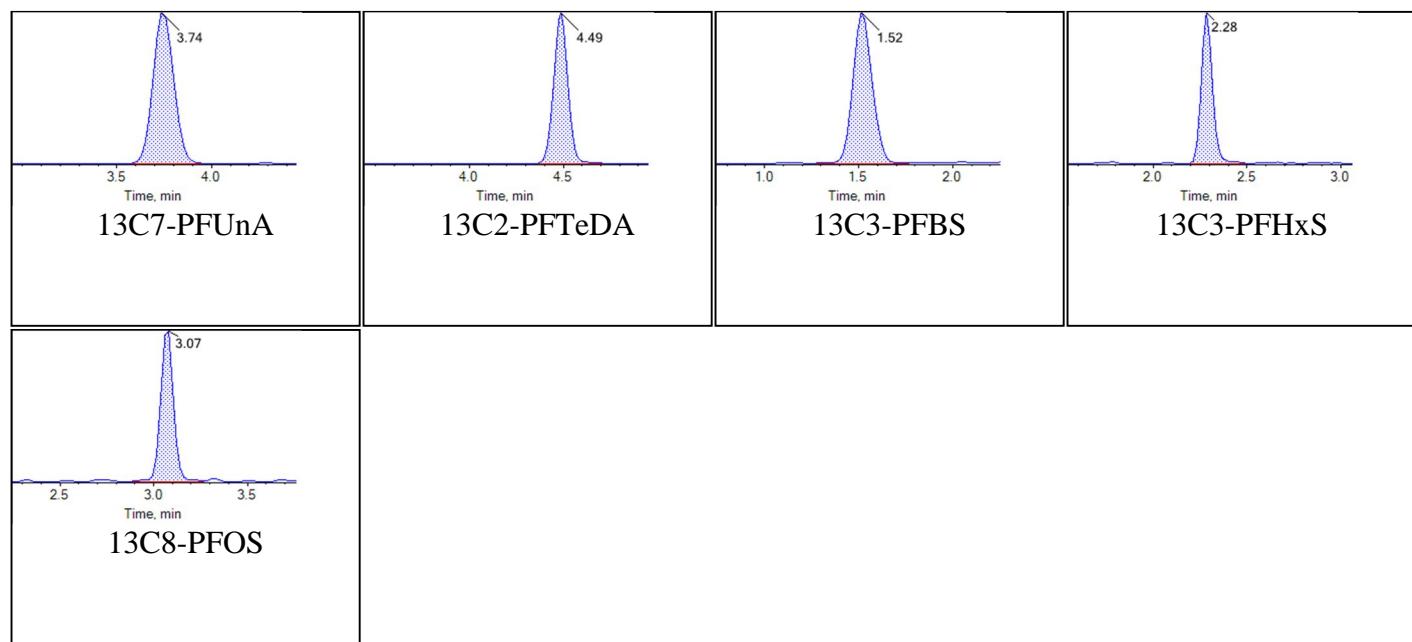
Chromatograms

Target Analytes:



**Internal Standards:**

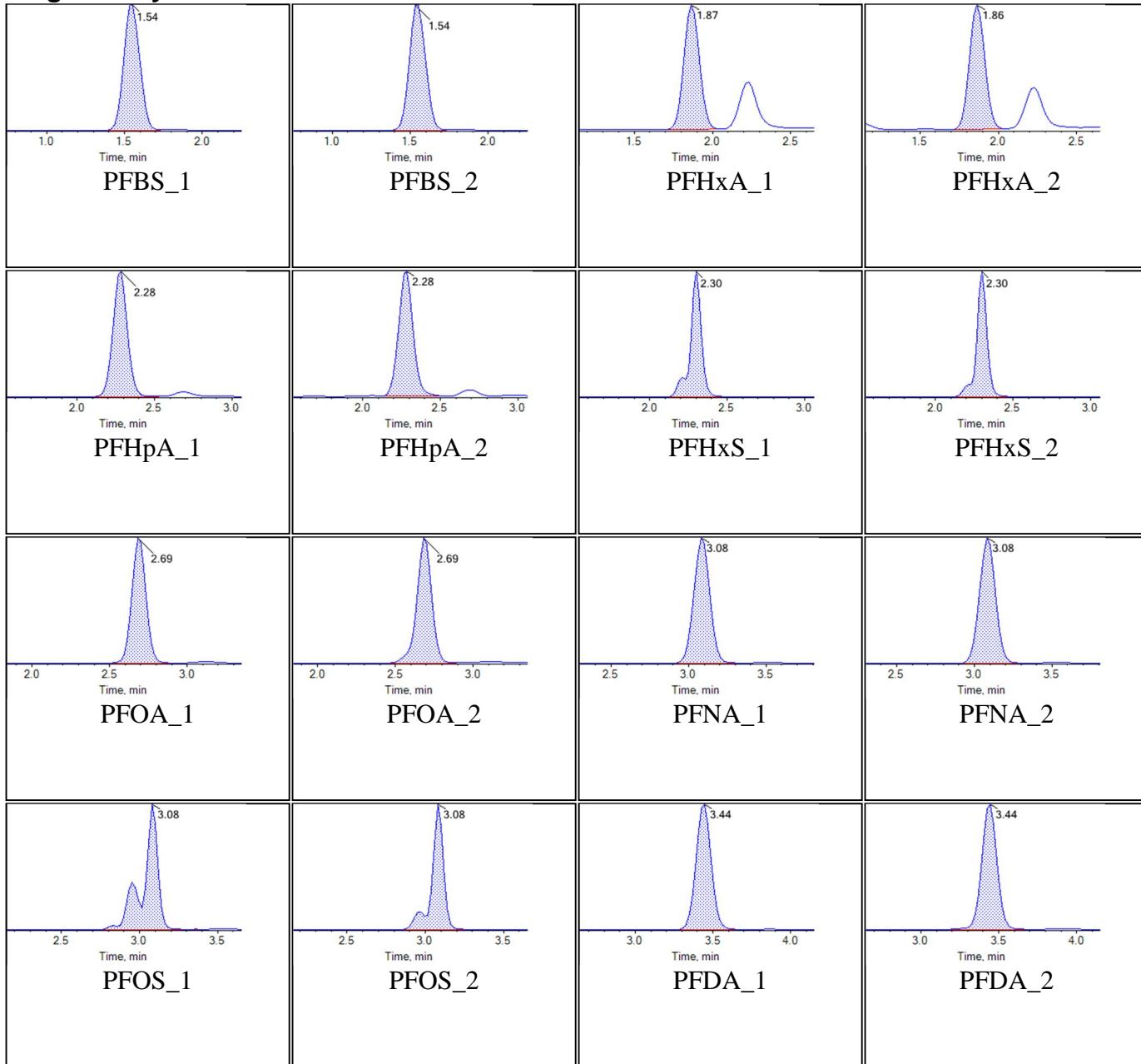
Chromatogram Report

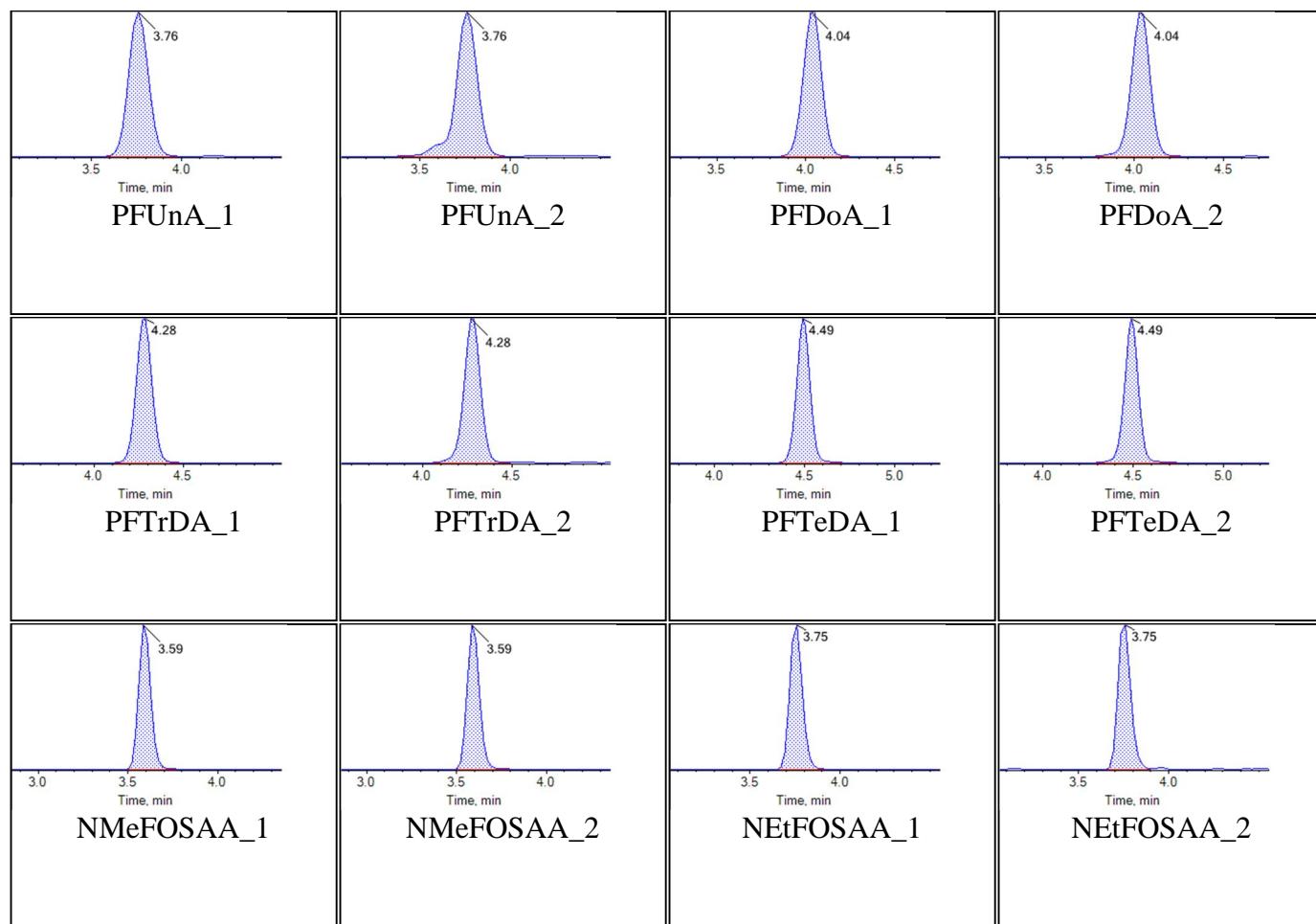
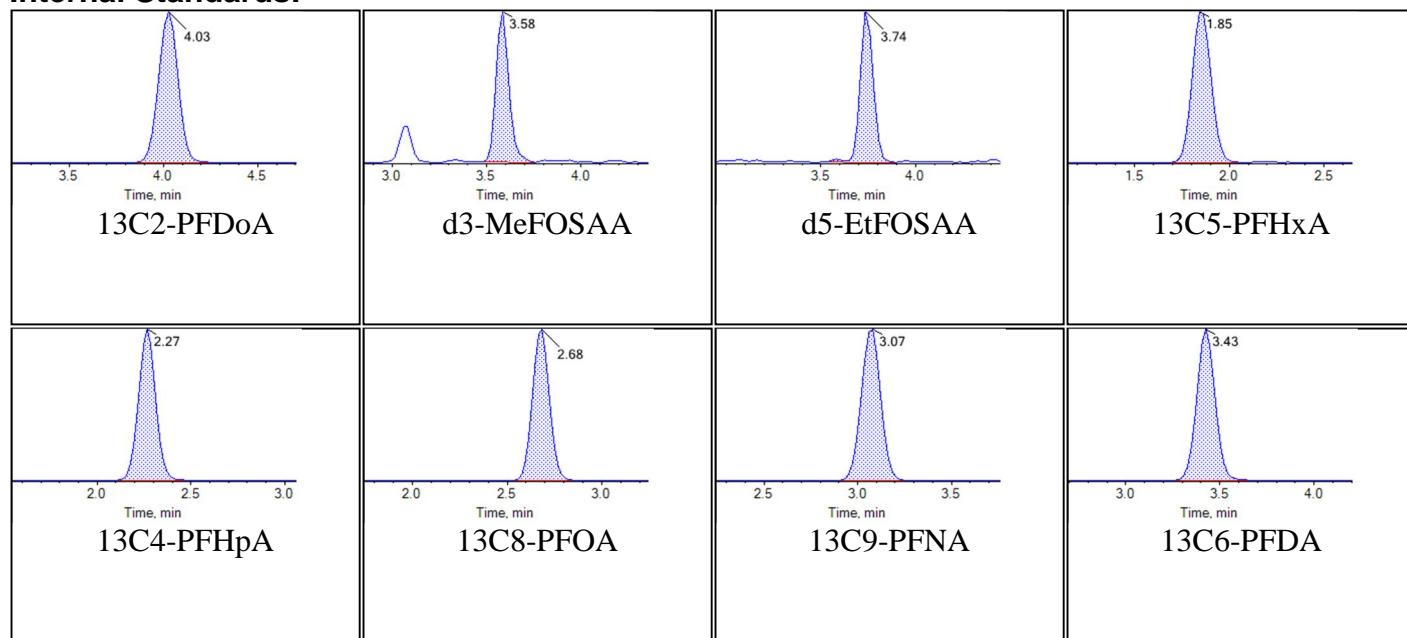
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Sample Name	J8713MSD-FS(3)	Injection Vial	43
Sample ID	VC-CS00-SB06-0506-MSD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:30:48	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

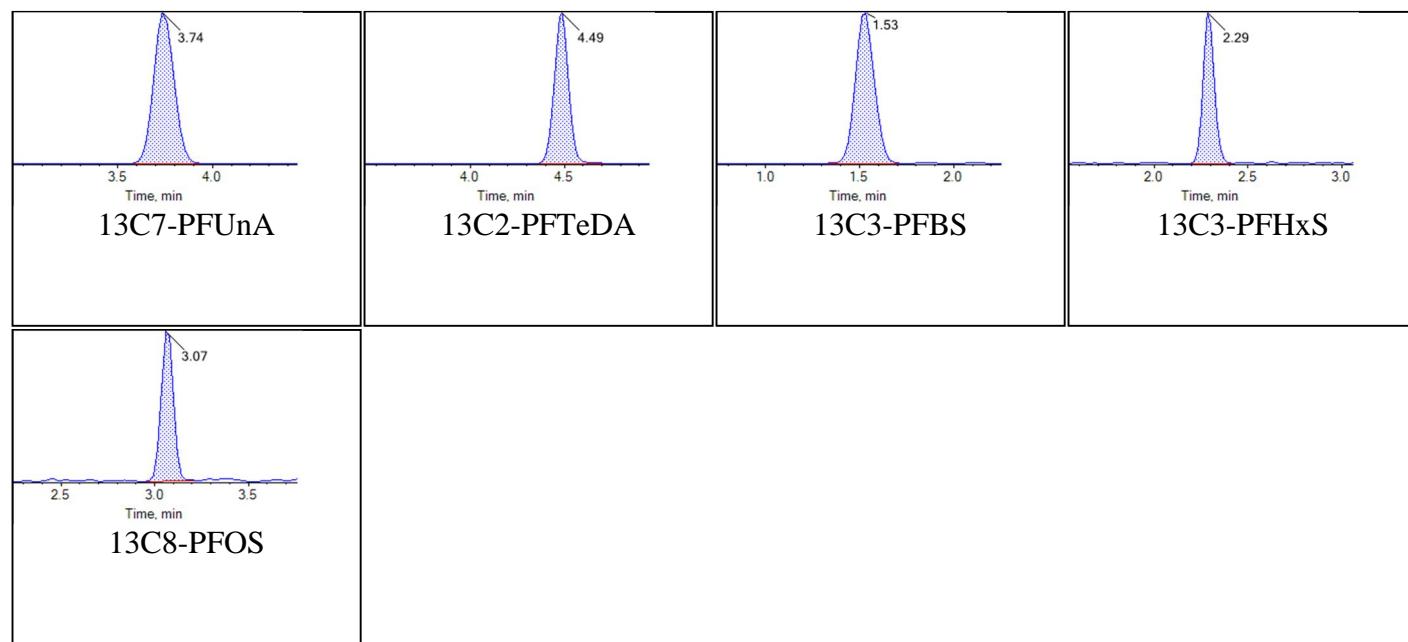
Chromatograms

Target Analytes:



**Internal Standards:**

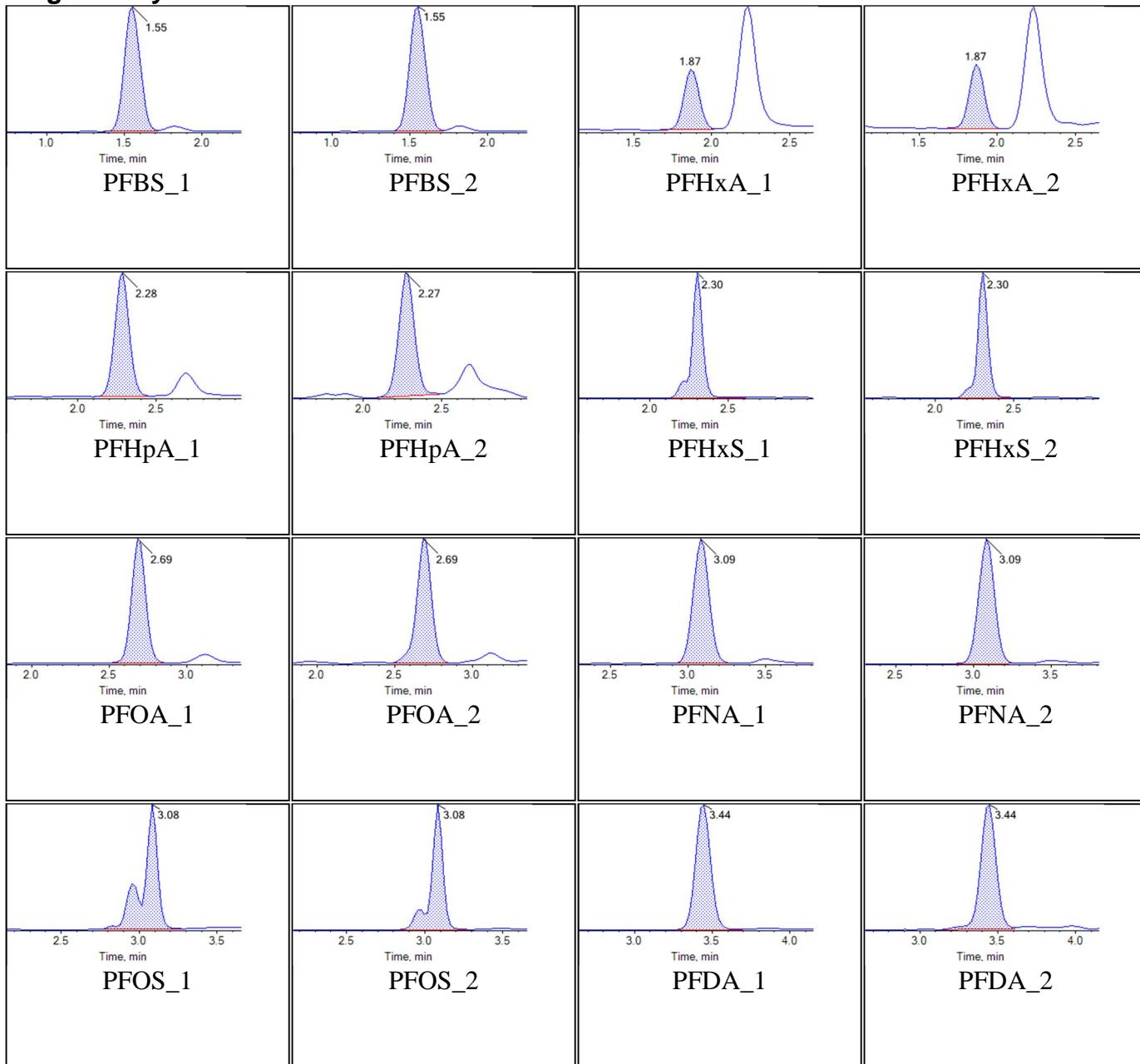
Chromatogram Report

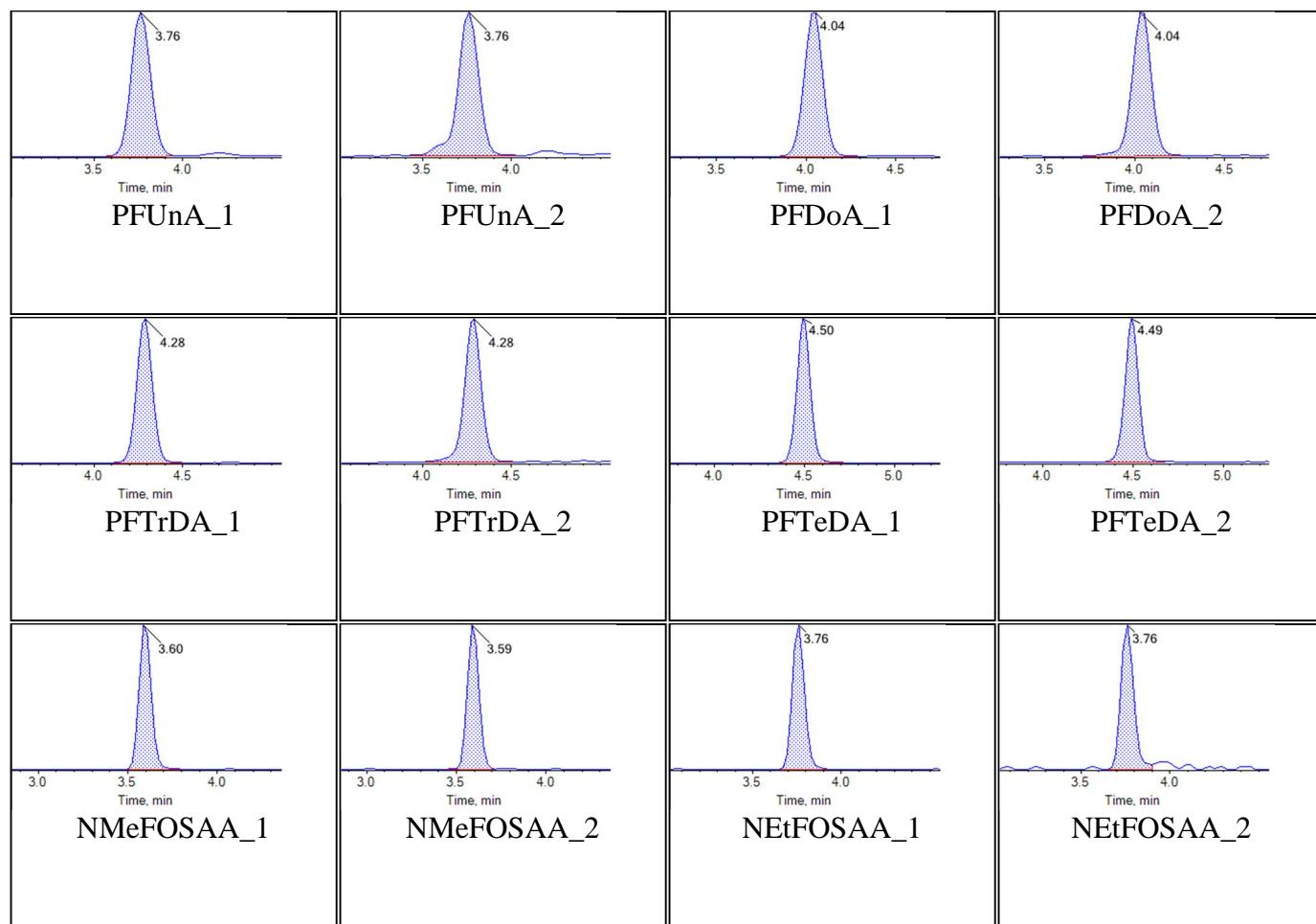
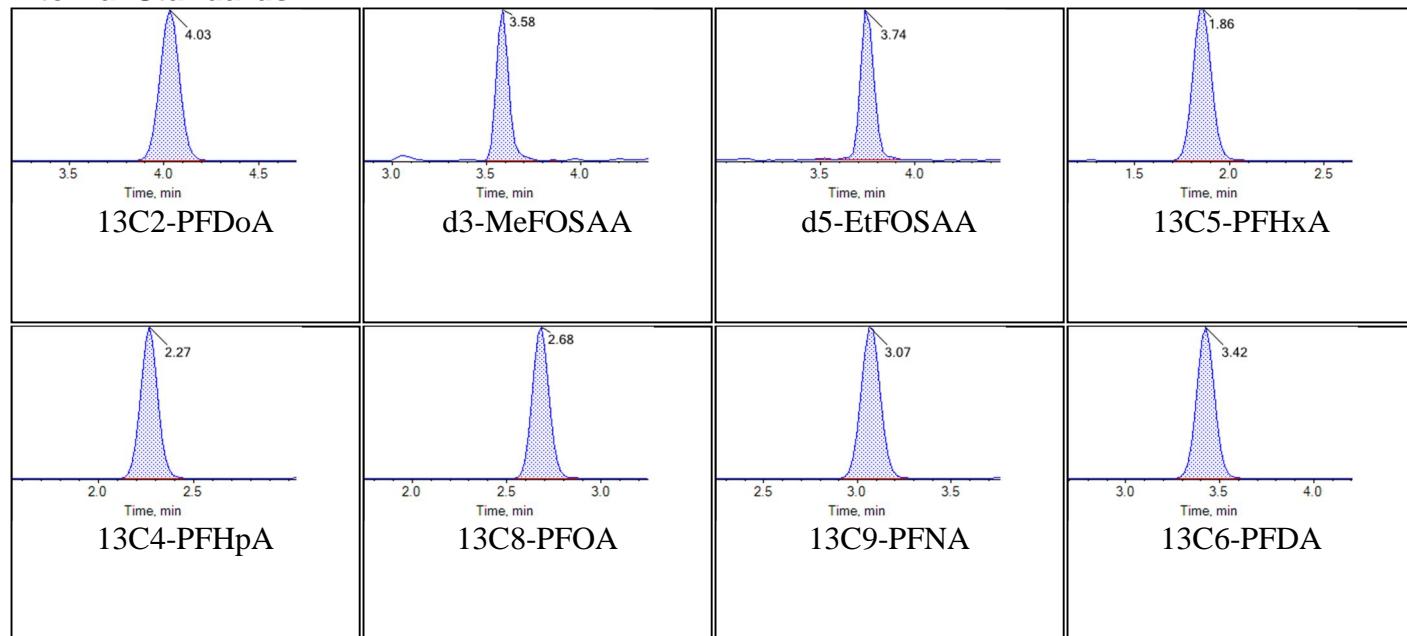
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Printed: 24/10/2018 4:24:32 PM

Sample Name	KB76 CCV	Injection Vial	44
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:41:40	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_BASE
Sample Comment			

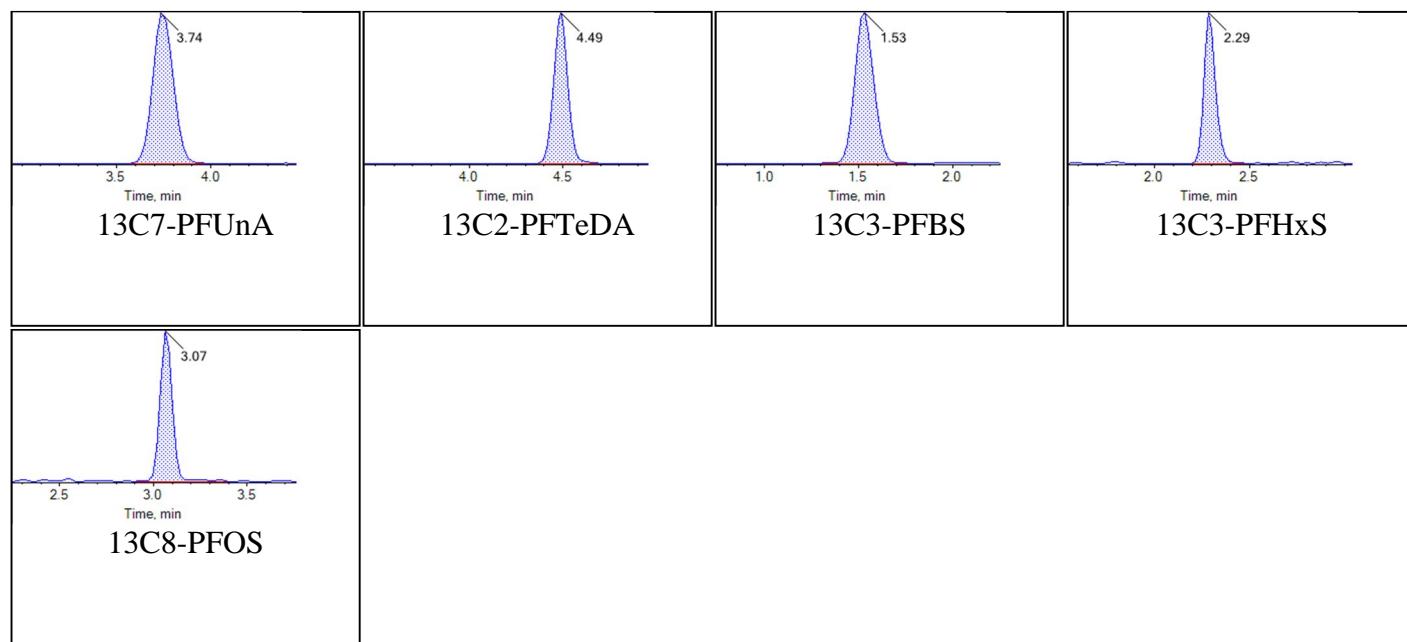
Chromatograms

Target Analytes:



**Internal Standards:**

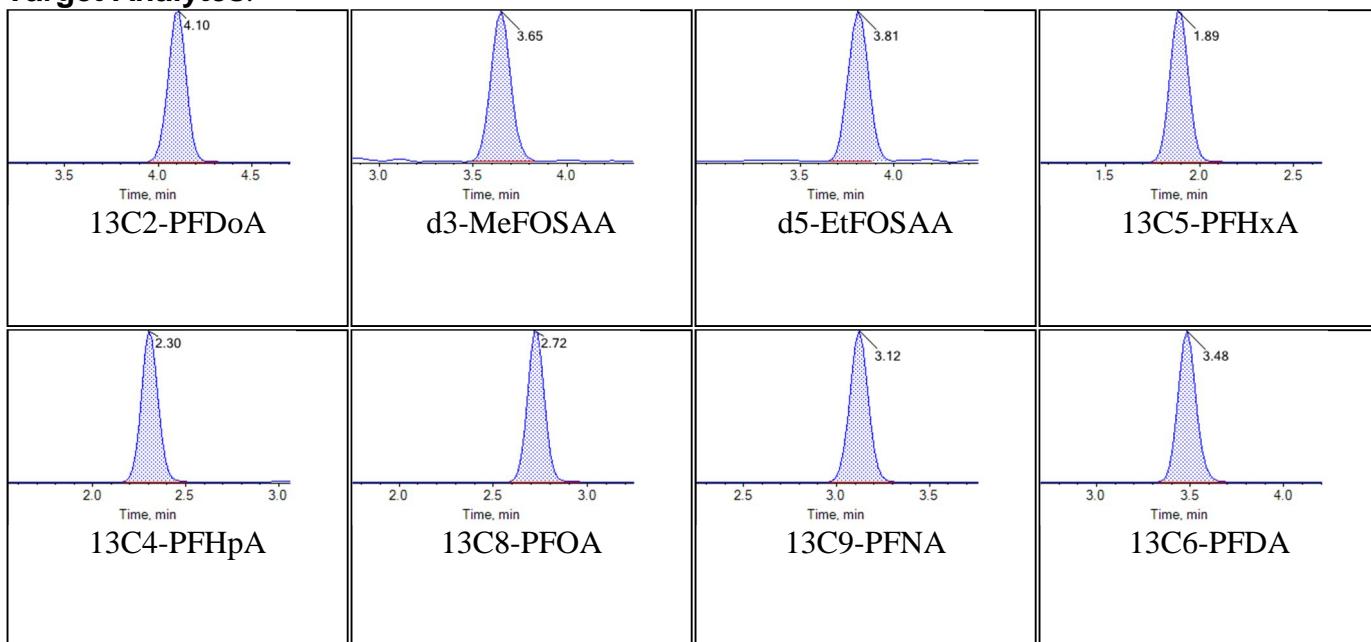
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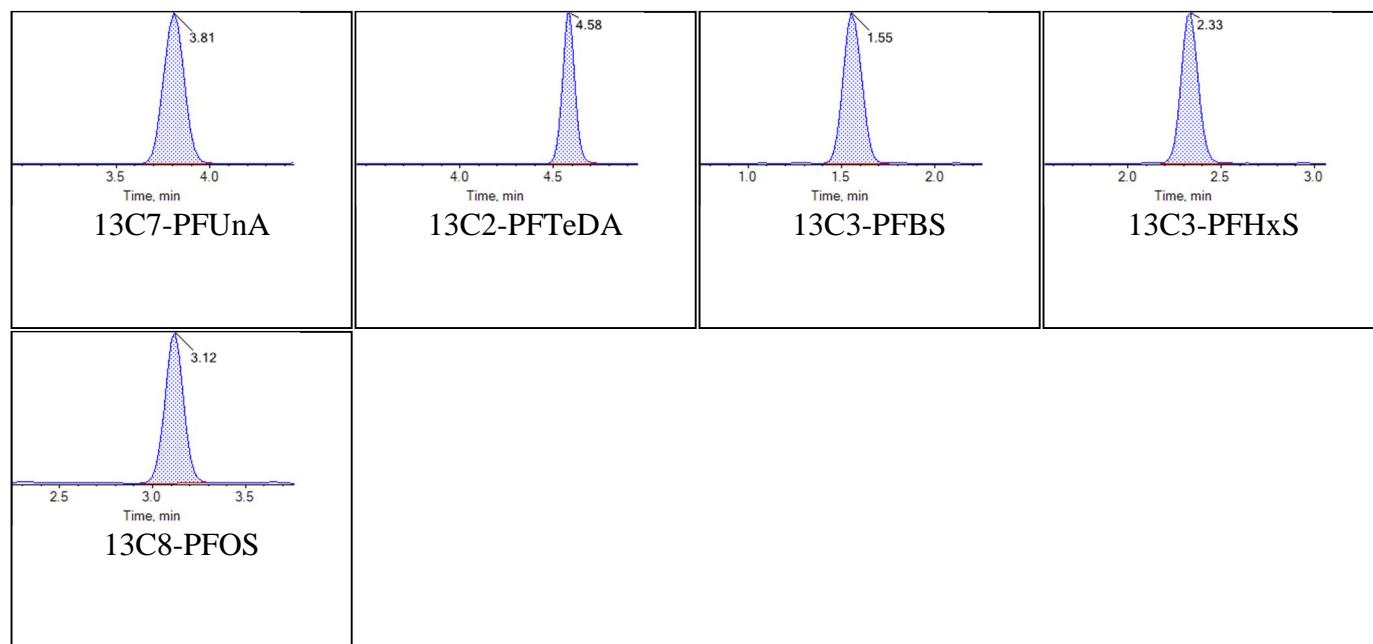
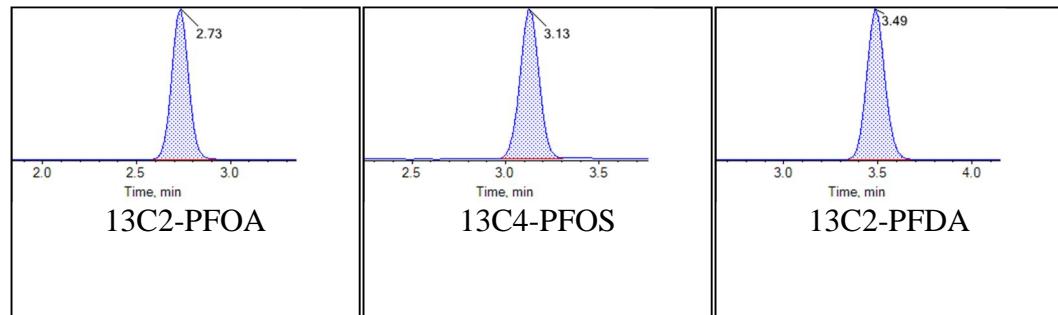
Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
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Sample Comment			

Chromatograms

Target Analytes:



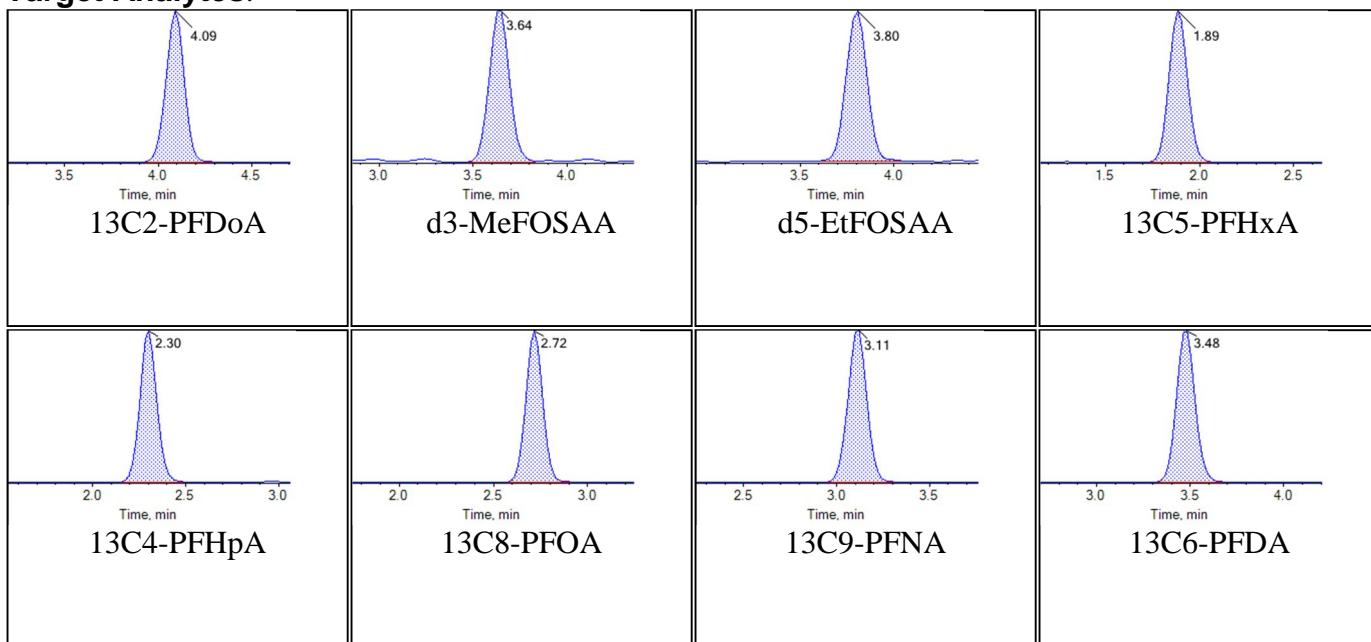
Chromatogram Report

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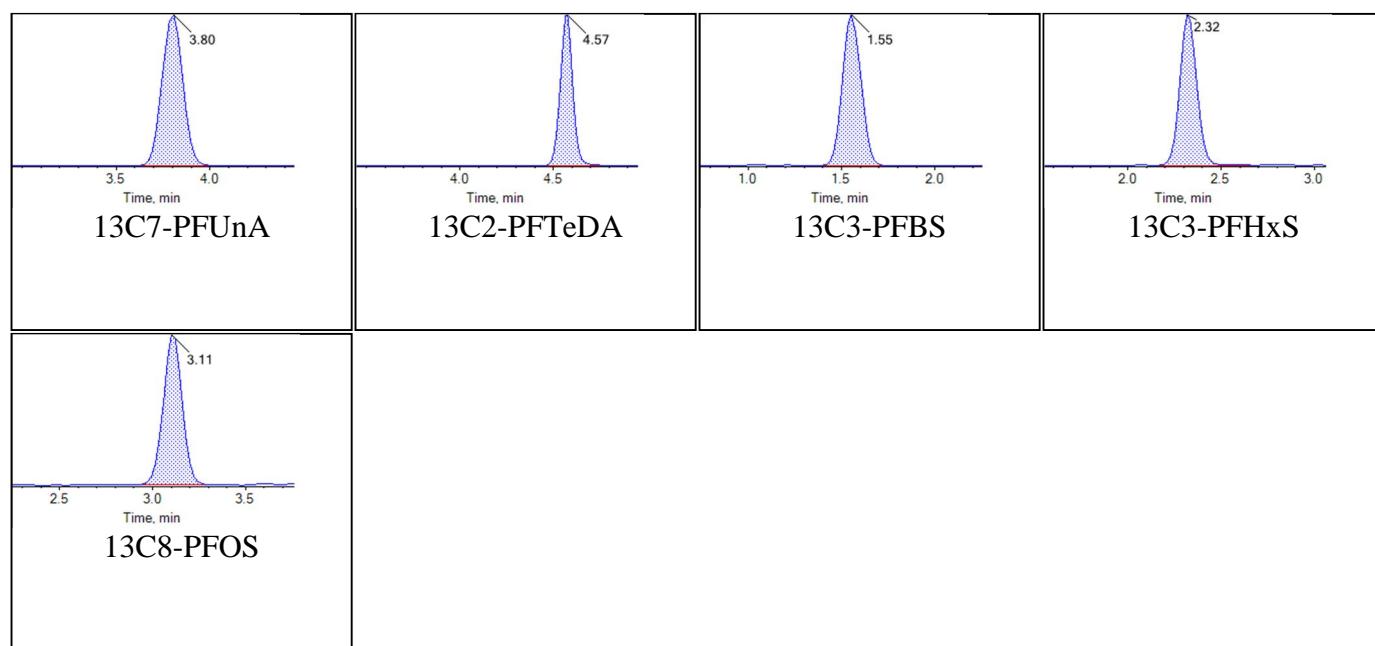
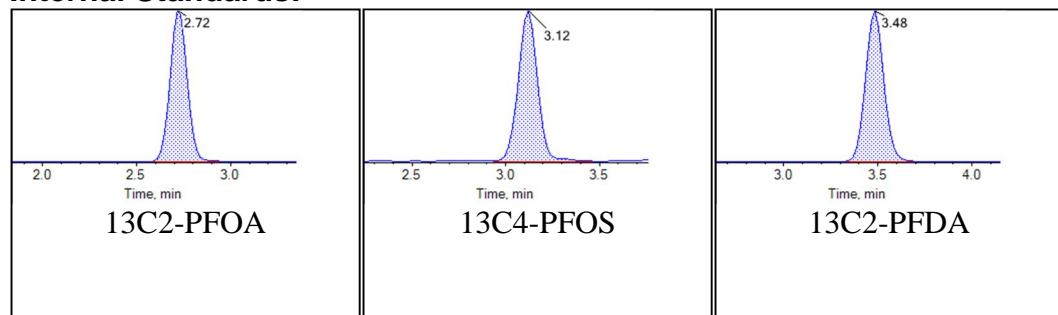
Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
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Sample Comment			

Chromatograms

Target Analytes:



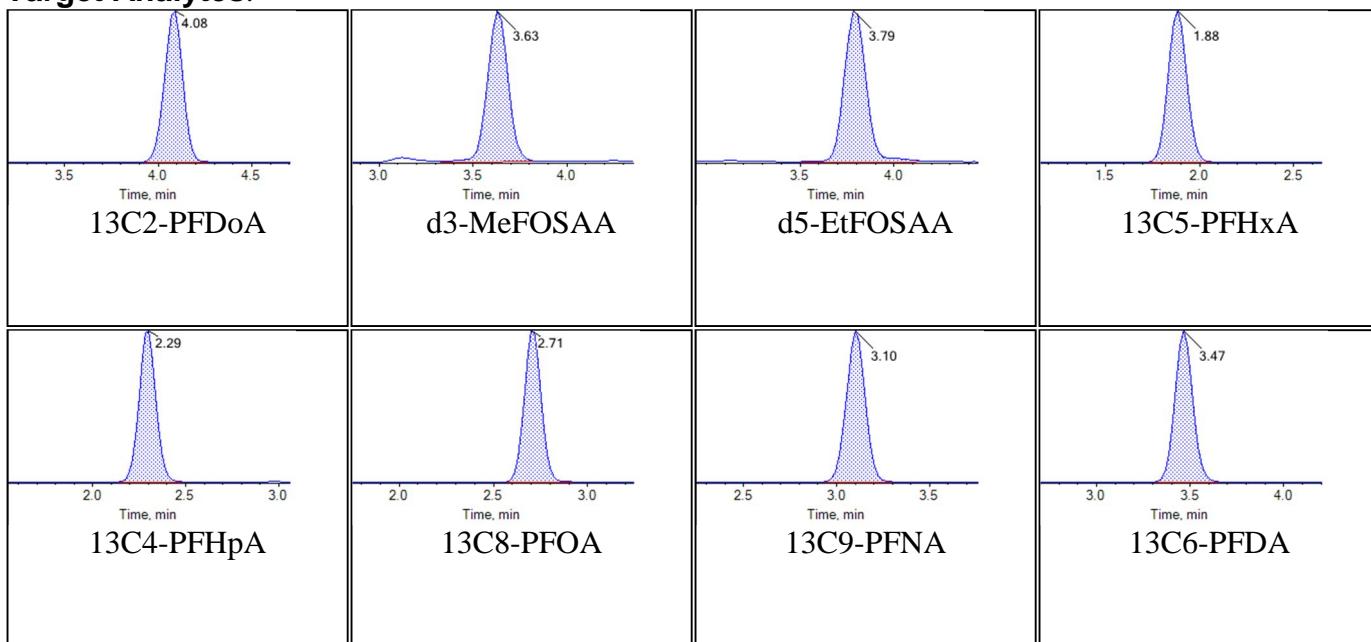
Chromatogram Report

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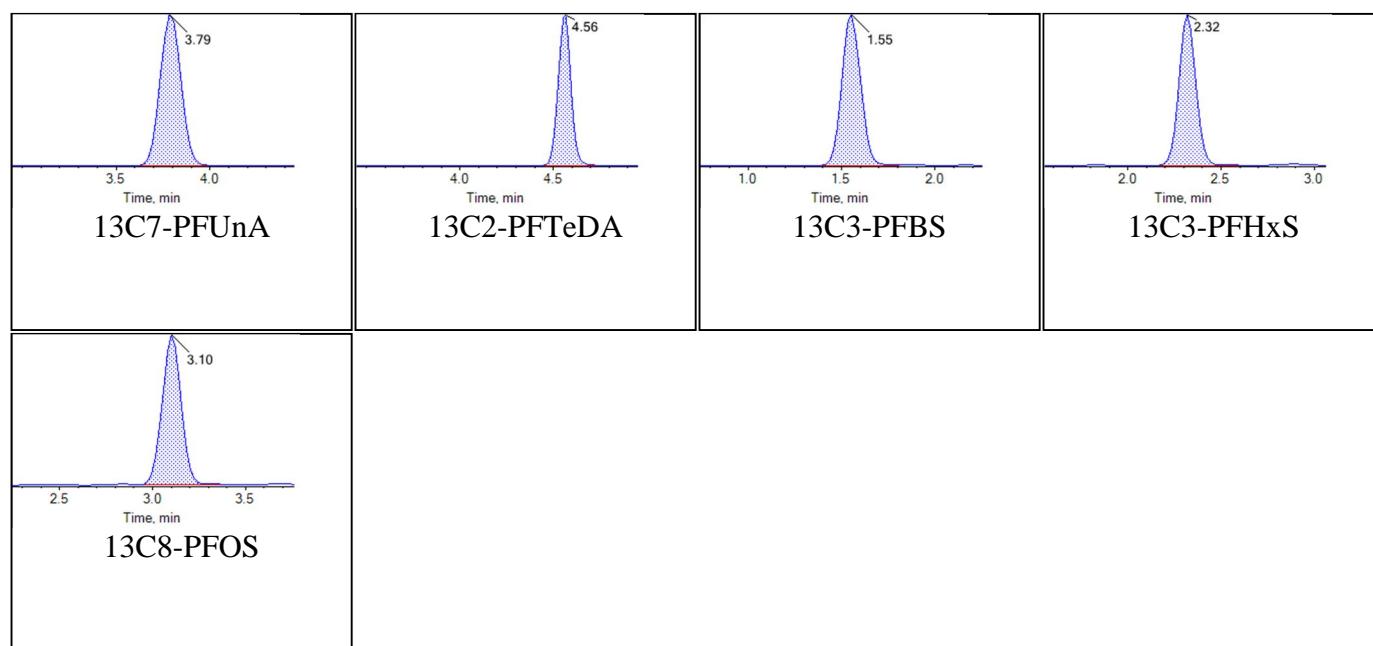
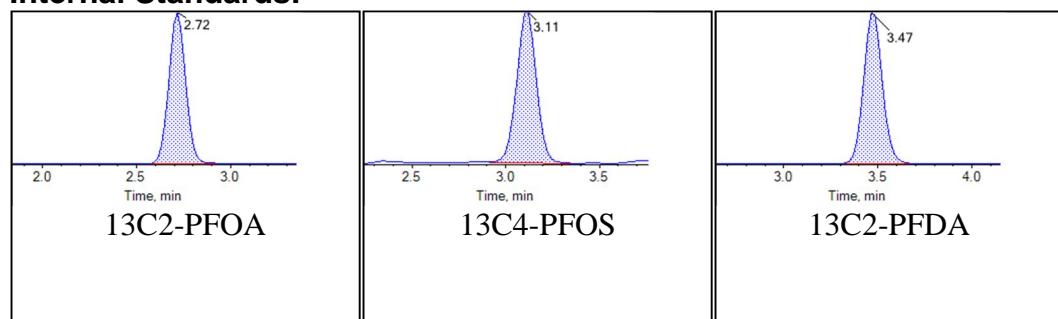
Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
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Sample Comment			

Chromatograms

Target Analytes:



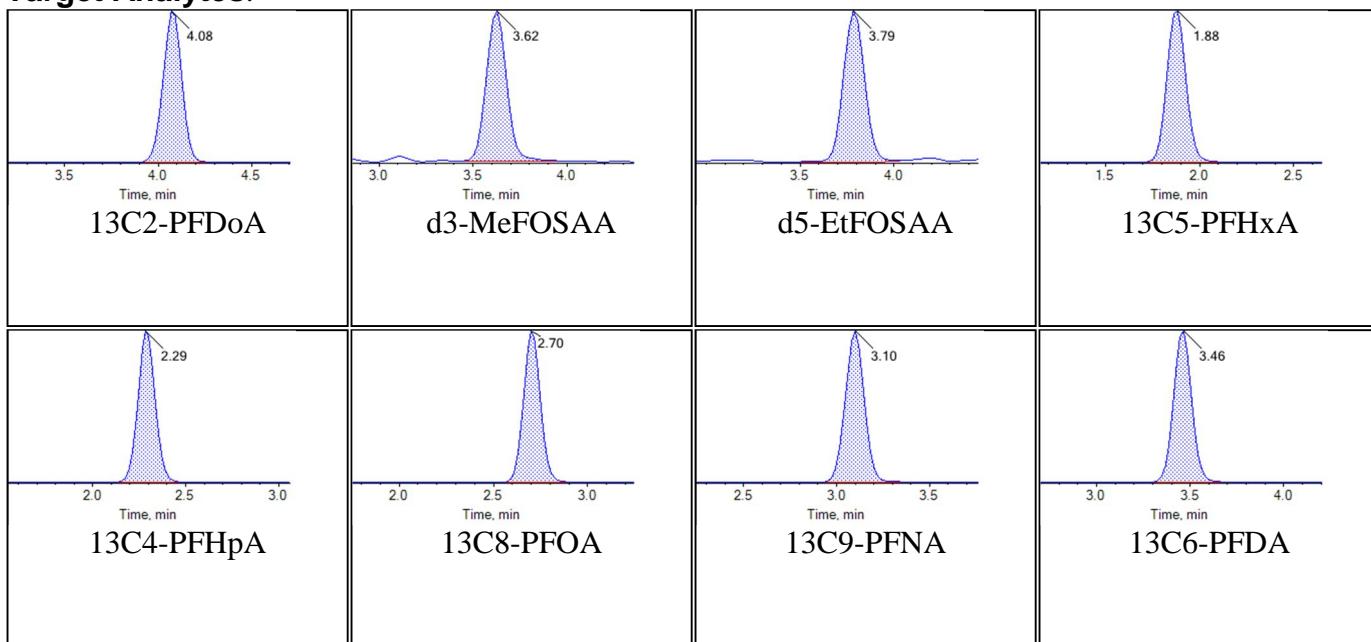
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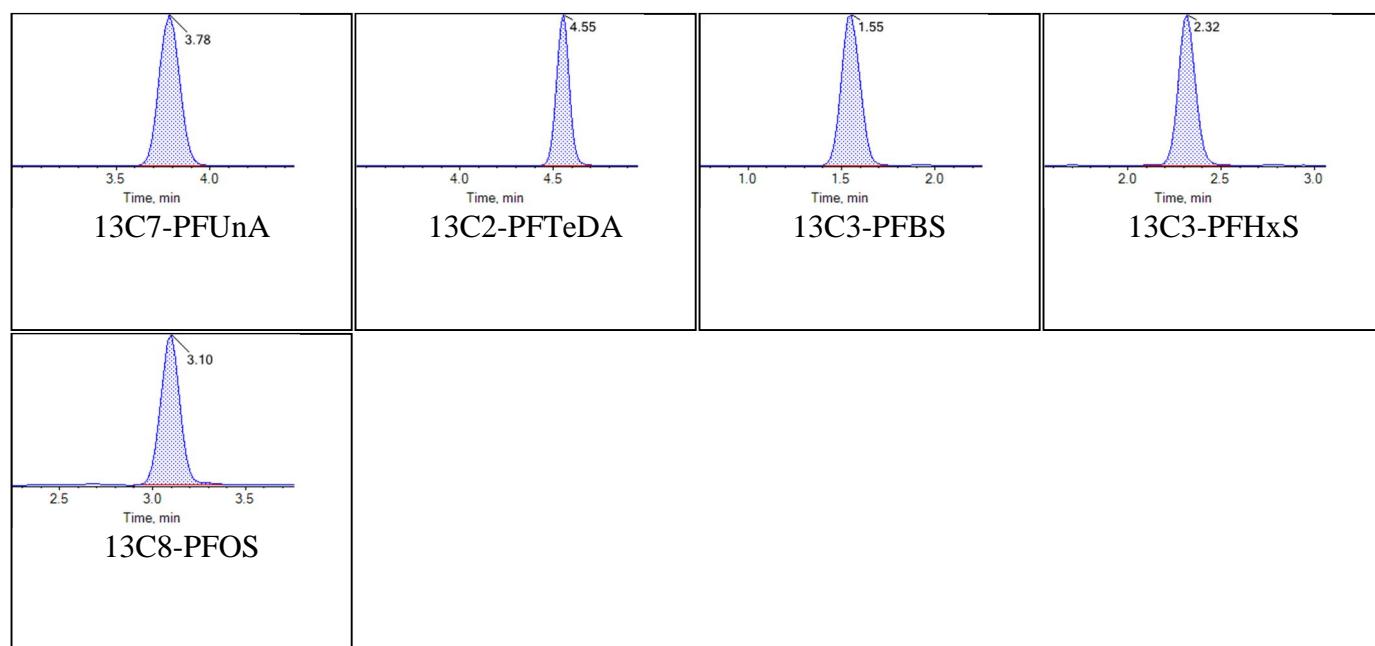
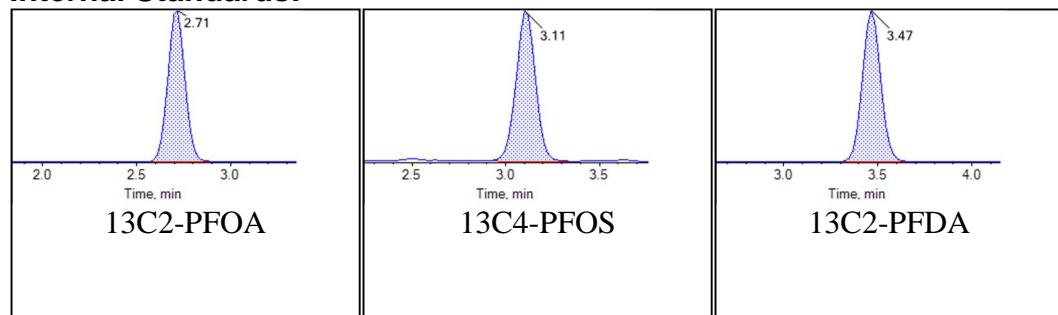
Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
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Sample Comment			

Chromatograms

Target Analytes:



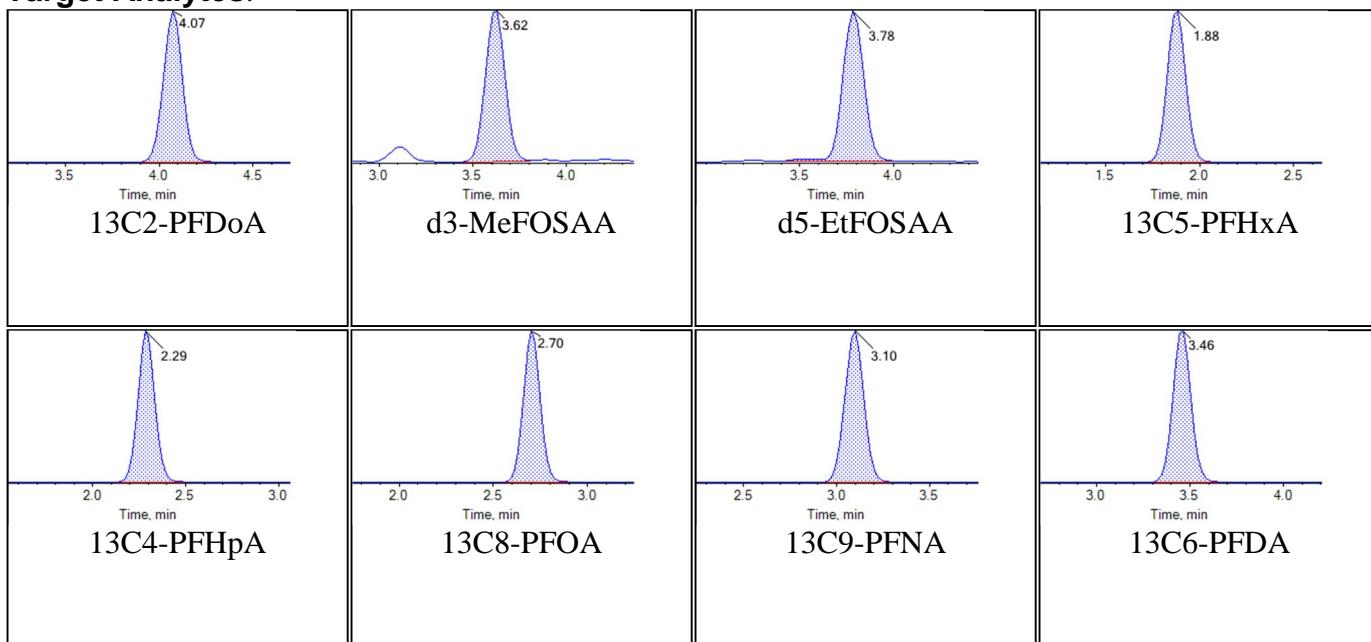
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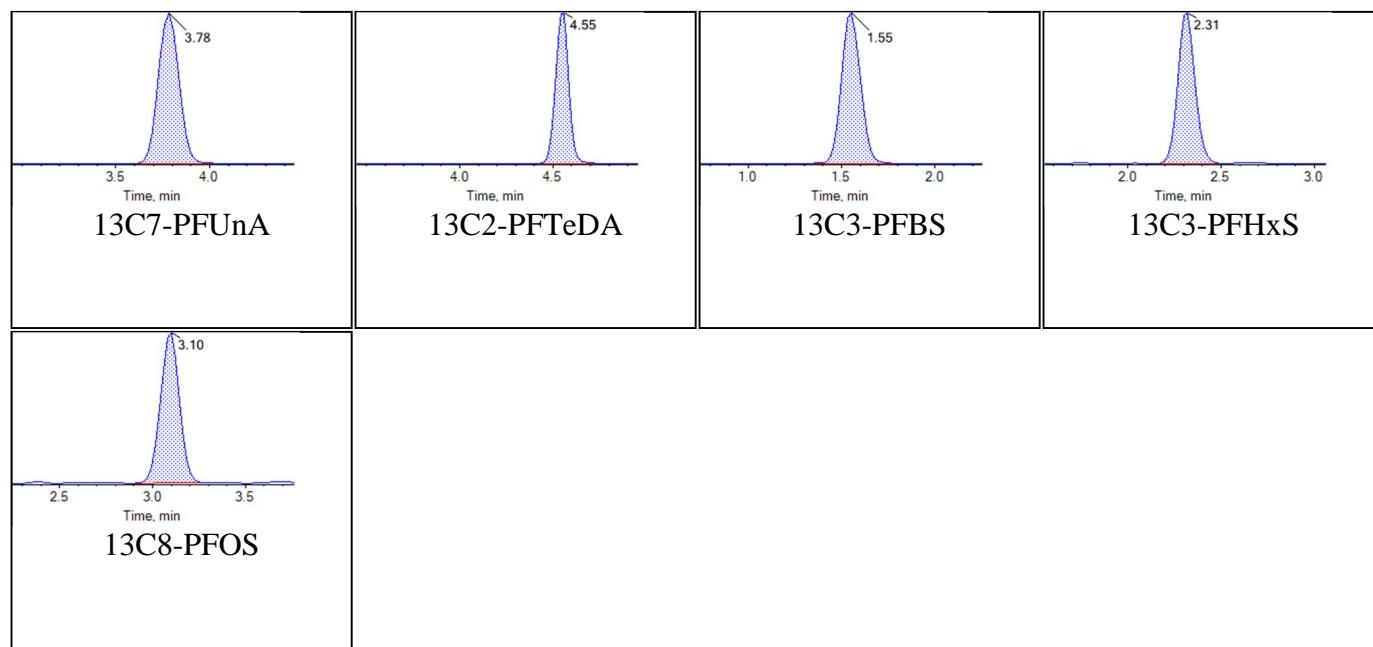
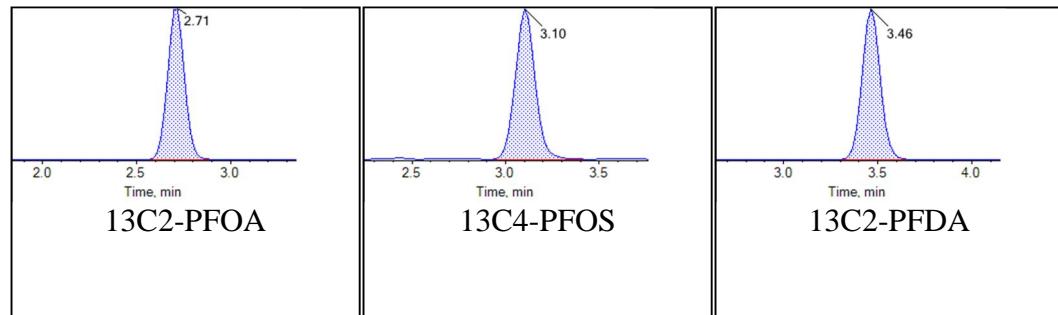
Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:



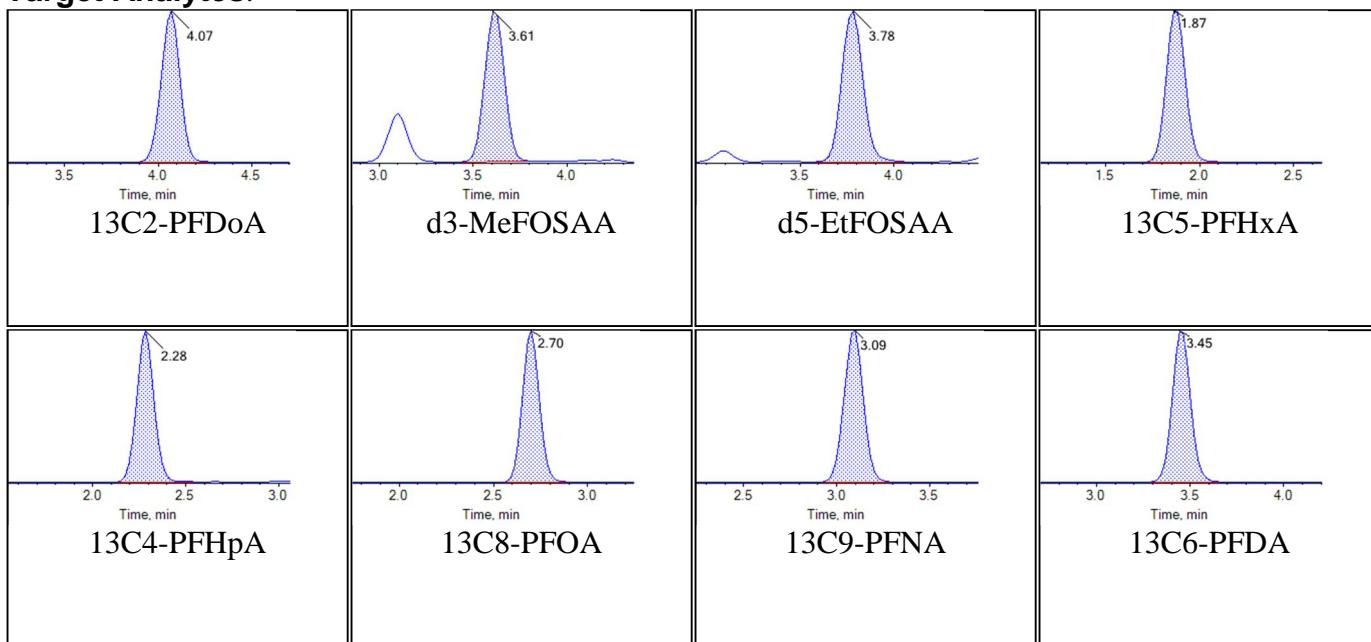
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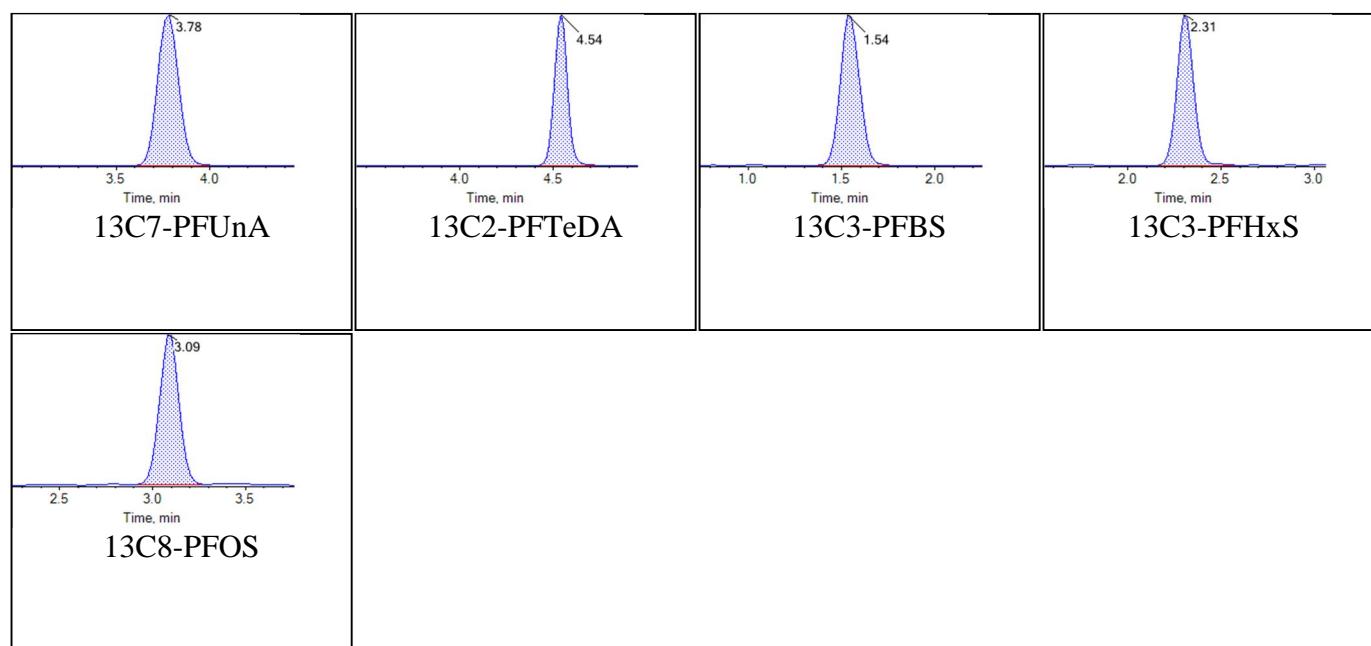
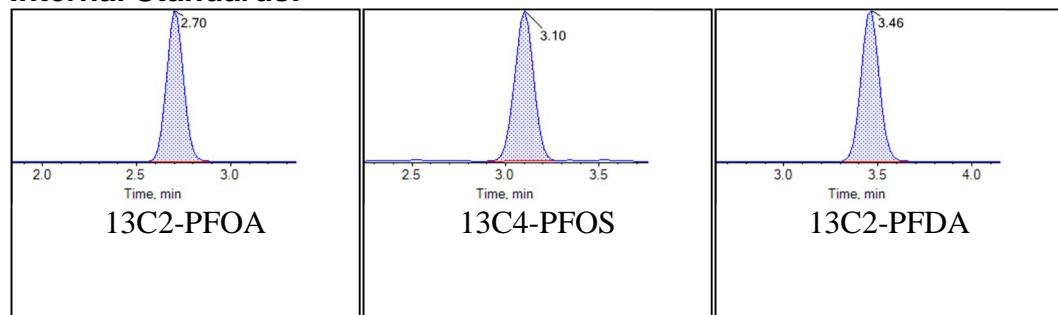
Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:



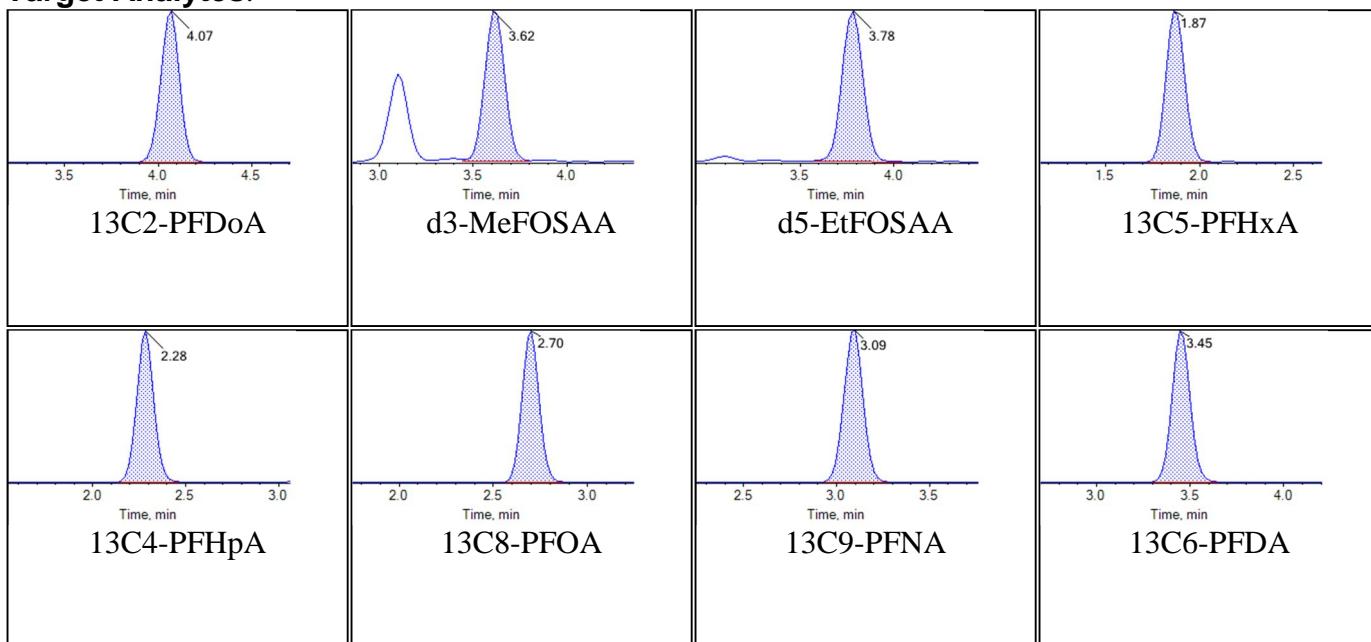
Chromatogram Report

Created with Analyst Reporter
Printed: 24/10/2018 4:17:07 PM**Internal Standards:**

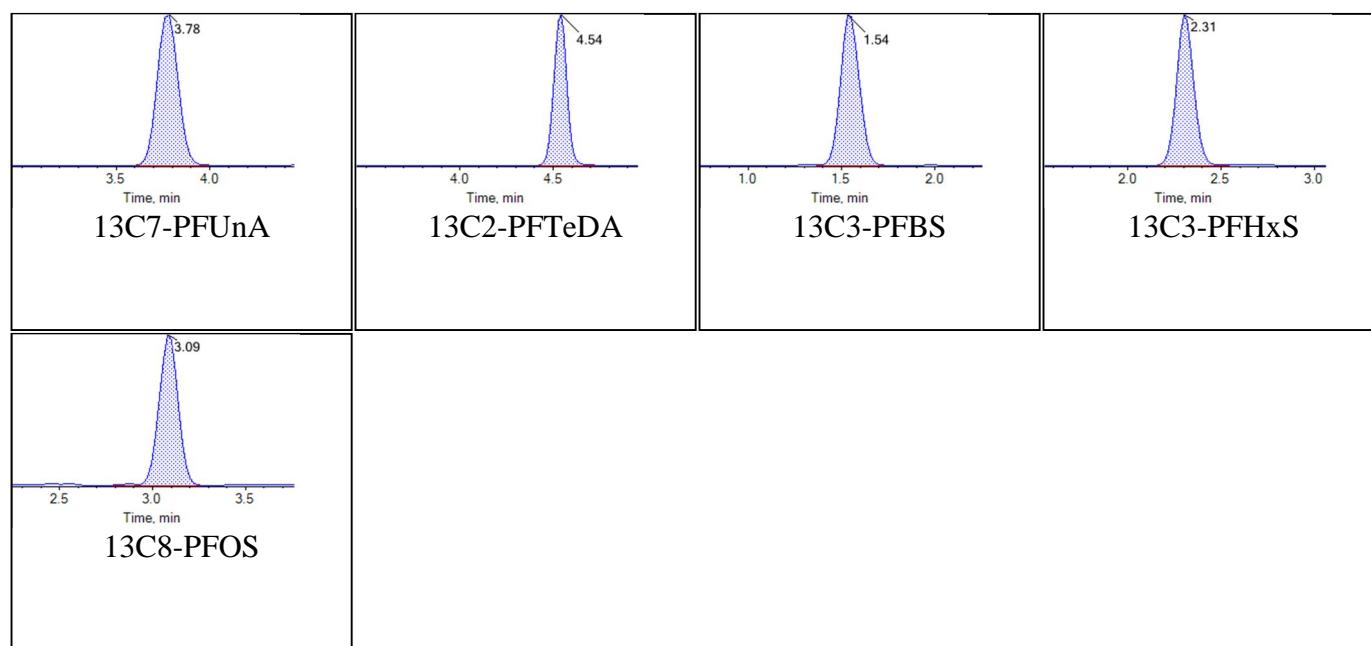
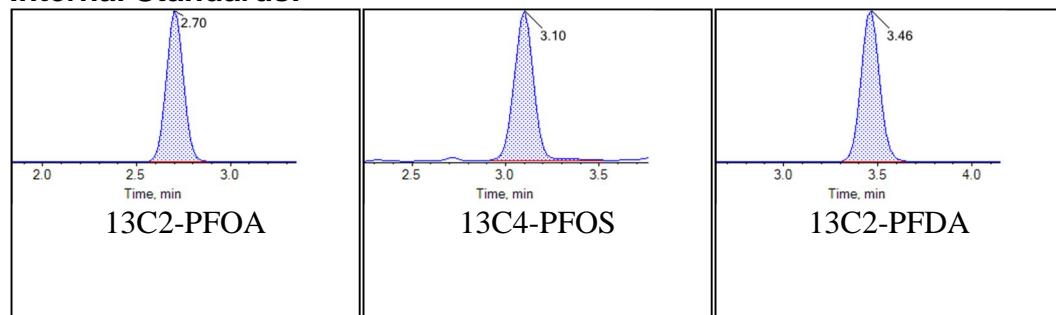
Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:



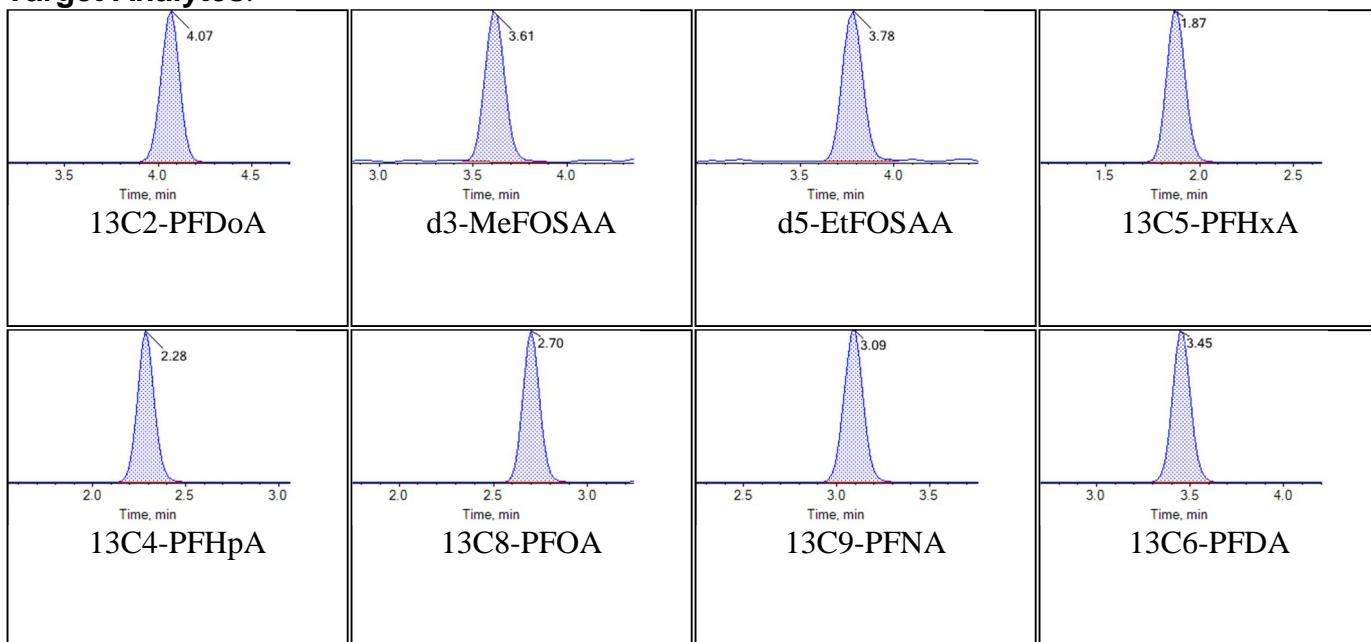
Chromatogram Report

Created with Analyst Reporter
Printed: 24/10/2018 4:17:11 PM**Internal Standards:**

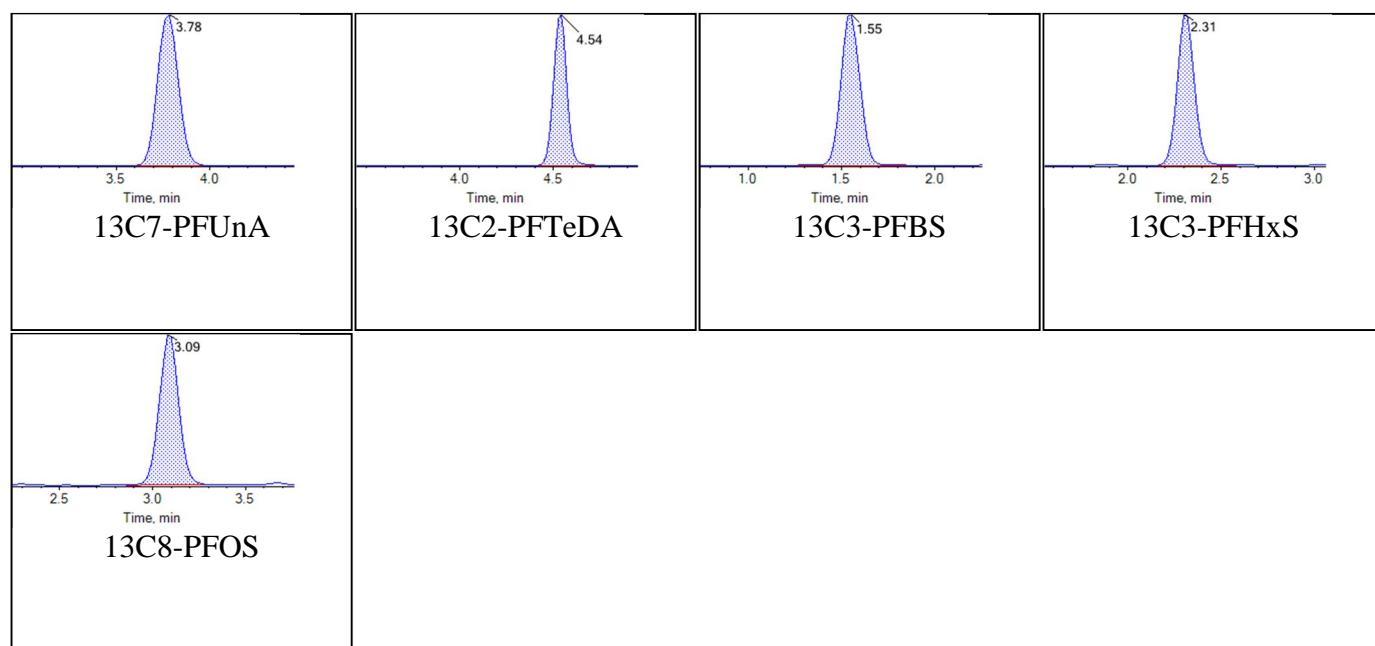
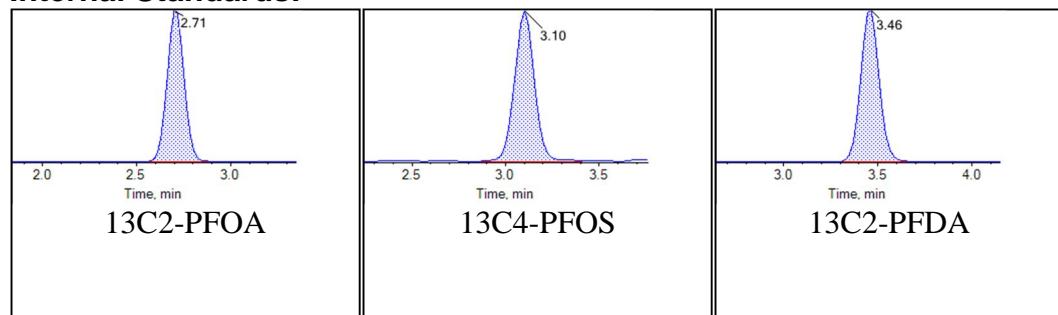
Sample Name	KB80 IB	Injection Vial	9
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:



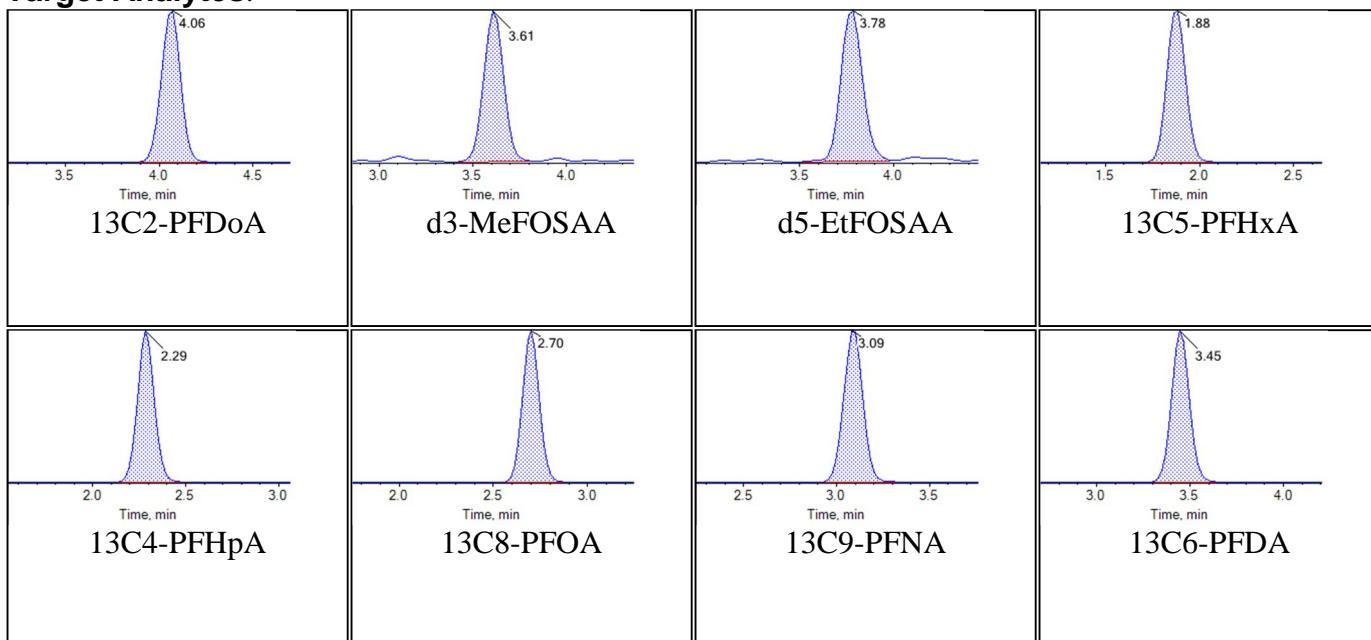
Chromatogram Report

Created with Analyst Reporter
Printed: 24/10/2018 4:17:16 PM**Internal Standards:**

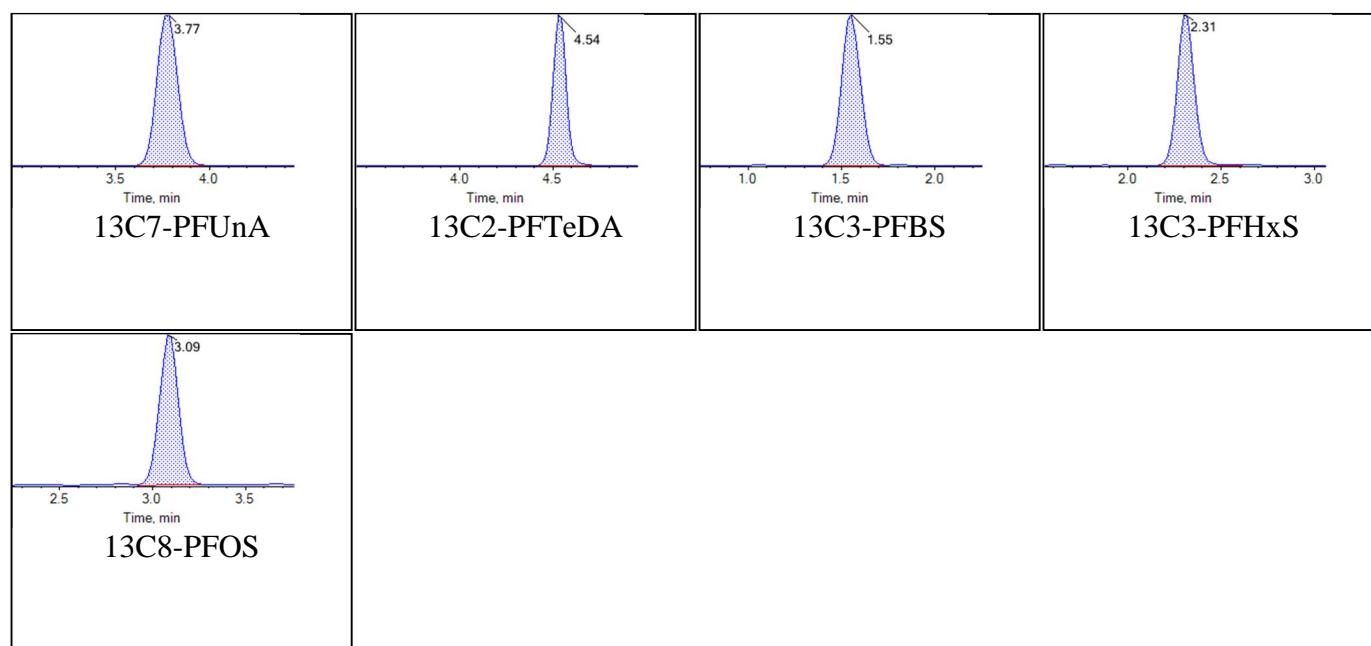
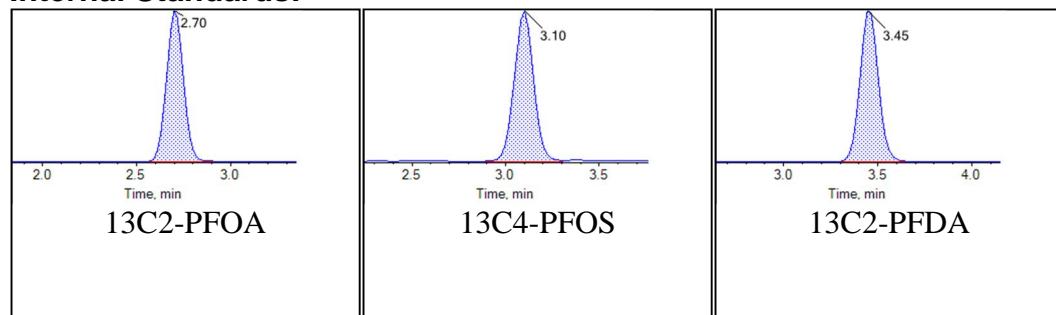
Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:



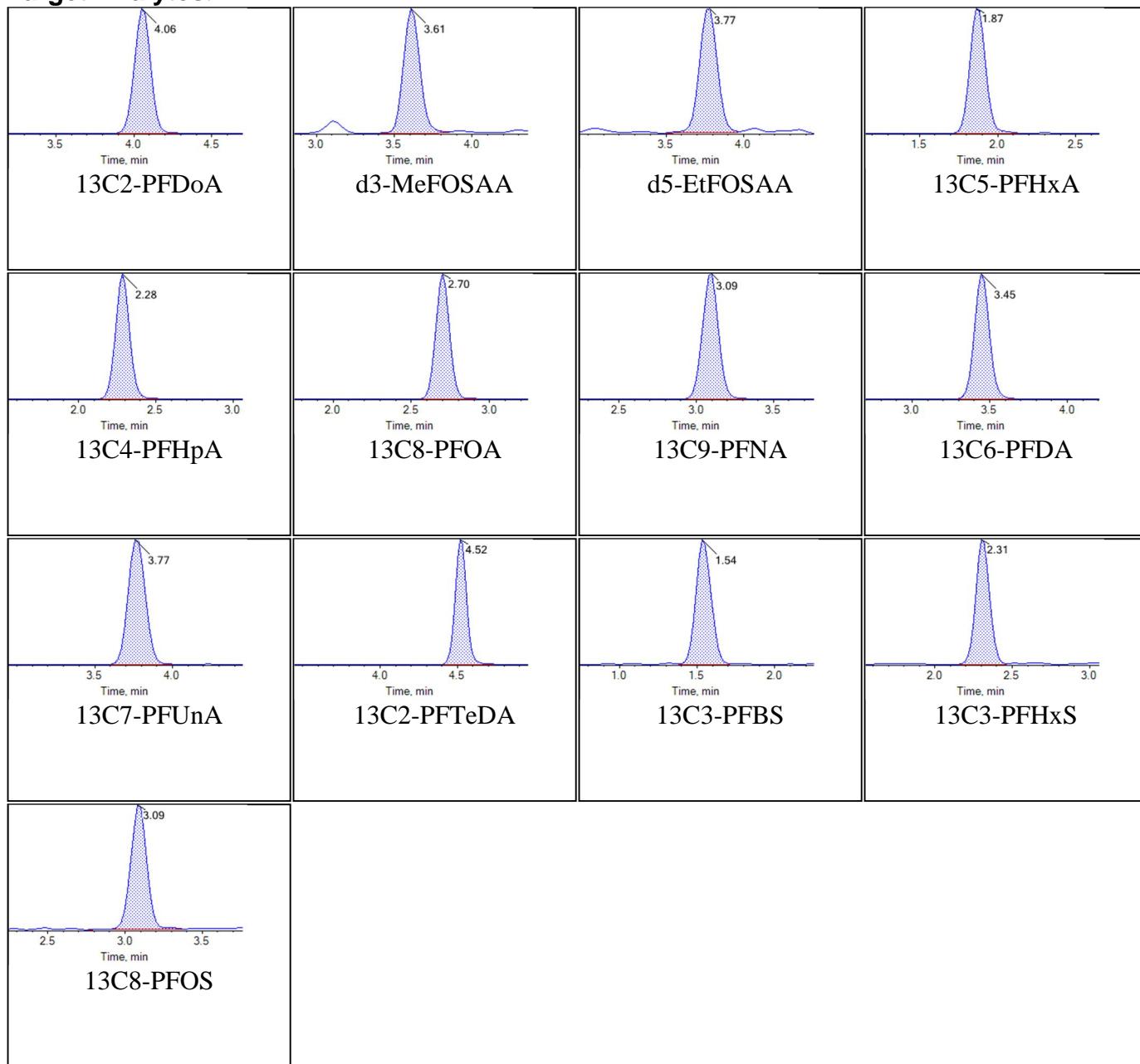
Chromatogram Report

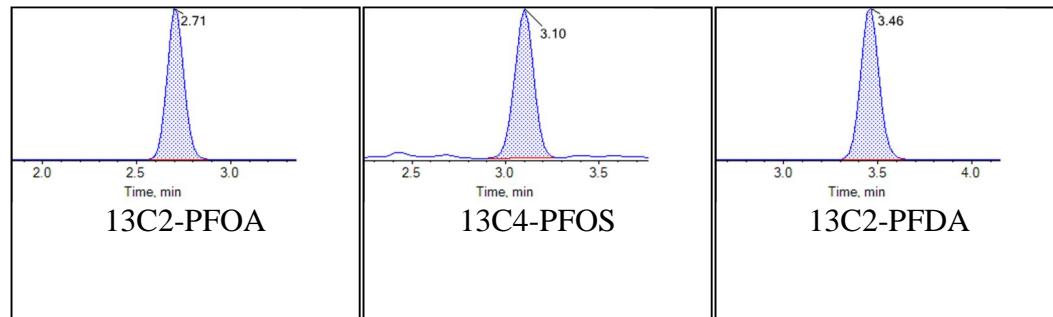
Created with Analyst Reporter
Printed: 24/10/2018 4:17:20 PM**Internal Standards:**

Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:26:39	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

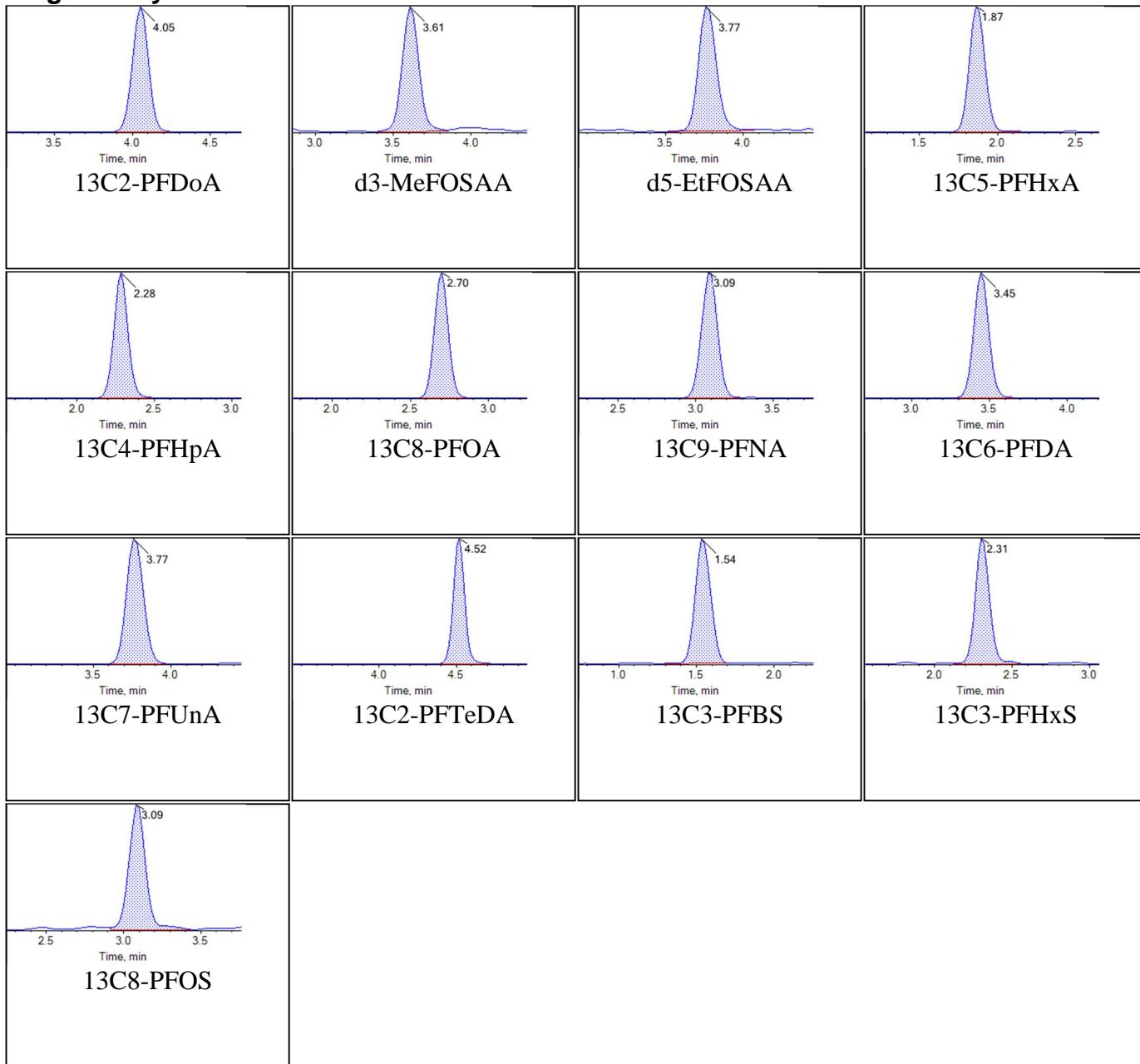


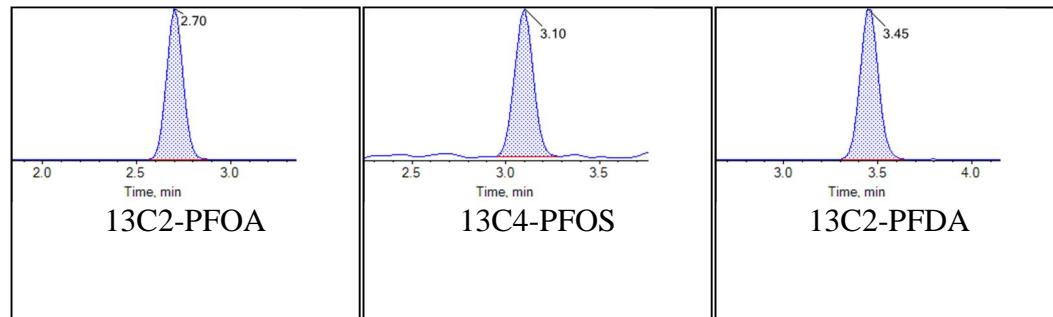
Internal Standards:

Sample Name	CR992PB-FS(3)	Injection Vial	17
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:48:24	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

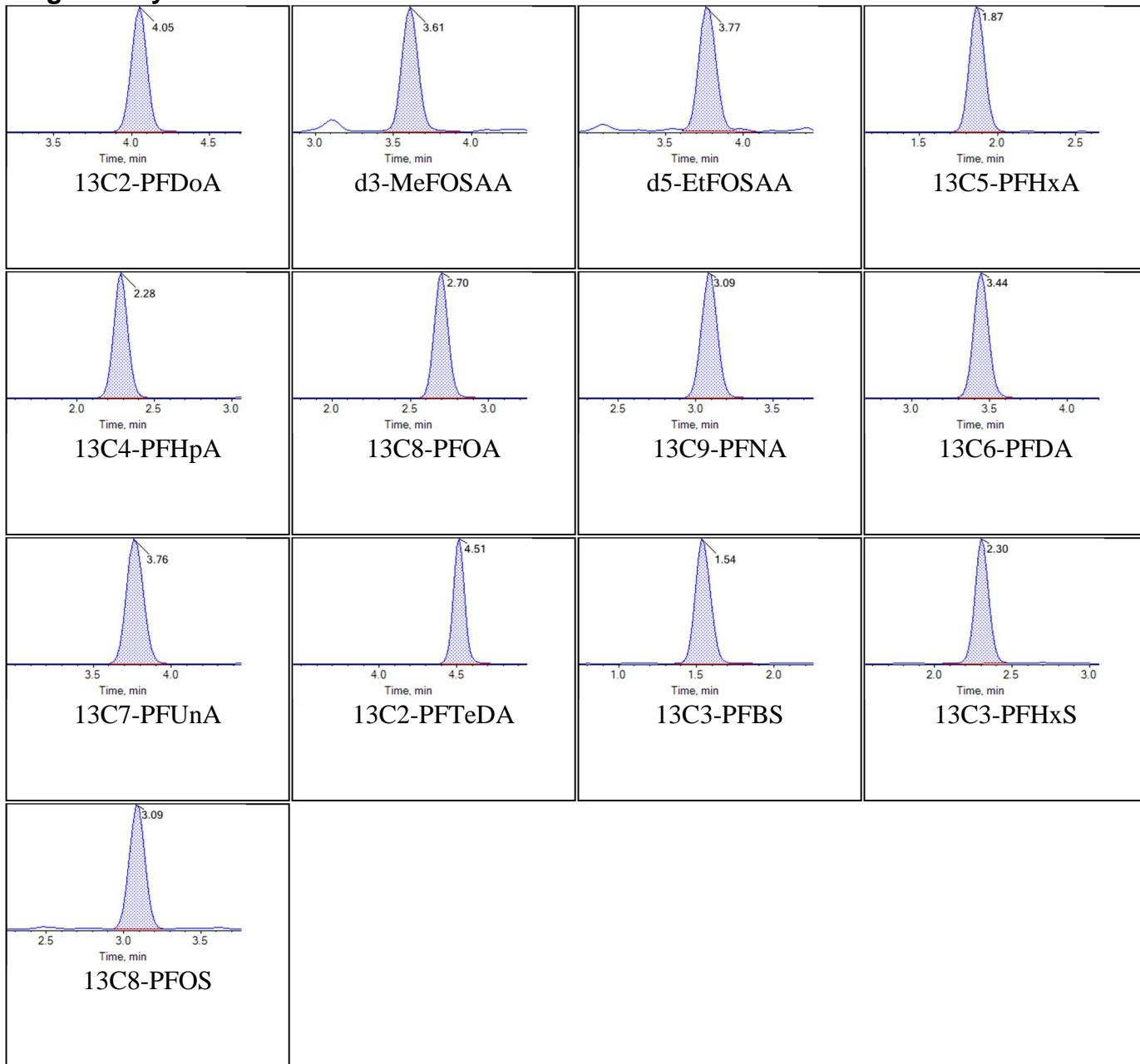


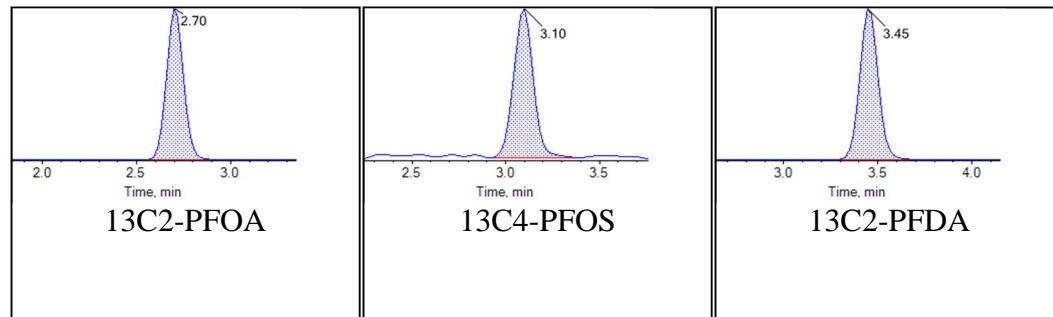
Internal Standards:

Sample Name	CR993LCS-FS(3)	Injection Vial	18
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T22:59:15	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

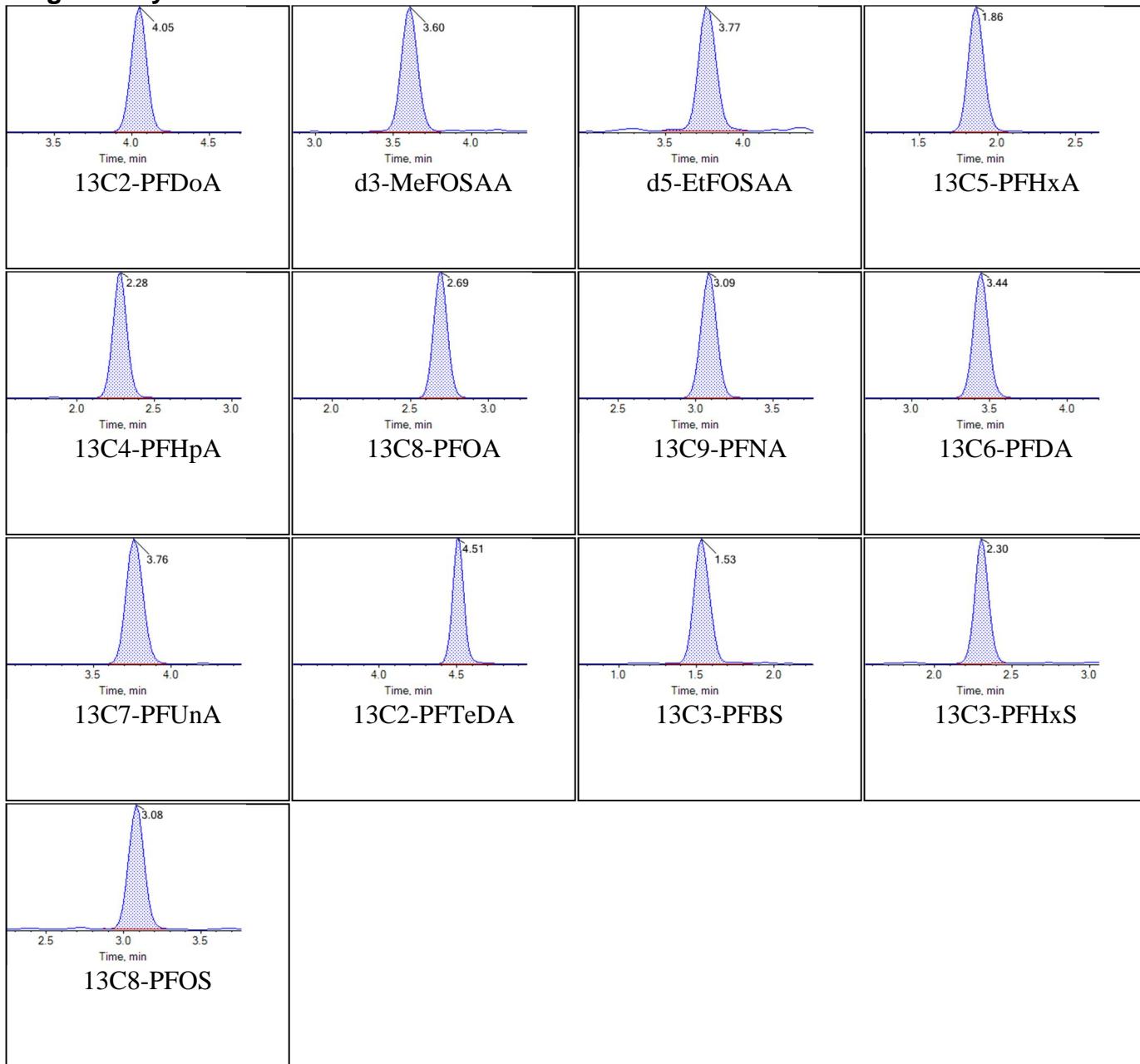


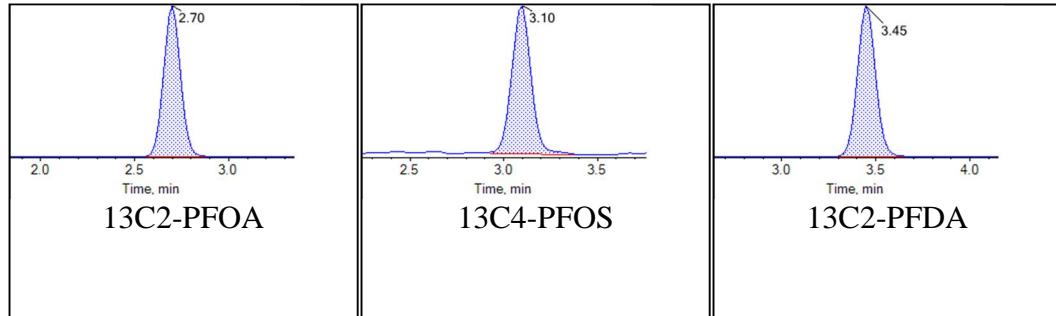
Internal Standards:

Sample Name	J8698-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:10:06	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

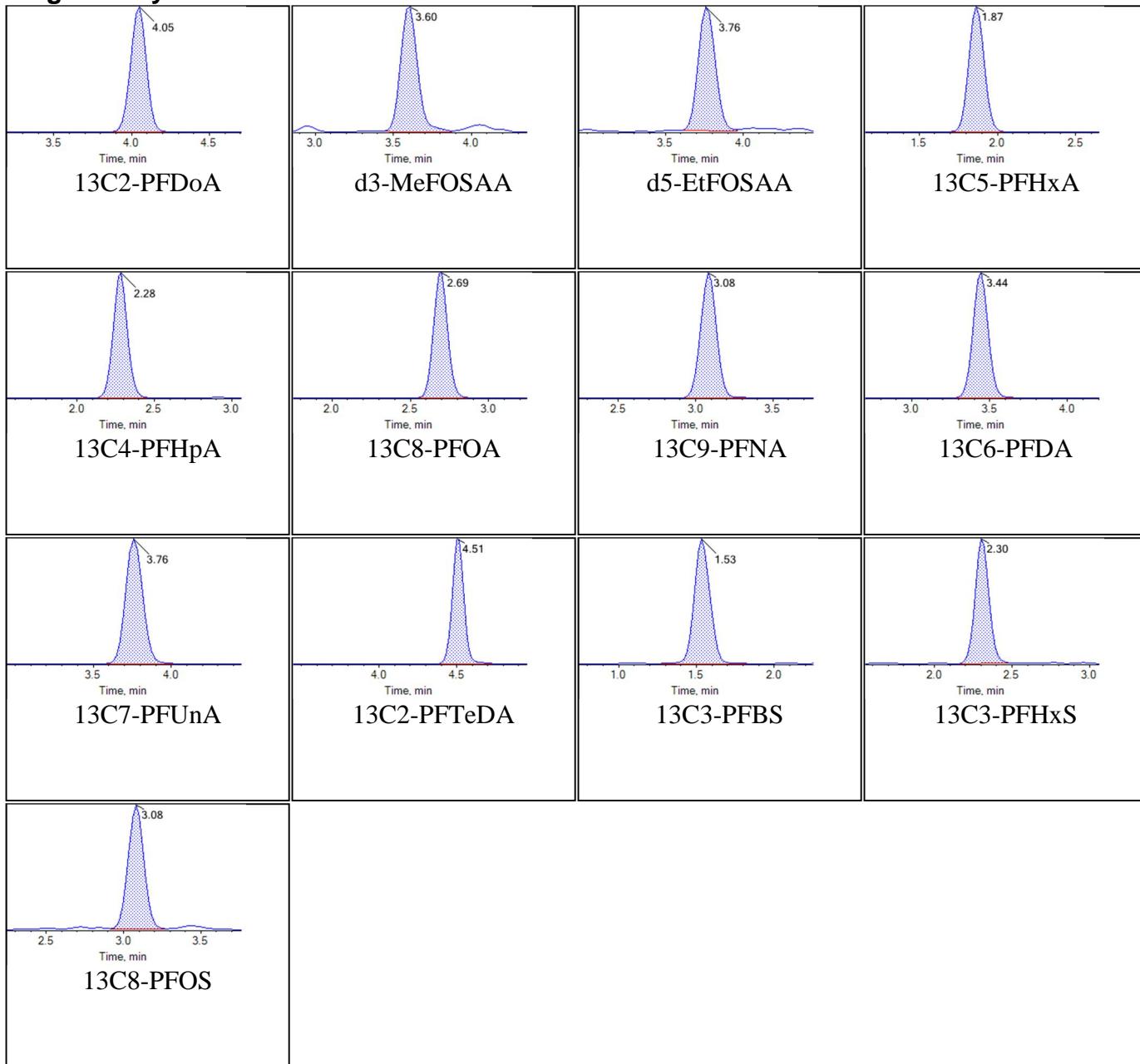


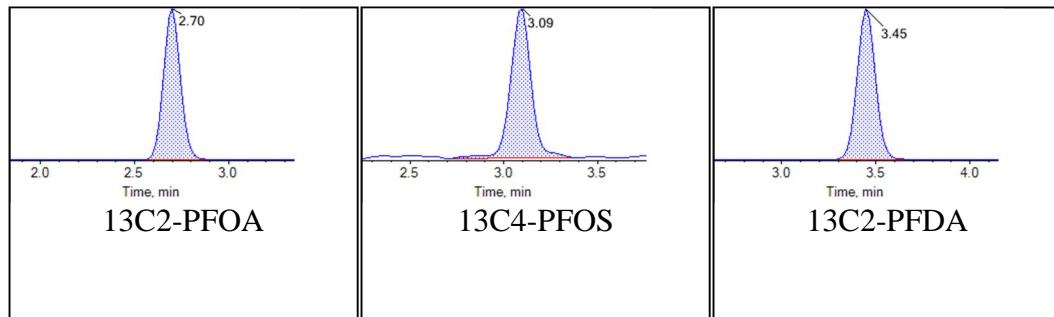
Internal Standards:

Sample Name	J8699-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:20:58	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

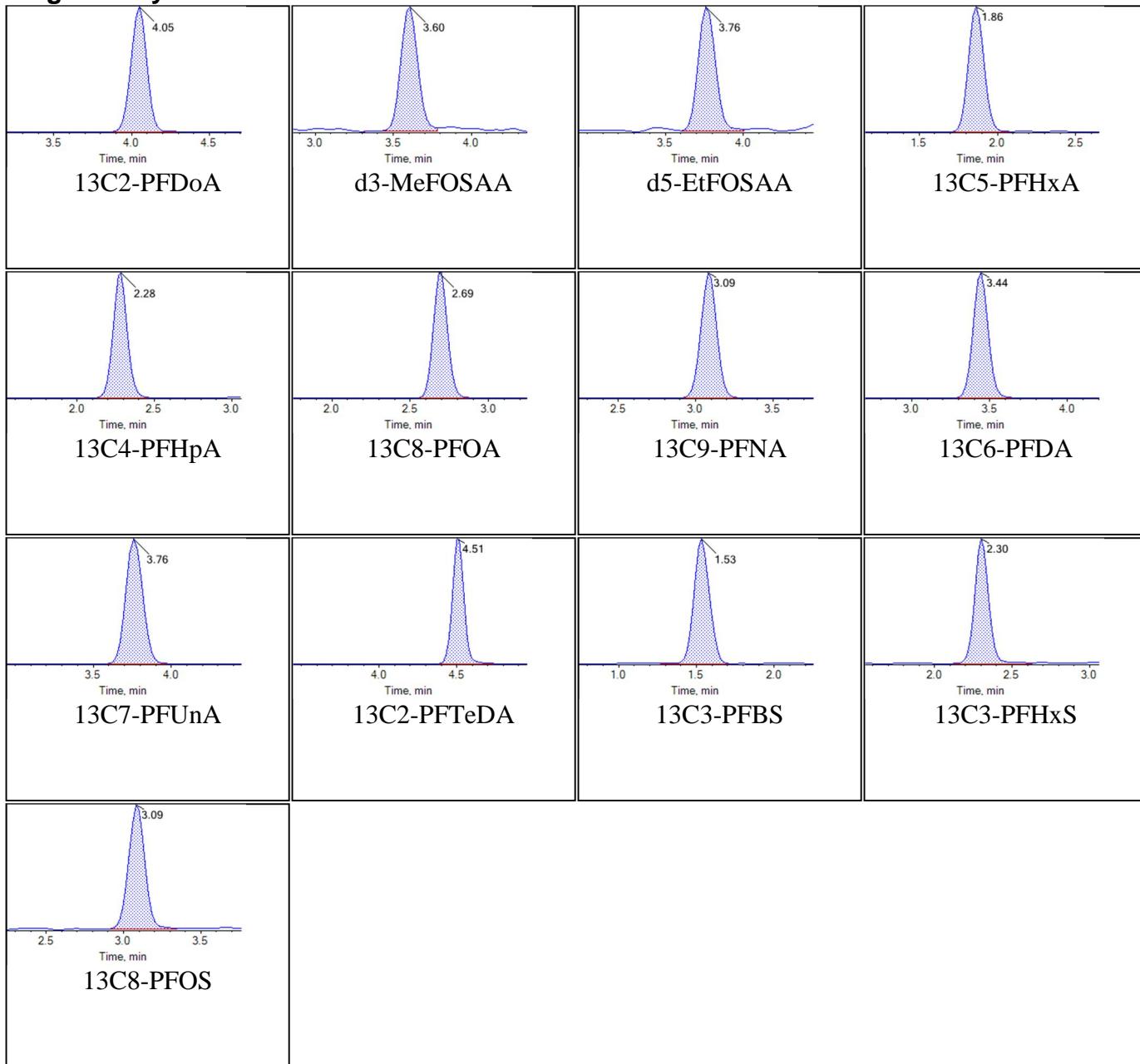


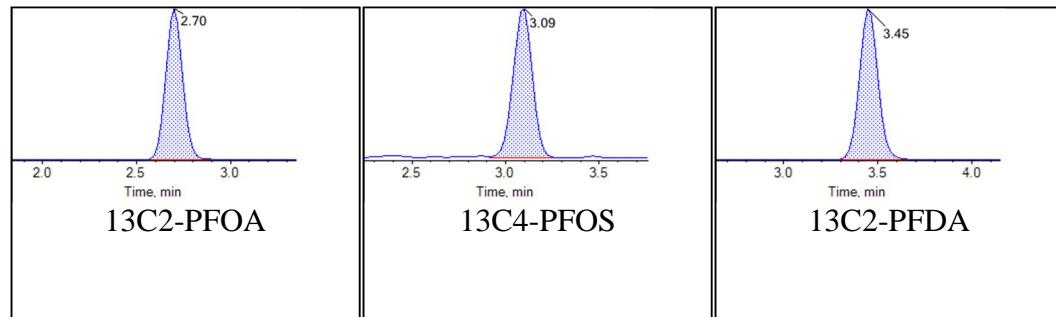
Internal Standards:

Sample Name	J8700-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:31:51	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

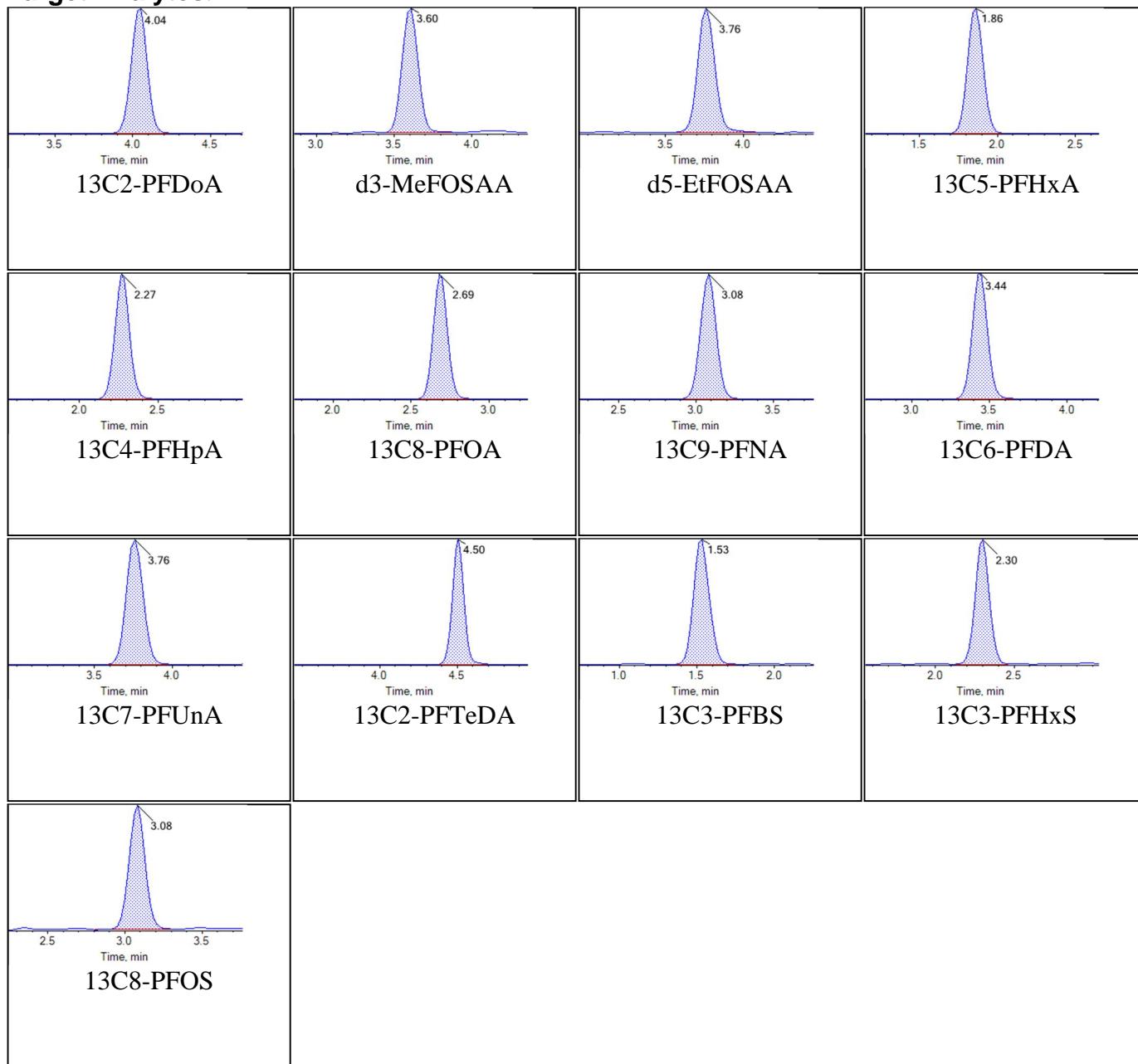


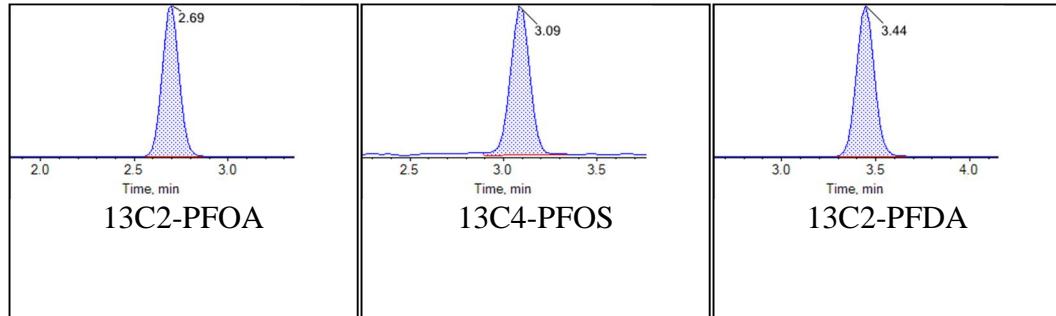
Internal Standards:

Sample Name	J8701-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:42:44	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

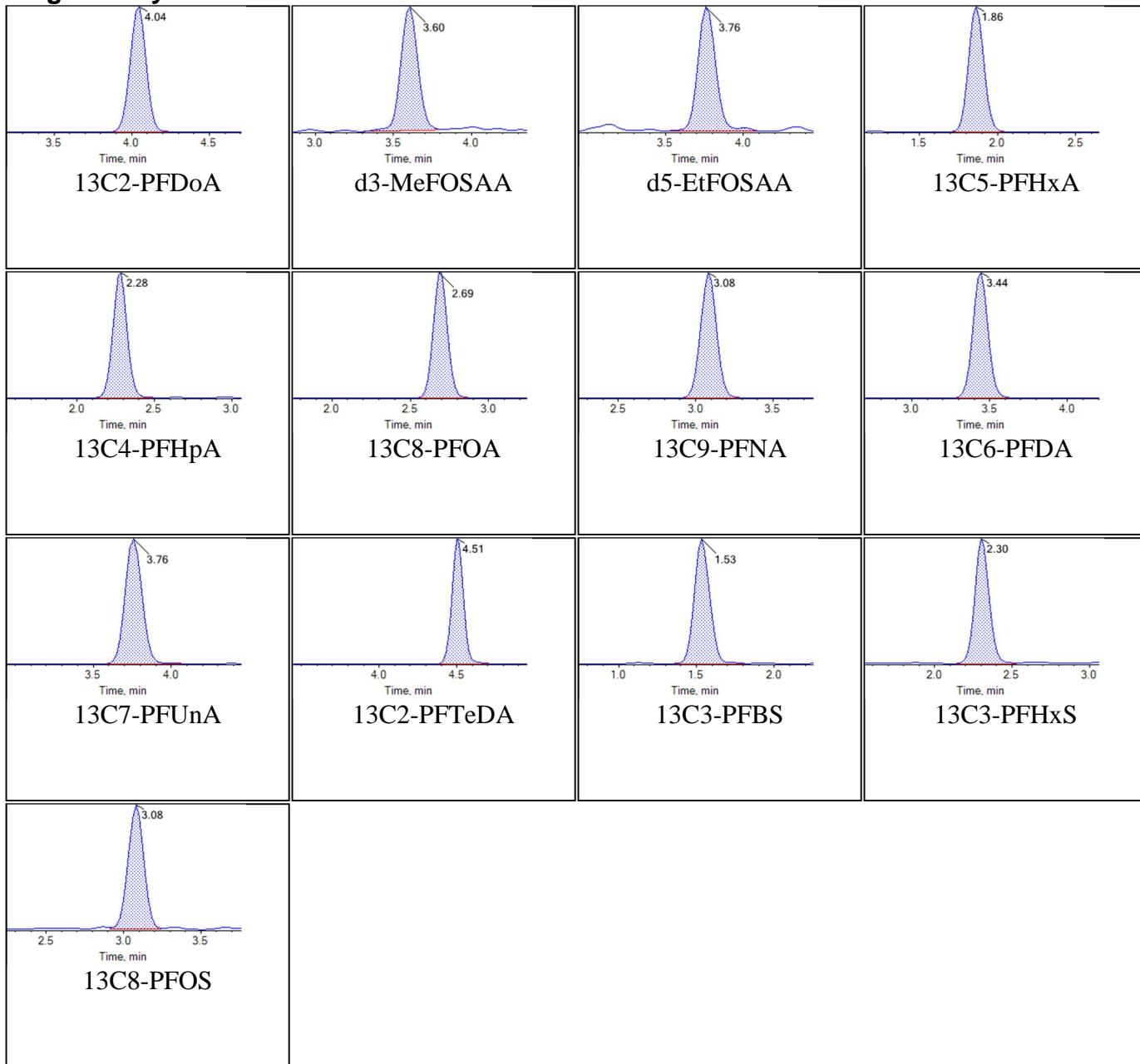


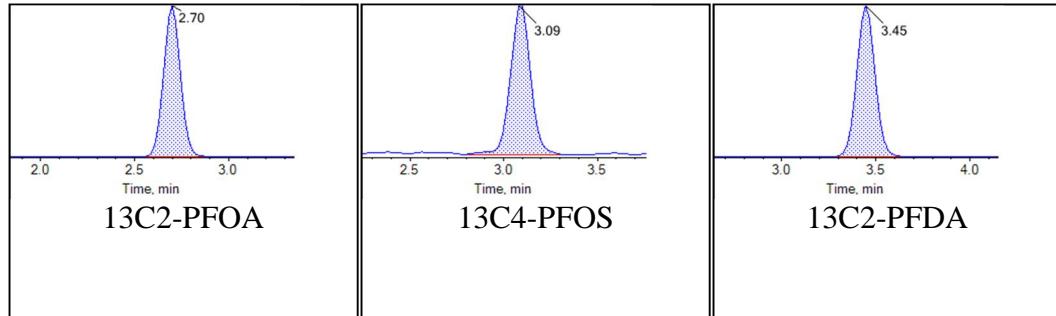
Internal Standards:

Sample Name	J8702-FS(3)	Injection Vial	23
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-22T23:53:34	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

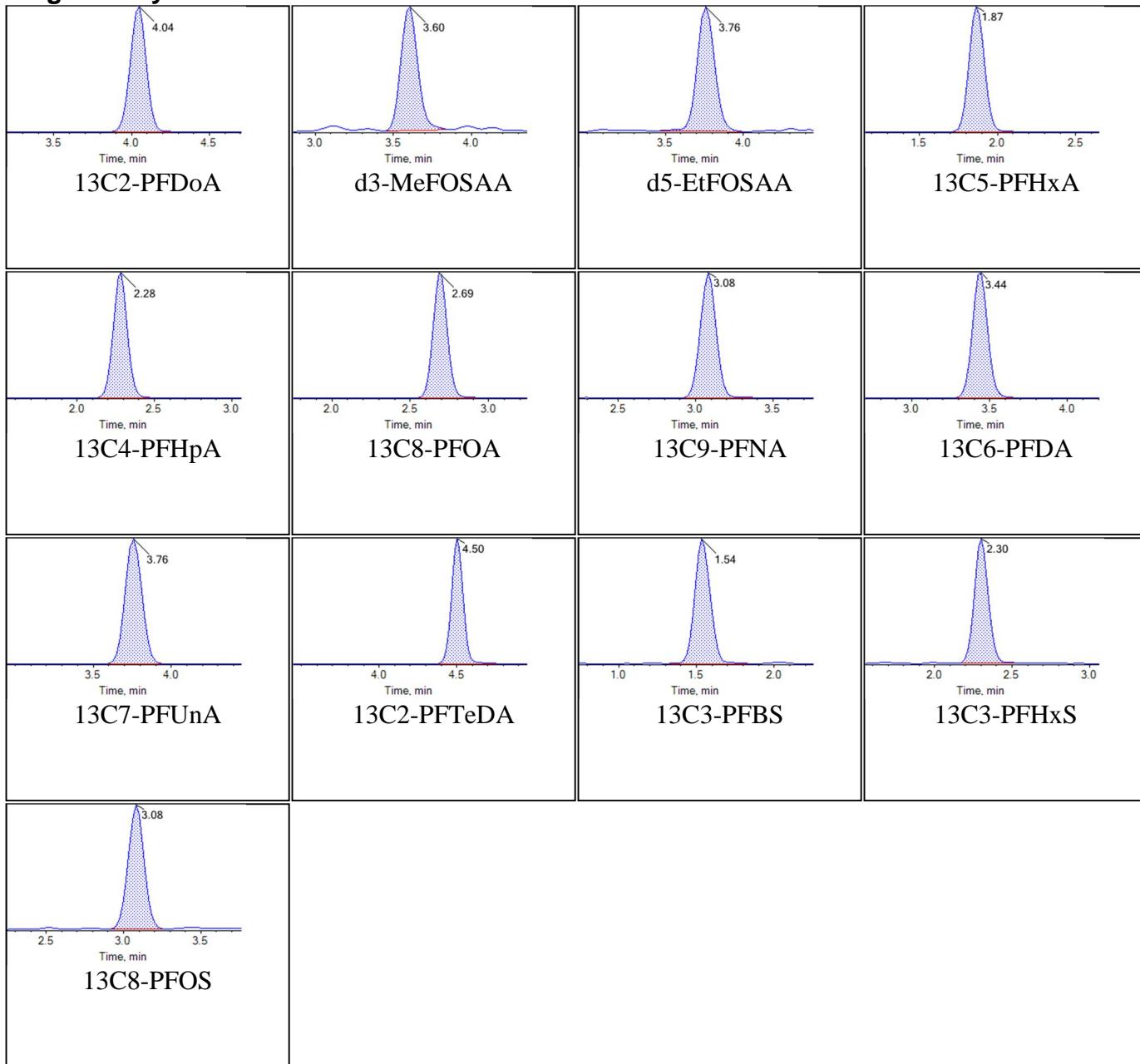


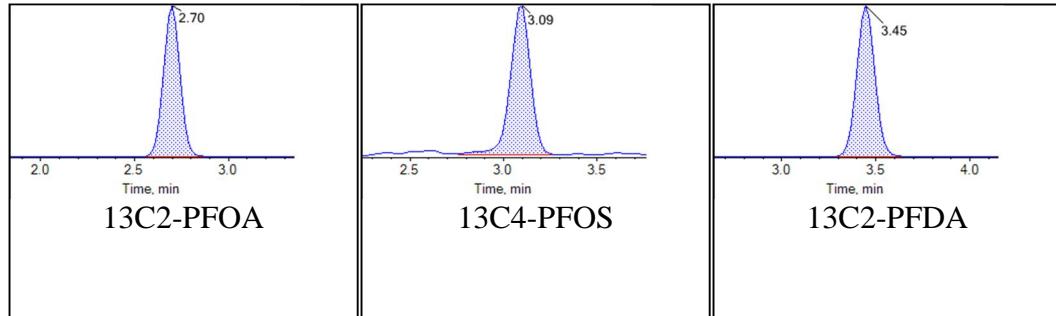
Internal Standards:

Sample Name	J8703-FS(3)	Injection Vial	24
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:04:26	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

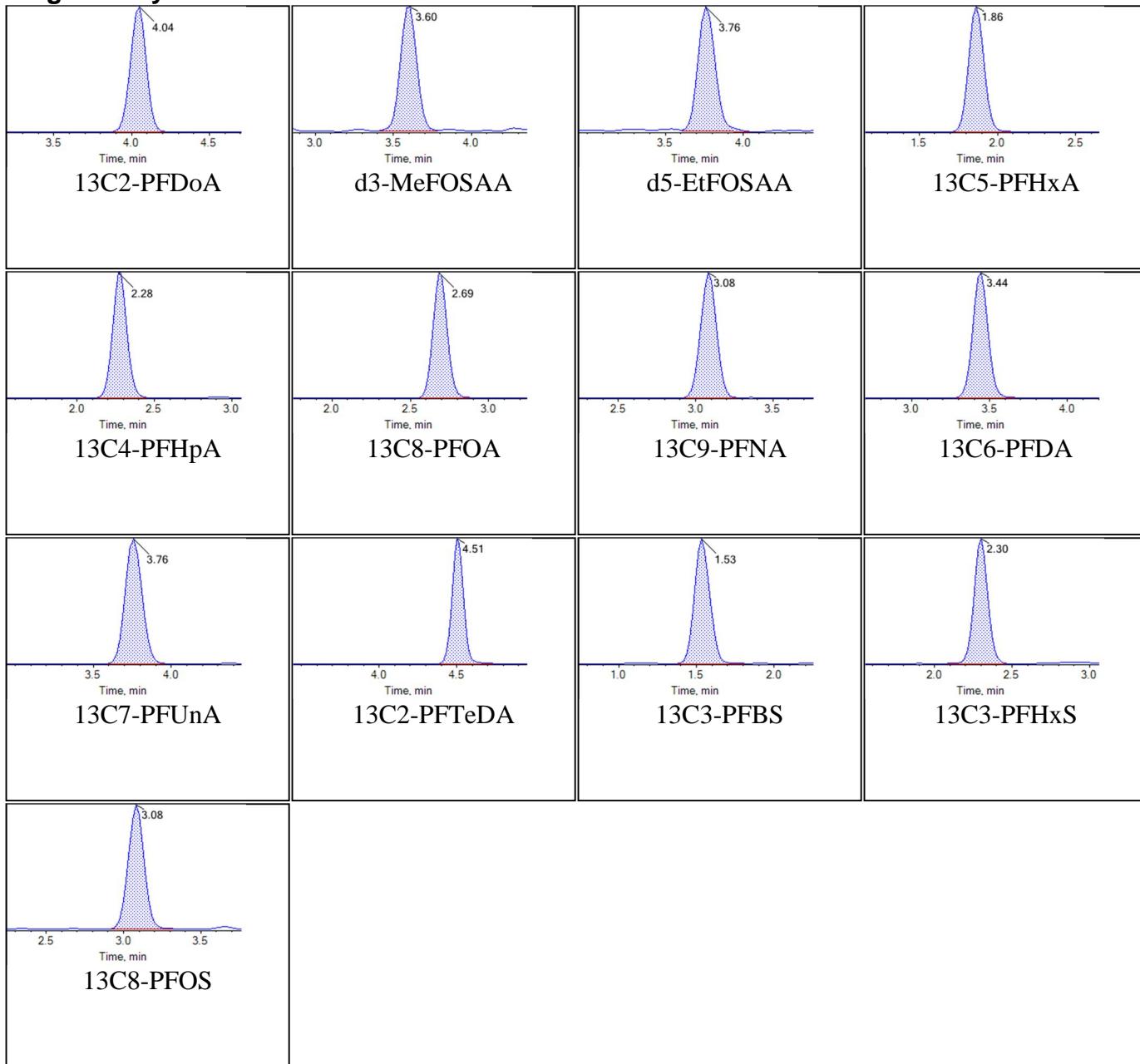


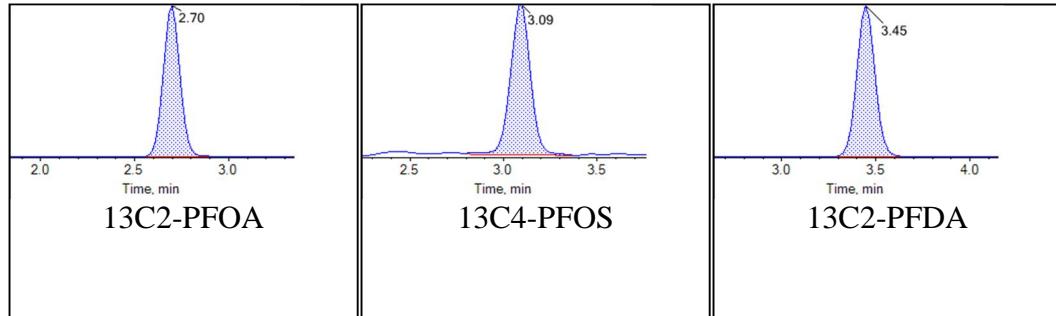
Internal Standards:

Sample Name	J8703-FS-D(5)	Injection Vial	25
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:15:17	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

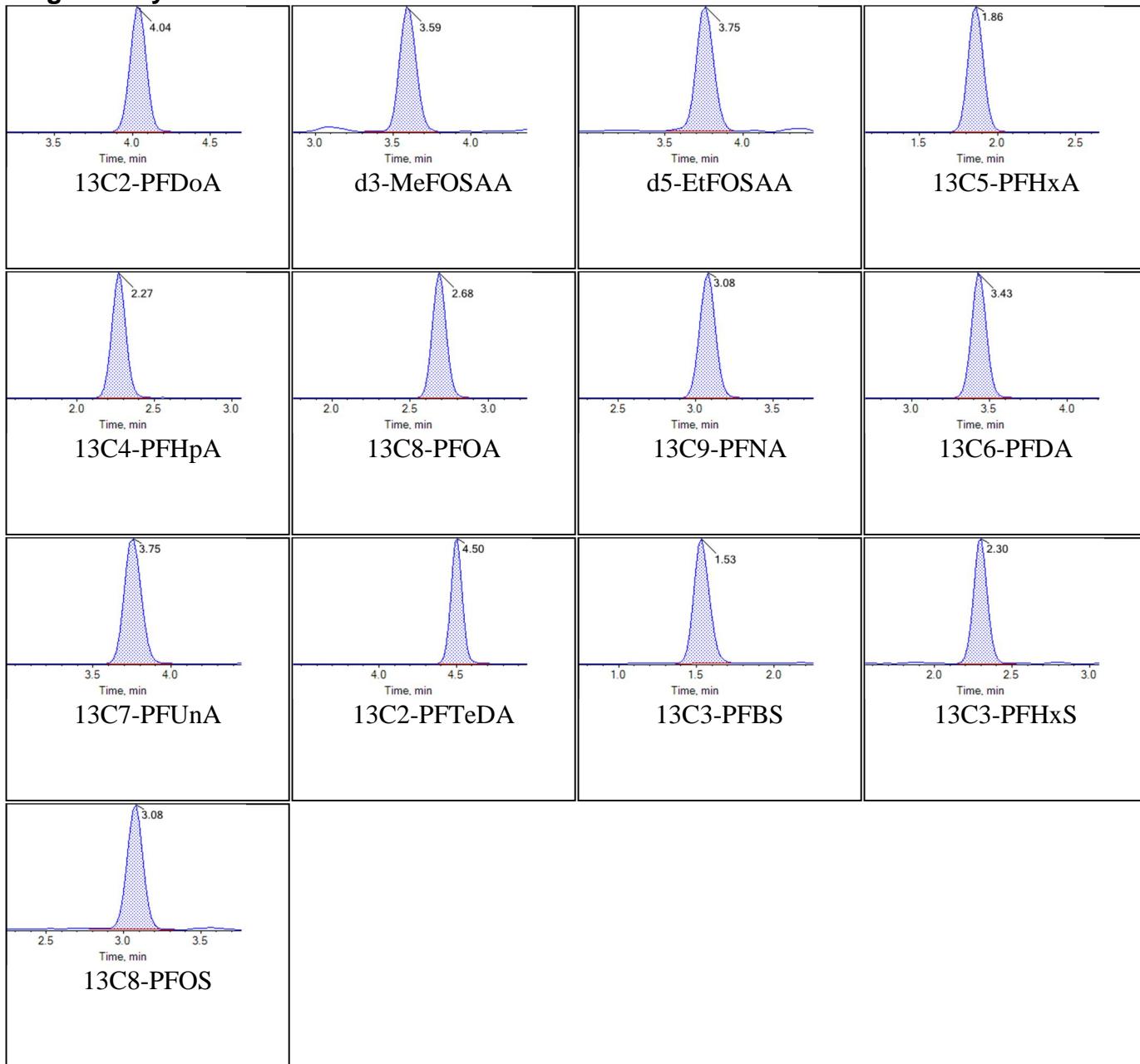


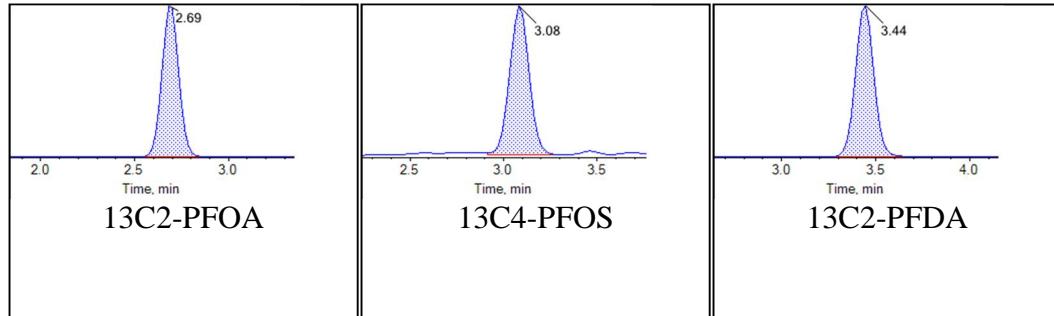
Internal Standards:

Sample Name	KB76 CCV	Injection Vial	27
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:37:00	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

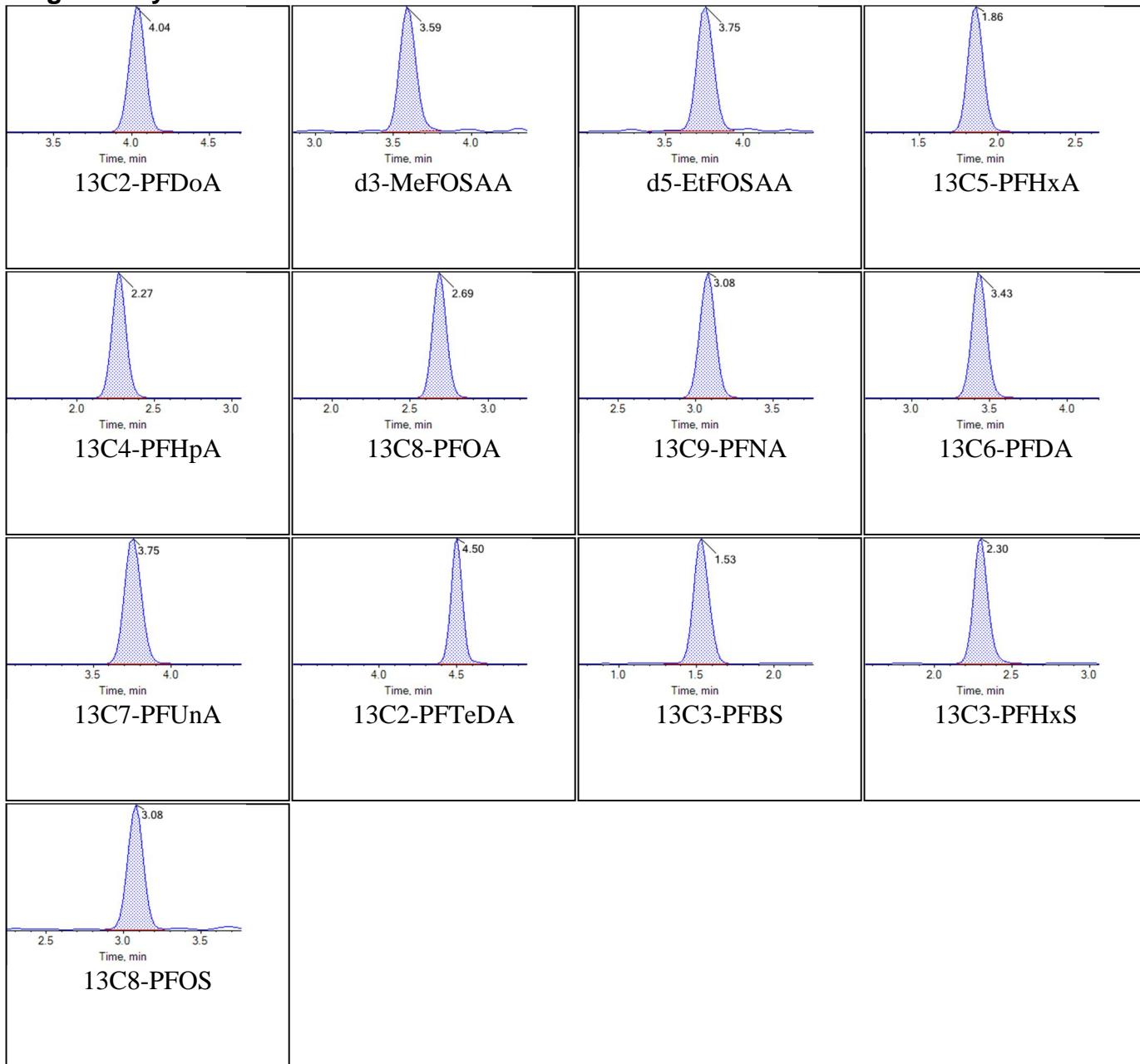


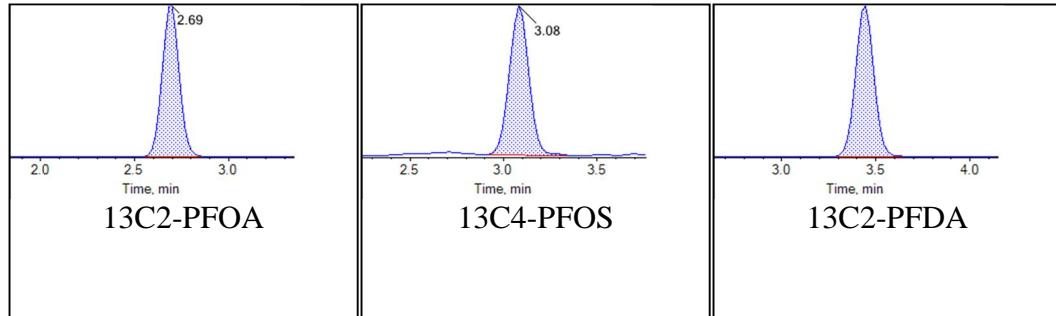
Internal Standards:

Sample Name	J8704-FS(3)	Injection Vial	29
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T00:58:45	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

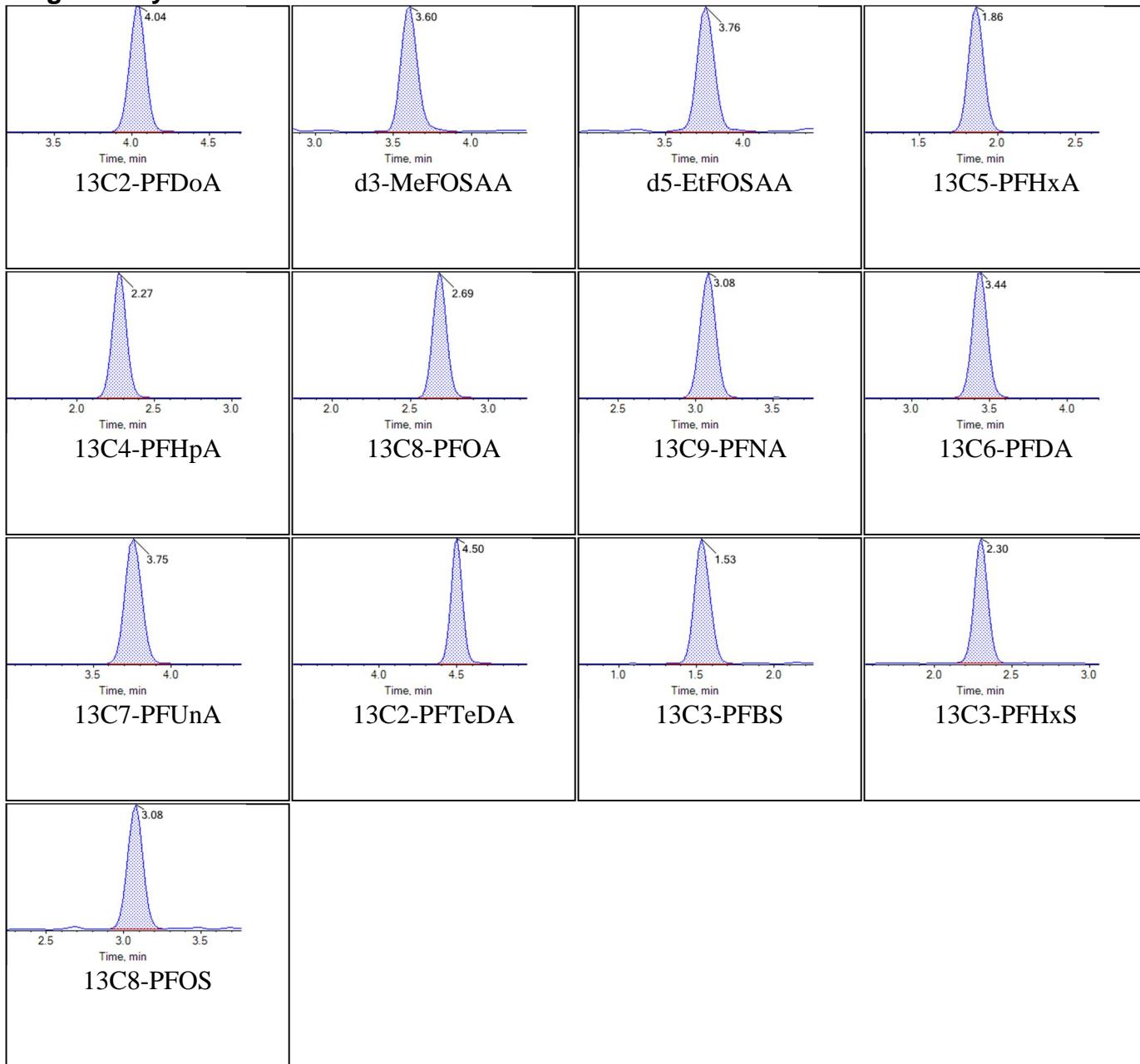


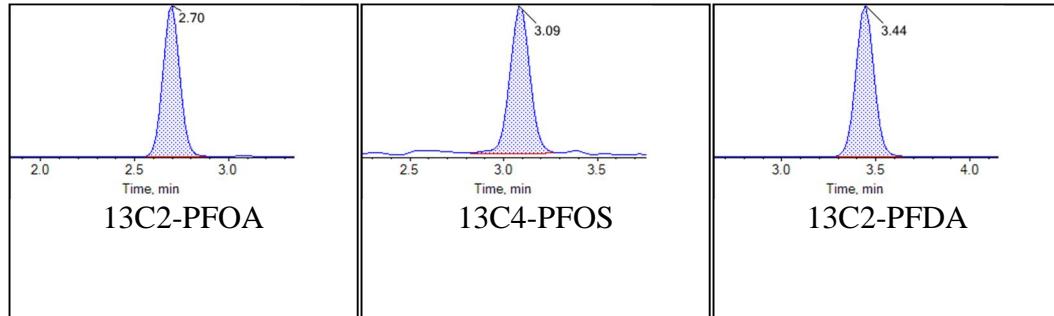
Internal Standards:

Sample Name	J8704-FS-D(5)	Injection Vial	30
Sample ID	VC-CS00-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:09:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

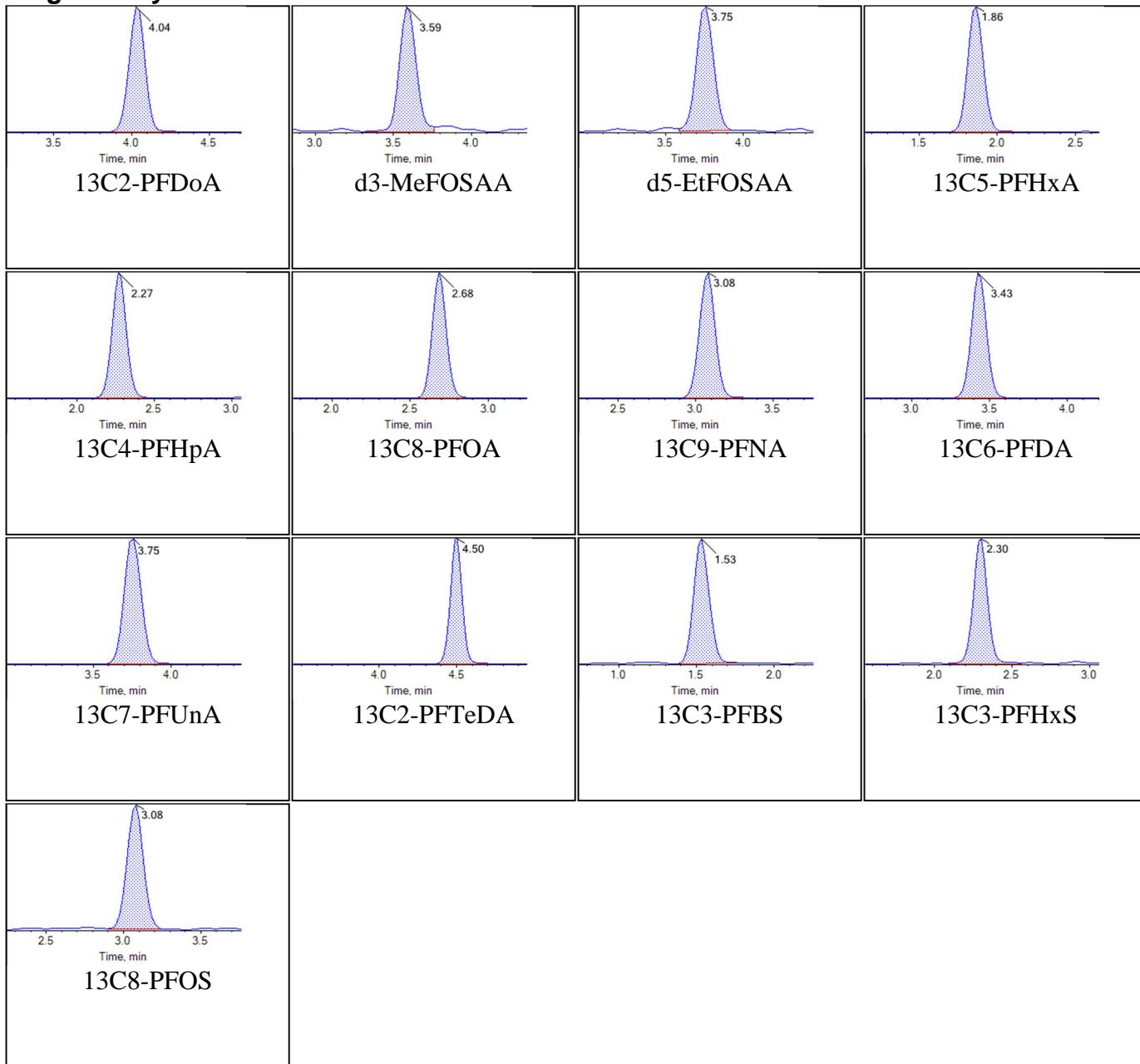


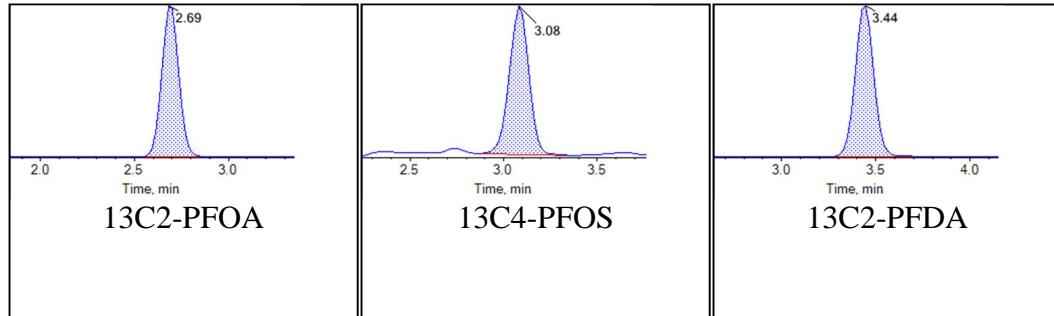
Internal Standards:

Sample Name	J8705-FS(3)	Injection Vial	32
Sample ID	VC-CS00-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:31:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

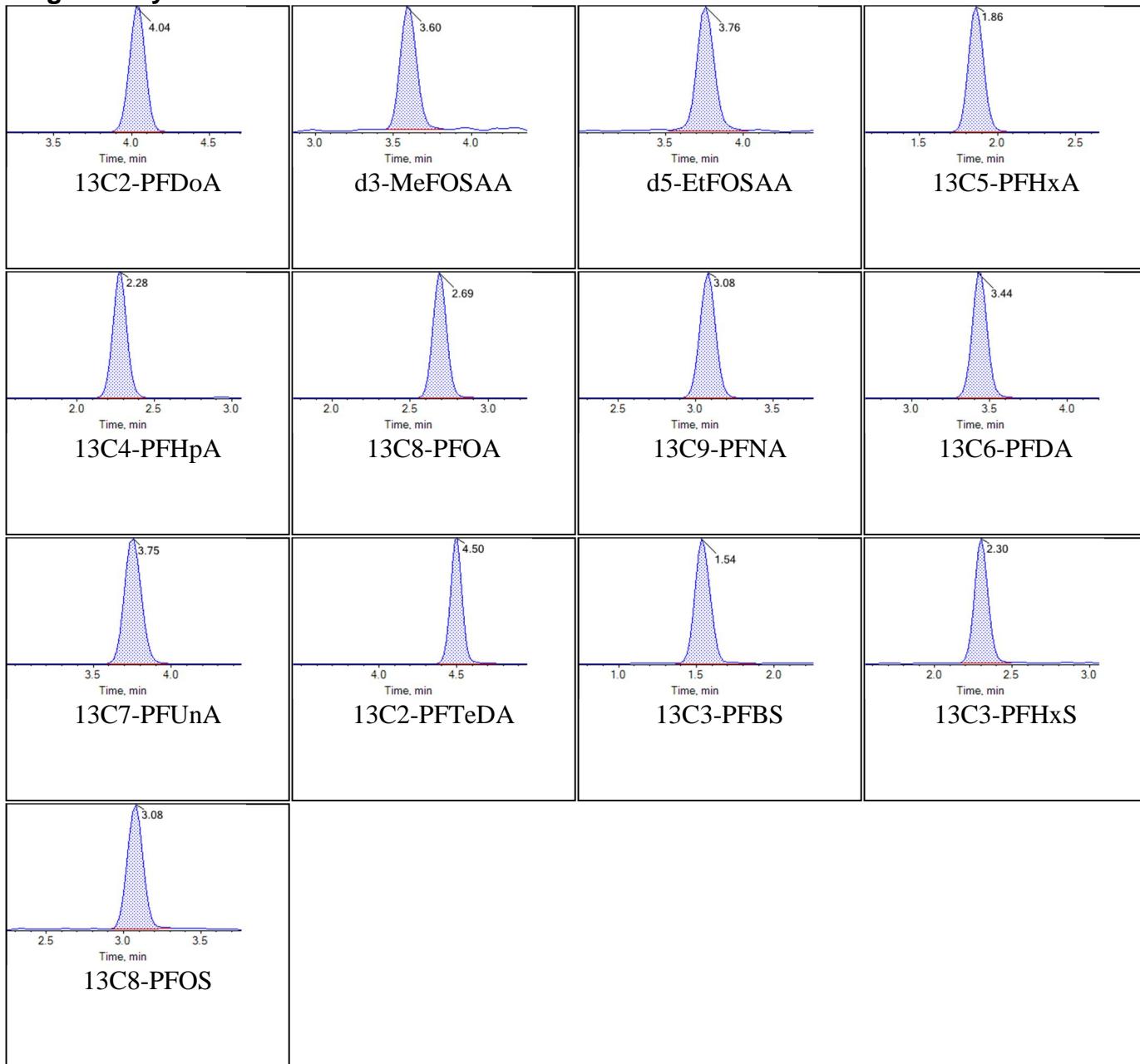


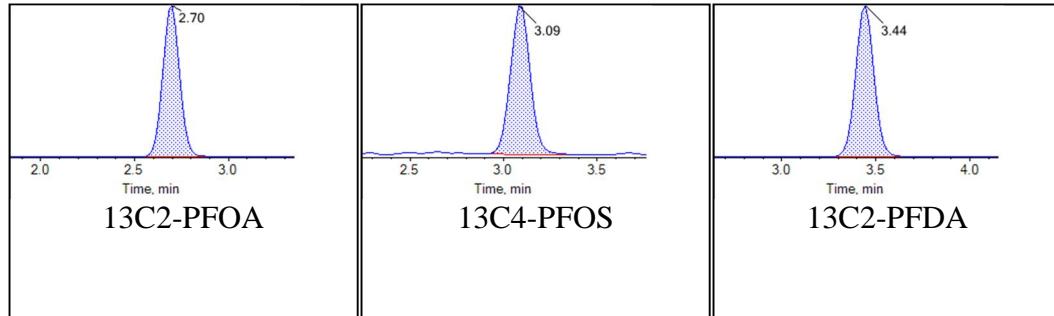
Internal Standards:

Sample Name	J8706-FS(3)	Injection Vial	34
Sample ID	VC-CS00-SS05-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T01:53:02	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

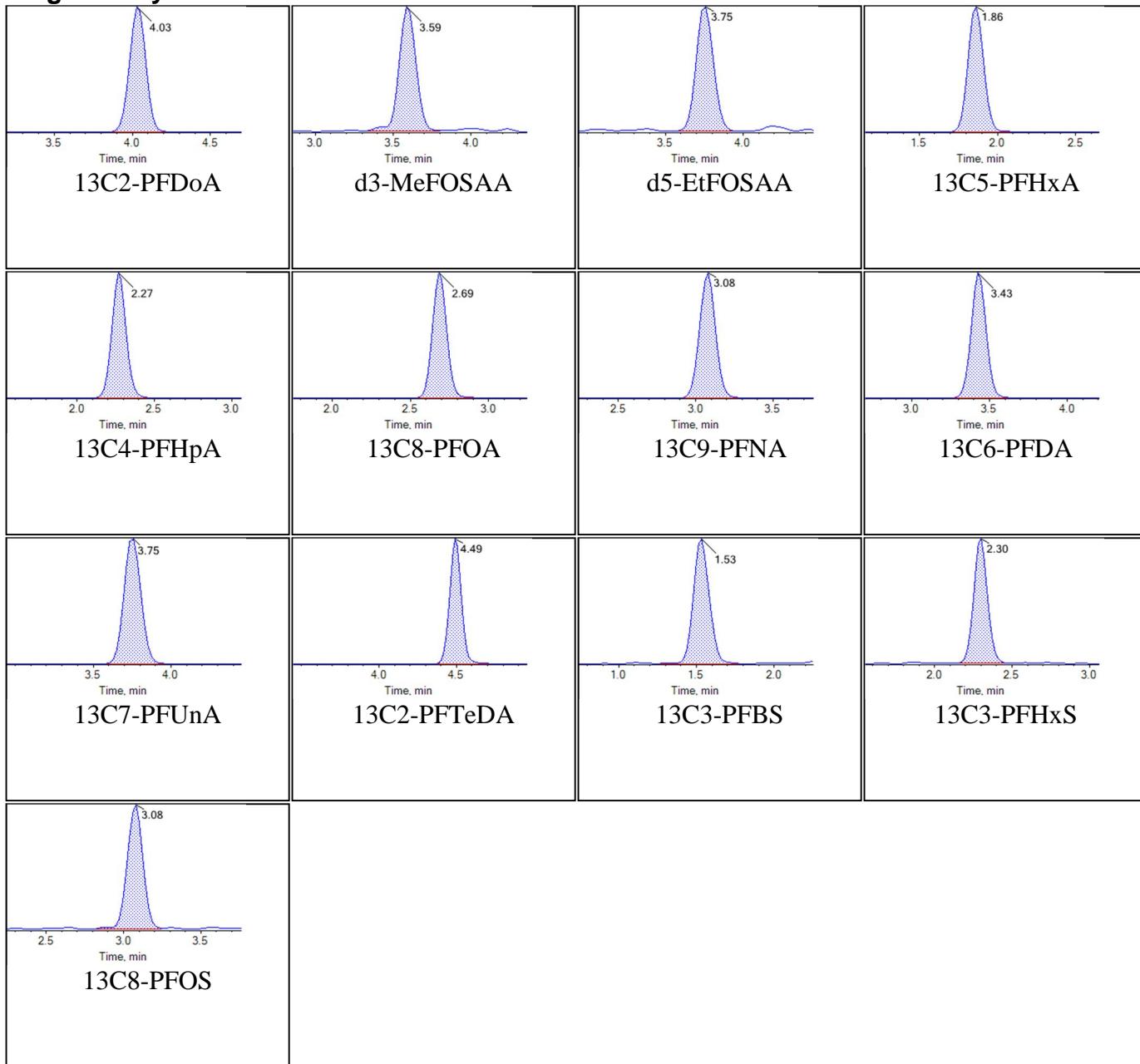


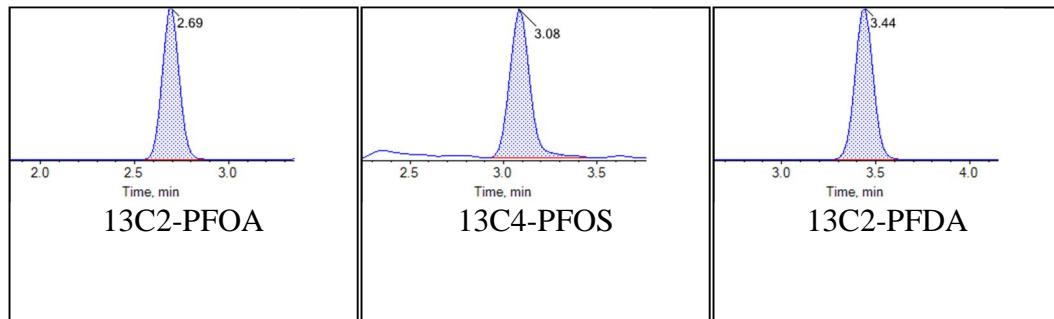
Internal Standards:

Sample Name	J8707-FS(3)	Injection Vial	35
Sample ID	VC-CS00-SB05-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:03:54	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

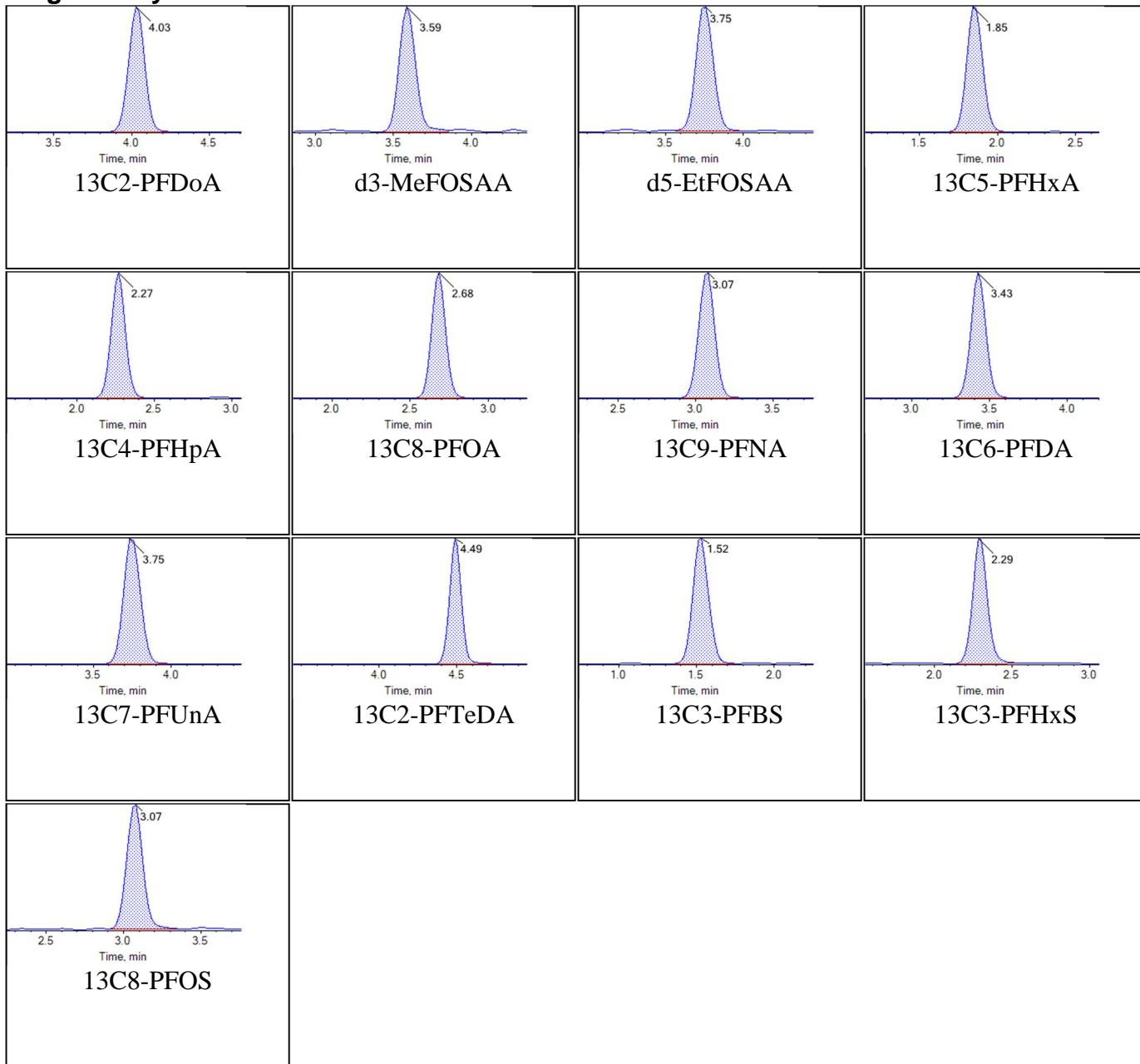


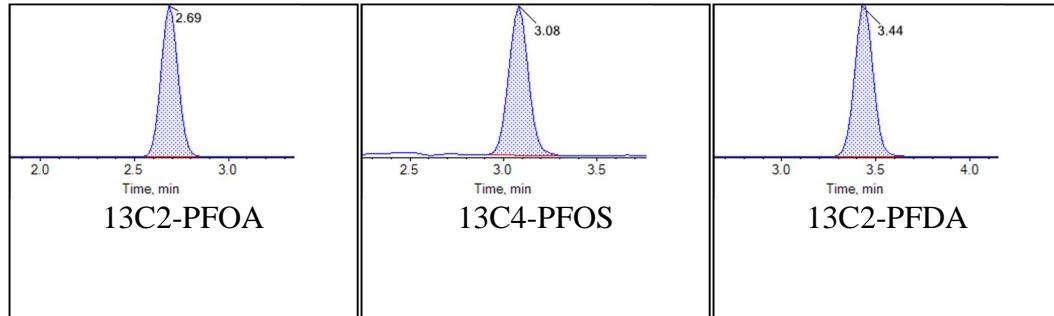
Internal Standards:

Sample Name	J8708-FS(3)	Injection Vial	36
Sample ID	VC-CS00-SB05-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:14:46	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

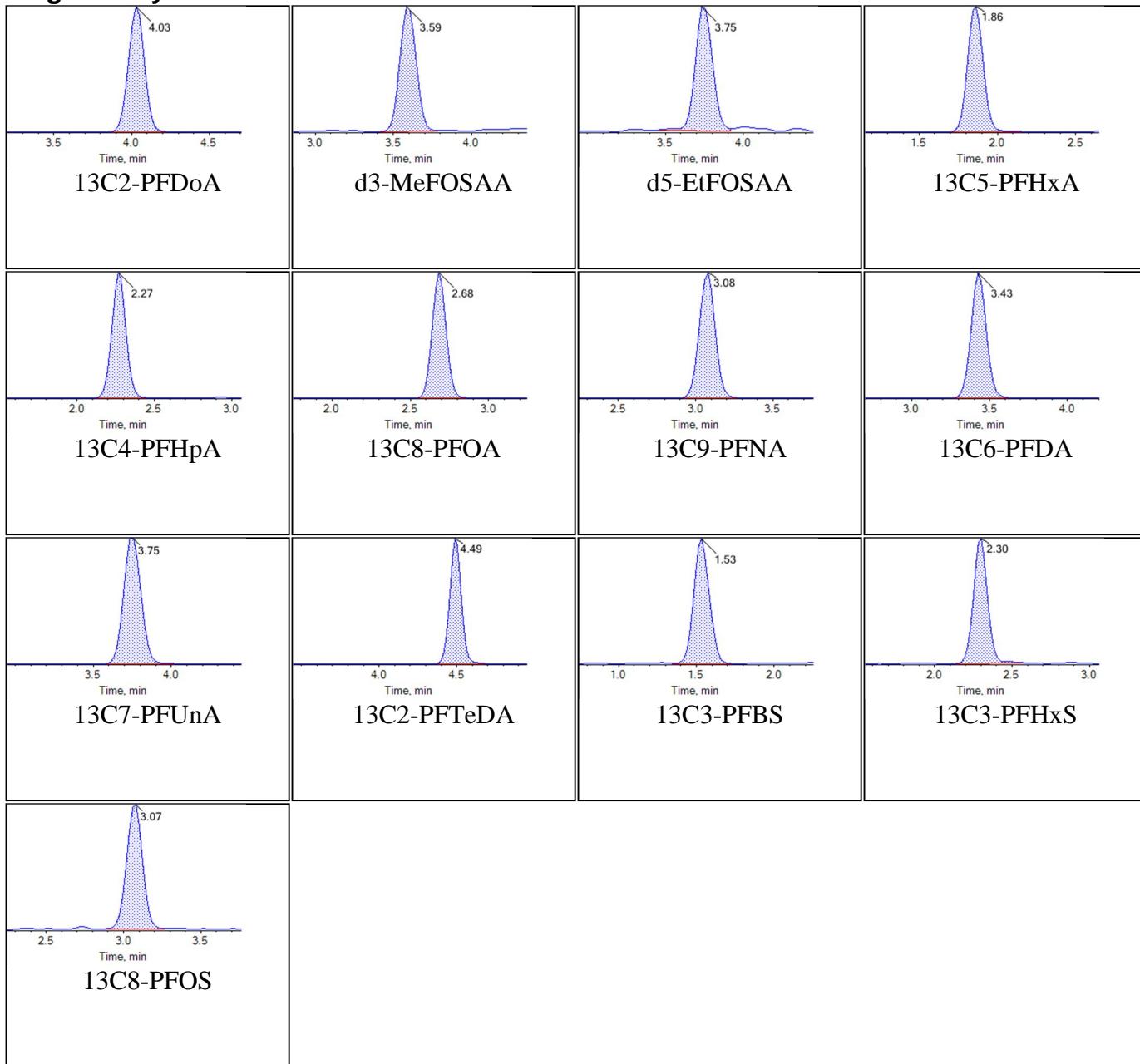


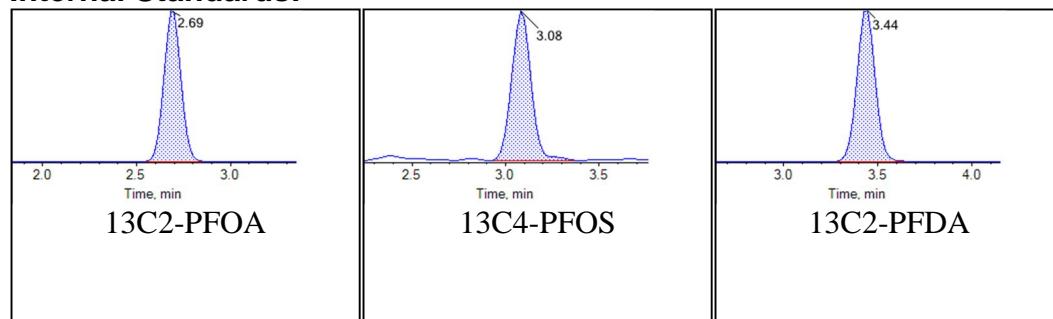
Internal Standards:

Sample Name	J8709-FS(3)	Injection Vial	37
Sample ID	VC-CS00-SS06-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:25:37	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

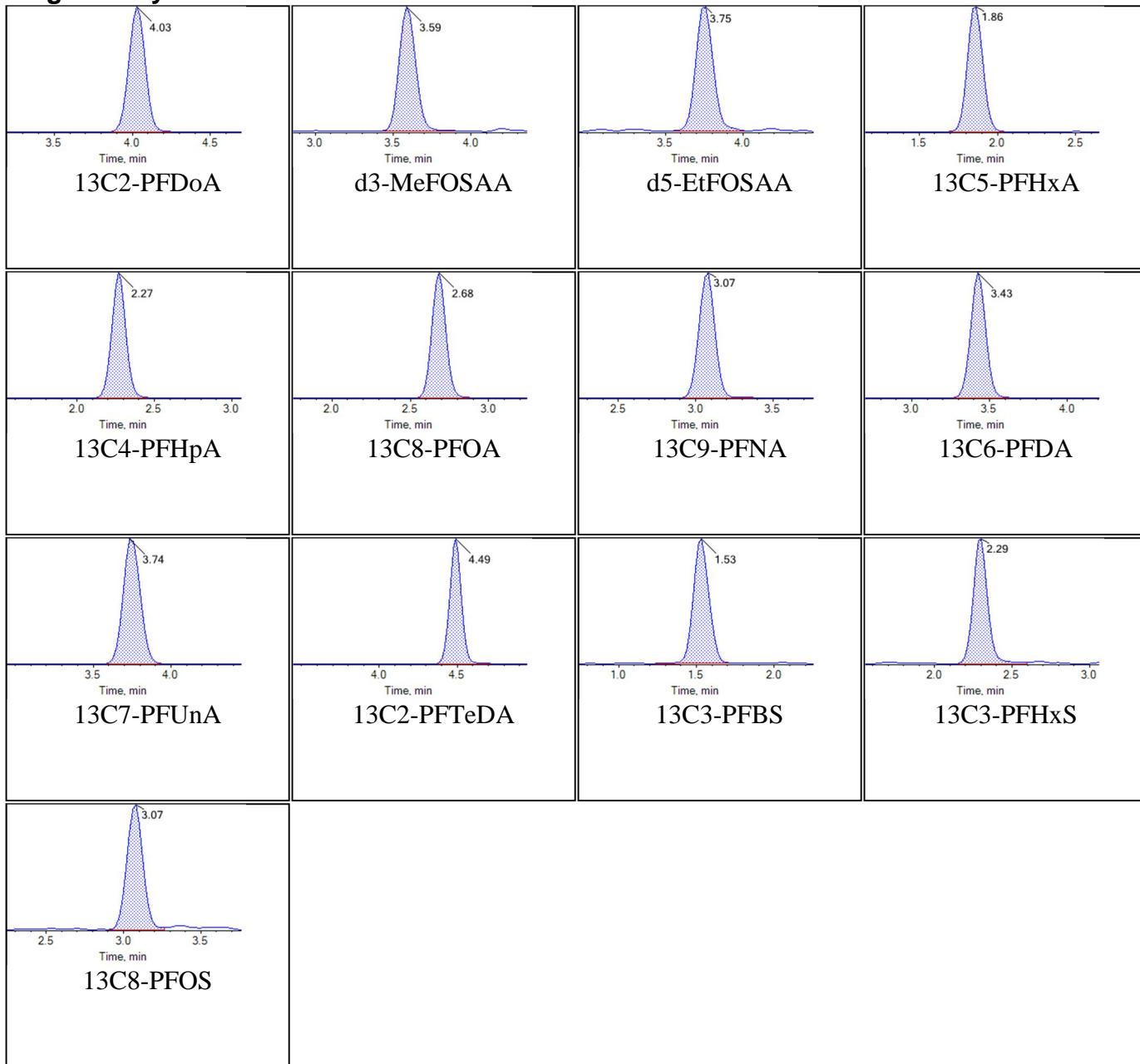


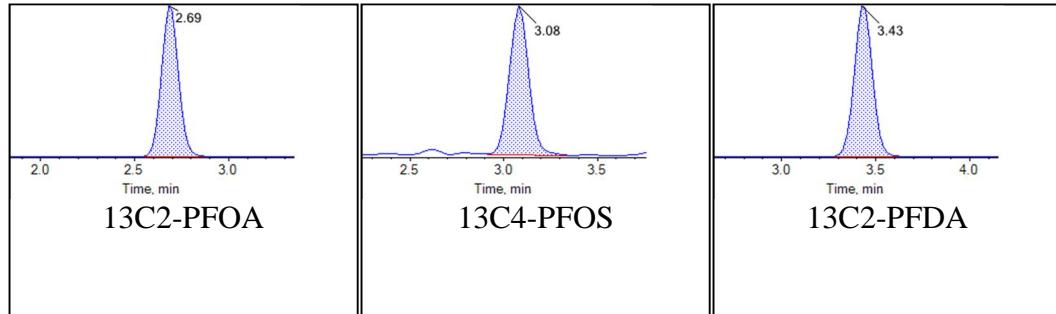
Internal Standards:

Sample Name	J8710-FS(3)	Injection Vial	38
Sample ID	VC-CS00-SB06-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:36:28	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

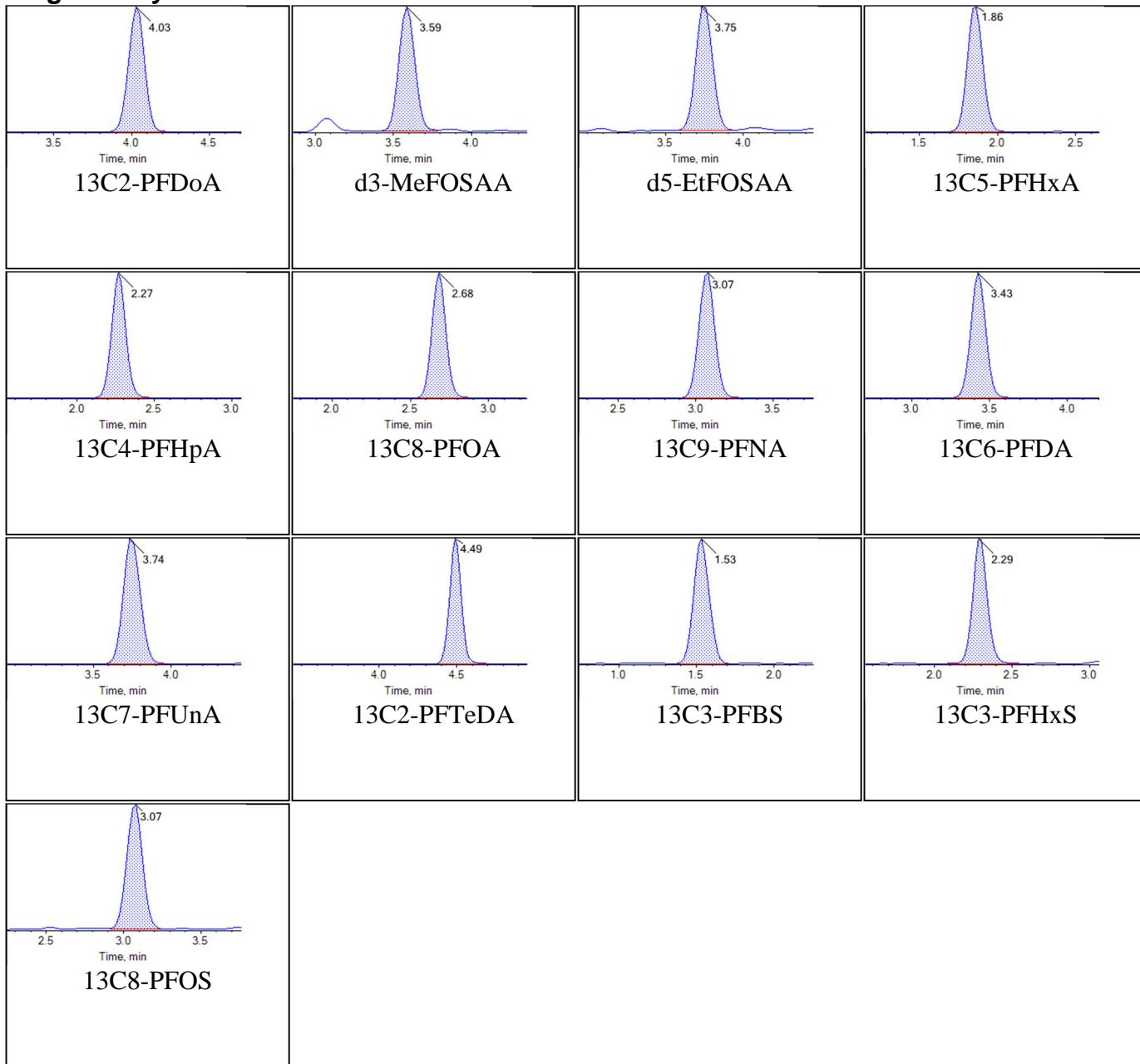


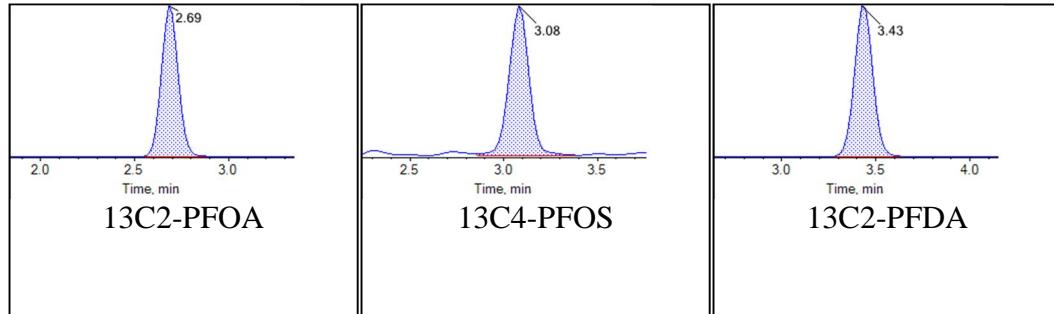
Internal Standards:

Sample Name	KB77 CCV	Injection Vial	39
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T02:47:20	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

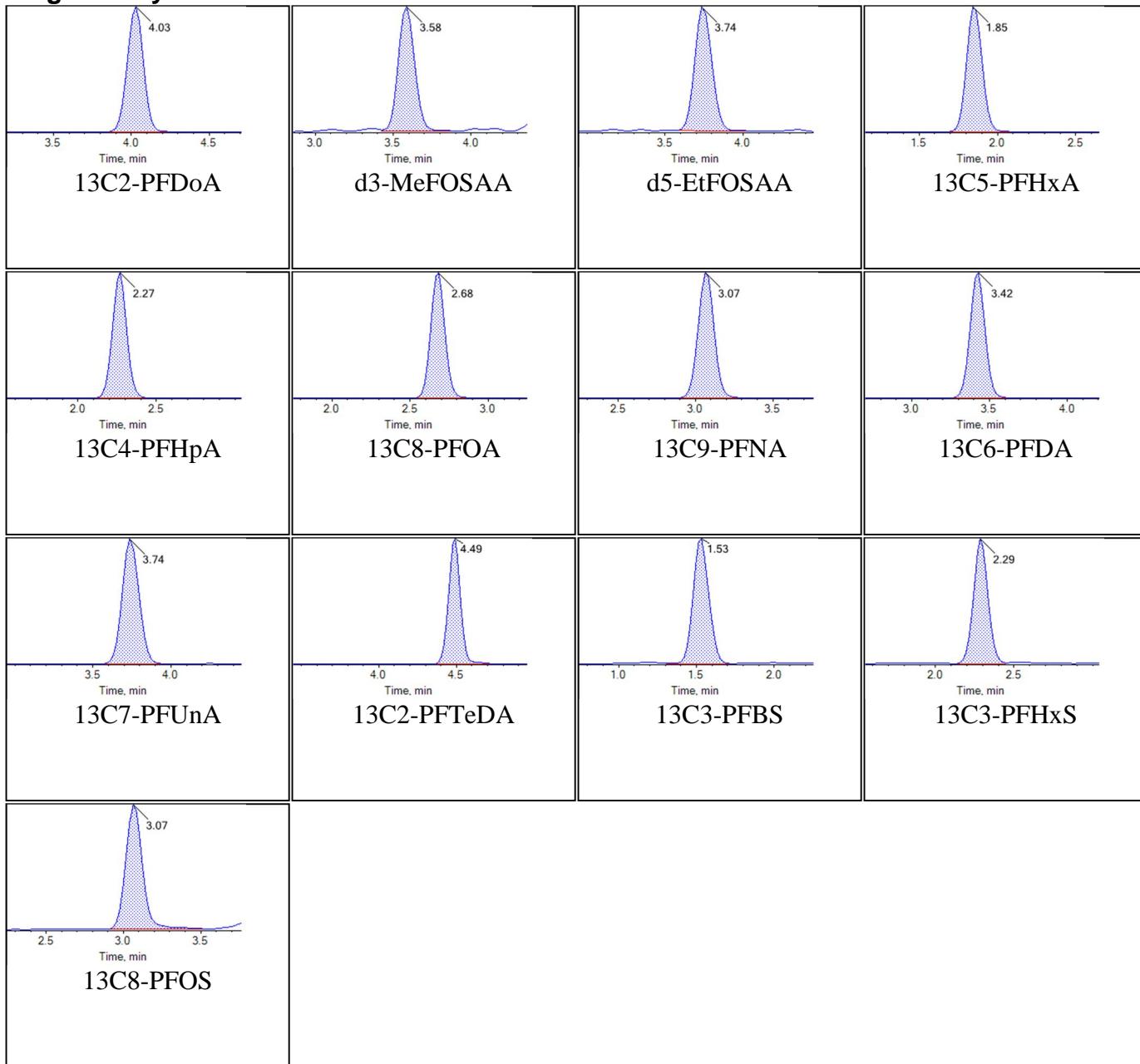


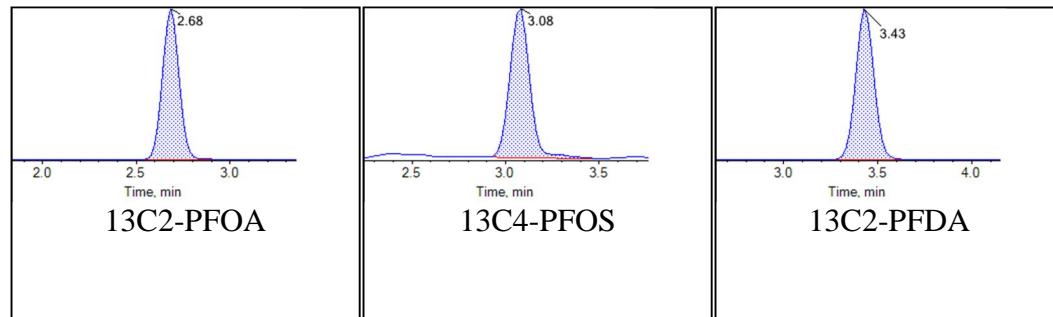
Internal Standards:

Sample Name	J8711-FS(3)	Injection Vial	41
Sample ID	VC-CS00-SB06-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:09:04	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

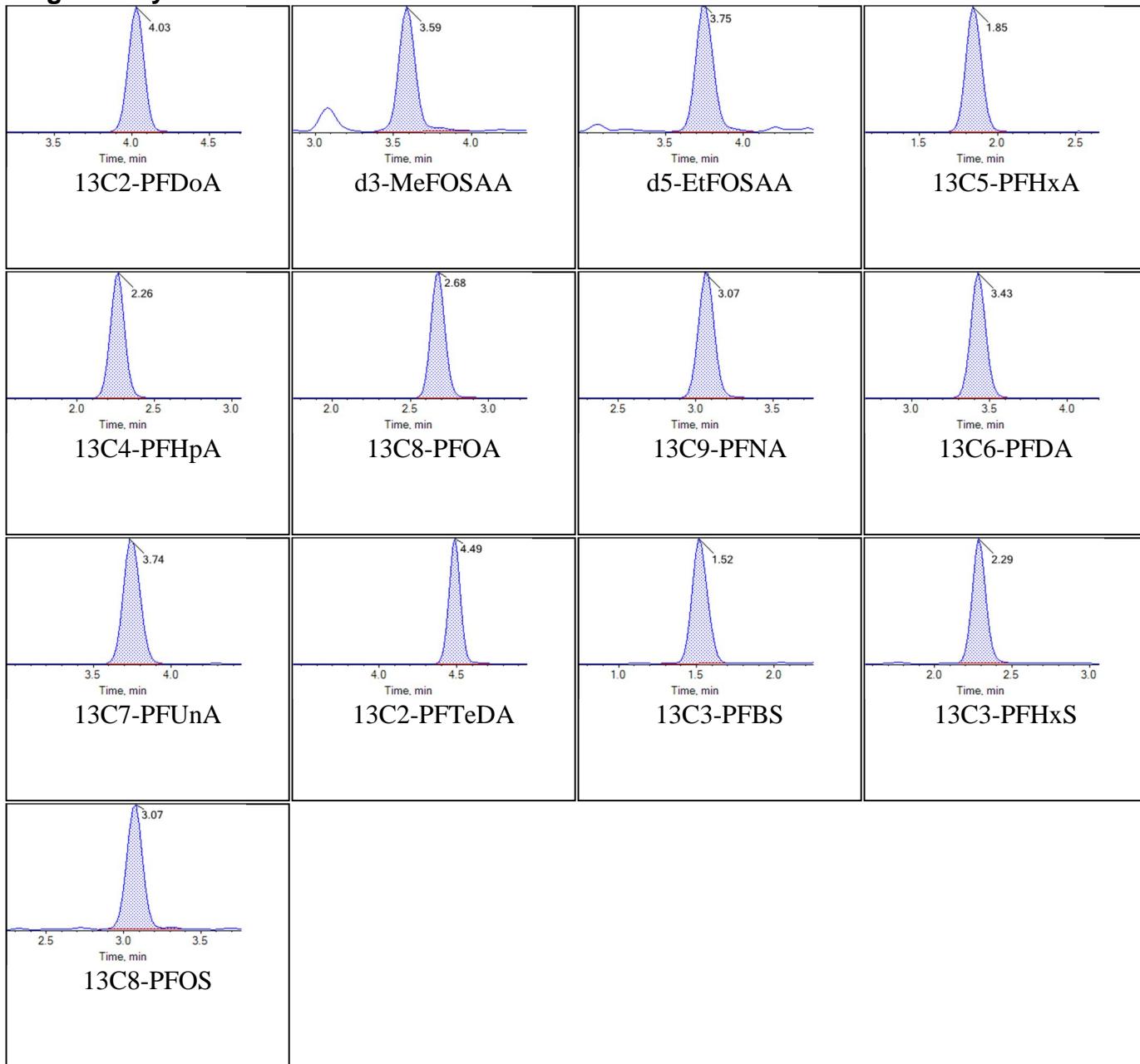


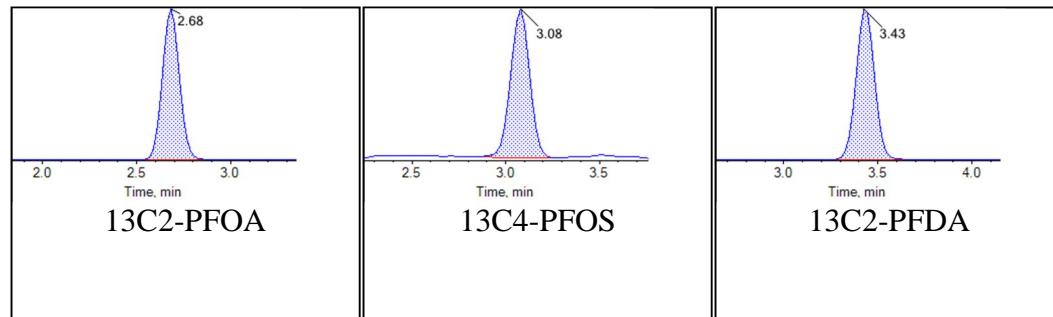
Internal Standards:

Sample Name	J8712MS-FS(3)	Injection Vial	42
Sample ID	VC-CS00-SB06-0506-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:19:56	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

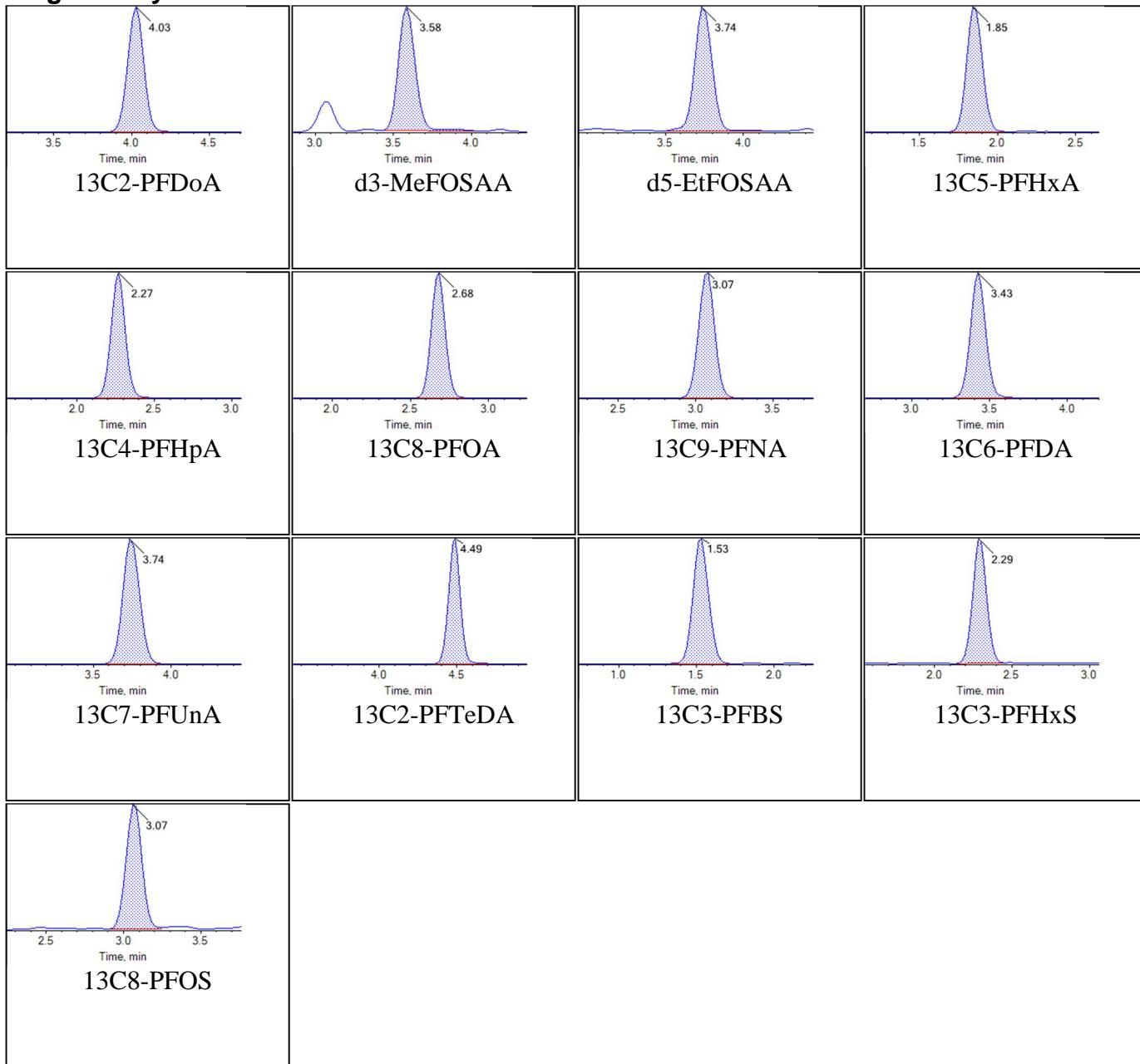


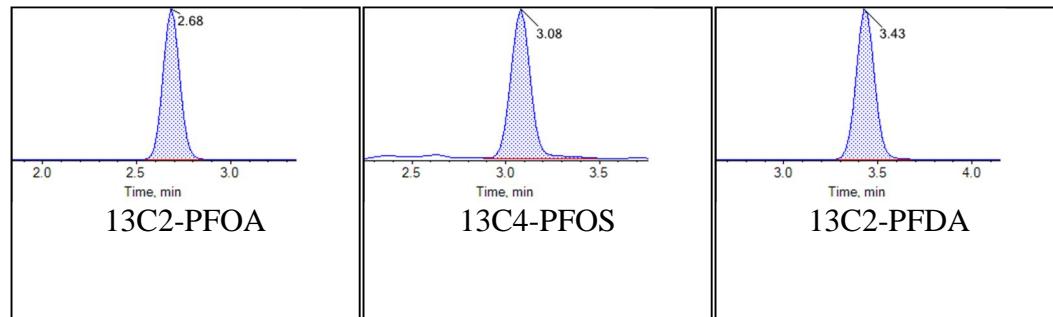
Internal Standards:

Sample Name	J8713MSD-FS(3)	Injection Vial	43
Sample ID	VC-CS00-SB06-0506-MSD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:30:48	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

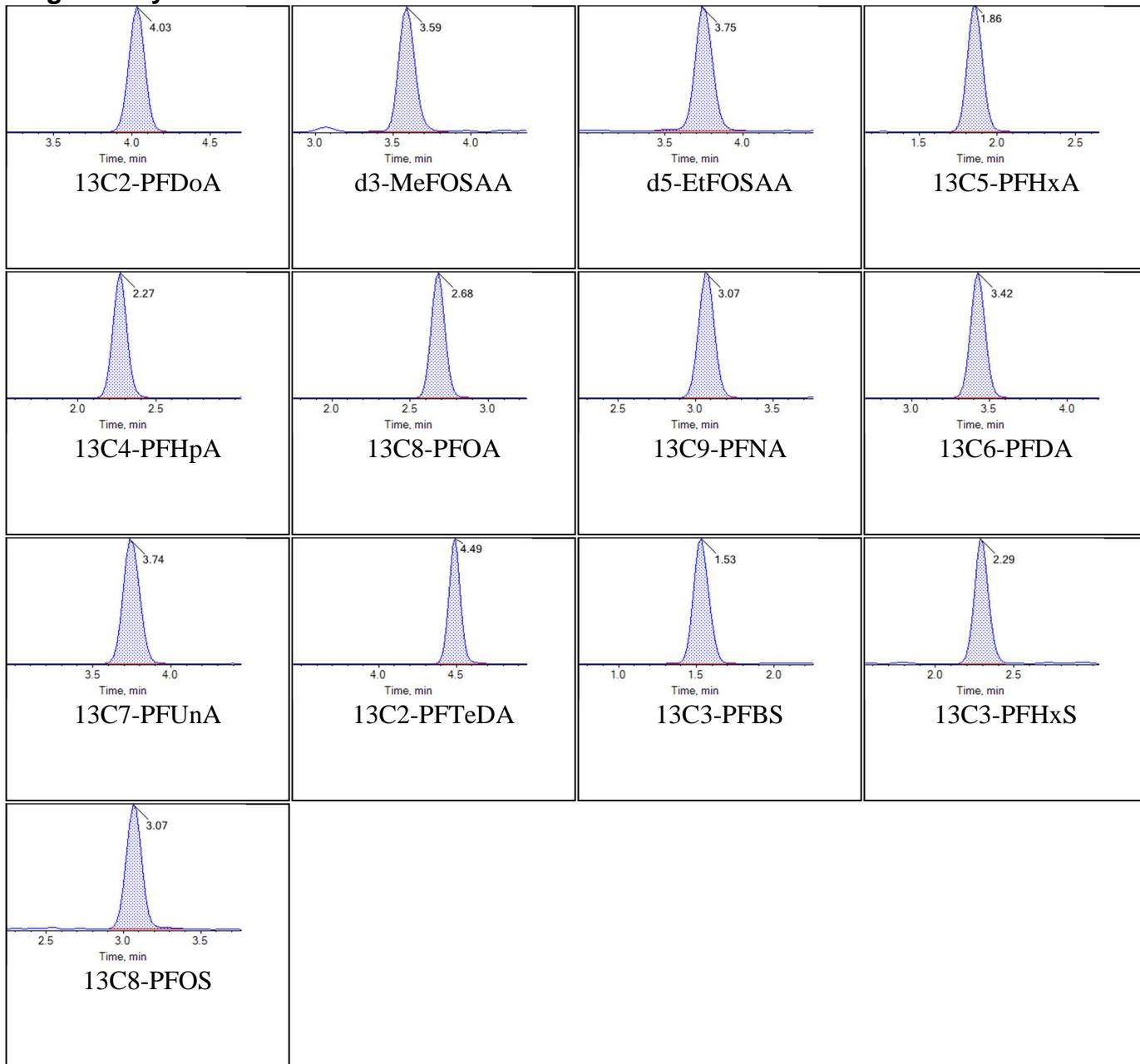


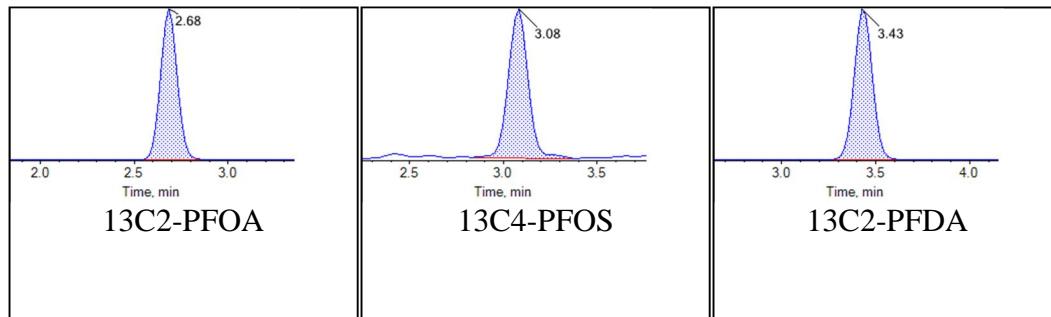
Internal Standards:

Sample Name	KB76 CCV	Injection Vial	44
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T03:41:40	Data File	10222018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612_SIS
Sample Comment			

Chromatograms

Target Analytes:

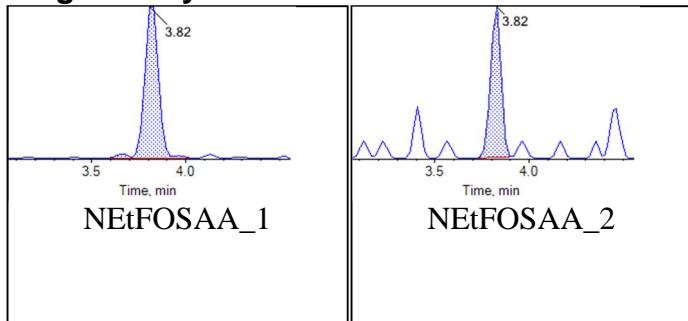


Internal Standards:

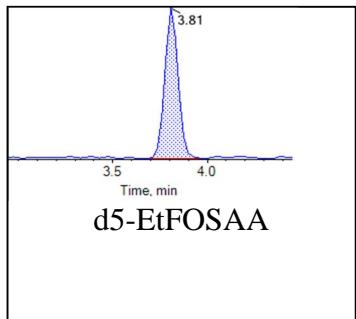
Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

Target Analytes:



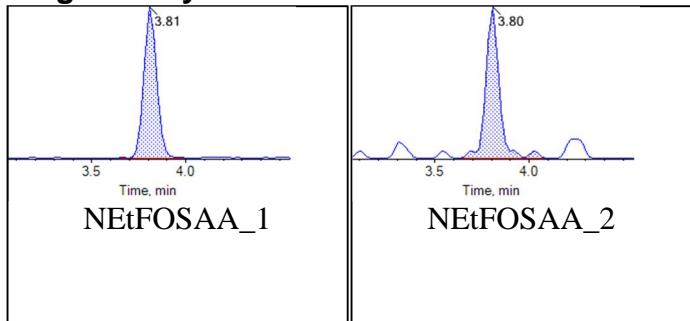
Internal Standards:



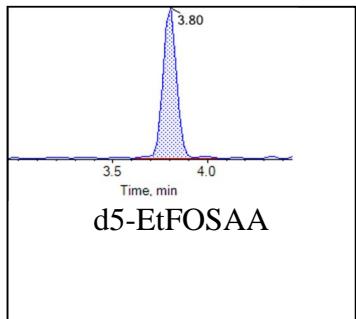
Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

Target Analytes:



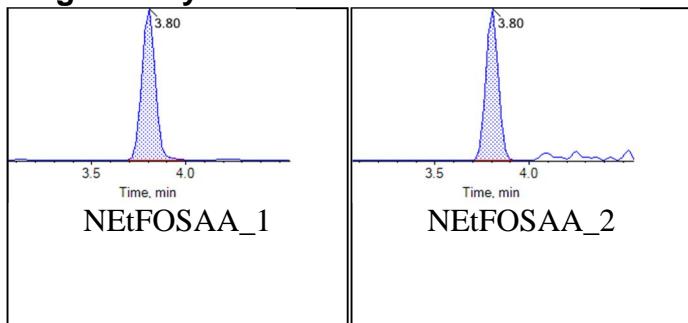
Internal Standards:



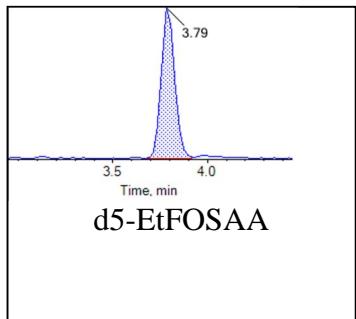
Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

Target Analytes:



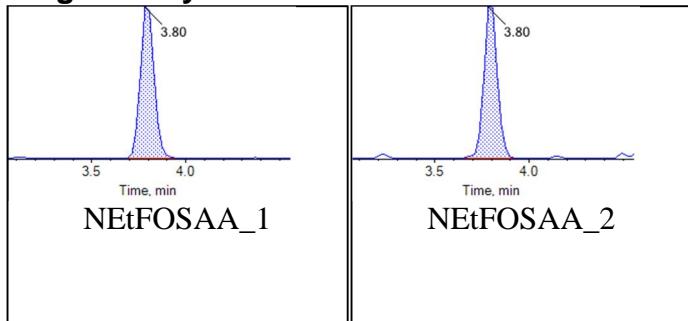
Internal Standards:



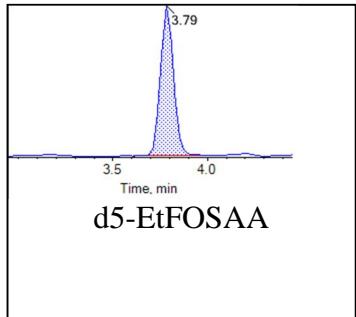
Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

Target Analytes:



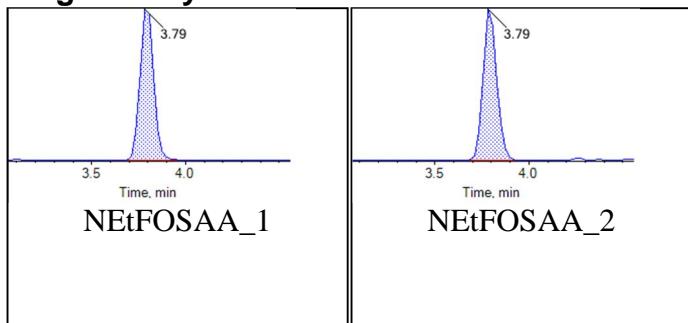
Internal Standards:



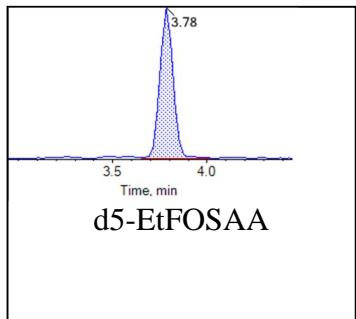
Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

Target Analytes:



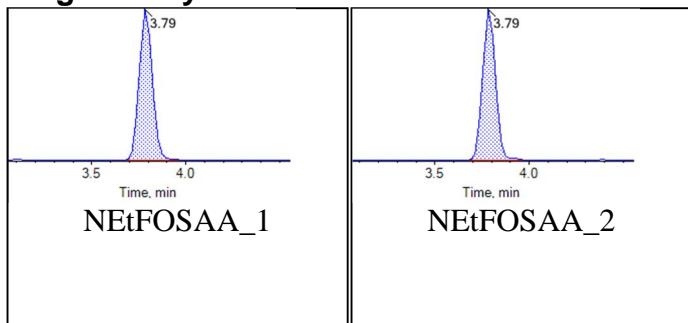
Internal Standards:



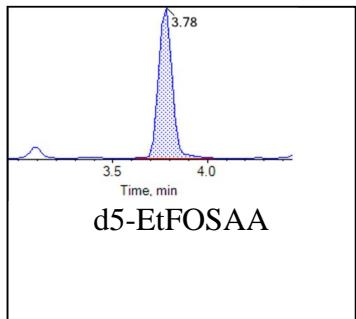
Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

Target Analytes:



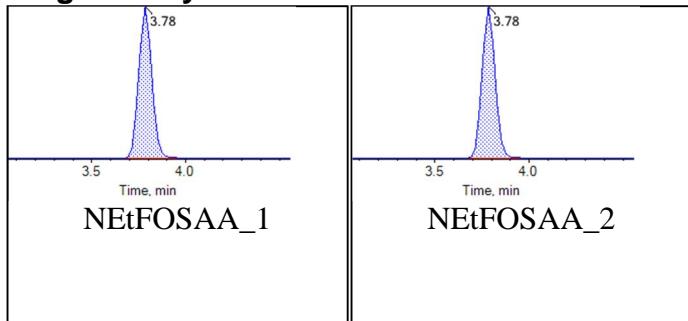
Internal Standards:



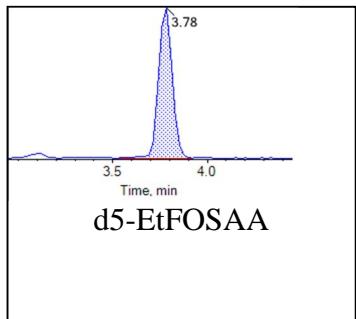
Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

Target Analytes:



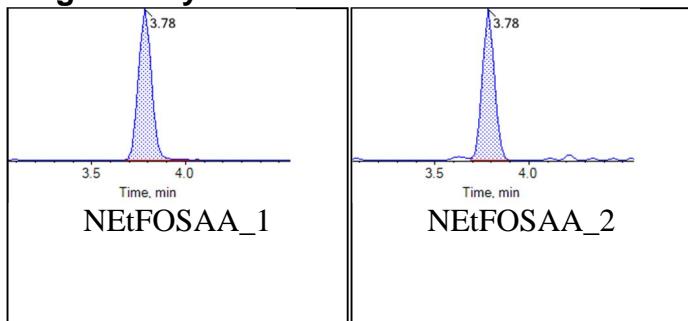
Internal Standards:



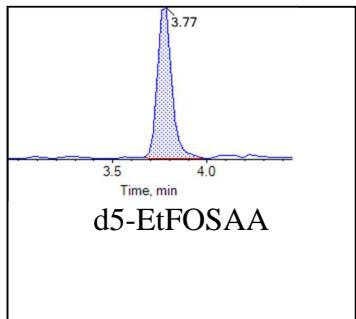
Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

Target Analytes:



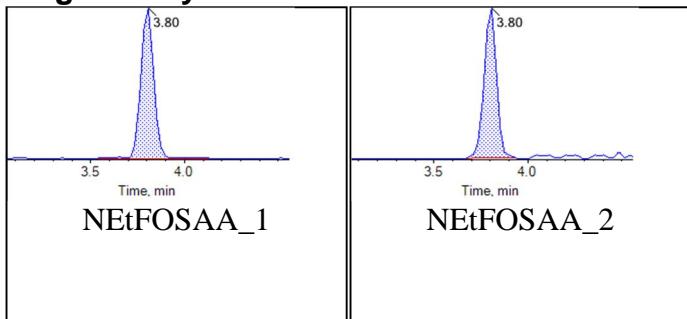
Internal Standards:



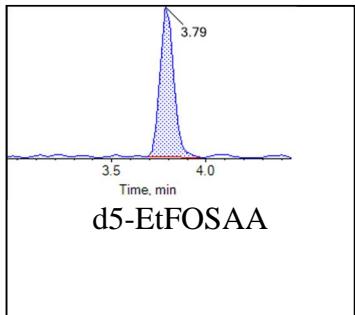
Sample Name	KB75 ISC	Injection Vial	1
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:42:12	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

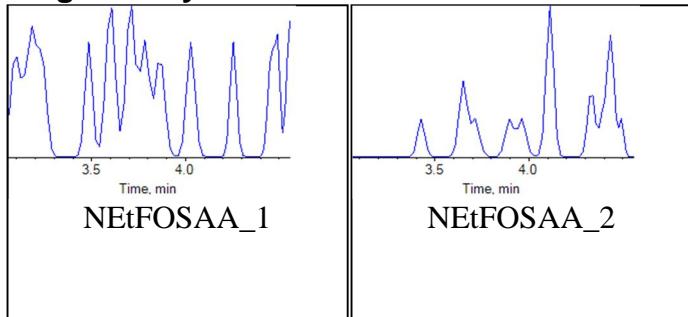
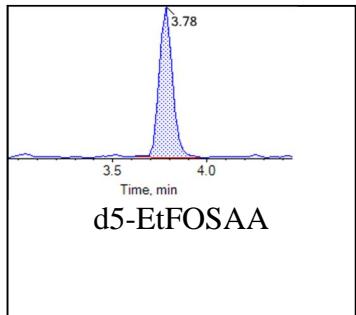
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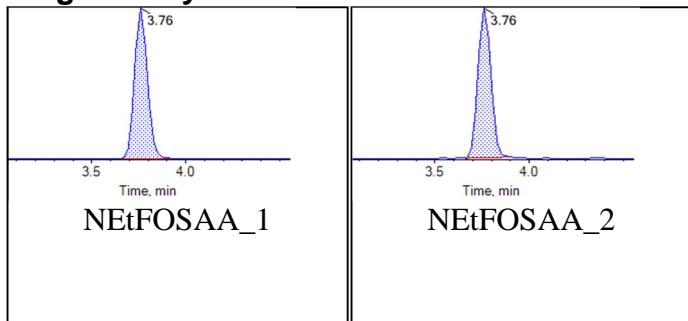
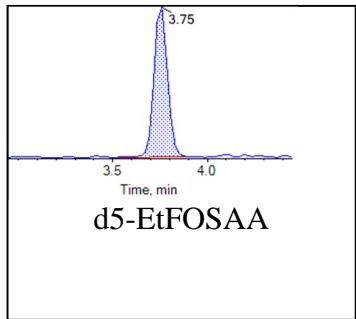
Internal Standards:



Sample Name	KB80 IB	Injection Vial	2
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:53:06	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms**Target Analytes:****Internal Standards:**

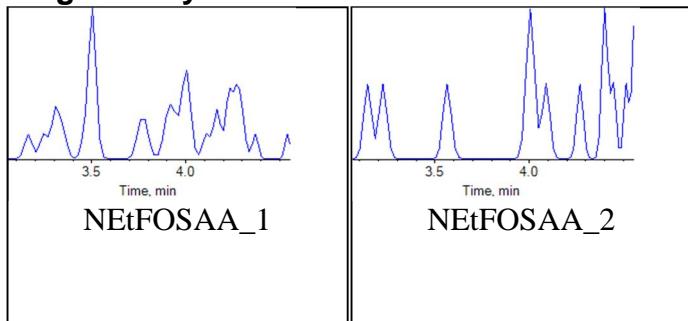
Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T20:52:42	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms**Target Analytes:****Internal Standards:**

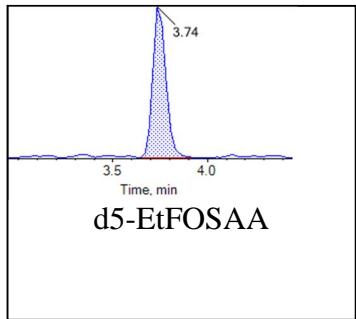
Sample Name	CR992PB-FS(3)	Injection Vial	15
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:14:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

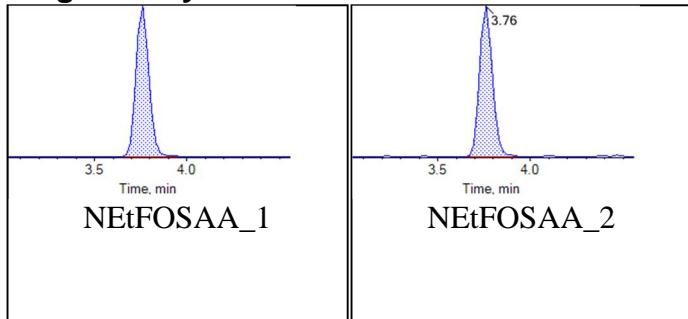
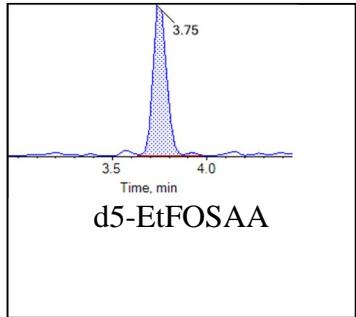
Target Analytes:



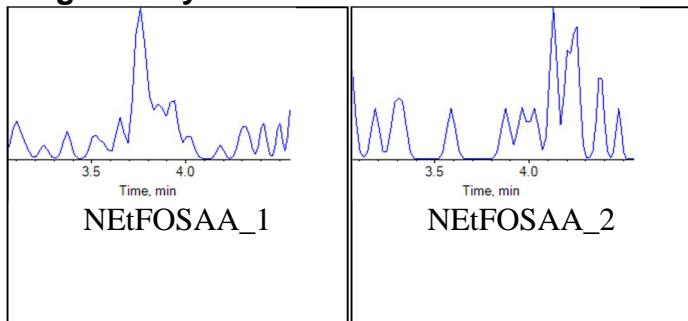
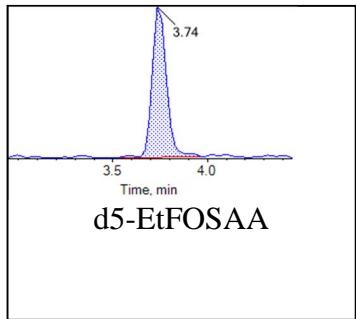
Internal Standards:



Sample Name	CR993LCS-FS(3)	Injection Vial	16
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:25:17	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms**Target Analytes:****Internal Standards:**

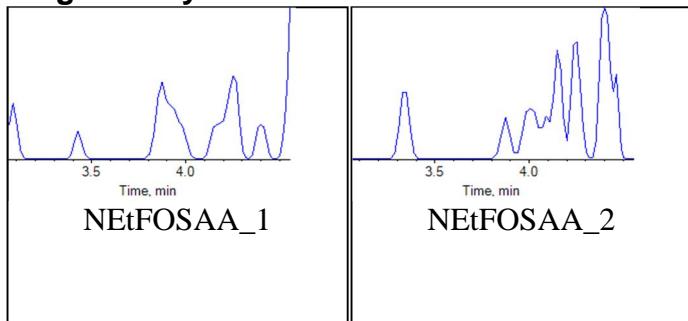
Sample Name	J8698-FS(3)	Injection Vial	17
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:36:10	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms**Target Analytes:****Internal Standards:**

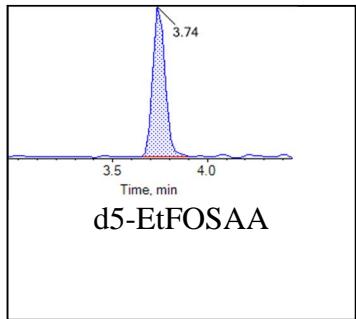
Sample Name	J8699-FS(3)	Injection Vial	18
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:47:02	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

Target Analytes:



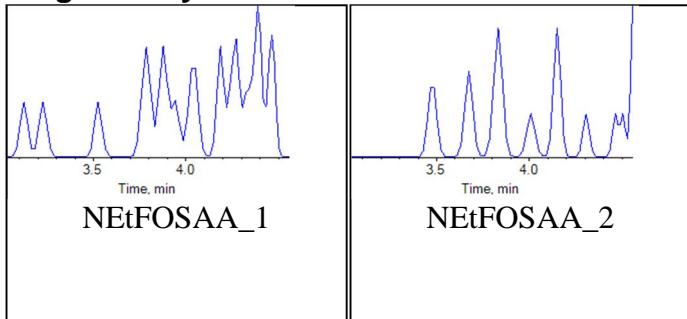
Internal Standards:



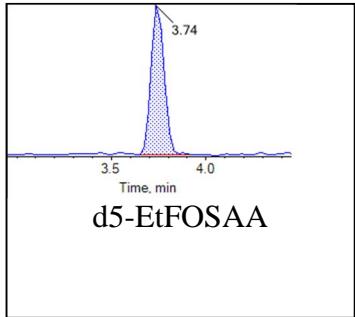
Sample Name	J8700-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:57:53	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

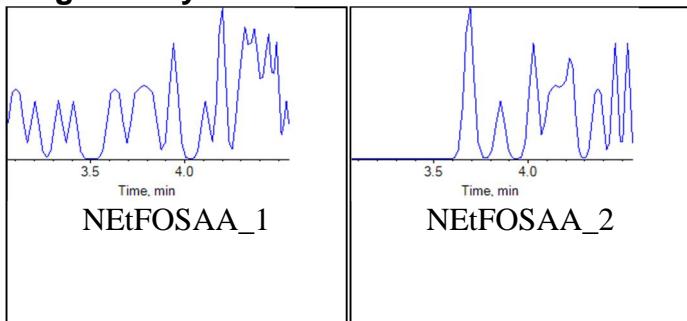
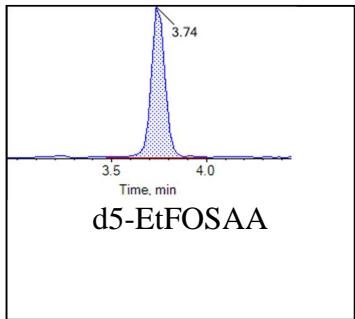
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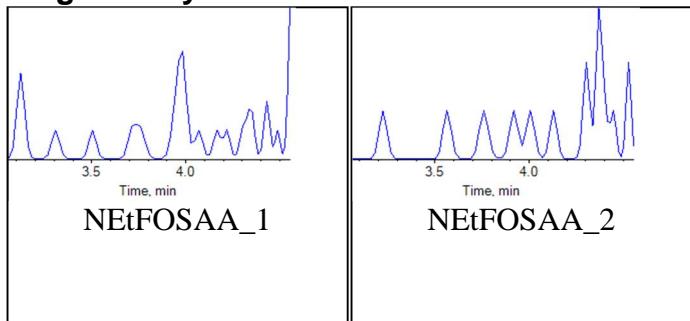
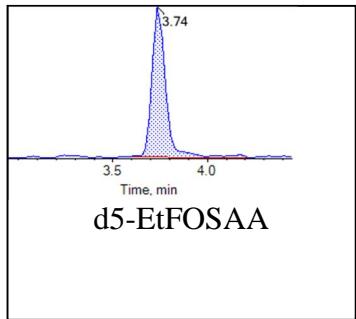
Internal Standards:



Sample Name	J8701-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:08:46	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms**Target Analytes:****Internal Standards:**

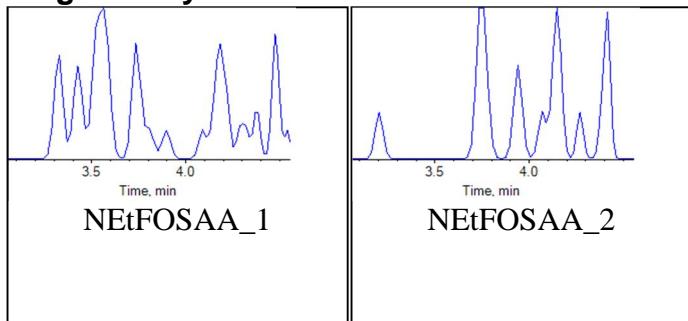
Sample Name	J8702-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:19:38	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms**Target Analytes:****Internal Standards:**

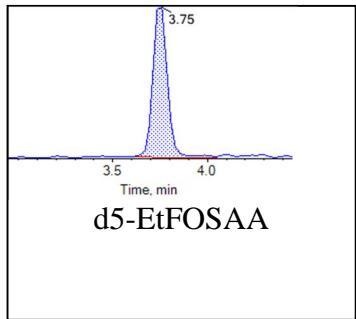
Sample Name	J8703-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:30:31	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms

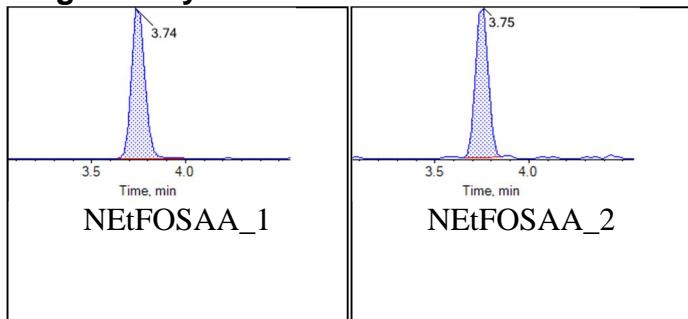
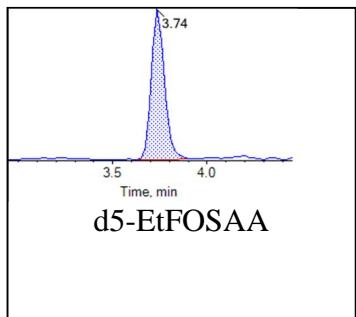
Target Analytes:



Internal Standards:



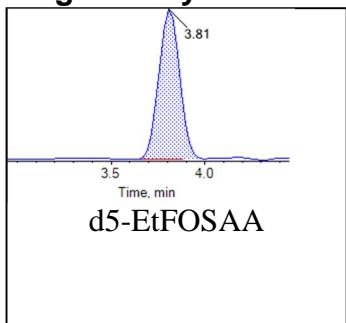
Sample Name	KB76 CCV	Injection Vial	23
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:41:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_BASE
Sample Comment			

Chromatograms**Target Analytes:****Internal Standards:**

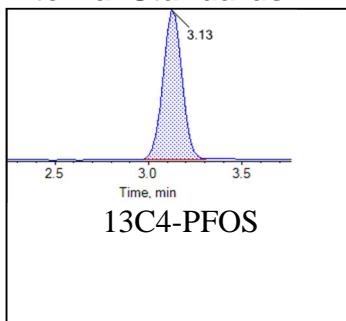
Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



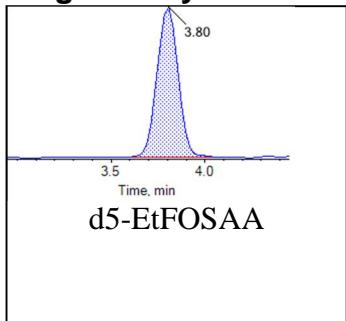
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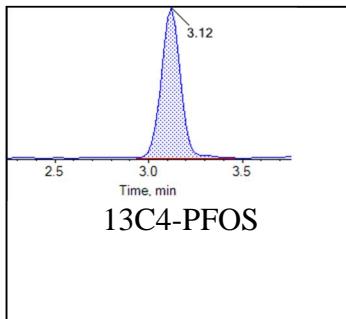
Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



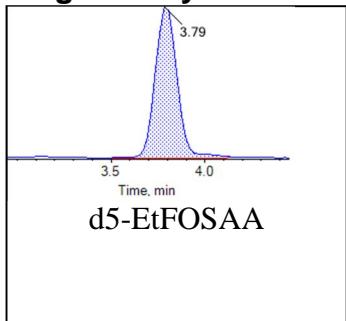
Internal Standards:



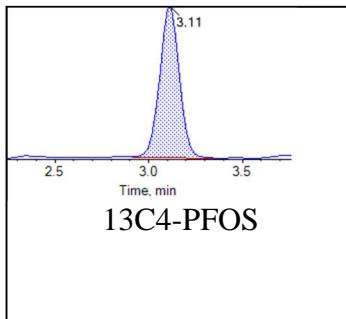
Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



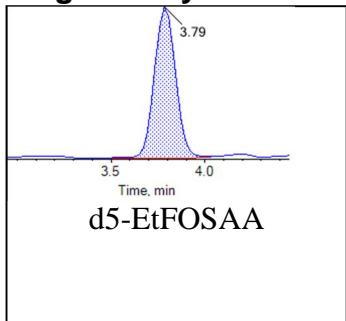
Internal Standards:



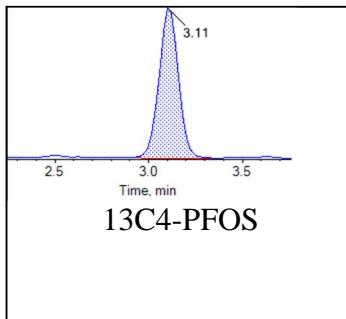
Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



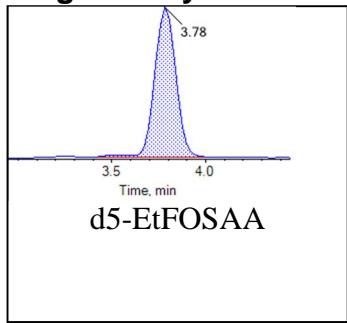
Internal Standards:



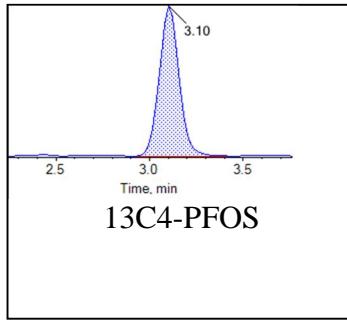
Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



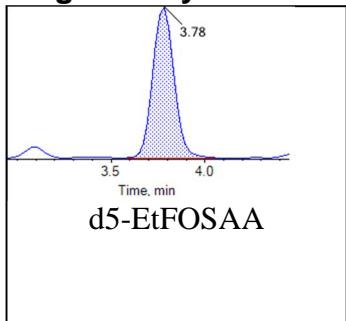
Internal Standards:



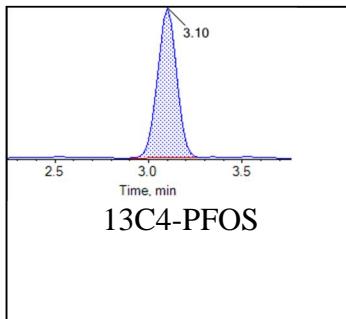
Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



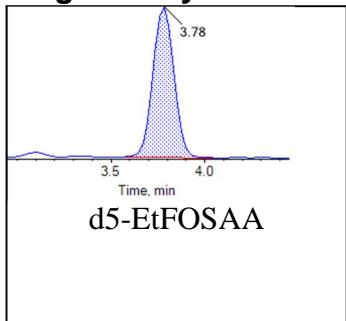
Internal Standards:



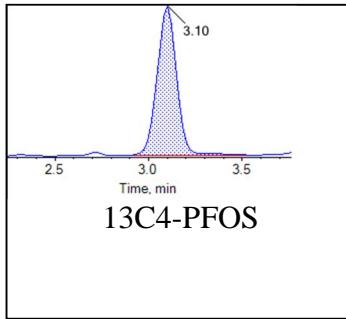
Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



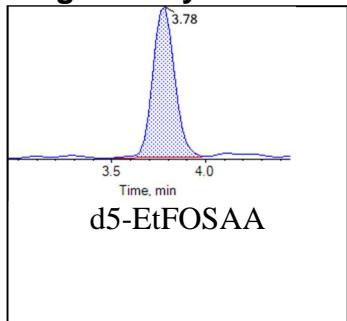
Internal Standards:



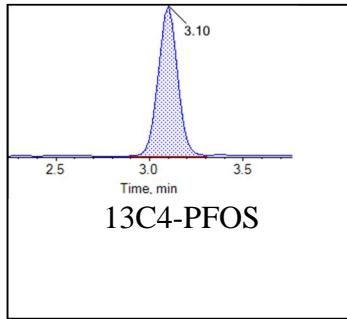
Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

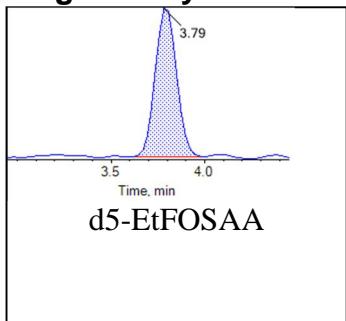
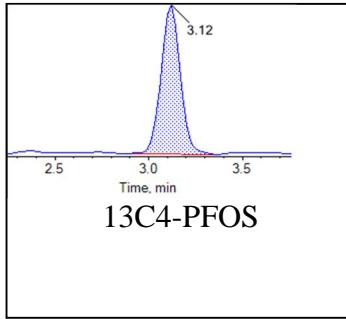
Target Analytes:



Internal Standards:



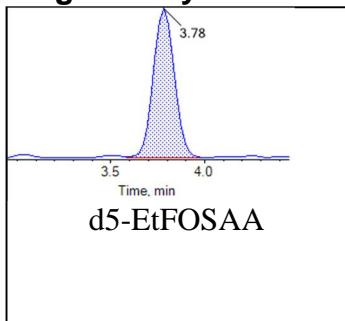
Sample Name	KB75 ISC	Injection Vial	1
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:42:12	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms**Target Analytes:****Internal Standards:**

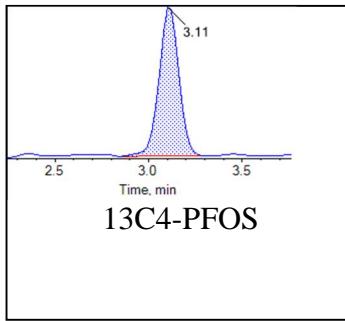
Sample Name	KB80 IB	Injection Vial	2
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T18:53:06	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



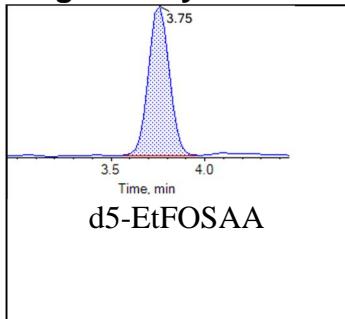
Internal Standards:



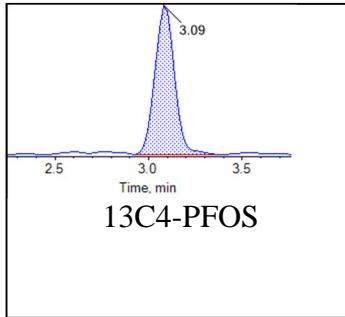
Sample Name	KB77 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T20:52:42	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



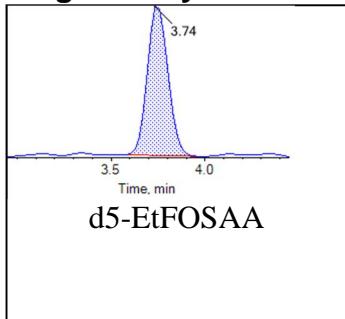
Internal Standards:



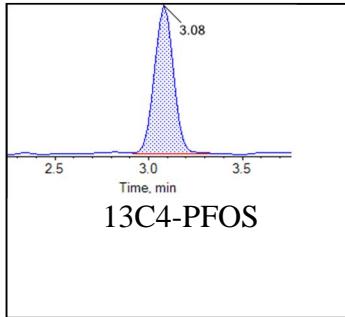
Sample Name	CR992PB-FS(3)	Injection Vial	15
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:14:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



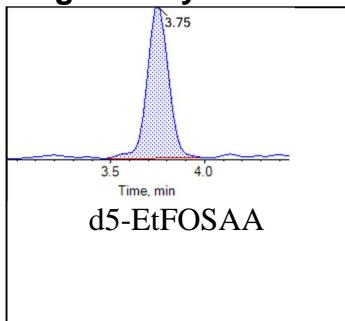
Internal Standards:



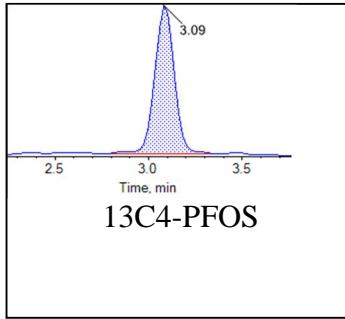
Sample Name	CR993LCS-FS(3)	Injection Vial	16
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:25:17	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



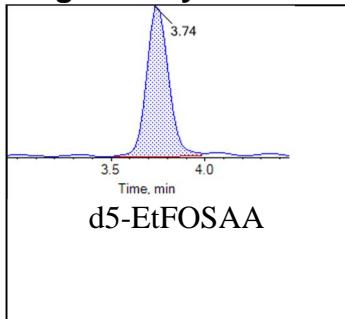
Internal Standards:



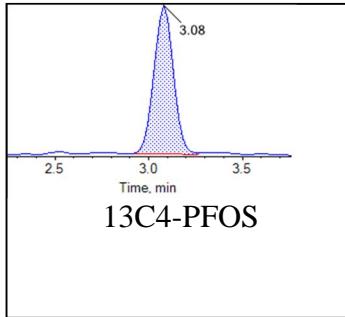
Sample Name	J8698-FS(3)	Injection Vial	17
Sample ID	VC-CS00-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:36:10	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



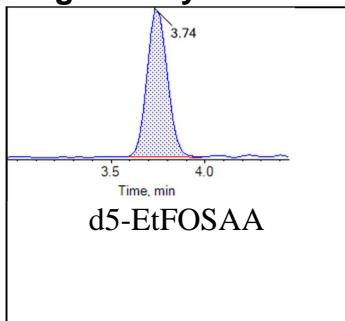
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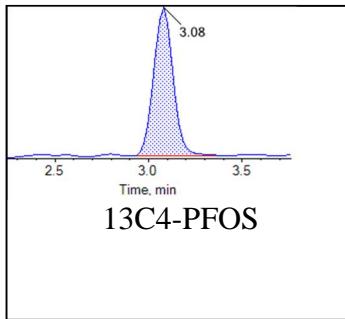
Sample Name	J8699-FS(3)	Injection Vial	18
Sample ID	VC-CS00-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:47:02	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



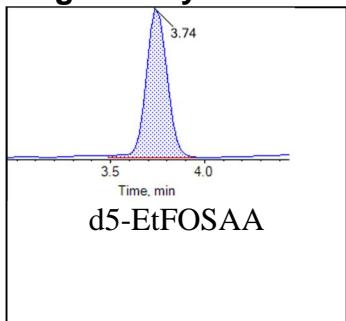
Internal Standards:



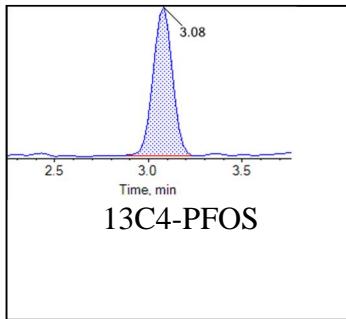
Sample Name	J8700-FS(3)	Injection Vial	19
Sample ID	VC-CS00-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T21:57:53	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



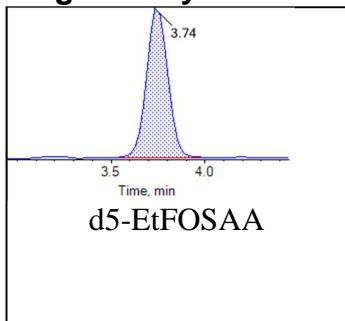
Internal Standards:



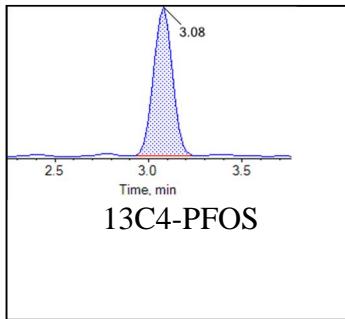
Sample Name	J8701-FS(3)	Injection Vial	20
Sample ID	VC-CS00-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:08:46	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



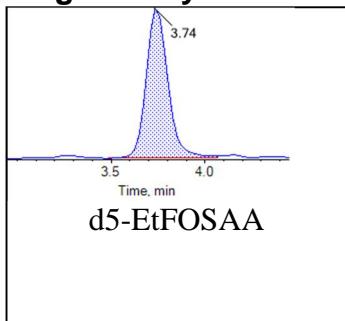
Internal Standards:



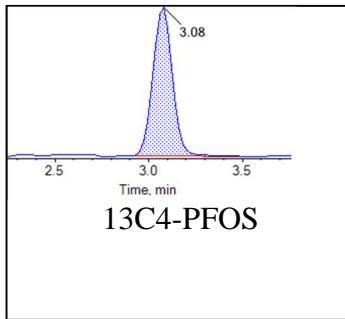
Sample Name	J8702-FS(3)	Injection Vial	21
Sample ID	VC-CS00-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:19:38	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

Target Analytes:



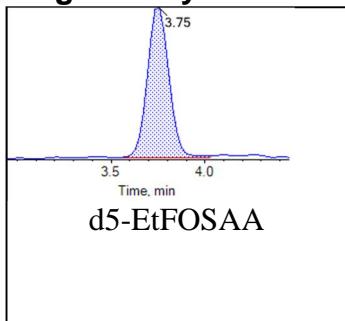
Internal Standards:



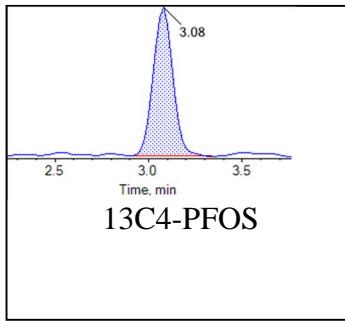
Sample Name	J8703-FS(3)	Injection Vial	22
Sample ID	VC-CS00-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:30:31	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms

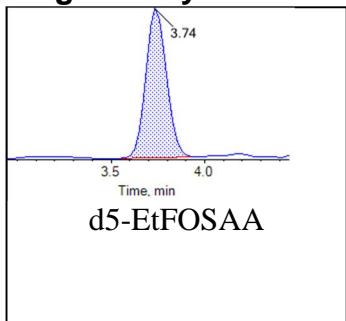
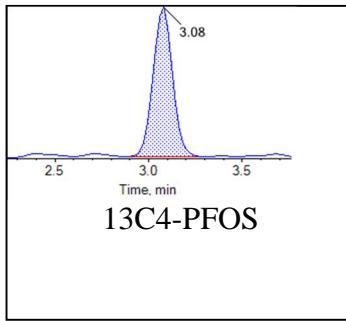
Target Analytes:



Internal Standards:



Sample Name	KB76 CCV	Injection Vial	23
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-23T22:41:25	Data File	5-0369_10232018_5500.wiff
Acquisition Method	5-0369.dam	Result Table	18-0612A_SIS
Sample Comment			

Chromatograms**Target Analytes:****Internal Standards:**

Contract_I	DO_CTO_N	Phase	Instrument_Sample_N	Ch2M_Cox_Analysis_G	Analytical_PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B_	Extraction_Result_Typ	Lab_QC_ty	SAMPLE_N_QC_Level	Date_Time_	Date_Rece	Leachate_I	Leachate_Extraction_A	Analysis_D	Extraction_T	Lab_Sampl	Dilution	Run_Num	PERCENT_	PERCENT_	IChem_Name	Analyte_ID	Analyte_V	Original_A	Result_Nar	QC_Contro	QC_Accura	QC_Control_Li	QC_Narrat	MDL	Detection_QSM	Vers_DL	LOD	LOQ	SDG	Analysis_B	Validator_	Val_Date
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorohexanoic Acid (P 307-24-4	1.01	NG_G	U	TRG	20171116	0.33	0.33	5.1	70	1.01	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluoroheptanoic acid (F 375-85-9	1.01	NG_G	U	TRG	20171116	0.44	0.44	5.1	70	1.01	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorooctanoic acid (PF 335-67-1	1.01	NG_G	U	TRG	20171116	0.51	0.51	5.1	70	1.01	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorooctanoic acid (P 375-95-1	1.01	NG_G	U	TRG	20171116	0.43	0.43	5.1	70	1.01	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorodecanoic Acid (P 335-76-2	1.01	NG_G	U	TRG	20171116	0.27	0.27	5.1	70	1.01	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorodecanoic Acid 2058-94-8	1.01	NG_G	U	TRG	20171116	0.41	0.41	5.1	70	1.01	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorotradecanoic Acid 307-55-1	0.51	NG_G	U	TRG	20171116	0.24	0.24	5.1	70	0.51	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorotradecanoic Acid 72629-94-8	1.01	NG_G	U	TRG	20171116	0.28	0.28	5.1	70	1.01	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorooctane 2355-31-9	2.53	NG_G	U	TRG	20171116	1.13	1.13	5.1	70	2.53	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	21:14:25	CR992P-B	10	1	0	N-Ethyl Perfluorooctane 2991-50-6	2.02	NG_G	U	TRG	20171116	0.58	0.58	5.1	70	2.02	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorobutanesulfonic acid 375-73-5	1.01	NG_G	U	TRG	20171116	0.36	0.36	5.1	70	1.01	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorohexanesulfonic acid 355-46-4	0.51	NG_G	U	TRG	20171116	0.22	0.22	5.1	70	0.51	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	Perfluorooctane Sulfonate 1763-23-1	1.01	NG_G	U	TRG	20171116	0.27	0.27	5.1	70	1.01	5.05	18-0612	DP-18-0308				
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	13C5-PHKA	90	PCT_REC	SURR	SLSP	150	50	20171116	5.1	5.1	5.1	5.1	5.1	5.1	5.05	18-0612	DP-18-0308	
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	13C4-PHPO	98	PCT_REC	SURR	SLSP	150	50	20171116	5.1	5.1	5.1	5.1	5.1	5.1	5.05	18-0612	DP-18-0308	
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	13C8-POA	104	PCT_REC	SURR	SLSP	150	50	20171116	5.1	5.1	5.1	5.1	5.1	5.1	5.05	18-0612	DP-18-0308	
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	13C9-PNA	91	PCT_REC	SURR	SLSP	150	50	20171116	5.1	5.1	5.1	5.1	5.1	5.1	5.05	18-0612	DP-18-0308	
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	13C6-PDA	104	PCT_REC	SURR	SLSP	150	50	20171116	5.1	5.1	5.1	5.1	5.1	5.1	5.05	18-0612	DP-18-0308	
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	BLK	SD	4	20181016	20181016	20181022	22:48:24	CR992P-B	10	1	0	13C7-PHKA	104	PCT_REC	SURR	SLSP	150	50	20171116	5.1	5.1	5.1	5.1	5.1	5.1	5.05	18-0612	DP-18-0308	
N62470164164	POINT_MLCR992P-B	N	SVOA	537_MOD</																																					

Contract_I	DO_CTO_N	Phase	Installatior_Sample_N	Ch2M_Cox_Analytical_PRC_Code	Lab_Code	Lab_Name	Leachate_ISAMPLE_B	Extraction_Results_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	Date_Time	Rece_Leachate_	Extraction_Analysis_D	Analysis_T	Lab_Samp	Dilution	Run_Num	Percent_Percent	Percent_Percent	Chem_Name	Analyte_ID	Analyte_Vi	Original_A	Result_Nar	QC_Conto	QC_Accura	QC_Conto	Li_QC_Narrat	MDL	Detection_QSM	Vers_DL	LOD	LOQ	SDG	Analysis_B	Validator_	Val_Date
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	Perfluorotetradecanoic Acid 376-07-6	2.05	NG_G	U	TRG	20171116	0.65	0.65	5.1	70	2.05	5.13	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	N-Methyl Perfluorooctane 2355-31-9	2.56	NG_G	U	TRG	20171116	1.15	1.15	5.1	70	2.56	5.13	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	21:57:53	J8700-F5	10	1	3.08	N-Ethyl Perfluorooctane 2991-50-6	2.05	NG_G	U	TRG	20171116	0.58	0.58	5.1	70	2.05	5.13	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	Perfluorobutanesulfonic acid 375-73-5	1.03	NG_G	U	TRG	20171116	0.37	0.37	5.1	70	1.03	5.13	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	Perfluorohexanesulfonic acid 355-46-4	0.51	NG_G	U	TRG	20171116	0.23	0.23	5.1	70	0.51	5.13	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	Perfluorooctane Sulfonate 1763-23-1	0.56	NG_G	J	TRG	20171116	0.28	0.28	5.1	70	1.03	5.13	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C5-PHKA	BDO-2217	76	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C4-PHHPa	BDO-2218	79	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C8-PFOA	BDO-2219	87	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	Perfluorohexanesulfonic acid 355-46-4	0.51	NG_G	U	TRG	20171116	0.23	0.23	5.1	70	0.51	5.13	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C5-PHKA	BDO-2221	92	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C7-PRUuN	BDO-2223	97	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C2-PFDa	BDO-2112	96	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C2-PFTAa	BDO-2224	106	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	21:57:53	J8700-F5	10	1	3.08	d3-MFOSSAA	BDO-1838	55	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	d5-EfFOSSAA	BDO-1839	80	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C3-PFBs	BDO-2226	84	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C3-PHKS	BDO-2227	82	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181022	23:31:51	J8700-F5	10	1	3.08	13C8-PFO	BDO-2228	82	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-S1N0NS	SVOA	537_MOD	ORG	BMSL_N0FBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	1																						

Contract_I	DO_CTO_N	Phase	Instrument_Sample_N	Ch2M_Cox_Analysis_G	Analytical_PRC_Code	Lab_Code	Lab_Name	Leachate_ISAMPLE_B	Extraction_Results_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	Date_Time	Rece_Leachate_Leachate_	Extraction_Analysis_D	Analysis_T	Lab_Samp	Dilution	Run_Num	Percent_Percent	Percent_Percent	Chem_Name	Analyte_ID	Analyte_V	Original_A	Result_Nar	QC_Contr	QC_Accura	QC_Accura	Control_Li	QC_Narr	MDL	Detection_QSM	Vers_DL	LOD	LOQ	SDG	Analysis_B	Validator_	Val_Date
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	13C8-PFOA	BDO-2219	93	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	13C9-PFNA	BDO-2221	83	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	13C7-PFUuN	BDO-2223	87	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	13C6-PFDA	BDO-2222	82	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	13C2-PFDa	BDO-2112	93	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	d3-MeFOSSAA	BDO-1838	78	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	d5-EFOSSAA	BDO-1839	71	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	13C3-PFBs	BDO-2226	100	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	13C3-PHxS	BDO-2227	104	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	00:58:45	J8704-F5	10	1	9.07	13C8-PFOA	BDO-2228	103	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	01:31:20	J8705-F5	10	1	25.78	Perfluorohexanoic Acid (P 307-24-4	TRG	20171116	0.46	0.46	5.1	70	1.38	6.9	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	01:31:20	J8705-F5	10	1	25.78	Perfluorohexanoic acid (F 375-85-9	TRG	20171116	0.61	0.61	5.1	70	1.38	6.9	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	01:31:20	J8705-F5	10	1	25.78	Perfluorooctanoic acid (PF 335-67-1)	TRG	20171116	0.69	0.69	5.1	70	1.38	6.9	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	01:31:20	J8705-F5	10	1	25.78	Perfluorooctanoic acid (P 375-95-1)	TRG	20171116	0.59	0.59	5.1	70	1.38	6.9	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	01:31:20	J8705-F5	10	1	25.78	Perfluorooctanoic Acid 2058-94-8	TRG	20171116	0.57	0.57	5.1	70	1.38	6.9	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	01:31:20	J8705-F5	10	1	25.78	Perfluorooctanoic Acid 3075-55-1	TRG	20171116	0.69	0.69	5.1	70	1.38	6.9	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	01:31:20	J8705-F5	10	1	25.78	Perfluorooctanoic Acid 72629-94-8	TRG	20171116	0.39	0.39	5.1	70	1.38	6.9	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	01:31:20	J8705-F5	10	1	25.78	Perfluorotetradecanoic Acid 376-06-7	TRG	20171116	0.87	0.87	5.1	70	2.76	6.9	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	01:31:20	J8705-F5	10	1	25.78	N-Methyl Perfluorooctane 2355-31-9	TRG	20171116	1.54	1.54	5.1	70	3.45	6.9	18-0612	DP-18-0308				
N62470164164	POINT_MUVC-C50-SI	N	SVOA	537_MOD	ORG	BMSL_N	N	BATT																																

Contract_I	DO_CTO_N	Phase	Instrument_Sample_N	Ch2M_Cox Analysis_G	Analytical_PRC_Code	Lab_Code	Lab_Name	Leachate_ISAMPLE_B	Extraction_Results_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	Date_Time	Leachate_Leachate_	Extraction_Analysis_D	Analysis_T	Lab_Samp	Dilution	Run_Num	Percent_Percent	Percent_Percent	Chem_Name	Analyte_ID	Analyte_V	Original_A	Result_N	UniLab_Validator_GC	Colum_Analysis_R	Result_NarQC_Contr	AccuraQC_Accura	Control_LiQC_Narrat	MDL	Detection_QSM	Vers_DL	LOD	LOQ	SDG	Analysis_B_Validator_	Val_Date
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	02:14:46	J8708-F5	10	1	23.72	13C3-PFKS	BDO-2226	108	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	02:14:46	J8708-F5	10	1	23.72	13C3-PFKS	BDO-2227	103	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20181006	20181009	20181016	13:20:00	20181023	02:14:46	J8708-F5	10	1	23.72	13C3-PFKS	BDO-2228	100	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorohexanoic Acid (P 307-24-4	TRG	20171116	0.33	0.33	5.1	70	0.99	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorohexanoic Acid (F 375-85-9	TRG	20171116	0.44	0.44	5.1	70	0.99	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorooctanoic acid (PF 335-67-1	TRG	20171116	0.5	0.5	5.1	70	0.99	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorooctanoic acid (P 375-95-1	TRG	20171116	0.43	0.43	5.1	70	0.99	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorodecanoic Acid (P 335-76-2	TRG	20171116	0.27	0.27	5.1	70	0.99	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluoroundecanoic Acid 2058-94-8	TRG	20171116	0.41	0.41	5.1	70	0.99	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorododecanoic Acid 307-55-1	TRG	20171116	0.24	0.24	5.1	70	0.5	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorotridecanoic Acid 72629-94-8	TRG	20171116	0.28	0.28	5.1	70	0.99	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorotetradecanoic Acid A376-06-7	TRG	20171116	1.98	1.98	4.95	18-0612	DP-18-0308						
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	N-Methyl Perfluorooctane 2355-31-9	TRG	20171116	1.11	1.11	5.1	70	2.48	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	N-Ethyl Perfluorooctane 2990-50-6	TRG	20171116	0.56	0.56	5.1	70	1.98	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorobutanesulfonic acid (P 375-73-5	TRG	20171116	0.36	0.36	5.1	70	0.99	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorohexanesulfonic acid 355-46-4	TRG	20171116	0.22	0.22	5.1	70	0.5	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	Perfluorocarbonic Sulfonate 1763-23-1	TRG	20171116	0.27	0.27	5.1	70	0.99	4.95	18-0612	DP-18-0308			
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	5-d-EtFOSSA	BDO-2218	85	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_N	N	BATTELLE	NULL	DRY	METHOD	000	REG	SS	4	20181006	20181009	20181016	13:20:00	20181023	02:25:37	J8709-F5	10	1	2.29	13C4-PHFA	BDO-2219	86	PCT_REC	SURR	SLSP	150	50	20171116	5.1	18-0612	DP-18-0308		
N62470164164	POINT_MUVC-C50-SI	N																																					

Contract_I	DO_CTO_N	Phase	Installation_Sample_NiCH2M_CovAnalysis_GAnalytical_PRC_Code	Lab_Code	Lab_Name	Leachate_ISAMPLE_B_	Extraction_Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	Date	Time	Date_Rece	Leachate_Leachate_	Extraction_Extraction_Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Num	Percent_Percent	Percent_Percent	Chem_Name	Analyte_ID	Analyte_V	Original_A	Result_	UniLab_Qualif	Validator_GC	Colum_Analysis_R	Result_Nar	QC_Contro	Accura	QC_Narr	Control_Li	QC_MDL	Detection_QSM	Vers_DL	LOD	LOQ	SDG	Analysis_B	Validator_V	Val_Date
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	Perfluoroundecanoic Acid 2058-94-8	100	PCT_REC	TRG	LSA	137	57	20171116	0.45	5.1	1.1	5.52	18-0612	DP-18-0308						
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	Perfluorododecanoic Acid 307-55-1	101	PCT_REC	TRG	LSA	134	62	20171116	0.27	5.1	0.55	5.52	18-0612	DP-18-0308						
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	Perfluorotridecanoic Acid 72629-94-8	104	PCT_REC	TRG	LSA	127	51	20171116	0.31	5.1	1.1	5.52	18-0612	DP-18-0308						
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	Perfluorotetradecanoic Ac 376-06-7	103	PCT_REC	TRG	LSA	162	34	20171116	0.7	5.1	2.21	5.52	18-0612	DP-18-0308						
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	N-Methyl Perfluoroctane 2355-31-9	104	PCT_REC	TRG	LSA	146	52	20171116	1.24	5.1	2.76	5.52	18-0612	DP-18-0308						
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	N-Ethyl Perfluoroctanesu 2991-50-6	103	PCT_REC	TRG	LSA	124	54	20171116	0.63	5.1	2.21	5.52	18-0612	DP-18-0308						
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	Perfluorobutanesulfonic a 375-73-5	99	PCT_REC	TRG	LSA	145	57	20171116	0.4	5.1	1.1	5.52	18-0612	DP-18-0308						
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	Perfluorohexanesulfonic a 355-46-4	98	PCT_REC	TRG	LSA	132	52	20171116	0.24	5.1	0.55	5.52	18-0612	DP-18-0308						
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	Perfluoroctane Sulfonate 1763-23-1	99	PCT_REC	TRG	LSA	130	50	20171116	0.3	5.1	1.1	5.52	18-0612	DP-18-0308						
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	13C5-PHxA	BDO-2217	105	PCT_REC	SURR	SLSP	150	50	20171116	5.1		18-0612	DP-18-0308							
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	13C4-PHPoP	BDO-2218	109	PCT_REC	SURR	SLSP	150	50	20171116	5.1		18-0612	DP-18-0308							
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	13C8-PFOA	BDO-2219	108	PCT_REC	SURR	SLSP	150	50	20171116	5.1		18-0612	DP-18-0308							
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	13C9-PFNA	BDO-2221	101	PCT_REC	SURR	SLSP	150	50	20171116	5.1		18-0612	DP-18-0308							
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	13C6-PFDA	BDO-2222	99	PCT_REC	SURR	SLSP	150	50	20171116	5.1		18-0612	DP-18-0308							
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	13C7-PFUuN	BDO-2223	106	PCT_REC	SURR	SLSP	150	50	20171116	5.1		18-0612	DP-18-0308							
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	13C2-PFDa	BDO-2224	119	PCT_REC	SURR	SLSP	150	50	20171116	5.1		18-0612	DP-18-0308							
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	d3-MeFOSAA	BDO-1838	86	PCT_REC	SURR	SLSP	150	50	20171116	5.1		18-0612	DP-18-0308							
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	d5-EtFOSAA	BDO-1839	78	PCT_REC	SURR	SLSP	150	50	20171116	5.1		18-0612	DP-18-0308							
N62470164164	POINT_MLVC-C50-SI	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	MSD	SB	4	20181016	20181016	20181016	13:20:00	20181023	03:30:48	J8713MSD	10	1	13.74	13C3-PFBS	BDO-2226	101	PCT_REC																

**DATA VALIDATION SUMMARY REPORT
NAVAL BASE VENTURA COUNTY, CALIFORNIA**

Client: CH2M HILL, Inc., Corvallis, Oregon
 SDG: 18-0612
 Laboratory: Battelle Norwell Operations, Norwell, Massachusetts
 Site: Naval Base Ventura County, CTO-4164, California
 Date: December 29, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VC-CS00-SB02-0102	J8698-FS	Soil
2	VC-CS00-SB02-0506	J8699-FS	Soil
3	VC-CS00-SS03-000H	J8700-FS	Soil
4	VC-CS00-SB03-0102	J8701-FS	Soil
5	VC-CS00-SB03-0506	J8702-FS	Soil
6	VC-CS00-SS04-000H	J8703-FS	Soil
7	VC-CS00-SB04-0102	J8704-FS	Soil
8	VC-CS00-SB04-0506	J8705-FS	Soil
9	VC-CS00-SS05-000H	J8706-FS	Soil
10	VC-CS00-SB05-0102	J8707-FS	Soil
11	VC-CS00-SB05-0506	J8708-FS	Soil
12	VC-CS00-SS06-000H	J8709-FS	Soil
13	VC-CS00-SB06-0102	J8710-FS	Soil
14	VC-CS00-SB06-0506	J8711-FS	Soil
14MS	VC-CS00-SB06-0506MS	J8712-FSMS	Soil
14MSD	VC-CS00-SB06-0506MSD	J8713-FSSMD	Soil

A full data validation was performed on the analytical data for fourteen soil samples collected on October 6, 2018 by CH2M HILL at the Naval Base Ventura County site in California. The samples were analyzed under the Battelle SOP Method for “Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)”.

Specific method references are as follows:

Analysis
PFCs

Method References
SOP 5-369

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, the DoD Quality Systems Manual for Environmental Laboratories, Version 5.1, February 2018, the Final Sampling and Analysis Plan Basewide Preliminary Assessments/Site Inspections of Per- and Polyfluoroalkyl Substances, August 2018, and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA “Contract Laboratories Program National Functional Guidelines for Organic Superfund Methods Data Review,” January 2017;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 28 days for soil samples and analyzed within 30 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent recovery (%R) criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- Field QC samples are summarized below.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
VC-SO-EB11-10062018	PFHxA	0.23	U	7, 11
VC-SO-FB11-10062018	PFHxS	0.33	U	11

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- Several samples were analyzed at various dilutions due to high concentrations of target compounds. The reporting limits were adjusted accordingly. No action was required.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:

Nancy Weaver

Nancy Weaver
Senior Chemist

Dated: 12/31/18

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limits is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID	VC-CS00-SB02-0102				
Battelle ID	J8698-FS				
Sample Type	SA				
Collection Date	10/06/2018				
Extraction Date	10/16/2018				
Analysis Date	10/22/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	6.83				
Matrix	SB				
Sample Size	1.82				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	

PFHxA	307-24-4	1.10 U	0.36	1.10	5.49
PFHpA	375-85-9	1.10 U	0.48	1.10	5.49
PFOA	335-67-1	1.10 U	0.55	1.10	5.49
PFNA	375-95-1	1.10 U	0.47	1.10	5.49
PFDA	335-76-2	1.10 U	0.30	1.10	5.49
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.49
PFDoA	307-55-1	0.55 U	0.26	0.55	5.49
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.49
PFTeDA	376-06-7	2.20 U	0.69	2.20	5.49
NMeFOSAA	2355-31-9	2.75 U	1.23	2.75	5.49
NEtFOSAA	2991-50-6	2.20 U	0.63	2.20	5.49
PFBS	375-73-5	1.10 U	0.40	1.10	5.49
PFHxS	355-46-4	0.55 U	0.24	0.55	5.49
PFOS	1763-23-1	1.10 U	0.30	1.10	5.49

Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	96
13C8-PFOA	98
13C9-PFNA	96
13C6-PFDA	93
13C7-PFUnA	86
13C2-PFDoA	95
13C2-PFTeDA	97
d3-MeFOSAA	80
d5-EtFOSAA	88
13C3-PFBS	95
13C3-PFHxS	91
13C8-PFOS	107

MW12/29/18

Analyzed by: Griffith, Lauren

Printed: 11/5/2018

Isotope Dilution

S18-0612_Master_369.xlsx



2

Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID VC-CS00-SB02-0506

Battelle ID		J8699-FS			
Sample Type		SA			
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/22/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		14.79			
Matrix		SB			
Sample Size		1.66			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.20 U	0.40	1.20	6.02
PFHpA	375-85-9	1.20 U	0.53	1.20	6.02
PFOA	335-67-1	1.20 U	0.60	1.20	6.02
PFNA	375-95-1	1.20 U	0.52	1.20	6.02
PFDA	335-76-2	1.20 U	0.33	1.20	6.02
PFUnA	2058-94-8	1.20 U	0.49	1.20	6.02
PFDoA	307-55-1	0.60 U	0.29	0.60	6.02
PFTrDA	72629-94-8	1.20 U	0.34	1.20	6.02
PFTeDA	376-06-7	2.41 U	0.76	2.41	6.02
NMeFOSAA	2355-31-9	3.01 U	1.35	3.01	6.02
NEtFOSAA	2991-50-6	2.41 U	0.69	2.41	6.02
PFBS	375-73-5	1.20 U	0.43	1.20	6.02
PFHxS	355-46-4	0.60 U	0.27	0.60	6.02
PFOS	1763-23-1	1.20 U	0.33	1.20	6.02

Surrogate Recoveries (%)

13C5-PFHxA	76
13C4-PFHpA	83
13C8-PFOA	86
13C9-PFNA	76
13C6-PFDA	87
13C7-PFUuA	85
13C2-PFDoA	90
13C2-PFTeDA	90
d3-MeFOSAA	65
d5-EtFOSAA	65
13C3-PFBS	81
13C3-PFHxS	80
13C8-PFOS	85

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Analyzed by: Griffith, Lauren

Printed: 11/5/2018

Isotope Dilution

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Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID VC-C500-SS03-000H

Battelle ID		J8700-FS			
Sample Type		SA			
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/22/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		3.08			
Matrix		SS			
Sample Size		1.95			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.03 U	0.34	1.03	5.13
PFHpA	375-85-9	1.03 U	0.45	1.03	5.13
PFOA	335-67-1	1.03 U	0.51	1.03	5.13
PFNA	375-95-1	1.03 U	0.44	1.03	5.13
PFDA	335-76-2	1.03 U	0.28	1.03	5.13
PFUnA	2058-94-8	1.03 U	0.42	1.03	5.13
PFDoA	307-55-1	0.51 U	0.25	0.51	5.13
PFTrDA	72629-94-8	1.03 U	0.29	1.03	5.13
PFTeDA	376-06-7	2.05 U	0.65	2.05	5.13
NMeFOSAA	2355-31-9	2.56 U	1.15	2.56	5.13
NEtFOSAA	2991-50-6	2.05 U	0.58	2.05	5.13
PFBS	375-73-5	1.03 U	0.37	1.03	5.13
PFHxS	355-46-4	0.51 U	0.23	0.51	5.13
PFOS	1763-23-1	0.56 J	0.28	1.03	5.13

Surrogate Recoveries (%)

13C5-PFHxA	76
13C4-PFHpA	79
13C8-PFOA	87
13C9-PFNA	80
13C6-PFDA	92
13C7-PFUnA	97
13C2-PFDoA	96
13C2-PFTeDA	106
d3-MeFOSAA	55
d5-EtFOSAA	80
13C3-PFBS	84
13C3-PFHxS	82
13C8-PFOS	82

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Isotope Dilution

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Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID VC-CS00-SB03-0102

Battelle ID		J8701-FS			
Sample Type		SA			
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/22/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		11.58			
Matrix		SB			
Sample Size		1.73			
Size Unit-Basis		g			
Units	ng/g_Dry	MDL	LOD	LOQ	

PFHxA	307-24-4	1.16 U	0.38	1.16	5.78
PFHpA	375-85-9	1.16 U	0.51	1.16	5.78
PFOA	335-67-1	1.16 U	0.58	1.16	5.78
PFNA	375-95-1	1.16 U	0.50	1.16	5.78
PFDA	335-76-2	1.16 U	0.31	1.16	5.78
PFUnA	2058-94-8	1.16 U	0.47	1.16	5.78
PFDoA	307-55-1	0.58 U	0.28	0.58	5.78
PFTrDA	72629-94-8	1.16 U	0.32	1.16	5.78
PFTeDA	376-06-7	2.31 U	0.73	2.31	5.78
NMeFOSAA	2355-31-9	2.89 U	1.29	2.89	5.78
NEtFOSAA	2991-50-6	2.31 U	0.66	2.31	5.78
PFBS	375-73-5	1.16 U	0.42	1.16	5.78
PFHxS	355-46-4	0.58 U	0.25	0.58	5.78
PFOS	1763-23-1	1.16 U	0.31	1.16	5.78

Surrogate Recoveries (%)

13C5-PFHxA	111
13C4-PFHpA	109
13C8-PFOA	108
13C9-PFNA	99
13C6-PFDA	105
13C7-PFUUnA	101
13C2-PFDoA	101
13C2-PFTeDA	110
d3-MeFOSAA	75
d5-EtFOSAA	85
13C3-PFBS	92
13C3-PFHxS	95
13C8-PFOS	93



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Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID	VC-CS00-SB03-0506				
Battelle ID	J8702-FS				
Sample Type	SA				
Collection Date	10/06/2018				
Extraction Date	10/16/2018				
Analysis Date	10/22/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	13.00				
Matrix	SB				
Sample Size	1.67				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	307-24-4	1.20 U	0.40	1.20	5.99
PFHpA	375-85-9	1.20 U	0.53	1.20	5.99
PFOA	335-67-1	1.20 U	0.60	1.20	5.99
PFNA	375-95-1	1.20 U	0.51	1.20	5.99
PFDA	335-76-2	1.20 U	0.32	1.20	5.99
PFUnA	2058-94-8	1.20 U	0.49	1.20	5.99
PFDoA	307-55-1	0.60 U	0.29	0.60	5.99
PTFTrDA	72629-94-8	1.20 U	0.34	1.20	5.99
PFTeDA	376-06-7	2.40 U	0.75	2.40	5.99
NMeFOSAA	2355-31-9	2.99 U	1.34	2.99	5.99
NEtFOSAA	2991-50-6	2.40 U	0.68	2.40	5.99
PFBS	375-73-5	1.20 U	0.43	1.20	5.99
PFHxS	355-46-4	0.60 U	0.26	0.60	5.99
PFOS	1763-23-1	1.20 U	0.32	1.20	5.99

Surrogate Recoveries (%)

13C5-PFHxA	88
13C4-PFHpA	86
13C8-PFOA	94
13C9-PFNA	84
13C6-PFDA	94
13C7-PFUnA	94
13C2-PFDoA	101
13C2-PFTeDA	108
d3-MeFOSAA	60
d5-EtFOSAA	62
13C3-PFBS	101
13C3-PFHxS	95
13C8-PFOS	98

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Analyzed by: Griffith, Lauren

Printed: 11/5/2018

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Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID	VC-CS00-SS04-000H				
Battelle ID	J8703-FS				
Sample Type	SA				
Collection Date	10/06/2018				
Extraction Date	10/16/2018				
Analysis Date	10/23/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	9.25				
Matrix	SS				
Sample Size	1.72				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	307-24-4	1.16 U	0.38	1.16	5.81
PFHpA	375-85-9	1.16 U	0.51	1.16	5.81
PFOA	335-67-1	1.02 J	0.58	1.16	5.81
PFNA	375-95-1	0.59 J	0.50	1.16	5.81
PFDA	335-76-2	1.16 U	0.31	1.16	5.81
PFUnA	2058-94-8	1.76 J	0.48	1.16	5.81
PFDoA	307-55-1	0.58 U	0.28	0.58	5.81
PFTrDA	72629-94-8	0.59 J	0.33	1.16	5.81
PFTeDA	376-06-7	2.33 U	0.73	2.33	5.81
NMeFOSAA	2355-31-9	2.91 U	1.30	2.91	5.81
NEtFOSAA	2991-50-6	2.33 U	0.66	2.33	5.81
PFBS	375-73-5	1.16 U	0.42	1.16	5.81
PFHxS	355-46-4	8.64	0.26	0.58	5.81
PFOS	1763-23-1	156.44 P	1.57	5.81	29.07

Surrogate Recoveries (%)

13C5-PFHxA	86
13C4-PFHpA	89
13C8-PFOA	92
13C9-PFNA	79
13C6-PFDA	84
13C7-PFUnA	88
13C2-PFDoA	92
13C2-PFTeDA	95
d3-MeFOSAA	79
d5-EtFOSAA	95
13C3-PFBS	98
13C3-PFHxS	97
13C8-PFOS	106



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Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID VC-C500-SB04-0102

Battelle ID		J8704-FS			
Sample Type		SA			
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		9.07			
Matrix		SB			
Sample Size		1.74			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.15 <i>100%U</i>	0.38	1.15	5.75 <i>EBL</i>
PFHpA	375-85-9	1.15 U	0.51	1.15	5.75
PFOA	335-67-1	0.95 J	0.57	1.15	5.75
PFNA	375-95-1	1.15 U	0.49	1.15	5.75
PFDA	335-76-2	1.15 U	0.31	1.15	5.75
PFUnA	2058-94-8	1.15 U	0.47	1.15	5.75
PFDoA	307-55-1	0.57 U	0.28	0.57	5.75
PFTrDA	72629-94-8	1.15 U	0.32	1.15	5.75
PFTeDA	376-06-7	2.30 U	0.72	2.30	5.75
NMeFOSAA	2355-31-9	2.87 U	1.29	2.87	5.75
NEtFOSAA	2991-50-6	2.30 U	0.66	2.30	5.75
PFBS	375-73-5	0.41 J	0.41	1.15	5.75
PFHxS	355-46-4	14.67	0.25	0.57	5.75
PFOS	1763-23-1	128.92 D	1.55	5.75	28.74

Surrogate Recoveries (%)

13C5-PFHxA	83
13C4-PFHpA	83
13C8-PFOA	93
13C9-PFNA	83
13C6-PFDA	87
13C7-PFUnA	89
13C2-PFDoA	82
13C2-PFTeDA	93
d3-MeFOSAA	78
d5-EtFOSAA	71
13C3-PFBS	100
13C3-PFHxS	104
13C8-PFOS	103

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Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-C500-SB04-0506

Battelle ID		J8705-FS			
Sample Type		SA			
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		25.78			
Matrix		SB			
Sample Size		1.45			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.38 U	0.46	1.38	6.90
PFHpA	375-85-9	1.38 U	0.61	1.38	6.90
PFOA	335-67-1	1.38 U	0.69	1.38	6.90
PFNA	375-95-1	1.38 U	0.59	1.38	6.90
PFDA	335-76-2	1.38 U	0.37	1.38	6.90
PFUnA	2058-94-8	1.38 U	0.57	1.38	6.90
PFDoA	307-55-1	0.69 U	0.33	0.69	6.90
PFTrDA	72629-94-8	1.38 U	0.39	1.38	6.90
PFTeDA	376-06-7	2.76 U	0.87	2.76	6.90
NMeFOSAA	2355-31-9	3.45 U	1.54	3.45	6.90
NEtFOSAA	2991-50-6	2.76 U	0.79	2.76	6.90
PFBS	375-73-5	1.38 U	0.50	1.38	6.90
PFHxS	355-46-4	6.27 J	0.30	0.69	6.90
PFOS	1763-23-1	30.56	0.37	1.38	6.90

Surrogate Recoveries (%)

13C5-PFHxA	74
13C4-PFHpA	82
13C8-PFOA	78
13C9-PFNA	74
13C6-PFDA	86
13C7-PFUnA	81
13C2-PFDoA	83
13C2-PFTeDA	89
d3-MeFOSAA	68
d5-EtFOSAA	69
13C3-PFBS	82
13C3-PFHxS	74
13C8-PFOS	87



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Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID	VC-CS00-SS05-000H				
Battelle ID	J8706-FS				
Sample Type	SA				
Collection Date	10/06/2018				
Extraction Date	10/16/2018				
Analysis Date	10/23/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	3.09				
Matrix	SS				
Sample Size	1.92				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	

PFHxA	307-24-4	1.04 U	0.34	1.04	5.21
PFHpA	375-85-9	1.04 U	0.46	1.04	5.21
PFOA	335-67-1	1.04 U	0.52	1.04	5.21
PFNA	375-95-1	1.04 U	0.45	1.04	5.21
PFDA	335-76-2	1.04 U	0.28	1.04	5.21
PFUnA	2058-94-8	1.04 U	0.43	1.04	5.21
PFDoA	307-55-1	0.52 U	0.25	0.52	5.21
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.21
PFTeDA	376-06-7	2.08 U	0.66	2.08	5.21
NMeFOSAA	2355-31-9	2.60 U	1.17	2.60	5.21
NEtFOSAA	2991-50-6	2.08 U	0.59	2.08	5.21
PFBS	375-73-5	1.04 U	0.38	1.04	5.21
PFHxS	355-46-4	0.52 U	0.23	0.52	5.21
PFOS	1763-23-1	0.54 J	0.28	1.04	5.21

Surrogate Recoveries (%)

13C5-PFHxA	90
13C4-PFHpA	90
13C8-PFOA	100
13C9-PFNA	86
13C6-PFDA	96
13C7-PFUnA	90
13C2-PFDoA	98
13C2-PFTeDA	103
d3-MeFOSAA	64
d5-EtFOSAA	67
13C3-PFBS	91
13C3-PFHxS	87
13C8-PFOS	94

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Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB05-0102

Battelle ID		J8707-FS			
Sample Type		SA			
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		10.20			
Matrix		SB			
Sample Size		1.85			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.08 U	0.36	1.08	5.41
PFHpA	375-85-9	1.08 U	0.48	1.08	5.41
PFOA	335-67-1	1.08 U	0.54	1.08	5.41
PFNA	375-95-1	1.08 U	0.46	1.08	5.41
PFDA	335-76-2	1.08 U	0.29	1.08	5.41
PFUnA	2058-94-8	1.08 U	0.44	1.08	5.41
PFDoA	307-55-1	0.54 U	0.26	0.54	5.41
PFTrDA	72629-94-8	1.08 U	0.30	1.08	5.41
PFTeDA	376-06-7	2.16 U	0.68	2.16	5.41
NMeFOSAA	2355-31-9	2.70 U	1.21	2.70	5.41
NEtFOSAA	2991-50-6	2.16 U	0.62	2.16	5.41
PFBS	375-73-5	1.08 U	0.39	1.08	5.41
PFHxS	355-46-4	0.54 U	0.24	0.54	5.41
PFOS	1763-23-1	1.08 U	0.29	1.08	5.41

Surrogate Recoveries (%)

13C5-PFHxA	97
13C4-PFHpA	106
13C8-PFOA	107
13C9-PFNA	103
13C6-PFDA	110
13C7-PFUnA	119
13C2-PFDoA	125
13C2-PFTeDA	123
d3-MeFOSAA	77
d5-EtFOSAA	80
13C3-PFBS	100
13C3-PFHxS	110
13C8-PFOS	109



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Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID VC-CS00-SB05-0506

			J8708-FS	SA	10/06/2018	10/16/2018	10/23/2018	Sciex 5500 LC/MS/MS	23.72	SB	1.46	g	ng/g_Dry	MDL	LOD	LOQ	
Battelle ID																	
Sample Type																	
Collection Date																	
Extraction Date																	
Analysis Date																	
Analytical Instrument																	
% Moisture																	
Matrix																	
Sample Size																	
Size Unit-Basis																	
Units																	
PFHxA	307-24-4		1.37	0.57 U		0.45	1.37	6.85									EBC
PFHpA	375-85-9			1.37 U		0.60	1.37	6.85									
PFOA	335-67-1			1.37 U		0.68	1.37	6.85									
PFNA	375-95-1			1.37 U		0.59	1.37	6.85									
PFDA	335-76-2			1.37 U		0.37	1.37	6.85									
PFUnA	2058-94-8			1.37 U		0.56	1.37	6.85									
PFDoA	307-55-1			0.68 U		0.33	0.68	6.85									
PFTrDA	72629-94-8			1.37 U		0.38	1.37	6.85									
PFTeDA	376-06-7			2.74 U		0.86	2.74	6.85									
NMeFOSAA	2355-31-9			3.42 U		1.53	3.42	6.85									
NEtFOSAA	2991-50-6			2.74 U		0.78	2.74	6.85									
PFBS	375-73-5			1.37 U		0.49	1.37	6.85									
PFHxS	355-46-4			3.15 U		0.30	0.68	6.85									FBL
PFOS	1763-23-1			1.37 U		0.37	1.37	6.85									

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	102
13C8-PFOA	109
13C9-PFNA	97
13C6-PFDA	110
13C7-PFUnA	103
13C2-PFDoA	109
13C2-PFTeDA	120
d3-MeFOSAA	94
d5-EtFOSAA	91
13C3-PFBS	108
13C3-PFHxS	103
13C8-PFOS	100

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Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID VC-CS00-SS06-000H

Battelle ID		J8709-FS			
Sample Type		SA			
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.29			
Matrix		SS			
Sample Size		2.02			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	0.99 U	0.33	0.99	4.95
PFHpA	375-85-9	0.99 U	0.44	0.99	4.95
PFOA	335-67-1	0.99 U	0.50	0.99	4.95
PFNA	375-95-1	0.99 U	0.43	0.99	4.95
PFDA	335-76-2	0.99 U	0.27	0.99	4.95
PFUnA	2058-94-8	0.99 U	0.41	0.99	4.95
PFDoA	307-55-1	0.50 U	0.24	0.50	4.95
PTFTrDA	72629-94-8	0.99 U	0.28	0.99	4.95
PFTeDA	376-06-7	1.98 U	0.62	1.98	4.95
NMeFOSAA	2355-31-9	2.48 U	1.11	2.48	4.95
NEtFOSAA	2991-50-6	1.98 U	0.56	1.98	4.95
PFBS	375-73-5	0.99 U	0.36	0.99	4.95
PFHxS	355-46-4	0.50 U	0.22	0.50	4.95
PFOS	1763-23-1	0.34 J	0.27	0.99	4.95

Surrogate Recoveries (%)

13C5-PFHxA	85
13C4-PFHpA	85
13C8-PFOA	86
13C9-PFNA	84
13C6-PFDA	74
13C7-PFUnA	77
13C2-PFDoA	80
13C2-PFTeDA	85
d3-MeFOSAA	53
d5-EtFOSAA	56
13C3-PFBS	78
13C3-PFHxS	74
13C8-PFOS	84



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Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01

Client ID	VC-CS00-SB06-0102				
Battelle ID	J8710-FS				
Sample Type	SA				
Collection Date	10/06/2018				
Extraction Date	10/16/2018				
Analysis Date	10/23/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	5.41				
Matrix	SB				
Sample Size	1.82				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	307-24-4	1.10 U	0.36	1.10	5.49
PFHpA	375-85-9	1.10 U	0.48	1.10	5.49
PFOA	335-67-1	1.10 U	0.55	1.10	5.49
PFNA	375-95-1	1.10 U	0.47	1.10	5.49
PFDA	335-76-2	1.10 U	0.30	1.10	5.49
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.49
PFDoA	307-55-1	0.55 U	0.26	0.55	5.49
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.49
PFTeDA	376-06-7	2.20 U	0.69	2.20	5.49
NMeFOSAA	2355-31-9	2.75 U	1.23	2.75	5.49
NEtFOSAA	2991-50-6	2.20 U	0.63	2.20	5.49
PFBS	375-73-5	1.10 U	0.40	1.10	5.49
PFHxS	355-46-4	0.55 U	0.24	0.55	5.49
PFOS	1763-23-1	1.10 U	0.30	1.10	5.49

Surrogate Recoveries (%)

13C5-PFHxA	87
13C4-PFHpA	86
13C8-PFOA	92
13C9-PFNA	83
13C6-PFDA	86
13C7-PFUnA	83
13C2-PFDoA	85
13C2-PFTeDA	100
d3-MeFOSAA	78
d5-EtFOSAA	60
13C3-PFBS	80
13C3-PFHxS	81
13C8-PFOS	88



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Project Client: CH2M

Project Name: CTO-4164 Naval Base Ventura County, California

Project No.: 100110125-01

Client ID VC-CS00-SB06-0506

Battelle ID		J8711-FS			
Sample Type		SA			
Collection Date		10/06/2018			
Extraction Date		10/16/2018			
Analysis Date		10/23/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		13.93			
Matrix		SB			
Sample Size		1.76			
Size Unit-Basis		g			
Units	ng/g_Dry		MDL	LOD	LOQ

PFHxA	307-24-4	1.14 U	0.38	1.14	5.68
PFHpA	375-85-9	1.14 U	0.50	1.14	5.68
PFOA	335-67-1	1.14 U	0.57	1.14	5.68
PFNA	375-95-1	1.14 U	0.49	1.14	5.68
PFDA	335-76-2	1.14 U	0.31	1.14	5.68
PFUnA	2058-94-8	1.14 U	0.47	1.14	5.68
PFDoA	307-55-1	0.57 U	0.27	0.57	5.68
PTFTrDA	72629-94-8	1.14 U	0.32	1.14	5.68
PFTeDA	376-06-7	2.27 U	0.72	2.27	5.68
NMeFOSAA	2355-31-9	2.84 U	1.27	2.84	5.68
NEtFOSAA	2991-50-6	2.27 U	0.65	2.27	5.68
PFBS	375-73-5	1.14 U	0.41	1.14	5.68
PFHxS	355-46-4	0.57 U	0.25	0.57	5.68
PFOS	1763-23-1	1.14 U	0.31	1.14	5.68

Surrogate Recoveries (%)

13C5-PFHxA	82
13C4-PFHpA	82
13C8-PFOA	83
13C9-PFNA	74
13C6-PFDA	80
13C7-PFUnA	85
13C2-PFDoA	85
13C2-PFTeDA	91
d3-MeFOSAA	73
d5-EtFOSAA	78
13C3-PFBS	80
13C3-PFHxS	85
13C8-PFOS	93

11/29/18

Analyzed by: Griffith, Lauren

Printed: 11/5/2018

Isotope Dilution

S18-0612_Master_369.xlsx

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIX_DESC	COLLECT_DATE
VC-CS00-S006	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6226814.6	1873207	Perfluoroalkyl Compounds	VC-CS00-SB06-0102	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S006	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6226814.6	1873207	Perfluoroalkyl Compounds	VC-CS00-SB06-0506	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S006	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6226814.6	1873207	Perfluoroalkyl Compounds	VC-CS00-SS06-000H	SU	Surface soil (less than 6 inches)	06-Oct-18
VC-CS00-S002	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6227014.2	1873485.5	Perfluoroalkyl Compounds	VC-CS00-SB02-0102	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S002	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6227014.2	1873485.5	Perfluoroalkyl Compounds	VC-CS00-SB02-0506	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S003	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6227006.3	1872740.3	Perfluoroalkyl Compounds	VC-CS00-SB03-0102	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S003	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6227006.3	1872740.3	Perfluoroalkyl Compounds	VC-CS00-SB03-0506	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S003	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6227006.3	1872740.3	Perfluoroalkyl Compounds	VC-CS00-SS03-000H	SU	Surface soil (less than 6 inches)	06-Oct-18
VC-CS00-S004	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6226346.7	1872522.5	Perfluoroalkyl Compounds	VC-CS00-SB04-0102	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S004	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6226346.7	1872522.5	Perfluoroalkyl Compounds	VC-CS00-SB04-0506	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S004	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6226346.7	1872522.5	Perfluoroalkyl Compounds	VC-CS00-SS04-000H	SU	Surface soil (less than 6 inches)	06-Oct-18
VC-CS00-S005	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6226640	1872863.6	Perfluoroalkyl Compounds	VC-CS00-SB05-0102	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S005	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6226640	1872863.6	Perfluoroalkyl Compounds	VC-CS00-SB05-0506	SBS	Sub-surface soil (> 6)	06-Oct-18
VC-CS00-S005	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0612	6226640	1872863.6	Perfluoroalkyl Compounds	VC-CS00-SS05-000H	SU	Surface soil (less than 6 inches)	06-Oct-18