NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG 18-0560

Naval Air Station Jacksonville
Jacksonville, Florida

July 2019

N00207_004564
JACKSONVILLE_NAS
SSIC 5000-33c

LABORATORY DATA PACKAGE 18-0560 NAS JACKSONVILLE FL

09/18/2018

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Approved for public release: distribution unlimited.

CTO-SE0375: Naval Air Station Jacksonville
Project No 100119154-SE0375
PFAS by DoD QSM 5.1 Table B-15

SD

Batch 18-0560

Package DP-18-0266

Submitted to:
Tetra Tech
661 Anderson Drive Foster Plaza 7
Pittsburgh, PA 15220 USA

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

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CTO-SE0375: Naval Air Station Jacksonville
Project No 100119154-SE0375
PFAS by DoD QSM 5.1 Table B-15

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Submitted to:
Tetra Tech
661 Anderson Drive Foster Plaza 7
Pittsburgh, PA 15220 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:		Robert Lizotte, Jr. 2018.09.18 17:15:19 -04'00'
QC Chemist Approval:	Carla Devine	Digitally signed by devinec@battelle.org DN: cn=devinec@battelle.org Date: 2018.09.20 09:35:27 -04'00'
Project Manager Approval:		Digitally signed by Jonathan Thorn Date: 2018.09.20 10:05:48 -04'00'

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CTO-SE0375: Naval Air Station Jacksonville
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SD

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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			4-4-2018
Carla Devine		CRD	4/4/18
Denise Schumitz		DMS	4/4/18
Candace Penn McCoy		CPM	4/4/2018
Rich Rostucci		RR	4/4/2018
Michael Mehta			4/4/2018
Christie Usher		cu	4/4/18
Kevin McInerney			4/4/18
Stephanie Schultz		SAS	4/4/18
Jordan Tower		JCT	4/4/18
KRISTEN NICHOLS		KN	4/4/18
Clinton H Brown		CB	4/4/18
Matt Schumitz		MS	4-4-18
Sam Guimaraes		SG	4-4-18
Lauren Griffith			4.4.18

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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		ZJW	4/20/18

Sample Summary

Client: Tetra Tech Inc.
SDG: 18-0560
Project/Site: Naval Air Station (NAS) Jacksonville
CTO: SE0375

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR817PB-FS	Procedural Blank	WATER	9/14/2018	9/14/2018
CR818LCS-FS	Laboratory Control Sample	WATER	9/14/2018	9/14/2018
J7774-FS	JAX-TCC-EB02-09112018	QC	9/11/2018	9/12/2018
J7775-FS	JAX-TCC-MWC3-09112018	GW	9/11/2018	9/12/2018
J7776-FS	JAX-TCC-MWC3-09112018-FD	GW	9/11/2018	9/12/2018
J7777-FS	JAX-TCC-MWI2-09112018	GW	9/11/2018	9/12/2018
J7778-FS	JAX-TCC-MWB1-09112018	GW	9/11/2018	9/12/2018
J7779-FS	JAX-TCC-SW01-09112018	SW	9/11/2018	9/12/2018
J7780-FS	JAX-TCC-SW02-09112018	SW	9/11/2018	9/12/2018
J7784-FS	JAX-TCC-EB03-09112018	QC	9/11/2018	9/12/2018
J7785-FS	JAX-TCC-FRB-09112018	QC	9/11/2018	9/12/2018

Work Plan

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WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title:	Non-Potable Water PFAS Analysis
Project Number:	100119154-SE0375
Client:	Tetra Tech 661 Anderson Drive Foster Plaza 7 Pittsburgh, PA 15220 USA
Client Contact Information:	Mark Peterson NA (904) 636-6125(V) (904) 636-6165(F) mark.peterson@tetratech.com
Effective Date of QAPP:	5/23/2018
Version Number:	100119154-SE0375(L)-01
Project Manager:	Thorn, Jonathan
Laboratory Task Manager:	Thorn, Jonathan
Deliverable Due Date:	6/8/2018

2.0 SCOPE OF WORK

Overview:	PFAS analysis of groundwater and surface water samples collected from NAS Station Jacksonville.
Matrix:	Water

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 in refrigerator.
Sub_Sampling:	None
Procedures:	NA
Contact:	NA
Comment:	NA
Archiving:	Dispose of remaining samples 6 months after delivery of final data. Notify client prior to disposal of samples.
Disposal:	Dispose of samples in the appropriate waste stream.

2.1.2 Sample Preparation

10 groundwater samples, 4 surface water samples, and the associated FRB samples. Matrices will be extracted in separate batches.

Samples Expected:	Samples Per Batch:	Batches Expected:
15	20	1

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	--	NA	
LCS	Laboratory Control Sample	1 per batch	No	NA	
MS	Spiked field sample for determining method accuracy in the presence of matrix.	1 per batch	--	NA	background sample 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	background sample 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:	250 ml
SIS and LCS/MS Compounds:	Defined in Table 2.
Deviations:	None
Comments:	• FRB samples will only be extracted and analyzed if the associated field samples have results above the LOQ.

Table 2: SIS and LCS/MS Spiking Level

Standard Type	Standard Contents		Spike Amount (ng)	Volume (uL)	Comment
PFAS - DoD Low Level Labelled	JV83	SIS	~ 0.100 ng	50 uL	NA

Standard Type	Standard Contents		Spike Amount (ng)	Volume (uL)	Comment
Extracted Internal Standards (SIS)					
PFAS - DOD Second Source LCS/MS Solution	JP49	LCS/MS	~ 7.5 ng	150 uL	MS/MSD samples
PFAS - DOD Second Source LCS/MS Solution	JP49	LCS/MS	~ 2.50 ng	50 uL	LCS sample

2.1.3.2 Cleanup

None.

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 500

Table 3: RIS Spiking Level

Standard Type	Standard Contents		Spike Amount (ng)	Volume (uL)	Comment
PFAS - DoD Internal Standard Spiking Solution	JW02	RIS	~ 0.050 ng	25 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: Follow QSM 5.1 Table B-15 requirements.

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WORK/QUALITY ASSURANCE PROJECT PLAN

2.2. DELIVERABLES

Deliverables Due:	6/8/2018
LIMS Reports:	*No*
Histograms:	*No*
Excel Tables:	*Yes*
EICs:	*No*
Chromatograms:	*No*
EDDs:	*Yes*
Comments:	• 14-day TAT • Level IV validation package, compliant with QSM Table B-15. • Tetra Tech EDD format.

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.

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WORK/QUALITY ASSURANCE PROJECT PLAN

Table 5. Schedule of Laboratory Activities

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Sample Receipt	05/25/2018	05/25/2018	0	NA
Sample Preparation	05/25/2018	05/30/2018	5	NA
Instrument Analysis	05/30/2018	06/05/2018	6	NA
Quality Control Review	06/05/2018	06/06/2018	1	NA
Quality Assurance Review	06/06/2018	06/08/2018	2	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	1	2	Hours are for full batch of 20 samples
Sample Preparation	8	1	8	Hours are for full batch of 20 samples
Instrument Analysis	8	1	8	Hours are for full batch of 20 samples
Quality Control Review	3	1	3	Hours are for full batch of 20 samples
Quality Assurance Review	1	1	1	Hours are for full batch of 20 samples

7.0 STAFF DEVELOPMENT

None anticipated

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WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Shipment: **SHP-180525-01**

Status: Approved

Description: SEO 375

Range: J6241-J6254

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J6241	FFTA-FD01-052418	05/24/2018 11:00 am	SW DUP	R0119 (NA)			
2	J6242	FFTA-SW01-052418	05/24/2018 11:00 am	SW	R0119 (NA)			
3	J6245	FFTA-FB01-052418	05/24/2018 11:20 am	GW QC	R0119 (NA)			
4	J6246	FFTA-EB01-052418	05/24/2018 11:30 am	GW QC	R0119 (NA)			
5	J6247	FFTA-EB02-052418	05/24/2018 11:40 am	GW QC	R0119 (NA)			
6	J6248	DRMO-MW11-052418	05/24/2018 2:05 pm	GW	R0119 (NA)			
7	J6249	DRMO-FB02-052418	05/24/2018 2:00 pm	GW QC	R0119 (NA)			
8	J6250	PSC51-MW14D-052418	05/24/2018 4:10 pm	GW	R0119 (NA)			
9	J6251	PSC51-FB03-052418	05/24/2018 4:15 pm	GW QC	R0119 (NA)			
10	J6252	PSC51-MW13S-052418	05/24/2018 4:55 pm	GW	R0119 (NA)			MS-MSD
11	J6253	DRMO-MW2-052418	05/24/2018 2:55 pm	GW	R0119 (NA)			
12	J6254	DRMO-FD03-052418	05/24/2018 2:05 pm	GW DUP	R0119 (NA)			

Shipment: **SHP-180823-02**

Status: Pending

Description: NAS JAX PFAS

Range: J7576-J7586

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J7576	JAX-TCC-MWC3-08222018	08/22/2018 12:47 pm	GW	R0119 (NA)			
2	J7577	JAX-TCC-MWI-2-08222018	08/22/2018 1:00 pm	GW	R0119 (NA)			
3	J7578	JAX-TCC-MWI-2-08222018-FD	08/22/2018 1:00 pm	GW	R0119 (NA)			
4	J7579	JAX-TCC-MWB-1-08222018	08/22/2018 2:05 pm	GW	R0119 (NA)			
5	J7580	JAX-TCC-SW01-08222018	08/22/2018 1:40 pm	SW	R0119 (NA)			
6	J7581	JAX-TCC-SW02-08222018	08/22/2018 2:30 pm	SW	R0119 (NA)			
7	J7583	JAX-TCC-EB01-08222018	08/22/2018 1:35 pm	W	R0119 (NA)			
8	J7584	JAX-TCC-FRB-08222018	08/22/2018 2:00 pm	W	R0119 (NA)			

Shipment: **SHP-180828-01**

Status: Pending

Description: NAS JAX PFAS

Range: J7623-J7630

Comment: NA

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WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: **SHP-180828-01**

Status: Pending

Description: NAS JAX PFAS

Range: J7623-J7630

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J7623	JAX-PSC51-MW-08-08232018	08/23/2018 2:21 pm	GW	R0119 (NA)			
2	J7624	JAX-PSC51-MW-10D-08232018	08/23/2018 3:24 pm	GW	R0119 (NA)			
3	J7626	JAX-PSC51-MW-06-08242018	08/24/2018 11:46 am	GW	R0119 (NA)			
4	J7627	JAX-PSC51-MW-06-08242018-FD	08/24/2018 11:46 am	GW	R0119 (NA)			
5	J7628	JAX-PSC51-MW-04-08242018	08/24/2018 12:36 pm	GW	R0119 (NA)			
6	J7629	JAX-PSC51-MW-09I-08242018	08/24/2018 1:15 pm	GW	R0119 (NA)			
7	J7630	JAX-PSC51-EB-08242018	08/24/2018 12:02 pm	W	R0119 (NA)			

Shipment: **SHP-180913-01**

Status: Pending

Description: CTO-SE0375: Naval Air Station Jacksonville

Range: J7774-J7785

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J7774	JAX-TCC-EB02-09112018	09/11/2018 12:55 pm	QC	R0119 (NA)			
2	J7775	JAX-TCC-MWC3-09112018	09/11/2018 1:40 pm	GW	R0119 (NA)			
3	J7776	JAX-TCC-MWC3-09112018-FD	09/11/2018 1:40 pm	GW	R0119 (NA)			
4	J7777	JAX-TCC-MWI2-09112018	09/11/2018 2:00 pm	GW	R0119 (NA)			
5	J7778	JAX-TCC-MWB1-09112018	09/11/2018 2:55 pm	GW	R0119 (NA)			
6	J7779	JAX-TCC-SW01-09112018	09/11/2018 2:05 pm	SW	R0119 (NA)			
7	J7780	JAX-TCC-SW02-09112018	09/11/2018 2:35 pm	SW	R0119 (NA)			
8	J7784	JAX-TCC-EB03-09112018	09/11/2018 3:00 pm	QC	R0119 (NA)			
9	J7785	JAX-TCC-FRB-09112018	09/11/2018 2:45 pm	QC	R0119 (NA)			

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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:	L - Liquid Samples, like water or sea water, prepared and anlyzed 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/L	***Unit Conversion:***	(none)	***Sample:***	14	***DL_Flag:***	U
Weight Basis:	LIQUID	***Result Format:***	Fixed Digits	***Frozen:***	40	***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 Substition:	U-Flag=MD	***Histograms:***	No			***HT_Flag:***	T
ECD_Reporting:	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		N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid	No	No
11	N-ethylperfluoro-octanesulfonamidoacetic acid	NEtFOSAA	T		N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid	No	No
12	Perfluoro-1-butanesulfonate	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

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Attachment 2: Test Codes

Project Test Code Name: Master_369

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
4	13C9-PFNA	13C9-PFNA	SIS	13C2-PFOA		No	No
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	N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid	d3-MeFOSAA	SIS	13C4-PFOS		No	No
10	N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid	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

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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

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Attachment 3: Method Quality Objectives

MQO Application	***Universal_LC***		
MQO:	**Acceptance Criteria**	**Qual:**	**Corrective Action:**
Procedural Blank	Samples must be greater than five times the blank concentration (>5xPB).	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 (<1/2xLOQ)	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.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
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.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
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 (>5xMDL).	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the MDL	n	
Analytical Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Analyte concentration must be > 5x MDL.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Original is less than 5 times the MDL	n	

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Attachment 3: Method Quality Objectives

MQO Application	***Universal_LC***		
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 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.

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ShpNo SHP-180913-01

Battelle Project No:

Sample Receipt Form

Approved: ☐ Authorized ☐

Project Number: 112G0800J-SE0375 **Client:** Tetra Tech

Received by: Schumitz, Matt **Date/Time Received:** Wednesday, September 12, 2018 5:00 PM

No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Commercial Carrier **Tracking Number:** 7827 3593 6708

COC Forms: ☑ Shipped with samples ☐ No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smps
1 of 1	Cooler	7827 3593 6708	Custody Seals	Intact	Intact	Therm_2	1.9	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): 1.9 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:** J7774 - J7785

Samples logged in by: Schumitz, Matt **Date/Time:** 09/12/2018 5:00 PM

Approved By: **Approved On:**

Authorized By: **Authorized On:**

BATTELLE
It can be done

ShpNo SHP-180913-01

Battelle Project No:

Sample Receipt Form Details

Approved: ☐ Authorized ☐

Project Number: 112G0800J-SE0375 **Client:** Tetra Tech

Received by: Schumitz, Matt **Date/Time Received:** Wednesday, September 12, 2018 5:00 PM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J7774	JAX-TCC-EB02-09112018	09/11/18 12:55	09/13/18 8:54	2	QC	1.9	NA	NA	NA	R0119 (NA)			
J7775	JAX-TCC-MWC3-09112018	09/11/18 13:40	09/13/18 8:54	2	GW	1.9	NA	NA	NA	R0119 (NA)			
J7776	JAX-TCC-MWC3-09112018-FD	09/11/18 13:40	09/13/18 8:55	2	GW	1.9	NA	NA	NA	R0119 (NA)			
J7777	JAX-TCC-MWI2-09112018	09/11/18 14:00	09/13/18 8:55	2	GW	1.9	NA	NA	NA	R0119 (NA)			
J7778	JAX-TCC-MWB1-09112018	09/11/18 14:55	09/13/18 8:55	2	GW	1.9	NA	NA	NA	R0119 (NA)			
J7779	JAX-TCC-SW01-09112018	09/11/18 14:05	09/13/18 8:56	2	SW	1.9	NA	NA	NA	R0119 (NA)			
J7780	JAX-TCC-SW02-09112018	09/11/18 14:35	09/13/18 8:56	2	SW	1.9	NA	NA	NA	R0119 (NA)			
J7781	JAX-TCC-SD02-09112018	09/11/18 15:05	09/13/18 8:56	1	SD	1.9	NA	NA	NA	F0117 (NA)			
J7782	JAX-TCC-SD03-09112018	09/11/18 15:15	09/13/18 8:57	1	SD	1.9	NA	NA	NA	F0117 (NA)			
J7783	JAX-TCC-SD04-09112018	09/11/18 15:25	09/13/18 8:57	1	SD	1.9	NA	NA	NA	F0117 (NA)			
J7784	JAX-TCC-EB03-09112018	09/11/18 15:00	09/13/18 8:57	2	QC	1.9	NA	NA	NA	R0119 (NA)			
J7785	JAX-TCC-FRB-09112018	09/11/18 14:45	09/13/18 8:58	1	QC	1.9	NA	NA	NA	R0119 (NA)			

Total Samples: 12

Tetra Tech, Inc. CHAIN OF CUSTODY | NUMBER No. 3420 | PAGE 1 OF 1

PROJECT NO: 1126-08005-SE0525	FACILITY: JAX-TCC	PROJECT MANAGER Mark Patterson	PHONE NUMBER 9046366125	LABORATORY NAME AND CONTACT: Jon Thorn Battelle
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER Dave Sofka	PHONE NUMBER " " "	ADDRESS 141 Longwater Drive Suite 202
		CARRIER/WAYBILL NUMBER		CITY, STATE Norwell, MA 02061 (Jacksonville, FL)

STANDARD TAT ☐
RUSH TAT ☑ 5 day
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE (YEAR 2018)	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PFAS 537 — CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	COMMENTS
									P	N/A	
9/11	1255	JAX-TCC-EB02-09112018				QC	G	2	2		J7774
9/11	1340	JAX-TCC-MW03-09112018				GW	G	2	2		J7775
9/11	1340	JAX-TCC-MW03-09112018-FD				GW	G	2	2		J7776
9/11	1400	JAX-TCC-MW12-09112018				GW	G	2	2		J7777
9/11	1455	JAX-TCC-MW01-09112018				GW	G	2	2		J7778
9/11	1405	JAX-TCC-SW01-09112018			MG	SW	G	2	2		J7779
9/11	1435	JAX-TCC-SW02-09112018	MG			SW	G	2	2		J7780
9/11	1505	JAX-TCC-SD02-09112018				SD	G	1	1		J7781
9/11	1515	JAX-TCC-SD03-09112018				SD	G	1	1		J7782
9/11	1525	JAX-TCC-SD04-09112018				SD	G	1	1		J7783
9/11	1500	JAX-TCC-EB03-09112018				QC	G	2	2		J7784
9/11	1445	JAX-TCC-FRB-09112018				QC	G	1	1		J7785

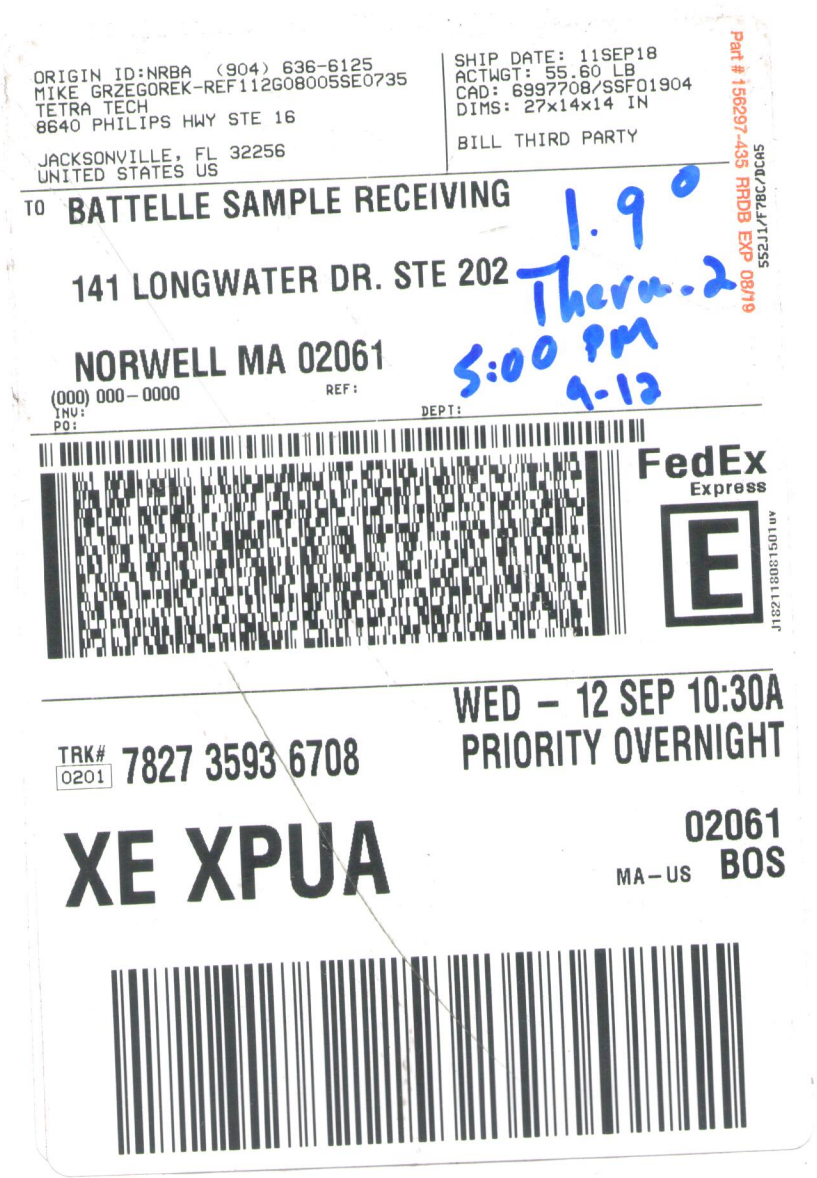
MG

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	9/11/2018	1630	1. RECEIVED BY FedEx		
2. RELINQUISHED BY			2. RECEIVED BY Battelle	9-12-18	5:00 PM
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001


ORIGIN ID:NRBA (904) 636-6125
MIKE GRZEGOREK-REF112G08005SE0735
TETRA TECH
8640 PHILIPS HWY STE 16
JACKSONVILLE, FL 32256
UNITED STATES US
SHIP DATE: 11SEP18
ACTWGT: 55.60 LB
CAD: 6997708/SSFO1904
DIMS: 27x14x14 IN
BILL THIRD PARTY
Part # 156297-435 RRDB EXP 08/19
55211/F78C/DC85
TO BATTELLE SAMPLE RECEIVING
141 LONGWATER DR. STE 202
NORWELL MA 02061
(000) 000-0000
INV:
PO:
REF:
DEPT:
1.9 °
Therm. 2
5:00 PM
9-12
FedEx
Express
J162118083501uv
TRK# 0201 7827 3593 6708
WED - 12 SEP 10:30A
PRIORITY OVERNIGHT
XE XPUA
02061
MA-US BOS

Data Tables

BATTELLE
It can be done

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-EB02-09112018				
Battelle ID		J7774-FS				
Sample Type		SA				
Collection Date		09/11/2018				
Extraction Date		09/14/2018				
Analysis Date		09/17/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		QC				
Sample Size		0.285				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	0.44	U	0.17	0.44	4.39
PFHpA	375-85-9	0.44	U	0.14	0.44	4.39
PFOA	335-67-1	0.99	J	0.16	0.44	4.39
PFNA	375-95-1	0.88	U	0.23	0.88	4.39
PFDA	335-76-2	0.44	U	0.14	0.44	4.39
PFUnA	2058-94-8	0.88	U	0.25	0.88	4.39
PFDoA	307-55-1	0.44	U	0.16	0.44	4.39
PFTrDA	72629-94-8	0.44	U	0.13	0.44	4.39
PFTeDA	376-06-7	0.88	U	0.22	0.88	4.39
NMeFOSAA	2355-31-9	1.75	U	0.49	1.75	4.39
NEtFOSAA	2991-50-6	0.88	U	0.43	0.88	4.39
PFBS	375-73-5	0.44	U	0.11	0.44	4.39
PFHxS	355-46-4	0.35	U	0.10	0.35	4.39
PFOS	1763-23-1	0.44	U	0.17	0.44	4.39

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	90
13C8-PFOA	94
13C9-PFNA	95
13C6-PFDA	91
13C7-PFUnA	84
13C2-PFDoA	82
13C2-PFTeDA	79
d3-MeFOSAA	105
d5-EtFOSAA	82
13C3-PFBS	87
13C3-PFHxS	96
13C8-PFOS	104

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-MWC3-09112018			
Battelle ID		J7775-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.270			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	82.28 D	0.35	0.93	9.26
PFHpA	375-85-9	48.44 D	0.30	0.93	9.26
PFOA	335-67-1	39.90	0.17	0.46	4.63
PFNA	375-95-1	14.32	0.24	0.93	4.63
PFDA	335-76-2	0.46 U	0.15	0.46	4.63
PFUnA	2058-94-8	0.93 U	0.27	0.93	4.63
PFDoA	307-55-1	0.46 U	0.17	0.46	4.63
PFTrDA	72629-94-8	0.46 U	0.14	0.46	4.63
PFTeDA	376-06-7	0.93 U	0.23	0.93	4.63
NMeFOSAA	2355-31-9	1.85 U	0.52	1.85	4.63
NEtFOSAA	2991-50-6	0.93 U	0.45	0.93	4.63
PFBS	375-73-5	12.54	0.12	0.46	4.63
PFHxS	355-46-4	66.11 D	0.20	0.74	9.26
PFOS	1763-23-1	108.75 D	0.88	2.31	23.15

Surrogate Recoveries (%)

13C5-PFHxA	87
13C4-PFHpA	99
13C8-PFOA	84
13C9-PFNA	82
13C6-PFDA	74
13C7-PFUnA	69
13C2-PFDoA	71
13C2-PFTeDA	70
d3-MeFOSAA	50
d5-EtFOSAA	56
13C3-PFBS	68
13C3-PFHxS	95
13C8-PFOS	86

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-MWC3-09112018-FD				
Battelle ID		J7776-FS				
Sample Type		SA				
Collection Date		09/11/2018				
Extraction Date		09/14/2018				
Analysis Date		09/18/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	83.89	D	0.35	0.91	9.09
PFHpA	375-85-9	60.19		0.15	0.45	4.55
PFOA	335-67-1	41.31		0.16	0.45	4.55
PFNA	375-95-1	14.75		0.24	0.91	4.55
PFDA	335-76-2	0.45	U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91	U	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91	U	0.45	0.91	4.55
PFBS	375-73-5	12.66		0.12	0.45	4.55
PFHxS	355-46-4	64.83	D	0.20	0.73	9.09
PFOS	1763-23-1	109.03	D	0.35	0.91	9.09

Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	103
13C8-PFOA	87
13C9-PFNA	89
13C6-PFDA	75
13C7-PFUnA	76
13C2-PFDoA	79
13C2-PFTeDA	78
d3-MeFOSAA	69
d5-EtFOSAA	77
13C3-PFBS	85
13C3-PFHxS	113
13C8-PFOS	90

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-MWI2-09112018			
Battelle ID		J7777-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/18/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	64.50 D	1.15	3.03	30.30
PFHpA	375-85-9	33.48	0.15	0.45	4.55
PFOA	335-67-1	71.97 D	0.65	1.82	18.18
PFNA	375-95-1	67.08 D	1.58	6.06	30.30
PFDA	335-76-2	6.21	0.15	0.45	4.55
PFUnA	2058-94-8	2.01 J	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91 U	0.45	0.91	4.55
PFBS	375-73-5	33.81	0.12	0.45	4.55
PFHxS	355-46-4	95.98 D	0.67	2.42	30.30
PFOS	1763-23-1	354.10 D	1.15	3.03	30.30

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	107
13C8-PFOA	82
13C9-PFNA	80
13C6-PFDA	86
13C7-PFUnA	85
13C2-PFDoA	86
13C2-PFTeDA	79
d3-MeFOSAA	88
d5-EtFOSAA	96
13C3-PFBS	111
13C3-PFHxS	112
13C8-PFOS	99

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-MWB1-09112018			
Battelle ID		J7778-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	18.91	0.17	0.45	4.55
PFHpA	375-85-9	8.67	0.15	0.45	4.55
PFOA	335-67-1	52.78 D	0.33	0.91	9.09
PFNA	375-95-1	1.72 J	0.24	0.91	4.55
PFDA	335-76-2	0.45 U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91 U	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91 U	0.45	0.91	4.55
PFBS	375-73-5	13.12	0.12	0.45	4.55
PFHxS	355-46-4	86.76 D	0.20	0.73	9.09
PFOS	1763-23-1	27.98	0.17	0.45	4.55

Surrogate Recoveries (%)

13C5-PFHxA	100
13C4-PFHpA	113
13C8-PFOA	100
13C9-PFNA	102
13C6-PFDA	95
13C7-PFUnA	91
13C2-PFDoA	86
13C2-PFTeDA	68
d3-MeFOSAA	72
d5-EtFOSAA	71
13C3-PFBS	65
13C3-PFHxS	90
13C8-PFOS	86

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-SW01-09112018			
Battelle ID		J7779-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/18/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		SW			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	36.38	0.17	0.45	4.55
PFHpA	375-85-9	14.23	0.15	0.45	4.55
PFOA	335-67-1	42.00	0.16	0.45	4.55
PFNA	375-95-1	6.95	0.24	0.91	4.55
PFDA	335-76-2	1.88 J	0.15	0.45	4.55
PFUnA	2058-94-8	0.89 J	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91 U	0.45	0.91	4.55
PFBS	375-73-5	16.54	0.12	0.45	4.55
PFHxS	355-46-4	38.73	0.10	0.36	4.55
PFOS	1763-23-1	133.69 D	0.86	2.27	22.73

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	106
13C8-PFOA	96
13C9-PFNA	90
13C6-PFDA	85
13C7-PFUnA	84
13C2-PFDoA	81
13C2-PFTeDA	72
d3-MeFOSAA	76
d5-EtFOSAA	86
13C3-PFBS	100
13C3-PFHxS	126
13C8-PFOS	104

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Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-SW02-09112018				
Battelle ID		J7780-FS				
Sample Type		SA				
Collection Date		09/11/2018				
Extraction Date		09/14/2018				
Analysis Date		09/18/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		SW				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	82.32	D	0.35	0.91	9.09
PFHpA	375-85-9	25.42		0.15	0.45	4.55
PFOA	335-67-1	42.50		0.16	0.45	4.55
PFNA	375-95-1	8.66		0.24	0.91	4.55
PFDA	335-76-2	1.91	J	0.15	0.45	4.55
PFUnA	2058-94-8	1.51	J	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91	U	0.45	0.91	4.55
PFBS	375-73-5	12.91		0.12	0.45	4.55
PFHxS	355-46-4	38.11		0.10	0.36	4.55
PFOS	1763-23-1	103.58	D	0.35	0.91	9.09

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	98
13C8-PFOA	91
13C9-PFNA	95
13C6-PFDA	85
13C7-PFUnA	77
13C2-PFDoA	91
13C2-PFTeDA	53
d3-MeFOSAA	70
d5-EtFOSAA	106
13C3-PFBS	97
13C3-PFHxS	103
13C8-PFOS	77

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-EB03-09112018			
Battelle ID		J7784-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		QC			
Sample Size		0.270			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.46 U	0.18	0.46	4.63
PFHpA	375-85-9	0.46 U	0.15	0.46	4.63
PFOA	335-67-1	0.97 J	0.17	0.46	4.63
PFNA	375-95-1	0.93 U	0.24	0.93	4.63
PFDA	335-76-2	0.46 U	0.15	0.46	4.63
PFUnA	2058-94-8	0.93 U	0.27	0.93	4.63
PFDoA	307-55-1	0.46 U	0.17	0.46	4.63
PFTrDA	72629-94-8	0.46 U	0.14	0.46	4.63
PFTeDA	376-06-7	0.93 U	0.23	0.93	4.63
NMeFOSAA	2355-31-9	1.85 U	0.52	1.85	4.63
NEtFOSAA	2991-50-6	0.93 U	0.45	0.93	4.63
PFBS	375-73-5	0.46 U	0.12	0.46	4.63
PFHxS	355-46-4	0.37 U	0.10	0.37	4.63
PFOS	1763-23-1	0.46 U	0.18	0.46	4.63

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	98
13C8-PFOA	101
13C9-PFNA	99
13C6-PFDA	91
13C7-PFUnA	97
13C2-PFDoA	93
13C2-PFTeDA	88
d3-MeFOSAA	64
d5-EtFOSAA	96
13C3-PFBS	83
13C3-PFHxS	83
13C8-PFOS	99

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-FRB-09112018			
Battelle ID		J7785-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		QC			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.45 U	0.17	0.45	4.55
PFHpA	375-85-9	0.45 U	0.15	0.45	4.55
PFOA	335-67-1	1.17 J	0.16	0.45	4.55
PFNA	375-95-1	0.91 U	0.24	0.91	4.55
PFDA	335-76-2	0.45 U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91 U	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91 U	0.45	0.91	4.55
PFBS	375-73-5	0.45 U	0.12	0.45	4.55
PFHxS	355-46-4	0.36 U	0.10	0.36	4.55
PFOS	1763-23-1	0.45 U	0.17	0.45	4.55

Surrogate Recoveries (%)

13C5-PFHxA	92
13C4-PFHpA	97
13C8-PFOA	93
13C9-PFNA	92
13C6-PFDA	103
13C7-PFUnA	99
13C2-PFDoA	97
13C2-PFTeDA	95
d3-MeFOSAA	87
d5-EtFOSAA	90
13C3-PFBS	89
13C3-PFHxS	73
13C8-PFOS	92

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JY46 IB				
Battelle ID		JY46 IB_09/17/2018				
Sample Type		IB				
Collection Date		NA				
Extraction Date		NA				
Analysis Date		09/17/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		Water				
Sample Size		0.250				
Size Unit-Basis		NA				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	0.50	U	0.19	0.50	5.00
PFHpA	375-85-9	0.50	U	0.16	0.50	5.00
PFOA	335-67-1	0.20	J	0.18	0.50	5.00
PFNA	375-95-1	1.00	U	0.26	1.00	5.00
PFDA	335-76-2	0.17	J	0.16	0.50	5.00
PFUnA	2058-94-8	1.00	U	0.29	1.00	5.00
PFDoA	307-55-1	0.50	U	0.18	0.50	5.00
PFTrDA	72629-94-8	0.50	U	0.15	0.50	5.00
PFTeDA	376-06-7	1.00	U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	2.00	U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	1.00	U	0.49	1.00	5.00
PFBS	375-73-5	0.17	J	0.13	0.50	5.00
PFHxS	355-46-4	0.17	J	0.11	0.40	5.00
PFOS	1763-23-1	0.28	J	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	91
13C8-PFOA	102
13C9-PFNA	101
13C6-PFDA	103
13C7-PFUnA	103
13C2-PFDoA	94
13C2-PFTeDA	93
d3-MeFOSAA	85
d5-EtFOSAA	90
13C3-PFBS	100
13C3-PFHxS	95
13C8-PFOS	99

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		Procedural Blank			
Battelle ID		CR817PB-FS			
Sample Type		PB			
Collection Date		09/14/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		WATER			
Sample Size		0.250			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00
PFHpA	375-85-9	0.50 U	0.16	0.50	5.00
PFOA	335-67-1	0.99 J	0.18	0.50	5.00
PFNA	375-95-1	1.00 U	0.26	1.00	5.00
PFDA	335-76-2	0.50 U	0.16	0.50	5.00
PFUnA	2058-94-8	1.00 U	0.29	1.00	5.00
PFDoA	307-55-1	0.50 U	0.18	0.50	5.00
PFTrDA	72629-94-8	0.50 U	0.15	0.50	5.00
PFTeDA	376-06-7	1.00 U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	2.00 U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	1.00 U	0.49	1.00	5.00
PFBS	375-73-5	0.50 U	0.13	0.50	5.00
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	96
13C8-PFOA	107
13C9-PFNA	99
13C6-PFDA	101
13C7-PFUnA	98
13C2-PFDoA	91
13C2-PFTeDA	85
d3-MeFOSAA	82
d5-EtFOSAA	91
13C3-PFBS	84
13C3-PFHxS	87
13C8-PFOS	87

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		Laboratory Control Sample					
Battelle ID		CR818LCS-FS					
Sample Type		LCS					
Collection Date		09/14/2018					
Extraction Date		09/14/2018					
Analysis Date		09/17/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS					
% Moisture		NA					
Matrix		WATER					
Sample Size		0.250					
Size Unit-Basis		L				Control Limits	
Units		ng/L	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	8.63	10.10	85		51	137
PFHpA	375-85-9	8.24	10.00	82		48	136
PFOA	335-67-1	10.05	10.00	101		49	141
PFNA	375-95-1	8.95	10.00	90		58	122
PFDA	335-76-2	9.86	10.00	99		59	135
PFUnA	2058-94-8	10.41	10.00	104		64	134
PFDoA	307-55-1	9.92	10.00	99		75	131
PFTrDA	72629-94-8	9.67	10.00	97		42	148
PFTeDA	376-06-7	9.96	10.00	100		42	158
NMeFOSAA	2355-31-9	11.62	10.00	116		50	146
NEtFOSAA	2991-50-6	9.52	10.00	95		51	131
PFBS	375-73-5	9.43	10.10	93		56	134
PFHxS	355-46-4	8.78	10.10	87		52	128
PFOS	1763-23-1	10.04	10.00	100		40	144
Surrogate Recoveries (%)							
13C5-PFHxA		95					
13C4-PFHpA		95					
13C8-PFOA		96					
13C9-PFNA		97					
13C6-PFDA		92					
13C7-PFUnA		85					
13C2-PFDoA		85					
13C2-PFTeDA		85					
d3-MeFOSAA		74					
d5-EtFOSAA		86					
13C3-PFBS		92					
13C3-PFHxS		98					
13C8-PFOS		88					

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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 highers 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 18-0560

Project:	CTO-SE0375: Naval Air Station Jacksonville
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	GW, SW, QC
Data Set:	DP-18-0267
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/11/2018	9/12/2018	1.9
Corrective Actions	None	
Sample Storage	The water samples were stored refrigerated until extraction.	
Related samples	The related FRB sample is included in this SDG, there is no separate SDG for the FRB sample.	

	METHOD SUMMARIES
Sample Preparation	Water samples were spiked with surrogates in the original sample container from the field. The water was extracted using a weak ion exchange solid phase extraction (SPE) cartridge and eluted from the SPE with 0.4% NH_3 in methanol. 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 using 500 µL of sample from bottle 2 prior to full SPE extraction. Sample JAX-TCC-SW02-09112018 (J7780-FS) clogged the filter in the SPE cartridge, as a result, the filter was manually moved to ensure proper flow of sample through the bed material. A green algae like substance was present. As a result of a preparation error while making the dilution, the dilution for J7777-FS-D(3), field sample JAX-TCC-MWI2-09112018, was made at a final PIV of 500 µL, not 1,000 µL.
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/L concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS.

QA/QC Summary
Batch 18-0560

Holding Times	Extraction Date(s)	Analysis Date(s)
	9/14/2018	9/17-18/2018

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.

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	Not applicable.
	A MS/MSD was not prepared with this data set.

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 quadradic 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.

QA/QC Summary
Batch 18-0560

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.
	No comments.

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

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Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project Number: 100119154-SE0375
Preparation Batch: 18-0560
Data Set: DP-18-0267
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	NA	NA
Matrix Spike / Matrix Spike Duplicate Precision	NA	NA
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

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BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-SE0375: Naval Air Station Jackson	**Data Set Number:**	DP-18-0267
Project Number:	100119154-SE0375	**Prep Batch Number:**	18-0560
Entered By:	Robert Lizotte Jr	**Entered On:**	09/18/2018
Test Code (Matrix Type):	Master_369(L)		

Package assembled by Robert Lizotte. Samples integrated by Denise Schumitz. Samples that were manually integrated are noted on the quant reports with the comment (TRUE).
-BL 9/18/2018

KA86 is not being used in method 18-0559_18-0560_BASE for NMeFOSAA. There is no impact on the data once this point is removed from the calibration.
-BL 9/18/2018

KA92 is not being used in method 18-0559_18-0560_BASE for NMeFOSAA. There is no impact on the data once this point is removed from the calibration.
-BL 9/18/2018

KA92 is not being used in method 18-0559_18-0560_SIS for d3-MeFOSAA. There is no impact on the data once this point is removed from the calibration.
-BL 9/18/2018

In all instances where the ion ratio was>50% in the sequences associated with this package, either the result was below calibration or was not reported from the extract that had an exceedence.
-BL 9/18/2018

Task Leader Approval:

SupervisorApproval:

PM Approval:

Digitally signed by Jonathan Thorn
Date: 2018.09.19 07:04:39 -04'00'

Example Calculation for PFAS

Calculation of final concentration from area:

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

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:	J7775-FS-D(3)
Client Sample ID:	JAX-TCC-MWC3-09112018
Sample Size:	0.27
Units:	L
Dilution Factor:	2.000
PIV (L):	0.001
Target Analyte:	PFHxA
MRM Transition:	313.0 / 269.0
Data file:	09172018.wiff
Result table:	18-0559_18-0560_BASE
Area:	3,485,711.38
IS Name:	13C5-PFHxA
IS Area:	71,567.46
IS Amount (ng/L):	250
y-intercept:	-0.04646
slope:	1.09727

$$\text{Concentration} = \frac{[(3485711.38/71567.46) - -0.04646]}{1.09727} * 250 * 0.001 * 2 / 0.27$$

ng/L = 82.28

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Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375
Preparation Batch: 18-0560
Data Set: DP-18-0267

		CR817PB-FS (Procedural Blank)	CR818LCS-FS (Laboratory Control Sample)	J7774-FS (JAX-TCC-EB02-09112018)	J7775-FS (JAX-TCC-MWC3-09112018)	J7776-FS (JAX-TCC-MWC3-09112018-FD)	J7777-FS (JAX-TCC-MWI2-09112018)
PFHxA	307-24-4	-	L	-	L	L	L
PFHpA	375-85-9	-	L	-	L	L	L
PFOA	335-67-1	L	L	L	L	L	L
PFNA	375-95-1	-	L	-	L	L	L
PFDA	335-76-2	-	L	-	-	-	L
PFUnA	2058-94-8	-	L	-	-	-	L
PFDoA	307-55-1	-	L	-	-	-	-
PFTrDA	72629-94-8	-	L	-	-	-	-
PFTeDA	376-06-7	-	L	-	-	-	-
NMeFOSAA	2355-31-9	-	L	-	-	-	-
NEtFOSAA	2991-50-6	-	L	-	-	-	-
PFBS	375-73-5	-	L	-	L	L	L
PFHxS	355-46-4	-	L/Br	-	L/Br	L/Br	L/Br
PFOS	1763-23-1	-	L/Br	-	L/Br	L/Br	L/Br

"L" :Linear
"Br": branched
"L/Br": Linear/Branched
"-": Not detected

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375
Preparation Batch
Data Set: DP-18-(

	J7778-FS (JAX-TCC-MWB1-09112018)	J7779-FS (JAX-TCC-SW01-09112018)	J7780-FS (JAX-TCC-SW02-09112018)	J7784-FS (JAX-TCC-EB03-09112018)	J7785-FS (JAX-TCC-FRB-09112018)
PFHxA	L	L	L	-	-
PFHpA	L	L	L	-	-
PFOA	L	L	L	L	L
PFNA	L	L	L	-	-
PFDA	-	L	L	-	-
PFUnA	-	L	L	-	-
PFDoA	-	-	-	-	-
PFTrDA	-	-	-	-	-
PFTeDA	-	-	-	-	-
NMeFOSAA	-	-	-	-	-
NEtFOSAA	-	-	-	-	-
PFBS	L	L	L	-	-
PFHxS	L/Br	L/Br	L/Br	-	-
PFOS	L/Br	L/Br	L/Br	-	-

"L" :Linear
"Br": branched
"L/Br": Linear/Bra
"-": Not detected

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KA90	L5	9/17/18 19:02	13C2-PFOA	60,385.02	30,192.51	90,577.53

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	9/17/18 18:19	13C2-PFOA	64,521.69	30,192.51	90,577.53	
KA87	L2	9/17/18 18:30	13C2-PFOA	58,412.50	30,192.51	90,577.53	
KA88	L3	9/17/18 18:41	13C2-PFOA	44,126.10	30,192.51	90,577.53	
KA89	L4	9/17/18 18:51	13C2-PFOA	49,957.68	30,192.51	90,577.53	
KA90	L5	9/17/18 19:02	13C2-PFOA	60,385.02	30,192.51	90,577.53	
KA91	L6	9/17/18 19:13	13C2-PFOA	52,038.12	30,192.51	90,577.53	
KA92	L7	9/17/18 19:24	13C2-PFOA	53,157.48	30,192.51	90,577.53	
JY46 IB	Instrument Blank	9/17/18 19:35	13C2-PFOA	67,042.08	30,192.51	90,577.53	
JY45 ICC	ICC	9/17/18 19:46	13C2-PFOA	54,959.55	30,192.51	90,577.53	
KA90 CCV	CCV	9/17/18 21:34	13C2-PFOA	70,260.72	30,192.51	90,577.53	
CR817PB-FS(0)	Procedural Blank	9/17/18 21:56	13C2-PFOA	53,051.25	30,192.51	90,577.53	
CR818LCS-FS(0)	Laboratory Control Sample	9/17/18 22:07	13C2-PFOA	59,935.86	30,192.51	90,577.53	
J7785-FS(0)	JAX-TCC-FRB-09112018	9/17/18 22:18	13C2-PFOA	78,551.20	30,192.51	90,577.53	
J7774-FS(0)	JAX-TCC-EB02-09112018	9/17/18 22:29	13C2-PFOA	60,571.43	30,192.51	90,577.53	
J7784-FS(0)	JAX-TCC-EB03-09112018	9/17/18 22:40	13C2-PFOA	71,509.00	30,192.51	90,577.53	
KA89 CCV	CCV	9/17/18 22:50	13C2-PFOA	65,879.42	30,192.51	90,577.53	
J7778-FS(0)	JAX-TCC-MWB1-09112018	9/17/18 23:12	13C2-PFOA	71,433.97	30,192.51	90,577.53	
J7778-FS-D(3)	JAX-TCC-MWB1-09112018	9/17/18 23:23	13C2-PFOA	75,911.25	30,192.51	90,577.53	
J7775-FS(0)	JAX-TCC-MWC3-09112018	9/17/18 23:34	13C2-PFOA	82,151.72	30,192.51	90,577.53	
J7775-FS-D(3)	JAX-TCC-MWC3-09112018	9/17/18 23:45	13C2-PFOA	76,080.29	30,192.51	90,577.53	
J7775-FS-D(5)	JAX-TCC-MWC3-09112018	9/17/18 23:56	13C2-PFOA	69,911.79	30,192.51	90,577.53	
J7776-FS(0)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:06	13C2-PFOA	65,778.57	30,192.51	90,577.53	
J7776-FS-D(3)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:17	13C2-PFOA	65,977.30	30,192.51	90,577.53	
J7776-FS-D(5)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:28	13C2-PFOA	75,909.18	30,192.51	90,577.53	
KA90 CCV	CCV	9/18/18 0:50	13C2-PFOA	72,776.45	30,192.51	90,577.53	
J7779-FS(0)	JAX-TCC-SW01-09112018	9/18/18 1:12	13C2-PFOA	72,674.59	30,192.51	90,577.53	
J7779-FS-D(3)	JAX-TCC-SW01-09112018	9/18/18 1:22	13C2-PFOA	71,027.46	30,192.51	90,577.53	
J7779-FS-D(5)	JAX-TCC-SW01-09112018	9/18/18 1:33	13C2-PFOA	77,211.15	30,192.51	90,577.53	
J7780-FS(0)	JAX-TCC-SW02-09112018	9/18/18 1:44	13C2-PFOA	71,272.08	30,192.51	90,577.53	
J7780-FS-D(3)	JAX-TCC-SW02-09112018	9/18/18 1:55	13C2-PFOA	68,877.14	30,192.51	90,577.53	
J7780-FS-D(5)	JAX-TCC-SW02-09112018	9/18/18 2:06	13C2-PFOA	70,884.11	30,192.51	90,577.53	
J7777-FS(0)	JAX-TCC-MWI2-09112018	9/18/18 2:17	13C2-PFOA	72,332.66	30,192.51	90,577.53	
J7777-FS-D(3)	JAX-TCC-MWI2-09112018	9/18/18 2:28	13C2-PFOA	77,594.28	30,192.51	90,577.53	
J7777-FS-D(5)	JAX-TCC-MWI2-09112018	9/18/18 2:39	13C2-PFOA	75,190.46	30,192.51	90,577.53	
KA89 CCV	CCV	9/18/18 3:00	13C2-PFOA	65,846.37	30,192.51	90,577.53	

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KA90	L5	9/17/18 19:02	13C2-PFDA	61,266.67	30,633.34	91,900.01

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	9/17/18 18:19	13C2-PFDA	62,612.00	30,633.34	91,900.01	
KA87	L2	9/17/18 18:30	13C2-PFDA	57,413.84	30,633.34	91,900.01	
KA88	L3	9/17/18 18:41	13C2-PFDA	47,686.88	30,633.34	91,900.01	
KA89	L4	9/17/18 18:51	13C2-PFDA	47,657.14	30,633.34	91,900.01	
KA90	L5	9/17/18 19:02	13C2-PFDA	61,266.67	30,633.34	91,900.01	
KA91	L6	9/17/18 19:13	13C2-PFDA	48,271.12	30,633.34	91,900.01	
KA92	L7	9/17/18 19:24	13C2-PFDA	57,726.45	30,633.34	91,900.01	
JY46 IB	Instrument Blank	9/17/18 19:35	13C2-PFDA	65,007.41	30,633.34	91,900.01	
JY45 ICC	ICC	9/17/18 19:46	13C2-PFDA	56,928.59	30,633.34	91,900.01	
KA90 CCV	CCV	9/17/18 21:34	13C2-PFDA	74,049.18	30,633.34	91,900.01	
CR817PB-FS(0)	Procedural Blank	9/17/18 21:56	13C2-PFDA	52,580.90	30,633.34	91,900.01	
CR818LCS-FS(0)	Laboratory Control Sample	9/17/18 22:07	13C2-PFDA	61,177.12	30,633.34	91,900.01	
J7785-FS(0)	JAX-TCC-FRB-09112018	9/17/18 22:18	13C2-PFDA	73,830.16	30,633.34	91,900.01	
J7774-FS(0)	JAX-TCC-EB02-09112018	9/17/18 22:29	13C2-PFDA	66,168.81	30,633.34	91,900.01	
J7784-FS(0)	JAX-TCC-EB03-09112018	9/17/18 22:40	13C2-PFDA	72,359.73	30,633.34	91,900.01	
KA89 CCV	CCV	9/17/18 22:50	13C2-PFDA	62,464.07	30,633.34	91,900.01	
J7778-FS(0)	JAX-TCC-MWB1-09112018	9/17/18 23:12	13C2-PFDA	68,975.15	30,633.34	91,900.01	
J7778-FS-D(3)	JAX-TCC-MWB1-09112018	9/17/18 23:23	13C2-PFDA	77,902.48	30,633.34	91,900.01	
J7775-FS(0)	JAX-TCC-MWC3-09112018	9/17/18 23:34	13C2-PFDA	88,266.39	30,633.34	91,900.01	
J7775-FS-D(3)	JAX-TCC-MWC3-09112018	9/17/18 23:45	13C2-PFDA	76,425.76	30,633.34	91,900.01	
J7775-FS-D(5)	JAX-TCC-MWC3-09112018	9/17/18 23:56	13C2-PFDA	74,381.92	30,633.34	91,900.01	
J7776-FS(0)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:06	13C2-PFDA	70,892.91	30,633.34	91,900.01	
J7776-FS-D(3)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:17	13C2-PFDA	63,011.62	30,633.34	91,900.01	
J7776-FS-D(5)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:28	13C2-PFDA	73,242.80	30,633.34	91,900.01	
KA90 CCV	CCV	9/18/18 0:50	13C2-PFDA	72,417.41	30,633.34	91,900.01	
J7779-FS(0)	JAX-TCC-SW01-09112018	9/18/18 1:12	13C2-PFDA	72,243.55	30,633.34	91,900.01	
J7779-FS-D(3)	JAX-TCC-SW01-09112018	9/18/18 1:22	13C2-PFDA	69,569.50	30,633.34	91,900.01	
J7779-FS-D(5)	JAX-TCC-SW01-09112018	9/18/18 1:33	13C2-PFDA	72,355.49	30,633.34	91,900.01	
J7780-FS(0)	JAX-TCC-SW02-09112018	9/18/18 1:44	13C2-PFDA	81,104.72	30,633.34	91,900.01	
J7780-FS-D(3)	JAX-TCC-SW02-09112018	9/18/18 1:55	13C2-PFDA	71,362.01	30,633.34	91,900.01	
J7780-FS-D(5)	JAX-TCC-SW02-09112018	9/18/18 2:06	13C2-PFDA	73,066.71	30,633.34	91,900.01	
J7777-FS(0)	JAX-TCC-MWI2-09112018	9/18/18 2:17	13C2-PFDA	74,047.53	30,633.34	91,900.01	
J7777-FS-D(3)	JAX-TCC-MWI2-09112018	9/18/18 2:28	13C2-PFDA	78,718.64	30,633.34	91,900.01	
J7777-FS-D(5)	JAX-TCC-MWI2-09112018	9/18/18 2:39	13C2-PFDA	78,823.90	30,633.34	91,900.01	
KA89 CCV	CCV	9/18/18 3:00	13C2-PFDA	71,257.30	30,633.34	91,900.01	

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

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It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KA90	L5	9/17/18 19:02	13C4-PFOS	23,857.68	11,928.84	35,786.52

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	9/17/18 18:19	13C4-PFOS	19,991.76	11,928.84	35,786.52	
KA87	L2	9/17/18 18:30	13C4-PFOS	19,680.67	11,928.84	35,786.52	
KA88	L3	9/17/18 18:41	13C4-PFOS	18,034.60	11,928.84	35,786.52	
KA89	L4	9/17/18 18:51	13C4-PFOS	16,124.75	11,928.84	35,786.52	
KA90	L5	9/17/18 19:02	13C4-PFOS	23,857.68	11,928.84	35,786.52	
KA91	L6	9/17/18 19:13	13C4-PFOS	18,411.39	11,928.84	35,786.52	
KA92	L7	9/17/18 19:24	13C4-PFOS	20,888.13	11,928.84	35,786.52	
JY46 IB	Instrument Blank	9/17/18 19:35	13C4-PFOS	23,110.50	11,928.84	35,786.52	
JY45 ICC	ICC	9/17/18 19:46	13C4-PFOS	22,540.57	11,928.84	35,786.52	
KA90 CCV	CCV	9/17/18 21:34	13C4-PFOS	23,913.38	11,928.84	35,786.52	
CR817PB-FS(0)	Procedural Blank	9/17/18 21:56	13C4-PFOS	20,582.69	11,928.84	35,786.52	
CR818LCS-FS(0)	Laboratory Control Sample	9/17/18 22:07	13C4-PFOS	21,283.14	11,928.84	35,786.52	
J7785-FS(0)	JAX-TCC-FRB-09112018	9/17/18 22:18	13C4-PFOS	28,679.95	11,928.84	35,786.52	
J7774-FS(0)	JAX-TCC-EB02-09112018	9/17/18 22:29	13C4-PFOS	21,220.95	11,928.84	35,786.52	
J7784-FS(0)	JAX-TCC-EB03-09112018	9/17/18 22:40	13C4-PFOS	26,930.10	11,928.84	35,786.52	
KA89 CCV	CCV	9/17/18 22:50	13C4-PFOS	24,646.76	11,928.84	35,786.52	
J7778-FS(0)	JAX-TCC-MWB1-09112018	9/17/18 23:12	13C4-PFOS	27,817.65	11,928.84	35,786.52	
J7778-FS-D(3)	JAX-TCC-MWB1-09112018	9/17/18 23:23	13C4-PFOS	28,315.52	11,928.84	35,786.52	
J7775-FS(0)	JAX-TCC-MWC3-09112018	9/17/18 23:34	13C4-PFOS	29,617.94	11,928.84	35,786.52	
J7775-FS-D(3)	JAX-TCC-MWC3-09112018	9/17/18 23:45	13C4-PFOS	28,555.12	11,928.84	35,786.52	
J7775-FS-D(5)	JAX-TCC-MWC3-09112018	9/17/18 23:56	13C4-PFOS	26,807.77	11,928.84	35,786.52	
J7776-FS(0)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:06	13C4-PFOS	21,402.07	11,928.84	35,786.52	
J7776-FS-D(3)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:17	13C4-PFOS	20,665.44	11,928.84	35,786.52	
J7776-FS-D(5)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:28	13C4-PFOS	23,450.87	11,928.84	35,786.52	
KA90 CCV	CCV	9/18/18 0:50	13C4-PFOS	26,409.02	11,928.84	35,786.52	
J7779-FS(0)	JAX-TCC-SW01-09112018	9/18/18 1:12	13C4-PFOS	21,832.68	11,928.84	35,786.52	
J7779-FS-D(3)	JAX-TCC-SW01-09112018	9/18/18 1:22	13C4-PFOS	25,967.10	11,928.84	35,786.52	
J7779-FS-D(5)	JAX-TCC-SW01-09112018	9/18/18 1:33	13C4-PFOS	26,654.59	11,928.84	35,786.52	
J7780-FS(0)	JAX-TCC-SW02-09112018	9/18/18 1:44	13C4-PFOS	22,669.50	11,928.84	35,786.52	
J7780-FS-D(3)	JAX-TCC-SW02-09112018	9/18/18 1:55	13C4-PFOS	21,441.48	11,928.84	35,786.52	
J7780-FS-D(5)	JAX-TCC-SW02-09112018	9/18/18 2:06	13C4-PFOS	24,148.23	11,928.84	35,786.52	
J7777-FS(0)	JAX-TCC-MWI2-09112018	9/18/18 2:17	13C4-PFOS	21,734.72	11,928.84	35,786.52	
J7777-FS-D(3)	JAX-TCC-MWI2-09112018	9/18/18 2:28	13C4-PFOS	24,257.91	11,928.84	35,786.52	
J7777-FS-D(5)	JAX-TCC-MWI2-09112018	9/18/18 2:39	13C4-PFOS	28,128.62	11,928.84	35,786.52	
KA89 CCV	CCV	9/18/18 3:00	13C4-PFOS	26,272.03	11,928.84	35,786.52	

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Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 18/09/2018 3:56:55 PM

Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 7:24:30 PM	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS_1	298.9 / 80.0	1.54	49	>10
PFBS_2	298.9 / 99.0	1.54	50	>10
PFHxA_1	313.0 / 269.0	1.85	23	>10
PFHxA_2	313.0 / 119.0	1.85	21	>10
PFHpA_1	363.0 / 319.0	2.25	27	>10
PFHpA_2	363.0 / 169.0	2.25	31	>10
PFHxS_1	399.0 / 80.0	2.27	49	>10
PFHxS_2	399.0 / 99.0	2.27	54	>10
PFOA_1	413.0 / 369.0	2.64	30	>10
PFOA_2	413.0 / 169.0	2.64	33	>10
PFNA_1	463.0 / 419.0	3.03	27	>10
PFNA_2	463.0 / 219.0	3.03	33	>10
PFOS_1	499.0 / 80.0	3.03	70	>10
PFOS_2	499.0 / 99.0	3.03	57	>10
PFDA_1	513.0 / 469.0	3.38	31	>10
PFDA_2	513.0 / 219.0	3.38	34	>10
PFUnA_1	563.0 / 519.0	3.70	59	>10
PFUnA_2	563.0 / 269.0	3.70	52	>10
PFDoA_1	613.0 / 569.0	3.98	66	>10
PFDoA_2	613.0 / 319.0	3.98	66	>10
PFTrDA_1	663.0 / 619.0	4.22	73	>10
PFTrDA_2	663.0 / 169.0	4.22	38	>10
PFTeDA_1	713.0 / 669.0	4.43	58	>10
PFTeDA_2	713.0 / 169.0	4.43	66	>10
NMeFOSAA_1	570.0 / 419.0	3.53	40	>10
NMeFOSAA_2	570.0 / 512.0	3.53	20	>10
NEtFOSAA_1	584.0 / 419.0	3.69	28	>10
NEtFOSAA_2	584.0 / 483.0	3.69	26	>10

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Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 18/09/2018 3:57:39 PM

Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 7:24:30 PM	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
13C2-PFDoA	615.0 / 570.0	3.97	48	>10
d3-MeFOSAA	573.0 / 419.0	3.52	21	>10
d5-EtFOSAA	589.0 / 419.0	3.68	20	>10
13C5-PFHxA	318.0 / 273.0	1.84	30	>10
13C4-PFHpA	367.0 / 322.0	2.23	32	>10
13C8-PFOA	421.0 / 376.0	2.63	33	>10
13C9-PFNA	472.0 / 427.0	3.02	46	>10
13C6-PFDA	519.0 / 474.0	3.37	37	>10
13C7-PFUnA	570.0 / 525.0	3.68	22	>10
13C2-PFTeDA	715.0 / 670.0	4.43	40	>10
13C3-PFBS	302.0 / 99.0	1.52	34	>10
13C3-PFHxS	402.0 / 99.0	2.26	25	>10
13C8-PFOS	507.0 / 99.0	3.02	19	>10

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It can be done

Precision and Bias at the LOQ for PFAS in non-potable Water

Analyte	CAS No.	Average (ng/L)	ST DEV	2 Sigma	n
PFBA	375-22-4	12.29	2.02	4.04	13
PFPeA	2706-90-3	10.73	1.51	3.02	9
PFHxA	307-24-4	9.93	1.30	2.60	39
PFHpA	375-85-9	9.42	1.57	3.14	39
PFOA	335-67-1	10.18	1.47	2.94	40
PFNA	375-95-1	9.64	1.15	2.30	39
PFDA	335-76-2	9.89	1.32	2.64	39
PFUnA	2058-94-8	9.86	1.31	2.62	39
PFDoA	307-55-1	10.75	1.29	2.58	39
PFTrDA	72629-94-8	11.18	1.54	3.08	39
PFTeDA	376-06-7	10.70	1.91	3.82	39
NMeFOSAA	2355-31-9	10.26	1.87	3.74	39
NEtFOSAA	2991-50-6	9.63	1.54	3.08	39
PFOSA	754-91-6	9.74	1.14	2.28	4
PFBS	375-73-5	10.05	1.44	2.88	40
PFPeS	BDO-2114	9.80	0.96	1.92	5
PFHxS	355-46-4	9.76	1.40	2.80	39
PFHpS	375-99-6	10.96	0.96	1.92	10
PFOS	1763-23-1	10.09	1.36	2.72	38
PFNS	98789-57-2	9.34	1.10	2.20	4
PFDS	2806-15-7	10.13	1.88	3.76	9
4:2FTS	BDO-2205	11.03	1.26	2.52	9
6:2FTS	27619-97-2	12.52	2.91	5.82	9
8:2FTS	39108-34-4	12.11	2.54	5.08	9

BATTELLE DETECTION LIMITS FOR PFAS IN NON-POTABLE WATER

Analytical SOP 5-369
Extraction SOP 5-370

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

Analyte	CAS No.	MDL (ng/L)	LOD (ng/L)	LOQ (ng/L)
PFBA	375-22-4	0.14	0.5	5.0
PFPeA	2706-90-3	0.31	1.0	5.0
PFHxA	307-24-4	0.19	0.5	5.0
PFHpA	375-85-9	0.16	0.5	5.0
PFOA	335-67-1	0.18	0.5	5.0
PFNA	375-95-1	0.26	1.0	5.0
PFDA	335-76-2	0.16	0.5	5.0
PFUnA	2058-94-8	0.29	1.0	5.0
PFDoA	307-55-1	0.18	0.5	5.0
PFTrDA	72629-94-8	0.15	0.5	5.0
PFTeDA	376-06-7	0.25	1.0	5.0
NMeFOSAA	2355-31-9	0.56	2.0	5.0
NEtFOSAA	2991-50-6	0.49	1.0	5.0
PFOSA	754-91-6	TBD	TBD	TBD
PFBS	375-73-5	0.13	0.5	5.0
PFPeS	BDO-2114	0.67	2.5	5.0
PFHxS	355-46-4	0.11	0.4	5.0
PFHpS	375-99-6	0.20	0.5	5.0
PFOS	1763-23-1	0.19	0.5	5.0
PFNS	98789-57-2	0.46	1.0	5.0
PFDS	2806-15-7	0.17	0.5	5.0
4:2FTS	BDO-2205	0.14	0.5	5.0
6:2FTS	27619-97-2	1.36	2.5	5.0
8:2FTS	39108-34-4	0.22	0.5	5.0

Analytes on NELAP and ELAP QSM 5.1 Scope of accreditation

ID 596 04/18

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-PFHpA	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-PFUnA	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

BATTELLE

Non-Potable Water Calibration to Sample Equivalents

ICAL (ng/L)	PIV (mL)	DF[1]	Sample Size (L)	Sample Equivalent (ng/L)[2]
25	1	1	0.250	0.1
50	1	1	0.250	0.2
100	1	1	0.250	0.4
250	1	1	0.250	1.0
500	1	1	0.250	2.0
1,000	1	1	0.250	4.0
2,500	1	1	0.250	10.0
10,000	1	1	0.250	40.0
20,000	1	1	0.250	80.0

[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 (x 10^{-5} Torr)	Acceptance Criteria
☑ CAD 0	0.6	0.4 to 1.1 x10^{-5} Torr
☑ CAD Low	1.3	Read Only
☑ CAD Medium	2.7	Read Only
☑ CAD High	3.7	Read Only
☑ CAD 12	3.7	2.4 to 4.5 x10^{-5} Torr

☑ Check for Front end contamination symptoms. Run Q1 POS PPG using PPG 2e-7for 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-7for 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. ☐ N/A
☑ Clean and inspect built-in divert valve if used. ☐ N/A
☑ 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 (x 10^{-5} Torr)	Acceptance Criteria
☑ CAD 0	0.7	0.4 to 1.1 x10^{-5} Torr
☑ CAD Low	1.3	Read Only
☑ CAD Medium	2.7	Read Only
☑ CAD High	3.7	Read Only
☑ CAD 12	3.7	2.4 to 4.5 x10^{-5} Torr

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

Mass	Q1 Intensity		Q1 Width	Width Specs
	Value	Spec	Value	
Scan Rate 10 Da/s Record 10 mca				
Q1 175.133	5.04 e6	≥1.2^{e}6	0.6737	0.6 to 0.8
Q1 500.380	1.60 e7	≥9.0^{e}6	0.6961	0.6 to 0.8
Q1 906.673	2.84 e7	≥1.4^{e}7	0.7179	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q1 906.673	1.33 e8	≥6.8^{e}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	Width Specs
	Value	Spec	Value	
Scan Rate 10 Da/s Record 10 mca				
Q3 175.133	5.02 e6	≥1.2^{e}6	0.6719	0.6 to 0.8
Q3 500.380	1.72 e7	≥9.0^{e}6	0.7443	0.6 to 0.8
Q3 906.673	3.00 e7	≥1.4^{e}7	0.7504	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q3 906.673	1.46 e8	≥6.8^{e}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% (≥ 10.0%)

Mass	MSMS Intensity		Width	Width Specs
	Value	Spec	Value	
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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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	≥1.0^{e}7	0.7486	0.6 to 0.8
Q1 933.636	1000	50	7.52 e7	≥4.0^{e}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	≥8.0^{e}6	0.7492	0.6 to 0.8
Q3 933.636	1000	50	8.33 e7	≥4.0^{e}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	≥7.2 ^{e}6	0.1473	<0.35
ER 922.010	0.05	4.96 e7	≥2.8 ^{e}6	0.2434	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 118.087	0.05		≥2.4 ^{e}7		<0.65
ER 922.010	0.05		≥6.8 ^{e}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	≥4.4 ^{e}7	0.1862	<0.35
ER 601.978	0.05	1.70 e8	≥5.6 ^{e}7	0.1809	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 431.982	0.05	5.72 e8	≥1.2 ^{e}8	0.5102	<0.65
ER 601.978	0.05	4.52 e8	≥1.6 ^{e}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	≥2.0 e6	> 7.0 e6	≥6.4 e6

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

Mass	Scan Rate (Da/s)	Fragamentation OFF		Fragmentation ON	
		Intensity	Spec	Intensity	Spec
MS3 397.2	1000	Yes	Contains only 397.2	N/A	N/A
☐ 236 OR ☑ 365	1000	Yes	Fragment Intensity	> 2.0 e6	≥1.6x $10^{e}6$

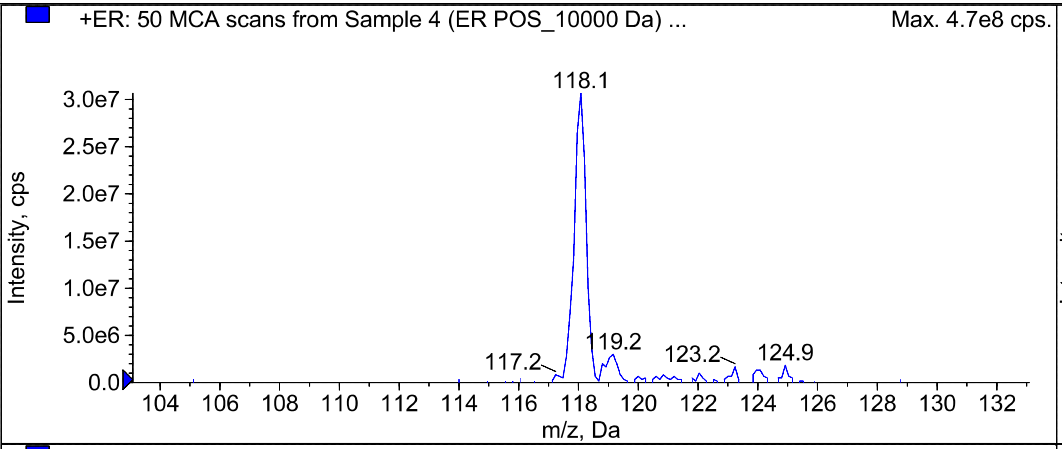
REVIEW:

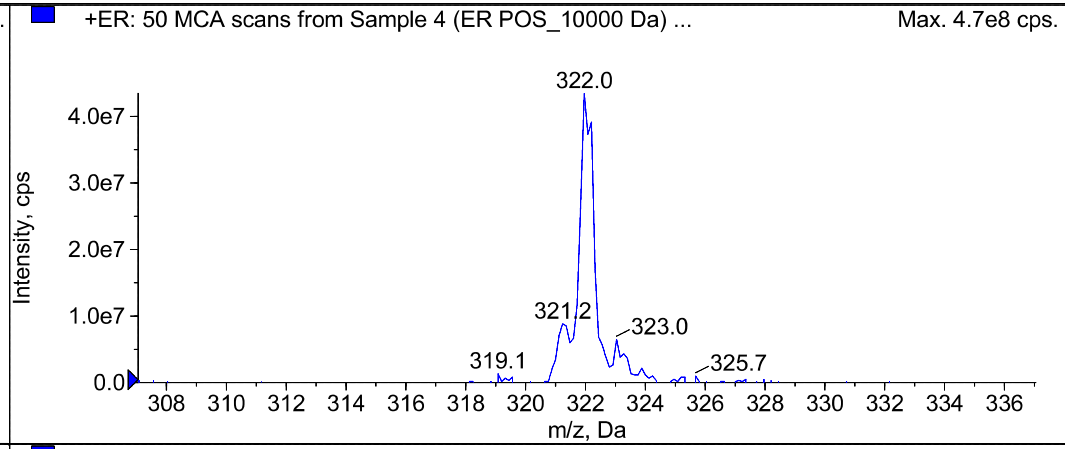
☑ Attach all spectrums printouts to this procedure.
☑ If any parameter setting access modes were changed during the PM, ensure they are returned to their normal access mode and that their offsets are adjusted to match optimized values from the post-PM acquisition files.
☐ Empty tuning cache folder, if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

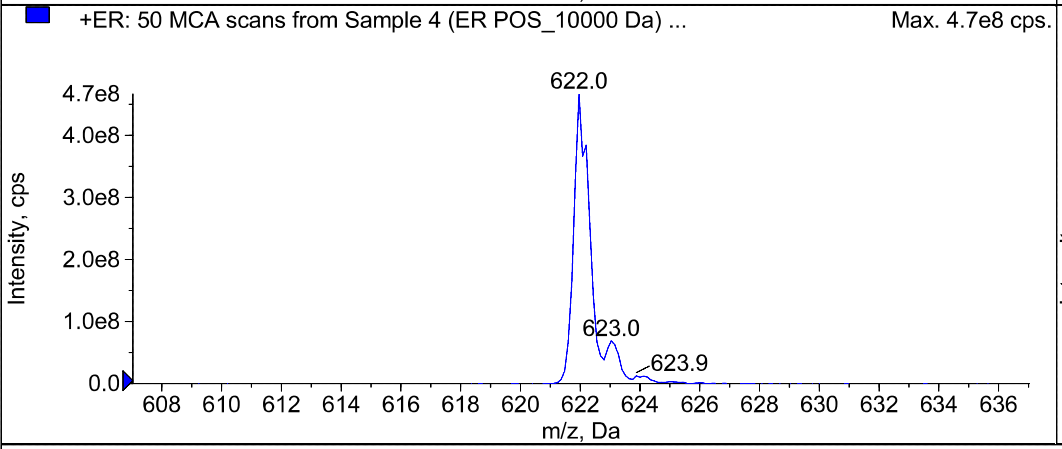
END OF PREVENTIVE MAINTENANCE CHECKLIST

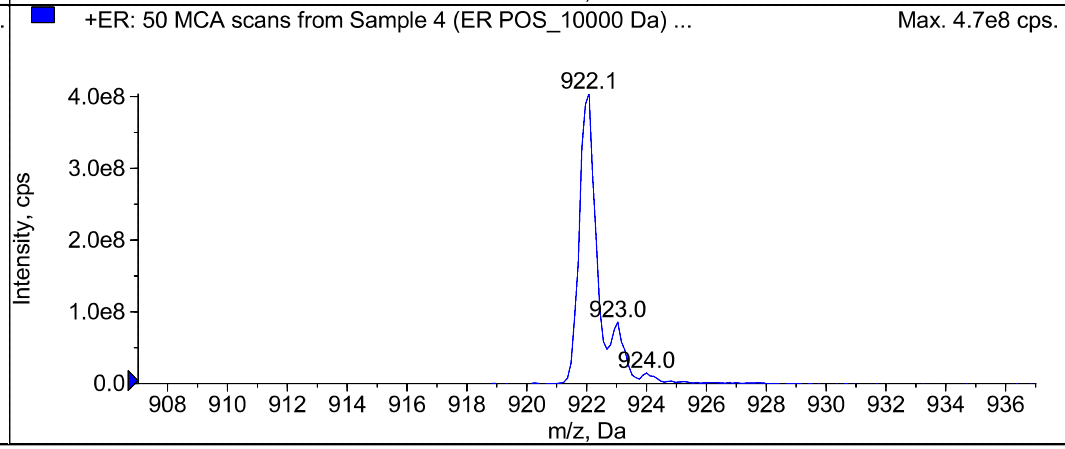
Document history:

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)
JY26	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
JY28	PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS)	JY27	180726-05
JY45	PFAS - DoD ICC	JY27	180726-05
JY45	PFAS - DoD ICC	JZ27	171025-01
JY45	PFAS - DoD ICC	JY25	180726-04
JY46	PFAS - DoD Instrument Blank	JY25	180726-04
JY46	PFAS - DoD Instrument Blank	JY27	180726-05
JZ88	PFAS - DoD Second Source LCS/MS Solution	-	170724-01
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-02
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-03
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-04
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-06
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-07
KA86	PFAS - DoD Calibration L1	JY23	180705-02
KA86	PFAS - DoD Calibration L1	JY25	180726-04
KA86	PFAS - DoD Calibration L1	JY27	180726-05
KA87	PFAS - DoD Calibration L2	JY25	180726-04
KA87	PFAS - DoD Calibration L2	JY23	180705-02
KA87	PFAS - DoD Calibration L2	JY27	180726-05
KA88	PFAS - DoD Calibration L3	JY27	180726-05
KA88	PFAS - DoD Calibration L3	JY25	180726-04
KA88	PFAS - DoD Calibration L3	KA85	180705-02
KA89	PFAS - DoD Calibration L4	KA85	180705-02
KA89	PFAS - DoD Calibration L4	JY25	180726-04
KA89	PFAS - DoD Calibration L4	JY27	180726-05
KA90	PFAS - DoD Calibration L5	JY27	180726-05
KA90	PFAS - DoD Calibration L5	JY25	180726-04
KA90	PFAS - DoD Calibration L5	KA85	180705-02
KA91	PFAS - DoD Calibration L6	KA85	180705-02
KA91	PFAS - DoD Calibration L6	JY25	180726-04
KA91	PFAS - DoD Calibration L6	JY27	180726-05
KA92	PFAS - DoD Calibration L7	JY27	180726-05
KA92	PFAS - DoD Calibration L7	JY25	180726-04
KA92	PFAS - DoD Calibration L7	KA85	180705-02

BATTELLE
It can be done

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	~50.000000	01/17/23	---	---	100 uL	1	10	~0.5000
180618-03	Branched NMeFOSAA Standard (50 µg/mL)	Neat	~50.000000	01/17/23	---	---	100 uL	1	10	~0.5000
180618-04	PFOA - Technical Mix	Neat	~50.000000	02/16/22	---	---	100 uL	1	10	~0.5000
180618-06	Branched PFHxS Standard (50 µg/mL)	Neat	~50.000000	01/04/22	---	---	100 uL	1	10	~0.5000
180618-07	Branched PFOS Standard (50 µg/mL)	Neat	~50.000000	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: _____

Comment:

Solvent:	Lot:
Methanol (HPLC)	179315

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

BATTELLE

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

BATTELLE

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	~1.000000	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

BATTELLE

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-hexanesulfonate	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

BATTELLE

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

BATTELLE

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	~2.000000	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

BATTELLE

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	Conv. Factor	Final Vol mL	Concentration (ug/mL)
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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: JY26

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:** 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 9:16:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY26

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:** 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 9:16:00 AM

BATTELLE

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

BATTELLE

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-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:** 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

BATTELLE

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: JY28

Description: PFAS - DoD Low 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)
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	2500 uL	1	25	~0.0000

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY28

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

Stock Id: JY27

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (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:** 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

BATTELLE

It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY28

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

13C8-PFOA	.00500
13C8-PFOS	.00478
13C9-PFNA	.00500
d3-MeFOSAA	.00500
d5-EtFOSAA	.00500

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY27	Pipette	OU16914

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **JY45**

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)
JZ27	PFAS - DoD Second Source LCS/MS Solution	Solution	~0	07/25/19	---	---	200 uL	1	10	~0.0000
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	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:** 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: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 8/14/2018 4:48:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY45

Description: PFAS - DoD ICC

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: JY27

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

Stock Id: JZ27

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	0.05	---	---	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:** 7/16/2018 **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:** 8/14/2018 4:48:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **JY45**

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-Perfluorooctane sulfonate	.00100
(Na) Perfluoro-1-decanesulfonate	.00101
(NA) Perfluoro-1-heptanesulfonate	.00100
(Na) Perfluoro-1-nonanesulfonate	.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-PFHpA	.00025

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: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 8/14/2018 4:48:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **JY45**

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	I0793912B
JY27	Pipette	I0793912B
JZ27	Pipette	B814657482

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: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 8/14/2018 4:48:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **JY46**

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
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000

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: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 8/14/2018 4:48:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY46

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: JY27

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:** 7/16/2018 **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:** 8/14/2018 4:48:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **JY46**

Description: PFAS - DoD Instrument Blank

13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.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	I0793912B
JY27	Pipette	I0793912B

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: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 8/14/2018 4:48:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **JZ88**

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	~1.000000	03/22/22	---	---	1000 uL	1	20	~0.0500

Solution Prepared By: Schultz, Stephanie	**Date Prepared:** 8/20/2018	**Expiration Date:**	8/20/2019
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:** 8/21/2018 7:17:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JZ88

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-nonanesulfonate	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-nonanesulfonate	.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.05000
Perfluoro-1-butanesulfonate	.05050

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 8/20/2018 **Expiration Date:** 8/20/2019

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:** 8/21/2018 7:17:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JZ88

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	C0982448K

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 8/20/2018 **Expiration Date:** 8/20/2019

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:** 8/21/2018 7:17:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KA29**

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:**	8/31/2018	**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:** 9/6/2018 2:49:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA29

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:** 8/31/2018 **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:** 9/6/2018 2:49:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KA85**

Description: PFAS - DoD High 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	~1.000000	06/19/23	---	---	500 uL	1	10	~0.0500

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	9/13/2018	**Expiration Date**	9/13/2019
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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA85

Description: PFAS - DoD High 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	10	0.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	500	1.01	1	100.000	1	10	0.05050
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	500	1.00	1	100.000	1	10	0.05000
(Na) Perfluoro-1-decanesulfonate	500	1.01	1	100.000	1	10	0.05050
(NA) Perfluoro-1-heptanesulfonate	500	1.00	1	100.000	1	10	0.05000
(Na) Perfluoro-1-nonanesulfonate	500	1.01	1	100.000	1	10	0.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	500	1.00	1	100.000	1	10	0.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	500	1.00	1	100.000	1	10	0.05000
Perfluoro-1-butanesulfonate	500	1.01	1	100.000	1	10	0.05050
Perfluoro-1-hexanesulfonate	500	1.01	1	100.000	1	10	0.05050
Perfluoro-1-octanesulfonamide	500	1.00	1	100.000	1	10	0.05000
Perfluoro-1-octanesulfonate	500	1.00	1	100.000	1	10	0.05000
Perfluoro-n-butanoic Acid	500	1.00	1	100.000	1	10	0.05000
Perfluoro-n-decanoic Acid	500	1.00	1	100.000	1	10	0.05000
Perfluoro-n-dodecanoic acid	500	1.00	1	100.000	1	10	0.05000
Perfluoro-n-heptanoic Acid	500	1.00	1	100.000	1	10	0.05000
Perfluoro-n-hexanoic acid	500	1.01	1	100.000	1	10	0.05050
Perfluoro-n-octanoic Acid	500	1.00	1	100.000	1	10	0.05000
Perfluorononanoic Acid	500	1.00	1	100.000	1	10	0.05000
Perfluoro-n-pentanoic acid	500	1.01	1	100.000	1	10	0.05050
Perfluoro-n-tetradecanoic acid	500	1.00	1	100.000	1	10	0.05000
Perfluoro-n-tridecanoic acid	500	1.00	1	100.000	1	10	0.05000
Perfluoro-n-undecanoic acid	500	1.00	1	100.000	1	10	0.05000
Sodium perfluoro-1-pentanesulfonate	500	1.00	1	100.000	1	10	0.05000

Final Concentrations:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **Expiration Date:** 9/13/2019

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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA85

Description: PFAS - DoD High ICAL Stock

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	.05050
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:
180705-02	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **Expiration Date:** 9/13/2019

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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KA86**

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
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	9/13/2018	**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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA86

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-Perfluorooctane 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-nonanesulfonate	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: JY27

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:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA86

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-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	.00010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00010
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00010
(Na) Perfluoro-1-decanesulfonate	.00010
(NA) Perfluoro-1-heptanesulfonate	.00010
(Na) Perfluoro-1-nonanesulfonate	.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-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA86**

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
JY27	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KA87**

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
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	9/13/2018	**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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA87

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-Perfluorooctane 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-nonanesulfonate	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: JY27

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:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA87

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-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	.00025
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00025
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00025
(Na) Perfluoro-1-decanesulfonate	.00025
(NA) Perfluoro-1-heptanesulfonate	.00025
(Na) Perfluoro-1-nonanesulfonate	.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-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA87**

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
JY27	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KA88**

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)
KA85	PFAS - DoD High ICAL Stock	Solution	~0	09/13/19	---	---	100 uL	1	10	~0.0000
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	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:**	9/13/2018	**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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA88

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: JY27

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

Stock Id: KA85

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-Perfluorooctane 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-nonanesulfonate	100	0.05	---	---	1	10	0.00051

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA88**

Description: PFAS - DoD Calibration L3

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

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-Perfluorooctane sulfonate	.00050
(Na) Perfluoro-1-decanesulfonate	.00051
(NA) Perfluoro-1-heptanesulfonate	.00050
(Na) Perfluoro-1-nonanesulfonate	.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-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA88**

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
JY27	Pipette	B814659662
KA85	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KA89**

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)
KA85	PFAS - DoD High ICAL Stock	Solution	~0	09/13/19	---	---	200 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	9/13/2018	**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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA89

Description: PFAS - DoD Calibration L4

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: JY27

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

Stock Id: KA85

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	0.05	---	---	1	10	0.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	200	0.05	---	---	1	10	0.00101
(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:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA89**

Description: PFAS - DoD Calibration L4

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	0.00101
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	.00101
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00100
(Na) Perfluoro-1-decanesulfonate	.00101
(NA) Perfluoro-1-heptanesulfonate	.00100
(Na) Perfluoro-1-nonanesulfonate	.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-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA89**

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	B814659662
JY27	Pipette	B814659662
KA85	Pipette	B814657482

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:27:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KA90**

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)
KA85	PFAS - DoD High ICAL Stock	Solution	~0	09/13/19	---	---	500 uL	1	10	~0.0000
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	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:**	9/13/2018	**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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA90

Description: PFAS - DoD Calibration L5

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: JY27

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

Stock Id: KA85

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	0.05	---	---	1	10	0.00253
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	500	0.05	---	---	1	10	0.00253
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	500	0.05	---	---	1	10	0.00250
(Na) Perfluoro-1-decanesulfonate	500	0.05	---	---	1	10	0.00253
(NA) Perfluoro-1-heptanesulfonate	500	0.05	---	---	1	10	0.00250
(Na) Perfluoro-1-nonanesulfonate	500	0.05	---	---	1	10	0.00253

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA90**

Description: PFAS - DoD Calibration L5

N-ethylperfluoro-octanesulfonamidoacetic acid	500	0.05	---	---	1	10	0.00250
N-methylperfluoro-1-octanesulfonamidoacetic acid	500	0.05	---	---	1	10	0.00250
Perfluoro-1-butanesulfonate	500	0.05	---	---	1	10	0.00253
Perfluoro-1-hexanesulfonate	500	0.05	---	---	1	10	0.00253
Perfluoro-1-octanesulfonamide	500	0.05	---	---	1	10	0.00250
Perfluoro-1-octanesulfonate	500	0.05	---	---	1	10	0.00250
Perfluoro-n-butanoic Acid	500	0.05	---	---	1	10	0.00250
Perfluoro-n-decanoic Acid	500	0.05	---	---	1	10	0.00250
Perfluoro-n-dodecanoic acid	500	0.05	---	---	1	10	0.00250
Perfluoro-n-heptanoic Acid	500	0.05	---	---	1	10	0.00250
Perfluoro-n-hexanoic acid	500	0.05	---	---	1	10	0.00253
Perfluoro-n-octanoic Acid	500	0.05	---	---	1	10	0.00250
Perfluorononanoic Acid	500	0.05	---	---	1	10	0.00250
Perfluoro-n-pentanoic acid	500	0.05	---	---	1	10	0.00253
Perfluoro-n-tetradecanoic acid	500	0.05	---	---	1	10	0.00250
Perfluoro-n-tridecanoic acid	500	0.05	---	---	1	10	0.00250
Perfluoro-n-undecanoic acid	500	0.05	---	---	1	10	0.00250
Sodium perfluoro-1-pentanesulfonate	500	0.05	---	---	1	10	0.00250

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-Perfluorooctane sulfonate	.00250
(Na) Perfluoro-1-decanesulfonate	.00253
(NA) Perfluoro-1-heptanesulfonate	.00250
(Na) Perfluoro-1-nonanesulfonate	.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-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA90**

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	B814659662
JY27	Pipette	B814659662
KA85	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KA91**

Description: PFAS - DoD Calibration 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)
KA85	PFAS - DoD High ICAL Stock	Solution	~0	09/13/19	---	---	1000 uL	1	5	~0.0000
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	25 uL	1	5	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	25 uL	1	5	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	9/13/2018	**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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA91

Description: PFAS - DoD Calibration 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	25	0.05	---	---	1	5	0.00025
13C2-PFOA	25	0.05	---	---	1	5	0.00025
13C3-PFBA	25	0.05	---	---	1	5	0.00025
13C4-PFOS	25	0.05	---	---	1	5	0.00024

Stock Id: JY27

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	25	0.05	---	---	1	5	0.00023
13C2-6:2FTS	25	0.05	---	---	1	5	0.00024
13C2-8:2FTS	25	0.05	---	---	1	5	0.00024
13C2-PFDoA	25	0.05	---	---	1	5	0.00025
13C2-PFTeDA	25	0.05	---	---	1	5	0.00025
13C3-PFBS	25	0.05	---	---	1	5	0.00023
13C3-PFHxS	25	0.05	---	---	1	5	0.00024
13C4-PFBA	25	0.05	---	---	1	5	0.00025
13C4-PFHpA	25	0.05	---	---	1	5	0.00025
13C5-PFHxA	25	0.05	---	---	1	5	0.00025
13C5-PFPeA	25	0.05	---	---	1	5	0.00025
13C6-PFDA	25	0.05	---	---	1	5	0.00025
13C7-PFUnA	25	0.05	---	---	1	5	0.00025
13C8-FOSA	25	0.05	---	---	1	5	0.00025
13C8-PFOA	25	0.05	---	---	1	5	0.00025
13C8-PFOS	25	0.05	---	---	1	5	0.00024
13C9-PFNA	25	0.05	---	---	1	5	0.00025
d3-MeFOSAA	25	0.05	---	---	1	5	0.00025
d5-EtFOSAA	25	0.05	---	---	1	5	0.00025

Stock Id: KA85

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	0.05	---	---	1	5	0.01010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	0.05	---	---	1	5	0.01010
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	0.05	---	---	1	5	0.01000
(Na) Perfluoro-1-decanesulfonate	1000	0.05	---	---	1	5	0.01010
(NA) Perfluoro-1-heptanesulfonate	1000	0.05	---	---	1	5	0.01000
(Na) Perfluoro-1-nonanesulfonate	1000	0.05	---	---	1	5	0.01010

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA91**

Description: PFAS - DoD Calibration L6

N-ethylperfluoro-octanesulfonamidoacetic acid	1000	0.05	---	---	1	5	0.01000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	0.05	---	---	1	5	0.01000
Perfluoro-1-butanesulfonate	1000	0.05	---	---	1	5	0.01010
Perfluoro-1-hexanesulfonate	1000	0.05	---	---	1	5	0.01010
Perfluoro-1-octanesulfonamide	1000	0.05	---	---	1	5	0.01000
Perfluoro-1-octanesulfonate	1000	0.05	---	---	1	5	0.01000
Perfluoro-n-butanoic Acid	1000	0.05	---	---	1	5	0.01000
Perfluoro-n-decanoic Acid	1000	0.05	---	---	1	5	0.01000
Perfluoro-n-dodecanoic acid	1000	0.05	---	---	1	5	0.01000
Perfluoro-n-heptanoic Acid	1000	0.05	---	---	1	5	0.01000
Perfluoro-n-hexanoic acid	1000	0.05	---	---	1	5	0.01010
Perfluoro-n-octanoic Acid	1000	0.05	---	---	1	5	0.01000
Perfluorononanoic Acid	1000	0.05	---	---	1	5	0.01000
Perfluoro-n-pentanoic acid	1000	0.05	---	---	1	5	0.01010
Perfluoro-n-tetradecanoic acid	1000	0.05	---	---	1	5	0.01000
Perfluoro-n-tridecanoic acid	1000	0.05	---	---	1	5	0.01000
Perfluoro-n-undecanoic acid	1000	0.05	---	---	1	5	0.01000
Sodium perfluoro-1-pentanesulfonate	1000	0.05	---	---	1	5	0.01000

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-Perfluorooctane sulfonate	.01000
(Na) Perfluoro-1-decanesulfonate	.01010
(NA) Perfluoro-1-heptanesulfonate	.01000
(Na) Perfluoro-1-nonanesulfonate	.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-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA91**

Description: PFAS - DoD Calibration 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
JY27	Pipette	B814657482
KA85	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KA92**

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)
KA85	PFAS - DoD High ICAL Stock	Solution	~0	09/13/19	---	---	2000 uL	1	5	~0.0000
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	25 uL	1	5	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	25 uL	1	5	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	9/13/2018	**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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KA92

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	25	0.05	---	---	1	5	0.00025
13C2-PFOA	25	0.05	---	---	1	5	0.00025
13C3-PFBA	25	0.05	---	---	1	5	0.00025
13C4-PFOS	25	0.05	---	---	1	5	0.00024

Stock Id: JY27

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	25	0.05	---	---	1	5	0.00023
13C2-6:2FTS	25	0.05	---	---	1	5	0.00024
13C2-8:2FTS	25	0.05	---	---	1	5	0.00024
13C2-PFDoA	25	0.05	---	---	1	5	0.00025
13C2-PFTeDA	25	0.05	---	---	1	5	0.00025
13C3-PFBS	25	0.05	---	---	1	5	0.00023
13C3-PFHxS	25	0.05	---	---	1	5	0.00024
13C4-PFBA	25	0.05	---	---	1	5	0.00025
13C4-PFHpA	25	0.05	---	---	1	5	0.00025
13C5-PFHxA	25	0.05	---	---	1	5	0.00025
13C5-PFPeA	25	0.05	---	---	1	5	0.00025
13C6-PFDA	25	0.05	---	---	1	5	0.00025
13C7-PFUnA	25	0.05	---	---	1	5	0.00025
13C8-FOSA	25	0.05	---	---	1	5	0.00025
13C8-PFOA	25	0.05	---	---	1	5	0.00025
13C8-PFOS	25	0.05	---	---	1	5	0.00024
13C9-PFNA	25	0.05	---	---	1	5	0.00025
d3-MeFOSAA	25	0.05	---	---	1	5	0.00025
d5-EtFOSAA	25	0.05	---	---	1	5	0.00025

Stock Id: KA85

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	5	0.02020
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	2000	0.05	---	---	1	5	0.02020
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	2000	0.05	---	---	1	5	0.02000
(Na) Perfluoro-1-decanesulfonate	2000	0.05	---	---	1	5	0.02020
(NA) Perfluoro-1-heptanesulfonate	2000	0.05	---	---	1	5	0.02000
(Na) Perfluoro-1-nonanesulfonate	2000	0.05	---	---	1	5	0.02020

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA92**

Description: PFAS - DoD Calibration L7

N-ethylperfluoro-octanesulfonamidoacetic acid	2000	0.05	---	---	1	5	0.02000
N-methylperfluoro-1-octanesulfonamidoacetic acid	2000	0.05	---	---	1	5	0.02000
Perfluoro-1-butanesulfonate	2000	0.05	---	---	1	5	0.02020
Perfluoro-1-hexanesulfonate	2000	0.05	---	---	1	5	0.02020
Perfluoro-1-octanesulfonamide	2000	0.05	---	---	1	5	0.02000
Perfluoro-1-octanesulfonate	2000	0.05	---	---	1	5	0.02000
Perfluoro-n-butanoic Acid	2000	0.05	---	---	1	5	0.02000
Perfluoro-n-decanoic Acid	2000	0.05	---	---	1	5	0.02000
Perfluoro-n-dodecanoic acid	2000	0.05	---	---	1	5	0.02000
Perfluoro-n-heptanoic Acid	2000	0.05	---	---	1	5	0.02000
Perfluoro-n-hexanoic acid	2000	0.05	---	---	1	5	0.02020
Perfluoro-n-octanoic Acid	2000	0.05	---	---	1	5	0.02000
Perfluorononanoic Acid	2000	0.05	---	---	1	5	0.02000
Perfluoro-n-pentanoic acid	2000	0.05	---	---	1	5	0.02020
Perfluoro-n-tetradecanoic acid	2000	0.05	---	---	1	5	0.02000
Perfluoro-n-tridecanoic acid	2000	0.05	---	---	1	5	0.02000
Perfluoro-n-undecanoic acid	2000	0.05	---	---	1	5	0.02000
Sodium perfluoro-1-pentanesulfonate	2000	0.05	---	---	1	5	0.02000

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-Perfluorooctane sulfonate	.02000
(Na) Perfluoro-1-decanesulfonate	.02020
(NA) Perfluoro-1-heptanesulfonate	.02000
(Na) Perfluoro-1-nonanesulfonate	.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:** 9/13/2018 **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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KA92**

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
JY27	Pipette	B814659662
KA85	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/13/2018 **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:** 9/14/2018 2:28:00 PM

BATTELLE
It can be done

BDO Id: 170724-01

Reagent Receipt Report

Approved: ☐ **Authorized** ☐

Name: PFOA- 2nd Source
Vendor: ABSOLUTE STANDARDS
Catalogue No: 99207
Type: Solution
Lot No: 032217
Quantity: 5 ea mL **% Moisture:**
Description: PFOA - 2nd Source

Received: 7/24/2017
Custodian: Schumitz, Matt
Expires: 3/22/2022
Consumed:
Stored In: LC Laboratory - F0111

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	--	--	☐			
(Na) 1H,1H,2H,2H-Perfluorohexane s	414911-30-1	1.0000	100.00	--	--	☐			
(Na) 1H,1H,2H,2H-Perfluorooctane s	27619-97-2	1.0000	100.00	--	--	☐			
(Na) Perfluoro-1-decanesulfonate	2806-15-7	1.0100	100.00	--	--	☐			
(NA) Perfluoro-1-heptanesulfonate	375-92-8	1.0000	100.00	--	--	☐			
(Na) Perfluoro-1-nonanesulfonate	98789-57-2	1.0100	100.00	--	--	☐			
N-ethylperfluoro-octanesulfonamidoa	2991-50-6	1.0000	100.00	--	--	☐			
N-methylperfluoro-1-octanesulfonami	2355-31-9	1.0000	100.00	--	--	☐			
Perfluoro-1-butanesulfonate	375-73-5	1.0100	100.00	--	--	☐			
Perfluoro-1-hexanesulfonate	355-46-4	1.0100	100.00	--	--	☐			
Perfluoro-1-octanesulfonamide	754-91-6	1.0000	100.00	--	--	☐			
Perfluoro-1-octanesulfonate	1763-23-1	1.0000	100.00	--	--	☐			
Perfluoro-n-butanoic Acid	375-22-4	1.0000	100.00	--	--	☐			
Perfluoro-n-decanoic Acid	335-76-2	1.0000	100.00	--	--	☐			
Perfluoro-n-dodecanoic acid	307-55-1	1.0000	100.00	--	--	☐			
Perfluoro-n-heptanoic Acid	375-85-9	1.0000	100.00	--	--	☐			
Perfluoro-n-hexanoic acid	307-24-4	1.0100	100.00	--	--	☐			
Perfluoro-n-octanoic Acid	335-67-1	1.0000	100.00	--	--	☐			
Perfluorononanoic Acid	375-95-1	1.0000	100.00	--	--	☐			
Perfluoro-n-pentanoic acid	2706-90-3	1.0000	100.00	--	--	☐			
Perfluoro-n-tetradecanoic acid	376-06-7	1.0000	100.00	--	--	☐			
Perfluoro-n-tridecanoic acid	72629-94-8	1.0000	100.00	--	--	☐			
Perfluoro-n-undecanoic acid	2058-94-8	1.0000	100.00	--	--	☐			
Sodium perfluoro-1-pentanesulfonate	2706-91-4	1.0000	100.00	--	--	☐			

Total Analytes: 24

Notes:

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

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

CERTIFIED WEIGHT REPORT

170704-01

Part Number: 99207
Lot Number: 032217
Description: PFOA - DOD
24 components
Expiration Date: 032222
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 1.0
NIST Test ID#: 822-275872-11

Solvent(s):	Lot#	
Methanol (1 mM KOH)	031317	(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

Paul Barron 032217
Formulated By: Paul Barron DATE

Pedro Rentas 032217
Reviewed By: Pedro L. Rentas DATE

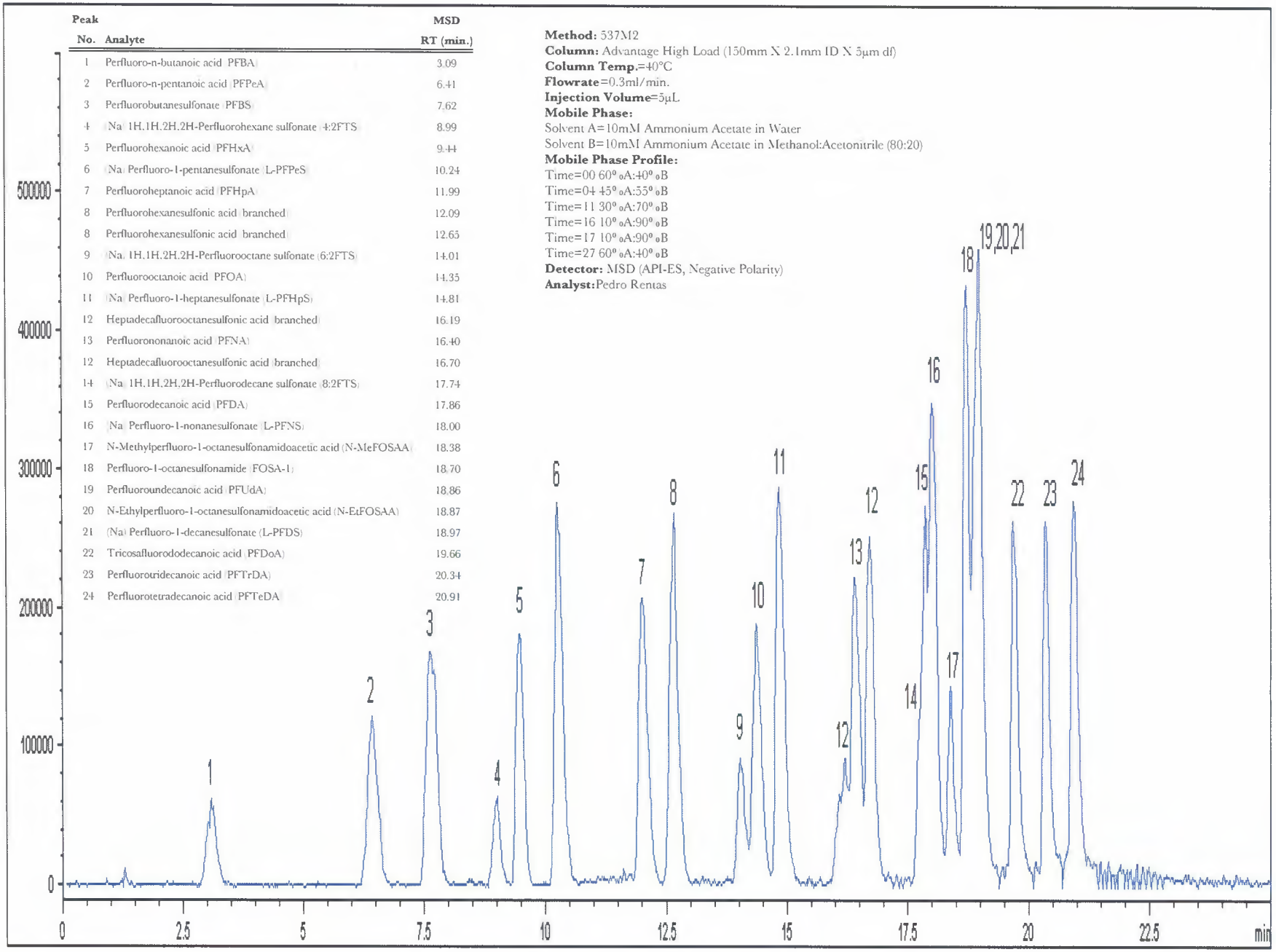
Note: All assigned values are anion concentrations.

	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)	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	PFPeA0516	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.	Perfluorooctanoic 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	NEtFOSAA0117	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.	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	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	LPFNS0516	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 certifed (+/-) 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).**

Peak No.	Analyte	MSD RT (min.)
1	Perfluoro-n-butanoic acid (PFBA)	3.09
2	Perfluoro-n-pentanoic acid (PFPeA)	6.41
3	Perfluorobutanesulfonate (PFBS)	7.62
4	(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2FTS)	8.99
5	Perfluorohexanoic acid (PFHxA)	9.44
6	(Na) Perfluoro-1-pentanesulfonate (L-PFPeS)	10.24
7	Perfluoroheptanoic acid (PFHpA)	11.99
8	Perfluorohexanesulfonic acid (branched)	12.09
8	Perfluorohexanesulfonic acid (branched)	12.63
9	(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2FTS)	14.01
10	Perfluorooctanoic acid (PFOA)	14.35
11	(Na) Perfluoro-1-heptanesulfonate (L-PFHpS)	14.81
12	Heptadecafluorooctanesulfonic acid (branched)	16.19
13	Perfluorononanoic acid (PFNA)	16.40
12	Heptadecafluorooctanesulfonic acid (branched)	16.70
14	(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2FTS)	17.74
15	Perfluorodecanoic acid (PFDA)	17.86
16	(Na) Perfluoro-1-nonanesulfonate (L-PFNS)	18.00
17	N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	18.38
18	Perfluoro-1-octanesulfonamide (FOSA-1)	18.70
19	Perfluoroundecanoic acid (PFUdA)	18.86
20	N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	18.87
21	(Na) Perfluoro-1-decanesulfonate (L-PFDS)	18.97
22	Tricosafluorododecanoic acid (PFDoA)	19.66
23	Perfluorotridecanoic acid (PFTrDA)	20.34
24	Perfluorotetradecanoic acid (PFTeDA)	20.91

Method: 537M2
Column: Advantage High Load (150mm X 2.1mm ID X 5µm df)
Column Temp.=40°C
Flowrate=0.3ml/min.
Injection Volume=5µL
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)
Analyst: Pedro Rentas



BATTELLE

It can be done

BDO Id: 171025-01

Reagent Receipt Report

Approved: ☐ ☐

Name: PFOA - 2nd Source
Vendor: ABSOLUTE STANDARDS
Catalogue No: 99207
Type: Solution
Lot No: 032217
Quantity: 5 ea ml
% Moisture:
Description: PFOA-DOD

Received: 10/25/2017
Custodian: Schumitz, Matt
Expires: 3/22/2022
Consumed:
Stored In: LC Laboratory - F0111

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	--	--	☐			
(Na) 1H,1H,2H,2H-Perfluorohexane	BDO-2205	1.0000	100.00	--	--	☐			
(Na) 1H,1H,2H,2H-Perfluorooctane s	27619-97-2	1.0000	100.00	--	--	☐			
(Na) Perfluoro-1-decanesulfonate	2806-15-7	1.0100	100.00	--	--	☐			
(NA) Perfluoro-1-heptanesulfonate	375-92-8	1.0000	100.00	--	--	☐			
(Na) Perfluoro-1-nonanesulfonate	98789-57-2	1.0100	100.00	--	--	☐			
N-ethylperfluoro-octanesulfonamidoa	2991-50-6	1.0000	100.00	--	--	☐			
N-methylperfluoro-1-octanesulfonami	2355-31-9	1.0000	100.00	--	--	☐			
Perfluoro-1-butanesulfonic Acid	375-73-5	1.0100	100.00	--	--	☐			
Perfluoro-1-hexanesulfonic Acid	355-46-4	1.0100	100.00	--	--	☐			
Perfluoro-1-octanesulfonamide	754-91-6	1.0000	100.00	--	--	☐			
Perfluoro-1-octanesulphonic Acid	1763-23-1	1.0000	100.00	--	--	☐			
Perfluoro-n-butanoic Acid	375-22-4	1.0000	100.00	--	--	☐			
Perfluoro-n-decanoic Acid	335-76-2	1.0000	100.00	--	--	☐			
Perfluoro-n-dodecanoic acid	307-55-1	1.0000	100.00	--	--	☐			
Perfluoro-n-heptanoic Acid	375-85-9	1.0000	100.00	--	--	☐			
Perfluoro-n-hexanoic acid	307-24-4	1.0100	100.00	--	--	☐			
Perfluoro-n-octanoic Acid	335-67-1	1.0000	100.00	--	--	☐			
Perfluorononanoic Acid	375-95-1	1.0000	100.00	--	--	☐			
Perfluoro-n-pentanoic acid	2706-90-3	1.0000	100.00	--	--	☐			
Perfluoro-n-tetradecanoic acid	376-06-7	1.0000	100.00	--	--	☐			
Perfluoro-n-tridecanoic acid	72629-94-8	1.0000	100.00	--	--	☐			
Perfluoro-n-undecanoic acid	2058-94-8	1.0000	100.00	--	--	☐			
Sodium perfluoro-1-pentanesulfonat	BDO-2114	1.0000	100.00	--	--	☐			

Total Analytes: 24

Notes:

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

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

1710250d

Part Number: 99207
Lot Number: 101717
Description: PFOA - DOD
24 components
Expiration Date: 101722
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 1.0
NIST Test ID#: 2506734D

Solvent(s):	Lot#	
Methanol (1 mM KOH)	031317	(98%)
2-Propanol	23214	(2%)

5E-05 Balance Uncertainty
0.007 Flask Uncertainty

Formulated By: Mario Luis 101717 DATE

Reviewed By: Pedro L. Rentas 101717 DATE

Volume(s) shown below were combined and diluted to (mL): 50.0

Note: All assigned values are anion concentrations.

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)	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	PFPeA0617	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. Perfluorooctanoic 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
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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	NEtFOSAA0117	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	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. 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	LPFNS0516	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

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- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 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).

BATTELLE

It can be done

BDO Id: 180618-02

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 µg/mL)		

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

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

PRODUCT CODE:	br-NEtFOSAA
LOT NUMBER:	brNEtFOSAA0118
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	01/10/2018
LAST TESTED: (mm/dd/yyyy)	01/17/2018
EXPIRY DATE: (mm/dd/yyyy)	01/17/2023
RECOMMENDED STORAGE:	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 $x_1, x_2, \ldots x_n$ on which it depends is:

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

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 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED 17034 REFERENCE MATERIAL PRODUCER

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}F-NMR)***

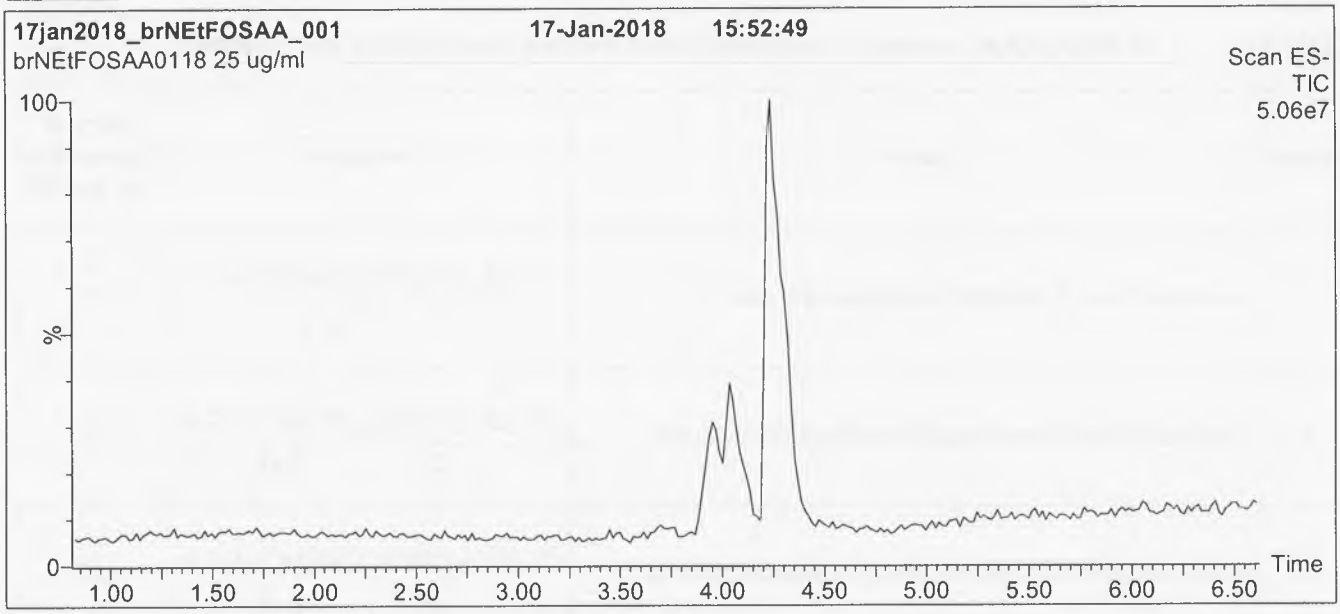
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(C_2H_5)CH_2CO_2H$	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	2.3
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2CF(CF_3)(CF_2)_3SO_2N(C_2H_5)CH_2CO_2H$	2.2
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2CF(CF_3)(CF_2)_4SO_2N(C_2H_5)CH_2CO_2H$	5.4
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3CF(CF_3)(CF_2)_5SO_2N(C_2H_5)CH_2CO_2H$	10.4
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3C(CF_3)_2(CF_2)_4SO_2N(C_2H_5)CH_2CO_2H$	0.3
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	$CF_3CF(CF_3)CF(CF_2)_3SO_2N(C_2H_5)CH_2CO_2H$	0.3
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	$CF_3CF(CF_3)CF_2CF(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	0.3
9	Other Unidentified Isomers		1.3

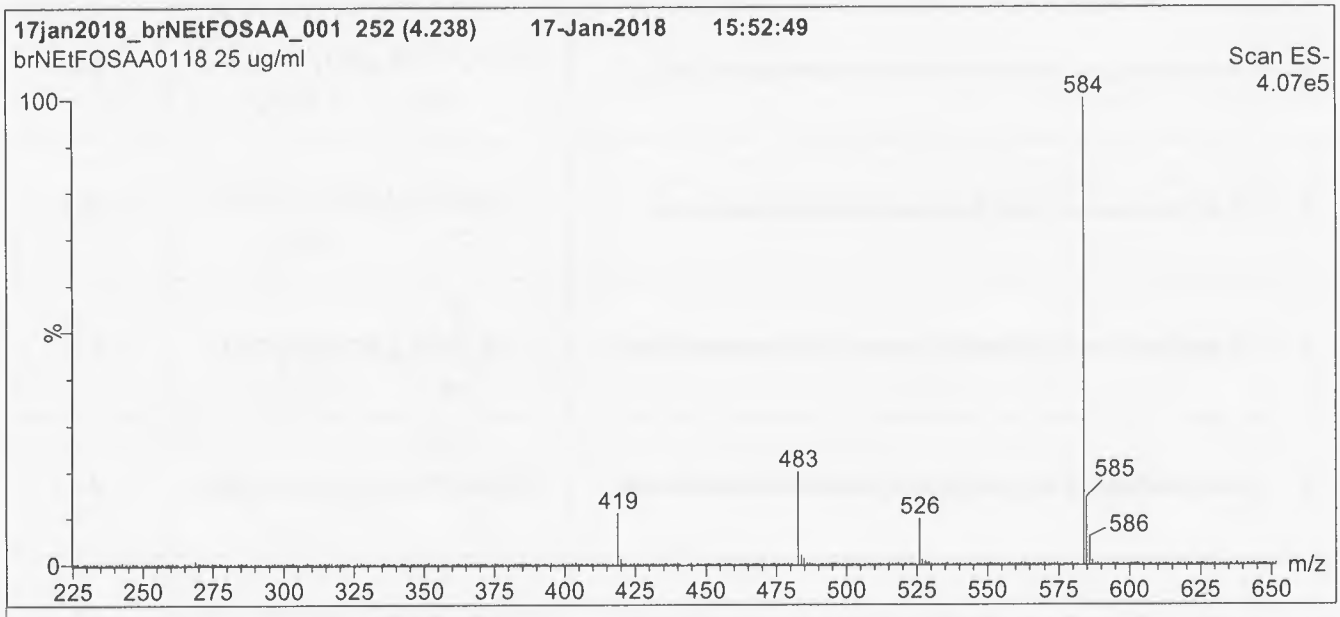
* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: _____ **Date:** 03/22/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

Figure 1: **br-NEtFOSAA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc 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

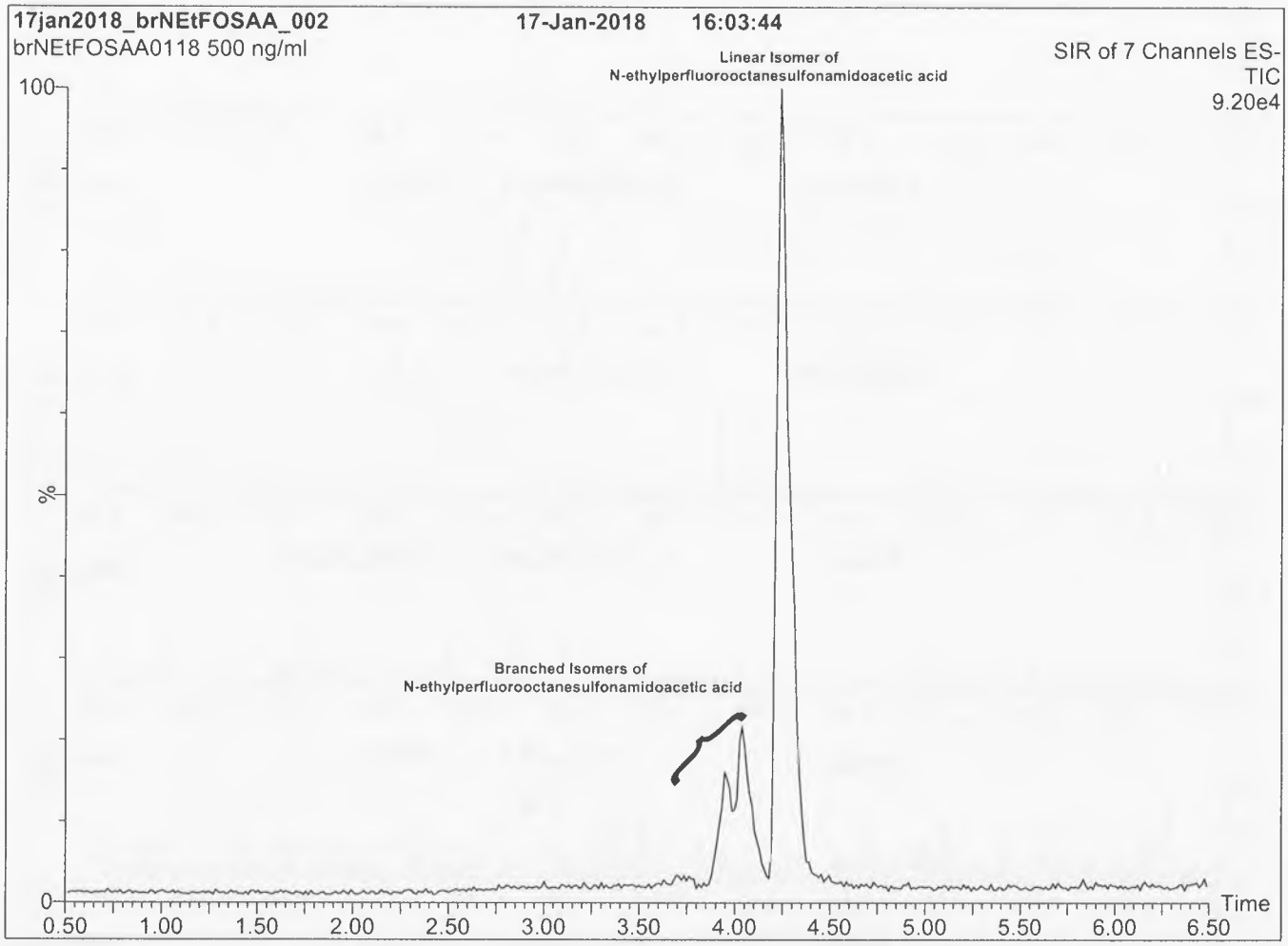
Flow: 300 µl/min

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

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc 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

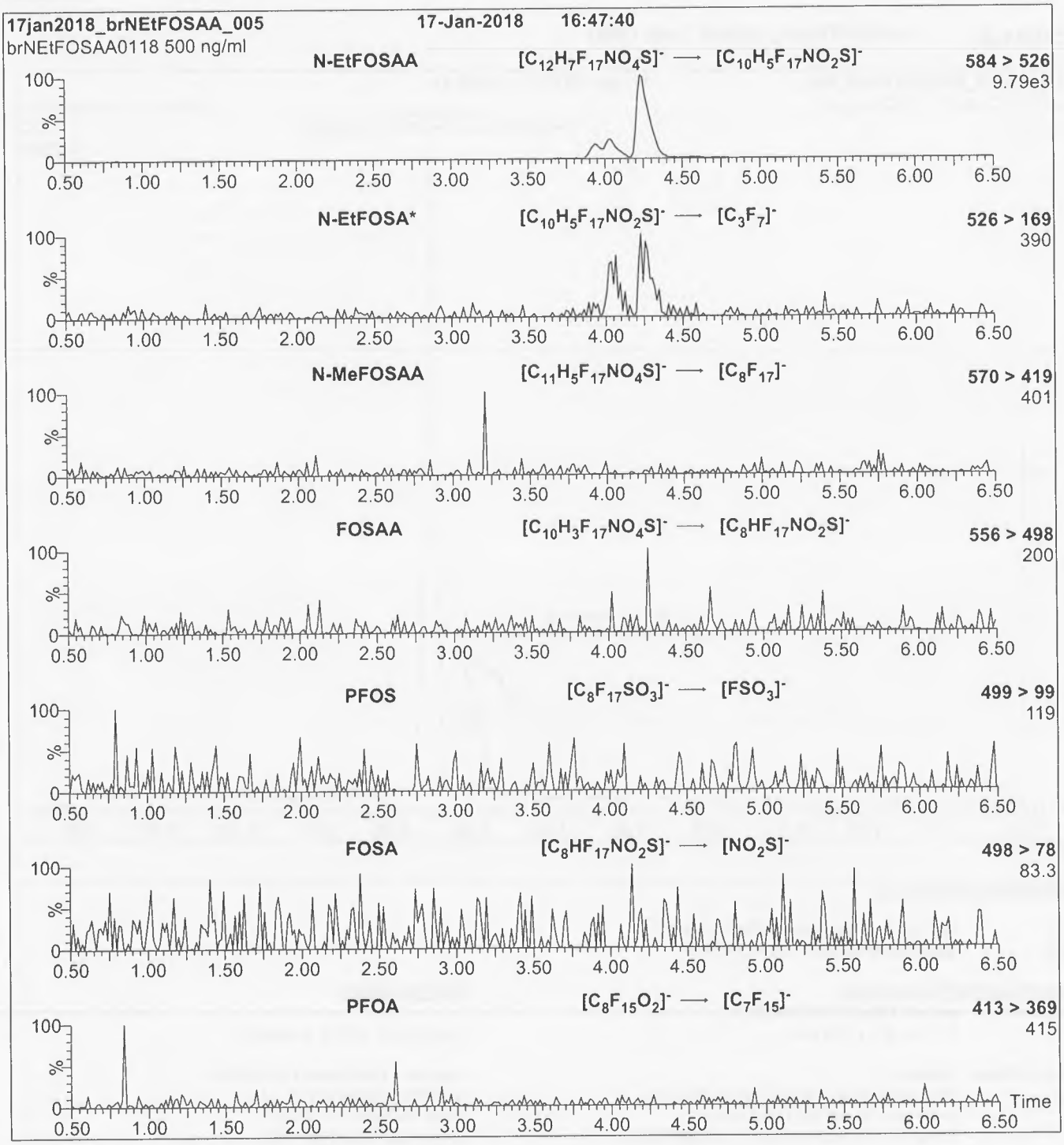
Flow: 300 µl/min

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

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11-40 (variable)

BATTELLE
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 (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:

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

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

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,...x_n on which it depends is:

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

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 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER

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}F-NMR)***

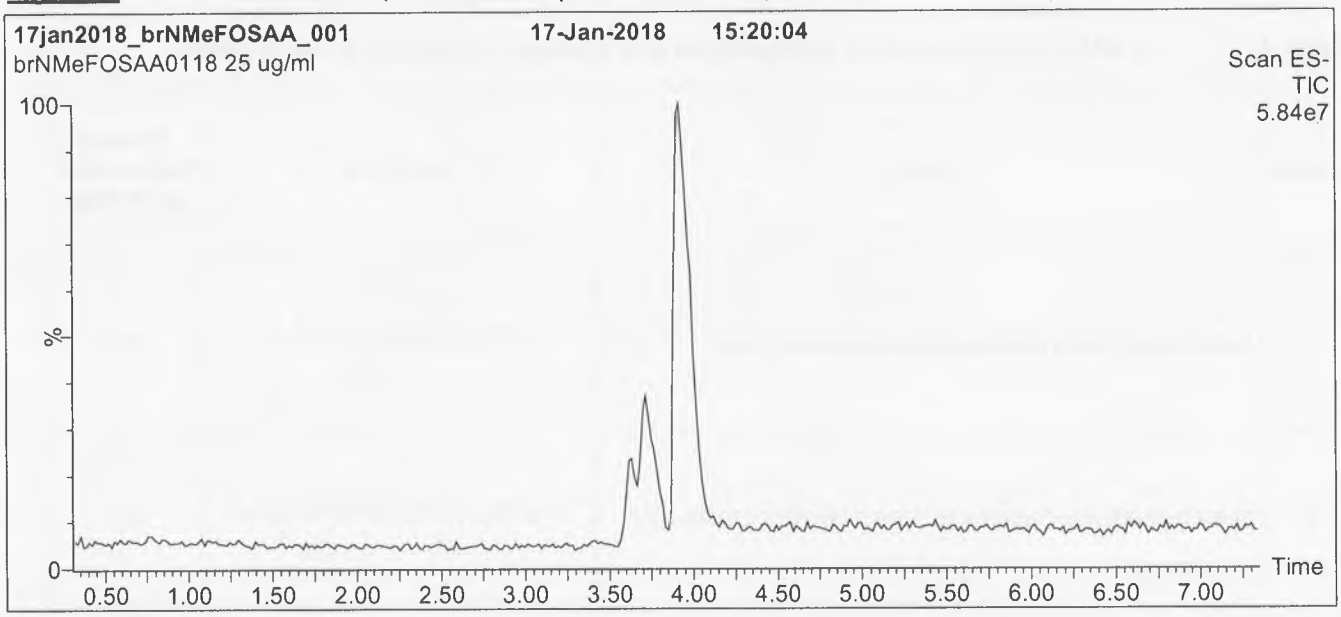
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(CH_3)CH_2CO_2H$	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(CH_3)CH_2CO_2H$	0.7
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2CF(CF_3)(CF_2)_3SO_2N(CH_3)CH_2CO_2H$	2.0
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2CF(CF_3)(CF_2)_4SO_2N(CH_3)CH_2CO_2H$	6.0
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3CF(CF_3)(CF_2)_5SO_2N(CH_3)CH_2CO_2H$	14.0
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3C(CF_3)_2(CF_2)_4SO_2N(CH_3)CH_2CO_2H$	0.2
7	Other Unidentified Isomers		1.1

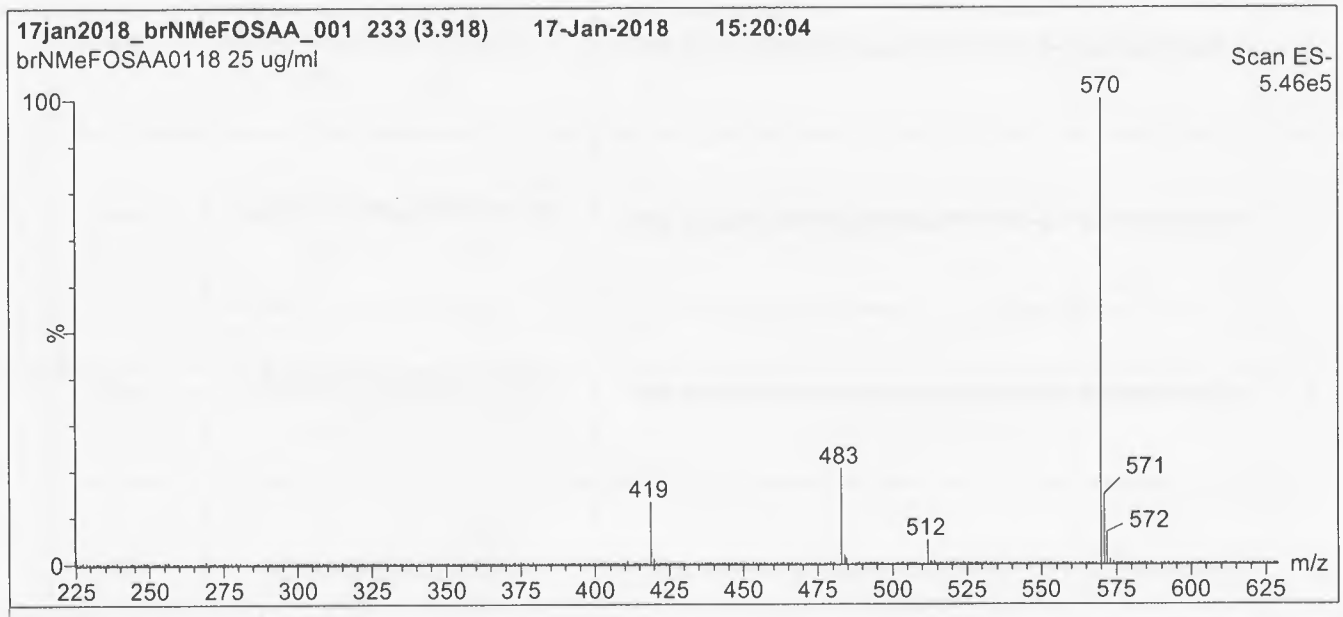
* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: _____ **Date:** 03/22/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

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: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc 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

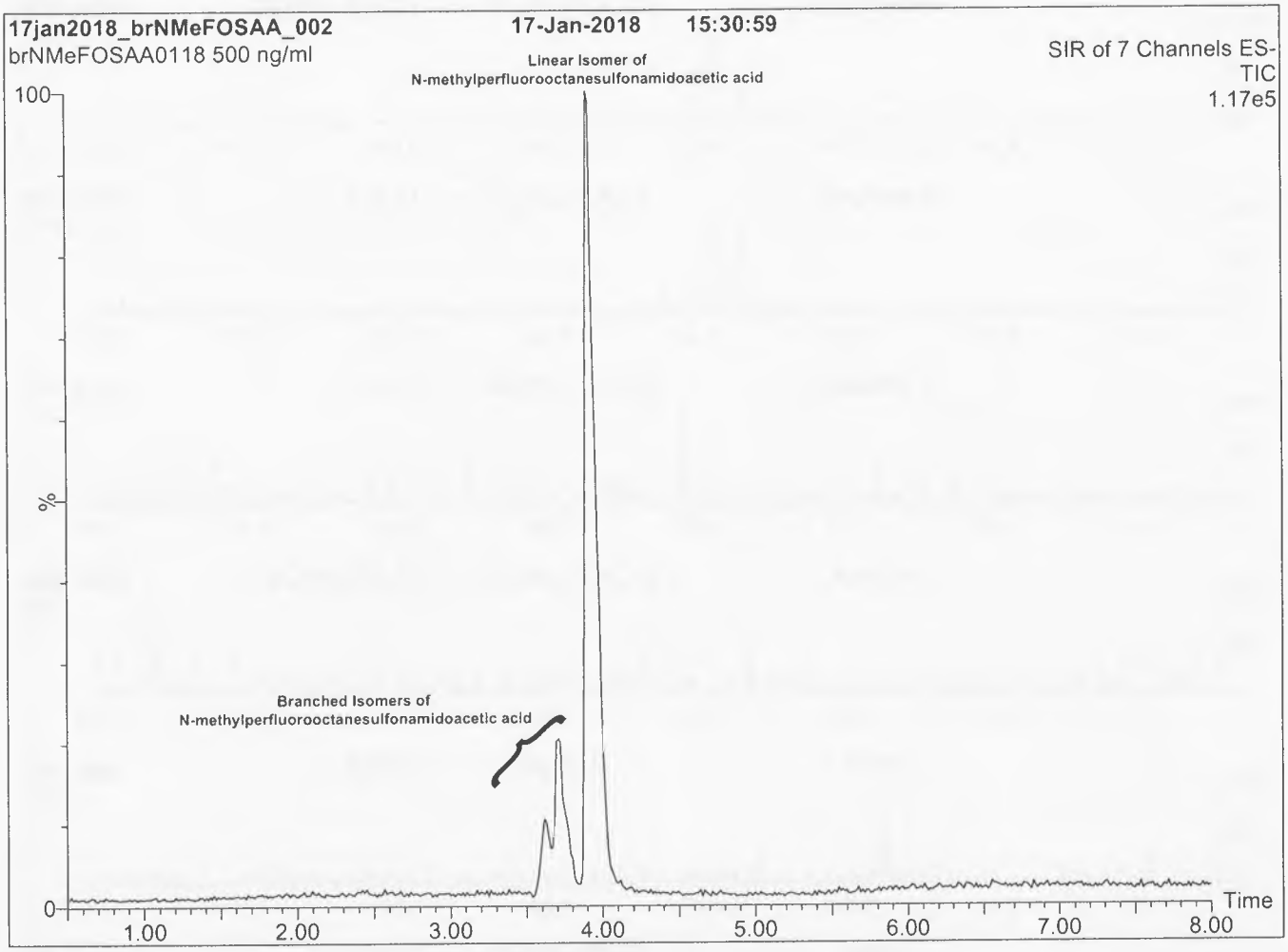
Flow: 300 µl/min

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

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc 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

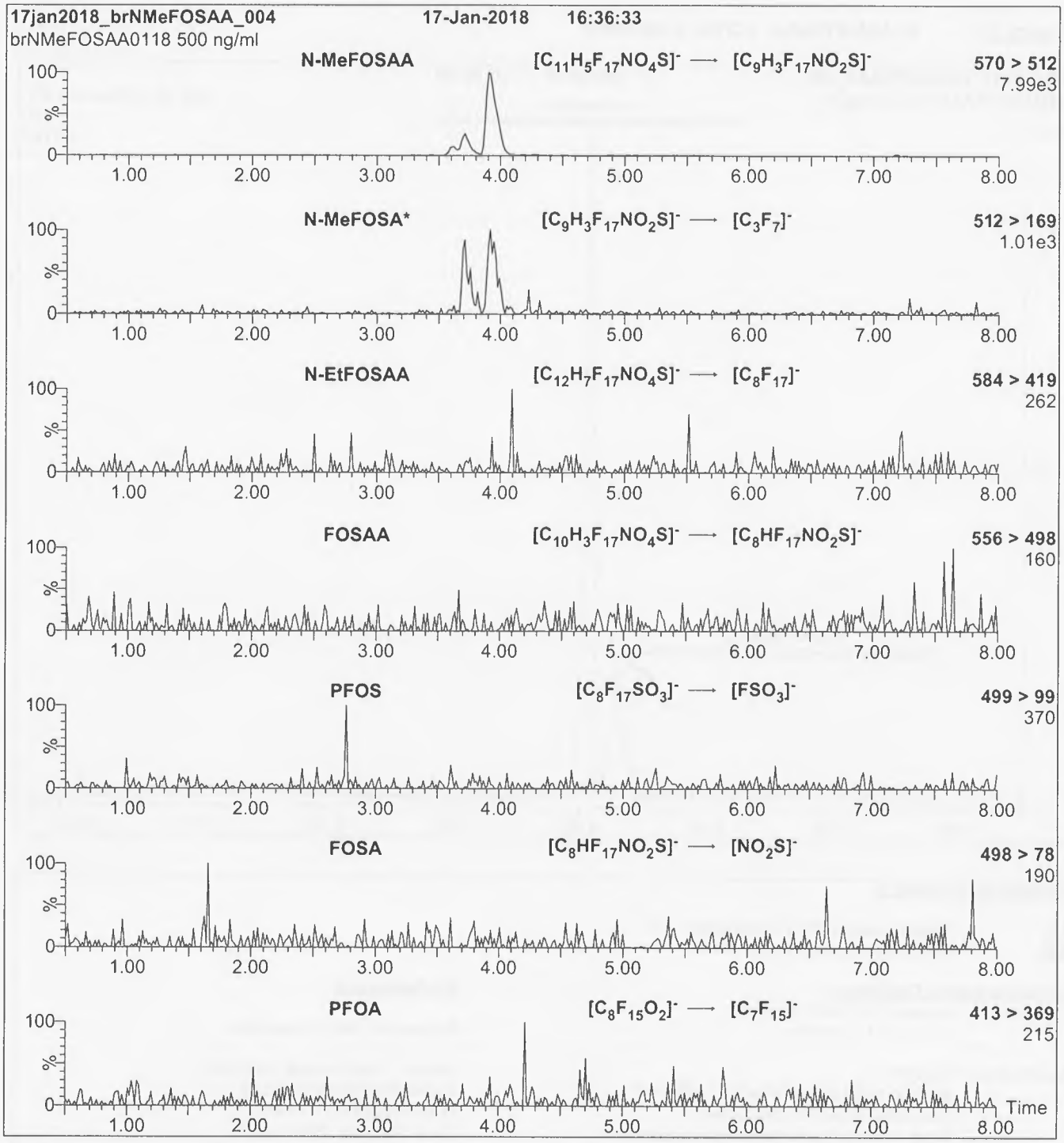
Flow: 300 µl/min

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

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11-40 (variable)

BATTELLE

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 (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:

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:	(see Table A)	**CAS #:**	95328-99-7 (for linear ammonium perfluorooctanoate)

MOLECULAR FORMULA:	$C_8F_{15}O_2NH_4$
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,...x_n on which it depends is:

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

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.

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:

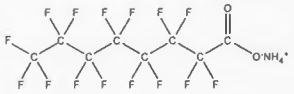
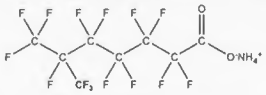
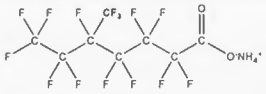
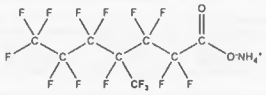
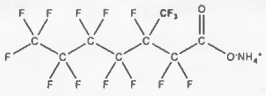
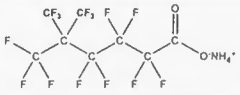
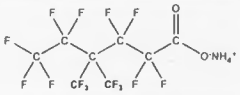
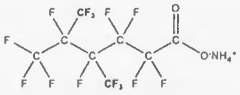
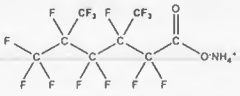
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

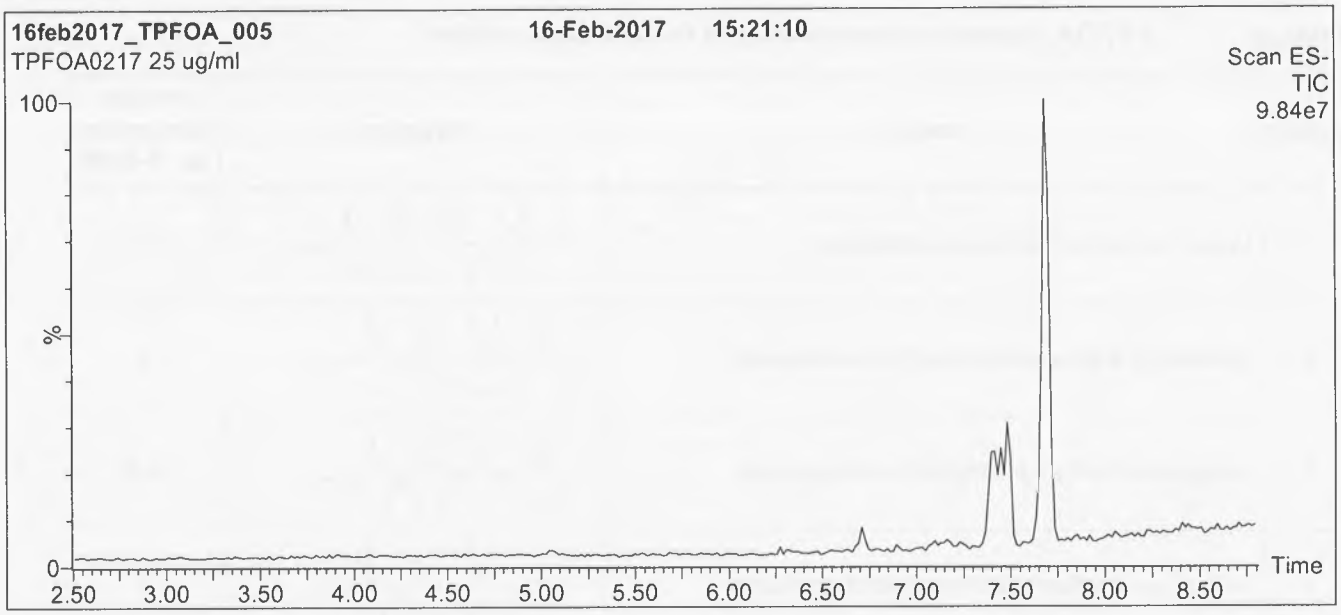
Table A: **T-PFOA; Isomeric Components and Percent Composition***

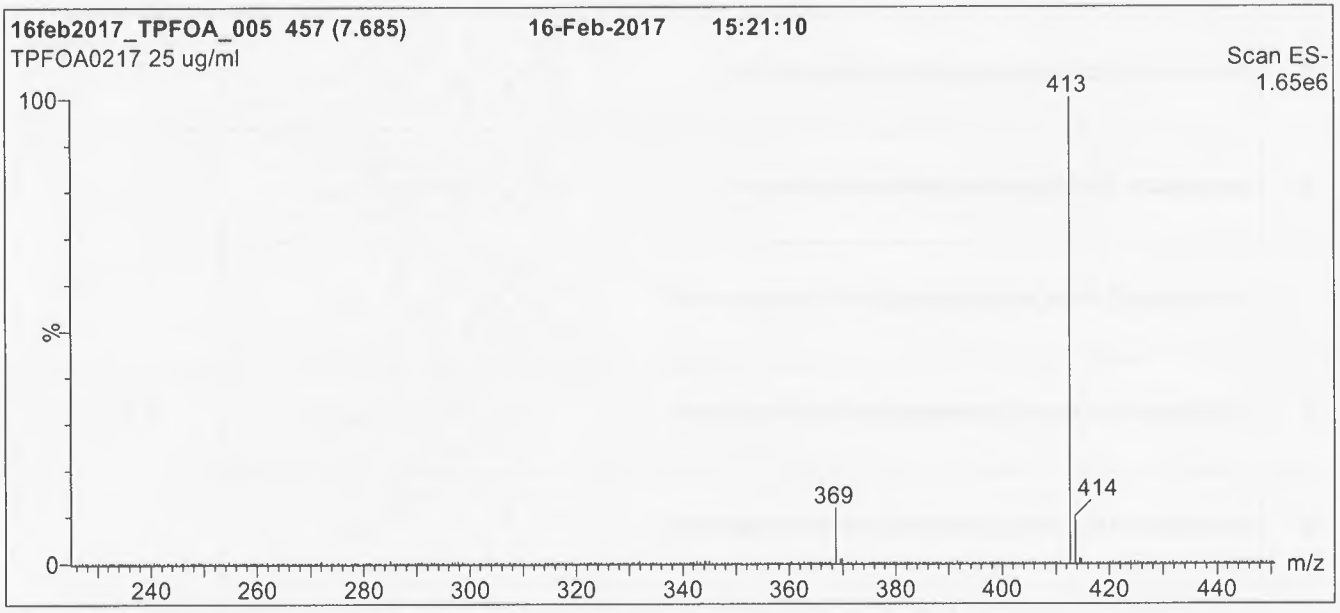
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Linear ammonium perfluoro-n-octanoate		79
2	Ammonium 6-trifluoromethylperfluoroheptanoate		9
3	Ammonium 5-trifluoromethylperfluoroheptanoate		4.5
4	Ammonium 4-trifluoromethylperfluoroheptanoate		4
5	Ammonium 3-trifluoromethylperfluoroheptanoate		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}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 Acquity 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% H_2O
(both with 10 mM NH_4OAc 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

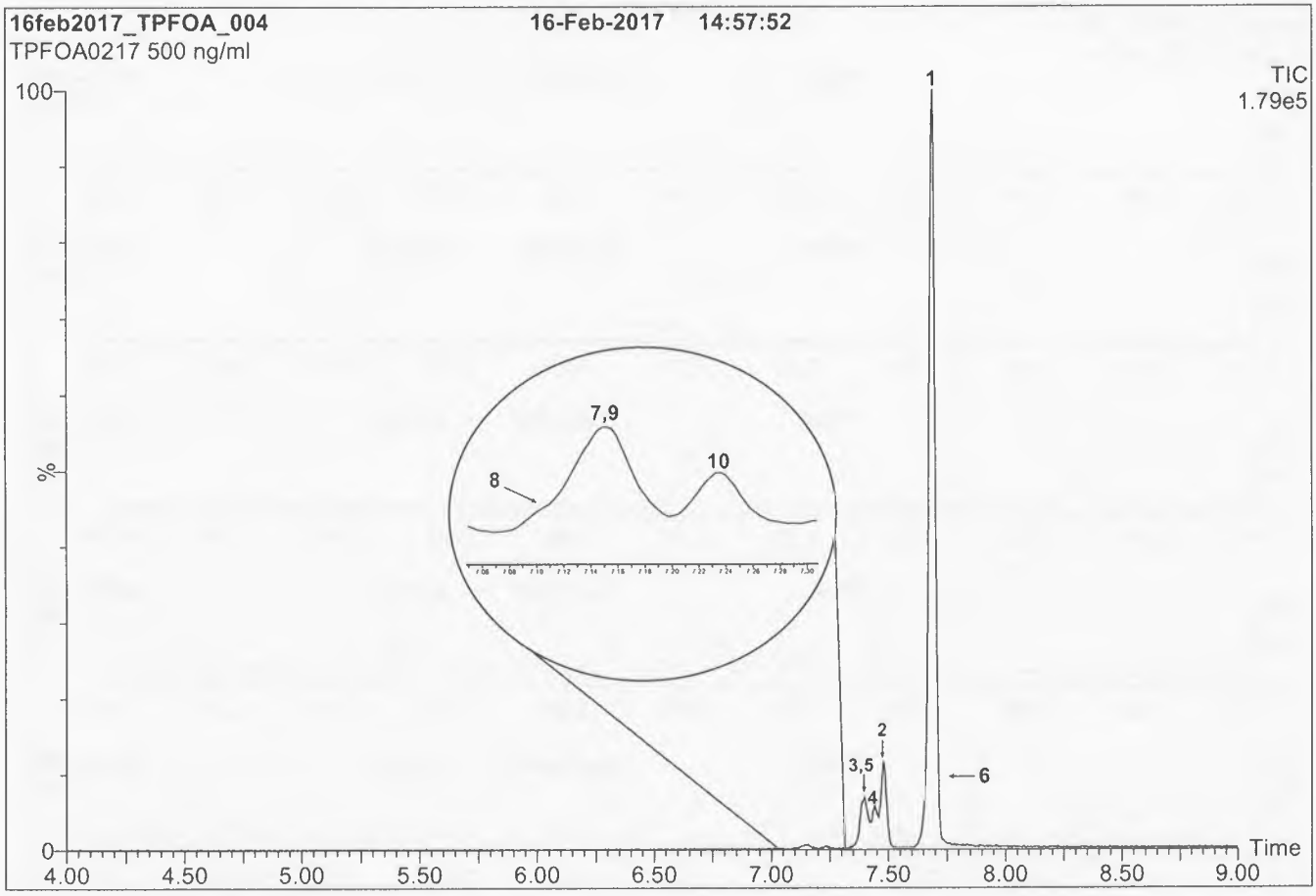
Flow: 1.0 ml/min

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 Acquity 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% H_2O
(both with 10 mM NH_4OAc 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

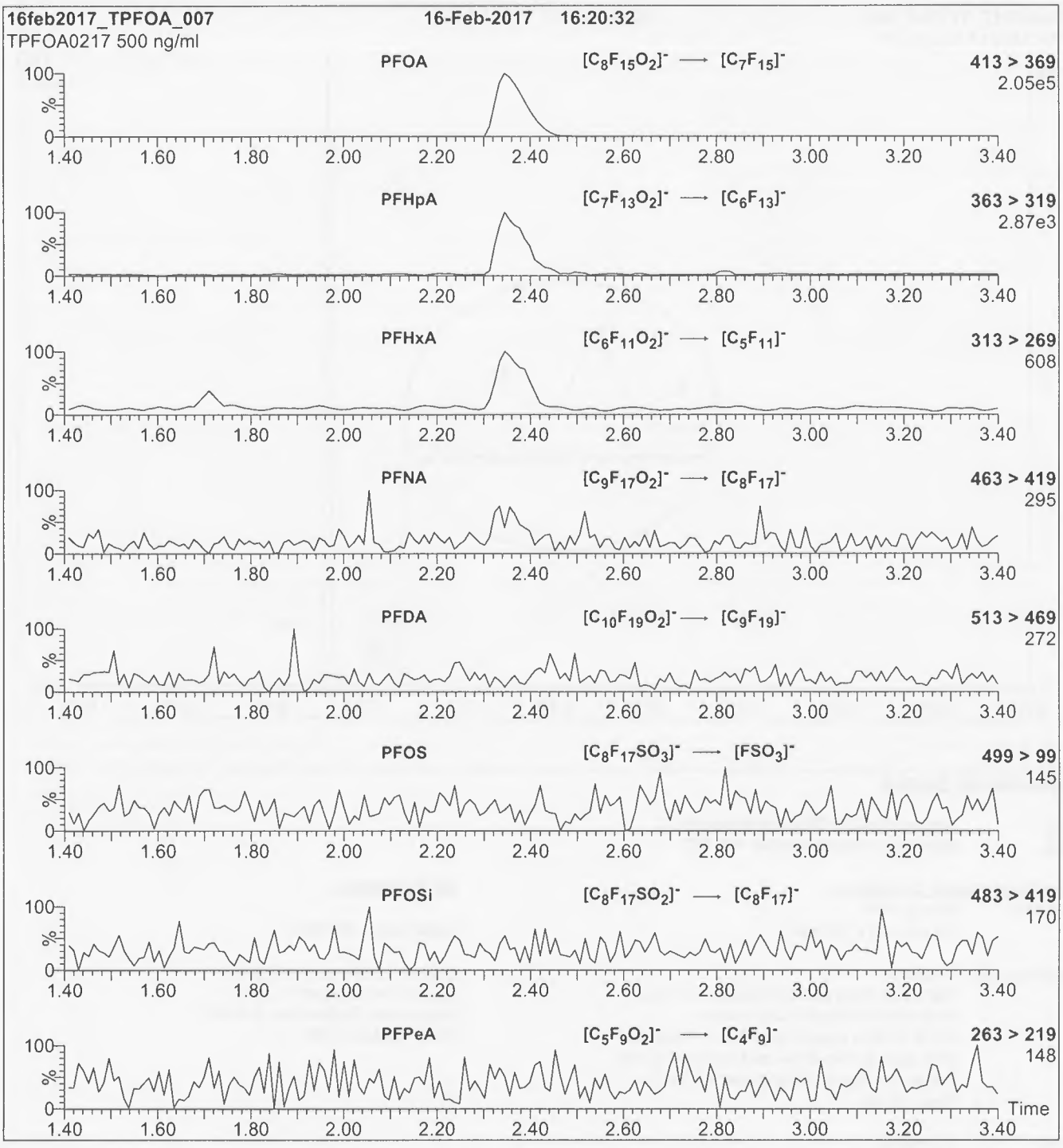
Flow: 1.0 ml/min

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 µl (500 ng/ml T-PFOA)

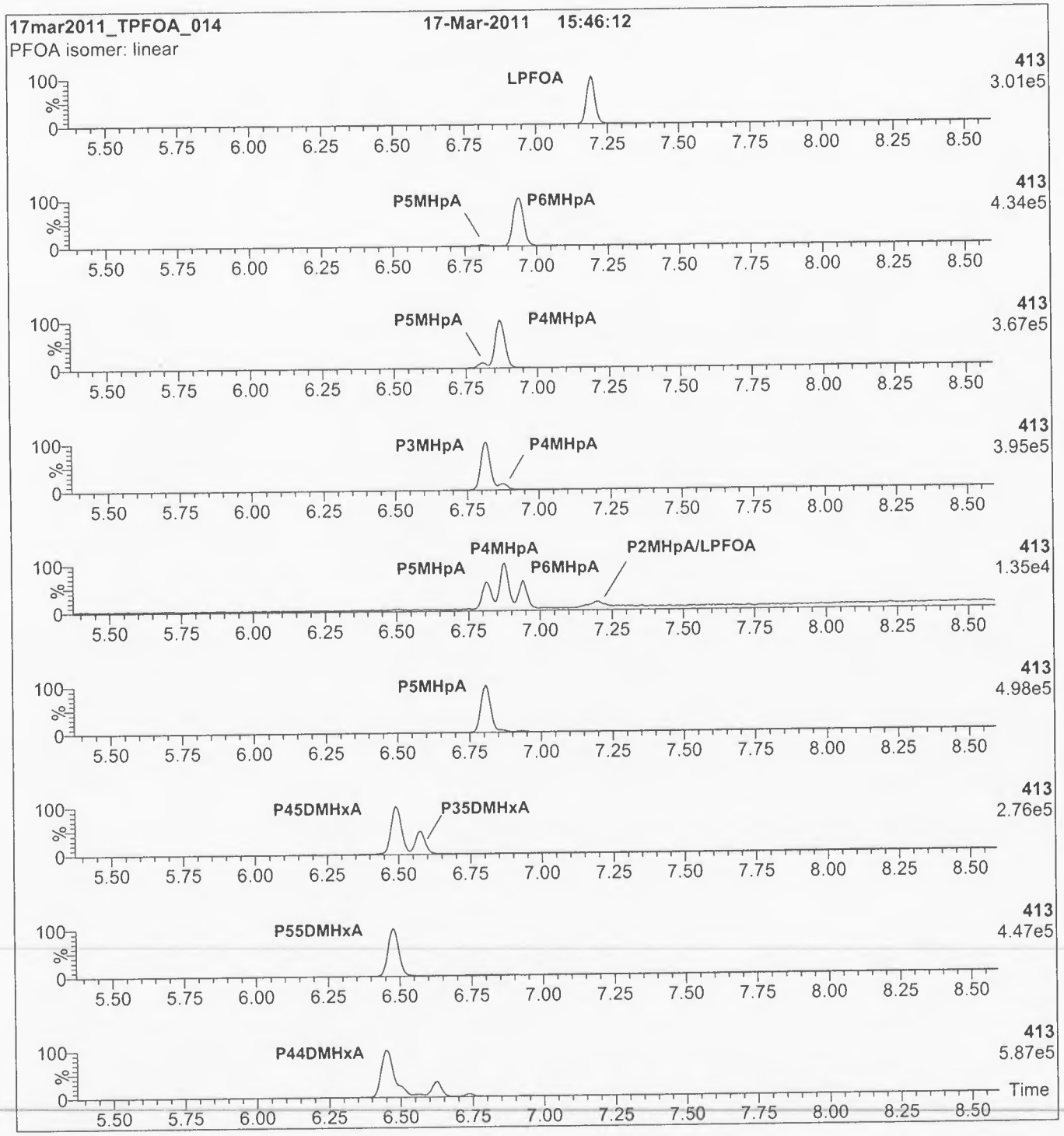
Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

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

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



Conditions for Figure 4:

Same as Figure 2.

BATTELLE

It can be done

BDO Id: 180618-06

Reagent Receipt Report

Approved: ☐ Authorized ☐

Name:	Branched PFHxS Standard (50 µg/m	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 (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:

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 ^{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 ~ 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,...x_n on which it depends is:

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

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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

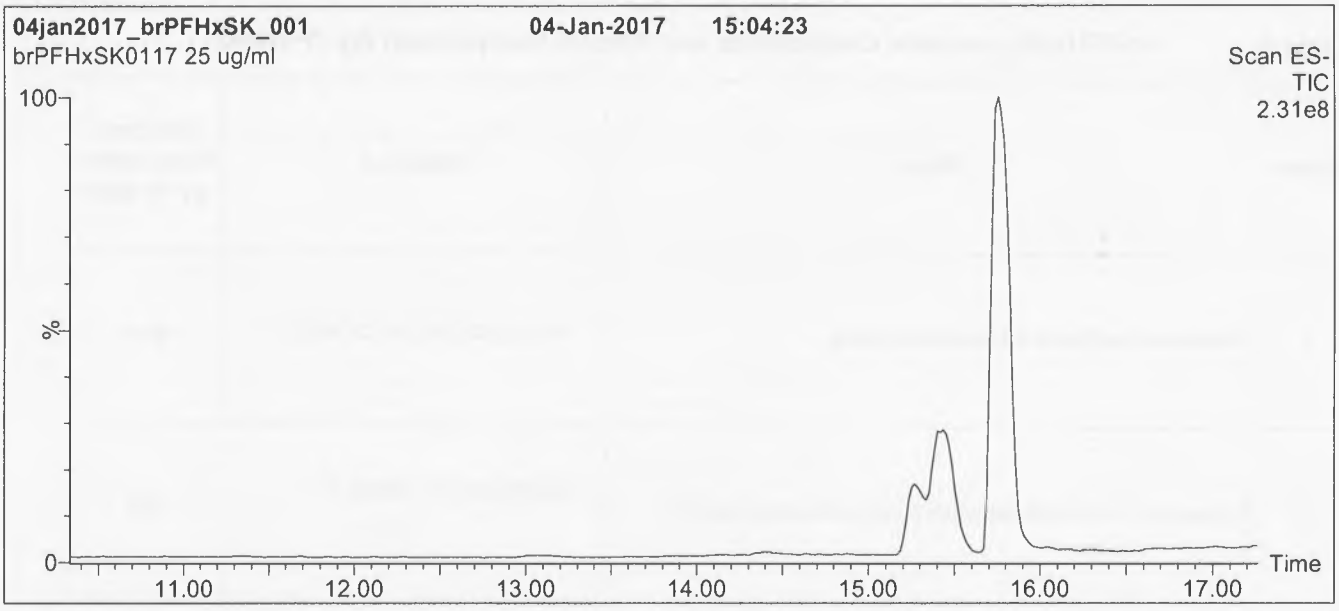
Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

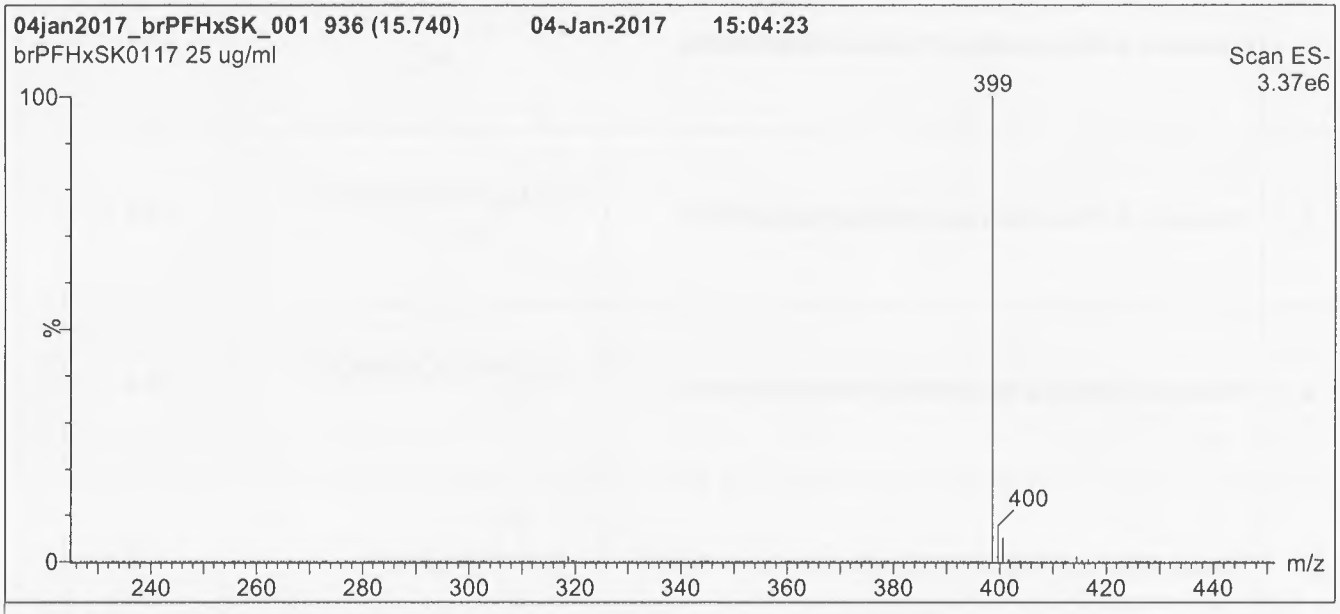
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3C(CF_3)_2CF_2CF_2SO_3^-K^+$	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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc 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

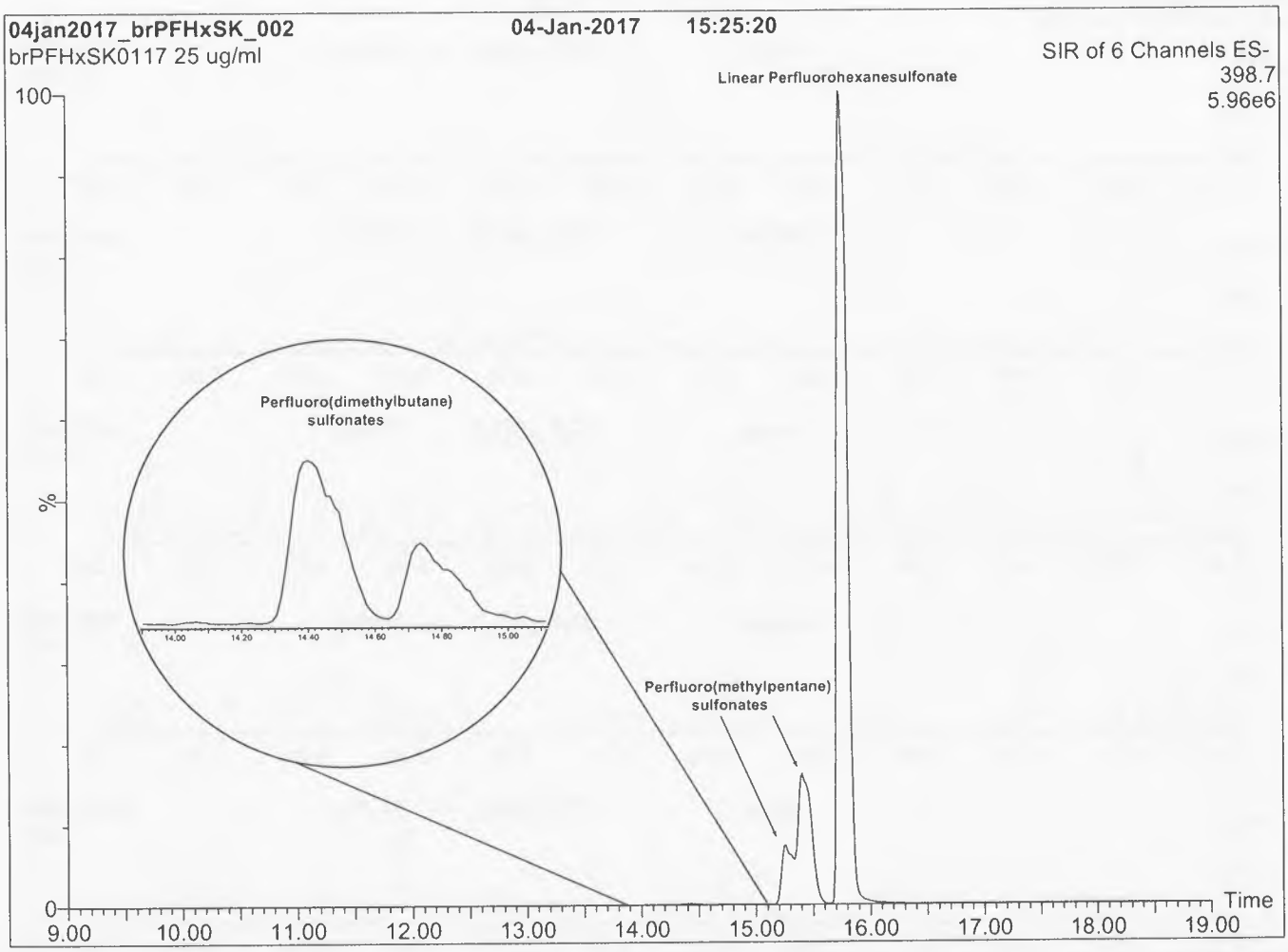
Flow: 300 µl/min

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

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc 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

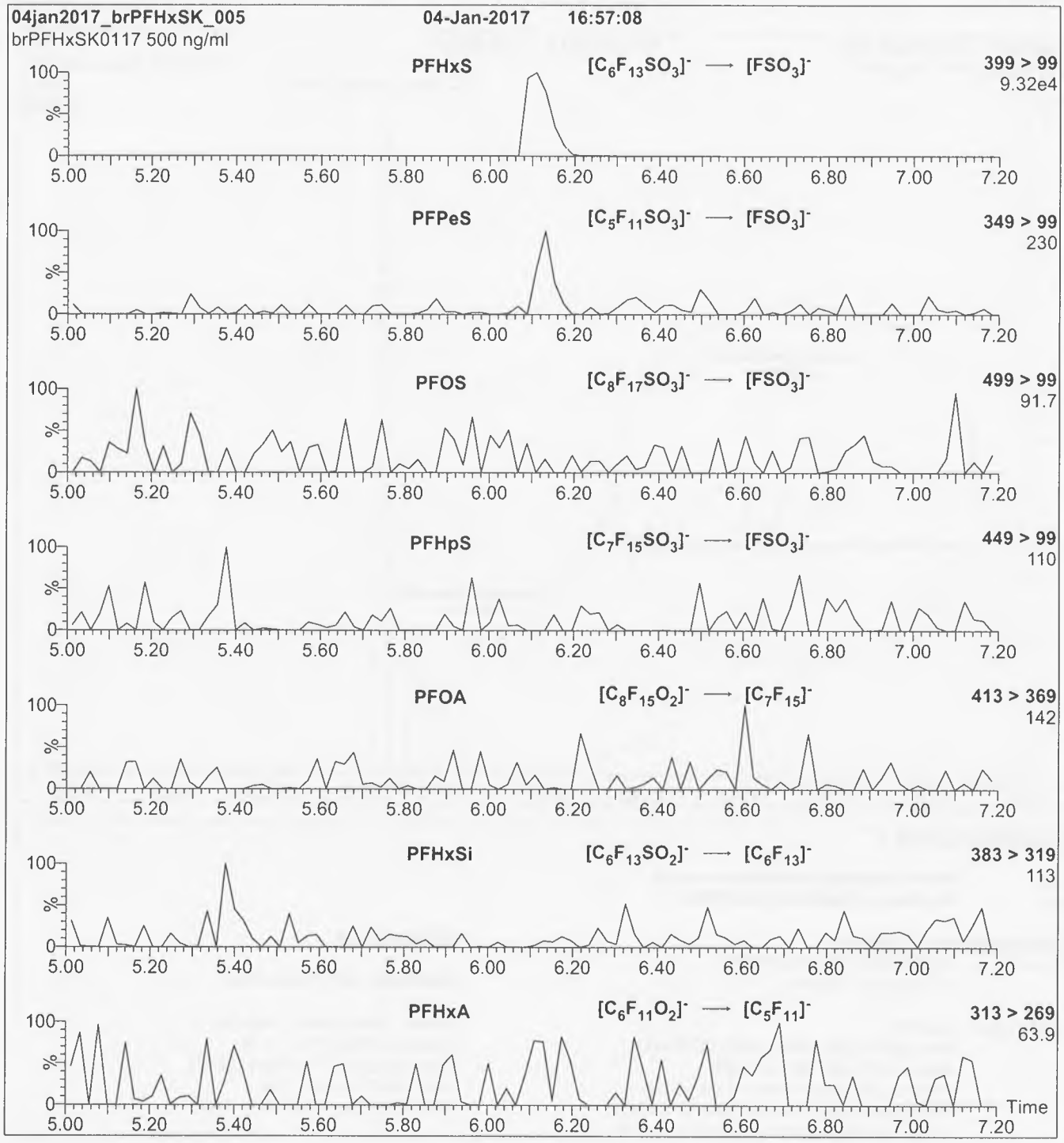
Flow: 300 µl/min

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 µl (500 ng/ml br-PFHxSK)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 30

BATTELLE

It can be done

BDO Id: 180618-07

Reagent Receipt Report

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	Cert Val:	Lower Limit:	Upper Limit:

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

180618-07

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 ^{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.
- 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,...x_n on which it depends is:

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

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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

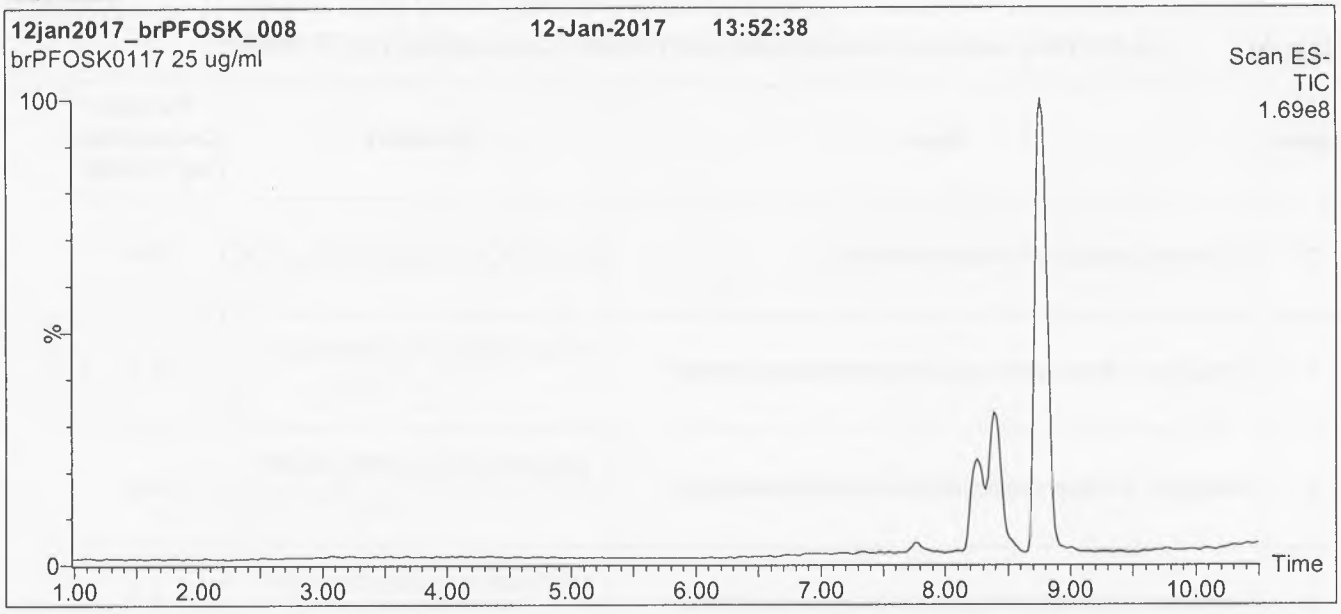
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

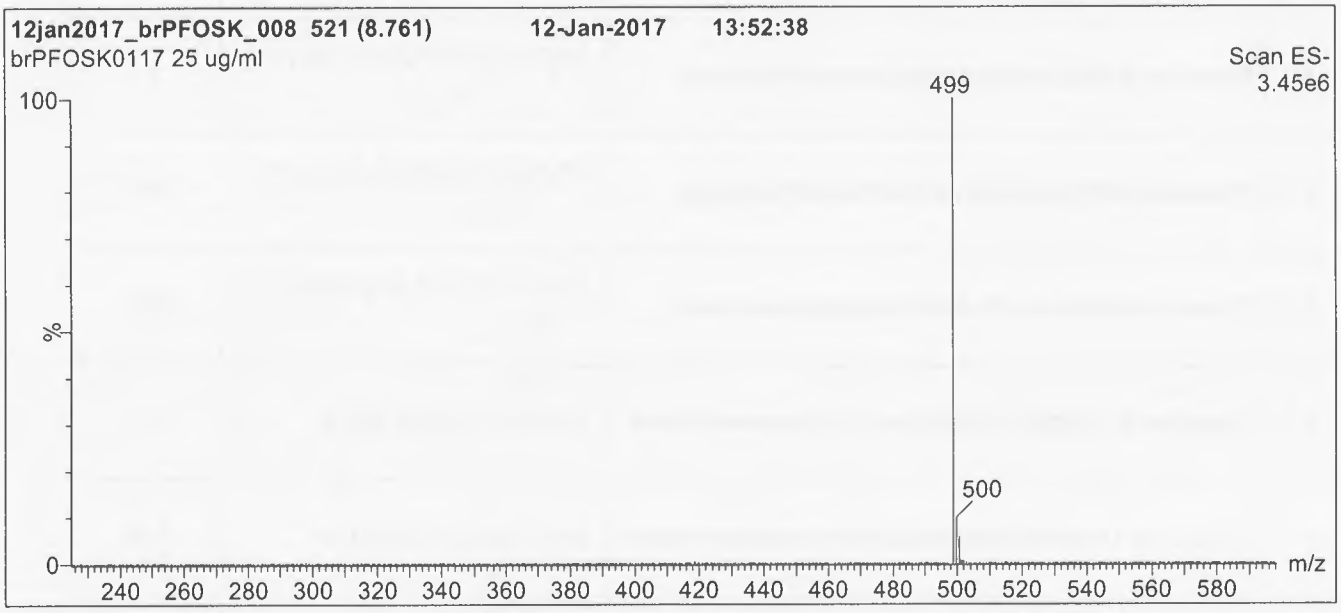
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3C(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2C(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF(CF_3)CF_2SO_3^-K^+$	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 Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% (80:20 MeOH:ACN) / 55% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 12 min and hold for 2 min.
Return to initial conditions over 0.5 min.
Time: 16 min

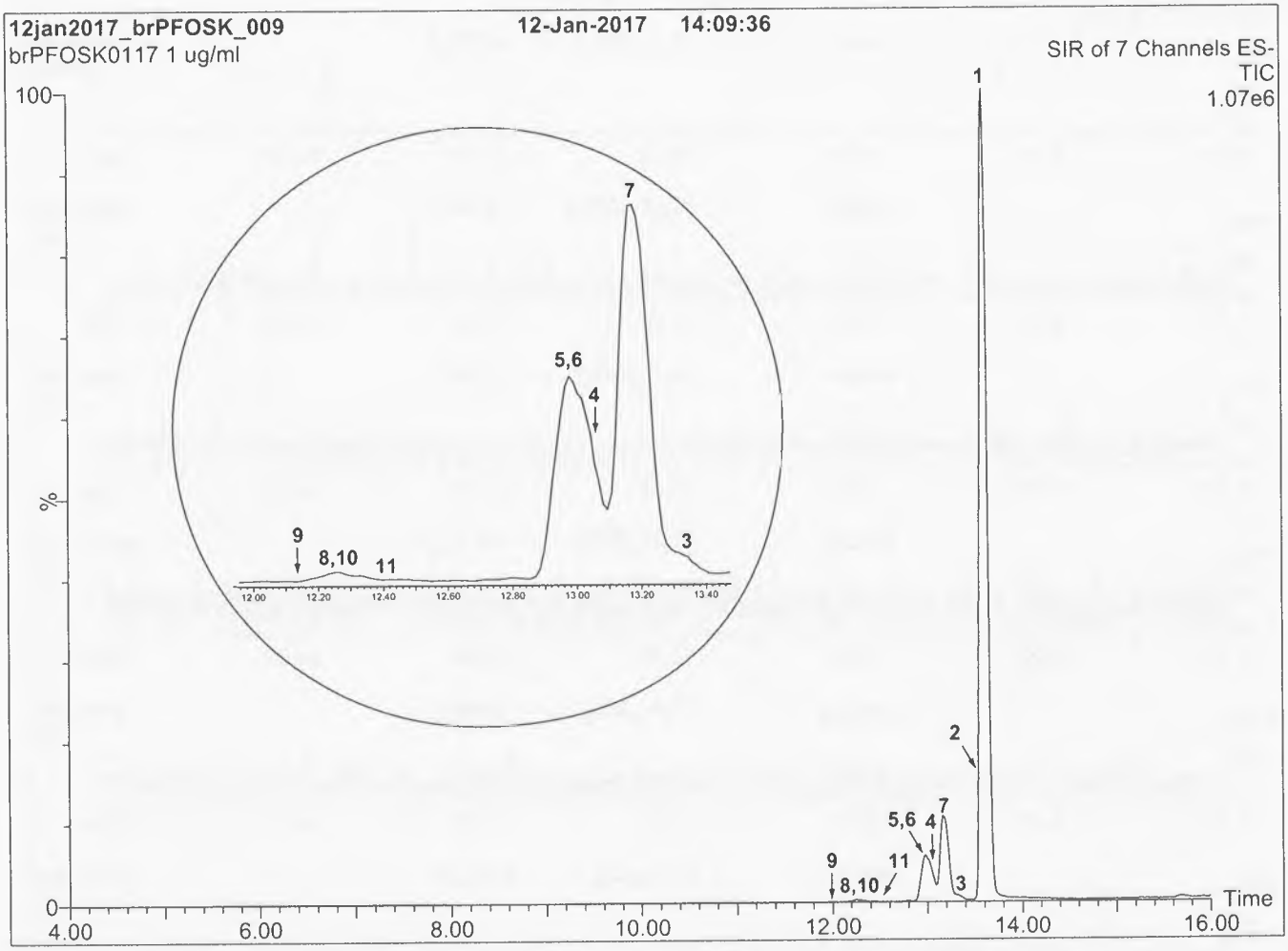
Flow: 300 µl/min

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**

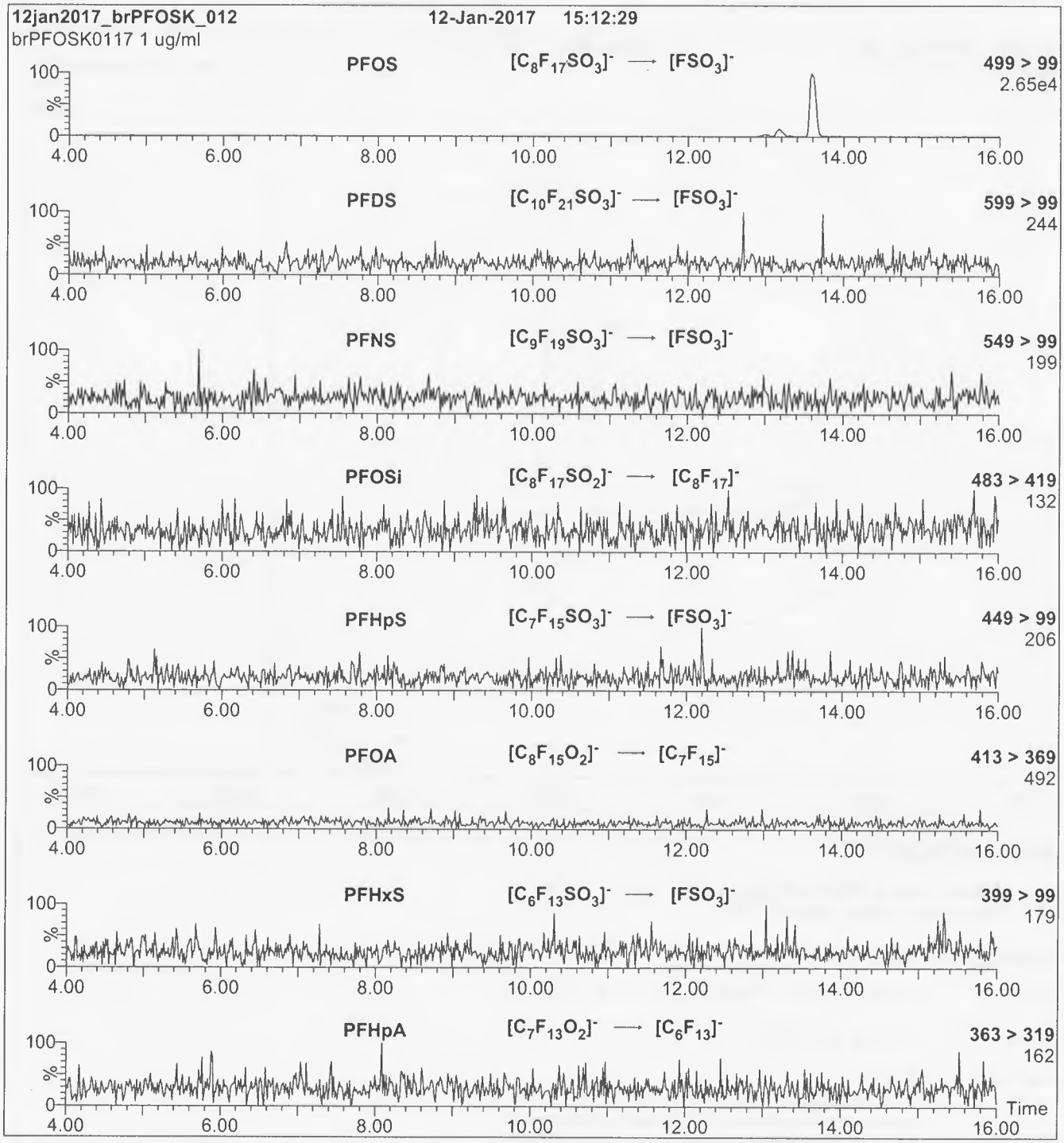
Chromatographic Conditions:

Column:	Acquity UPLC BEH Shield RP_{18} (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% H_2O (both with 10 mM NH_4OAc 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

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 11-50 (variable)

CERTIFIED WEIGHT REPORT

180705-02

Part Number:	99207
Lot Number:	061918
Description:	PFOA - DOD
	24 components
Expiration Date:	061923
Recommended Storage:	Freezer (0 °C)
Nominal Concentration (µg/mL):	1.0
NIST Test ID#:	2684186

Solvent(s):	Lot#	
Methanol (1 mM KOH)	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

Note: All assigned values are anion concentrations.

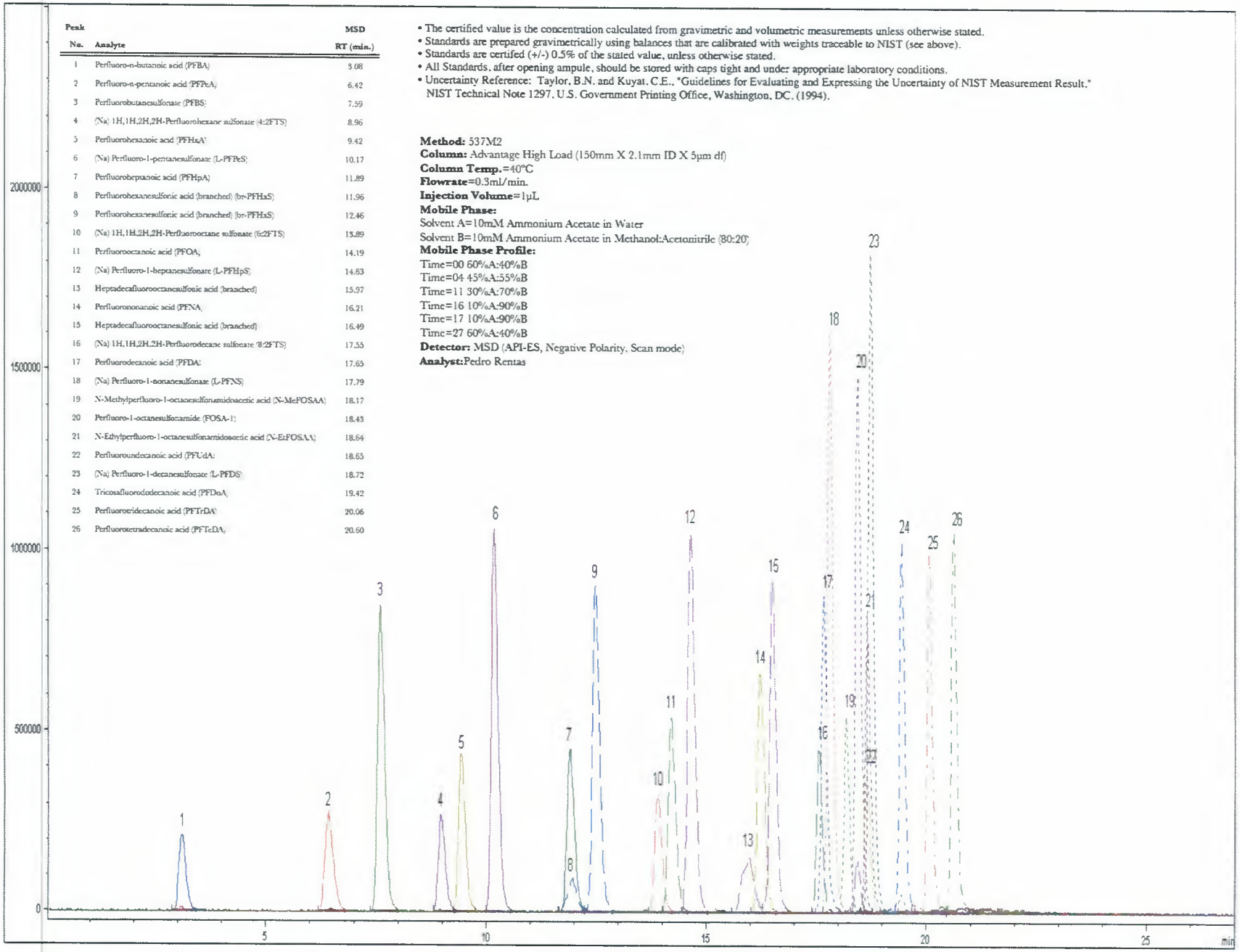
Formulated By:	Mario Luis	061918 DATE
Reviewed By:	Pedro L. Rentas	061918 DATE

	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 (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.	Perfluorooctanoic 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	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.	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-butanoic acid (PFBA)	5.08
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	Perfluorohexanoic acid (PFHxA)	9.42
6	(Na) Perfluoro-1-pentanesulfonate (L-PFPeS)	10.17
7	Perfluoroheptanoic acid (PFHpA)	11.89
8	Perfluorohexanesulfonic acid (branched) (br-PFHxS)	11.96
9	Perfluorohexanesulfonic acid (branched) (br-PFHxS)	12.46
10	(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2FTS)	13.89
11	Perfluorooctanoic acid (PFOA)	14.19
12	(Na) Perfluoro-1-heptanesulfonate (L-PFHpS)	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-Perfluorodecane sulfonate (8:2FTS)	17.55
17	Perfluorodecanoic acid (PFDA)	17.65
18	(Na) Perfluoro-1-nonanesulfonate (L-PFNS)	17.79
19	N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	18.17
20	Perfluoro-1-octanesulfonamide (FOSA-1)	18.43
21	N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	18.64
22	Perfluoroundecanoic acid (PFUdA)	18.65
23	(Na) Perfluoro-1-decanesulfonate (L-PFDS)	18.72
24	Tricosafluorododecanoic acid (PFDoA)	19.42
25	Perfluorotridecanoic acid (PFTrDA)	20.06
26	Perfluorotetradecanoic acid (PFTeDA)	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



BATTELLE

It can be done

BDO Id: 180726-04

Reagent Receipt Report

Approved: ☑ Authorized ☐

Name:	Mass-labelled PFAS injection standar	**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	--	--	☐			
13C2-PFOA	BDO-2107	2.0000	100.00	--	--	☐			
13C3-PFBA	BDO-2231	2.0000	100.00	--	--	☐			
13C4-PFOS	BDO-2121	1.9140	100.00	--	--	☐			

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

PRODUCT CODE:	MPFAC-C-IS
LOT NUMBER:	MPFACCIS0516
SOLVENT(S):	Methanol / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	05/24/2016
LAST TESTED: (mm/dd/yyyy)	05/02/2017
EXPIRY DATE: (mm/dd/yyyy)	05/02/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

MPFAC-C-IS is a solution/mixture of mass-labelled (^{13}C) perfluoroalkylcarboxylic acids and a mass-labelled (^{13}C) 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 $x_1, x_2, \ldots x_n$ on which it depends is:

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

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 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17025 REFERENCE MATERIAL PRODUCER

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

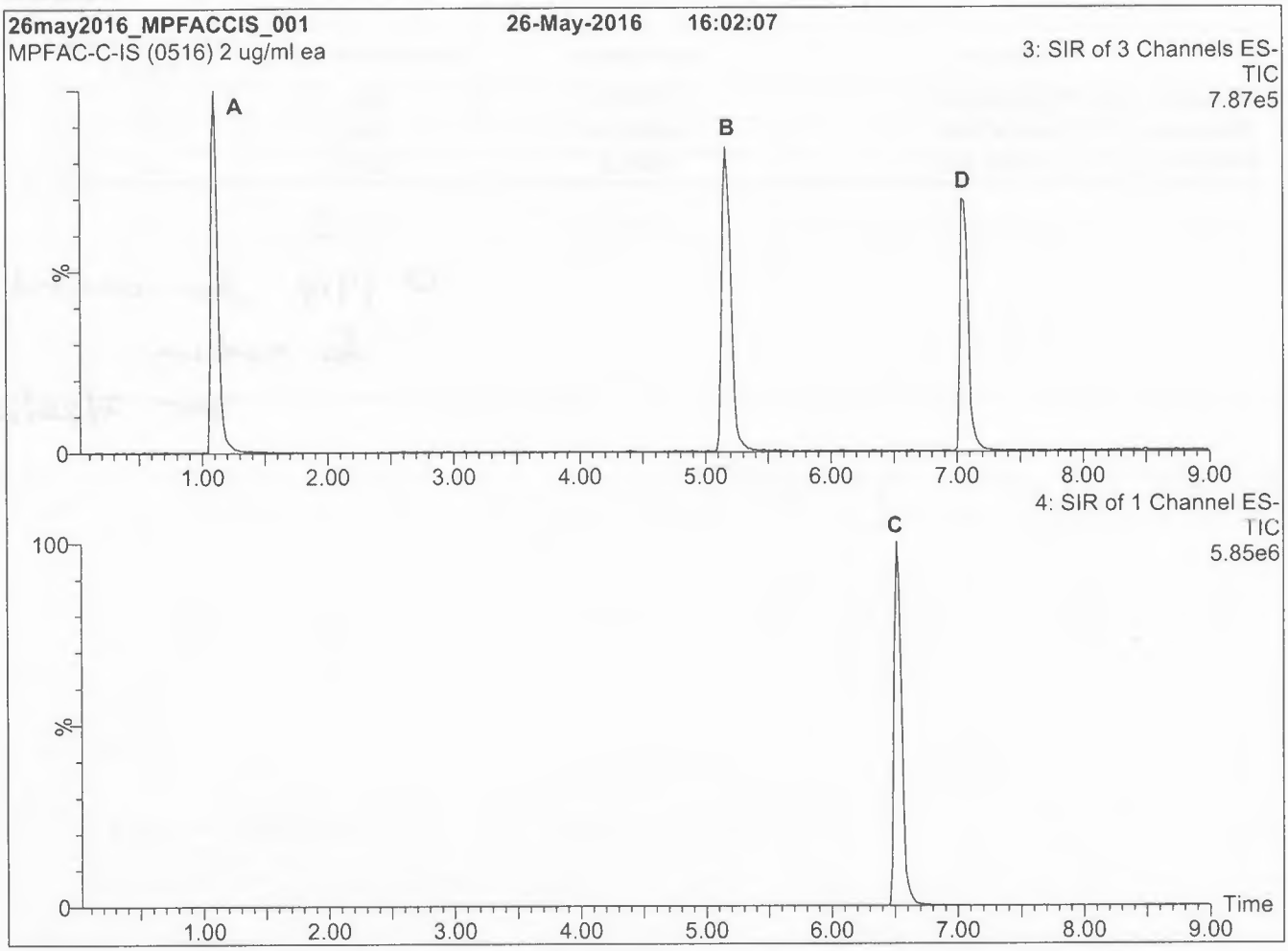
Table A: **MPFAC-C-IS; Components and Concentrations (ng/ml; ± 5% in Methanol / Water (<1%))**

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 ①	C

① 1914 when corrected for sodium
JMG 7/26/2017

Certified By: _____ **Date:** 05/04/2017
(mm/dd/yyyy)
B.G. Chittim, General Manager

Figure 1: **MPFAC-C-IS; LC/MS Data (Total Ion Current Chromatogram; SIR)**



Conditions for Figure 1:

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

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min
and hold for 2 min before returning
to initial conditions in 1 min.
Time: 12 min

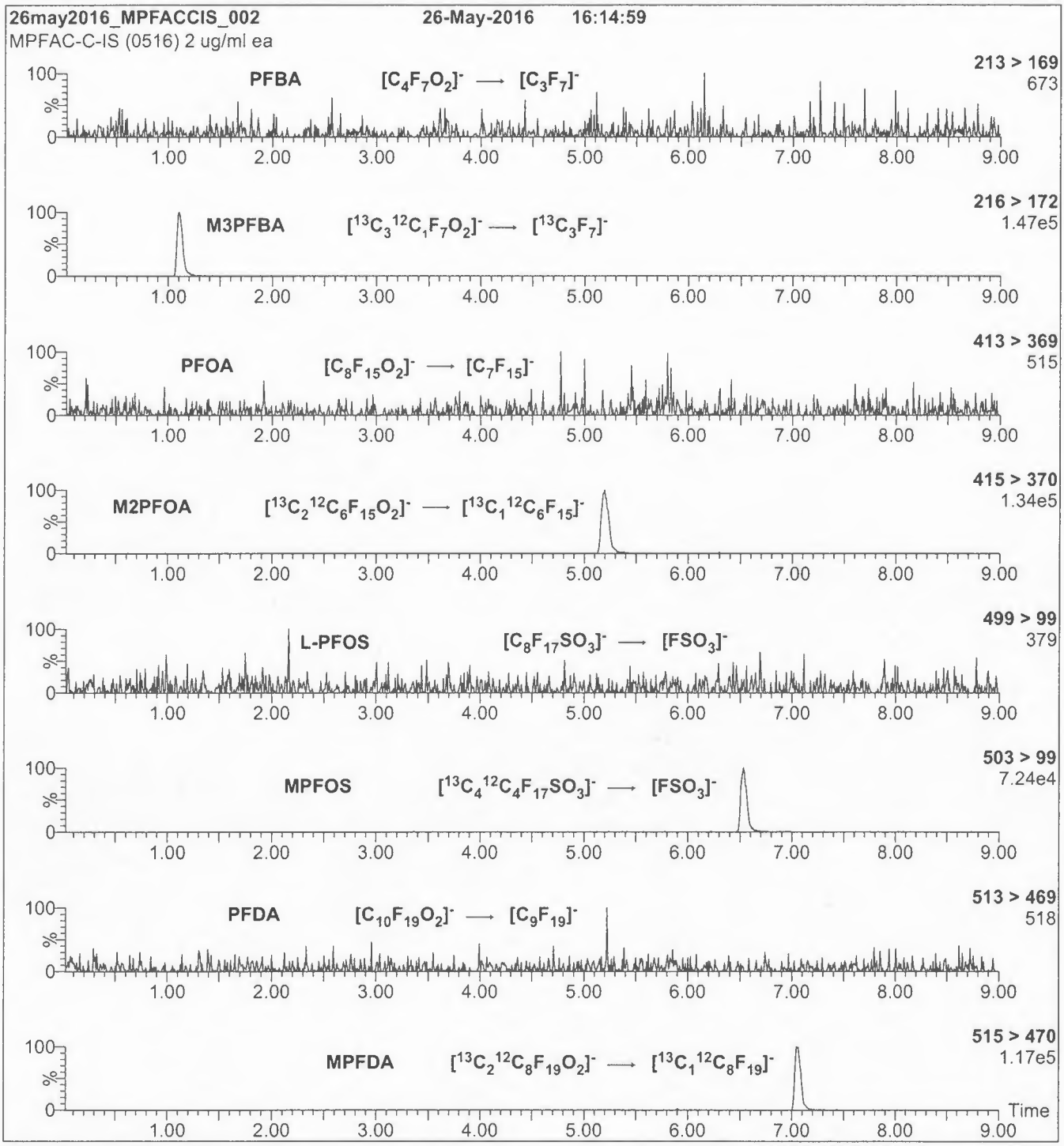
Flow: 300 µl/min

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)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3

Collision Energy (eV) = 8-50 (variable)

BATTELLE

It can be done

BDO Id: 180726-05

Reagent Receipt Report

Approved: ☑ Authorized ☐

Name: Mass-labelled PFAS Extraction Stand
Vendor: Wellington Laboratories
Catalogue No: MPFAC-24ES
Type: Solution
Lot No: MPFAC24ES0218
Quantity: 2 ea 1.2 mL **% Moisture:** 0
Description: Mass-labelled PFAS Extraction Standard Solution

Received: 7/26/2018
Custodian: Thorn, Jonathan
Expires: 2/7/2023
Consumed:
Stored In: LC Laboratory - R0107

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	--	--	☐			
13C2-6:2FTS	BDO-2230	0.9490	100.00	--	--	☐			
13C2-8:2FTS	BDO-2220	0.9580	100.00	--	--	☐			
13C2-PFDoA	BDO-2112	1.0000	100.00	--	--	☐			
13C2-PFTeDA	BDO-2224	1.0000	100.00	--	--	☐			
13C3-PFBS	BDO-2226	0.9290	100.00	--	--	☐			
13C3-PFHxS	BDO-2227	0.9460	100.00	--	--	☐			
13C4-PFBA	BDO-2105	1.0000	100.00	--	--	☐			
13C4-PFHpA	BDO-2218	1.0000	100.00	--	--	☐			
13C5-PFHxA	BDO-2217	1.0000	100.00	--	--	☐			
13C5-PFPeA	BDO-2216	1.0000	100.00	--	--	☐			
13C6-PFDA	BDO-2222	1.0000	100.00	--	--	☐			
13C7-PFUnA	BDO-2223	1.0000	100.00	--	--	☐			
13C8-FOSA	BDO-2225	1.0000	100.00	--	--	☐			
13C8-PFOA	BDO-2219	1.0000	100.00	--	--	☐			
13C8-PFOS	BDO-2228	0.9570	100.00	--	--	☐			
13C9-PFNA	BDO-2221	1.0000	100.00	--	--	☐			
d3-MeFOSAA	BDO-1838	1.0000	100.00	--	--	☐			
d5-EtFOSAA	BDO-1839	1.0000	100.00	--	--	☐			

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 (^{13}C) perfluoroalkylcarboxylic acids (C_4-C_{12} and C_{14}), three mass-labelled (^{13}C) perfluoroalkylsulfonates (C_4, C_6, and C_8), three mass-labelled (^{13}C) telomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled (^{2}H) perfluorooctanesulfonamidoacetic acids, and perfluoro-1-[$^{13}C_8$]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-[$^{13}C_8$]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 $x_1, x_2, \ldots x_n$ on which it depends is:

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

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 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED 9017034 REFERENCE MATERIAL PRODUCER

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%))**

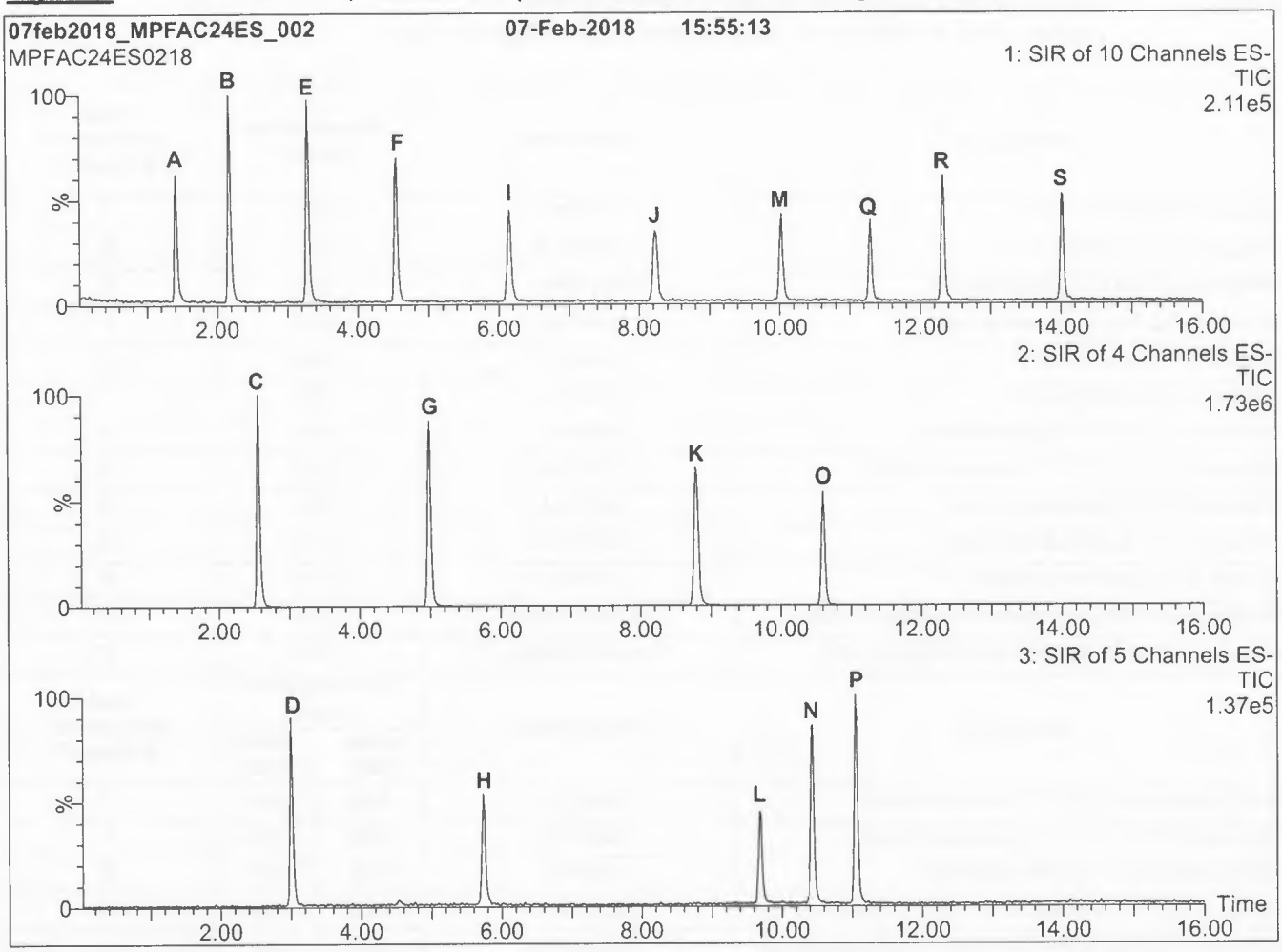
Compound	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1
Perfluoro-n-[$^{13}C_4$]butanoic acid	MPFBA	1000	A
Perfluoro-n-[$^{13}C_5$]pentanoic acid	M5PFPeA	1000	B
Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid	M5PFHxA	1000	E
Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid	M4PFHpA	1000	F
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	MPFDoA	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)		Peak Assignment in Figure 1
		as the salt	as the anion	
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: _____ **Date:** 02/09/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

Figure 1: **MPFAC-24ES; LC/MS Data (Total Ion Current Chromatogram; SIR)**



Conditions for Figure 1:

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

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc 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)**

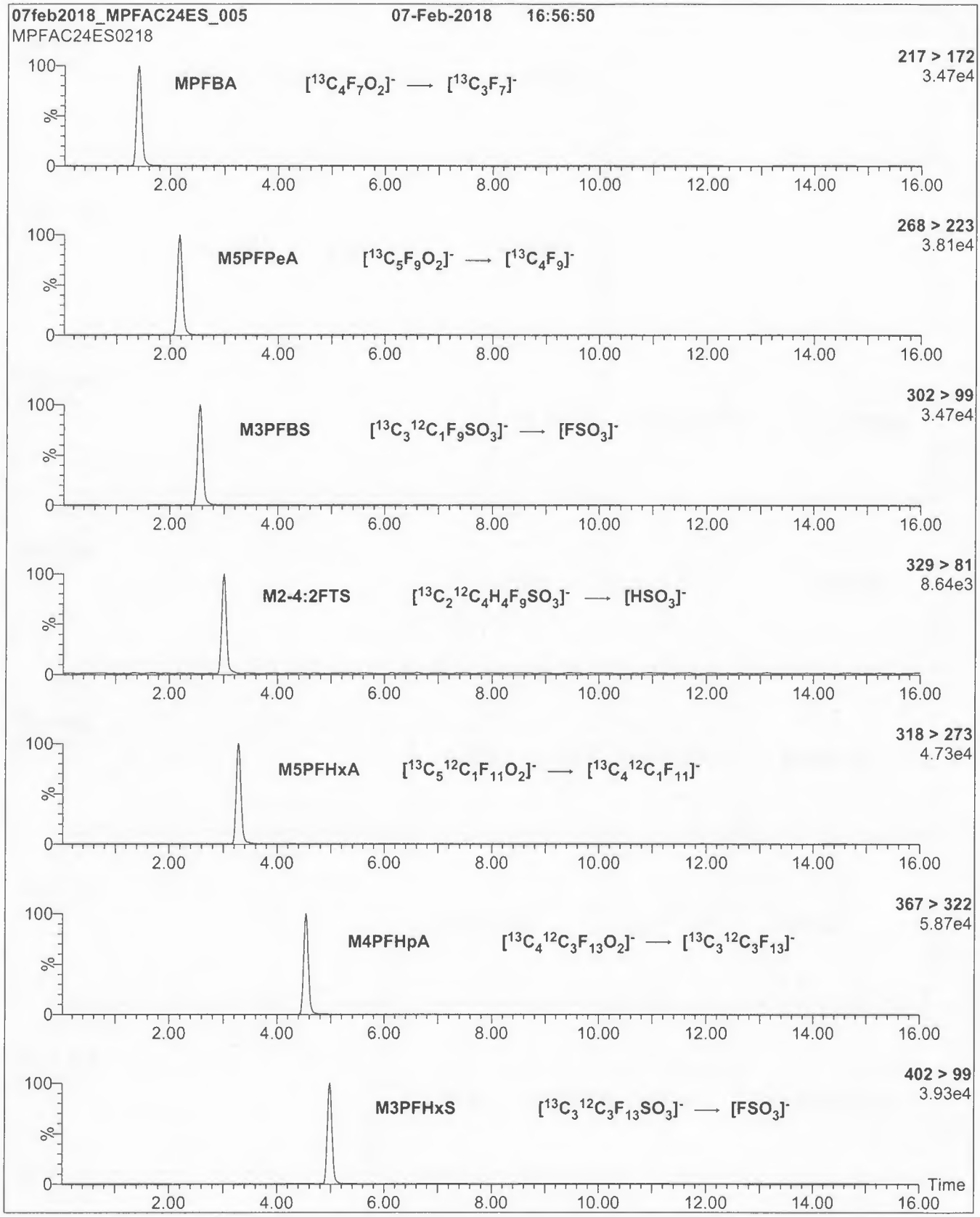


Figure 2: **MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**

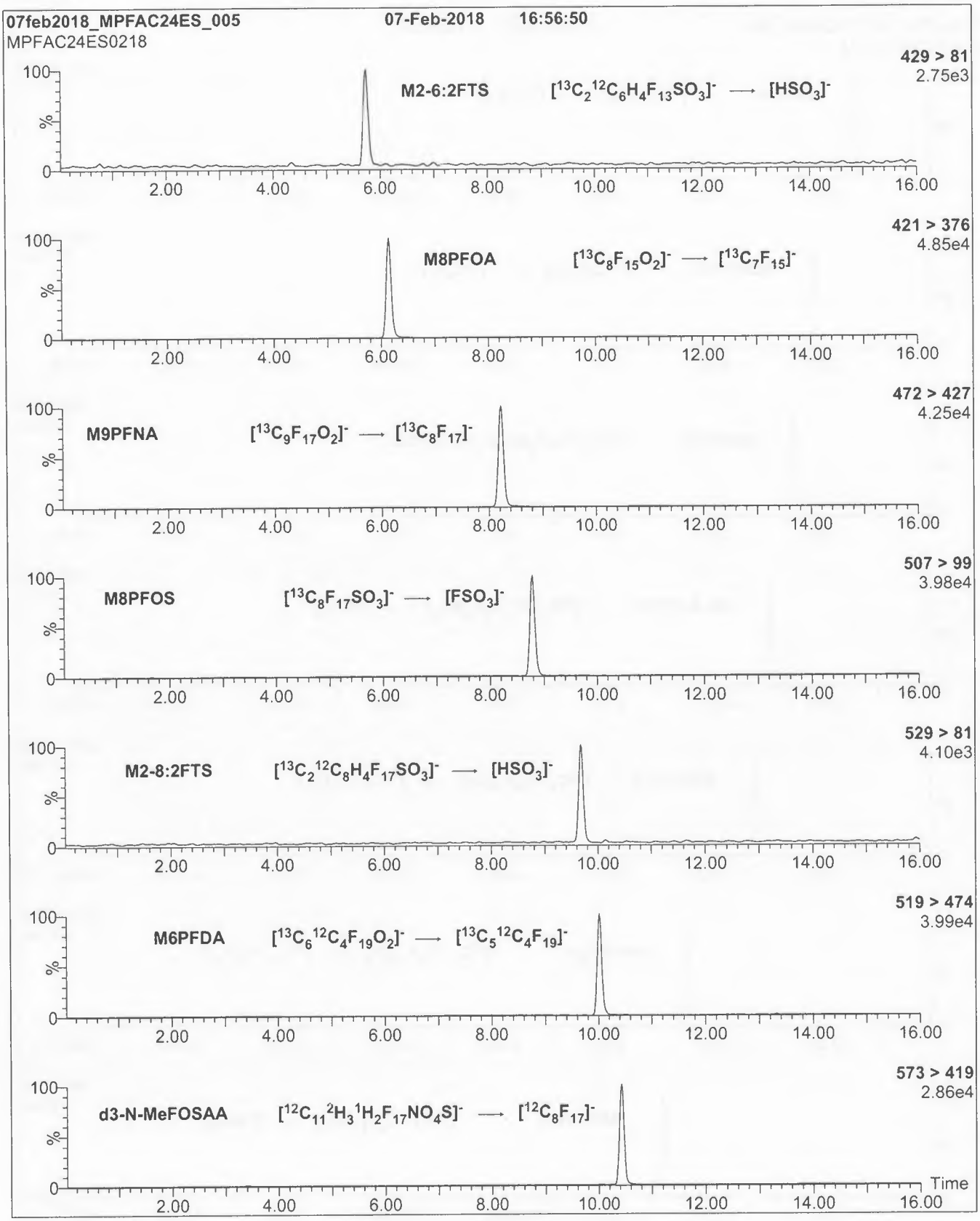
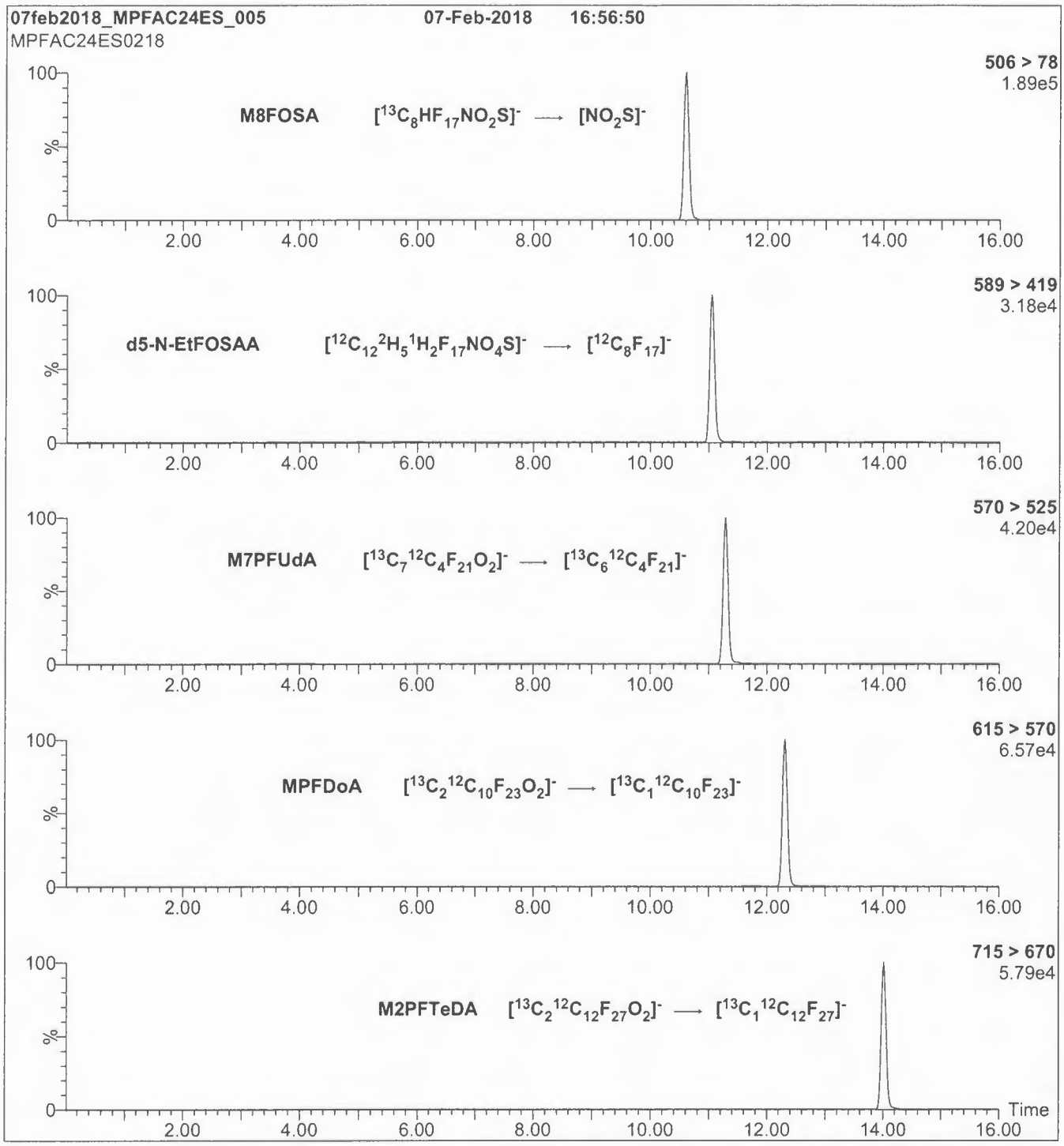


Figure 2: **MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFAC-24ES)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3

Collision Energy (eV) = 8-40 (variable)

Sample Preparation

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SAMPLE PREPARATION RECORDS

Project Title(s)	**Project No.(s)**
CTO-SE0375: Naval Air Station Jacksonville	100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

SOP Numbers (see workplan for modifications)

ExtractionSOP No. 5-370

This Batch Contains The Following Samples:	
CR817PB-FS	J7778-FS
CR818LCS-FS	J7779-FS
J7774-FS	J7780-FS
J7775-FS	J7784-FS
J7776-FS	J7785-FS
J7777-FS	

Laboratory Preparation Records

COMPLETE AND VALIDATED

Prep Task Leader: Stephanie Schultz

Approved By:	Date	Initials
Denise Schumitz	09/19/2018	DMS

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SAMPLE IDENTIFICATION PAGE

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Sample ID	Description
CR817PB-FS	Procedural Blank
CR818LCS-FS	Laboratory Control Sample
J7774-FS	JAX-TCC-EB02-09112018
J7775-FS	JAX-TCC-MWC3-09112018
J7776-FS	JAX-TCC-MWC3-09112018-FD
J7777-FS	JAX-TCC-MWI2-09112018
J7778-FS	JAX-TCC-MWB1-09112018
J7779-FS	JAX-TCC-SW01-09112018
J7780-FS	JAX-TCC-SW02-09112018
J7784-FS	JAX-TCC-EB03-09112018
J7785-FS	JAX-TCC-FRB-09112018

Samples Assigned By: Jonathan Thorn Date : September 13, 2018

Comments:

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SAMPLE CUSTODY LOG

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Requested On/By:	09/14/2018 SAS	**Purpose:**	Sample Preparation
Relinquished On/By:	09/14/2018 MDS	**Last Activity:**	Transfer

Accepted On/By:	09/14/2018 SAS	**Returned On/To:**	
Stored In Facility:	Sample Preparation	**Returned To Facility:**	
Stored Until	09/14/2018		
Stored Comment:	NA	**Returned Comment:**	NA

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	J7774	1	C	Consumed	NA
2	J7775	1	C	Consumed	NA
3	J7776	1	C	Consumed	NA
4	J7777	1	C	Consumed	NA
5	J7778	1	C	Consumed	NA
6	J7779	1	C	Consumed	NA
7	J7780	1	C	Consumed	NA
8	J7784	1	C	Consumed	NA
9	J7785	1	C	Consumed	NA

Total Samples 9 * "C" = Consumed Container

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LIQUID SAMPLE ID FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Sample ID	Description	Volume (mL)	Bottles	*	Date Initials
CR817PB-FS	Procedural Blank	250.0	NA	--	09/14/18 SAS
CR818LCS-FS	Laboratory Control Sample	250.0	NA	--	09/14/18 SAS
J7774-FS	JAX-TCC-EB02-09112018	285.0	1	C	09/14/18 SAS
J7775-FS	JAX-TCC-MWC3-09112018	270.0	1	C	09/14/18 SAS
J7776-FS	JAX-TCC-MWC3-09112018-FD	275.0	1	C	09/14/18 SAS
J7777-FS	JAX-TCC-MWI2-09112018	275.0	1	C	09/14/18 SAS
J7778-FS	JAX-TCC-MWB1-09112018	275.0	1	C	09/14/18 SAS
J7779-FS	JAX-TCC-SW01-09112018	275.0	1	C	09/14/18 SAS
J7780-FS	JAX-TCC-SW02-09112018	275.0	1	C	09/14/18 SAS
J7784-FS	JAX-TCC-EB03-09112018	270.0	1	C	09/14/18 SAS
J7785-FS	JAX-TCC-FRB-09112018	275.0	1	C	09/14/18 SAS

Comments:

Samples Assigned By Jonathan Thorn Date : September 13, 2018

* - "C" = Sample is Consumed

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BATTELLE - NORWELL OPERATIONS
SURROGATE SPIKE FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CR817PB-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
CR818LCS-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
CR818LCS-FS	JZ88	LCS/MS	1	50	09/14/18 SAS	DMS	NA
J7774-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7775-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7776-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7777-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7778-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7779-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7780-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7784-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7785-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
JY28	Pipette	B814659662
JZ88	Pipette	B814659662

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SAMPLE EXTRACTION FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Sample ID	1st Extraction	2nd Extraction	3rd Extraction	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comment
CR817PB-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
CR818LCS-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
J7774-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
J7775-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
J7776-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
J7777-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
J7778-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
J7779-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
J7780-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
J7784-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA
J7785-FS	09/14/18 SAS	NA	NA	NA	NA	NA	NA	NA

Solvents/Reagent Preparations:

Name	ID	Expires	Lot No	Procedure	Comments
0.4% NH3 in Methanol	RP-180914-2	09/14/18	181704	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
0.4% NH3 in Methanol	RP-180914-2	09/14/18	SHBJ0412	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
Pre-packed SPE Column	RP-180914-3	09/14/18	003537250A	Pre-packed SPE Column	

Solvents/Reagents:

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INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
CR817PB-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
CR818LCS-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7774-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7775-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7775-FS-D(3)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG
J7775-FS-D(5)	960	40	JY26	50	1	1000	5.000	09/17/18 SAS	LMG
J7776-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7776-FS-D(3)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG
J7776-FS-D(5)	960	40	JY26	50	1	1000	5.000	09/17/18 SAS	LMG
J7777-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7777-FS-D(3)	487	13	JY26	25.5	1	500	4.000	09/17/18 SAS	LMG
J7777-FS-D(5)	955	45	JY26	52.5	1	1000	6.667	09/17/18 SAS	LMG
J7778-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7778-FS-D(3)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG
J7779-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7779-FS-D(3)	960	40	JY26	50	1	1000	5.000	09/17/18 SAS	LMG
J7779-FS-D(5)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG
J7780-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7780-FS-D(3)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

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INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
J7780-FS-D(5)	960	40	JY26	50	1	1000	5.000	09/17/18 SAS	LMG
J7784-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7785-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
JY26	Pipette	B814659662
JY28	Pipette	B814659662

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

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EXTRACT SPIKE FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Extract Id	DF	Std. ID	Type	Vial No.	Vol. Added (uL)	Conc (ug/mL)	Added (ng)	Date Spiked/ Spiked By	Witn'd By
J7775-FS-D(3)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7775-FS-D(5)	5	JY28	SIS	1	40	0	0	09/17/18 SAS	LMG
J7776-FS-D(3)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7776-FS-D(5)	5	JY28	SIS	1	40	0	0	09/17/18 SAS	LMG
J7777-FS-D(3)	4	JY28	SIS	1	13	0	0	09/17/18 SAS	LMG
J7777-FS-D(5)	6.667	JY28	SIS	1	45	0	0	09/17/18 SAS	LMG
J7778-FS-D(3)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7779-FS-D(3)	5	JY28	SIS	1	40	0	0	09/17/18 SAS	LMG
J7779-FS-D(5)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7780-FS-D(3)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7780-FS-D(5)	5	JY28	SIS	1	40	0	0	09/17/18 SAS	LMG

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
JY26	Pipette	B814659662
JY28	Pipette	B814659662

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BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CR817PB-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
CR818LCS-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7774-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7775-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7775-FS	2	C	9/17/2018 3:25:00 PM	J7775-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7775-FS-D	3	--	9/17/2018 3:25:00 PM	J7775-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7775-FS	4	--	9/17/2018 3:34:00 PM	J7775-FS	2	500	300	1.667	3.333	09/17/18 SAS
J7775-FS-D	5	--	9/17/2018 3:34:00 PM	J7775-FS	2	500	200	2.500	5.000	09/17/18 SAS
J7776-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7776-FS	2	C	9/17/2018 3:25:00 PM	J7776-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7776-FS-D	3	--	9/17/2018 3:25:00 PM	J7776-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7776-FS	4	--	9/17/2018 3:34:00 PM	J7776-FS	2	500	300	1.667	3.333	09/17/18 SAS
J7776-FS-D	5	--	9/17/2018 3:34:00 PM	J7776-FS	2	500	200	2.500	5.000	09/17/18 SAS
J7777-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J7777-FS	2	C	9/17/2018 3:25:00 PM	J7777-FS	0	1000	750	1.333	1.333	09/17/18 SAS
J7777-FS-D	3	--	9/17/2018 3:25:00 PM	J7777-FS	0	1000	250	4.000	4.000	09/17/18 SAS
J7777-FS	4	--	9/17/2018 3:37:00 PM	J7777-FS	2	500	400	1.250	1.667	09/17/18 SAS
J7777-FS-D	5	--	9/17/2018 3:37:00 PM	J7777-FS	2	500	100	5.000	6.667	09/17/18 SAS
J7778-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7778-FS	2	--	9/17/2018 3:25:00 PM	J7778-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7778-FS-D	3	--	9/17/2018 3:25:00 PM	J7778-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7779-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7779-FS	2	C	9/17/2018 3:37:00 PM	J7779-FS	0	1000	800	1.250	1.250	09/17/18 SAS
J7779-FS-D	3	--	9/17/2018 3:37:00 PM	J7779-FS	0	1000	200	5.000	5.000	09/17/18 SAS
J7779-FS	4	--	9/17/2018 3:38:00 PM	J7779-FS	2	800	300	2.667	3.333	09/17/18 SAS
J7779-FS-D	5	--	9/17/2018 3:38:00 PM	J7779-FS	2	800	500	1.600	2.000	09/17/18 SAS
J7780-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7780-FS	2	C	9/17/2018 3:25:00 PM	J7780-FS	0	1000	500	2.000	2.000	09/17/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

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It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J7780-FS-D	3	--	9/17/2018 3:25:00 PM	J7780-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7780-FS	4	--	9/17/2018 3:34:00 PM	J7780-FS	2	500	300	1.667	3.333	09/17/18 SAS
J7780-FS-D	5	--	9/17/2018 3:34:00 PM	J7780-FS	2	500	200	2.500	5.000	09/17/18 SAS
J7784-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7785-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

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BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560
CTO-SE0375: Non-Potable Water PFAS Analysis
GW, QC, SW

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Sep 13 2018 11:51AM LMG	**Received On/By:**	Sep 13 2018 11:51AM LMG
Relinquished From:	Sample Preparation: NA	**Received Location:**	LC Laboratory: NA
Relinquish Comment:	NA	**Received Comment:**	screening purposes only, see misc doc for details

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	J7774-FS(0)	1000	1	Intact	NA
2	J7775-FS(0)	1000	1	Intact	NA
3	J7776-FS(0)	1000	1	Intact	NA
4	J7777-FS(0)	1000	1	Intact	NA
5	J7778-FS(0)	1000	1	Intact	NA
6	J7779-FS(0)	1000	1	Intact	NA
7	J7780-FS(0)	1000	1	Intact	NA
8	J7784-FS(0)	1000	1	Intact	NA
9	J7785-FS(0)	1000	1	Intact	NA

Total Extracts: 9

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EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Sep 17 2018 5:14PM SAS	**Received On/By:**	Sep 17 2018 5:52PM DMS
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	CR817PB-FS(0)	1000	1	Intact	NA
2	CR818LCS-FS(0)	1000	1	Intact	NA
3	J7774-FS(0)	1000	1	Intact	NA
4	J7775-FS(0)	1000	1	Intact	NA
5	J7776-FS(0)	1000	1	Intact	NA
6	J7777-FS(0)	1000	1	Intact	NA
7	J7778-FS(0)	1000	1	Intact	NA
8	J7779-FS(0)	1000	1	Intact	NA
9	J7780-FS(0)	1000	1	Intact	NA
10	J7784-FS(0)	1000	1	Intact	NA
11	J7785-FS(0)	1000	1	Intact	NA

Total Extracts: 11

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It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Sep 17 2018 5:14PM SAS	**Received On/By:**	Sep 17 2018 5:53PM DMS
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	J7775-FS-D(3)	1000	2	Intact	NA
2	J7775-FS-D(5)	1000	5	Intact	NA
3	J7776-FS-D(3)	1000	2	Intact	NA
4	J7776-FS-D(5)	1000	5	Intact	NA
5	J7777-FS-D(3)	500	4	Intact	NA
6	J7777-FS-D(5)	1000	6.667	Intact	NA
7	J7778-FS-D(3)	1000	2	Intact	NA
8	J7779-FS-D(3)	1000	5	Intact	NA
9	J7779-FS-D(5)	1000	2	Intact	NA
10	J7780-FS-D(3)	1000	2	Intact	NA
11	J7780-FS-D(5)	1000	5	Intact	NA

Total Extracts: 11

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SAMPLE SPECIFIC COMMENTS

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Sample ID:	Comment:	Date/Initials:
CR817PB-FS	Extraction for all samples began at 10:37am	09/14/18 SAS
CR817PB-FS	Sample extraction ended at 11:32am	09/14/18 SAS
CR818LCS-FS	Sample extraction ended at 11:27am	09/14/18 SAS
J7774-FS	Sample extraction ended at 11:44am	09/14/18 SAS
J7775-FS	Sample extraction ended at 11:44am	09/14/18 SAS
J7776-FS	Sample extraction ended at 11:36am	09/14/18 SAS
J7777-FS	Sample extraction ended at 11:38am	09/14/18 SAS
J7778-FS	Sample extraction ended at 11:45am	09/14/18 SAS
J7779-FS	Sample extraction ended at 11:44am	09/14/18 SAS
J7780-FS	Due to sample clogging the filter, the filter of the SPE was popped off. Filter had a green algae like substance on it.	09/14/18 SAS
J7780-FS	Sample extraction ended at 12:35pm	09/14/18 SAS
J7784-FS	Sample extraction ended at 11:33am	09/14/18 SAS
J7785-FS	Sample extraction ended at 11:42am	09/14/18 SAS

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BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Entered By:	Lauren Griffith	**On:**	09/14/2018

For pre-screening by direct inject, extracts were prepared as follows.

For each sample, 400 uL of methanol (180724-02) were pipetted (B820865811) into eppendorf tubes, followed by 50 uL each of JY26 and JY28 (pipette B814659662). Addition of standard solutions was witnessed by Bob Lizotte. Samples were mixed by inverting several times; then a 500 uL aliquot (pipette B1100330B) of each was transferred to one of the eppendorf tubes containing spiked methanol. The tubes were then capped and vortexed to mix. An aliquot of direct inject extract was then transferred to an autosampler vial and submitted for analysis.

Task Leader Approval:	Lauren Griffith	**On:**	09/18/2018
SupervisorApproval:	Denise Schumitz	**On:**	09/18/2018
PM Approval:	Jonathan Thorn	**On:**	09/19/2018

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It can be done

BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Entered By:	Stephanie Schultz	**On:**	09/18/2018

For dilution J7777-FS-D(3), the original 500uL split was inadvertantly added to the tube containing spikes for the 10x dilution (J7777-FS-D(5)). Dilution was remade at 500uL instead of 1000uL with spikes at 13uL for both JY26 and JY28 due to the low sample volume left over.

Task Leader Approval:	Stephanie Schultz	**On:**	09/18/2018
SupervisorApproval:	Denise Schumitz	**On:**	09/19/2018
PM Approval:	Jonathan Thorn	**On:**	09/19/2018

Analytical Calibrations

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 18/09/2018 3:13:06 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	MeOH		9/17/2018 6:08:24 PM	5-0369.dam	09172018.wiff
2	KA86	L1	9/17/2018 6:19:17 PM	5-0369.dam	09172018.wiff
3	KA87	L2	9/17/2018 6:30:11 PM	5-0369.dam	09172018.wiff
4	KA88	L3	9/17/2018 6:41:03 PM	5-0369.dam	09172018.wiff
5	KA89	L4	9/17/2018 6:51:56 PM	5-0369.dam	09172018.wiff
6	KA90	L5	9/17/2018 7:02:47 PM	5-0369.dam	09172018.wiff
7	KA91	L6	9/17/2018 7:13:39 PM	5-0369.dam	09172018.wiff
8	KA92	L7	9/17/2018 7:24:30 PM	5-0369.dam	09172018.wiff
9	JY46 IB	Instrument Blank	9/17/2018 7:35:21 PM	5-0369.dam	09172018.wiff
10	JY45 ICC	ICC	9/17/2018 7:46:13 PM	5-0369.dam	09172018.wiff
11	KA29 BRANCH	Branch Standard	9/17/2018 7:57:05 PM	5-0369.dam	09172018.wiff
12	MeOH		9/17/2018 8:07:57 PM	5-0369.dam	09172018.wiff
13	CR815PB-FS(3)	Procedural Blank	9/17/2018 8:18:50 PM	5-0369.dam	09172018.wiff
14	CR816LCS-FS(3)	Laboratory Control Sample	9/17/2018 8:29:42 PM	5-0369.dam	09172018.wiff
15	J7781-FS(3)	JAX-TCC-SD02-09112018	9/17/2018 8:40:33 PM	5-0369.dam	09172018.wiff
16	J7782-FS(3)	JAX-TCC-SD03-09112018	9/17/2018 8:51:25 PM	5-0369.dam	09172018.wiff
17	J7782MS-FS(3)	JAX-TCC-SD03-09112018	9/17/2018 9:02:16 PM	5-0369.dam	09172018.wiff
18	J7782MSD-FS(3)	JAX-TCC-SD03-09112018	9/17/2018 9:13:07 PM	5-0369.dam	09172018.wiff
19	J7783-FS(3)	JAX-TCC-SD04-09112018	9/17/2018 9:23:58 PM	5-0369.dam	09172018.wiff
6	KA90 CCV	CCV	9/17/2018 9:34:51 PM	5-0369.dam	09172018.wiff
20	MeOH		9/17/2018 9:45:43 PM	5-0369.dam	09172018.wiff
21	CR817PB-FS(0)	Procedural Blank	9/17/2018 9:56:35 PM	5-0369.dam	09172018.wiff
22	CR818LCS-FS(0)	Laboratory Control Sample	9/17/2018 10:07:27 PM	5-0369.dam	09172018.wiff
23	J7785-FS(0)	JAX-TCC-FRB-09112018	9/17/2018 10:18:19 PM	5-0369.dam	09172018.wiff
24	J7774-FS(0)	JAX-TCC-EB02-09112018	9/17/2018 10:29:11 PM	5-0369.dam	09172018.wiff
25	J7784-FS(0)	JAX-TCC-EB03-09112018	9/17/2018 10:40:02 PM	5-0369.dam	09172018.wiff
5	KA89 CCV	CCV	9/17/2018 10:50:54	5-0369.dam	09172018.wiff

1

1 - Not reported with this batch. BL 9/20/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 18/09/2018 3:13:06 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			PM		
26	MeOH		9/17/2018 11:01:47 PM	5-0369.dam	09172018.wiff
27	J7778-FS(0)	JAX-TCC-MWB1-09112018	9/17/2018 11:12:37 PM	5-0369.dam	09172018.wiff
28	J7778-FS-D(3)	JAX-TCC-MWB1-09112018	9/17/2018 11:23:29 PM	5-0369.dam	09172018.wiff
29	J7775-FS(0)	JAX-TCC-MWC3-09112018	9/17/2018 11:34:21 PM	5-0369.dam	09172018.wiff
30	J7775-FS-D(3)	JAX-TCC-MWC3-09112018	9/17/2018 11:45:13 PM	5-0369.dam	09172018.wiff
31	J7775-FS-D(5)	JAX-TCC-MWC3-09112018	9/17/2018 11:56:05 PM	5-0369.dam	09172018.wiff
32	J7776-FS(0)	JAX-TCC-MWC3-09112018-FD	9/18/2018 12:06:57 AM	5-0369.dam	09172018.wiff
33	J7776-FS-D(3)	JAX-TCC-MWC3-09112018-FD	9/18/2018 12:17:49 AM	5-0369.dam	09172018.wiff
34	J7776-FS-D(5)	JAX-TCC-MWC3-09112018-FD	9/18/2018 12:28:40 AM	5-0369.dam	09172018.wiff
26	MeOH		9/18/2018 12:39:31 AM	5-0369.dam	09172018.wiff
6	KA90 CCV	CCV	9/18/2018 12:50:22 AM	5-0369.dam	09172018.wiff
20	MeOH		9/18/2018 1:01:15 AM	5-0369.dam	09172018.wiff
35	J7779-FS(0)	JAX-TCC-SW01-09112018	9/18/2018 1:12:07 AM	5-0369.dam	09172018.wiff
36	J7779-FS-D(3)	JAX-TCC-SW01-09112018	9/18/2018 1:22:59 AM	5-0369.dam	09172018.wiff
37	J7779-FS-D(5)	JAX-TCC-SW01-09112018	9/18/2018 1:33:50 AM	5-0369.dam	09172018.wiff
38	J7780-FS(0)	JAX-TCC-SW02-09112018	9/18/2018 1:44:42 AM	5-0369.dam	09172018.wiff
39	J7780-FS-D(3)	JAX-TCC-SW02-09112018	9/18/2018 1:55:34 AM	5-0369.dam	09172018.wiff
40	J7780-FS-D(5)	JAX-TCC-SW02-09112018	9/18/2018 2:06:26 AM	5-0369.dam	09172018.wiff
41	J7777-FS(0)	JAX-TCC-MWI2-09112018	9/18/2018 2:17:18 AM	5-0369.dam	09172018.wiff
42	J7777-FS-D(3)	JAX-TCC-MWI2-09112018	9/18/2018 2:28:10 AM	5-0369.dam	09172018.wiff
43	J7777-FS-D(5)	JAX-TCC-MWI2-09112018	9/18/2018 2:39:01 AM	5-0369.dam	09172018.wiff
12	MeOH		9/18/2018 2:49:52 AM	5-0369.dam	09172018.wiff
5	KA89 CCV	CCV	9/18/2018 3:00:45 AM	5-0369.dam	09172018.wiff

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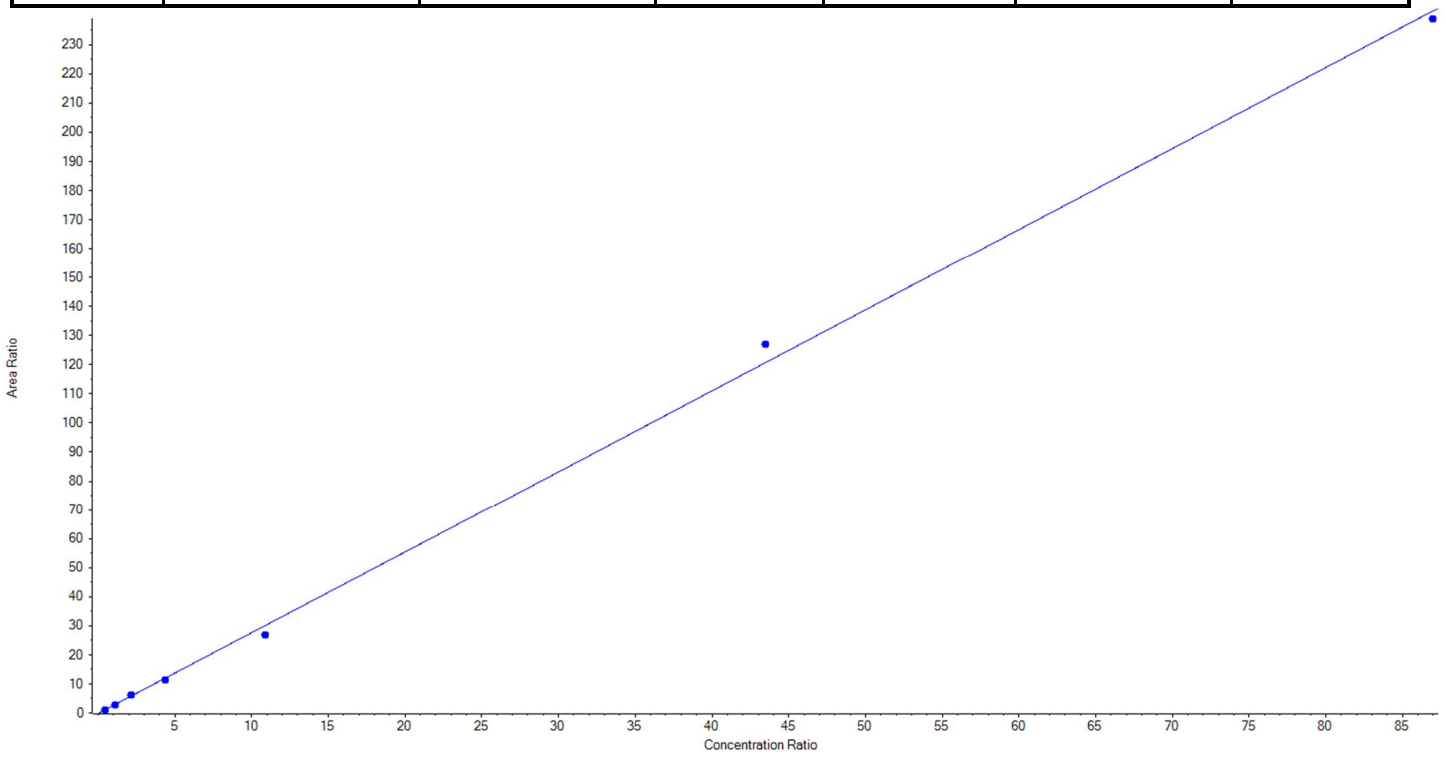
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFBS_1	**Data File**	09172018.wiff
MRM Transition	298.9 / 80.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 2.77909 x + -0.17589 (r = 0.99902) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	107.210507	106.2
3	KA87	L2	True	252.00	256.792877	101.9
4	KA88	L3	True	505.00	522.951445	103.6
5	KA89	L4	True	1010.00	961.467448	95.2
6	KA90	L5	True	2525.00	2251.753492	89.2
7	KA91	L6	True	10100.00	10619.448743	105.1
8	KA92	L7	True	20200.00	19973.375488	98.9



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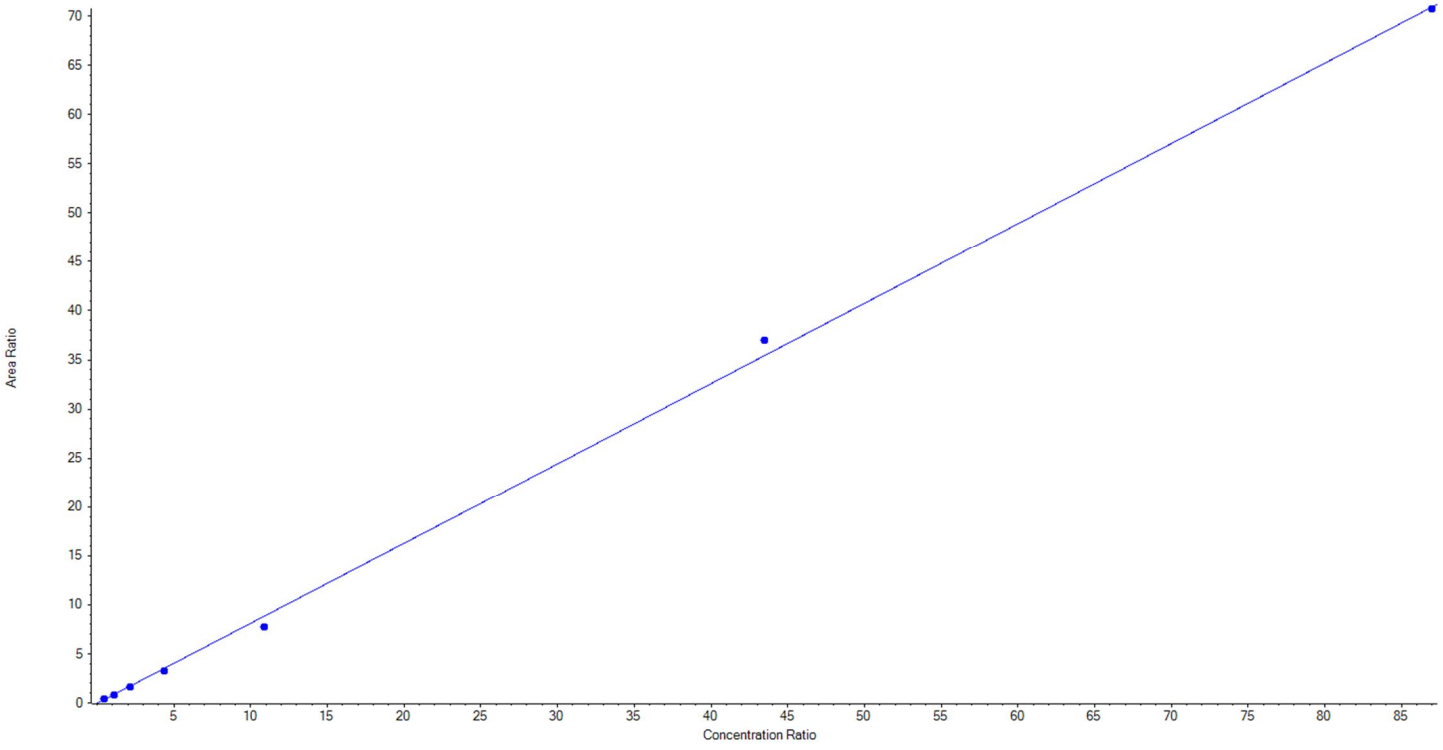
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFBS_2	**Data File**	09172018.wiff
MRM Transition	298.9 / 99.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.81561 x + -0.04043 (r = 0.99896) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	124.306355	123.1
3	KA87	L2	True	252.00	242.352302	96.2
4	KA88	L3	True	505.00	480.256328	95.1
5	KA89	L4	True	1010.00	947.233424	93.8
6	KA90	L5	True	2525.00	2218.136856	87.9
7	KA91	L6	True	10100.00	10531.345026	104.3
8	KA92	L7	True	20200.00	20149.369708	99.8



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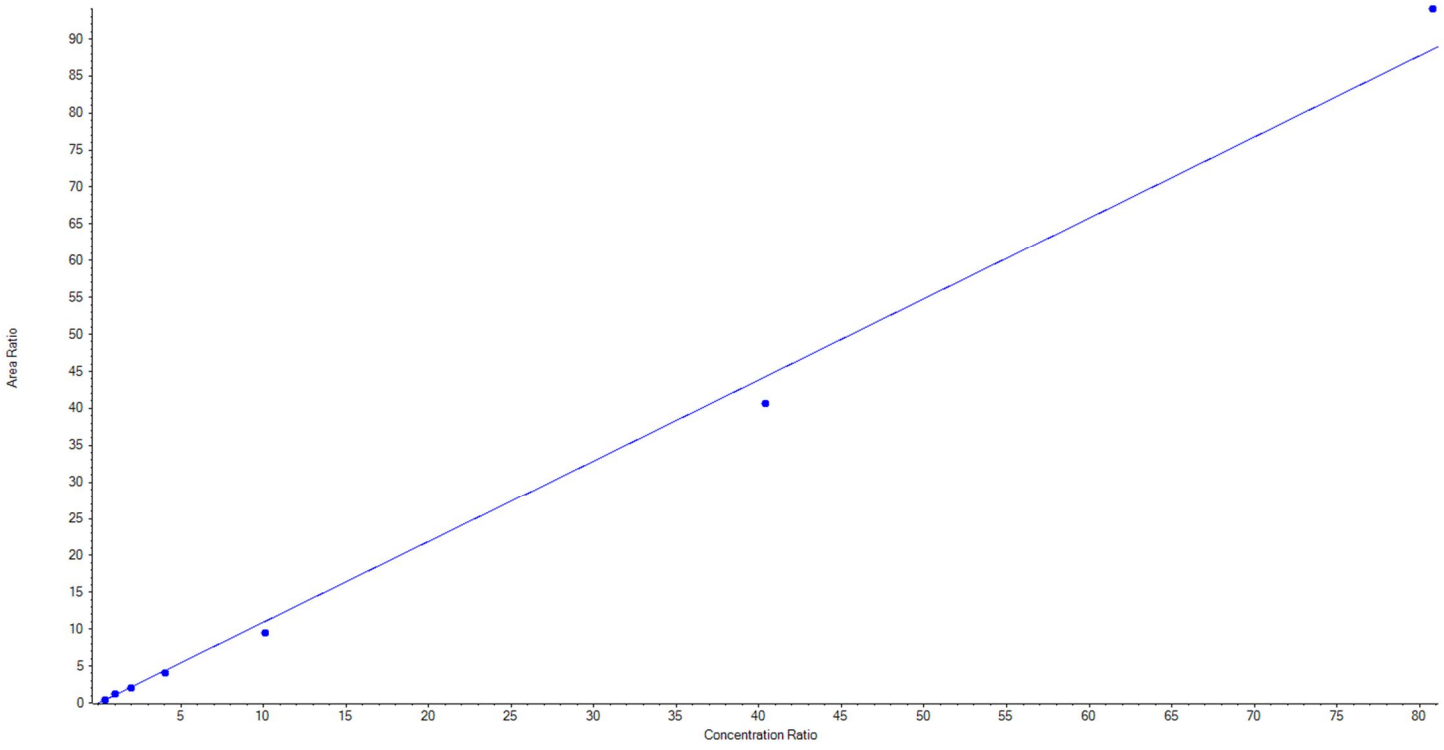
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHxA_1	**Data File**	09172018.wiff
MRM Transition	313.0 / 269.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.09727 x + -0.04646 (r = 0.99674) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	116.251169	115.1
3	KA87	L2	True	252.00	288.265557	114.4
4	KA88	L3	True	505.00	469.463253	93.0
5	KA89	L4	True	1010.00	946.375417	93.7
6	KA90	L5	True	2525.00	2171.771994	86.0
7	KA91	L6	True	10100.00	9261.678272	91.7
8	KA92	L7	True	20200.00	21439.194338	106.1



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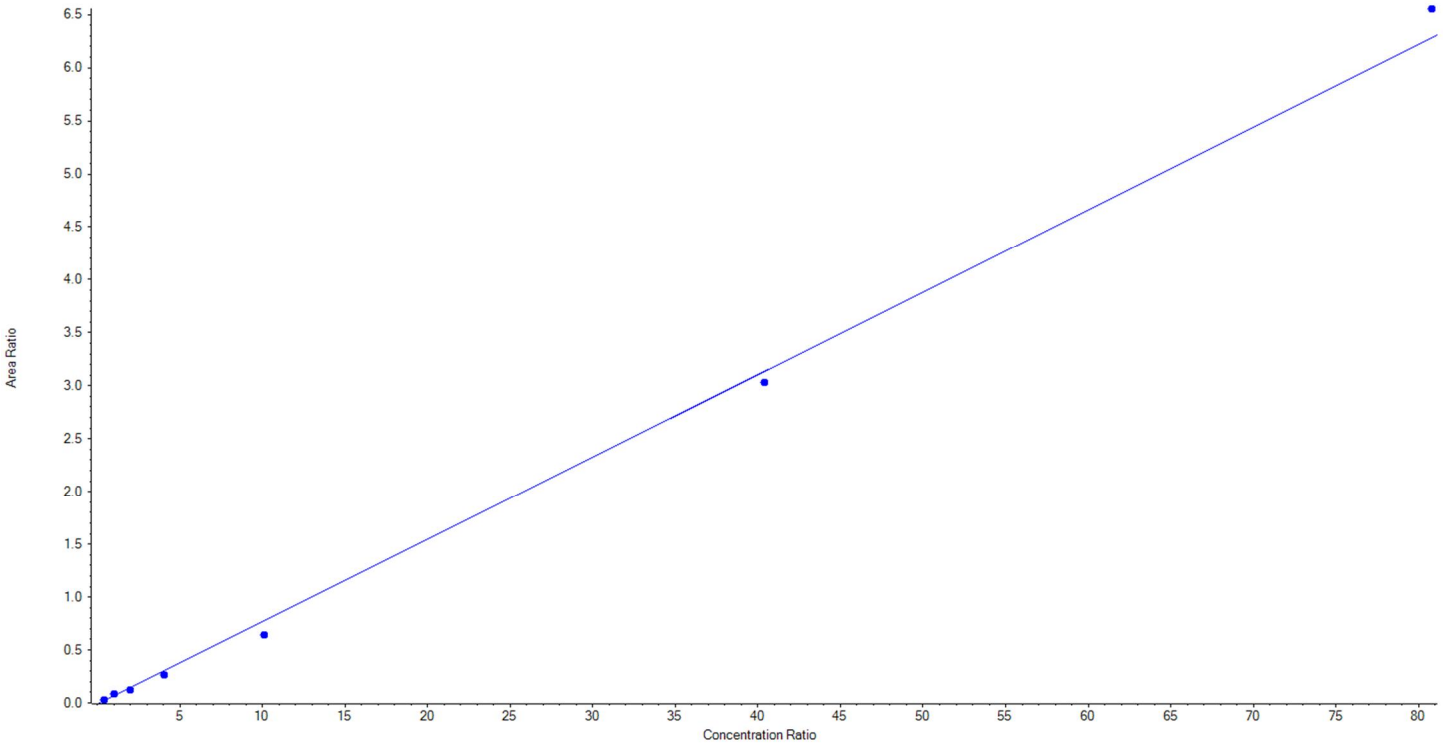
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHxA_2	**Data File**	09172018.wiff
MRM Transition	313.0 / 119.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.07785 x + -0.01012 (r = 0.99736) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	118.706895	117.5
3	KA87	L2	True	252.00	315.063029	125.0
4	KA88	L3	True	505.00	436.406684	86.4
5	KA89	L4	True	1010.00	880.568908	87.2
6	KA90	L5	True	2525.00	2088.102209	82.7
7	KA91	L6	True	10100.00	9776.953274	96.8
8	KA92	L7	True	20200.00	21077.199002	104.3



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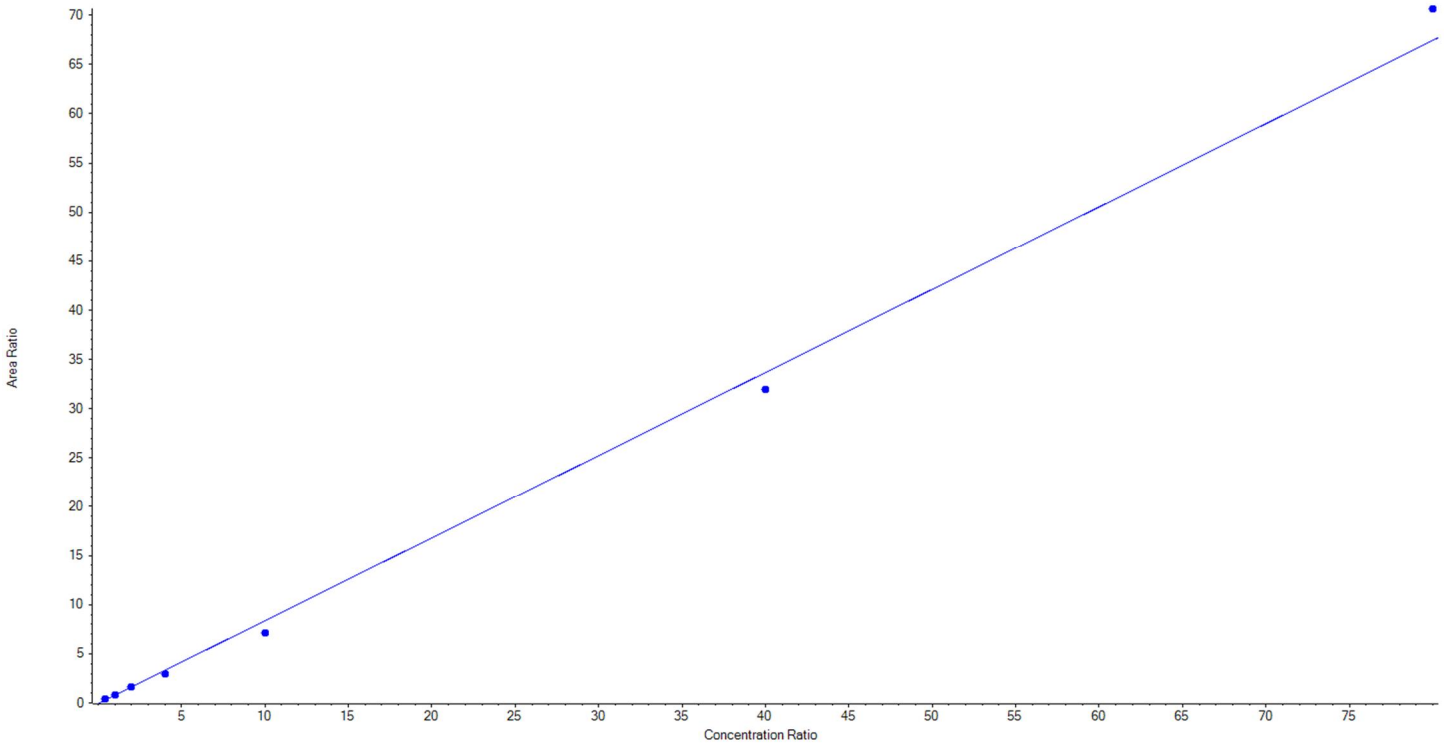
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHpA_1	**Data File**	09172018.wiff
MRM Transition	363.0 / 319.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.84373 x + -0.06432 (r = 0.99777) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	126.435711	126.4
3	KA87	L2	True	250.00	247.462947	99.0
4	KA88	L3	True	500.00	494.594695	98.9
5	KA89	L4	True	1000.00	908.164781	90.8
6	KA90	L5	True	2500.00	2128.310132	85.1
7	KA91	L6	True	10000.00	9497.225875	95.0
8	KA92	L7	True	20000.00	20947.805860	104.7



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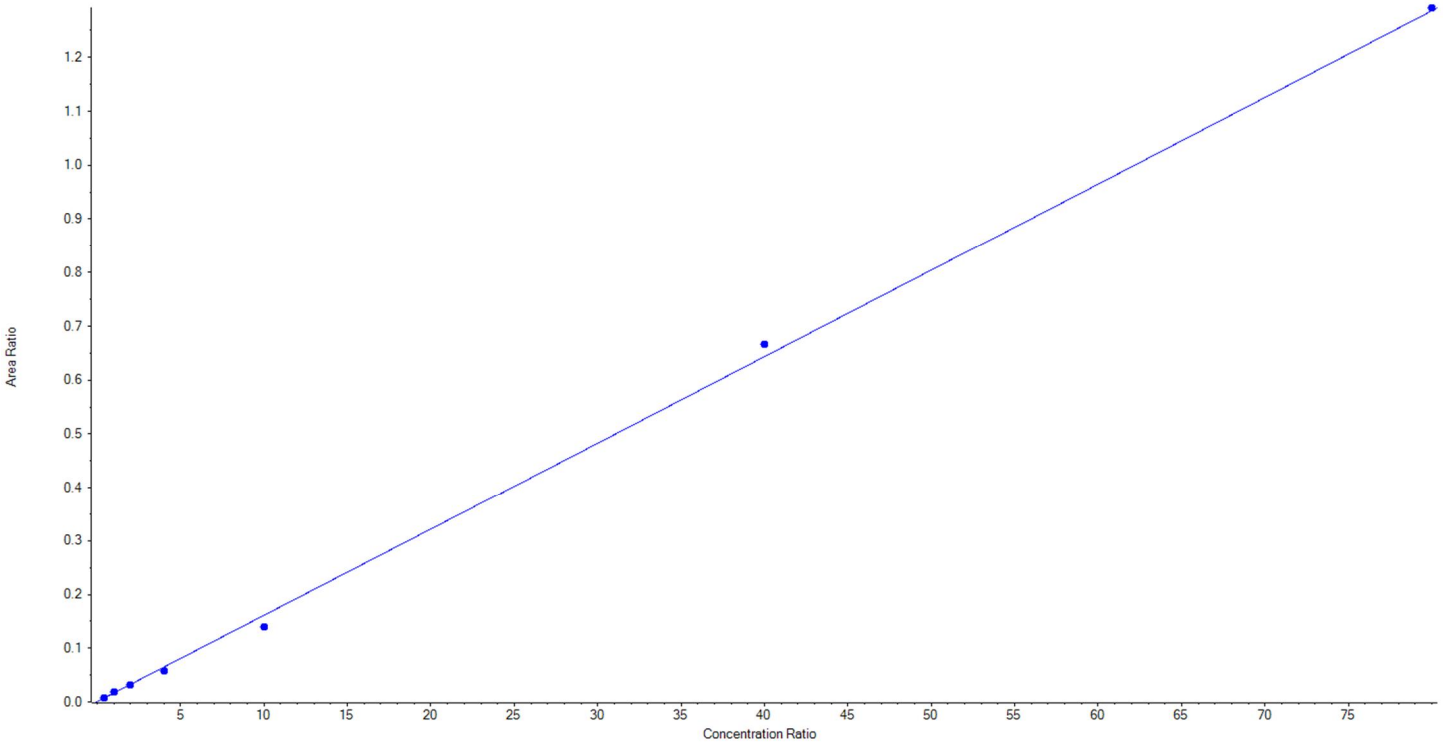
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHpA_2	**Data File**	09172018.wiff
MRM Transition	363.0 / 169.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.01607 x + 5.40020e-4 (r = 0.99871) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	117.894562	117.9
3	KA87	L2	True	250.00	272.310493	108.9
4	KA88	L3	True	500.00	476.146385	95.2
5	KA89	L4	True	1000.00	874.726007	87.5
6	KA90	L5	True	2500.00	2160.243680	86.4
7	KA91	L6	True	10000.00	10365.244292	103.7
8	KA92	L7	True	20000.00	20083.434581	100.4



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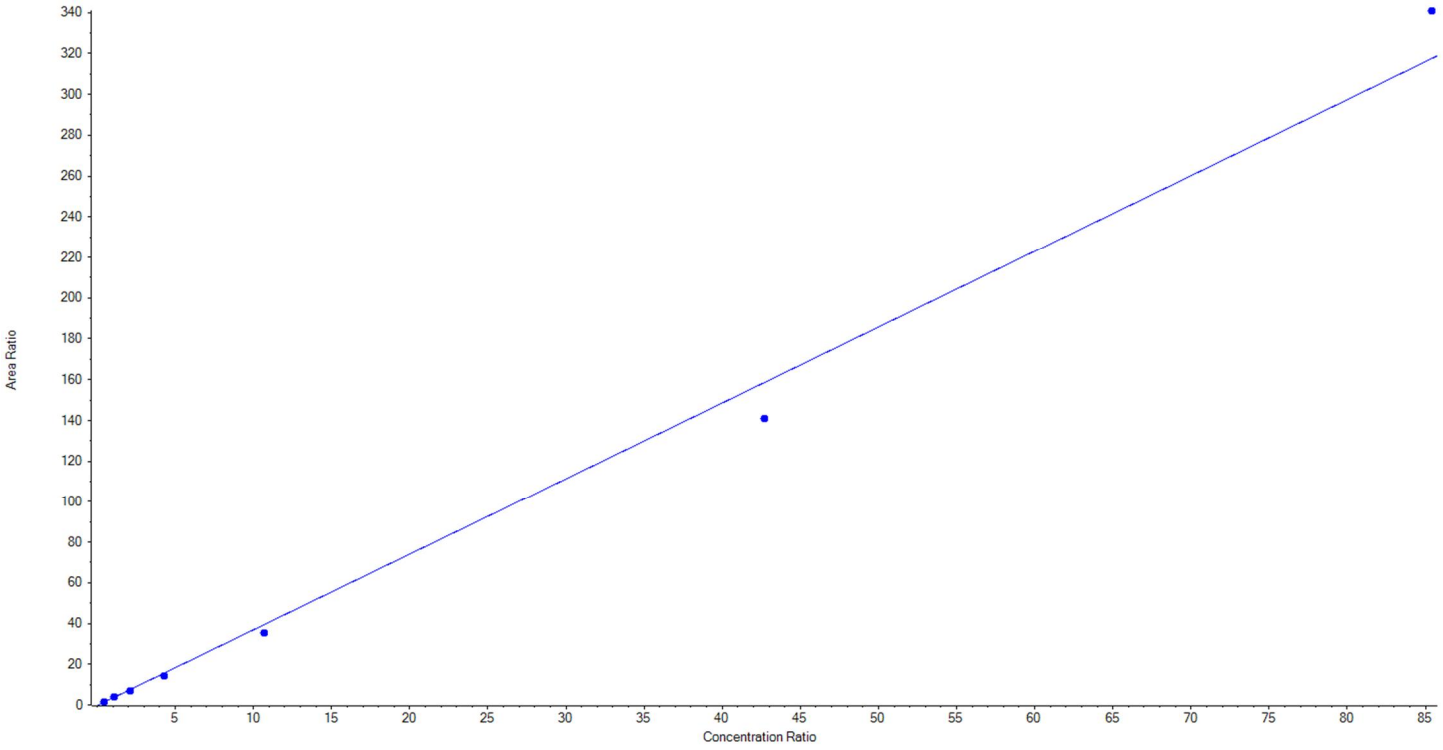
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHxS_1	**Data File**	09172018.wiff
MRM Transition	399.0 / 80.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 3.72115 x + -0.32244 (r = 0.99560) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	125.028959	123.8
3	KA87	L2	True	252.00	277.132033	110.0
4	KA88	L3	True	505.00	449.866974	89.1
5	KA89	L4	True	1010.00	917.601880	90.9
6	KA90	L5	True	2525.00	2277.653301	90.2
7	KA91	L6	True	10100.00	8965.996617	88.8
8	KA92	L7	True	20200.00	21679.720237	107.3



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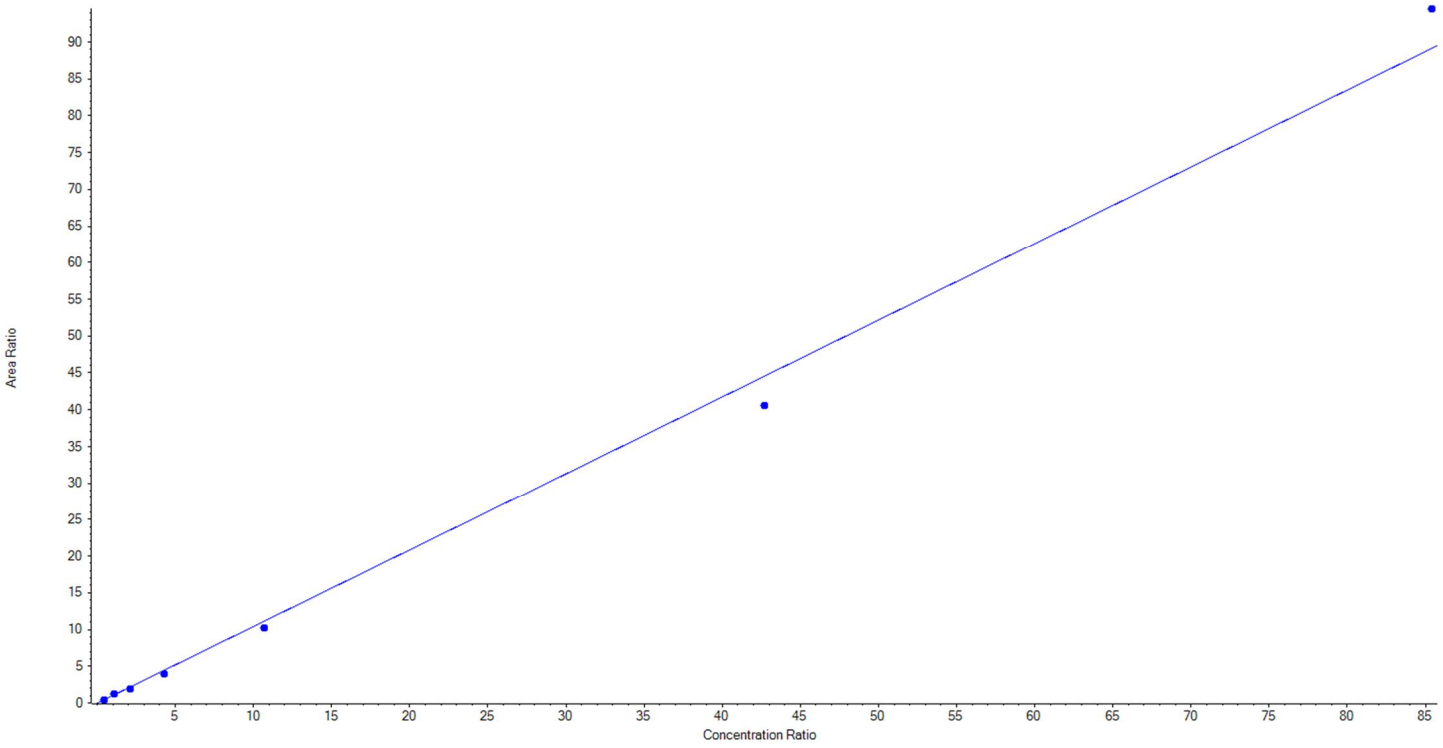
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHxS_2	**Data File**	09172018.wiff
MRM Transition	399.0 / 99.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04400 x + -0.03566 (r = 0.99689) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	115.879496	114.7
3	KA87	L2	True	252.00	298.762264	118.6
4	KA88	L3	True	505.00	452.963101	89.7
5	KA89	L4	True	1010.00	891.385065	88.3
6	KA90	L5	True	2525.00	2312.226195	91.6
7	KA91	L6	True	10100.00	9209.878255	91.2
8	KA92	L7	True	20200.00	21411.905624	106.0



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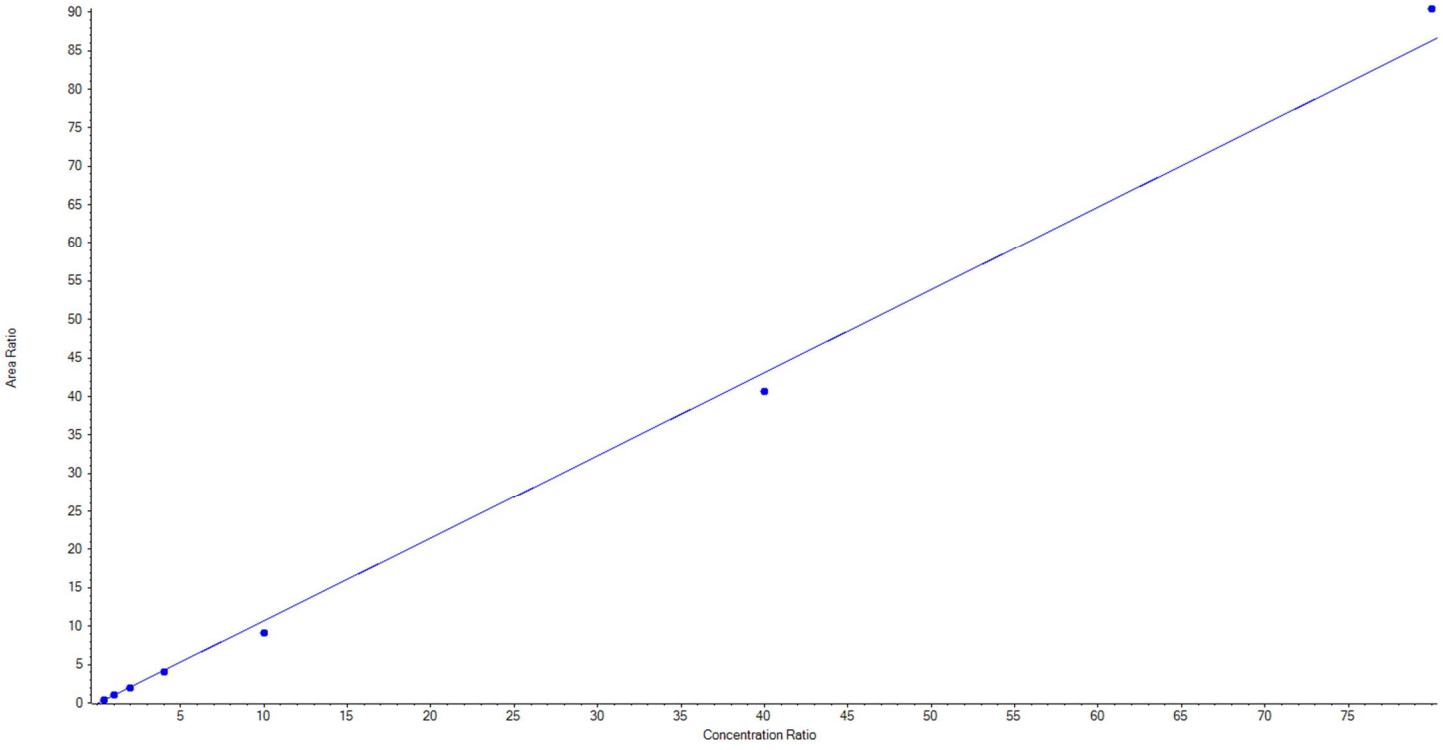
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFOA_1	**Data File**	09172018.wiff
MRM Transition	413.0 / 369.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.07936 x + -0.07884 (r = 0.99776) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	120.628781	120.6
3	KA87	L2	True	250.00	267.473813	107.0
4	KA88	L3	True	500.00	457.308715	91.5
5	KA89	L4	True	1000.00	964.357849	96.4
6	KA90	L5	True	2500.00	2129.724084	85.2
7	KA91	L6	True	10000.00	9448.533833	94.5
8	KA92	L7	True	20000.00	20961.972925	104.8



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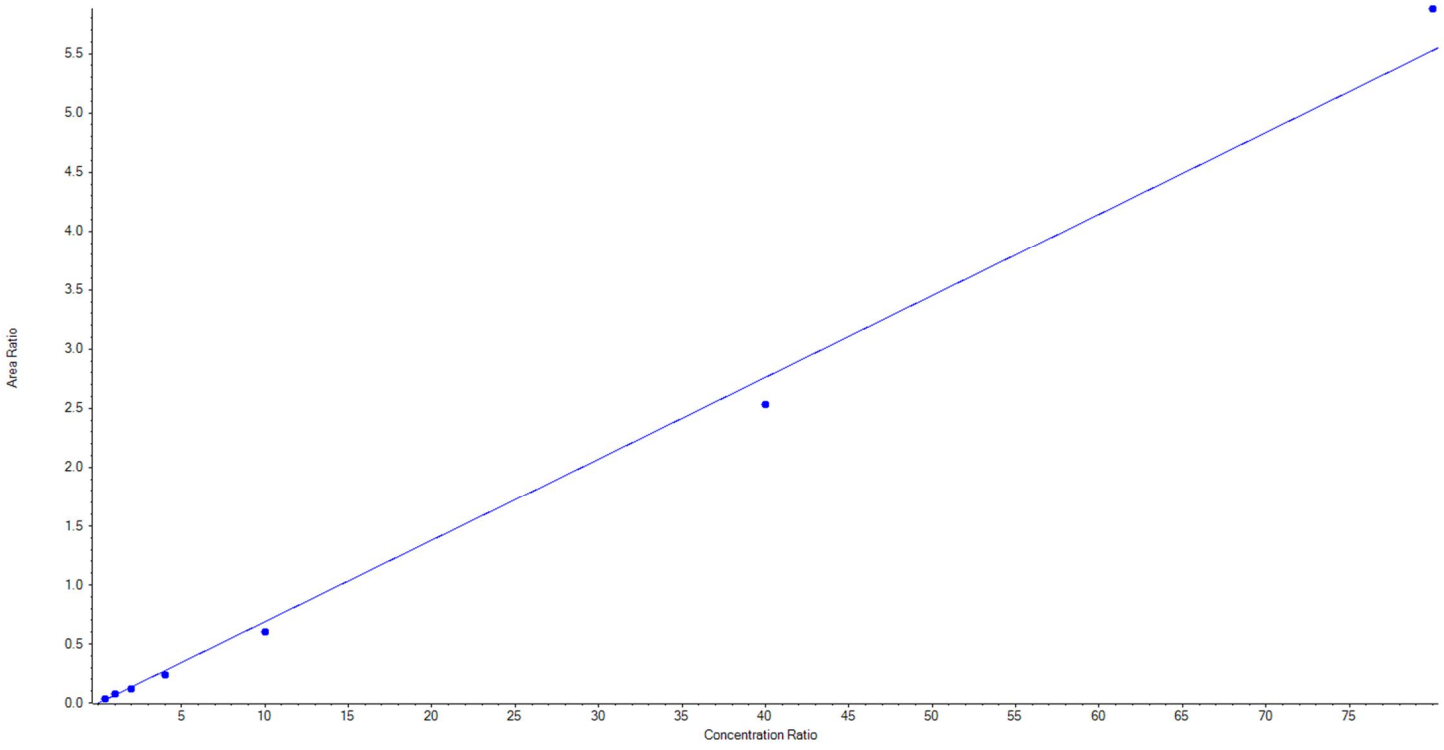
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFOA_2	**Data File**	09172018.wiff
MRM Transition	413.0 / 169.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06913 x + -0.00318 (r = 0.99653) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	128.340625	128.3
3	KA87	L2	True	250.00	274.279064	109.7
4	KA88	L3	True	500.00	442.322655	88.5
5	KA89	L4	True	1000.00	876.025066	87.6
6	KA90	L5	True	2500.00	2197.982787	87.9
7	KA91	L6	True	10000.00	9161.230341	91.6
8	KA92	L7	True	20000.00	21269.819462	106.4



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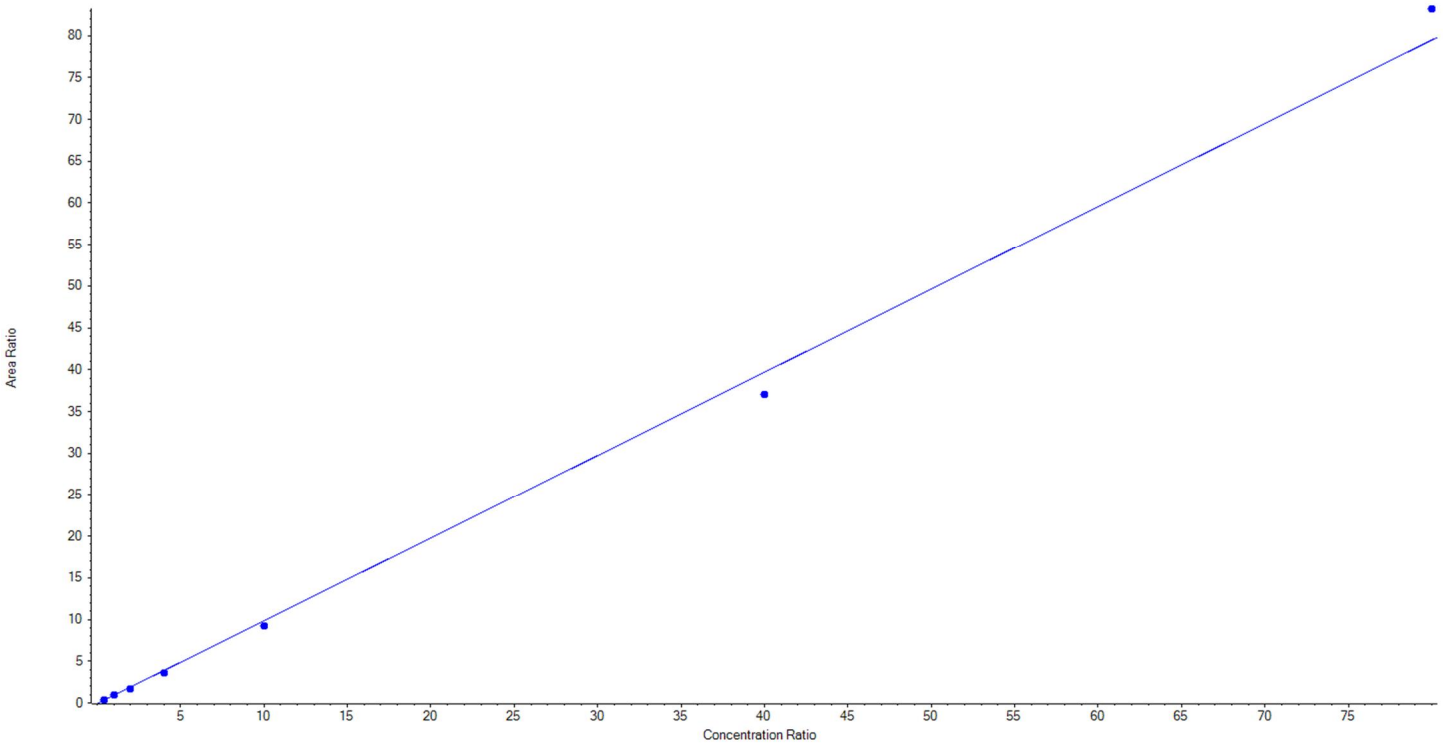
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFNA_1	**Data File**	09172018.wiff
MRM Transition	463.0 / 419.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.99457 x + -0.09664 (r = 0.99813) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	126.420004	126.4
3	KA87	L2	True	250.00	251.786479	100.7
4	KA88	L3	True	500.00	440.018950	88.0
5	KA89	L4	True	1000.00	935.526977	93.6
6	KA90	L5	True	2500.00	2333.848398	93.4
7	KA91	L6	True	10000.00	9328.596873	93.3
8	KA92	L7	True	20000.00	20933.802318	104.7



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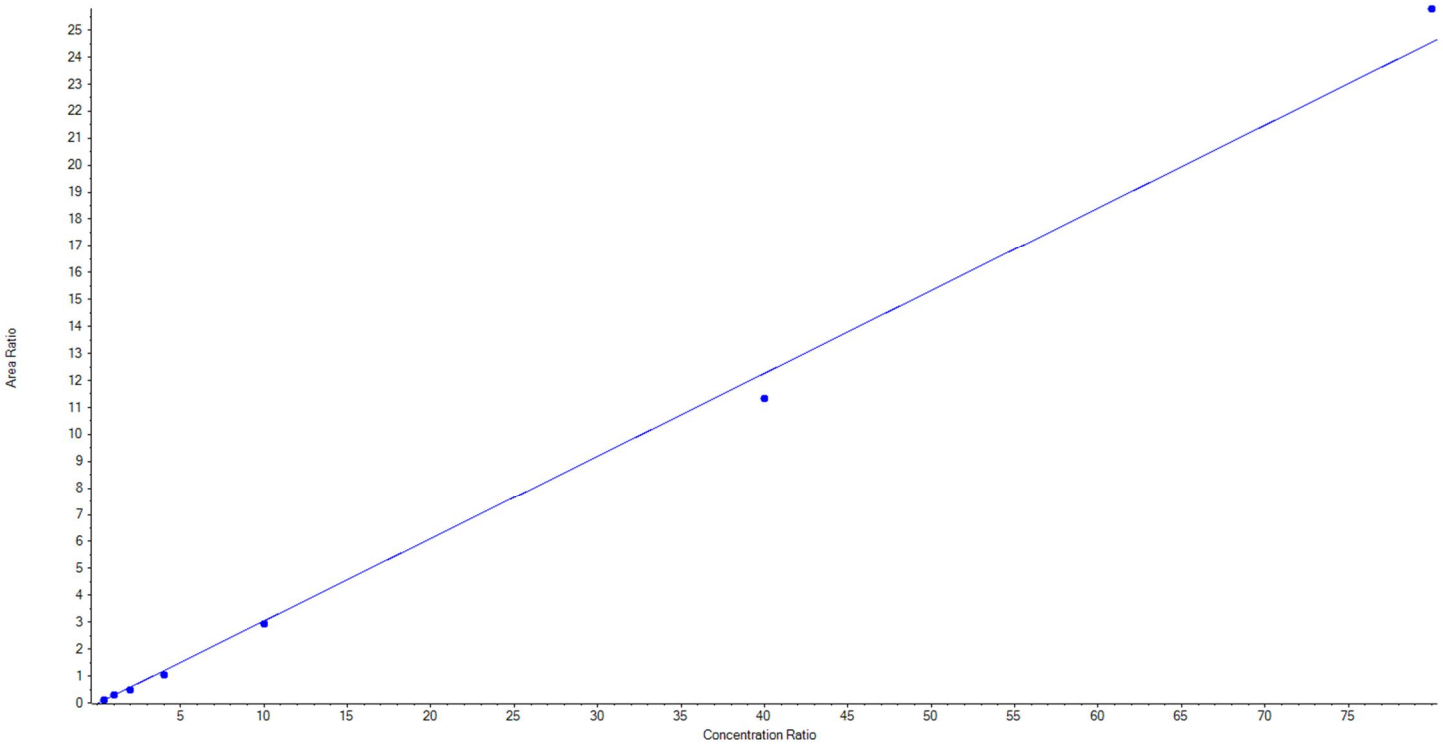
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFNA_2	**Data File**	09172018.wiff
MRM Transition	463.0 / 219.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.30725 x + -0.02895 (r = 0.99770) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	125.402344	125.4
3	KA87	L2	True	250.00	271.570220	108.6
4	KA88	L3	True	500.00	426.763431	85.4
5	KA89	L4	True	1000.00	869.989302	87.0
6	KA90	L5	True	2500.00	2402.105144	96.1
7	KA91	L6	True	10000.00	9252.579507	92.5
8	KA92	L7	True	20000.00	21001.590051	105.0



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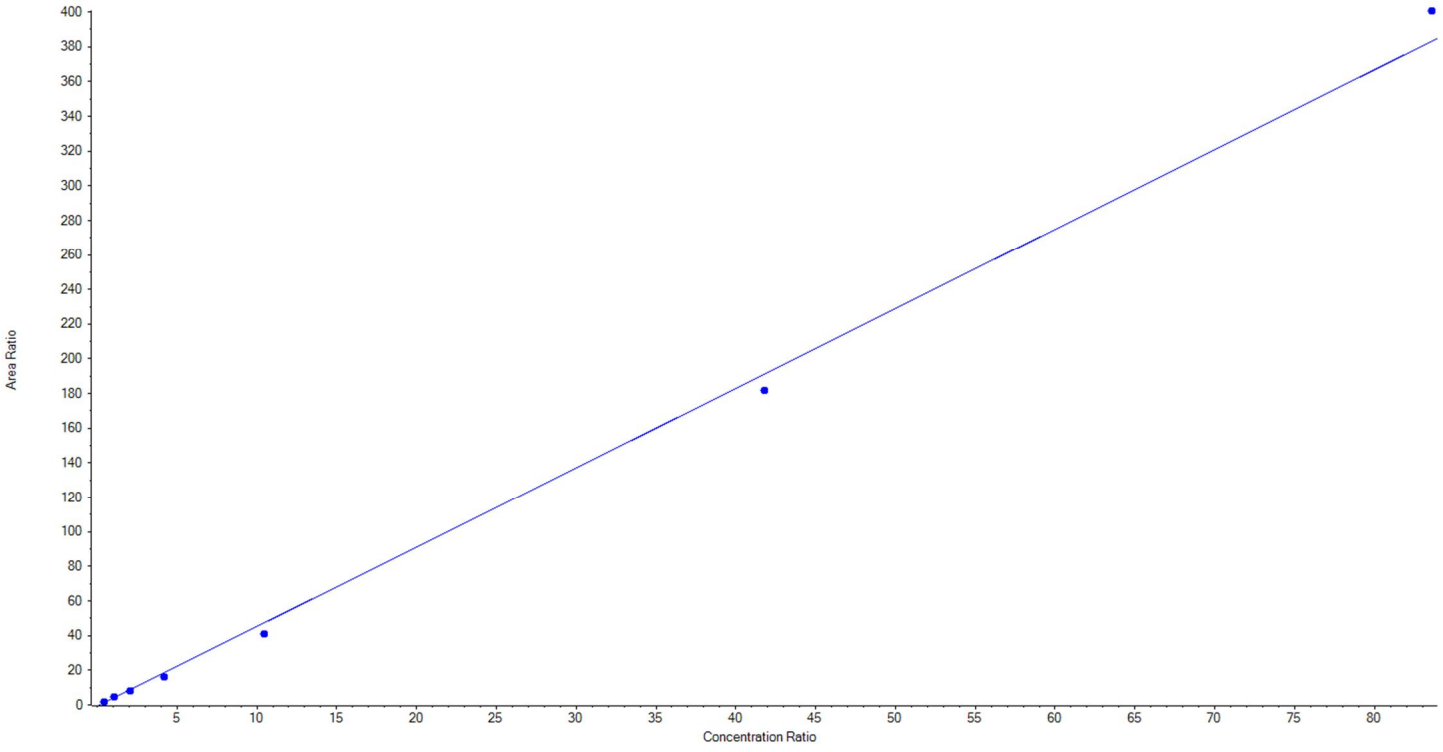
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFOS_1	**Data File**	09172018.wiff
MRM Transition	499.0 / 80.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 4.59265 x + -0.69673 (r = 0.99797) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	119.339962	119.3
3	KA87	L2	True	250.00	281.982603	112.8
4	KA88	L3	True	500.00	462.945369	92.6
5	KA89	L4	True	1000.00	882.307346	88.2
6	KA90	L5	True	2500.00	2184.290401	87.4
7	KA91	L6	True	10000.00	9515.980092	95.2
8	KA92	L7	True	20000.00	20903.154227	104.5



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Calibration Summary Report

Created with Analyst Reporter
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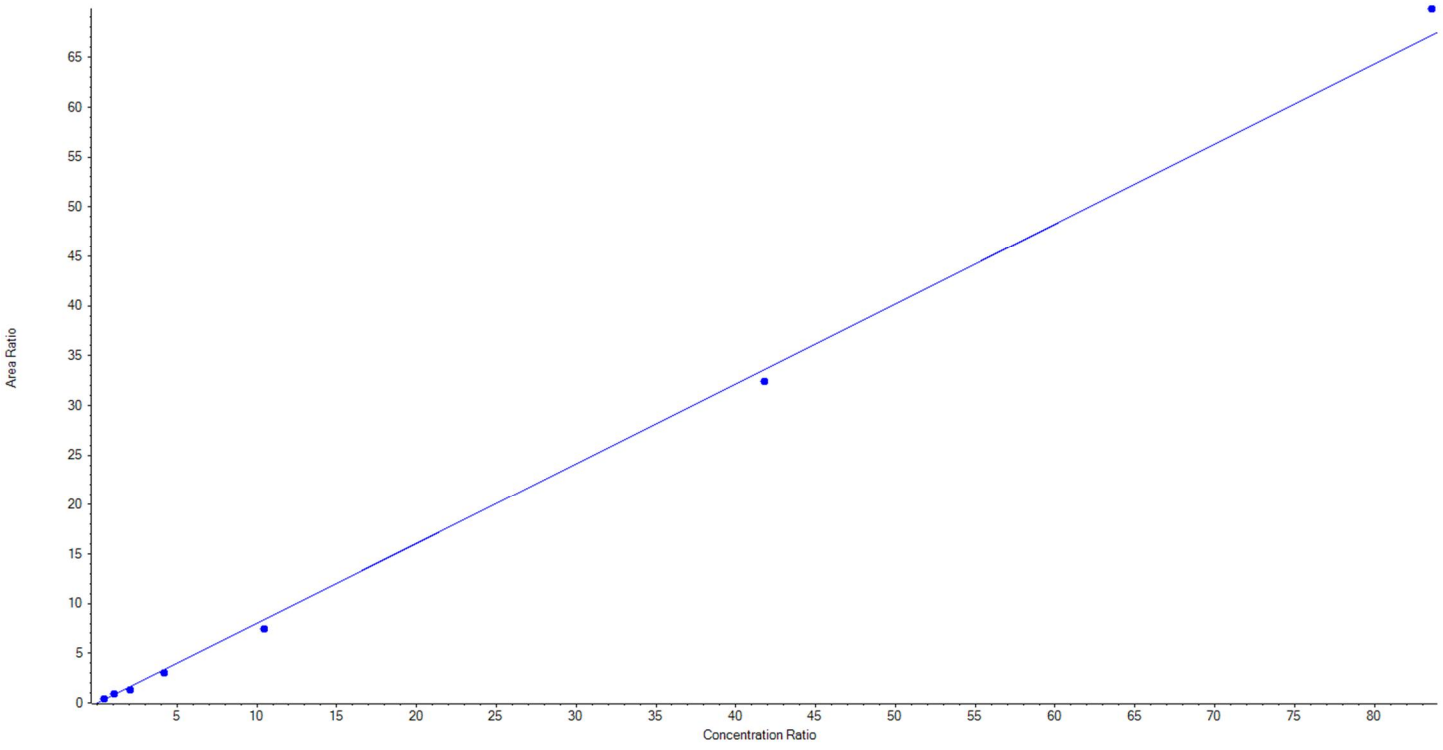
Analyte Name	PFOS_2	**Data File**	09172018.wiff
MRM Transition	499.0 / 99.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.80443 x + -0.02185 (r = 0.99812) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	125.505534	125.5
3	KA87	L2	True	250.00	288.650412	115.5
4	KA88	L3	True	500.00	405.249707	81.1
5	KA89	L4	True	1000.00	892.164074	89.2
6	KA90	L5	True	2500.00	2209.859495	88.4
7	KA91	L6	True	10000.00	9646.143779	96.5
8	KA92	L7	True	20000.00	20782.426999	103.9



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Calibration Summary Report

Created with Analyst Reporter
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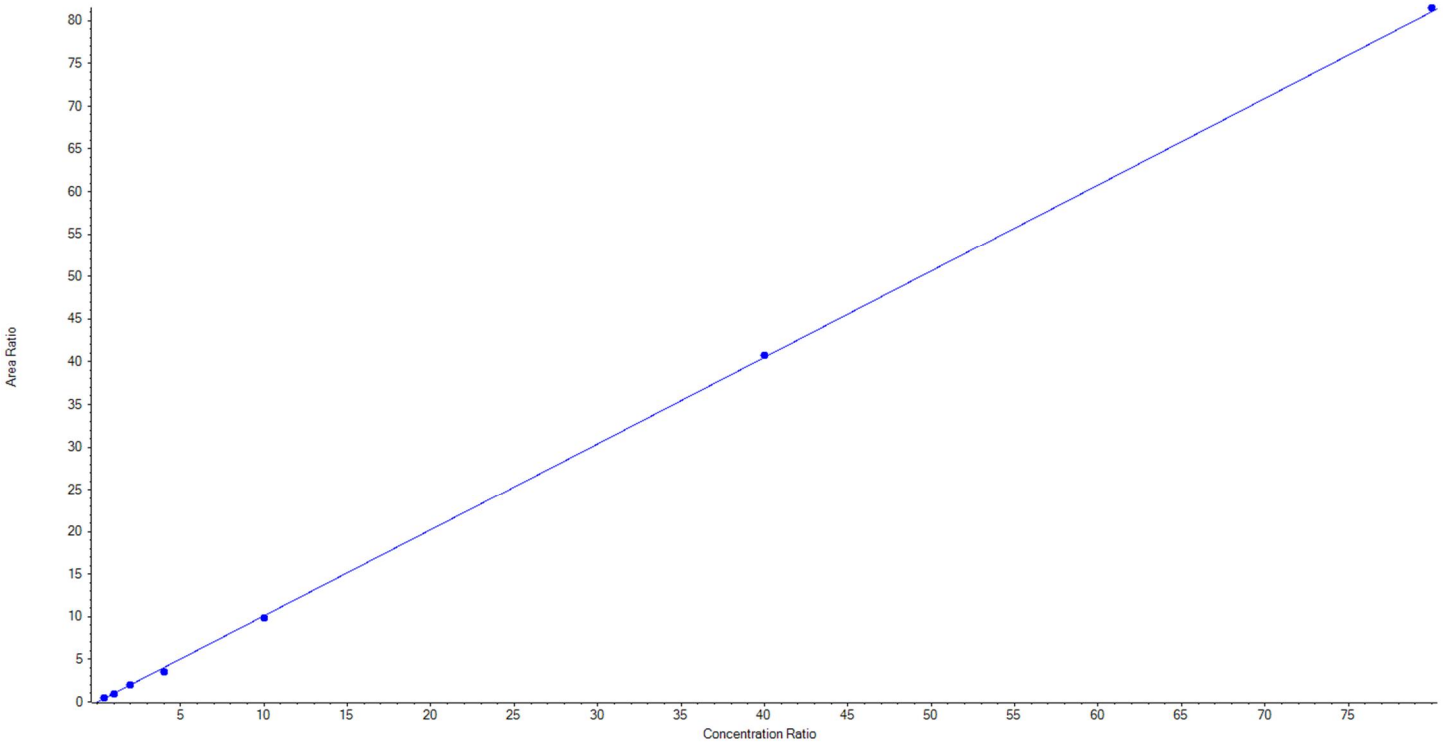
Analyte Name	PFDA_1	**Data File**	09172018.wiff
MRM Transition	513.0 / 469.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.01339 x + -0.02388 (r = 0.99961) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	123.381231	123.4
3	KA87	L2	True	250.00	229.784275	91.9
4	KA88	L3	True	500.00	489.210038	97.8
5	KA89	L4	True	1000.00	877.127184	87.7
6	KA90	L5	True	2500.00	2446.700602	97.9
7	KA91	L6	True	10000.00	10072.665193	100.7
8	KA92	L7	True	20000.00	20111.131477	100.6



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Calibration Summary Report

Created with Analyst Reporter
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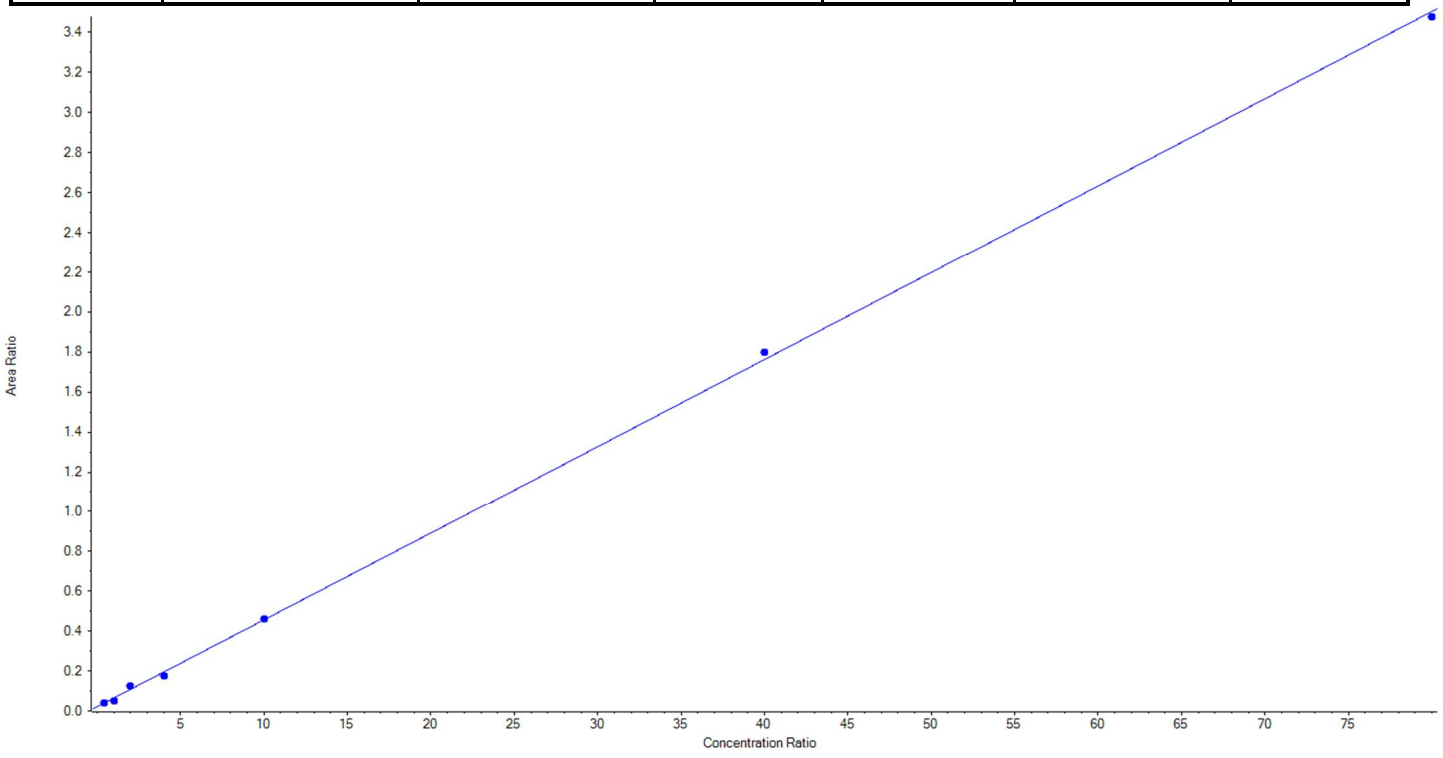
Analyte Name	PFDA_2	**Data File**	09172018.wiff
MRM Transition	513.0 / 219.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.04354 x + 0.02103 (r = 0.99909) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	120.626037	120.6
3	KA87	L2	True	250.00	179.629735	71.9
4	KA88	L3	True	500.00	584.610035	116.9
5	KA89	L4	True	1000.00	885.454676	88.6
6	KA90	L5	True	2500.00	2516.263417	100.7
7	KA91	L6	True	10000.00	10217.395513	102.2
8	KA92	L7	True	20000.00	19846.020588	99.2



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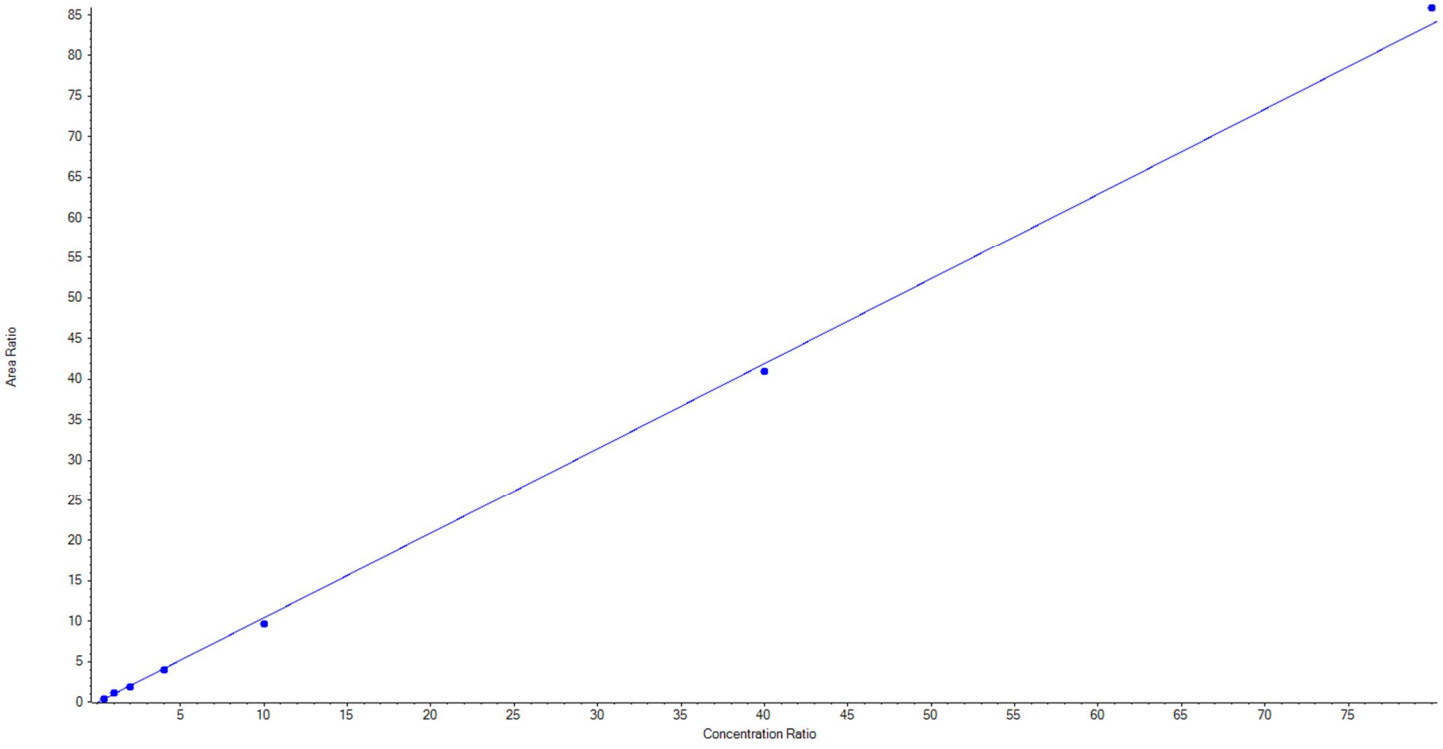
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFUnA_1	**Data File**	09172018.wiff
MRM Transition	563.0 / 519.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04951 x + -0.07889 (r = 0.99938) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	112.077862	112.1
3	KA87	L2	True	250.00	269.635011	107.9
4	KA88	L3	True	500.00	464.306485	92.9
5	KA89	L4	True	1000.00	947.368226	94.7
6	KA90	L5	True	2500.00	2308.798801	92.4
7	KA91	L6	True	10000.00	9775.798827	97.8
8	KA92	L7	True	20000.00	20472.014787	102.4



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Calibration Summary Report

Created with Analyst Reporter
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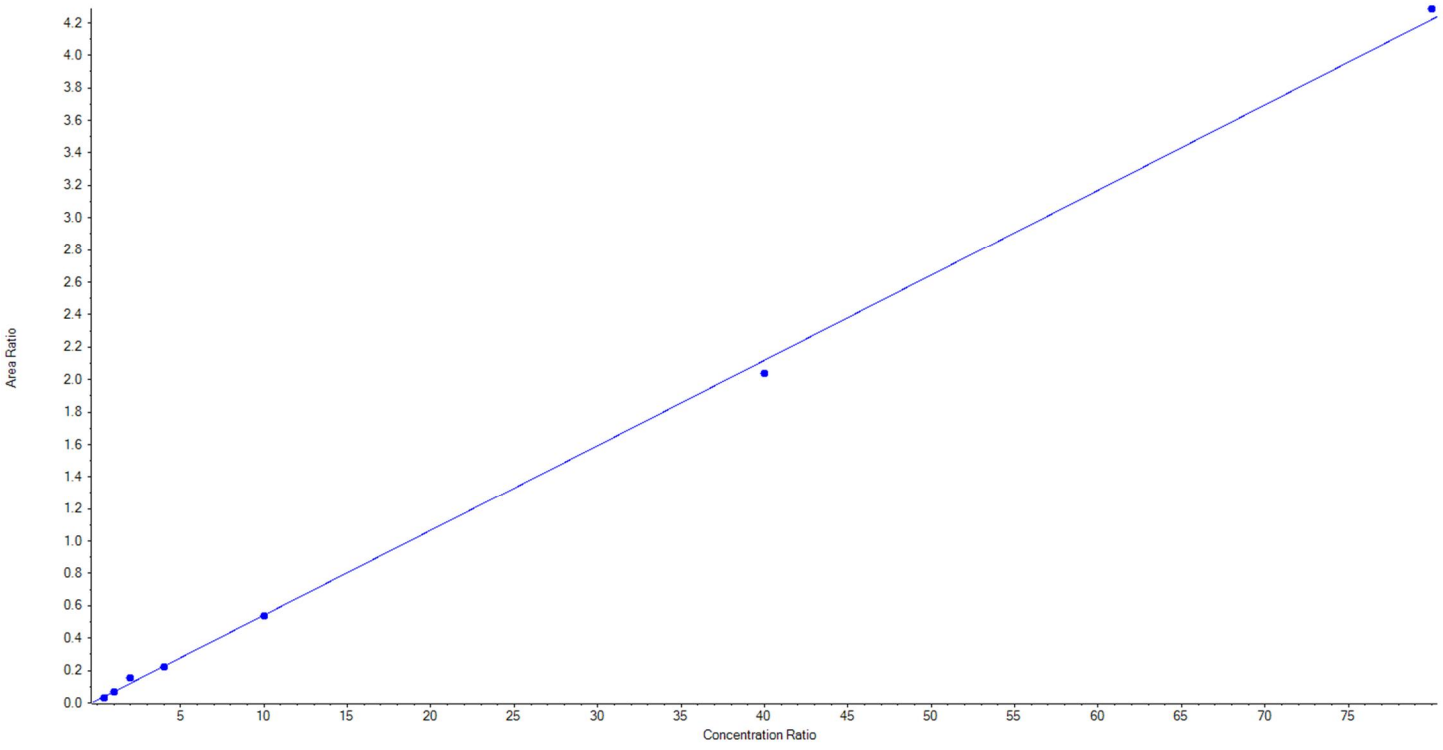
Analyte Name	PFUnA_2	**Data File**	09172018.wiff
MRM Transition	563.0 / 269.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05256 x + 0.01624 (r = 0.99876) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	79.576176	79.6
3	KA87	L2	True	250.00	232.688592	93.1
4	KA88	L3	True	500.00	662.089510	132.4
5	KA89	L4	True	1000.00	981.865681	98.2
6	KA90	L5	True	2500.00	2478.234771	99.1
7	KA91	L6	True	10000.00	9607.359880	96.1
8	KA92	L7	True	20000.00	20308.185390	101.5



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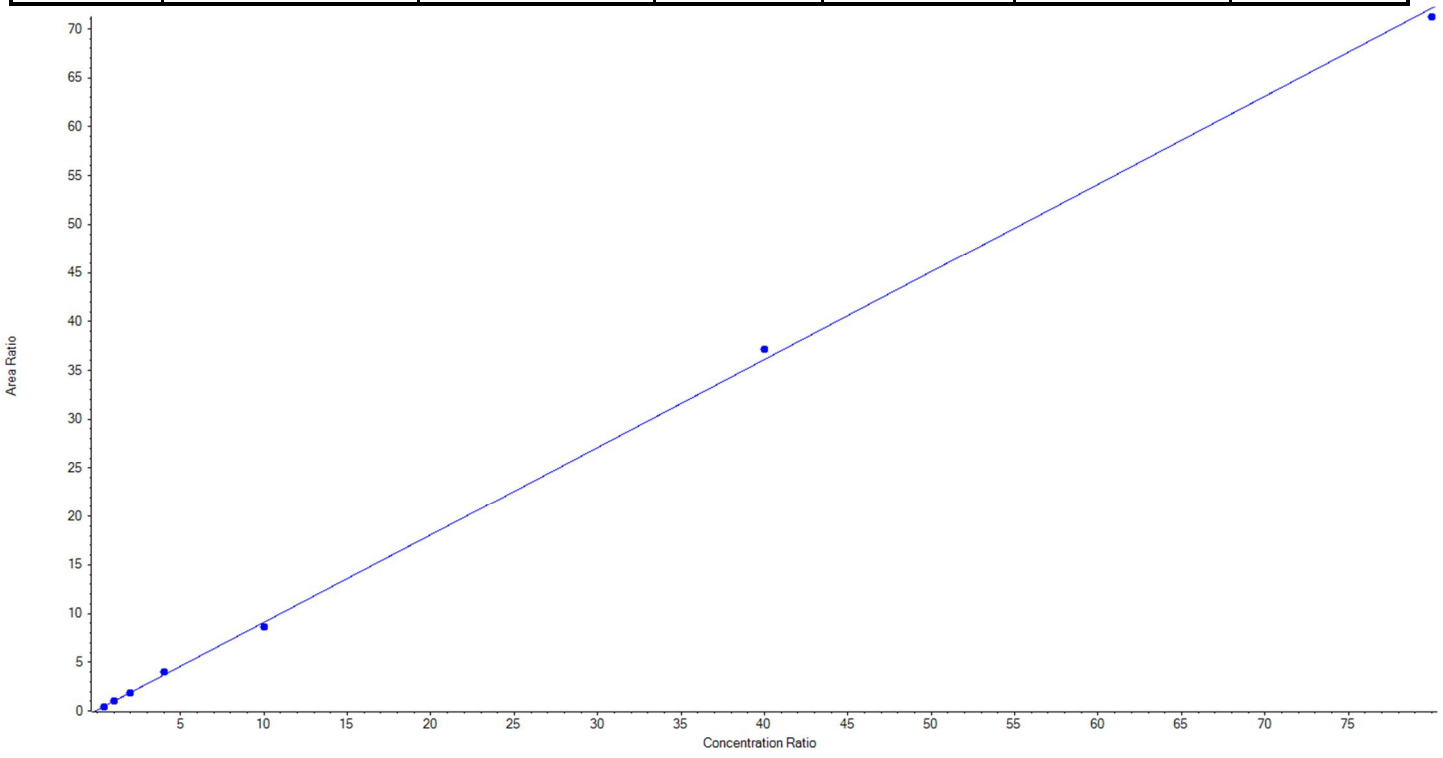
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFDoA_1	**Data File**	09172018.wiff
MRM Transition	613.0 / 569.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.90040 x + 0.08961 (r = 0.99955) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	88.128553	88.1
3	KA87	L2	True	250.00	273.764190	109.5
4	KA88	L3	True	500.00	492.124770	98.4
5	KA89	L4	True	1000.00	1073.842486	107.4
6	KA90	L5	True	2500.00	2369.692338	94.8
7	KA91	L6	True	10000.00	10301.327343	103.0
8	KA92	L7	True	20000.00	19751.120321	98.8



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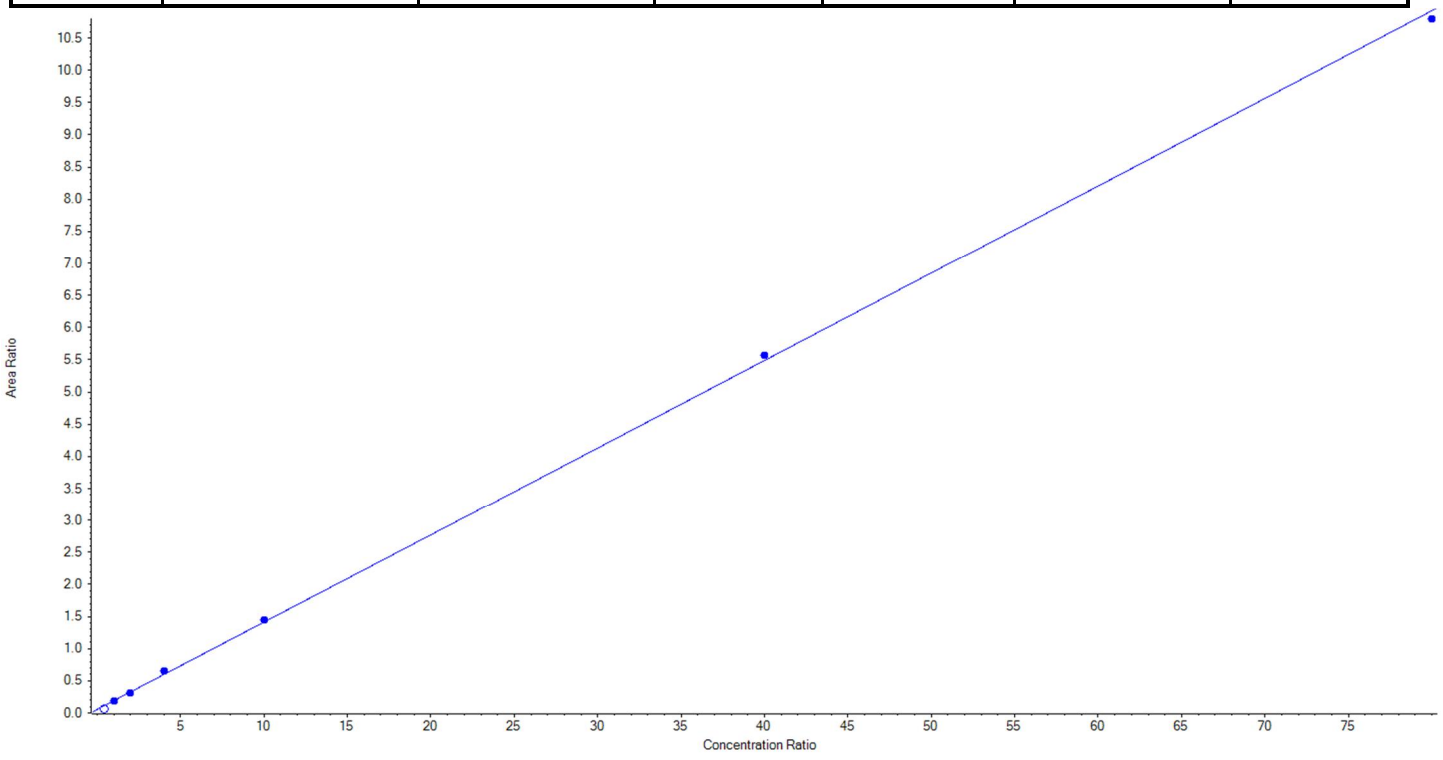
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFDoA_2	**Data File**	09172018.wiff
MRM Transition	613.0 / 319.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.13583 x + 0.05473 (r = 0.99972) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	False	100.00	7.034440	7.0
3	KA87	L2	True	250.00	239.702506	95.9
4	KA88	L3	True	500.00	464.229195	92.9
5	KA89	L4	True	1000.00	1088.014716	108.8
6	KA90	L5	True	2500.00	2557.504369	102.3
7	KA91	L6	True	10000.00	10133.753203	101.3
8	KA92	L7	True	20000.00	19766.796011	98.8



BATTELLE

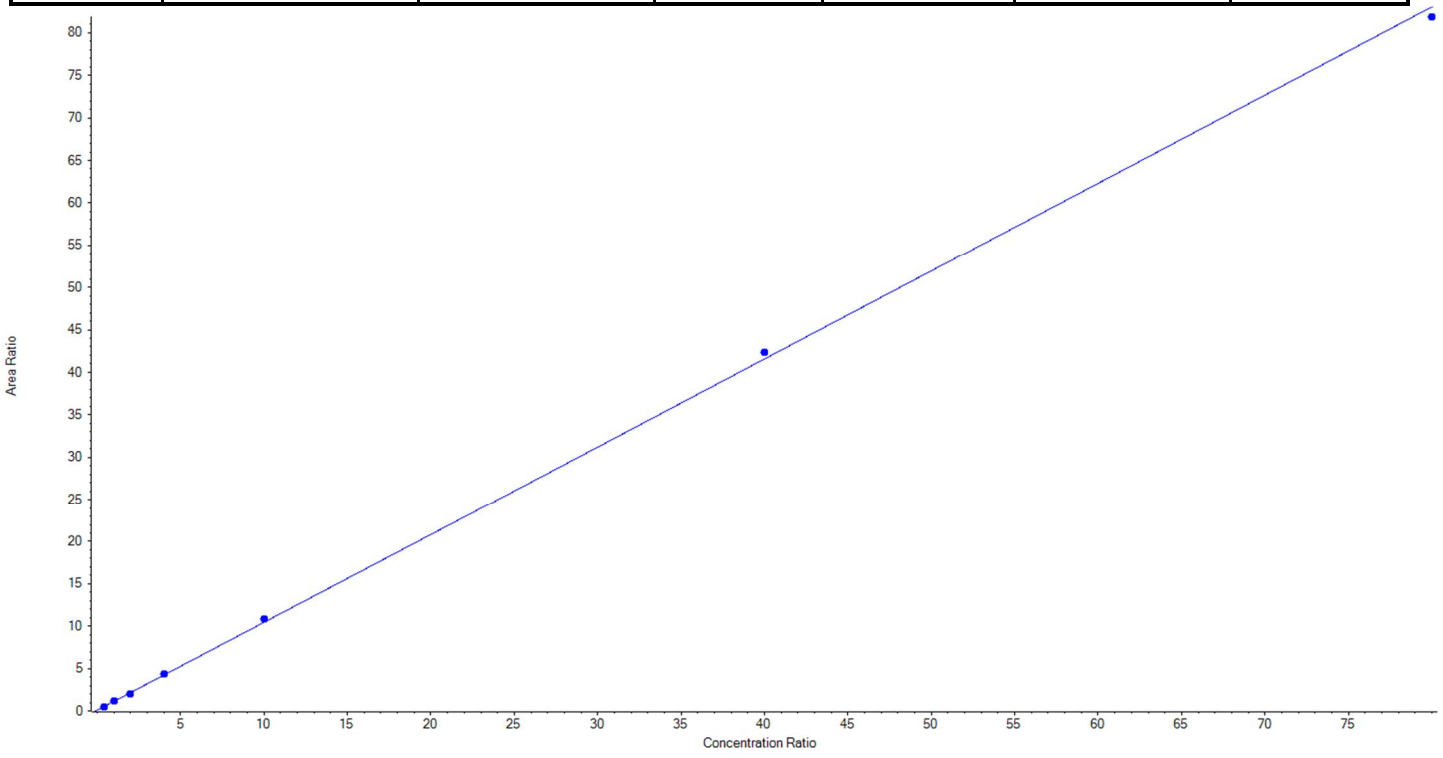
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFTrDA_1	**Data File**	09172018.wiff
MRM Transition	663.0 / 619.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03709 x + 0.08501 (r = 0.99977) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	99.790493	99.8
3	KA87	L2	True	250.00	250.094800	100.0
4	KA88	L3	True	500.00	467.113857	93.4
5	KA89	L4	True	1000.00	1021.949549	102.2
6	KA90	L5	True	2500.00	2600.667405	104.0
7	KA91	L6	True	10000.00	10195.049043	102.0
8	KA92	L7	True	20000.00	19715.334854	98.6



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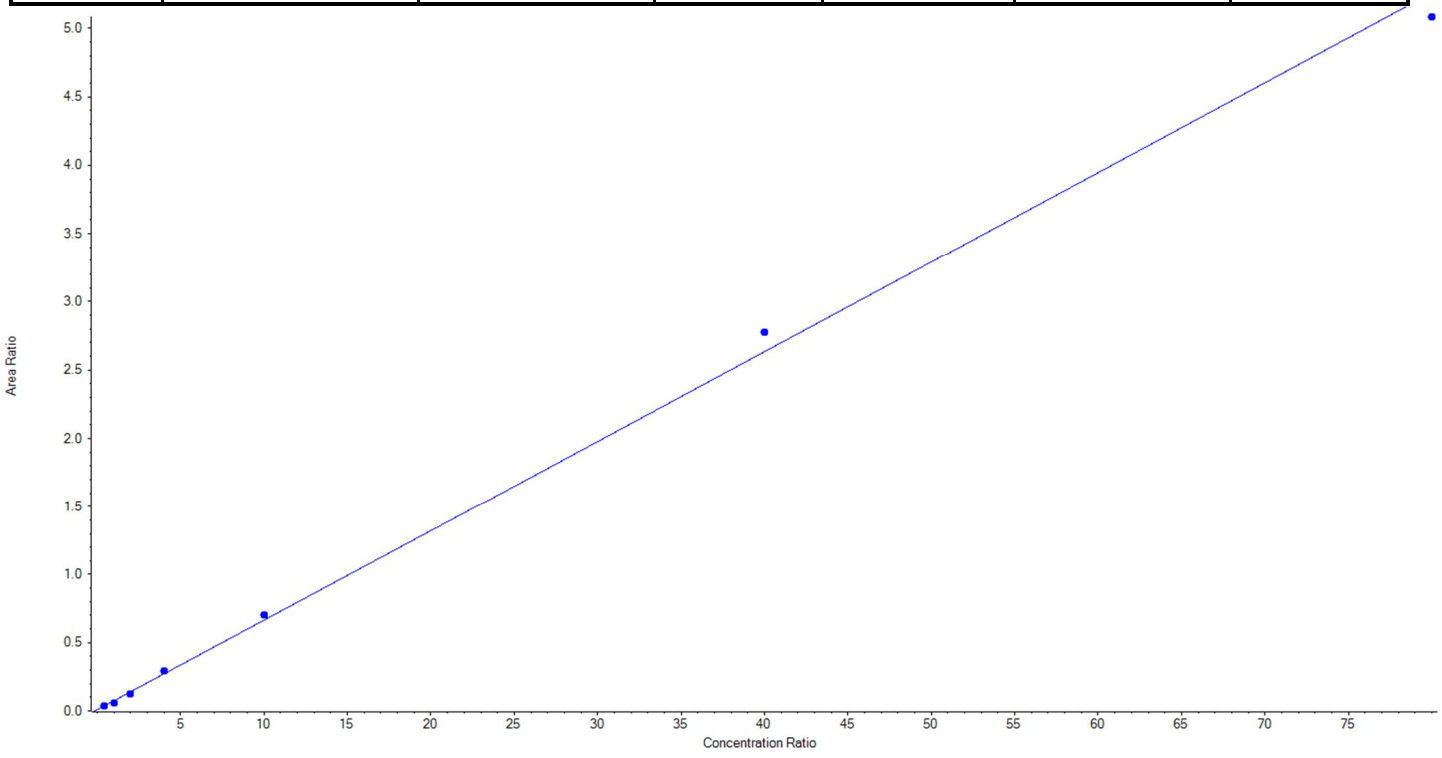
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFTrDA_2	**Data File**	09172018.wiff
MRM Transition	663.0 / 169.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06563 x + 0.00866 (r = 0.99864) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	116.473665	116.5
3	KA87	L2	True	250.00	203.820813	81.5
4	KA88	L3	True	500.00	434.539421	86.9
5	KA89	L4	True	1000.00	1074.636675	107.5
6	KA90	L5	True	2500.00	2635.720549	105.4
7	KA91	L6	True	10000.00	10554.718378	105.6
8	KA92	L7	True	20000.00	19330.090498	96.7



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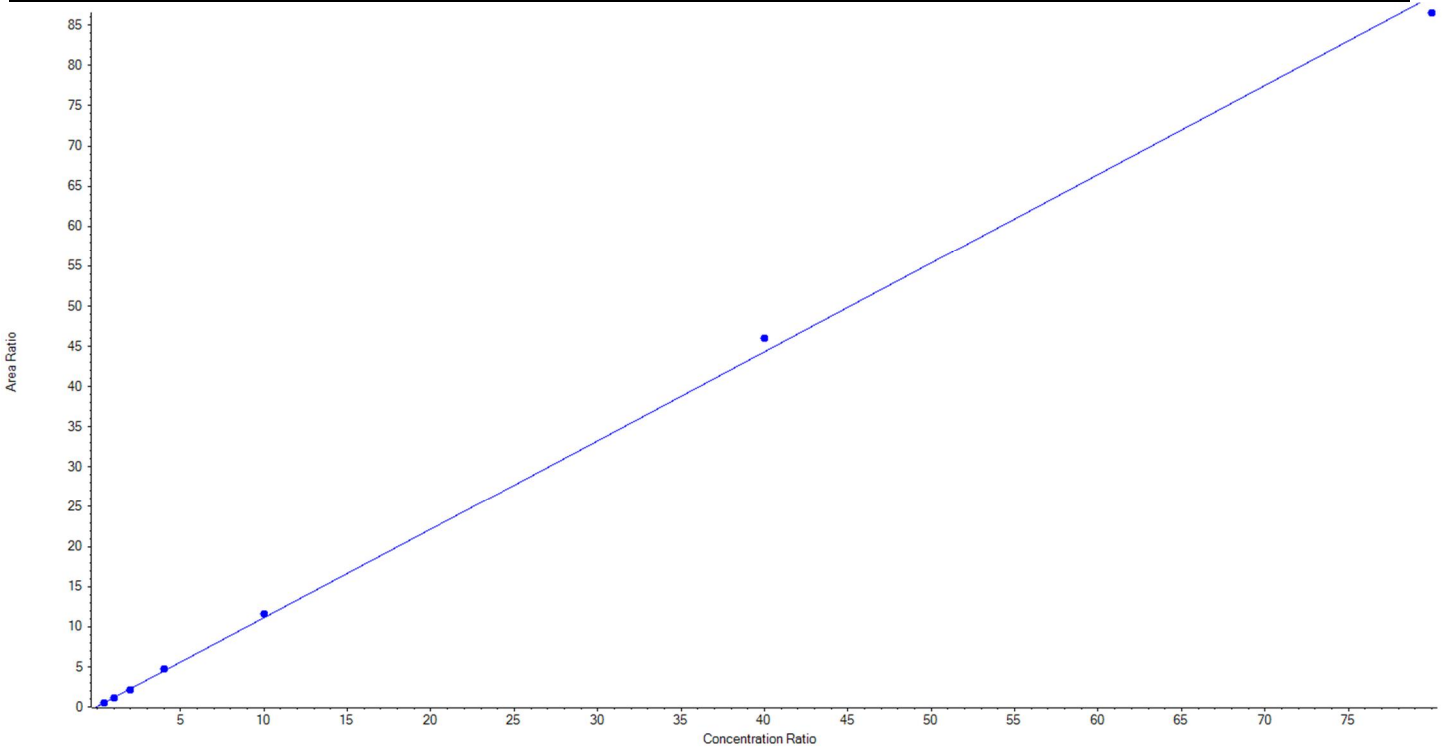
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFTeDA_1	**Data File**	09172018.wiff
MRM Transition	713.0 / 669.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.10654 x + 0.05698 (r = 0.99946) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	100.402544	100.4
3	KA87	L2	True	250.00	246.214443	98.5
4	KA88	L3	True	500.00	457.165546	91.4
5	KA89	L4	True	1000.00	1043.554804	104.4
6	KA90	L5	True	2500.00	2599.020799	104.0
7	KA91	L6	True	10000.00	10368.809522	103.7
8	KA92	L7	True	20000.00	19534.832341	97.7



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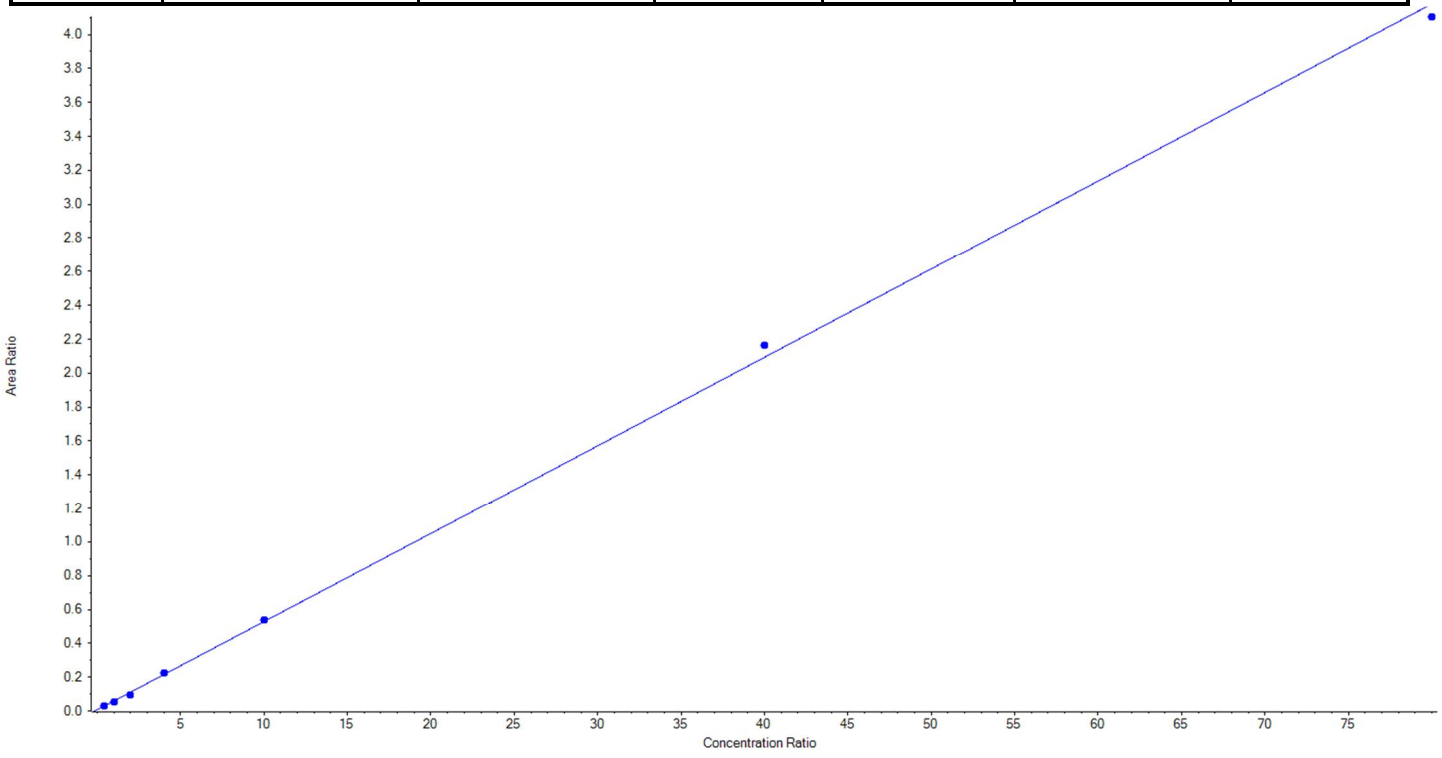
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFTeDA_2	**Data File**	09172018.wiff
MRM Transition	713.0 / 169.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05217 x + 0.00647 (r = 0.99939) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	116.090955	116.1
3	KA87	L2	True	250.00	225.543930	90.2
4	KA88	L3	True	500.00	425.923534	85.2
5	KA89	L4	True	1000.00	1049.410678	104.9
6	KA90	L5	True	2500.00	2546.869712	101.9
7	KA91	L6	True	10000.00	10352.020695	103.5
8	KA92	L7	True	20000.00	19634.140495	98.2



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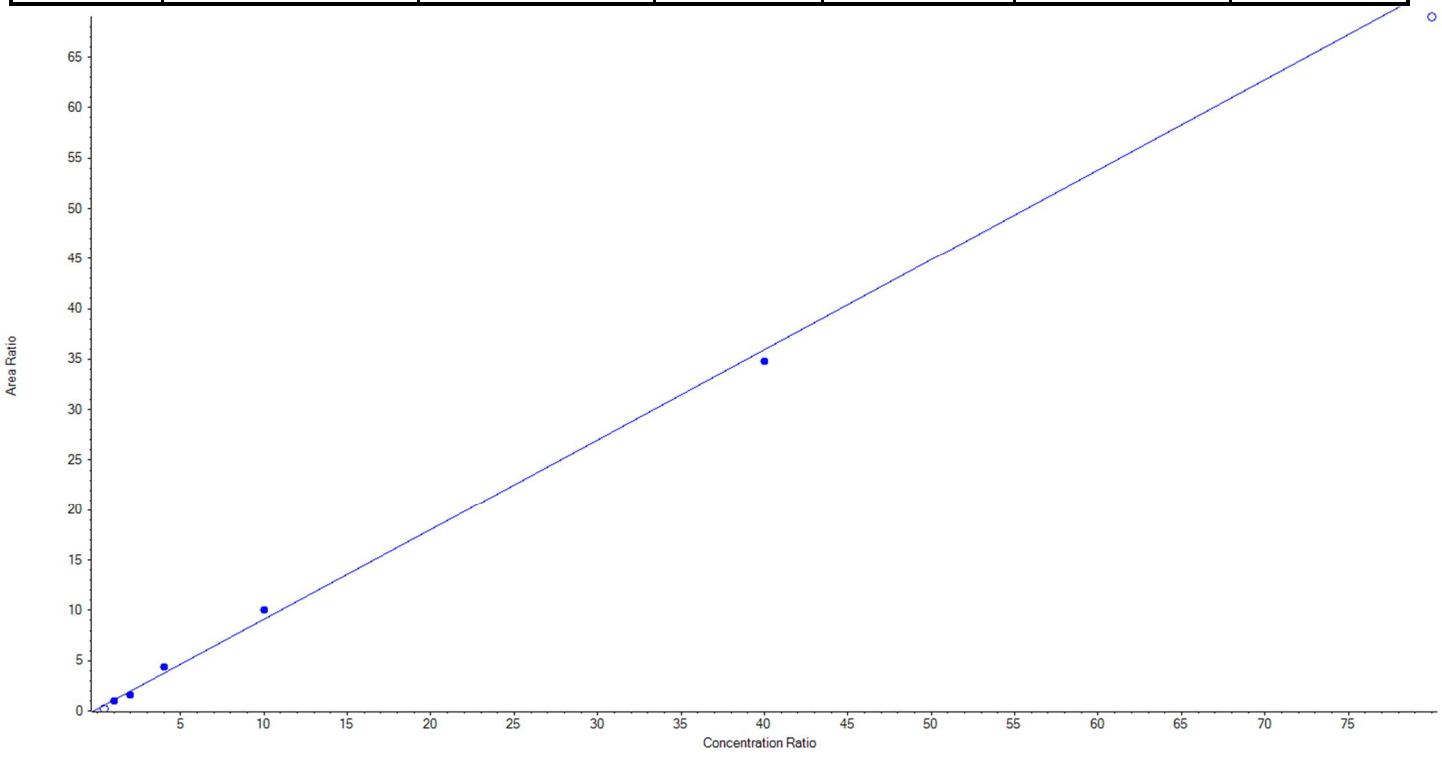
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	NMeFOSAA_1	**Data File**	09172018.wiff
MRM Transition	570.0 / 419.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.89404 x + 0.17215 (r = 0.99565) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	False	100.00	6.793695	6.8
3	KA87	L2	True	250.00	239.301241	95.7
4	KA88	L3	True	500.00	393.377176	78.7
5	KA89	L4	True	1000.00	1183.519250	118.4
6	KA90	L5	True	2500.00	2763.804001	110.6
7	KA91	L6	True	10000.00	9669.998332	96.7
8	KA92	L7	False	20000.00	19238.393743	96.2



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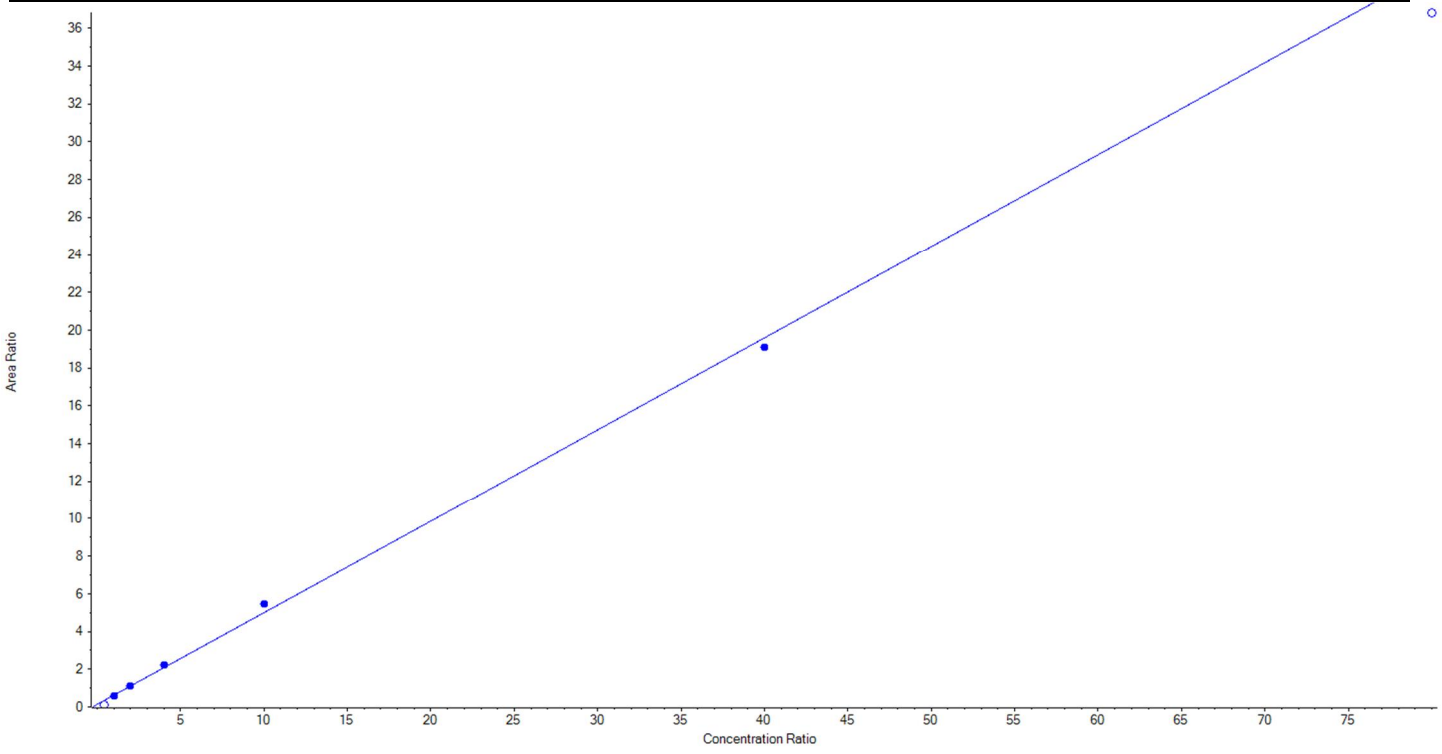
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	NMeFOSAA_2	**Data File**	09172018.wiff
MRM Transition	570.0 / 512.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.48641 x + 0.13587 (r = 0.99843) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	False	100.00	< 0	N/A
3	KA87	L2	True	250.00	222.372754	89.0
4	KA88	L3	True	500.00	489.969333	98.0
5	KA89	L4	True	1000.00	1065.570036	106.6
6	KA90	L5	True	2500.00	2725.971649	109.0
7	KA91	L6	True	10000.00	9746.116228	97.5
8	KA92	L7	False	20000.00	18850.385028	94.3



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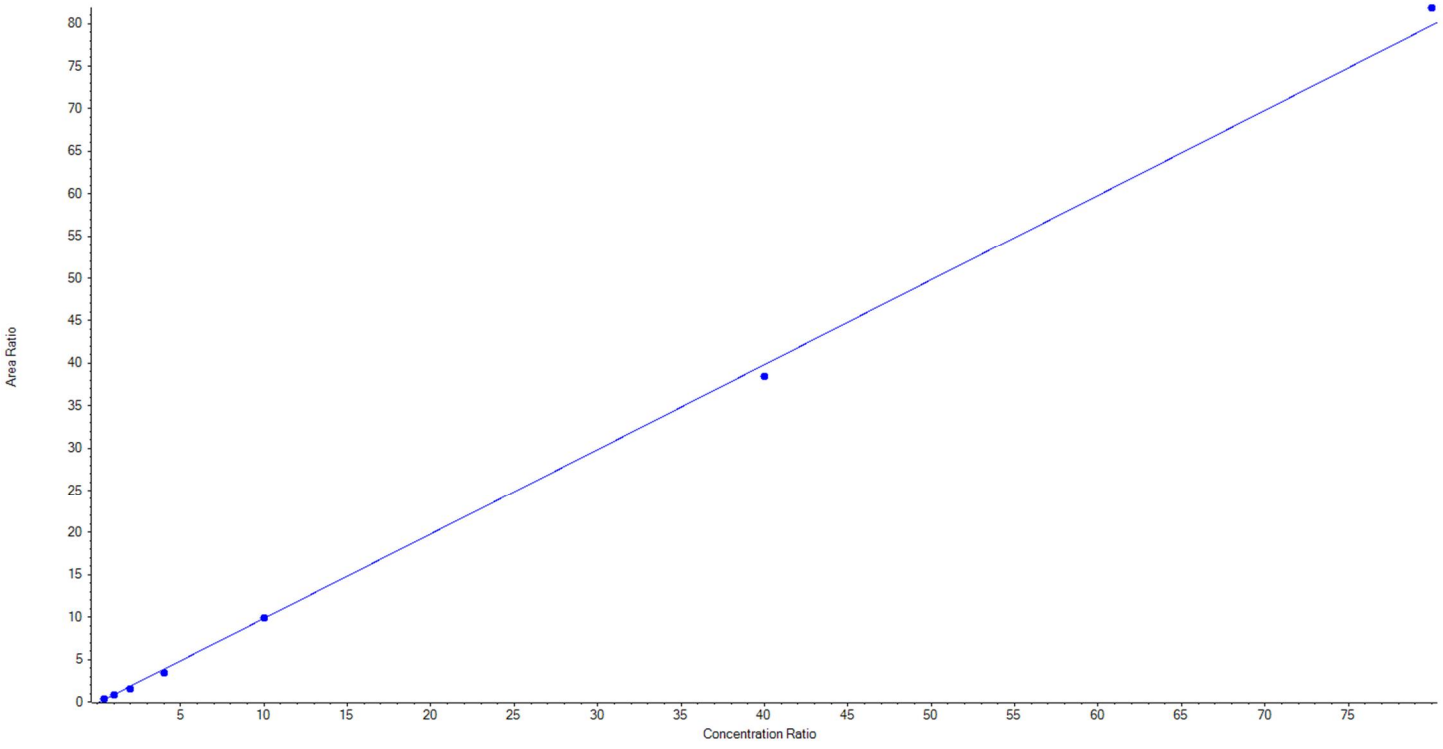
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	NEtFOSAA_1	**Data File**	09172018.wiff
MRM Transition	584.0 / 419.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.99925 x + -0.14634 (r = 0.99910) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	126.817690	126.8
3	KA87	L2	True	250.00	251.047435	100.4
4	KA88	L3	True	500.00	422.904833	84.6
5	KA89	L4	True	1000.00	891.010106	89.1
6	KA90	L5	True	2500.00	2501.814267	100.1
7	KA91	L6	True	10000.00	9645.351972	96.5
8	KA92	L7	True	20000.00	20511.053697	102.6



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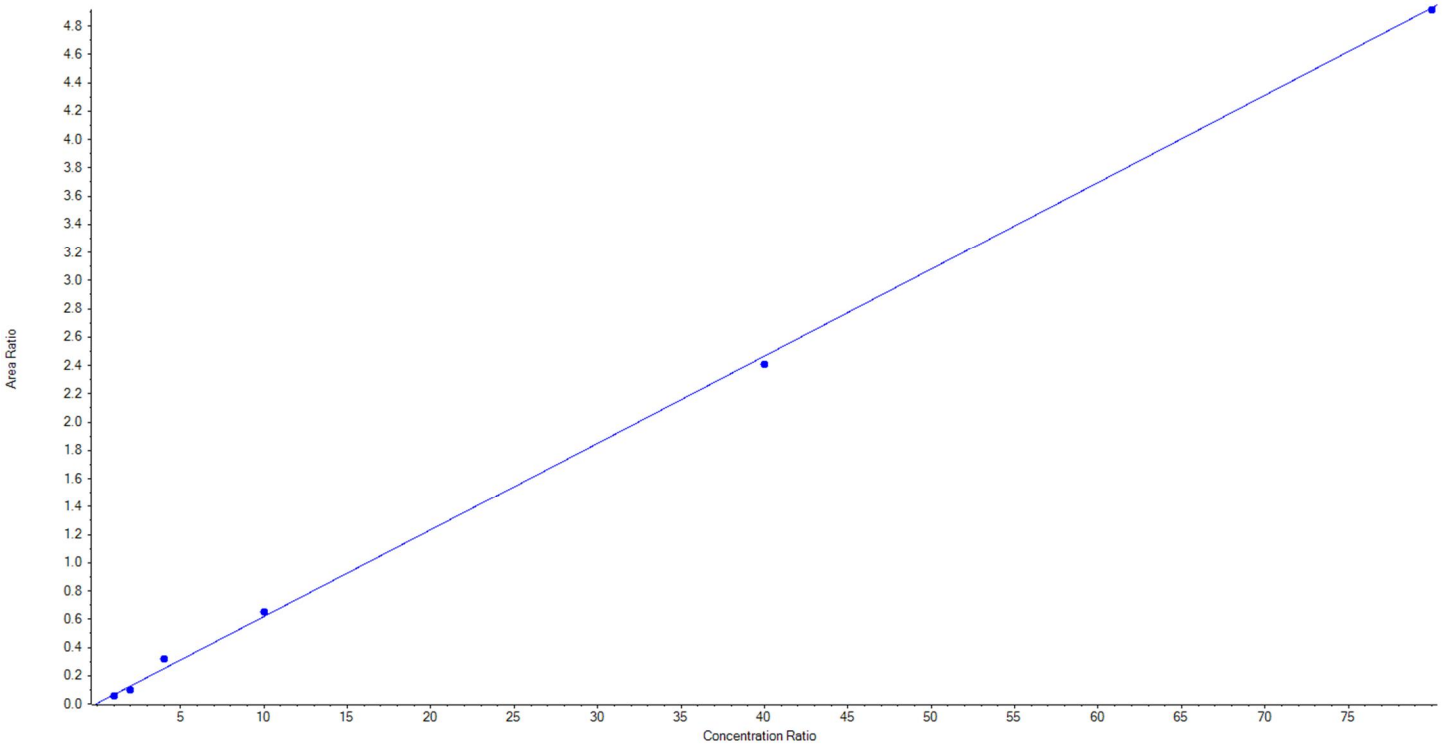
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	NEtFOSAA_2	**Data File**	09172018.wiff
MRM Transition	584.0 / 483.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06155 x + 0.00341 (r = 0.99795) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	False	100.00	N/A	N/A
3	KA87	L2	True	250.00	227.466765	91.0
4	KA88	L3	True	500.00	388.255864	77.7
5	KA89	L4	True	1000.00	1285.149703	128.5
6	KA90	L5	True	2500.00	2635.702419	105.4
7	KA91	L6	True	10000.00	9770.385587	97.7
8	KA92	L7	True	20000.00	19943.039662	99.7



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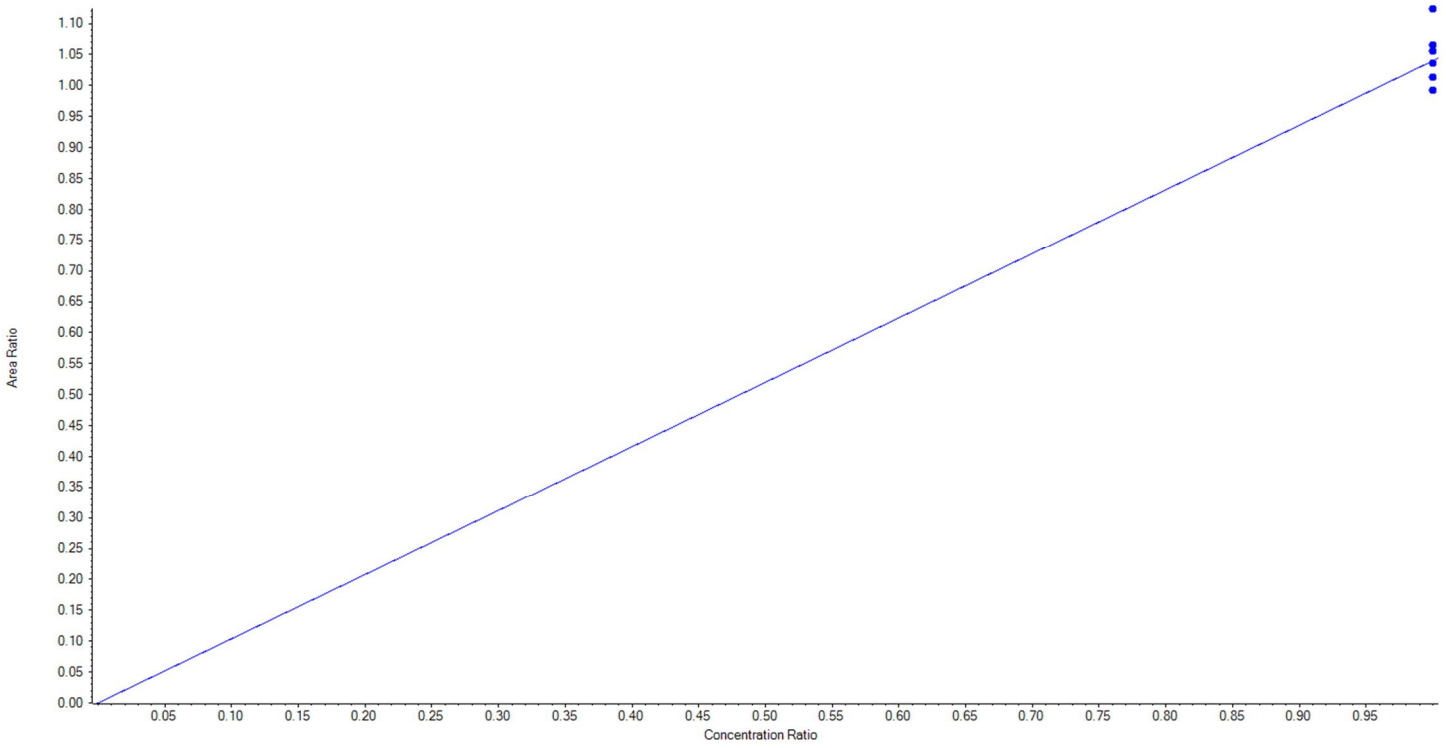
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C2-PFDoA	**Data File**	09172018.wiff
MRM Transition	615.0 / 570.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03997 x (std. dev. = 0.04677) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	249.086588	99.6
3	KA87	L2	True	250.00	238.645940	95.5
4	KA88	L3	True	250.00	238.394426	95.4
5	KA89	L4	True	250.00	243.830078	97.5
6	KA90	L5	True	250.00	253.934265	101.6
7	KA91	L6	True	250.00	270.113460	108.1
8	KA92	L7	True	250.00	255.995243	102.4



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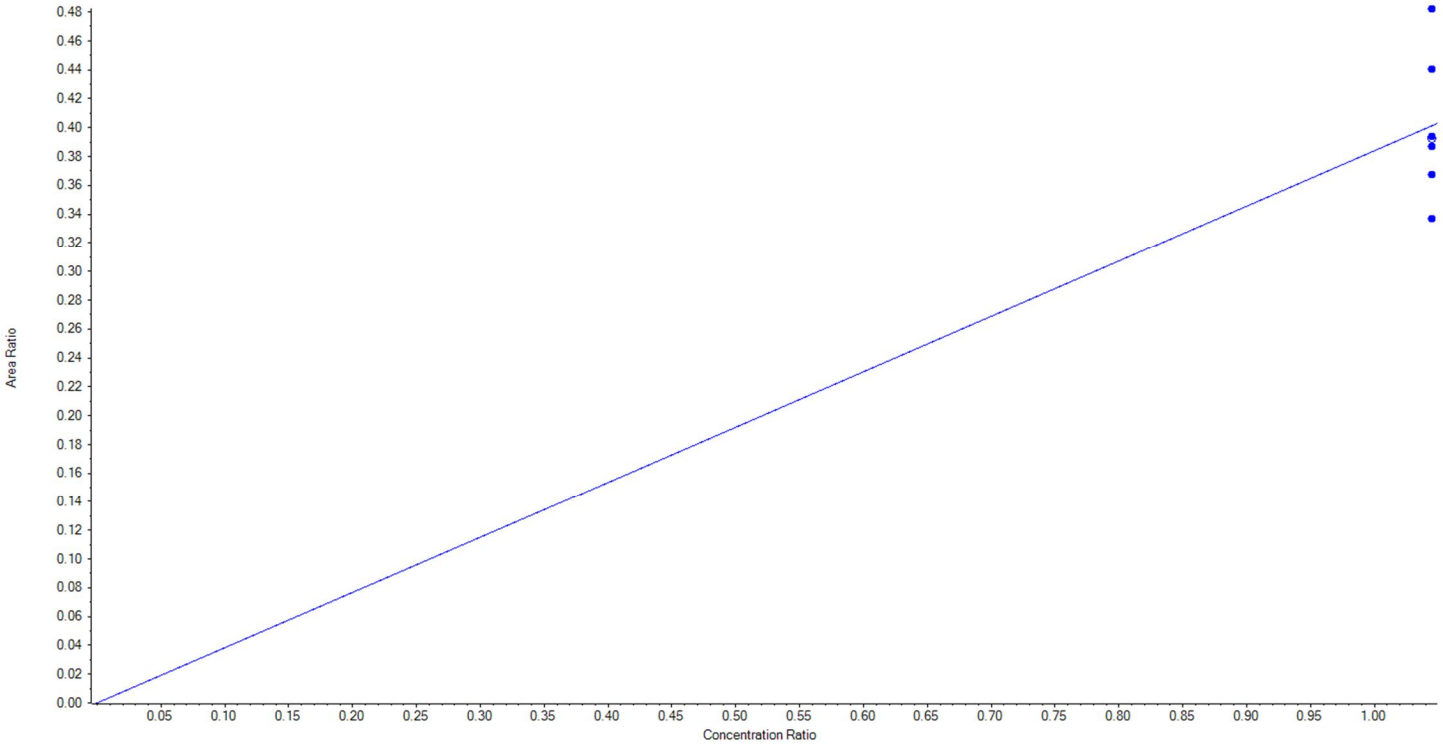
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	d3-MeFOSAA	**Data File**	09172018.wiff
MRM Transition	573.0 / 419.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.38400 x (std. dev. = 0.05004) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	300.400671	120.2
3	KA87	L2	True	250.00	274.452400	109.8
4	KA88	L3	True	250.00	228.785668	91.5
5	KA89	L4	True	250.00	245.527562	98.2
6	KA90	L5	True	250.00	209.762632	83.9
7	KA91	L6	True	250.00	241.071066	96.4
8	KA92	L7	False	250.00	244.509991	97.8



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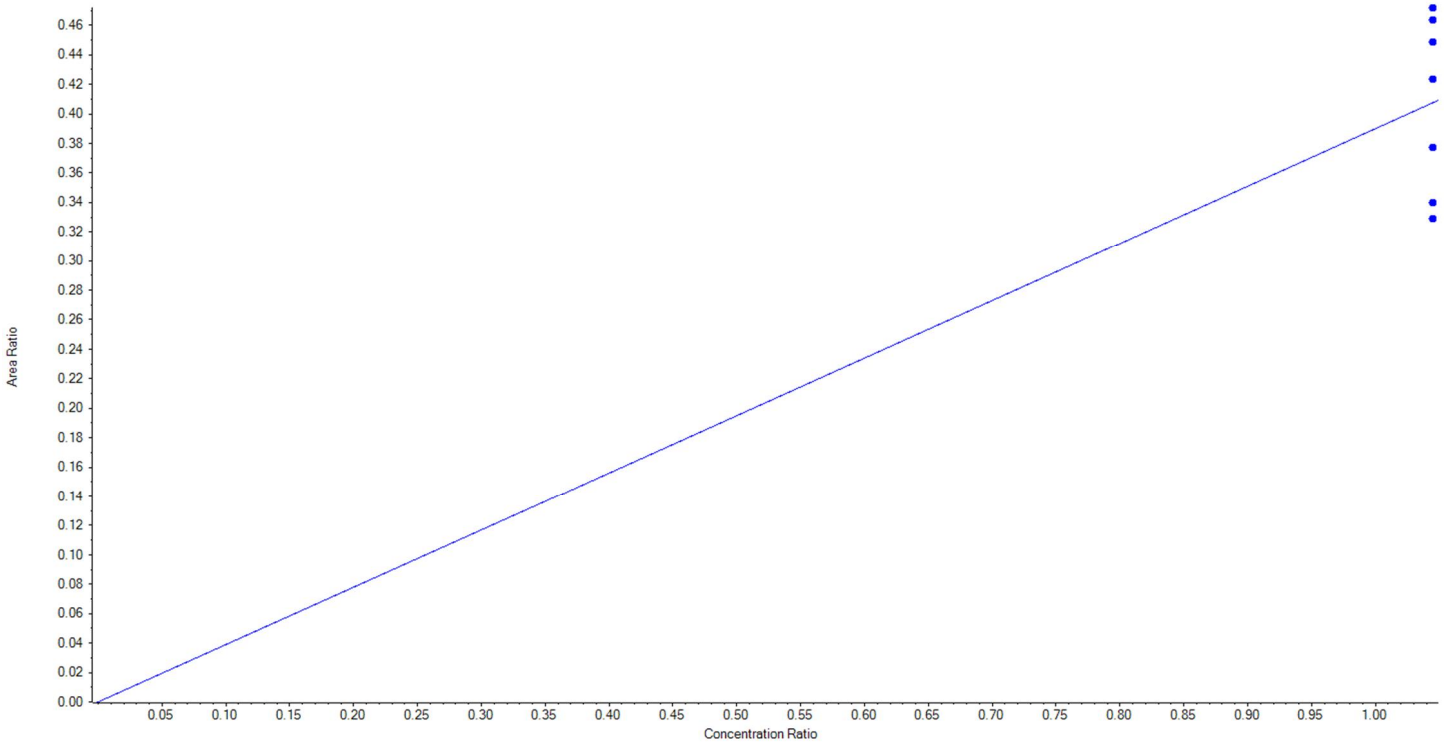
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	d5-EtFOSAA	**Data File**	09172018.wiff
MRM Transition	589.0 / 419.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.38999 x (std. dev. = 0.05649) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	275.037347	110.0
3	KA87	L2	True	250.00	284.389280	113.8
4	KA88	L3	True	250.00	259.734770	103.9
5	KA89	L4	True	250.00	289.399919	115.8
6	KA90	L5	True	250.00	208.474609	83.4
7	KA91	L6	True	250.00	231.311069	92.5
8	KA92	L7	True	250.00	201.653006	80.7



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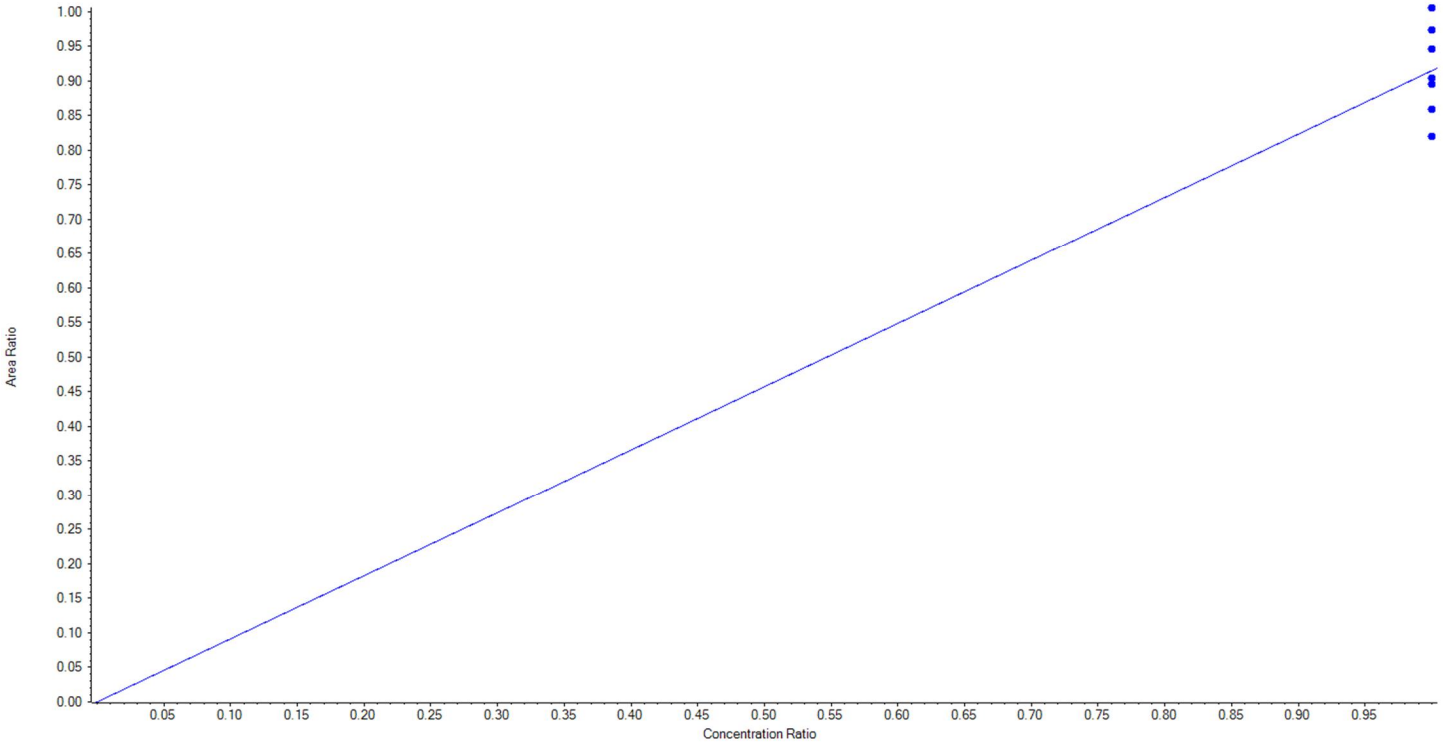
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C5-PFHxA	**Data File**	09172018.wiff
MRM Transition	318.0 / 273.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.91513 x (std. dev. = 0.06468) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	258.596536	103.4
3	KA87	L2	True	250.00	224.229706	89.7
4	KA88	L3	True	250.00	265.935039	106.4
5	KA89	L4	True	250.00	244.637046	97.9
6	KA90	L5	True	250.00	274.765057	109.9
7	KA91	L6	True	250.00	247.025554	98.8
8	KA92	L7	True	250.00	234.811063	93.9



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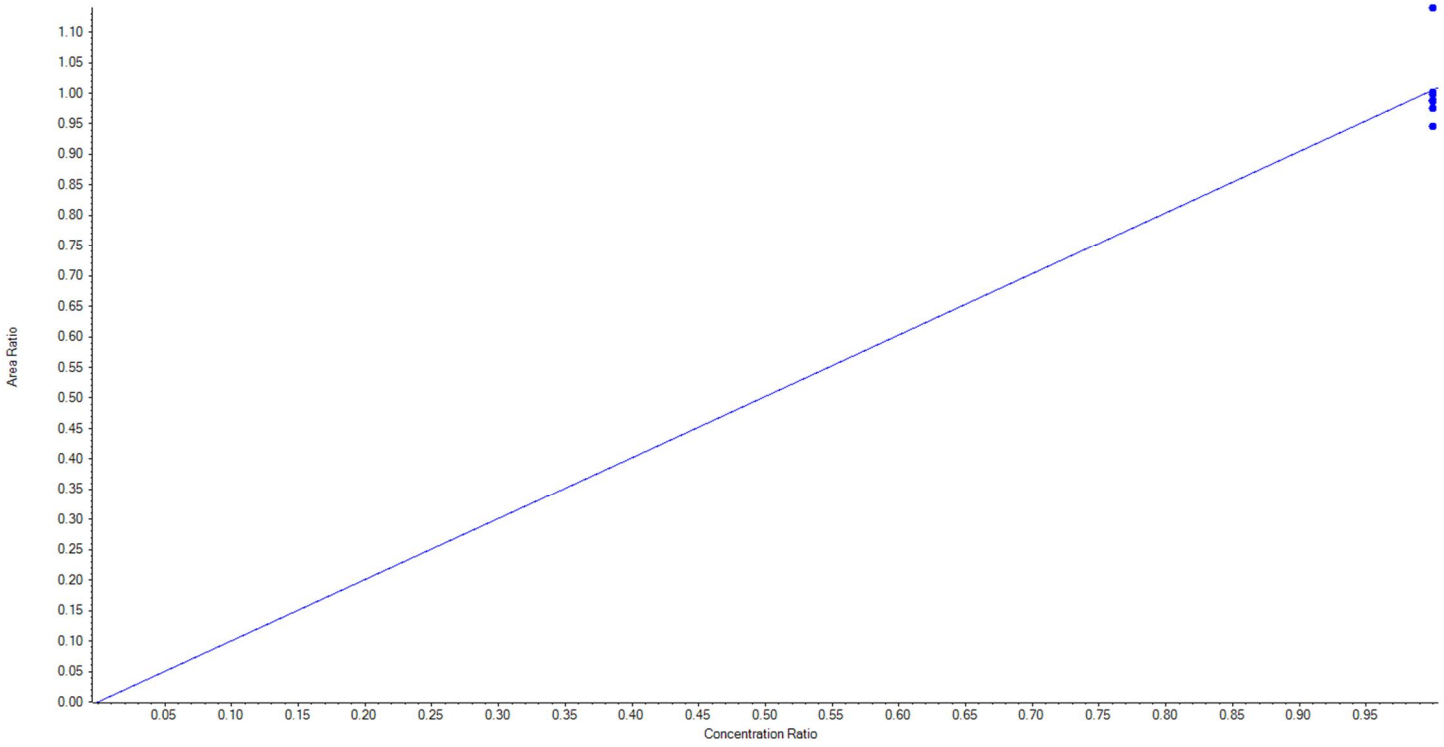
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C4-PFHpA	**Data File**	09172018.wiff
MRM Transition	367.0 / 322.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00523 x (std. dev. = 0.06210) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	248.258573	99.3
3	KA87	L2	True	250.00	249.175721	99.7
4	KA88	L3	True	250.00	283.398669	113.4
5	KA89	L4	True	250.00	242.518576	97.0
6	KA90	L5	True	250.00	246.012403	98.4
7	KA91	L6	True	250.00	245.447951	98.2
8	KA92	L7	True	250.00	235.188108	94.1



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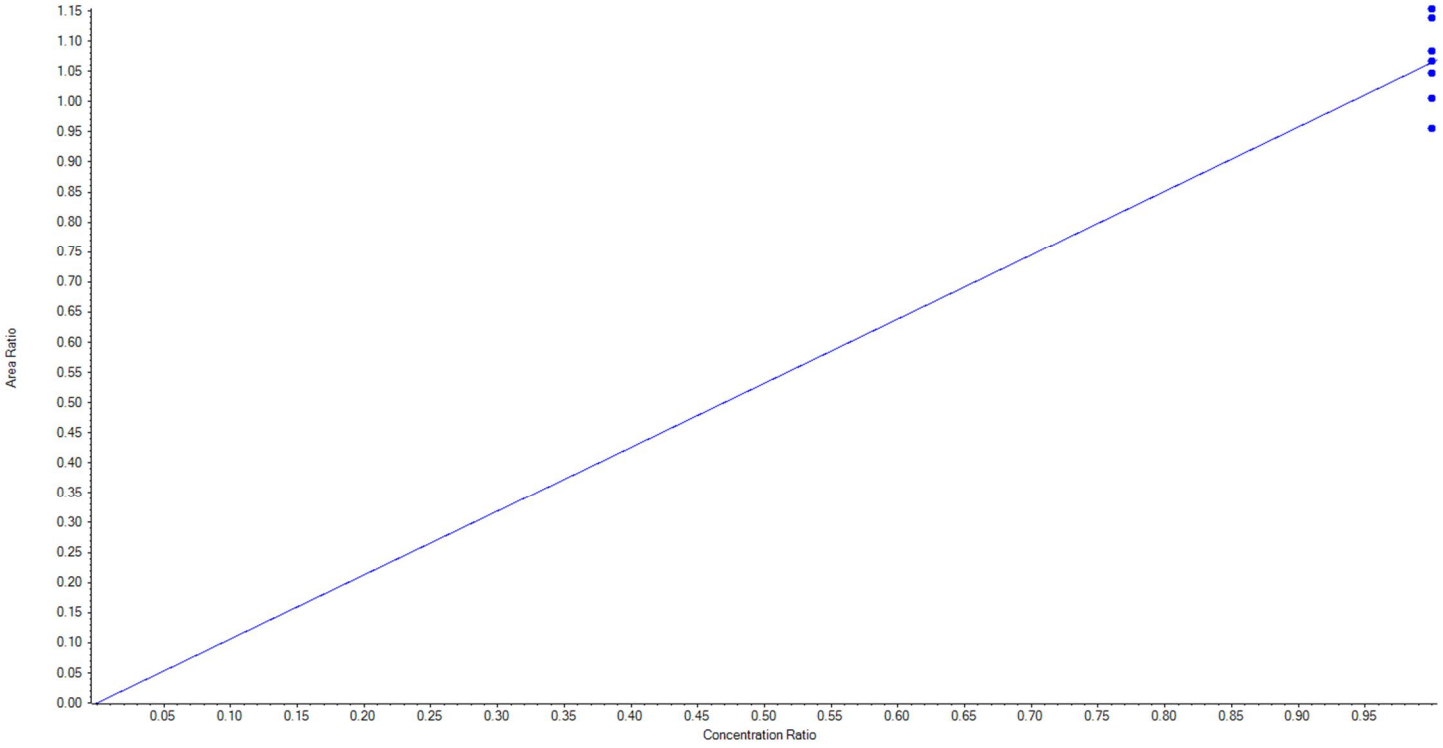
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C8-PFOA	**Data File**	09172018.wiff
MRM Transition	421.0 / 376.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.06431 x (std. dev. = 0.06971) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	245.870251	98.4
3	KA87	L2	True	250.00	267.208605	106.9
4	KA88	L3	True	250.00	250.678923	100.3
5	KA89	L4	True	250.00	254.619374	101.9
6	KA90	L5	True	250.00	270.900302	108.4
7	KA91	L6	True	250.00	236.095879	94.4
8	KA92	L7	True	250.00	224.626665	89.9



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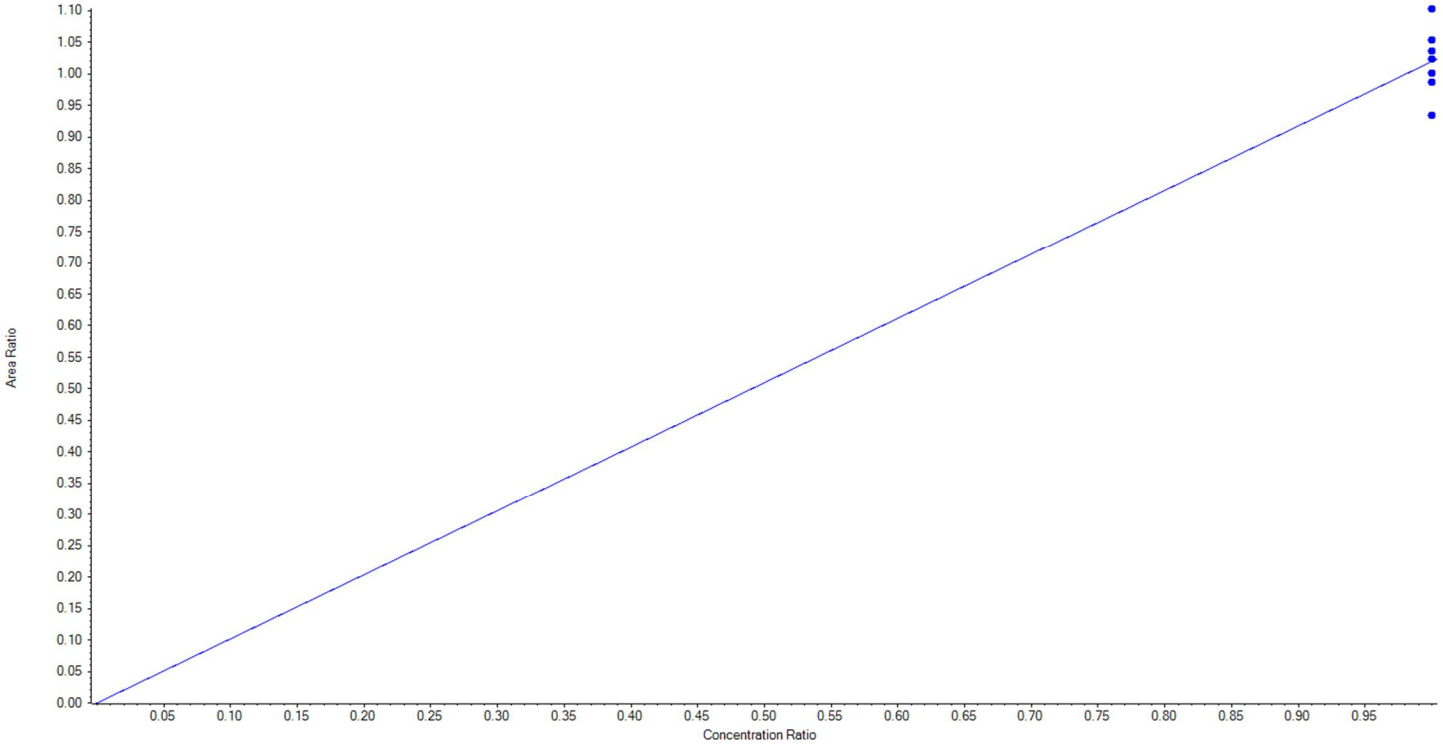
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C9-PFNA	**Data File**	09172018.wiff
MRM Transition	472.0 / 427.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.01962 x (std. dev. = 0.05344) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	241.798020	96.7
3	KA87	L2	True	250.00	258.175435	103.3
4	KA88	L3	True	250.00	270.414804	108.2
5	KA89	L4	True	250.00	253.992581	101.6
6	KA90	L5	True	250.00	251.046463	100.4
7	KA91	L6	True	250.00	245.616386	98.3
8	KA92	L7	True	250.00	228.956311	91.6



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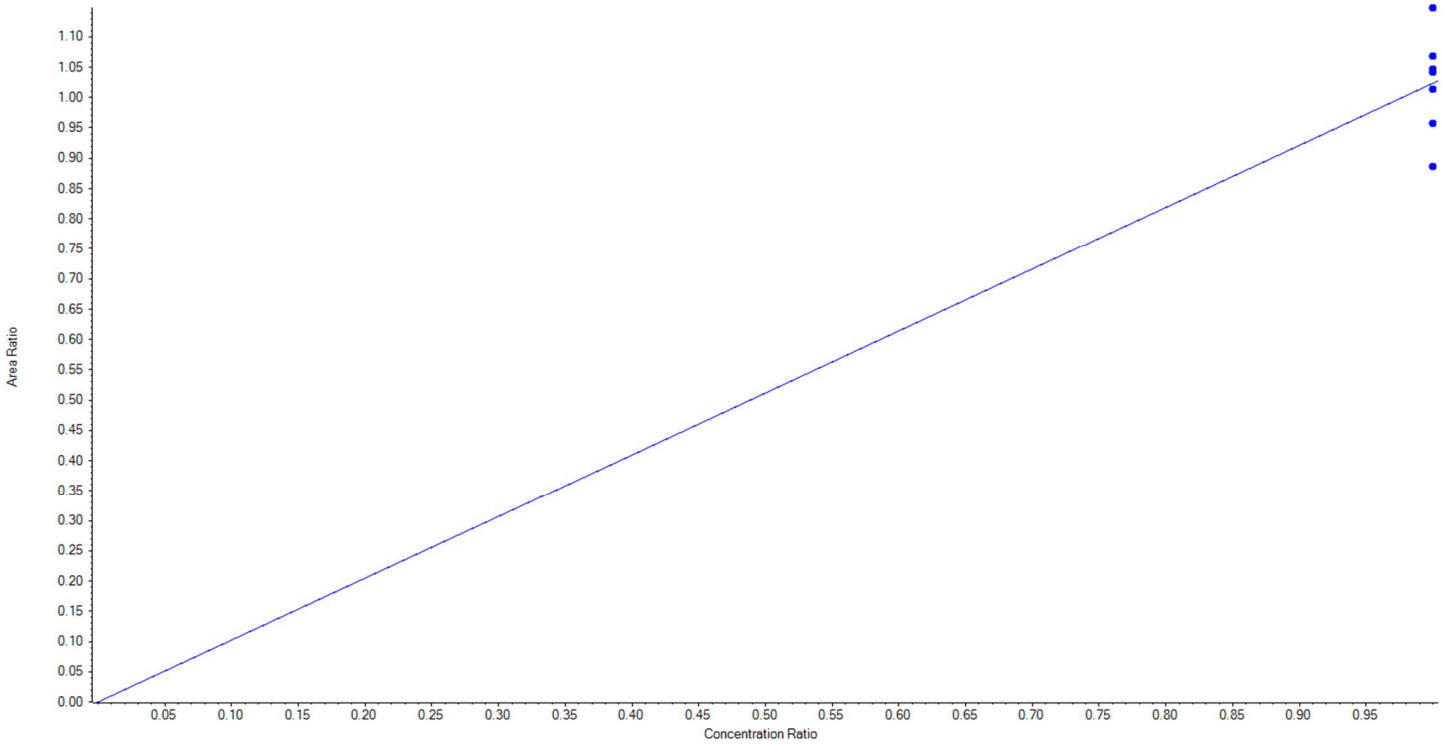
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C6-PFDA	**Data File**	09172018.wiff
MRM Transition	519.0 / 474.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.02343 x (std. dev. = 0.08321) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	247.777319	99.1
3	KA87	L2	True	250.00	261.125158	104.5
4	KA88	L3	True	250.00	233.826304	93.5
5	KA89	L4	True	250.00	280.316761	112.1
6	KA90	L5	True	250.00	254.616538	101.9
7	KA91	L6	True	250.00	255.736225	102.3
8	KA92	L7	True	250.00	216.601695	86.6



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Calibration Summary Report

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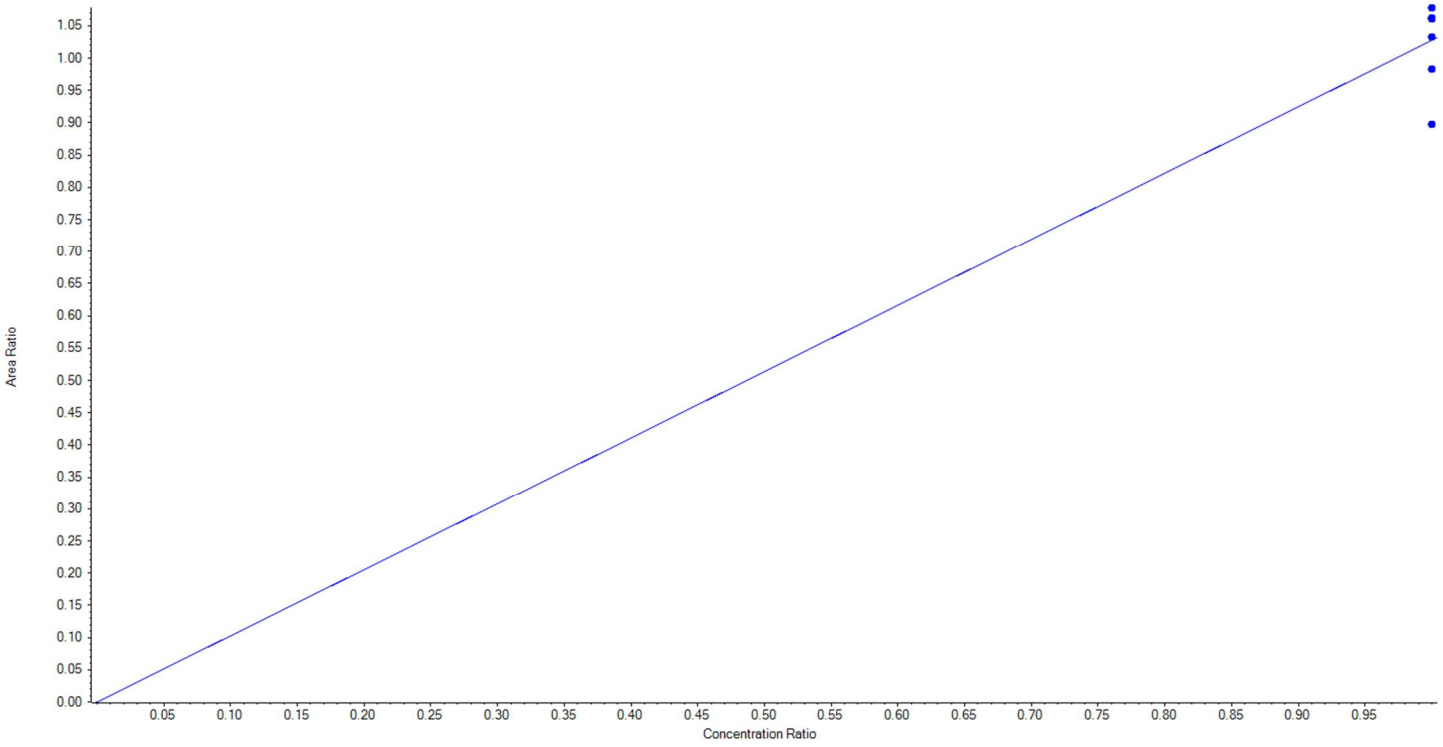
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C7-PFUnA	**Data File**	09172018.wiff
MRM Transition	570.0 / 525.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.02725 x (std. dev. = 0.06601) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	258.185111	103.3
3	KA87	L2	True	250.00	262.221787	104.9
4	KA88	L3	True	250.00	239.003232	95.6
5	KA89	L4	True	250.00	262.150729	104.9
6	KA90	L5	True	250.00	251.397262	100.6
7	KA91	L6	True	250.00	258.498069	103.4
8	KA92	L7	True	250.00	218.543809	87.4



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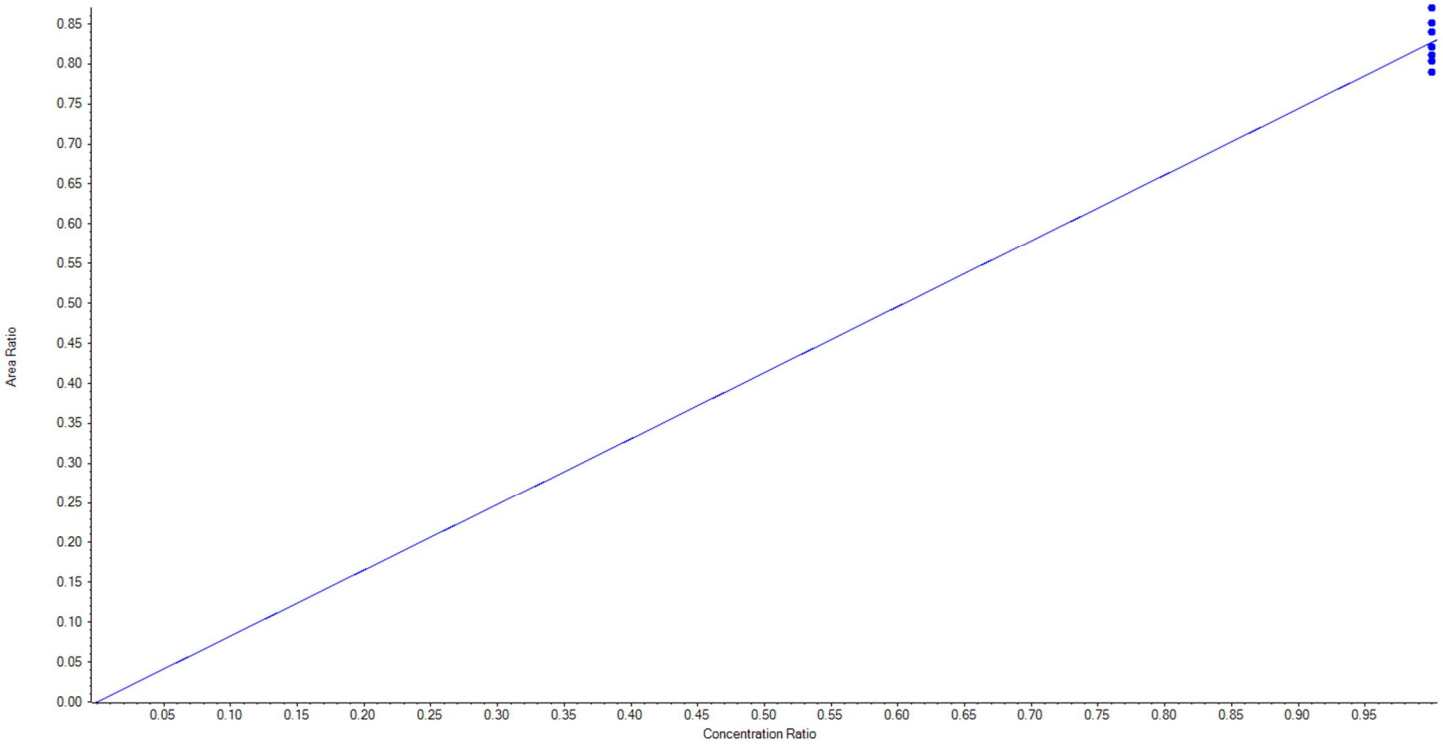
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C2-PFTeDA	**Data File**	09172018.wiff
MRM Transition	715.0 / 670.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.82679 x (std. dev. = 0.02827) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	248.382765	99.4
3	KA87	L2	True	250.00	263.062594	105.2
4	KA88	L3	True	250.00	243.100760	97.2
5	KA89	L4	True	250.00	253.842582	101.5
6	KA90	L5	True	250.00	238.899644	95.6
7	KA91	L6	True	250.00	257.517382	103.0
8	KA92	L7	True	250.00	245.194272	98.1



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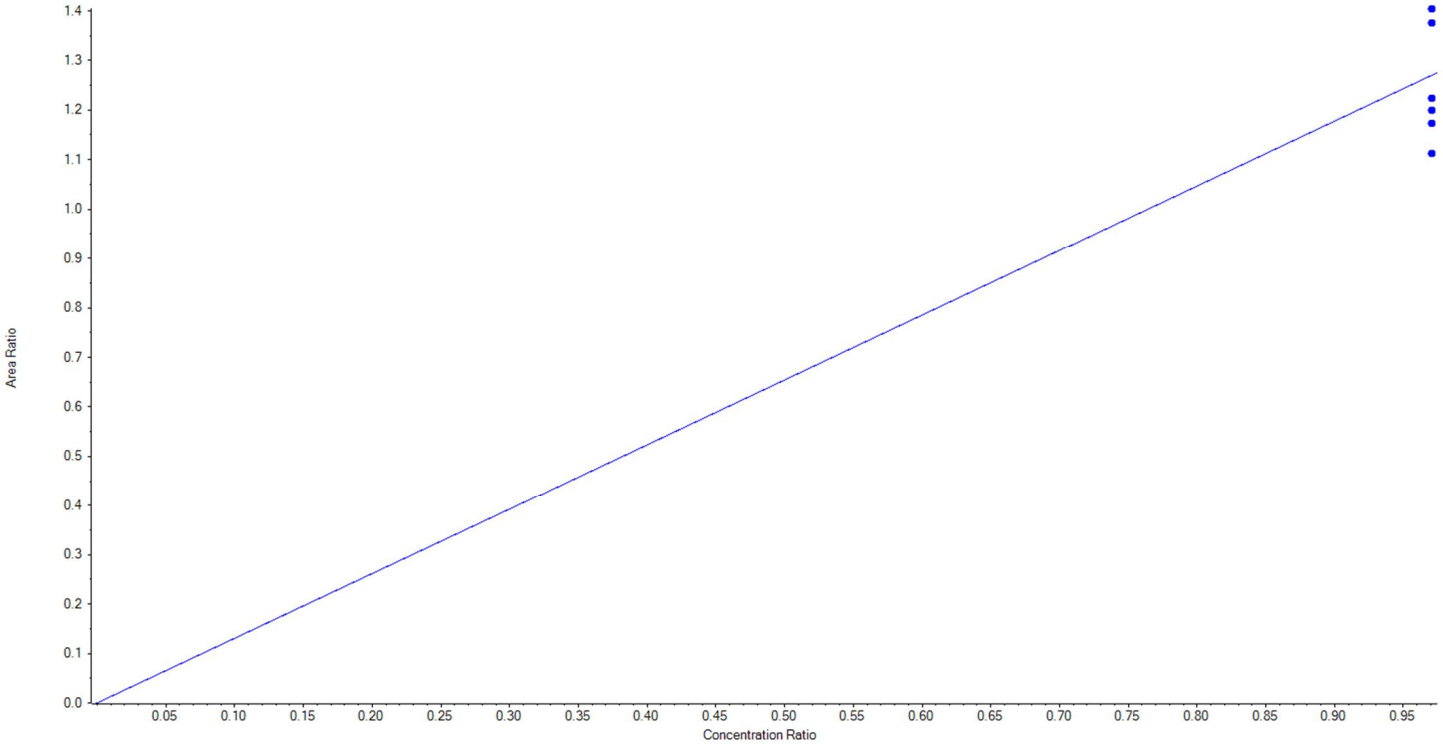
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C3-PFBS	**Data File**	09172018.wiff
MRM Transition	302.0 / 99.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.30856 x (std. dev. = 0.12475) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	232.25	251.432640	108.3
3	KA87	L2	True	232.25	256.671394	110.5
4	KA88	L3	True	232.25	203.536121	87.6
5	KA89	L4	True	232.25	256.647766	110.5
6	KA90	L5	True	232.25	223.775177	96.4
7	KA91	L6	True	232.25	214.520986	92.4
8	KA92	L7	True	232.25	219.165917	94.4



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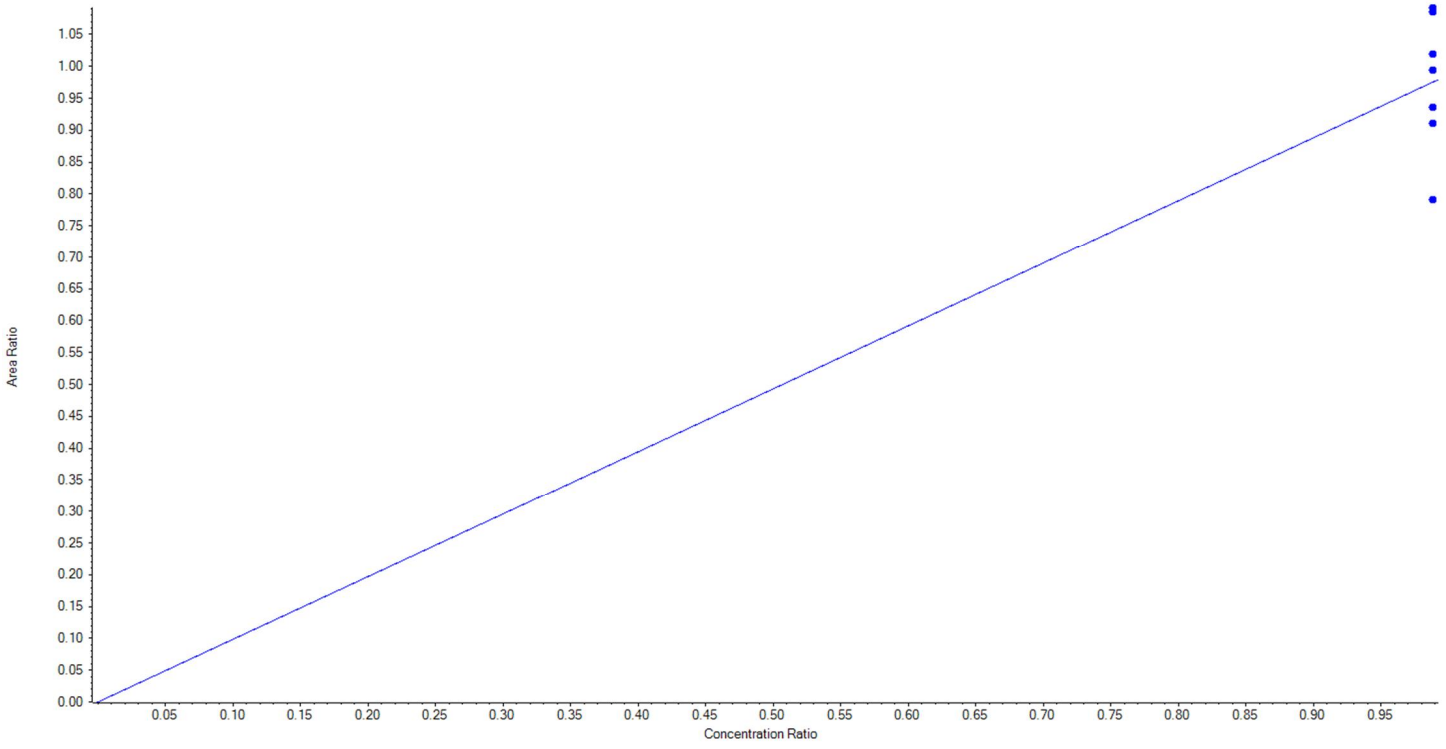
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C3-PFHxS	**Data File**	09172018.wiff
MRM Transition	402.0 / 99.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98657 x (std. dev. = 0.10718) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	236.50	263.027392	111.2
3	KA87	L2	True	236.50	240.956459	101.9
4	KA88	L3	True	236.50	220.837181	93.4
5	KA89	L4	True	236.50	264.688242	111.9
6	KA90	L5	True	236.50	226.762154	95.9
7	KA91	L6	True	236.50	247.296909	104.6
8	KA92	L7	True	236.50	191.931664	81.2



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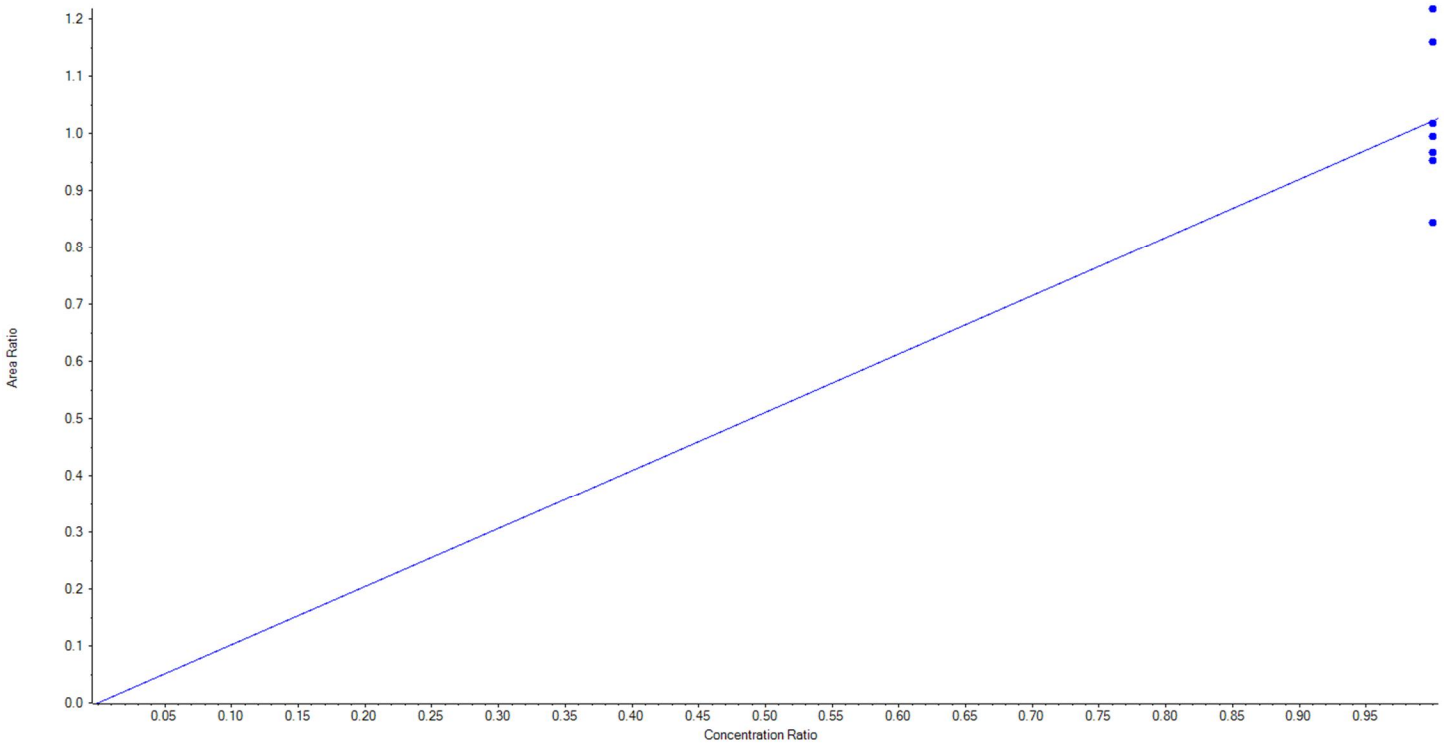
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C8-PFOS	**Data File**	09172018.wiff
MRM Transition	507.0 / 99.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.02196 x (std. dev. = 0.12752) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	239.25	271.446975	113.5
3	KA87	L2	True	239.25	233.090965	97.4
4	KA88	L3	True	239.25	222.951796	93.2
5	KA89	L4	True	239.25	285.097240	119.2
6	KA90	L5	True	239.25	238.217338	99.6
7	KA91	L6	True	239.25	226.394998	94.6
8	KA92	L7	True	239.25	197.550687	82.6



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	Isotope Dilution Calibration Curve Concentrations (ng/L)						
	KA86	KA87	KA88	KA89	KA90	KA91	KA92
PFBA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFPeA	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFHxA	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFHpA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFOA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFNA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFDA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFUnA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFDoA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFTrDA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFTeDA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
NMeFOSAA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
NEtFOSAA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFOSA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFBS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFPeS	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFHxS (Branched)	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFHpS	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFOS (Branched)	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFDS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFNS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
4:2FTS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
6:2FTS	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
8:2FTS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
	Surrogates / Extracted Internal Standards						
13C4-PFBA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C5-PFPeA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C5-PFHxA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C4-PFHpA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C8-PFOA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C9-PFNA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C6-PFDA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C7-PFUnA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFDoA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFTeDA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
d3-MeFOSAA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
d5-EtFOSAA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C8-FOSA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C3-PFBS	232.25	232.25	232.25	232.25	232.25	232.25	232.25
13C3-PFHxS	236.50	236.50	236.50	236.50	236.50	236.50	236.50
13C8-PFOS	239.25	239.25	239.25	239.25	239.25	239.25	239.25
13C2-4:2FTS	233.75	233.75	233.75	233.75	233.75	233.75	233.75
13C2-6:2FTS	237.25	237.25	237.25	237.25	237.25	237.25	237.25
13C2-8:2FTS	239.50	239.50	239.50	239.50	239.50	239.50	239.50
	Internal Standards						
13C3-PFBA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFOA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFDA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C4-PFOS	239.25	239.25	239.25	239.25	239.25	239.25	239.25

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Summary Quant Report

Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:19:17	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	30433.79	107.210507	70.3	false
PFBS_2	298.9 / 99.0	1.53	10889.90	124.306355	58.6	false
PFHxA_1	313.0 / 269.0	1.85	28325.62	116.251169	11.1	false
PFHxA_2	313.0 / 119.0	1.85	1639.43	118.706895	6.1	true
PFHpA_1	363.0 / 319.0	2.25	24831.75	126.435711	23.4	false
PFHpA_2	363.0 / 169.0	2.27	556.38	117.894562	12.6	true
PFHxS_1	399.0 / 80.0	2.27	35664.78	125.028959	82.6	false
PFHxS_2	399.0 / 99.0	2.27	10318.58	115.879496	77.2	false
PFOA_1	413.0 / 369.0	2.65	30284.54	120.628781	35.7	false
PFOA_2	413.0 / 169.0	2.64	2213.63	128.340625	21.8	true
PFNA_1	463.0 / 419.0	3.04	25851.93	126.420004	39.7	false
PFNA_2	463.0 / 219.0	3.04	7964.59	125.402344	39.1	true
PFOS_1	499.0 / 80.0	3.03	36631.62	119.339962	51.8	false
PFOS_2	499.0 / 99.0	3.03	9194.75	125.505534	78.8	false
PFDA_1	513.0 / 469.0	3.39	30246.73	123.381231	68.2	false
PFDA_2	513.0 / 219.0	3.39	2670.19	120.626037	44.9	true
PFUnA_1	563.0 / 519.0	3.70	26012.61	112.077862	73.5	true
PFUnA_2	563.0 / 269.0	3.70	2190.27	79.576176	32.9	true
PFDoA_1	613.0 / 569.0	3.99	26405.65	88.128553	110.3	false
PFDoA_2	613.0 / 319.0	3.98	3798.69	7.034440	80.4	false
PFTrDA_1	663.0 / 619.0	4.23	25663.45	99.790493	173.8	false
PFTrDA_2	663.0 / 169.0	4.23	2018.20	116.473665	81.8	false
PFTeDA_1	713.0 / 669.0	4.45	25786.98	100.402544	246.2	false
PFTeDA_2	713.0 / 169.0	4.45	1578.47	116.090955	122.1	false
NMeFOSAA_1	570.0 / 419.0	3.54	1893.54	6.793695	39.9	false
NMeFOSAA_2	570.0 / 512.0	3.53	1207.25	< 0	34.6	false
NEtFOSAA_1	584.0 / 419.0	3.70	3231.46	126.817690	88.0	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:30:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	80036.78	256.792877	126.8	false
PFBS_2	298.9 / 99.0	1.53	22397.24	242.352302	106.5	false
PFHxA_1	313.0 / 269.0	1.84	58433.22	288.265557	18.9	false
PFHxA_2	313.0 / 119.0	1.85	4218.64	315.063029	12.9	true
PFHpA_1	363.0 / 319.0	2.25	51724.25	247.462947	37.3	false
PFHpA_2	363.0 / 169.0	2.25	1211.00	272.310493	22.0	false
PFHxS_1	399.0 / 80.0	2.27	78962.83	277.132033	142.6	false
PFHxS_2	399.0 / 99.0	2.27	25092.52	298.762264	138.4	false
PFOA_1	413.0 / 369.0	2.65	72197.75	267.473813	68.4	false
PFOA_2	413.0 / 169.0	2.64	4875.51	274.279064	44.6	false
PFNA_1	463.0 / 419.0	3.03	55665.08	251.786479	63.2	false
PFNA_2	463.0 / 219.0	3.03	18747.98	271.570220	64.6	false
PFOS_1	499.0 / 80.0	3.03	95647.40	281.982603	64.0	false
PFOS_2	499.0 / 99.0	3.03	19239.69	288.650412	106.3	false
PFDA_1	513.0 / 469.0	3.38	55701.04	229.784275	94.2	false
PFDA_2	513.0 / 219.0	3.38	3211.13	179.629735	51.9	false
PFUnA_1	563.0 / 519.0	3.70	65142.97	269.635011	121.7	false
PFUnA_2	563.0 / 269.0	3.69	4031.24	232.688592	75.8	false
PFDoA_1	613.0 / 569.0	3.98	61305.60	273.764190	153.3	false
PFDoA_2	613.0 / 319.0	3.98	10542.54	239.702506	133.9	false
PFTrDA_1	663.0 / 619.0	4.23	56067.77	250.094800	201.0	false
PFTrDA_2	663.0 / 169.0	4.22	3105.35	203.820813	100.0	false
PFTeDA_1	713.0 / 669.0	4.44	57280.35	246.214443	377.6	false
PFTeDA_2	713.0 / 169.0	4.44	2673.80	225.543930	195.1	false
NMeFOSAA_1	570.0 / 419.0	3.54	8911.51	239.301241	134.3	false
NMeFOSAA_2	570.0 / 512.0	3.54	4928.72	222.372754	105.3	false
NEtFOSAA_1	584.0 / 419.0	3.69	7819.45	251.047435	157.8	false
NEtFOSAA_2	584.0 / 483.0	3.70	542.03	227.466765	23.5	false

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Summary Quant Report

Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:41:03	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	122100.12	522.951445	187.2	false
PFBS_2	298.9 / 99.0	1.54	33048.37	480.256328	146.3	false
PFHxA_1	313.0 / 269.0	1.85	86513.55	469.463253	24.8	false
PFHxA_2	313.0 / 119.0	1.85	5402.75	436.406684	16.4	true
PFHpA_1	363.0 / 319.0	2.25	75839.93	494.594695	45.8	false
PFHpA_2	363.0 / 169.0	2.23	1472.13	476.146385	25.5	false
PFHxS_1	399.0 / 80.0	2.27	110952.16	449.866974	115.0	false
PFHxS_2	399.0 / 99.0	2.27	32253.07	452.963101	151.7	false
PFOA_1	413.0 / 369.0	2.65	89575.78	457.308715	71.8	false
PFOA_2	413.0 / 169.0	2.65	5629.39	442.322655	56.7	false
PFNA_1	463.0 / 419.0	3.03	80487.05	440.018950	78.3	false
PFNA_2	463.0 / 219.0	3.03	24116.33	426.763431	67.8	false
PFOS_1	499.0 / 80.0	3.03	141399.15	462.945369	87.4	false
PFOS_2	499.0 / 99.0	3.03	23147.38	405.249707	120.8	false
PFDA_1	513.0 / 469.0	3.38	89429.90	489.210038	128.6	false
PFDA_2	513.0 / 219.0	3.38	5607.97	584.610035	98.9	false
PFUnA_1	563.0 / 519.0	3.70	87588.04	464.306485	122.1	false
PFUnA_2	563.0 / 269.0	3.70	7279.76	662.089510	78.4	false
PFDoA_1	613.0 / 569.0	3.98	88057.10	492.124770	184.4	false
PFDoA_2	613.0 / 319.0	3.98	14516.25	464.229195	137.6	false
PFTrDA_1	663.0 / 619.0	4.22	77550.41	467.113857	225.8	false
PFTrDA_2	663.0 / 169.0	4.22	4705.58	434.539421	149.4	false
PFTeDA_1	713.0 / 669.0	4.44	79763.03	457.165546	354.4	false
PFTeDA_2	713.0 / 169.0	4.44	3655.37	425.923534	227.2	false
NMeFOSAA_1	570.0 / 419.0	3.54	10456.33	393.377176	181.8	false
NMeFOSAA_2	570.0 / 512.0	3.54	7212.90	489.969333	149.2	false
NEtFOSAA_1	584.0 / 419.0	3.70	11789.11	422.904833	226.8	false
NEtFOSAA_2	584.0 / 483.0	3.68	755.90	388.255864	25.9	true

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Summary Quant Report

Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:51:56	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	256426.55	961.467448	254.2	false
PFBS_2	298.9 / 99.0	1.54	74377.82	947.233424	213.8	false
PFHxA_1	313.0 / 269.0	1.85	183746.32	946.375417	43.8	false
PFHxA_2	313.0 / 119.0	1.84	11814.73	880.568908	27.4	false
PFHpA_1	363.0 / 319.0	2.25	164134.32	908.164781	71.2	false
PFHpA_2	363.0 / 169.0	2.25	3105.75	874.726007	39.2	false
PFHxS_1	399.0 / 80.0	2.27	248424.30	917.601880	168.2	false
PFHxS_2	399.0 / 99.0	2.27	68625.28	891.385065	319.6	false
PFOA_1	413.0 / 369.0	2.64	223432.34	964.357849	128.7	false
PFOA_2	413.0 / 169.0	2.65	13076.07	876.025066	103.5	false
PFNA_1	463.0 / 419.0	3.03	187605.62	935.526977	146.4	false
PFNA_2	463.0 / 219.0	3.03	53835.92	869.989302	127.0	false
PFOS_1	499.0 / 80.0	3.03	324724.68	882.307346	121.5	false
PFOS_2	499.0 / 99.0	3.03	59543.41	892.164074	207.5	false
PFDA_1	513.0 / 469.0	3.38	193138.77	877.127184	231.7	false
PFDA_2	513.0 / 219.0	3.38	9584.33	885.454676	94.8	false
PFUnA_1	563.0 / 519.0	3.69	200113.84	947.368226	173.6	false
PFUnA_2	563.0 / 269.0	3.69	11431.19	981.865681	118.2	false
PFDoA_1	613.0 / 569.0	3.98	191283.60	1073.842486	202.1	false
PFDoA_2	613.0 / 319.0	3.98	31220.89	1088.014716	195.2	false
PFTrDA_1	663.0 / 619.0	4.22	173010.94	1021.949549	321.9	false
PFTrDA_2	663.0 / 169.0	4.22	11633.14	1074.636675	197.0	false
PFTeDA_1	713.0 / 669.0	4.43	187074.61	1043.554804	557.3	false
PFTeDA_2	713.0 / 169.0	4.43	9019.71	1049.410678	352.7	false
NMeFOSAA_1	570.0 / 419.0	3.53	27988.61	1183.519250	259.9	false
NMeFOSAA_2	570.0 / 512.0	3.53	14037.32	1065.570036	181.0	false
NEtFOSAA_1	584.0 / 419.0	3.69	25976.48	891.010106	413.7	false
NEtFOSAA_2	584.0 / 483.0	3.69	2432.72	1285.149703	80.0	true

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Summary Quant Report

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Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:02:47	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	781637.86	2251.753492	525.6	false
PFBS_2	298.9 / 99.0	1.53	226274.35	2218.136856	344.2	false
PFHxA_1	313.0 / 269.0	1.84	576101.13	2171.771994	84.8	false
PFHxA_2	313.0 / 119.0	1.84	38877.74	2088.102209	52.6	false
PFHpA_1	363.0 / 319.0	2.24	500780.64	2128.310132	125.8	false
PFHpA_2	363.0 / 169.0	2.24	9808.57	2160.243680	106.0	false
PFHxS_1	399.0 / 80.0	2.26	792286.99	2277.653301	272.1	false
PFHxS_2	399.0 / 99.0	2.27	226910.32	2312.226195	376.6	false
PFOA_1	413.0 / 369.0	2.64	641309.31	2129.724084	323.9	false
PFOA_2	413.0 / 169.0	2.64	42532.66	2197.982787	253.7	false
PFNA_1	463.0 / 419.0	3.03	568073.20	2333.848398	311.6	false
PFNA_2	463.0 / 219.0	3.03	180738.74	2402.105144	306.6	false
PFOS_1	499.0 / 80.0	3.03	1013430.18	2184.290401	163.5	false
PFOS_2	499.0 / 99.0	3.03	182083.92	2209.859495	379.0	false
PFDA_1	513.0 / 469.0	3.38	631831.34	2446.700602	343.2	false
PFDA_2	513.0 / 219.0	3.37	29330.22	2516.263417	178.1	false
PFUnA_1	563.0 / 519.0	3.69	608418.16	2308.798801	313.0	false
PFUnA_2	563.0 / 269.0	3.69	34003.60	2478.234771	213.0	false
PFDoA_1	613.0 / 569.0	3.98	558145.97	2369.692338	371.5	false
PFDoA_2	613.0 / 319.0	3.98	93471.62	2557.504369	380.3	false
PFTrDA_1	663.0 / 619.0	4.22	526335.00	2600.667405	503.1	false
PFTrDA_2	663.0 / 169.0	4.22	33911.64	2635.720549	386.6	false
PFTeDA_1	713.0 / 669.0	4.43	559599.91	2599.020799	910.7	false
PFTeDA_2	713.0 / 169.0	4.43	26038.49	2546.869712	559.6	false
NMeFOSAA_1	570.0 / 419.0	3.53	80772.03	2763.804001	358.5	false
NMeFOSAA_2	570.0 / 512.0	3.53	43692.26	2725.971649	457.9	false
NEtFOSAA_1	584.0 / 419.0	3.69	79884.62	2501.814267	519.1	false
NEtFOSAA_2	584.0 / 483.0	3.69	5288.67	2635.702419	144.2	false

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Summary Quant Report

Sample Name	KA91	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:13:39	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	2741231.62	10619.448743	908.6	false
PFBS_2	298.9 / 99.0	1.53	798053.54	10531.345026	784.0	false
PFHxA_1	313.0 / 269.0	1.84	1910610.65	9261.678272	193.9	false
PFHxA_2	313.0 / 119.0	1.84	142788.69	9776.953274	110.3	false
PFHpA_1	363.0 / 319.0	2.24	1659477.11	9497.225875	287.0	false
PFHpA_2	363.0 / 169.0	2.24	34600.06	10365.244292	281.6	false
PFHxS_1	399.0 / 80.0	2.27	2642599.67	8965.996617	511.7	false
PFHxS_2	399.0 / 99.0	2.26	762646.36	9209.878255	692.5	false
PFOA_1	413.0 / 369.0	2.64	2112205.52	9448.533833	712.9	false
PFOA_2	413.0 / 169.0	2.64	131254.54	9161.230341	340.3	false
PFNA_1	463.0 / 419.0	3.03	1929546.89	9328.596873	618.5	false
PFNA_2	463.0 / 219.0	3.03	591276.12	9252.579507	631.7	false
PFOS_1	499.0 / 80.0	3.02	3416181.89	9515.980092	255.5	false
PFOS_2	499.0 / 99.0	3.03	608462.26	9646.143779	602.1	false
PFDA_1	513.0 / 469.0	3.38	2062178.40	10072.665193	547.4	false
PFDA_2	513.0 / 219.0	3.38	90993.73	10217.395513	331.0	false
PFUnA_1	563.0 / 519.0	3.69	2100109.09	9775.798827	524.5	false
PFUnA_2	563.0 / 269.0	3.69	104398.06	9607.359880	376.0	false
PFDoA_1	613.0 / 569.0	3.98	2017197.92	10301.327343	596.1	false
PFDoA_2	613.0 / 319.0	3.98	301606.09	10133.753203	639.4	false
PFTrDA_1	663.0 / 619.0	4.22	1742144.30	10195.049043	806.9	false
PFTrDA_2	663.0 / 169.0	4.22	114261.94	10554.718378	629.9	false
PFTeDA_1	713.0 / 669.0	4.43	1889051.79	10368.809522	1367.0	false
PFTeDA_2	713.0 / 169.0	4.43	89070.66	10352.020695	995.1	false
NMeFOSAA_1	570.0 / 419.0	3.53	247578.52	9669.998332	764.6	false
NMeFOSAA_2	570.0 / 512.0	3.53	136052.21	9746.116228	714.0	false
NEtFOSAA_1	584.0 / 419.0	3.69	266611.51	9645.351972	1023.7	false
NEtFOSAA_2	584.0 / 483.0	3.69	16722.59	9770.385587	366.0	false

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Summary Quant Report

Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:24:30	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	5979889.42	19973.375488	1299.5	false
PFBS_2	298.9 / 99.0	1.54	1770730.89	20149.369708	1038.4	false
PFHxA_1	313.0 / 269.0	1.85	4297269.33	21439.194338	339.1	false
PFHxA_2	313.0 / 119.0	1.85	299432.36	21077.199002	178.0	false
PFHpA_1	363.0 / 319.0	2.25	3558418.99	20947.805860	397.0	false
PFHpA_2	363.0 / 169.0	2.25	65077.69	20083.434581	274.1	false
PFHxS_1	399.0 / 80.0	2.27	5633915.67	21679.720237	566.5	false
PFHxS_2	399.0 / 99.0	2.27	1562005.88	21411.905624	1171.6	false
PFOA_1	413.0 / 369.0	2.64	4555463.20	20961.972925	900.9	false
PFOA_2	413.0 / 169.0	2.64	296143.52	21269.819462	499.4	false
PFNA_1	463.0 / 419.0	3.03	4129080.41	20933.802318	866.5	false
PFNA_2	463.0 / 219.0	3.03	1279786.15	21001.590051	704.0	false
PFOS_1	499.0 / 80.0	3.03	7419762.70	20903.154227	336.5	true
PFOS_2	499.0 / 99.0	3.03	1293954.17	20782.426999	652.7	true
PFDA_1	513.0 / 469.0	3.38	4171596.24	20111.131477	638.1	false
PFDA_2	513.0 / 219.0	3.38	178005.44	19846.020588	448.0	false
PFUnA_1	563.0 / 519.0	3.70	4450980.60	20472.014787	672.0	false
PFUnA_2	563.0 / 269.0	3.70	222176.84	20308.185390	435.3	false
PFDoA_1	613.0 / 569.0	3.98	4378438.72	19751.120321	725.3	false
PFDoA_2	613.0 / 319.0	3.98	663576.64	19766.796011	649.3	false
PFTrDA_1	663.0 / 619.0	4.22	3832386.63	19715.334854	999.6	false
PFTrDA_2	663.0 / 169.0	4.22	237938.70	19330.090498	734.8	false
PFTeDA_1	713.0 / 669.0	4.43	4050075.84	19534.832341	1513.4	false
PFTeDA_2	713.0 / 169.0	4.43	192087.71	19634.140495	1260.8	false
NMeFOSAA_1	570.0 / 419.0	3.53	565390.49	19238.393743	970.5	false
NMeFOSAA_2	570.0 / 512.0	3.53	301761.54	18850.385028	612.1	false
NEtFOSAA_1	584.0 / 419.0	3.69	561882.77	20511.053697	1134.1	false
NEtFOSAA_2	584.0 / 483.0	3.69	33735.78	19943.039662	449.3	false

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Summary Quant Report

Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:19:17	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.98	64876.60	249.086588	735.1	false
d3-MeFOSAA	573.0 / 419.0	3.53	9638.99	300.400671	127.9	false
d5-EtFOSAA	589.0 / 419.0	3.69	8962.71	275.037347	115.0	false
13C5-PFHxA	318.0 / 273.0	1.83	61076.03	258.596536	494.6	false
13C4-PFHpA	367.0 / 322.0	2.24	64407.50	248.258573	436.6	false
13C8-PFOA	421.0 / 376.0	2.64	67536.40	245.870251	1608.1	false
13C9-PFNA	472.0 / 427.0	3.02	63629.25	241.798020	567.4	false
13C6-PFDA	519.0 / 474.0	3.37	63509.47	247.777319	554.6	false
13C7-PFUnA	570.0 / 525.0	3.69	66423.92	258.185111	372.3	false
13C2-PFTeDA	715.0 / 670.0	4.44	51431.88	248.382765	1204.3	false
13C3-PFBS	302.0 / 99.0	1.52	27492.51	251.432640	365.8	false
13C3-PFHxS	402.0 / 99.0	2.26	21683.39	263.027392	235.0	false
13C8-PFOS	507.0 / 99.0	3.02	23180.29	271.446975	168.7	false

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Summary Quant Report

Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:30:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	56996.85	238.645940	665.1	false
d3-MeFOSAA	573.0 / 419.0	3.53	8669.35	274.452400	133.3	false
d5-EtFOSAA	589.0 / 419.0	3.69	9123.25	284.389280	101.4	false
13C5-PFHxA	318.0 / 273.0	1.83	47944.77	224.229706	367.4	false
13C4-PFHpA	367.0 / 322.0	2.23	58524.53	249.175721	435.9	false
13C8-PFOA	421.0 / 376.0	2.63	66448.08	267.208605	797.4	false
13C9-PFNA	472.0 / 427.0	3.02	61506.22	258.175435	893.3	false
13C6-PFDA	519.0 / 474.0	3.37	61374.04	261.125158	613.5	false
13C7-PFUnA	570.0 / 525.0	3.69	61861.61	262.221787	275.2	false
13C2-PFTeDA	715.0 / 670.0	4.44	49949.27	263.062594	931.8	false
13C3-PFBS	302.0 / 99.0	1.52	27628.61	256.671394	301.1	false
13C3-PFHxS	402.0 / 99.0	2.26	19554.82	240.956459	237.6	false
13C8-PFOS	507.0 / 99.0	3.02	19595.14	233.090965	160.8	false

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Summary Quant Report

Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:41:03	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	47290.64	238.394426	679.3	false
d3-MeFOSAA	573.0 / 419.0	3.53	6622.39	228.785668	101.2	false
d5-EtFOSAA	589.0 / 419.0	3.69	7635.42	259.734770	109.8	false
13C5-PFHxA	318.0 / 273.0	1.84	42954.97	265.935039	432.6	false
13C4-PFHpA	367.0 / 322.0	2.24	50282.84	283.398669	593.2	false
13C8-PFOA	421.0 / 376.0	2.64	47091.18	250.678923	2146.0	false
13C9-PFNA	472.0 / 427.0	3.02	48665.85	270.414804	696.2	false
13C6-PFDA	519.0 / 474.0	3.37	45646.94	233.826304	796.8	false
13C7-PFUnA	570.0 / 525.0	3.69	46831.54	239.003232	298.7	false
13C2-PFTeDA	715.0 / 670.0	4.43	38338.81	243.100760	1288.3	false
13C3-PFBS	302.0 / 99.0	1.52	20076.58	203.536121	282.8	false
13C3-PFHxS	402.0 / 99.0	2.26	16423.06	220.837181	188.2	false
13C8-PFOS	507.0 / 99.0	3.02	17175.14	222.951796	154.5	false

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Summary Quant Report

Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:51:56	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	48338.75	243.830078	633.8	false
d3-MeFOSAA	573.0 / 419.0	3.52	6354.37	245.527562	95.9	false
d5-EtFOSAA	589.0 / 419.0	3.68	7606.55	289.399919	110.0	false
13C5-PFHxA	318.0 / 273.0	1.84	44736.99	244.637046	467.0	false
13C4-PFHpA	367.0 / 322.0	2.23	48716.23	242.518576	525.8	false
13C8-PFOA	421.0 / 376.0	2.63	54152.67	254.619374	707.7	false
13C9-PFNA	472.0 / 427.0	3.02	51751.34	253.992581	595.1	false
13C6-PFDA	519.0 / 474.0	3.37	54688.56	280.316761	453.5	false
13C7-PFUnA	570.0 / 525.0	3.68	51335.16	262.150729	286.8	false
13C2-PFTeDA	715.0 / 670.0	4.43	40007.91	253.842582	931.7	false
13C3-PFBS	302.0 / 99.0	1.52	22634.57	256.647766	330.4	false
13C3-PFHxS	402.0 / 99.0	2.26	17599.61	264.688242	222.3	false
13C8-PFOS	507.0 / 99.0	3.01	19636.72	285.097240	147.4	false

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Summary Quant Report

Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:02:47	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	64718.10	253.934265	693.6	false
d3-MeFOSAA	573.0 / 419.0	3.52	8032.23	209.762632	96.4	false
d5-EtFOSAA	589.0 / 419.0	3.68	8107.33	208.474609	111.3	false
13C5-PFHxA	318.0 / 273.0	1.83	60734.16	274.765057	399.7	false
13C4-PFHpA	367.0 / 322.0	2.23	59732.77	246.012403	456.9	false
13C8-PFOA	421.0 / 376.0	2.63	69640.99	270.900302	865.6	false
13C9-PFNA	472.0 / 427.0	3.02	61827.50	251.046463	747.0	false
13C6-PFDA	519.0 / 474.0	3.36	63860.20	254.616538	451.2	false
13C7-PFUnA	570.0 / 525.0	3.68	63287.89	251.397262	405.9	false
13C2-PFTeDA	715.0 / 670.0	4.43	48405.33	238.899644	1091.3	false
13C3-PFBS	302.0 / 99.0	1.52	29199.94	223.775177	388.3	false
13C3-PFHxS	402.0 / 99.0	2.25	22308.70	226.762154	176.6	false
13C8-PFOS	507.0 / 99.0	3.01	24276.42	238.217338	149.2	false

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Summary Quant Report

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Sample Name	KA91	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:13:39	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	54239.26	270.113460	667.6	false
d3-MeFOSAA	573.0 / 419.0	3.52	7123.79	241.071066	76.6	false
d5-EtFOSAA	589.0 / 419.0	3.68	6941.92	231.311069	90.3	false
13C5-PFHxA	318.0 / 273.0	1.83	47055.00	247.025554	357.7	false
13C4-PFHpA	367.0 / 322.0	2.23	51357.92	245.447951	343.8	false
13C8-PFOA	421.0 / 376.0	2.63	52304.15	236.095879	764.3	false
13C9-PFNA	472.0 / 427.0	3.01	52128.74	245.616386	614.0	false
13C6-PFDA	519.0 / 474.0	3.37	50535.78	255.736225	615.0	false
13C7-PFUnA	570.0 / 525.0	3.68	51272.02	258.498069	443.2	false
13C2-PFTeDA	715.0 / 670.0	4.43	41109.98	257.517382	952.0	false
13C3-PFBS	302.0 / 99.0	1.52	21602.21	214.520986	319.9	false
13C3-PFHxS	402.0 / 99.0	2.25	18775.03	247.296909	219.8	false
13C8-PFOS	507.0 / 99.0	3.01	17804.77	226.394998	150.9	false

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Summary Quant Report

Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:24:30	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	61473.35	255.995243	875.3	false
d3-MeFOSAA	573.0 / 419.0	3.52	8197.39	244.509991	70.1	false
d5-EtFOSAA	589.0 / 419.0	3.68	6865.95	201.653006	59.7	false
13C5-PFHxA	318.0 / 273.0	1.84	45690.43	234.811063	448.5	false
13C4-PFHpA	367.0 / 322.0	2.23	50269.68	235.188108	432.7	false
13C8-PFOA	421.0 / 376.0	2.63	50833.72	224.626665	841.0	false
13C9-PFNA	472.0 / 427.0	3.02	49638.12	228.956311	488.3	false
13C6-PFDA	519.0 / 474.0	3.37	51186.57	216.601695	865.3	false
13C7-PFUnA	570.0 / 525.0	3.68	51838.11	218.543809	398.2	false
13C2-PFTeDA	715.0 / 670.0	4.43	46809.99	245.194272	1127.0	false
13C3-PFBS	302.0 / 99.0	1.52	25038.84	219.165917	421.8	false
13C3-PFHxS	402.0 / 99.0	2.26	16531.85	191.931664	220.2	false
13C8-PFOS	507.0 / 99.0	3.02	17626.29	197.550687	122.4	false

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Summary Ion Ratio Report

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Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:19:17	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.360	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.04	PFNA			
PFNA_2	463.0 / 219.0	3.04	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.250	0.190	ü
PFDA_1	513.0 / 469.0	3.39	PFDA			
PFDA_2	513.0 / 219.0	3.39	PFDA	0.090	0.056	
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.70	PFUnA	0.080	0.063	ü
PFDoA_1	613.0 / 569.0	3.99	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.140	0.161	ü
PFTrDA_1	663.0 / 619.0	4.23	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.23	PFTrDA	0.080	0.065	ü
PFTeDA_1	713.0 / 669.0	4.45	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.45	PFTeDA	0.060	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.54	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.640	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.70	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	

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Summary Ion Ratio Report

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Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:30:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.280	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.320	0.290	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.340	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.200	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.060	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.170	0.161	ü
PFTrDA_1	663.0 / 619.0	4.23	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.44	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.44	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.54	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.54	NMeFOSAA	0.550	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.70	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:41:03	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.270	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.160	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.060	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.70	PFUnA	0.080	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.44	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.44	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.54	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.54	NMeFOSAA	0.690	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.70	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.68	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:51:56	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.060	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.290	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.500	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.090	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:02:47	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.320	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.37	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.170	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.540	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA91	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:13:39	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.02	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.150	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.550	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:24:30	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.70	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.150	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.530	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.060	0.069	ü

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Summary Internal Standard Report

Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:19:17	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	27492.51	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	27492.51	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	61076.03	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	61076.03	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	68521.51	250.00
PFHpA_2	363.0 / 169.0	2.27	13C8-PFOA	421.0 / 376.0	68521.51	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	21683.39	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	21683.39	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	68521.51	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	68521.51	250.00
PFNA_1	463.0 / 419.0	3.04	13C9-PFNA	472.0 / 427.0	63629.25	250.00
PFNA_2	463.0 / 219.0	3.04	13C9-PFNA	472.0 / 427.0	63629.25	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	22979.07	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	22979.07	239.25
PFDA_1	513.0 / 469.0	3.39	13C6-PFDA	519.0 / 474.0	63509.47	250.00
PFDA_2	513.0 / 219.0	3.39	13C6-PFDA	519.0 / 474.0	63509.47	250.00
PFUnA_1	563.0 / 519.0	3.70	13C7-PFUnA	570.0 / 525.0	66423.92	250.00
PFUnA_2	563.0 / 269.0	3.70	13C7-PFUnA	570.0 / 525.0	66423.92	250.00
PFDoA_1	613.0 / 569.0	3.99	13C2-PFDoA	615.0 / 570.0	64876.60	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	64876.60	250.00
PFTrDA_1	663.0 / 619.0	4.23	13C2-PFTeDA	715.0 / 670.0	51431.88	250.00
PFTrDA_2	663.0 / 169.0	4.23	13C2-PFTeDA	715.0 / 670.0	51431.88	250.00
PFTeDA_1	713.0 / 669.0	4.45	13C2-PFTeDA	715.0 / 670.0	51431.88	250.00
PFTeDA_2	713.0 / 169.0	4.45	13C2-PFTeDA	715.0 / 670.0	51431.88	250.00
NMeFOSAA_1	570.0 / 419.0	3.54	d3-MeFOSAA	573.0 / 419.0	9638.99	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	9638.99	250.00
NEtFOSAA_1	584.0 / 419.0	3.70	d5-EtFOSAA	589.0 / 419.0	8962.71	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8962.71	250.00

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Summary Internal Standard Report

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Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:30:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	27628.61	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	27628.61	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	47944.77	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	47944.77	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	67100.36	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	67100.36	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	19554.82	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	19554.82	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	67100.36	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	67100.36	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	61506.22	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	61506.22	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	20280.50	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	20280.50	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	61374.04	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	61374.04	250.00
PFUnA_1	563.0 / 519.0	3.70	13C7-PFUnA	570.0 / 525.0	61861.61	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	61861.61	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	56996.85	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	56996.85	250.00
PFTrDA_1	663.0 / 619.0	4.23	13C2-PFTeDA	715.0 / 670.0	49949.27	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	49949.27	250.00
PFTeDA_1	713.0 / 669.0	4.44	13C2-PFTeDA	715.0 / 670.0	49949.27	250.00
PFTeDA_2	713.0 / 169.0	4.44	13C2-PFTeDA	715.0 / 670.0	49949.27	250.00
NMeFOSAA_1	570.0 / 419.0	3.54	d3-MeFOSAA	573.0 / 419.0	8669.35	250.00
NMeFOSAA_2	570.0 / 512.0	3.54	d3-MeFOSAA	573.0 / 419.0	8669.35	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	9123.25	250.00
NEtFOSAA_2	584.0 / 483.0	3.70	d5-EtFOSAA	589.0 / 419.0	9123.25	250.00

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Summary Internal Standard Report

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Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:41:03	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	20076.58	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	20076.58	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	42954.97	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	42954.97	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	47255.37	250.00
PFHpA_2	363.0 / 169.0	2.23	13C8-PFOA	421.0 / 376.0	47255.37	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	16423.06	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	16423.06	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	47255.37	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	47255.37	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	48665.85	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	48665.85	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	17264.86	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	17264.86	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	45646.94	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	45646.94	250.00
PFUnA_1	563.0 / 519.0	3.70	13C7-PFUnA	570.0 / 525.0	46831.54	250.00
PFUnA_2	563.0 / 269.0	3.70	13C7-PFUnA	570.0 / 525.0	46831.54	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	47290.64	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	47290.64	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	38338.81	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	38338.81	250.00
PFTeDA_1	713.0 / 669.0	4.44	13C2-PFTeDA	715.0 / 670.0	38338.81	250.00
PFTeDA_2	713.0 / 169.0	4.44	13C2-PFTeDA	715.0 / 670.0	38338.81	250.00
NMeFOSAA_1	570.0 / 419.0	3.54	d3-MeFOSAA	573.0 / 419.0	6622.39	250.00
NMeFOSAA_2	570.0 / 512.0	3.54	d3-MeFOSAA	573.0 / 419.0	6622.39	250.00
NEtFOSAA_1	584.0 / 419.0	3.70	d5-EtFOSAA	589.0 / 419.0	7635.42	250.00
NEtFOSAA_2	584.0 / 483.0	3.68	d5-EtFOSAA	589.0 / 419.0	7635.42	250.00

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Summary Internal Standard Report

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Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:51:56	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	22634.57	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	22634.57	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	44736.99	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	44736.99	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	54699.49	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	54699.49	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	17599.61	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	17599.61	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	54699.49	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	54699.49	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	51751.34	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	51751.34	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	19995.25	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	19995.25	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	54688.56	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	54688.56	250.00
PFUnA_1	563.0 / 519.0	3.69	13C7-PFUnA	570.0 / 525.0	51335.16	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	51335.16	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	48338.75	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	48338.75	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	40007.91	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	40007.91	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	40007.91	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	40007.91	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	6354.37	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	6354.37	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	7606.55	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	7606.55	250.00

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Summary Internal Standard Report

Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:02:47	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	29199.94	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	29199.94	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	60734.16	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	60734.16	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	70348.87	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	70348.87	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	22308.70	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	22308.70	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	70348.87	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	70348.87	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	61827.50	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	61827.50	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	24578.12	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	24578.12	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	63860.20	250.00
PFDA_2	513.0 / 219.0	3.37	13C6-PFDA	519.0 / 474.0	63860.20	250.00
PFUnA_1	563.0 / 519.0	3.69	13C7-PFUnA	570.0 / 525.0	63287.89	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	63287.89	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	64718.10	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	64718.10	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	48405.33	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	48405.33	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	48405.33	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	48405.33	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	8032.23	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	8032.23	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	8107.33	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	8107.33	250.00

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Summary Internal Standard Report

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Sample Name	KA91	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:13:39	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	21602.21	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	21602.21	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	47055.00	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	47055.00	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	51878.23	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	51878.23	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	18775.03	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	18775.03	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	51878.23	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	51878.23	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	52128.74	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	52128.74	250.00
PFOS_1	499.0 / 80.0	3.02	13C8-PFOS	507.0 / 99.0	18773.07	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	18773.07	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	50535.78	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	50535.78	250.00
PFUnA_1	563.0 / 519.0	3.69	13C7-PFUnA	570.0 / 525.0	51272.02	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	51272.02	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	54239.26	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	54239.26	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	41109.98	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	41109.98	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	41109.98	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	41109.98	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	7123.79	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	7123.79	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	6941.92	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	6941.92	250.00

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Summary Internal Standard Report

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Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:24:30	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	25038.84	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	25038.84	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	45690.43	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	45690.43	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	50379.30	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	50379.30	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	16531.85	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	16531.85	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	50379.30	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	50379.30	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	49638.12	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	49638.12	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	18523.42	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	18523.42	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	51186.57	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	51186.57	250.00
PFUnA_1	563.0 / 519.0	3.70	13C7-PFUnA	570.0 / 525.0	51838.11	250.00
PFUnA_2	563.0 / 269.0	3.70	13C7-PFUnA	570.0 / 525.0	51838.11	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	61473.35	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	61473.35	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	46809.99	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	46809.99	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	46809.99	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	46809.99	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	8197.39	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	8197.39	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	6865.95	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	6865.95	250.00

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Summary Internal Standard Report

Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:19:17	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.98	13C2-PFDA	515.0 / 470.0	62612.00	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	19991.76	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	19991.76	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	64521.69	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	64521.69	250.00
13C8-PFOA	421.0 / 376.0	2.64	13C2-PFOA	415.0 / 370.0	64521.69	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	64521.69	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	62612.00	250.00
13C7-PFUnA	570.0 / 525.0	3.69	13C2-PFDA	515.0 / 470.0	62612.00	250.00
13C2-PFTeDA	715.0 / 670.0	4.44	13C2-PFDA	515.0 / 470.0	62612.00	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	19991.76	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	19991.76	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	19991.76	239.25

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Summary Internal Standard Report

Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:30:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	57413.84	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	19680.67	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	19680.67	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	58412.50	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	58412.50	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	58412.50	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	58412.50	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	57413.84	250.00
13C7-PFUnA	570.0 / 525.0	3.69	13C2-PFDA	515.0 / 470.0	57413.84	250.00
13C2-PFTeDA	715.0 / 670.0	4.44	13C2-PFDA	515.0 / 470.0	57413.84	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	19680.67	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	19680.67	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	19680.67	239.25

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Summary Internal Standard Report

Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:41:03	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	47686.88	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	18034.60	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	18034.60	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	44126.10	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	44126.10	250.00
13C8-PFOA	421.0 / 376.0	2.64	13C2-PFOA	415.0 / 370.0	44126.10	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	44126.10	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	47686.88	250.00
13C7-PFUnA	570.0 / 525.0	3.69	13C2-PFDA	515.0 / 470.0	47686.88	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	47686.88	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	18034.60	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	18034.60	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	18034.60	239.25

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Summary Internal Standard Report

Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:51:56	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	47657.14	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	16124.75	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	16124.75	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	49957.68	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	49957.68	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	49957.68	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	49957.68	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	47657.14	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	47657.14	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	47657.14	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	16124.75	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	16124.75	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	16124.75	239.25

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Summary Internal Standard Report

Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:02:47	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	61266.67	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	23857.68	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	23857.68	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	60385.02	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	60385.02	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	60385.02	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	60385.02	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	61266.67	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	61266.67	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	61266.67	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	23857.68	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	23857.68	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	23857.68	239.25

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Summary Internal Standard Report

Sample Name	KA91	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:13:39	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	48271.12	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	18411.39	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	18411.39	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	52038.12	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	52038.12	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	52038.12	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	52038.12	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	48271.12	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	48271.12	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	48271.12	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	18411.39	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	18411.39	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	18411.39	239.25

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Summary Internal Standard Report

Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:24:30	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	57726.45	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	20888.13	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	20888.13	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	53157.48	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	53157.48	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	53157.48	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	53157.48	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	57726.45	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	57726.45	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	57726.45	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	20888.13	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	20888.13	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	20888.13	239.25

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QC Summary Report

Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.54	1116.333150	1010.00	110.53
PFBS_2	298.9 / 99.0	1.53	1111.905753	1010.00	110.09
PFHxA_1	313.0 / 269.0	1.85	971.237452	1010.00	96.16
PFHxA_2	313.0 / 119.0	1.85	1014.998847	1010.00	100.49
PFHpA_1	363.0 / 319.0	2.24	885.762834	1000.00	88.58
PFHpA_2	363.0 / 169.0	2.25	823.742767	1000.00	82.37
PFHxS_1	399.0 / 80.0	2.27	893.448263	1010.00	88.46
PFHxS_2	399.0 / 99.0	2.27	894.022753	1010.00	88.52
PFOA_1	413.0 / 369.0	2.64	904.476779	1000.00	90.45
PFOA_2	413.0 / 169.0	2.64	821.562878	1000.00	82.16
PFNA_1	463.0 / 419.0	3.03	875.909235	1000.00	87.59
PFNA_2	463.0 / 219.0	3.03	890.057205	1000.00	89.01
PFOS_1	499.0 / 80.0	3.03	915.195881	1000.00	91.52
PFOS_2	499.0 / 99.0	3.03	887.163253	1000.00	88.72
PFDA_1	513.0 / 469.0	3.38	1017.457860	1000.00	101.75
PFDA_2	513.0 / 219.0	3.38	972.619130	1000.00	97.26
PFUnA_1	563.0 / 519.0	3.69	1010.148911	1000.00	101.01
PFUnA_2	563.0 / 269.0	3.69	1008.854852	1000.00	100.89
PFDoA_1	613.0 / 569.0	3.98	1017.301356	1000.00	101.73
PFDoA_2	613.0 / 319.0	3.97	1024.352918	1000.00	102.44
PFTrDA_1	663.0 / 619.0	4.22	1127.958999	1000.00	112.80
PFTrDA_2	663.0 / 169.0	4.22	1067.801351	1000.00	106.78
PFTeDA_1	713.0 / 669.0	4.43	1082.338578	1000.00	108.23
PFTeDA_2	713.0 / 169.0	4.43	1083.852728	1000.00	108.39
NMeFOSAA_1	570.0 / 419.0	3.53	992.889949	1000.00	99.29
NMeFOSAA_2	570.0 / 512.0	3.53	877.311431	1000.00	87.73
NEtFOSAA_1	584.0 / 419.0	3.69	1127.984070	1000.00	112.80
NEtFOSAA_2	584.0 / 483.0	3.69	958.925191	1000.00	95.89

QC Summary Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	2562.158854	2525.00	101.47
PFBS_2	298.9 / 99.0	1.53	2523.811438	2525.00	99.95
PFHxA_1	313.0 / 269.0	1.84	2210.407494	2525.00	87.54
PFHxA_2	313.0 / 119.0	1.84	2224.902959	2525.00	88.11
PFHpA_1	363.0 / 319.0	2.24	2108.523934	2500.00	84.34
PFHpA_2	363.0 / 169.0	2.24	2082.294087	2500.00	83.29
PFHxS_1	399.0 / 80.0	2.26	2262.286719	2525.00	89.60
PFHxS_2	399.0 / 99.0	2.26	2363.136829	2525.00	93.59
PFOA_1	413.0 / 369.0	2.64	2186.203668	2500.00	87.45
PFOA_2	413.0 / 169.0	2.64	2141.091874	2500.00	85.64
PFNA_1	463.0 / 419.0	3.02	2189.921889	2500.00	87.60
PFNA_2	463.0 / 219.0	3.02	2077.266124	2500.00	83.09
PFOS_1	499.0 / 80.0	3.02	2578.120772	2500.00	103.12
PFOS_2	499.0 / 99.0	3.02	2723.056815	2500.00	108.92
PFDA_1	513.0 / 469.0	3.38	2364.317466	2500.00	94.57
PFDA_2	513.0 / 219.0	3.37	2201.311331	2500.00	88.05
PFUnA_1	563.0 / 519.0	3.69	2215.286564	2500.00	88.61
PFUnA_2	563.0 / 269.0	3.69	2292.018710	2500.00	91.68
PFDoA_1	613.0 / 569.0	3.97	2456.729993	2500.00	98.27
PFDoA_2	613.0 / 319.0	3.97	2503.451892	2500.00	100.14
PFTrDA_1	663.0 / 619.0	4.22	2698.215172	2500.00	107.93
PFTrDA_2	663.0 / 169.0	4.21	2656.127469	2500.00	106.25
PFTeDA_1	713.0 / 669.0	4.43	2622.647058	2500.00	104.91
PFTeDA_2	713.0 / 169.0	4.43	2581.993222	2500.00	103.28
NMeFOSAA_1	570.0 / 419.0	3.53	2550.890367	2500.00	102.04
NMeFOSAA_2	570.0 / 512.0	3.53	2461.204487	2500.00	98.45
NEtFOSAA_1	584.0 / 419.0	3.69	1914.531767	2500.00	76.58
NEtFOSAA_2	584.0 / 483.0	3.69	2257.930143	2500.00	90.32

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	970.519928	1010.00	96.09
PFBS_2	298.9 / 99.0	1.53	976.869488	1010.00	96.72
PFHxA_1	313.0 / 269.0	1.84	904.541993	1010.00	89.56
PFHxA_2	313.0 / 119.0	1.84	1012.384838	1010.00	100.24
PFHpA_1	363.0 / 319.0	2.24	849.658216	1000.00	84.97
PFHpA_2	363.0 / 169.0	2.25	918.365917	1000.00	91.84
PFHxS_1	399.0 / 80.0	2.27	932.340067	1010.00	92.31
PFHxS_2	399.0 / 99.0	2.26	938.925801	1010.00	92.96
PFOA_1	413.0 / 369.0	2.64	906.239590	1000.00	90.62
PFOA_2	413.0 / 169.0	2.64	808.029972	1000.00	80.80
PFNA_1	463.0 / 419.0	3.03	958.857816	1000.00	95.89
PFNA_2	463.0 / 219.0	3.03	958.111137	1000.00	95.81
PFOS_1	499.0 / 80.0	3.03	957.054200	1000.00	95.71
PFOS_2	499.0 / 99.0	3.03	999.473654	1000.00	99.95
PFDA_1	513.0 / 469.0	3.38	982.570105	1000.00	98.26
PFDA_2	513.0 / 219.0	3.38	962.910872	1000.00	96.29
PFUnA_1	563.0 / 519.0	3.70	985.293525	1000.00	98.53
PFUnA_2	563.0 / 269.0	3.69	1078.119913	1000.00	107.81
PFDoA_1	613.0 / 569.0	3.98	980.524956	1000.00	98.05
PFDoA_2	613.0 / 319.0	3.98	1093.385687	1000.00	109.34
PFTrDA_1	663.0 / 619.0	4.22	1019.295145	1000.00	101.93
PFTrDA_2	663.0 / 169.0	4.22	1080.456762	1000.00	108.05
PFTeDA_1	713.0 / 669.0	4.43	983.249373	1000.00	98.32
PFTeDA_2	713.0 / 169.0	4.43	972.260718	1000.00	97.23
NMeFOSAA_1	570.0 / 419.0	3.53	903.363198	1000.00	90.34
NMeFOSAA_2	570.0 / 512.0	3.53	907.307691	1000.00	90.73
NEtFOSAA_1	584.0 / 419.0	3.69	824.951148	1000.00	82.50
NEtFOSAA_2	584.0 / 483.0	3.69	727.569297	1000.00	72.76

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QC Summary Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	2486.177445	2525.00	98.46
PFBS_2	298.9 / 99.0	1.53	2520.387620	2525.00	99.82
PFHxA_1	313.0 / 269.0	1.84	2162.030102	2525.00	85.62
PFHxA_2	313.0 / 119.0	1.84	2402.722028	2525.00	95.16
PFHpA_1	363.0 / 319.0	2.24	2210.173211	2500.00	88.41
PFHpA_2	363.0 / 169.0	2.24	2331.453782	2500.00	93.26
PFHxS_1	399.0 / 80.0	2.26	2437.554085	2525.00	96.54
PFHxS_2	399.0 / 99.0	2.26	2406.276274	2525.00	95.30
PFOA_1	413.0 / 369.0	2.64	2397.133761	2500.00	95.89
PFOA_2	413.0 / 169.0	2.64	2265.213532	2500.00	90.61
PFNA_1	463.0 / 419.0	3.03	2269.608310	2500.00	90.78
PFNA_2	463.0 / 219.0	3.03	2269.209063	2500.00	90.77
PFOS_1	499.0 / 80.0	3.03	2206.238231	2500.00	88.25
PFOS_2	499.0 / 99.0	3.03	2222.133669	2500.00	88.89
PFDA_1	513.0 / 469.0	3.38	2423.527279	2500.00	96.94
PFDA_2	513.0 / 219.0	3.38	2188.869595	2500.00	87.55
PFUnA_1	563.0 / 519.0	3.70	2395.483046	2500.00	95.82
PFUnA_2	563.0 / 269.0	3.70	2488.207974	2500.00	99.53
PFDoA_1	613.0 / 569.0	3.98	2530.007922	2500.00	101.20
PFDoA_2	613.0 / 319.0	3.98	2672.475012	2500.00	106.90
PFTrDA_1	663.0 / 619.0	4.22	2644.163950	2500.00	105.77
PFTrDA_2	663.0 / 169.0	4.22	2663.453678	2500.00	106.54
PFTeDA_1	713.0 / 669.0	4.44	2573.191179	2500.00	102.93
PFTeDA_2	713.0 / 169.0	4.43	2583.501905	2500.00	103.34
NMeFOSAA_1	570.0 / 419.0	3.53	2965.743023	2500.00	118.63
NMeFOSAA_2	570.0 / 512.0	3.53	2702.293657	2500.00	108.09
NEtFOSAA_1	584.0 / 419.0	3.69	2480.198322	2500.00	99.21
NEtFOSAA_2	584.0 / 483.0	3.69	2898.654998	2500.00	115.95

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QC Summary Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	974.459124	1010.00	96.48
PFBS_2	298.9 / 99.0	1.53	984.314044	1010.00	97.46
PFHxA_1	313.0 / 269.0	1.84	918.697425	1010.00	90.96
PFHxA_2	313.0 / 119.0	1.84	917.862692	1010.00	90.88
PFHpA_1	363.0 / 319.0	2.24	807.375743	1000.00	80.74
PFHpA_2	363.0 / 169.0	2.24	789.987798	1000.00	79.00
PFHxS_1	399.0 / 80.0	2.26	925.563822	1010.00	91.64
PFHxS_2	399.0 / 99.0	2.26	920.902595	1010.00	91.18
PFOA_1	413.0 / 369.0	2.64	834.756026	1000.00	83.48
PFOA_2	413.0 / 169.0	2.64	845.599943	1000.00	84.56
PFNA_1	463.0 / 419.0	3.03	903.533034	1000.00	90.35
PFNA_2	463.0 / 219.0	3.03	886.095368	1000.00	88.61
PFOS_1	499.0 / 80.0	3.03	1031.633327	1000.00	103.16
PFOS_2	499.0 / 99.0	3.03	1047.276826	1000.00	104.73
PFDA_1	513.0 / 469.0	3.38	1020.531203	1000.00	102.05
PFDA_2	513.0 / 219.0	3.38	1027.740100	1000.00	102.77
PFUnA_1	563.0 / 519.0	3.70	959.897932	1000.00	95.99
PFUnA_2	563.0 / 269.0	3.69	910.524632	1000.00	91.05
PFDoA_1	613.0 / 569.0	3.98	973.609436	1000.00	97.36
PFDoA_2	613.0 / 319.0	3.98	1013.883407	1000.00	101.39
PFTrDA_1	663.0 / 619.0	4.22	1002.169038	1000.00	100.22
PFTrDA_2	663.0 / 169.0	4.22	1030.981655	1000.00	103.10
PFTeDA_1	713.0 / 669.0	4.43	1013.671368	1000.00	101.37
PFTeDA_2	713.0 / 169.0	4.43	1014.143147	1000.00	101.41
NMeFOSAA_1	570.0 / 419.0	3.53	1060.683055	1000.00	106.07
NMeFOSAA_2	570.0 / 512.0	3.53	873.218164	1000.00	87.32
NEtFOSAA_1	584.0 / 419.0	3.69	907.899063	1000.00	90.79
NEtFOSAA_2	584.0 / 483.0	3.69	721.367752	1000.00	72.14

Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.96	249.050713	250.00	99.62
d3-MeFOSAA	573.0 / 419.0	3.52	240.151495	250.00	96.06
d5-EtFOSAA	589.0 / 419.0	3.68	215.693399	250.00	86.28
13C5-PFHxA	318.0 / 273.0	1.83	253.703004	250.00	101.48
13C4-PFHpA	367.0 / 322.0	2.23	255.340283	250.00	102.14
13C8-PFOA	421.0 / 376.0	2.63	279.453097	250.00	111.78
13C9-PFNA	472.0 / 427.0	3.01	295.245165	250.00	118.10
13C6-PFDA	519.0 / 474.0	3.37	249.663304	250.00	99.87
13C7-PFUnA	570.0 / 525.0	3.68	252.400097	250.00	100.96
13C2-PFTeDA	715.0 / 670.0	4.42	240.677736	250.00	96.27
13C3-PFBS	302.0 / 99.0	1.52	200.782472	232.25	86.45
13C3-PFHxS	402.0 / 99.0	2.25	244.099953	236.50	103.21
13C8-PFOS	507.0 / 99.0	3.02	234.963362	239.25	98.21

QC Summary Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.96	252.577447	250.00	101.03
d3-MeFOSAA	573.0 / 419.0	3.52	261.066600	250.00	104.43
d5-EtFOSAA	589.0 / 419.0	3.68	311.544389	250.00	124.62
13C5-PFHxA	318.0 / 273.0	1.83	265.867654	250.00	106.35
13C4-PFHpA	367.0 / 322.0	2.23	246.903056	250.00	98.76
13C8-PFOA	421.0 / 376.0	2.63	268.778426	250.00	107.51
13C9-PFNA	472.0 / 427.0	3.01	280.852546	250.00	112.34
13C6-PFDA	519.0 / 474.0	3.36	246.763154	250.00	98.71
13C7-PFUnA	570.0 / 525.0	3.68	259.082819	250.00	103.63
13C2-PFTeDA	715.0 / 670.0	4.42	225.555711	250.00	90.22
13C3-PFBS	302.0 / 99.0	1.51	232.647581	232.25	100.17
13C3-PFHxS	402.0 / 99.0	2.25	257.585777	236.50	108.92
13C8-PFOS	507.0 / 99.0	3.01	250.267566	239.25	104.61

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QC Summary Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.97	258.007645	250.00	103.20
d3-MeFOSAA	573.0 / 419.0	3.52	224.039865	250.00	89.62
d5-EtFOSAA	589.0 / 419.0	3.68	259.242306	250.00	103.70
13C5-PFHxA	318.0 / 273.0	1.83	244.902285	250.00	97.96
13C4-PFHpA	367.0 / 322.0	2.23	234.265770	250.00	93.71
13C8-PFOA	421.0 / 376.0	2.63	257.338598	250.00	102.94
13C9-PFNA	472.0 / 427.0	3.02	247.098072	250.00	98.84
13C6-PFDA	519.0 / 474.0	3.36	258.339166	250.00	103.34
13C7-PFUnA	570.0 / 525.0	3.68	262.004974	250.00	104.80
13C2-PFTeDA	715.0 / 670.0	4.43	246.578254	250.00	98.63
13C3-PFBS	302.0 / 99.0	1.52	210.194712	232.25	90.50
13C3-PFHxS	402.0 / 99.0	2.26	217.994166	236.50	92.18
13C8-PFOS	507.0 / 99.0	3.01	219.996842	239.25	91.95

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QC Summary Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.97	259.215830	250.00	103.69
d3-MeFOSAA	573.0 / 419.0	3.53	212.732280	250.00	85.09
d5-EtFOSAA	589.0 / 419.0	3.69	238.570534	250.00	95.43
13C5-PFHxA	318.0 / 273.0	1.82	266.017188	250.00	106.41
13C4-PFHpA	367.0 / 322.0	2.23	268.964631	250.00	107.59
13C8-PFOA	421.0 / 376.0	2.63	257.258600	250.00	102.90
13C9-PFNA	472.0 / 427.0	3.01	272.558581	250.00	109.02
13C6-PFDA	519.0 / 474.0	3.37	269.629741	250.00	107.85
13C7-PFUnA	570.0 / 525.0	3.68	263.150753	250.00	105.26
13C2-PFTeDA	715.0 / 670.0	4.43	237.199622	250.00	94.88
13C3-PFBS	302.0 / 99.0	1.51	219.795852	232.25	94.64
13C3-PFHxS	402.0 / 99.0	2.25	223.466863	236.50	94.49
13C8-PFOS	507.0 / 99.0	3.01	264.102573	239.25	110.39

QC Summary Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.97	241.840919	250.00	96.74
d3-MeFOSAA	573.0 / 419.0	3.53	216.252413	250.00	86.50
d5-EtFOSAA	589.0 / 419.0	3.69	260.864117	250.00	104.35
13C5-PFHxA	318.0 / 273.0	1.83	263.142202	250.00	105.26
13C4-PFHpA	367.0 / 322.0	2.23	269.211058	250.00	107.68
13C8-PFOA	421.0 / 376.0	2.63	285.991381	250.00	114.40
13C9-PFNA	472.0 / 427.0	3.02	278.495159	250.00	111.40
13C6-PFDA	519.0 / 474.0	3.37	235.767853	250.00	94.31
13C7-PFUnA	570.0 / 525.0	3.68	249.459090	250.00	99.78
13C2-PFTeDA	715.0 / 670.0	4.43	228.589928	250.00	91.44
13C3-PFBS	302.0 / 99.0	1.51	207.857195	232.25	89.50
13C3-PFHxS	402.0 / 99.0	2.25	223.748986	236.50	94.61
13C8-PFOS	507.0 / 99.0	3.02	223.986927	239.25	93.62

BATTELLE

Summary Quant Report

Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	326299.85	1116.333150	294.0	false
PFBS_2	298.9 / 99.0	1.53	95654.48	1111.905753	255.1	false
PFHxA_1	313.0 / 269.0	1.85	215204.19	971.237452	46.3	false
PFHxA_2	313.0 / 119.0	1.85	15616.00	1014.998847	27.6	false
PFHpA_1	363.0 / 319.0	2.24	192228.20	885.762834	71.3	false
PFHpA_2	363.0 / 169.0	2.25	3515.94	823.742767	45.5	false
PFHxS_1	399.0 / 80.0	2.27	311634.77	893.448263	181.9	false
PFHxS_2	399.0 / 99.0	2.27	88732.78	894.022753	373.1	false
PFOA_1	413.0 / 369.0	2.64	251449.25	904.476779	147.7	false
PFOA_2	413.0 / 169.0	2.64	14720.36	821.562878	103.8	false
PFNA_1	463.0 / 419.0	3.03	224213.95	875.909235	169.3	false
PFNA_2	463.0 / 219.0	3.03	70477.63	890.057205	167.4	false
PFOS_1	499.0 / 80.0	3.03	395057.23	915.195881	119.3	true
PFOS_2	499.0 / 99.0	3.03	69335.57	887.163253	261.9	false
PFDA_1	513.0 / 469.0	3.38	238581.19	1017.457860	236.1	false
PFDA_2	513.0 / 219.0	3.38	11080.24	972.619130	115.4	false
PFUnA_1	563.0 / 519.0	3.69	245714.34	1010.148911	212.6	false
PFUnA_2	563.0 / 269.0	3.69	13482.19	1008.854852	132.7	false
PFDoA_1	613.0 / 569.0	3.98	221378.78	1017.301356	238.0	false
PFDoA_2	613.0 / 319.0	3.97	36053.23	1024.352918	216.6	false
PFTrDA_1	663.0 / 619.0	4.22	215877.88	1127.958999	356.4	false
PFTrDA_2	663.0 / 169.0	4.22	13094.30	1067.801351	250.5	false
PFTeDA_1	713.0 / 669.0	4.43	219657.94	1082.338578	626.0	false
PFTeDA_2	713.0 / 169.0	4.43	10541.33	1083.852728	416.5	false
NMeFOSAA_1	570.0 / 419.0	3.53	32345.28	992.889949	275.2	false
NMeFOSAA_2	570.0 / 512.0	3.53	16010.58	877.311431	191.5	false
NEtFOSAA_1	584.0 / 419.0	3.69	34570.32	1127.984070	310.5	false
NEtFOSAA_2	584.0 / 483.0	3.69	1898.04	958.925191	75.3	false

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Summary Quant Report

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Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	927546.32	2562.158854	501.4	false
PFBS_2	298.9 / 99.0	1.53	268458.69	2523.811438	383.9	false
PFHxA_1	313.0 / 269.0	1.84	660208.96	2210.407494	100.4	false
PFHxA_2	313.0 / 119.0	1.84	46684.19	2224.902959	62.7	false
PFHpA_1	363.0 / 319.0	2.24	571853.13	2108.523934	145.0	false
PFHpA_2	363.0 / 169.0	2.24	10900.29	2082.294087	108.5	false
PFHxS_1	399.0 / 80.0	2.26	895941.54	2262.286719	218.8	false
PFHxS_2	399.0 / 99.0	2.26	264064.19	2363.136829	383.3	false
PFOA_1	413.0 / 369.0	2.64	759035.37	2186.203668	352.5	false
PFOA_2	413.0 / 169.0	2.64	47753.26	2141.091874	239.0	false
PFNA_1	463.0 / 419.0	3.02	693374.09	2189.921889	421.6	false
PFNA_2	463.0 / 219.0	3.02	203135.56	2077.266124	323.2	false
PFOS_1	499.0 / 80.0	3.02	1205971.52	2578.120772	176.5	false
PFOS_2	499.0 / 99.0	3.02	225754.17	2723.056815	415.9	false
PFDA_1	513.0 / 469.0	3.38	715120.56	2364.317466	277.0	false
PFDA_2	513.0 / 219.0	3.37	30252.88	2201.311331	220.8	false
PFUnA_1	563.0 / 519.0	3.69	726891.43	2215.286564	325.5	false
PFUnA_2	563.0 / 269.0	3.69	39268.12	2292.018710	189.6	false
PFDoA_1	613.0 / 569.0	3.97	695380.61	2456.729993	364.6	false
PFDoA_2	613.0 / 319.0	3.97	110084.72	2503.451892	359.8	false
PFTrDA_1	663.0 / 619.0	4.22	622967.70	2698.215172	618.3	false
PFTrDA_2	663.0 / 169.0	4.21	38993.43	2656.127469	369.7	false
PFTeDA_1	713.0 / 669.0	4.43	644351.33	2622.647058	1002.6	false
PFTeDA_2	713.0 / 169.0	4.43	30118.09	2581.993222	574.2	false
NMeFOSAA_1	570.0 / 419.0	3.53	93132.54	2550.890367	412.2	false
NMeFOSAA_2	570.0 / 512.0	3.53	49343.74	2461.204487	378.0	false
NEtFOSAA_1	584.0 / 419.0	3.69	91152.16	1914.531767	550.4	false
NEtFOSAA_2	584.0 / 483.0	3.69	6792.34	2257.930143	163.6	false

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Summary Quant Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	324076.10	970.519928	348.4	false
PFBS_2	298.9 / 99.0	1.53	96058.62	976.869488	261.3	false
PFHxA_1	313.0 / 269.0	1.84	231726.04	904.541993	54.2	false
PFHxA_2	313.0 / 119.0	1.84	18021.32	1012.384838	42.5	false
PFHpA_1	363.0 / 319.0	2.24	202898.61	849.658216	88.2	false
PFHpA_2	363.0 / 169.0	2.25	4312.76	918.365917	64.1	false
PFHxS_1	399.0 / 80.0	2.27	317868.95	932.340067	189.6	false
PFHxS_2	399.0 / 99.0	2.26	91039.18	938.925801	283.3	false
PFOA_1	413.0 / 369.0	2.64	277494.55	906.239590	177.4	false
PFOA_2	413.0 / 169.0	2.64	15942.00	808.029972	129.4	false
PFNA_1	463.0 / 419.0	3.03	246843.24	958.857816	210.3	false
PFNA_2	463.0 / 219.0	3.03	76257.07	958.111137	209.1	false
PFOS_1	499.0 / 80.0	3.03	419584.36	957.054200	119.5	false
PFOS_2	499.0 / 99.0	3.03	79256.88	999.473654	218.3	false
PFDA_1	513.0 / 469.0	3.38	261534.45	982.570105	266.6	false
PFDA_2	513.0 / 219.0	3.38	12468.42	962.910872	135.4	false
PFUnA_1	563.0 / 519.0	3.70	272849.31	985.293525	206.3	false
PFUnA_2	563.0 / 269.0	3.69	16335.39	1078.119913	146.4	false
PFDoA_1	613.0 / 569.0	3.98	242760.69	980.524956	290.8	false
PFDoA_2	613.0 / 319.0	3.98	43496.14	1093.385687	255.6	false
PFTrDA_1	663.0 / 619.0	4.22	219714.58	1019.295145	411.8	false
PFTrDA_2	663.0 / 169.0	4.22	14889.00	1080.456762	259.6	false
PFTeDA_1	713.0 / 669.0	4.43	224584.78	983.249373	648.1	false
PFTeDA_2	713.0 / 169.0	4.43	10663.75	972.260718	421.7	false
NMeFOSAA_1	570.0 / 419.0	3.53	30157.33	903.363198	285.7	false
NMeFOSAA_2	570.0 / 512.0	3.53	16849.34	907.307691	186.8	false
NEtFOSAA_1	584.0 / 419.0	3.69	32817.65	824.951148	475.1	false
NEtFOSAA_2	584.0 / 483.0	3.69	1901.16	727.569297	72.2	false

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Summary Quant Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	938895.84	2486.177445	623.7	false
PFBS_2	298.9 / 99.0	1.53	279716.14	2520.387620	537.9	false
PFHxA_1	313.0 / 269.0	1.84	669185.45	2162.030102	122.6	false
PFHxA_2	313.0 / 119.0	1.84	52307.15	2402.722028	82.6	false
PFHpA_1	363.0 / 319.0	2.24	594806.43	2210.173211	175.8	false
PFHpA_2	363.0 / 169.0	2.24	12100.34	2331.453782	156.0	false
PFHxS_1	399.0 / 80.0	2.26	925495.43	2437.554085	238.8	false
PFHxS_2	399.0 / 99.0	2.26	257629.43	2406.276274	408.7	false
PFOA_1	413.0 / 369.0	2.64	826126.71	2397.133761	420.3	false
PFOA_2	413.0 / 169.0	2.64	50126.42	2265.213532	352.9	false
PFNA_1	463.0 / 419.0	3.03	722637.76	2269.608310	391.3	false
PFNA_2	463.0 / 219.0	3.03	223279.68	2269.209063	385.6	false
PFOS_1	499.0 / 80.0	3.03	1247222.62	2206.238231	188.2	false
PFOS_2	499.0 / 99.0	3.03	223058.78	2222.133669	643.6	false
PFDA_1	513.0 / 469.0	3.38	783354.05	2423.527279	388.8	false
PFDA_2	513.0 / 219.0	3.38	32154.65	2188.869595	189.2	false
PFUnA_1	563.0 / 519.0	3.70	781269.52	2395.483046	325.8	false
PFUnA_2	563.0 / 269.0	3.70	42235.66	2488.207974	230.3	false
PFDoA_1	613.0 / 569.0	3.98	718539.37	2530.007922	478.8	false
PFDoA_2	613.0 / 319.0	3.98	117659.60	2672.475012	406.8	false
PFTrDA_1	663.0 / 619.0	4.22	627952.99	2644.163950	550.1	false
PFTrDA_2	663.0 / 169.0	4.22	40212.02	2663.453678	464.7	false
PFTeDA_1	713.0 / 669.0	4.44	650247.36	2573.191179	831.3	false
PFTeDA_2	713.0 / 169.0	4.43	30992.82	2583.501905	682.2	false
NMeFOSAA_1	570.0 / 419.0	3.53	97187.41	2965.743023	516.4	false
NMeFOSAA_2	570.0 / 512.0	3.53	48634.01	2702.293657	301.2	false
NEtFOSAA_1	584.0 / 419.0	3.69	100305.77	2480.198322	591.4	false
NEtFOSAA_2	584.0 / 483.0	3.69	7364.25	2898.654998	227.5	false

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Summary Quant Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	343012.64	974.459124	330.4	false
PFBS_2	298.9 / 99.0	1.53	102035.10	984.314044	280.0	false
PFHxA_1	313.0 / 269.0	1.84	252800.30	918.697425	62.2	false
PFHxA_2	313.0 / 119.0	1.84	17486.86	917.862692	46.2	false
PFHpA_1	363.0 / 319.0	2.24	215146.55	807.375743	100.0	false
PFHpA_2	363.0 / 169.0	2.24	4150.92	789.987798	53.9	false
PFHxS_1	399.0 / 80.0	2.26	345190.27	925.563822	189.5	false
PFHxS_2	399.0 / 99.0	2.26	97675.77	920.902595	289.9	false
PFOA_1	413.0 / 369.0	2.64	285070.04	834.756026	193.9	false
PFOA_2	413.0 / 169.0	2.64	18651.13	845.599943	146.7	false
PFNA_1	463.0 / 419.0	3.03	261607.17	903.533034	233.2	false
PFNA_2	463.0 / 219.0	3.03	79283.81	886.095368	175.6	false
PFOS_1	499.0 / 80.0	3.03	469677.48	1031.633327	126.0	false
PFOS_2	499.0 / 99.0	3.03	86022.61	1047.276826	233.8	false
PFDA_1	513.0 / 469.0	3.38	282867.11	1020.531203	242.1	false
PFDA_2	513.0 / 219.0	3.38	13757.46	1027.740100	155.9	false
PFUnA_1	563.0 / 519.0	3.70	288567.68	959.897932	224.0	false
PFUnA_2	563.0 / 269.0	3.69	15168.96	910.524632	128.3	false
PFDoA_1	613.0 / 569.0	3.98	257796.54	973.609436	265.3	false
PFDoA_2	613.0 / 319.0	3.98	43413.51	1013.883407	252.9	false
PFTrDA_1	663.0 / 619.0	4.22	228532.27	1002.169038	357.1	false
PFTrDA_2	663.0 / 169.0	4.22	15046.23	1030.981655	291.7	false
PFTeDA_1	713.0 / 669.0	4.43	244763.53	1013.671368	649.2	false
PFTeDA_2	713.0 / 169.0	4.43	11748.26	1014.143147	432.0	false
NMeFOSAA_1	570.0 / 419.0	3.53	36158.83	1060.683055	311.4	false
NMeFOSAA_2	570.0 / 512.0	3.53	16731.33	873.218164	205.2	false
NEtFOSAA_1	584.0 / 419.0	3.69	37603.10	907.899063	378.9	false
NEtFOSAA_2	584.0 / 483.0	3.69	1954.52	721.367752	60.9	true

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Summary Quant Report

Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	58979.14	249.050713	753.8	false
d3-MeFOSAA	573.0 / 419.0	3.52	8688.20	240.151495	116.6	false
d5-EtFOSAA	589.0 / 419.0	3.68	7924.98	215.693399	104.8	false
13C5-PFHxA	318.0 / 273.0	1.83	51040.06	253.703004	396.3	false
13C4-PFHpA	367.0 / 322.0	2.23	56427.26	255.340283	436.2	false
13C8-PFOA	421.0 / 376.0	2.63	65385.03	279.453097	891.3	false
13C9-PFNA	472.0 / 427.0	3.01	66179.63	295.245165	809.1	false
13C6-PFDA	519.0 / 474.0	3.37	58184.13	249.663304	594.5	false
13C7-PFUnA	570.0 / 525.0	3.68	59041.28	252.400097	387.6	false
13C2-PFTeDA	715.0 / 670.0	4.42	45312.68	240.677736	1029.3	false
13C3-PFBS	302.0 / 99.0	1.52	24753.26	200.782472	325.6	false
13C3-PFHxS	402.0 / 99.0	2.25	22688.61	244.099953	242.7	false
13C8-PFOS	507.0 / 99.0	3.02	22622.89	234.963362	143.5	false

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Summary Quant Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	77802.76	252.577447	841.4	false
d3-MeFOSAA	573.0 / 419.0	3.52	10020.09	261.066600	94.9	false
d5-EtFOSAA	589.0 / 419.0	3.68	12143.88	311.544389	131.1	false
13C5-PFHxA	318.0 / 273.0	1.83	68378.64	265.867654	535.7	false
13C4-PFHpA	367.0 / 322.0	2.23	69753.42	246.903056	335.8	false
13C8-PFOA	421.0 / 376.0	2.63	80395.77	268.778426	1006.9	false
13C9-PFNA	472.0 / 427.0	3.01	80480.25	280.852546	942.4	false
13C6-PFDA	519.0 / 474.0	3.36	74803.16	246.763154	408.4	false
13C7-PFUnA	570.0 / 525.0	3.68	78830.57	259.082819	351.7	false
13C2-PFTeDA	715.0 / 670.0	4.42	55236.67	225.555711	1014.0	false
13C3-PFBS	302.0 / 99.0	1.51	30428.54	232.647581	339.3	false
13C3-PFHxS	402.0 / 99.0	2.25	25400.26	257.585777	269.7	false
13C8-PFOS	507.0 / 99.0	3.01	25563.98	250.267566	163.1	false

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Summary Quant Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	67041.39	258.007645	836.9	false
d3-MeFOSAA	573.0 / 419.0	3.52	8862.67	224.039865	113.6	false
d5-EtFOSAA	589.0 / 419.0	3.68	10415.07	259.242306	130.3	false
13C5-PFHxA	318.0 / 273.0	1.83	59058.84	244.902285	362.4	false
13C4-PFHpA	367.0 / 322.0	2.23	62056.18	234.265770	570.1	false
13C8-PFOA	421.0 / 376.0	2.63	72174.02	257.338598	1006.1	false
13C9-PFNA	472.0 / 427.0	3.02	66392.26	247.098072	609.1	false
13C6-PFDA	519.0 / 474.0	3.36	66060.21	258.339166	570.3	false
13C7-PFUnA	570.0 / 525.0	3.68	67247.42	262.004974	493.7	false
13C2-PFTeDA	715.0 / 670.0	4.43	50937.60	246.578254	959.5	false
13C3-PFBS	302.0 / 99.0	1.52	28335.01	210.194712	328.5	false
13C3-PFHxS	402.0 / 99.0	2.26	22155.43	217.994166	198.5	false
13C8-PFOS	507.0 / 99.0	3.01	23161.11	219.996842	163.4	false

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Summary Quant Report

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Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	78088.06	259.215830	646.6	false
d3-MeFOSAA	573.0 / 419.0	3.53	9017.06	212.732280	100.2	false
d5-EtFOSAA	589.0 / 419.0	3.69	10269.89	238.570534	133.5	false
13C5-PFHxA	318.0 / 273.0	1.82	70866.81	266.017188	502.8	false
13C4-PFHpA	367.0 / 322.0	2.23	78706.84	268.964631	424.5	false
13C8-PFOA	421.0 / 376.0	2.63	79705.26	257.258600	1209.6	false
13C9-PFNA	472.0 / 427.0	3.01	80900.10	272.558581	832.5	false
13C6-PFDA	519.0 / 474.0	3.37	79933.74	269.629741	720.6	false
13C7-PFUnA	570.0 / 525.0	3.68	78303.90	263.150753	776.8	false
13C2-PFTeDA	715.0 / 670.0	4.43	56808.12	237.199622	1479.0	false
13C3-PFBS	302.0 / 99.0	1.51	31747.79	219.795852	333.3	false
13C3-PFHxS	402.0 / 99.0	2.25	24335.53	223.466863	234.4	false
13C8-PFOS	507.0 / 99.0	3.01	29792.56	264.102573	156.6	false

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Summary Quant Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	71686.82	241.840919	649.3	false
d3-MeFOSAA	573.0 / 419.0	3.53	9118.72	216.252413	117.2	false
d5-EtFOSAA	589.0 / 419.0	3.69	11171.32	260.864117	137.1	false
13C5-PFHxA	318.0 / 273.0	1.83	63425.62	263.142202	555.2	false
13C4-PFHpA	367.0 / 322.0	2.23	71277.29	269.211058	372.6	false
13C8-PFOA	421.0 / 376.0	2.63	80169.84	285.991381	888.9	false
13C9-PFNA	472.0 / 427.0	3.02	74790.74	278.495159	761.3	false
13C6-PFDA	519.0 / 474.0	3.37	68775.43	235.767853	498.9	false
13C7-PFUnA	570.0 / 525.0	3.68	73040.63	249.459090	431.9	false
13C2-PFTeDA	715.0 / 670.0	4.43	53869.12	228.589928	1199.0	false
13C3-PFBS	302.0 / 99.0	1.51	29867.60	207.857195	389.6	false
13C3-PFHxS	402.0 / 99.0	2.25	24239.85	223.748986	236.8	false
13C8-PFOS	507.0 / 99.0	3.02	25136.18	223.986927	152.5	false

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Summary Ion Ratio Report

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Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.97	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.490	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.050	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.02	PFNA			
PFNA_2	463.0 / 219.0	3.02	PFNA	0.290	0.309	ü
PFOS_1	499.0 / 80.0	3.02	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.190	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.37	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.97	PFDoA			
PFDoA_2	613.0 / 319.0	3.97	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.21	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.530	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.190	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.180	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.560	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.70	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.44	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.500	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.170	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.460	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.050	0.069	ü

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Summary Internal Standard Report

Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	24753.26	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	24753.26	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	51040.06	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	51040.06	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	65717.90	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	65717.90	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	22688.61	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	22688.61	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	65717.90	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	65717.90	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	66179.63	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	66179.63	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	23415.77	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	23415.77	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	58184.13	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	58184.13	250.00
PFUnA_1	563.0 / 519.0	3.69	13C7-PFUnA	570.0 / 525.0	59041.28	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	59041.28	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	58979.14	250.00
PFDoA_2	613.0 / 319.0	3.97	13C2-PFDoA	615.0 / 570.0	58979.14	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	45312.68	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	45312.68	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	45312.68	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	45312.68	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	8688.20	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	8688.20	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	7924.98	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	7924.98	250.00

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Summary Internal Standard Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	30428.54	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	30428.54	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	68378.64	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	68378.64	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	81093.73	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	81093.73	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	25400.26	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	25400.26	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	81093.73	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	81093.73	250.00
PFNA_1	463.0 / 419.0	3.02	13C9-PFNA	472.0 / 427.0	80480.25	250.00
PFNA_2	463.0 / 219.0	3.02	13C9-PFNA	472.0 / 427.0	80480.25	250.00
PFOS_1	499.0 / 80.0	3.02	13C8-PFOS	507.0 / 99.0	24716.07	239.25
PFOS_2	499.0 / 99.0	3.02	13C8-PFOS	507.0 / 99.0	24716.07	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	74803.16	250.00
PFDA_2	513.0 / 219.0	3.37	13C6-PFDA	519.0 / 474.0	74803.16	250.00
PFUnA_1	563.0 / 519.0	3.69	13C7-PFUnA	570.0 / 525.0	78830.57	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	78830.57	250.00
PFDoA_1	613.0 / 569.0	3.97	13C2-PFDoA	615.0 / 570.0	77802.76	250.00
PFDoA_2	613.0 / 319.0	3.97	13C2-PFDoA	615.0 / 570.0	77802.76	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	55236.67	250.00
PFTrDA_2	663.0 / 169.0	4.21	13C2-PFTeDA	715.0 / 670.0	55236.67	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	55236.67	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	55236.67	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	10020.09	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	10020.09	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	12143.88	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	12143.88	250.00

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Summary Internal Standard Report

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Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	28335.01	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	28335.01	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	59058.84	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	59058.84	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	72381.03	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	72381.03	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	22155.43	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	22155.43	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	72381.03	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	72381.03	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	66392.26	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	66392.26	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	23738.95	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	23738.95	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	66060.21	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	66060.21	250.00
PFUnA_1	563.0 / 519.0	3.70	13C7-PFUnA	570.0 / 525.0	67247.42	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	67247.42	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	67041.39	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	67041.39	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	50937.60	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	50937.60	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	50937.60	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	50937.60	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	8862.67	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	8862.67	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	10415.07	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	10415.07	250.00

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Summary Internal Standard Report

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Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	31747.79	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	31747.79	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	70866.81	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	70866.81	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	80435.64	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	80435.64	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	24335.53	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	24335.53	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	80435.64	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	80435.64	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	80900.10	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	80900.10	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	29942.21	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	29942.21	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	79933.74	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	79933.74	250.00
PFUnA_1	563.0 / 519.0	3.70	13C7-PFUnA	570.0 / 525.0	78303.90	250.00
PFUnA_2	563.0 / 269.0	3.70	13C7-PFUnA	570.0 / 525.0	78303.90	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	78088.06	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	78088.06	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	56808.12	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	56808.12	250.00
PFTeDA_1	713.0 / 669.0	4.44	13C2-PFTeDA	715.0 / 670.0	56808.12	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	56808.12	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	9017.06	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	9017.06	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	10269.89	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	10269.89	250.00

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Summary Internal Standard Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	29867.60	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	29867.60	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	63425.62	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	63425.62	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	80866.90	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	80866.90	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	24239.85	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	24239.85	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	80866.90	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	80866.90	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	74790.74	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	74790.74	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	24582.00	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	24582.00	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	68775.43	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	68775.43	250.00
PFUnA_1	563.0 / 519.0	3.70	13C7-PFUnA	570.0 / 525.0	73040.63	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	73040.63	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	71686.82	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	71686.82	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	53869.12	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	53869.12	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	53869.12	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	53869.12	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	9118.72	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	9118.72	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	10797.67	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	10797.67	250.00

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Summary Internal Standard Report

Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	56928.59	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	22540.57	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	22540.57	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	54959.55	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	54959.55	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	54959.55	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	54959.55	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	56928.59	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	56928.59	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	56928.59	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	22540.57	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	22540.57	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	22540.57	239.25

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Summary Internal Standard Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	74049.18	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	23913.38	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	23913.38	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	70260.72	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	70260.72	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	70260.72	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	70260.72	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	74049.18	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	74049.18	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	74049.18	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	23913.38	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	23913.38	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	23913.38	239.25

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Summary Internal Standard Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	62464.07	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	24646.76	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	24646.76	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	65879.42	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	65879.42	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	65879.42	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	65879.42	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	62464.07	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	62464.07	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	62464.07	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	24646.76	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	24646.76	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	24646.76	239.25

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Summary Internal Standard Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	72417.41	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	26409.02	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	26409.02	239.25
13C5-PFHxA	318.0 / 273.0	1.82	13C2-PFOA	415.0 / 370.0	72776.45	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	72776.45	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	72776.45	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	72776.45	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	72417.41	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	72417.41	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	72417.41	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26409.02	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	26409.02	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	26409.02	239.25

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Summary Internal Standard Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	71257.30	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	26272.03	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	26272.03	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	65846.37	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	65846.37	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	65846.37	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	65846.37	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	71257.30	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	71257.30	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	71257.30	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26272.03	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	26272.03	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	26272.03	239.25

Raw Analytical Data

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Summary Quant Report

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Sample Name	JY46 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:35:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	9640.41	42.033977	42.4	true
PFBS_2	298.9 / 99.0	1.53	3004.53	40.540739	28.3	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	2.27	7446.88	42.673804	30.2	true
PFHxS_2	399.0 / 99.0	2.27	3075.45	40.729064	24.5	false
PFOA_1	413.0 / 369.0	2.64	10435.63	50.921098	16.8	false
PFOA_2	413.0 / 169.0	2.63	757.21	48.512475	13.8	false
PFNA_1	463.0 / 419.0	3.03	7500.69	51.731740	14.7	false
PFNA_2	463.0 / 219.0	3.04	2777.25	56.441700	16.8	false
PFOS_1	499.0 / 80.0	2.99	14943.03	68.941649	19.0	true
PFOS_2	499.0 / 99.0	3.04	1818.74	29.184320	19.0	false
PFDA_1	513.0 / 469.0	3.38	10305.64	43.156400	34.3	false
PFDA_2	513.0 / 219.0	3.41	798.80	< 0	22.4	false
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	3.97	7963.72	9.862118	63.3	false
PFDoA_2	613.0 / 319.0	3.98	1275.65	< 0	38.3	false
PFTrDA_1	663.0 / 619.0	4.22	6945.16	12.938958	78.0	false
PFTrDA_2	663.0 / 169.0	4.22	573.83	10.645735	33.6	false
PFTeDA_1	713.0 / 669.0	4.43	7405.80	20.538228	157.2	false
PFTeDA_2	713.0 / 169.0	4.44	497.13	16.589298	46.1	true
NMeFOSAA_1	570.0 / 419.0	3.53	1458.70	3.715060	32.4	false
NMeFOSAA_2	570.0 / 512.0	3.53	745.03	< 0	15.6	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

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Summary Quant Report

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Sample Name	CR817PB-FS(0)	**Injection Vial**	21
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:56:35	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	2.64	60161.43	248.236503	70.5	true
PFOA_2	413.0 / 169.0	2.64	3763.37	236.129372	45.3	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
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	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	CR818LCS-FS(0)	**Injection Vial**	22
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:07:27	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	694816.82	2357.076651	455.4	false
PFBS_2	298.9 / 99.0	1.53	199560.25	2303.872051	291.2	false
PFHxA_1	313.0 / 269.0	1.84	492368.74	2157.488101	81.2	false
PFHxA_2	313.0 / 119.0	1.84	37338.51	2327.185924	56.6	false
PFHpA_1	363.0 / 319.0	2.24	425302.57	2058.963344	125.4	false
PFHpA_2	363.0 / 169.0	2.24	8223.09	2061.972418	106.6	false
PFHxS_1	399.0 / 80.0	2.27	693170.64	2194.446002	310.2	false
PFHxS_2	399.0 / 99.0	2.27	196216.27	2201.495454	453.0	false
PFOA_1	413.0 / 369.0	2.64	665333.77	2512.778718	295.0	true
PFOA_2	413.0 / 169.0	2.64	37595.29	2212.337424	193.2	false
PFNA_1	463.0 / 419.0	3.03	522336.53	2237.745728	329.2	false
PFNA_2	463.0 / 219.0	3.03	164494.09	2279.908363	299.6	false
PFOS_1	499.0 / 80.0	3.03	887303.19	2510.236088	144.0	false
PFOS_2	499.0 / 99.0	3.03	166418.69	2655.571643	405.2	false
PFDA_1	513.0 / 469.0	3.38	571204.43	2464.699732	280.4	false
PFDA_2	513.0 / 219.0	3.38	25677.51	2451.720041	214.7	false
PFUnA_1	563.0 / 519.0	3.69	579214.59	2602.616896	300.6	false
PFUnA_2	563.0 / 269.0	3.69	32515.21	2818.920360	216.4	false
PFDoA_1	613.0 / 569.0	3.98	486773.35	2480.179387	323.1	false
PFDoA_2	613.0 / 319.0	3.97	78585.75	2580.094344	331.5	false
PFTrDA_1	663.0 / 619.0	4.22	436288.93	2417.113971	494.3	false
PFTrDA_2	663.0 / 169.0	4.22	30960.78	2700.533082	412.9	false
PFTeDA_1	713.0 / 669.0	4.43	477848.46	2489.351137	1016.4	false
PFTeDA_2	713.0 / 169.0	4.43	21763.40	2386.298060	700.9	false
NMeFOSAA_1	570.0 / 419.0	3.53	66355.29	2904.178527	432.0	false
NMeFOSAA_2	570.0 / 512.0	3.53	37478.29	2995.121795	244.6	false
NEtFOSAA_1	584.0 / 419.0	3.69	69679.60	2379.213038	468.7	false
NEtFOSAA_2	584.0 / 483.0	3.69	4443.54	2411.408183	132.2	false

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Summary Quant Report

Sample Name	J7785-FS(0)	**Injection Vial**	23
Sample ID	JAX-TCC-FRB-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:18:19	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.52	2607.86	21.385755	9.2	true
PFBS_2	298.9 / 99.0	1.51	1220.70	22.177293	11.3	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	2.64	102676.61	322.811493	76.5	false
PFOA_2	413.0 / 169.0	2.63	6360.89	306.096222	55.8	false
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
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	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	2.64	69265.86	282.663020	66.6	false
PFOA_2	413.0 / 169.0	2.63	3664.06	229.891022	41.3	false
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
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	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7784-FS(0)	**Injection Vial**	25
Sample ID	JAX-TCC-EB03-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:40:02	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	2.64	81903.00	262.531004	80.2	false
PFOA_2	413.0 / 169.0	2.63	4374.33	215.209217	51.0	false
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
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	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

Sample Name	J7778-FS(0)	**Injection Vial**	27
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:12:37	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	984487.10	3609.022847	238.7	false
PFBS_2	298.9 / 99.0	1.53	274604.70	3427.665000	227.1	false
PFHxA_1	313.0 / 269.0	1.83	1494700.36	5200.101703	99.4	false
PFHxA_2	313.0 / 119.0	1.84	97640.76	4810.511722	136.7	false
PFHpA_1	363.0 / 319.0	2.24	602326.84	2384.540479	81.8	false
PFHpA_2	363.0 / 169.0	2.23	14021.59	2882.188762	120.6	false
PFHxS_1	399.0 / 80.0	2.26	10411515.77	27232.867564	546.9	false
PFHxS_2	399.0 / 99.0	2.26	2910930.40	27126.253175	858.5	false
PFOA_1	413.0 / 369.0	2.64	5109697.70	15704.464878	354.7	false
PFOA_2	413.0 / 169.0	2.62	278347.84	13353.354705	374.4	true
PFNA_1	463.0 / 419.0	3.03	131933.12	471.880942	65.4	false
PFNA_2	463.0 / 219.0	3.03	42209.60	487.079860	92.2	false
PFOS_1	499.0 / 80.0	2.92	3718129.57	7695.362530	276.0	false
PFOS_2	499.0 / 99.0	3.00	467159.93	5500.534088	281.7	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7778-FS-D(3)	**Injection Vial**	28
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:23:29	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	2.27	5554015.98	11929.427819	693.7	false
PFHxS_2	399.0 / 99.0	2.27	1572597.54	12026.835185	1061.3	false
PFOA_1	413.0 / 369.0	2.64	2564906.16	7256.865424	301.9	false
PFOA_2	413.0 / 169.0	2.63	127070.69	5610.815676	310.8	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
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	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7775-FS(0)	**Injection Vial**	29
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:34:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	1040740.68	3387.043742	211.5	false
PFBS_2	298.9 / 99.0	1.53	288317.28	3194.846476	208.2	false
PFHxA_1	313.0 / 269.0	1.84	7723152.59	26902.481374	214.6	false
PFHxA_2	313.0 / 119.0	1.84	547763.95	26914.575405	340.4	false
PFHpA_1	363.0 / 319.0	2.24	3791779.60	15269.124710	323.6	false
PFHpA_2	363.0 / 169.0	2.24	67150.05	14168.336793	347.1	false
PFHxS_1	399.0 / 80.0	2.27	8019391.57	18653.299226	614.5	false
PFHxS_2	399.0 / 99.0	2.27	2297153.01	19032.126190	1120.3	false
PFOA_1	413.0 / 369.0	2.64	3421071.30	10773.640116	386.4	false
PFOA_2	413.0 / 169.0	2.64	240523.50	11818.154879	364.4	false
PFNA_1	463.0 / 419.0	3.03	1053767.13	3865.355472	263.5	false
PFNA_2	463.0 / 219.0	3.03	330997.51	3928.980790	307.9	false
PFOS_1	499.0 / 80.0	2.93	17283932.57	35750.668660	342.3	false
PFOS_2	499.0 / 99.0	3.02	2358816.16	27833.668784	585.4	true
PFDA_1	513.0 / 469.0	3.38	8965.31	39.116206	23.9	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7775-FS-D(3)	**Injection Vial**	30
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:45:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.84	3485711.38	11107.505377	189.8	false
PFHxA_2	313.0 / 119.0	1.84	257524.84	11587.579121	238.5	false
PFHpA_1	363.0 / 319.0	2.24	1734602.09	6539.642422	252.0	false
PFHpA_2	363.0 / 169.0	2.24	28633.03	5641.689763	191.1	false
PFHxS_1	399.0 / 80.0	2.26	3707864.06	8925.499815	388.7	false
PFHxS_2	399.0 / 99.0	2.26	1066234.97	9135.319854	706.1	false
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	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	2.93	8571474.25	16370.135806	294.8	false
PFOS_2	499.0 / 99.0	3.02	1175301.89	12793.146608	387.9	true
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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7775-FS-D(5)	**Injection Vial**	31
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:56:05	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	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	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	2.93	3155240.01	5872.308963	169.9	false
PFOS_2	499.0 / 99.0	3.03	445184.69	4707.589446	327.9	true
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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7776-FS(0)	**Injection Vial**	32
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:06:57	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	962616.21	3482.720785	191.8	false
PFBS_2	298.9 / 99.0	1.53	256723.92	3163.010913	216.0	false
PFHxA_1	313.0 / 269.0	1.84	6966110.22	28424.643461	211.9	false
PFHxA_2	313.0 / 119.0	1.84	486522.22	28002.220774	316.6	false
PFHpA_1	363.0 / 319.0	2.24	3433784.15	16551.824004	315.8	false
PFHpA_2	363.0 / 169.0	2.25	58472.88	14770.031427	238.3	false
PFHxS_1	399.0 / 80.0	2.27	6885326.59	18629.968654	588.1	false
PFHxS_2	399.0 / 99.0	2.27	2007316.21	19345.632465	1145.3	false
PFOA_1	413.0 / 369.0	2.64	3013289.51	11359.182037	371.1	false
PFOA_2	413.0 / 169.0	2.64	220564.69	12972.818478	402.4	false
PFNA_1	463.0 / 419.0	3.03	958799.56	4055.905501	249.9	false
PFNA_2	463.0 / 219.0	3.03	289242.98	3960.421763	351.8	false
PFOS_1	499.0 / 80.0	2.93	14892283.60	38387.674267	331.1	false
PFOS_2	499.0 / 99.0	3.02	2064203.82	30355.663278	415.6	true
PFDA_1	513.0 / 469.0	3.38	6405.51	35.086450	20.9	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7776-FS-D(3)	**Injection Vial**	33
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:17:49	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.84	3081123.61	11535.469243	159.5	false
PFHxA_2	313.0 / 119.0	1.84	226030.94	11948.708126	211.9	false
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	2.27	3129488.32	8914.221891	449.8	false
PFHxS_2	399.0 / 99.0	2.27	909076.24	9216.538739	999.9	false
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	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	2.93	7099433.08	14991.810053	291.3	false
PFOS_2	499.0 / 99.0	3.03	1045342.05	12578.678984	433.0	true
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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7776-FS-D(5)	**Injection Vial**	34
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:28:40	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	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	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
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	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7779-FS(0)	**Injection Vial**	35
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:12:07	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	1511767.08	4549.337422	212.1	false
PFBS_2	298.9 / 99.0	1.53	398800.20	4087.522629	276.9	false
PFHxA_1	313.0 / 269.0	1.84	2899401.43	10003.619966	172.1	false
PFHxA_2	313.0 / 119.0	1.84	217180.22	10582.491258	170.5	false
PFHpA_1	363.0 / 319.0	2.24	983072.20	3913.254321	168.2	false
PFHpA_2	363.0 / 169.0	2.24	17203.71	3568.904388	172.0	false
PFHxS_1	399.0 / 80.0	2.26	4471762.15	10650.310702	451.8	false
PFHxS_2	399.0 / 99.0	2.26	1280193.00	10854.805889	733.2	false
PFOA_1	413.0 / 369.0	2.64	3723953.57	11549.387056	438.5	false
PFOA_2	413.0 / 169.0	2.63	320829.36	15522.765990	340.7	false
PFNA_1	463.0 / 419.0	3.03	499551.26	1910.578683	193.0	false
PFNA_2	463.0 / 219.0	3.03	152345.00	1885.610384	230.1	false
PFOS_1	499.0 / 80.0	3.03	16959495.52	38220.458201	396.2	false
PFOS_2	499.0 / 99.0	3.03	2934880.93	37732.024909	1095.2	false
PFDA_1	513.0 / 469.0	3.38	130005.85	518.006733	128.2	false
PFDA_2	513.0 / 219.0	3.37	5096.11	346.437640	61.2	false
PFUnA_1	563.0 / 519.0	3.69	58645.19	243.658344	104.6	false
PFUnA_2	563.0 / 269.0	3.69	4127.80	238.768686	50.5	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7779-FS-D(3)	**Injection Vial**	36
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:22:59	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	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	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.03	3614790.52	7352.748687	265.4	false
PFOS_2	499.0 / 99.0	3.03	630215.96	7289.013447	576.4	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7779-FS-D(5)	**Injection Vial**	37
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:33:50	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	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	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
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	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7780-FS(0)	**Injection Vial**	38
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:44:42	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	1180948.31	3550.748250	252.5	false
PFBS_2	298.9 / 99.0	1.53	354970.19	3633.120221	289.2	false
PFHxA_1	313.0 / 269.0	1.84	6882541.72	25518.896321	241.5	false
PFHxA_2	313.0 / 119.0	1.84	481423.95	25180.479174	257.4	false
PFHpA_1	363.0 / 319.0	2.24	1636943.08	6991.795212	259.8	false
PFHpA_2	363.0 / 169.0	2.24	30458.46	6802.100994	197.6	false
PFHxS_1	399.0 / 80.0	2.26	3754303.97	10480.393764	393.4	false
PFHxS_2	399.0 / 99.0	2.26	1098918.87	10920.972075	660.1	false
PFOA_1	413.0 / 369.0	2.64	3504203.25	11686.195714	402.4	false
PFOA_2	413.0 / 169.0	2.63	280259.48	14581.873957	374.1	false
PFNA_1	463.0 / 419.0	3.02	649133.61	2381.600174	304.2	false
PFNA_2	463.0 / 219.0	3.02	199677.12	2370.740188	265.8	false
PFOS_1	499.0 / 80.0	3.02	13913411.41	39059.247688	419.7	false
PFOS_2	499.0 / 99.0	3.02	2389448.41	38267.702547	969.6	false
PFDA_1	513.0 / 469.0	3.36	149083.25	524.499020	151.6	false
PFDA_2	513.0 / 219.0	3.36	7907.96	519.467615	42.6	false
PFUnA_1	563.0 / 519.0	3.69	107015.56	414.120561	129.3	false
PFUnA_2	563.0 / 269.0	3.69	7193.01	453.304189	70.8	false
PFDoA_1	613.0 / 569.0	3.97	5969.84	< 0	32.1	false
PFDoA_2	613.0 / 319.0	4.18	7911.56	88.711907	98.9	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	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	3.68	2169.35	91.912847	44.8	false
NEtFOSAA_2	584.0 / 483.0	3.67	145.88	46.524810	13.1	false

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Summary Quant Report

Sample Name	J7780-FS-D(3)	**Injection Vial**	39
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:55:34	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.84	2941058.85	11318.768043	237.9	false
PFHxA_2	313.0 / 119.0	1.84	222222.78	12075.104173	232.9	false
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	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.02	6411357.21	14242.471853	359.2	false
PFOS_2	499.0 / 99.0	3.02	1192576.93	15092.985570	717.6	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7780-FS-D(5)	**Injection Vial**	40
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:06:26	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	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	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
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	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7777-FS(0)	**Injection Vial**	41
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:17:18	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	3420493.21	9296.423168	324.2	false
PFBS_2	298.9 / 99.0	1.53	932165.17	8630.473311	400.6	false
PFHxA_1	313.0 / 269.0	1.83	10272218.40	34151.075606	230.9	false
PFHxA_2	313.0 / 119.0	1.84	676478.66	31721.032329	386.3	false
PFHpA_1	363.0 / 319.0	2.24	1962909.09	9208.127424	266.2	false
PFHpA_2	363.0 / 169.0	2.23	39768.44	9764.225696	220.0	false
PFHxS_1	399.0 / 80.0	2.26	18753847.41	50077.309808	693.2	false
PFHxS_2	399.0 / 99.0	2.26	5774065.47	54940.748311	922.7	false
PFOA_1	413.0 / 369.0	2.64	5921763.58	21688.185207	500.0	false
PFOA_2	413.0 / 169.0	2.63	488084.64	27898.833831	388.2	false
PFNA_1	463.0 / 419.0	3.03	8169044.10	34901.004997	903.9	false
PFNA_2	463.0 / 219.0	3.03	2411134.04	33344.901720	646.4	false
PFOS_1	499.0 / 80.0	3.01	76167161.30	178077.552798	465.7	false
PFOS_2	499.0 / 99.0	3.03	13639019.68	182022.894205	1645.2	false
PFDA_1	513.0 / 469.0	3.38	451312.51	1707.866458	249.8	false
PFDA_2	513.0 / 219.0	3.38	22497.82	1853.851851	166.2	false
PFUnA_1	563.0 / 519.0	3.69	146093.03	554.048883	159.1	false
PFUnA_2	563.0 / 269.0	3.69	8140.34	518.252567	87.1	false
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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7777-FS-D(3)	**Injection Vial**	42
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:28:10	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.83	5123171.58	15428.905859	195.4	false
PFHxA_2	313.0 / 119.0	1.84	351362.37	14936.268427	285.5	false
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	2.26	9360563.38	21494.015483	549.8	false
PFHxS_2	399.0 / 99.0	2.26	2883379.97	23584.578608	902.7	false
PFOA_1	413.0 / 369.0	2.64	3197143.55	9895.560077	432.8	false
PFOA_2	413.0 / 169.0	2.63	260594.30	12581.831471	347.8	false
PFNA_1	463.0 / 419.0	3.03	4489053.71	15444.161586	674.3	false
PFNA_2	463.0 / 219.0	3.03	1354447.91	15083.558822	584.1	false
PFOS_1	499.0 / 80.0	3.03	41951743.68	96390.214891	468.1	false
PFOS_2	499.0 / 99.0	3.03	7171655.24	94046.633930	1054.7	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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.84	791039.00	2660.315711	108.6	false
PFHxA_2	313.0 / 119.0	1.84	53949.79	2579.551100	87.6	false
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	2.27	1579702.35	3958.814850	327.0	false
PFHxS_2	399.0 / 99.0	2.27	470245.48	4186.735645	773.8	false
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	3.04	853186.36	2767.056973	341.5	false
PFNA_2	463.0 / 219.0	3.03	264370.89	2774.583687	384.1	false
PFOS_1	499.0 / 80.0	3.03	7299051.80	14606.062497	287.0	true
PFOS_2	499.0 / 99.0	3.03	1287119.08	14674.785018	898.0	true
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	N/A	N/A	N/A	N/A	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

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Summary Quant Report

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Sample Name	JY46 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:35:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	63643.52	235.348356	819.0	false
d3-MeFOSAA	573.0 / 419.0	3.52	7866.31	212.071382	123.1	false
d5-EtFOSAA	589.0 / 419.0	3.68	8486.95	225.291937	104.0	false
13C5-PFHxA	318.0 / 273.0	1.83	58581.26	238.709081	505.1	false
13C4-PFHpA	367.0 / 322.0	2.23	61190.62	226.992200	367.2	false
13C8-PFOA	421.0 / 376.0	2.63	73092.64	256.094337	1056.7	false
13C9-PFNA	472.0 / 427.0	3.01	68712.83	251.299761	877.4	false
13C6-PFDA	519.0 / 474.0	3.36	68222.64	256.357678	557.7	false
13C7-PFUnA	570.0 / 525.0	3.68	68972.52	258.212616	436.5	false
13C2-PFTeDA	715.0 / 670.0	4.42	50077.24	232.929295	925.6	false
13C3-PFBS	302.0 / 99.0	1.52	29473.65	233.175466	325.2	false
13C3-PFHxS	402.0 / 99.0	2.25	21337.71	223.904644	226.8	false
13C8-PFOS	507.0 / 99.0	3.01	23378.90	236.827299	137.7	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:08:10 PM

Sample Name	CR817PB-FS(0)	**Injection Vial**	21
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:56:35	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	49999.71	228.591075	661.0	false
d3-MeFOSAA	573.0 / 419.0	3.52	6794.53	205.673360	114.2	false
d5-EtFOSAA	589.0 / 419.0	3.68	7640.61	227.734733	123.1	false
13C5-PFHxA	318.0 / 273.0	1.83	50275.54	258.892116	362.7	false
13C4-PFHpA	367.0 / 322.0	2.23	51235.04	240.184532	323.1	false
13C8-PFOA	421.0 / 376.0	2.63	60274.79	266.878690	1013.0	false
13C9-PFNA	472.0 / 427.0	3.01	53801.56	248.657117	757.7	false
13C6-PFDA	519.0 / 474.0	3.36	54281.95	252.178485	619.7	false
13C7-PFUnA	570.0 / 525.0	3.68	52745.39	244.129709	480.3	false
13C2-PFTeDA	715.0 / 670.0	4.42	36928.52	212.363764	1061.5	false
13C3-PFBS	302.0 / 99.0	1.52	22002.27	195.444559	389.1	false
13C3-PFHxS	402.0 / 99.0	2.26	17505.81	206.255082	231.5	false
13C8-PFOS	507.0 / 99.0	3.02	18304.51	208.196300	166.3	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:08:14 PM

Sample Name	CR818LCS-FS(0)	**Injection Vial**	22
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:07:27	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	53952.89	212.004728	721.9	false
d3-MeFOSAA	573.0 / 419.0	3.52	6284.84	183.983432	90.2	false
d5-EtFOSAA	589.0 / 419.0	3.68	7441.74	214.507511	95.8	false
13C5-PFHxA	318.0 / 273.0	1.83	52252.22	238.163736	396.8	false
13C4-PFHpA	367.0 / 322.0	2.23	57497.62	238.581474	383.0	false
13C8-PFOA	421.0 / 376.0	2.63	61310.09	240.280783	972.4	false
13C9-PFNA	472.0 / 427.0	3.01	59317.92	242.661466	682.4	false
13C6-PFDA	519.0 / 474.0	3.36	57309.93	228.834482	465.9	false
13C7-PFUnA	570.0 / 525.0	3.68	53398.82	212.425598	370.9	false
13C2-PFTeDA	715.0 / 670.0	4.42	43145.46	213.251772	1032.5	false
13C3-PFBS	302.0 / 99.0	1.52	24789.42	212.955523	295.4	false
13C3-PFHxS	402.0 / 99.0	2.25	20264.88	230.904862	196.6	false
13C8-PFOS	507.0 / 99.0	3.01	19074.57	209.814787	156.4	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:08:18 PM

Sample Name	J7785-FS(0)	**Injection Vial**	23
Sample ID	JAX-TCC-FRB-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:18:19	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	74281.10	241.860186	816.6	false
d3-MeFOSAA	573.0 / 419.0	3.52	10017.62	217.623948	120.2	false
d5-EtFOSAA	589.0 / 419.0	3.68	10543.06	225.523475	160.9	false
13C5-PFHxA	318.0 / 273.0	1.83	66236.88	230.358757	441.1	false
13C4-PFHpA	367.0 / 322.0	2.23	76824.61	243.232207	498.0	false
13C8-PFOA	421.0 / 376.0	2.63	77548.25	231.895854	1183.4	false
13C9-PFNA	472.0 / 427.0	3.01	73741.53	230.176519	621.0	false
13C6-PFDA	519.0 / 474.0	3.36	77951.18	257.910782	569.4	false
13C7-PFUnA	570.0 / 525.0	3.68	74848.03	246.723649	483.0	false
13C2-PFTeDA	715.0 / 670.0	4.42	57907.80	237.164597	1120.8	false
13C3-PFBS	302.0 / 99.0	1.51	32594.09	207.787245	367.3	false
13C3-PFHxS	402.0 / 99.0	2.25	20373.35	172.269618	187.1	false
13C8-PFOS	507.0 / 99.0	3.01	26823.03	218.950788	184.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:08:21 PM

Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	56258.36	204.387146	816.9	false
d3-MeFOSAA	573.0 / 419.0	3.52	8906.22	261.486465	125.8	false
d5-EtFOSAA	589.0 / 419.0	3.68	7096.76	205.162940	126.2	false
13C5-PFHxA	318.0 / 273.0	1.83	52217.41	235.507735	456.8	false
13C4-PFHpA	367.0 / 322.0	2.23	54620.91	224.266635	333.2	false
13C8-PFOA	421.0 / 376.0	2.63	60898.43	236.163139	846.4	false
13C9-PFNA	472.0 / 427.0	3.02	58820.77	238.102826	626.9	false
13C6-PFDA	519.0 / 474.0	3.36	61821.44	228.226677	530.4	false
13C7-PFUnA	570.0 / 525.0	3.68	57132.40	210.132567	392.4	false
13C2-PFTeDA	715.0 / 670.0	4.42	43356.12	198.126992	751.9	false
13C3-PFBS	302.0 / 99.0	1.52	23511.44	202.568941	274.7	false
13C3-PFHxS	402.0 / 99.0	2.25	19890.93	227.308201	188.5	false
13C8-PFOS	507.0 / 99.0	3.01	22436.39	247.517100	138.8	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:08:28 PM

Sample Name	J7784-FS(0)	**Injection Vial**	25
Sample ID	JAX-TCC-EB03-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:40:02	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	69682.03	231.496125	607.3	false
d3-MeFOSAA	573.0 / 419.0	3.52	6867.84	158.892251	110.3	false
d5-EtFOSAA	589.0 / 419.0	3.68	10546.79	240.262453	130.5	false
13C5-PFHxA	318.0 / 273.0	1.82	62826.24	240.014820	380.0	false
13C4-PFHpA	367.0 / 322.0	2.22	70569.62	245.431704	533.9	false
13C8-PFOA	421.0 / 376.0	2.63	76950.73	252.770192	1006.8	false
13C9-PFNA	472.0 / 427.0	3.01	72404.75	248.260736	905.4	false
13C6-PFDA	519.0 / 474.0	3.36	67124.64	226.603008	897.6	false
13C7-PFUnA	570.0 / 525.0	3.68	72163.78	242.709376	483.2	false
13C2-PFTeDA	715.0 / 670.0	4.42	52832.82	220.776789	796.7	false
13C3-PFBS	302.0 / 99.0	1.51	28297.29	192.116723	302.6	false
13C3-PFHxS	402.0 / 99.0	2.25	21860.72	196.857155	152.3	false
13C8-PFOS	507.0 / 99.0	3.01	27222.18	236.647507	145.4	false

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Summary Quant Report

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Sample Name	J7778-FS(0)	**Injection Vial**	27
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:12:37	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	61991.19	216.051436	592.5	false
d3-MeFOSAA	573.0 / 419.0	3.53	8091.64	181.232629	115.2	false
d5-EtFOSAA	589.0 / 419.0	3.69	8090.37	178.423156	100.3	false
13C5-PFHxA	318.0 / 273.0	1.83	65622.67	250.961299	189.1	false
13C4-PFHpA	367.0 / 322.0	2.23	81294.83	283.029498	399.4	false
13C8-PFOA	421.0 / 376.0	2.63	76059.92	250.106435	439.0	false
13C9-PFNA	472.0 / 427.0	3.02	74093.64	254.318427	495.4	false
13C6-PFDA	519.0 / 474.0	3.37	66856.84	236.773908	680.5	false
13C7-PFUnA	570.0 / 525.0	3.68	64640.83	228.075410	569.5	false
13C2-PFTeDA	715.0 / 670.0	4.42	38964.35	170.813176	765.3	false
13C3-PFBS	302.0 / 99.0	1.51	22889.99	150.446990	251.2	false
13C3-PFHxS	402.0 / 99.0	2.25	24316.53	211.985334	179.9	false
13C8-PFOS	507.0 / 99.0	3.01	24426.33	205.567636	137.3	false

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Summary Quant Report

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Printed: 18/09/2018 4:08:37 PM

Sample Name	J7778-FS-D(3)	**Injection Vial**	28
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:23:29	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	70291.30	216.905288	630.2	false
d3-MeFOSAA	573.0 / 419.0	3.52	8948.10	196.891309	107.4	false
d5-EtFOSAA	589.0 / 419.0	3.69	8329.48	180.466632	111.2	false
13C5-PFHxA	318.0 / 273.0	1.83	74762.14	269.050160	216.5	false
13C4-PFHpA	367.0 / 322.0	2.23	89539.35	293.346777	409.8	false
13C8-PFOA	421.0 / 376.0	2.63	81396.87	251.869355	631.4	false
13C9-PFNA	472.0 / 427.0	3.02	74312.46	240.025360	497.1	false
13C6-PFDA	519.0 / 474.0	3.37	74014.20	232.083554	639.9	false
13C7-PFUnA	570.0 / 525.0	3.68	72199.95	225.553621	566.0	false
13C2-PFTeDA	715.0 / 670.0	4.43	49739.54	193.062121	1130.2	false
13C3-PFBS	302.0 / 99.0	1.51	30837.33	199.117998	256.4	false
13C3-PFHxS	402.0 / 99.0	2.25	29640.69	253.856605	186.5	false
13C8-PFOS	507.0 / 99.0	3.02	25871.56	213.902136	157.3	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:08:44 PM

Sample Name	J7775-FS(0)	**Injection Vial**	29
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:34:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	65049.31	177.160592	667.1	false
d3-MeFOSAA	573.0 / 419.0	3.53	5979.93	125.794604	75.8	true
d5-EtFOSAA	589.0 / 419.0	3.69	6737.77	139.561225	85.4	false
13C5-PFHxA	318.0 / 273.0	1.83	65433.45	217.590964	218.4	false
13C4-PFHpA	367.0 / 322.0	2.23	81422.90	246.492358	394.8	false
13C8-PFOA	421.0 / 376.0	2.63	73614.59	210.484967	516.5	false
13C9-PFNA	472.0 / 427.0	3.02	68960.28	205.818340	541.1	false
13C6-PFDA	519.0 / 474.0	3.37	66566.64	184.222157	810.0	false
13C7-PFUnA	570.0 / 525.0	3.68	62643.82	172.721746	386.9	false
13C2-PFTeDA	715.0 / 670.0	4.43	50969.90	174.608344	1083.4	false
13C3-PFBS	302.0 / 99.0	1.51	25790.72	159.208707	253.2	false
13C3-PFHxS	402.0 / 99.0	2.25	27353.77	223.968537	161.6	false
13C8-PFOS	507.0 / 99.0	3.02	26072.01	206.080379	169.1	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:08:49 PM

Sample Name	J7775-FS-D(3)	**Injection Vial**	30
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:45:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	68444.56	215.287583	590.3	false
d3-MeFOSAA	573.0 / 419.0	3.52	6467.67	141.118607	75.9	false
d5-EtFOSAA	589.0 / 419.0	3.68	7491.45	160.947853	86.6	false
13C5-PFHxA	318.0 / 273.0	1.83	71567.46	256.981073	244.9	false
13C4-PFHpA	367.0 / 322.0	2.23	81162.85	265.313119	375.9	false
13C8-PFOA	421.0 / 376.0	2.63	77315.40	238.708398	626.2	false
13C9-PFNA	472.0 / 427.0	3.02	71995.12	232.023840	681.7	false
13C6-PFDA	519.0 / 474.0	3.37	69998.04	223.731271	442.7	false
13C7-PFUnA	570.0 / 525.0	3.68	71823.57	228.713284	503.4	false
13C2-PFTeDA	715.0 / 670.0	4.43	55103.57	218.015062	813.4	false
13C3-PFBS	302.0 / 99.0	1.51	31875.60	204.095130	248.8	false
13C3-PFHxS	402.0 / 99.0	2.25	26463.28	224.742029	201.4	false
13C8-PFOS	507.0 / 99.0	3.01	26448.34	216.836052	146.4	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:08:53 PM

Sample Name	J7775-FS-D(5)	**Injection Vial**	31
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:56:05	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	67596.37	218.461951	544.7	false
d3-MeFOSAA	573.0 / 419.0	3.53	8953.70	208.095423	119.4	false
d5-EtFOSAA	589.0 / 419.0	3.68	9845.94	225.320055	111.9	false
13C5-PFHxA	318.0 / 273.0	1.83	62830.83	245.516146	302.2	false
13C4-PFHpA	367.0 / 322.0	2.23	70740.78	251.647714	422.3	false
13C8-PFOA	421.0 / 376.0	2.64	71699.68	240.902110	820.3	false
13C9-PFNA	472.0 / 427.0	3.02	72041.09	252.657107	673.6	false
13C6-PFDA	519.0 / 474.0	3.37	69651.99	228.742442	641.7	false
13C7-PFUnA	570.0 / 525.0	3.68	73193.42	239.479784	521.1	false
13C2-PFTeDA	715.0 / 670.0	4.43	53887.04	219.060208	1113.7	false
13C3-PFBS	302.0 / 99.0	1.52	32002.87	218.266257	341.4	false
13C3-PFHxS	402.0 / 99.0	2.26	24419.45	220.902164	189.0	false
13C8-PFOS	507.0 / 99.0	3.02	27144.89	237.052485	160.2	false

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Summary Quant Report

Sample Name	J7776-FS(0)	**Injection Vial**	32
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:06:57	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	58409.17	198.060572	561.7	false
d3-MeFOSAA	573.0 / 419.0	3.53	5908.11	171.994043	80.6	false
d5-EtFOSAA	589.0 / 419.0	3.68	6706.76	192.247355	77.5	false
13C5-PFHxA	318.0 / 273.0	1.83	55857.79	231.983421	192.5	false
13C4-PFHpA	367.0 / 322.0	2.23	68212.04	257.899311	445.5	false
13C8-PFOA	421.0 / 376.0	2.63	61032.83	217.948003	588.6	false
13C9-PFNA	472.0 / 427.0	3.02	59779.85	222.829172	459.4	false
13C6-PFDA	519.0 / 474.0	3.37	54124.88	186.498237	388.4	false
13C7-PFUnA	570.0 / 525.0	3.68	55441.95	190.326761	492.2	false
13C2-PFTeDA	715.0 / 670.0	4.42	45531.37	194.202355	976.5	false
13C3-PFBS	302.0 / 99.0	1.52	23196.59	198.164865	236.0	false
13C3-PFHxS	402.0 / 99.0	2.26	23514.97	266.448528	205.2	false
13C8-PFOS	507.0 / 99.0	3.02	19706.85	215.565107	127.7	false

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Summary Quant Report

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Sample Name	J7776-FS-D(3)	**Injection Vial**	33
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:17:49	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	63723.77	243.108779	659.6	false
d3-MeFOSAA	573.0 / 419.0	3.53	6322.47	190.617488	93.8	false
d5-EtFOSAA	589.0 / 419.0	3.69	7694.93	228.435481	119.5	false
13C5-PFHxA	318.0 / 273.0	1.83	60911.49	252.210010	209.3	false
13C4-PFHpA	367.0 / 322.0	2.23	72379.73	272.832429	406.3	false
13C8-PFOA	421.0 / 376.0	2.63	65005.93	231.436697	787.3	false
13C9-PFNA	472.0 / 427.0	3.02	62804.18	233.397212	612.5	false
13C6-PFDA	519.0 / 474.0	3.37	64461.64	249.897150	508.0	false
13C7-PFUnA	570.0 / 525.0	3.69	63228.06	244.204347	484.3	false
13C2-PFTeDA	715.0 / 670.0	4.43	49405.01	237.081100	783.4	false
13C3-PFBS	302.0 / 99.0	1.52	28296.39	250.348271	232.0	false
13C3-PFHxS	402.0 / 99.0	2.26	22363.69	262.436070	198.0	false
13C8-PFOS	507.0 / 99.0	3.02	23894.12	270.684478	150.2	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:09:06 PM

Sample Name	J7776-FS-D(5)	**Injection Vial**	34
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:28:40	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	65007.20	213.361632	638.8	false
d3-MeFOSAA	573.0 / 419.0	3.53	7769.22	206.413791	97.7	false
d5-EtFOSAA	589.0 / 419.0	3.68	8598.67	224.944627	146.5	false
13C5-PFHxA	318.0 / 273.0	1.83	61531.45	221.442262	289.1	false
13C4-PFHpA	367.0 / 322.0	2.23	70824.48	232.039874	442.0	false
13C8-PFOA	421.0 / 376.0	2.63	72641.04	224.781993	880.5	false
13C9-PFNA	472.0 / 427.0	3.02	72279.24	233.464553	815.7	false
13C6-PFDA	519.0 / 474.0	3.37	69454.56	231.641549	768.1	false
13C7-PFUnA	570.0 / 525.0	3.68	72557.17	241.090226	514.3	false
13C2-PFTeDA	715.0 / 670.0	4.43	52112.03	215.139248	1038.5	false
13C3-PFBS	302.0 / 99.0	1.51	33619.69	262.115700	307.9	false
13C3-PFHxS	402.0 / 99.0	2.25	20901.23	216.141208	211.4	false
13C8-PFOS	507.0 / 99.0	3.01	23384.98	233.450651	149.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:09:10 PM

Sample Name	J7779-FS(0)	**Injection Vial**	35
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:12:07	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	60577.65	201.573364	625.5	false
d3-MeFOSAA	573.0 / 419.0	3.52	6688.17	190.862525	89.0	false
d5-EtFOSAA	589.0 / 419.0	3.68	7657.86	215.181015	95.8	false
13C5-PFHxA	318.0 / 273.0	1.83	66105.50	248.492159	223.1	false
13C4-PFHpA	367.0 / 322.0	2.23	77489.37	265.175318	324.2	false
13C8-PFOA	421.0 / 376.0	2.63	74290.54	240.118003	595.5	false
13C9-PFNA	472.0 / 427.0	3.01	66569.96	224.593622	414.6	false
13C6-PFDA	519.0 / 474.0	3.37	62626.42	211.757643	437.6	false
13C7-PFUnA	570.0 / 525.0	3.68	62124.61	209.280519	399.7	false
13C2-PFTeDA	715.0 / 670.0	4.42	43268.72	181.101286	827.9	false
13C3-PFBS	302.0 / 99.0	1.51	27860.90	233.316968	213.0	false
13C3-PFHxS	402.0 / 99.0	2.25	26736.65	296.978220	218.5	false
13C8-PFOS	507.0 / 99.0	3.01	23184.18	248.600303	143.0	false

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Summary Quant Report

Created with Analyst Reporter
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Sample Name	J7779-FS-D(3)	**Injection Vial**	36
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:22:59	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	71376.93	246.637366	682.1	false
d3-MeFOSAA	573.0 / 419.0	3.53	8502.75	204.012337	97.8	false
d5-EtFOSAA	589.0 / 419.0	3.68	8597.66	203.123586	121.1	false
13C5-PFHxA	318.0 / 273.0	1.83	66714.04	256.595272	280.1	false
13C4-PFHpA	367.0 / 322.0	2.23	70907.22	248.277737	423.2	false
13C8-PFOA	421.0 / 376.0	2.63	77447.84	256.127865	1016.1	false
13C9-PFNA	472.0 / 427.0	3.02	72179.55	249.166453	528.3	false
13C6-PFDA	519.0 / 474.0	3.37	72962.14	256.188335	666.7	false
13C7-PFUnA	570.0 / 525.0	3.68	75815.41	265.217896	498.4	false
13C2-PFTeDA	715.0 / 670.0	4.43	51349.74	223.185493	1099.7	false
13C3-PFBS	302.0 / 99.0	1.51	31759.47	223.618688	248.1	false
13C3-PFHxS	402.0 / 99.0	2.25	24283.26	226.781858	187.8	false
13C8-PFOS	507.0 / 99.0	3.02	25432.03	229.284504	143.7	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:09:19 PM

Sample Name	J7779-FS-D(5)	**Injection Vial**	37
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:33:50	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	67533.23	224.370584	655.8	false
d3-MeFOSAA	573.0 / 419.0	3.53	8347.97	195.132446	118.8	false
d5-EtFOSAA	589.0 / 419.0	3.68	8239.19	189.633822	84.4	false
13C5-PFHxA	318.0 / 273.0	1.82	72547.24	256.683836	240.3	false
13C4-PFHpA	367.0 / 322.0	2.23	77103.87	248.353175	484.2	false
13C8-PFOA	421.0 / 376.0	2.63	80357.87	244.468086	677.2	false
13C9-PFNA	472.0 / 427.0	3.02	74186.18	235.583382	605.9	false
13C6-PFDA	519.0 / 474.0	3.37	70899.38	239.360012	749.5	false
13C7-PFUnA	570.0 / 525.0	3.68	66611.42	224.048187	555.8	false
13C2-PFTeDA	715.0 / 670.0	4.42	50842.50	212.472159	993.5	false
13C3-PFBS	302.0 / 99.0	1.51	33143.62	227.345428	317.9	false
13C3-PFHxS	402.0 / 99.0	2.25	23397.51	212.873867	219.7	false
13C8-PFOS	507.0 / 99.0	3.02	27962.82	245.598711	168.3	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:09:23 PM

Sample Name	J7780-FS(0)	**Injection Vial**	38
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:44:42	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	76863.48	227.821006	733.3	false
d3-MeFOSAA	573.0 / 419.0	3.52	6382.82	175.424831	95.1	false
d5-EtFOSAA	589.0 / 419.0	3.68	9814.70	265.606488	130.6	false
13C5-PFHxA	318.0 / 273.0	1.83	61474.33	235.630790	227.7	false
13C4-PFHpA	367.0 / 322.0	2.23	69875.35	243.824940	360.7	false
13C8-PFOA	421.0 / 376.0	2.63	69080.65	227.672612	592.7	false
13C9-PFNA	472.0 / 427.0	3.01	69218.73	238.125505	652.2	false
13C6-PFDA	519.0 / 474.0	3.35	70917.34	213.592947	457.3	false
13C7-PFUnA	570.0 / 525.0	3.68	64482.85	193.491678	416.2	false
13C2-PFTeDA	715.0 / 670.0	4.42	35255.70	131.440659	687.7	false
13C3-PFBS	302.0 / 99.0	1.51	27910.36	225.103232	252.2	false
13C3-PFHxS	402.0 / 99.0	2.25	22811.61	244.027420	166.2	false
13C8-PFOS	507.0 / 99.0	3.01	17721.21	183.007279	94.1	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:09:27 PM

Sample Name	J7780-FS-D(3)	**Injection Vial**	39
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:55:34	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	87587.88	295.050774	593.1	false
d3-MeFOSAA	573.0 / 419.0	3.53	6563.29	190.715964	91.7	false
d5-EtFOSAA	589.0 / 419.0	3.68	8277.73	236.842590	112.8	false
13C5-PFHxA	318.0 / 273.0	1.83	59256.71	235.028273	265.4	false
13C4-PFHpA	367.0 / 322.0	2.23	70934.84	256.128600	415.7	false
13C8-PFOA	421.0 / 376.0	2.63	67905.92	231.582824	18993276.4	false
13C9-PFNA	472.0 / 427.0	3.01	66994.72	238.488340	607.0	false
13C6-PFDA	519.0 / 474.0	3.35	72988.71	249.844167	708.1	false
13C7-PFUnA	570.0 / 525.0	3.67	60377.62	205.907931	472.3	false
13C2-PFTeDA	715.0 / 670.0	4.42	49918.33	211.514215	791.7	false
13C3-PFBS	302.0 / 99.0	1.51	32910.22	280.630130	375.6	false
13C3-PFHxS	402.0 / 99.0	2.25	20659.47	233.662577	172.5	false
13C8-PFOS	507.0 / 99.0	3.01	23243.35	253.782090	129.8	false

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Summary Quant Report

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Printed: 18/09/2018 4:09:31 PM

Sample Name	J7780-FS-D(5)	**Injection Vial**	40
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:06:26	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	91166.08	299.939433	876.6	false
d3-MeFOSAA	573.0 / 419.0	3.52	7234.12	186.647070	120.6	false
d5-EtFOSAA	589.0 / 419.0	3.68	9611.48	244.179194	128.0	false
13C5-PFHxA	318.0 / 273.0	1.83	70325.88	271.034124	302.1	false
13C4-PFHpA	367.0 / 322.0	2.23	74575.21	261.649048	495.3	false
13C8-PFOA	421.0 / 376.0	2.63	75987.30	251.805911	1047.8	false
13C9-PFNA	472.0 / 427.0	3.01	75558.06	261.356672	850.5	false
13C6-PFDA	519.0 / 474.0	3.36	80006.19	267.475899	693.1	false
13C7-PFUnA	570.0 / 525.0	3.68	80785.09	269.076568	488.7	false
13C2-PFTeDA	715.0 / 670.0	4.42	61327.07	253.792752	801.0	false
13C3-PFBS	302.0 / 99.0	1.51	36707.97	277.928713	377.1	false
13C3-PFHxS	402.0 / 99.0	2.25	26093.62	262.043676	180.9	false
13C8-PFOS	507.0 / 99.0	3.01	26979.28	261.554479	122.1	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:09:34 PM

Sample Name	J7777-FS(0)	**Injection Vial**	41
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:17:18	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	66047.23	214.419279	763.3	false
d3-MeFOSAA	573.0 / 419.0	3.52	7693.22	220.533469	54.4	false
d5-EtFOSAA	589.0 / 419.0	3.68	8492.90	239.720718	70.4	false
13C5-PFHxA	318.0 / 273.0	1.83	68552.16	258.907322	210.0	false
13C4-PFHpA	367.0 / 322.0	2.23	77914.43	267.890286	378.4	false
13C8-PFOA	421.0 / 376.0	2.63	63447.07	206.039695	603.8	false
13C9-PFNA	472.0 / 427.0	3.02	58876.43	199.576181	451.3	false
13C6-PFDA	519.0 / 474.0	3.36	65416.46	215.802815	745.9	false
13C7-PFUnA	570.0 / 525.0	3.68	65016.36	213.686103	445.1	false
13C2-PFTeDA	715.0 / 670.0	4.42	48548.02	198.247395	776.7	false
13C3-PFBS	302.0 / 99.0	1.51	30797.32	259.069989	250.4	false
13C3-PFHxS	402.0 / 99.0	2.25	23811.20	265.675690	183.9	false
13C8-PFOS	507.0 / 99.0	3.02	21876.99	235.640835	171.7	false

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Summary Quant Report

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Printed: 18/09/2018 4:09:38 PM

Sample Name	J7777-FS-D(3)	**Injection Vial**	42
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:28:10	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	73553.25	224.617784	682.0	false
d3-MeFOSAA	573.0 / 419.0	3.52	6180.89	158.751558	57.3	false
d5-EtFOSAA	589.0 / 419.0	3.69	9714.14	245.671332	118.0	false
13C5-PFHxA	318.0 / 273.0	1.82	75705.68	266.536351	257.6	false
13C4-PFHpA	367.0 / 322.0	2.23	83135.56	266.459186	383.3	false
13C8-PFOA	421.0 / 376.0	2.63	74333.70	225.024532	987.1	false
13C9-PFNA	472.0 / 427.0	3.02	73177.90	231.234113	537.3	false
13C6-PFDA	519.0 / 474.0	3.37	76172.91	236.376103	848.6	false
13C7-PFUnA	570.0 / 525.0	3.69	74715.25	230.991443	524.0	false
13C2-PFTeDA	715.0 / 670.0	4.43	57701.04	221.642278	1073.9	false
13C3-PFBS	302.0 / 99.0	1.51	37186.40	280.278073	268.4	false
13C3-PFHxS	402.0 / 99.0	2.25	27704.66	276.964527	213.1	false
13C8-PFOS	507.0 / 99.0	3.02	22315.91	215.366580	158.4	false

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Summary Quant Report

Created with Analyst Reporter
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Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.97	76501.92	233.310456	589.1	false
d3-MeFOSAA	573.0 / 419.0	3.52	10717.25	237.386084	94.3	false
d5-EtFOSAA	589.0 / 419.0	3.69	10764.84	234.780947	121.3	false
13C5-PFHxA	318.0 / 273.0	1.83	68017.84	247.125618	319.6	false
13C4-PFHpA	367.0 / 322.0	2.23	79685.72	263.567181	475.4	false
13C8-PFOA	421.0 / 376.0	2.64	81795.72	255.529852	743.3	false
13C9-PFNA	472.0 / 427.0	3.02	78191.80	254.976503	811.4	false
13C6-PFDA	519.0 / 474.0	3.37	76178.50	236.077781	664.8	false
13C7-PFUnA	570.0 / 525.0	3.69	81193.81	250.685484	587.6	false
13C2-PFTeDA	715.0 / 670.0	4.43	57433.04	220.318249	1227.2	false
13C3-PFBS	302.0 / 99.0	1.51	37663.37	244.809946	426.3	false
13C3-PFHxS	402.0 / 99.0	2.25	25492.84	219.783176	213.6	false
13C8-PFOS	507.0 / 99.0	3.02	25076.33	208.704875	150.9	false

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 18/09/2018 4:10:12 PM

Sample Name	JY46 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:35:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.310	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.410	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.04	PFNA	0.370	0.309	ü
PFOS_1	499.0 / 80.0	2.99	PFOS			
PFOS_2	499.0 / 99.0	3.04	PFOS	0.120	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.080	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	3.97	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.080	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.44	PFTeDA	0.070	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.510	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	CR817PB-FS(0)	**Injection Vial**	21
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:56:35	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	CR818LCS-FS(0)	**Injection Vial**	22
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:07:27	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.190	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.97	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.560	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7785-FS(0)	**Injection Vial**	23
Sample ID	JAX-TCC-FRB-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:18:19	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.52	PFBS			
PFBS_2	298.9 / 99.0	1.51	PFBS	0.470	0.296	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Printed: 18/09/2018 4:10:35 PM

Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7784-FS(0)	**Injection Vial**	25
Sample ID	JAX-TCC-EB03-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:40:02	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7778-FS(0)	**Injection Vial**	27
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:12:37	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.280	0.296	ü
PFHxA_1	313.0 / 269.0	1.83	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.62	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.320	0.309	ü
PFOS_1	499.0 / 80.0	2.92	PFOS			
PFOS_2	499.0 / 99.0	3.00	PFOS	0.130	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7778-FS-D(3)	**Injection Vial**	28
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:23:29	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7775-FS(0)	**Injection Vial**	29
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:34:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.280	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.140	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7775-FS-D(3)	**Injection Vial**	30
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:45:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.140	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7775-FS-D(5)	**Injection Vial**	31
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:56:05	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.140	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7776-FS(0)	**Injection Vial**	32
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:06:57	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.270	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.140	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7776-FS-D(3)	**Injection Vial**	33
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:17:49	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.150	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7776-FS-D(5)	**Injection Vial**	34
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:28:40	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7779-FS(0)	**Injection Vial**	35
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:12:07	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.260	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.090	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.37	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.070	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7779-FS-D(3)	**Injection Vial**	36
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:22:59	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7779-FS-D(5)	**Injection Vial**	37
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:33:50	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7780-FS(0)	**Injection Vial**	38
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:44:42	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.02	PFNA			
PFNA_2	463.0 / 219.0	3.02	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.02	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	3.36	PFDA			
PFDA_2	513.0 / 219.0	3.36	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.070	0.063	ü
PFDoA_1	613.0 / 569.0	3.97	PFDoA			
PFDoA_2	613.0 / 319.0	4.18	PFDoA	1.330	0.161	
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.68	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.67	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7780-FS-D(3)	**Injection Vial**	39
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:55:34	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	3.02	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.190	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7780-FS-D(5)	**Injection Vial**	40
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:06:26	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7777-FS(0)	**Injection Vial**	41
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:17:18	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.270	0.296	ü
PFHxA_1	313.0 / 269.0	1.83	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.310	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.01	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7777-FS-D(3)	**Injection Vial**	42
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:28:10	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.83	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.310	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.300	0.290	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	3.04	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Internal Standard Report

Sample Name	JY46 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:35:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	29473.65	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	29473.65	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	58581.26	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	58581.26	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	74005.10	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	74005.10	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	21337.71	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	21337.71	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	74005.10	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	74005.10	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	68712.83	250.00
PFNA_2	463.0 / 219.0	3.04	13C9-PFNA	472.0 / 427.0	68712.83	250.00
PFOS_1	499.0 / 80.0	2.99	13C8-PFOS	507.0 / 99.0	23844.70	239.25
PFOS_2	499.0 / 99.0	3.04	13C8-PFOS	507.0 / 99.0	23844.70	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	68222.64	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	68222.64	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	68972.52	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	68972.52	250.00
PFDoA_1	613.0 / 569.0	3.97	13C2-PFDoA	615.0 / 570.0	63643.52	250.00
PFDoA_2	613.0 / 319.0	3.98	13C2-PFDoA	615.0 / 570.0	63643.52	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	50077.24	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	50077.24	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	50077.24	250.00
PFTeDA_2	713.0 / 169.0	4.44	13C2-PFTeDA	715.0 / 670.0	50077.24	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	7866.31	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	7866.31	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	8486.95	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8486.95	250.00

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Summary Internal Standard Report

Sample Name	CR817PB-FS(0)	**Injection Vial**	21
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:56:35	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	22002.27	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	22002.27	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	50275.54	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	50275.54	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	60590.99	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	60590.99	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	17505.81	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	17505.81	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	60590.99	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	60590.99	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	53801.56	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	53801.56	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	18320.24	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	18320.24	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	54281.95	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	54281.95	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	52745.39	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	52745.39	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	49999.71	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	49999.71	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	36928.52	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	36928.52	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	36928.52	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	36928.52	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	6794.53	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	6794.53	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	7640.61	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	7640.61	250.00

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Summary Internal Standard Report

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Sample Name	CR818LCS-FS(0)	**Injection Vial**	22
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:07:27	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	24789.42	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	24789.42	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	52252.22	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	52252.22	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	61776.89	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	61776.89	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	20264.88	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	20264.88	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	61776.89	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	61776.89	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	59317.92	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	59317.92	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	18684.04	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	18684.04	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	57309.93	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	57309.93	250.00
PFUnA_1	563.0 / 519.0	3.69	13C7-PFUnA	570.0 / 525.0	53398.82	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	53398.82	250.00
PFDoA_1	613.0 / 569.0	3.98	13C2-PFDoA	615.0 / 570.0	53952.89	250.00
PFDoA_2	613.0 / 319.0	3.97	13C2-PFDoA	615.0 / 570.0	53952.89	250.00
PFTrDA_1	663.0 / 619.0	4.22	13C2-PFTeDA	715.0 / 670.0	43145.46	250.00
PFTrDA_2	663.0 / 169.0	4.22	13C2-PFTeDA	715.0 / 670.0	43145.46	250.00
PFTeDA_1	713.0 / 669.0	4.43	13C2-PFTeDA	715.0 / 670.0	43145.46	250.00
PFTeDA_2	713.0 / 169.0	4.43	13C2-PFTeDA	715.0 / 670.0	43145.46	250.00
NMeFOSAA_1	570.0 / 419.0	3.53	d3-MeFOSAA	573.0 / 419.0	6284.84	250.00
NMeFOSAA_2	570.0 / 512.0	3.53	d3-MeFOSAA	573.0 / 419.0	6284.84	250.00
NEtFOSAA_1	584.0 / 419.0	3.69	d5-EtFOSAA	589.0 / 419.0	7441.74	250.00
NEtFOSAA_2	584.0 / 483.0	3.69	d5-EtFOSAA	589.0 / 419.0	7441.74	250.00

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Summary Internal Standard Report

Sample Name	J7785-FS(0)	**Injection Vial**	23
Sample ID	JAX-TCC-FRB-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:18:19	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.52	13C3-PFBS	302.0 / 99.0	32594.09	232.25
PFBS_2	298.9 / 99.0	1.51	13C3-PFBS	302.0 / 99.0	32594.09	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	66236.88	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	66236.88	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	78087.96	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	78087.96	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	20373.35	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	20373.35	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	78087.96	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	78087.96	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	73741.53	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	73741.53	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	27508.19	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	27508.19	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	77951.18	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	77951.18	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	74848.03	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	74848.03	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	74281.10	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	74281.10	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	57907.80	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	57907.80	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	57907.80	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	57907.80	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	10017.62	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	10017.62	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	10543.06	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	10543.06	250.00

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Summary Internal Standard Report

Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	23511.44	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	23511.44	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	52217.41	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	52217.41	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	60677.29	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	60677.29	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	19890.93	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	19890.93	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	60677.29	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	60677.29	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	58820.77	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	58820.77	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	21908.69	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	21908.69	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	61821.44	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	61821.44	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	57132.40	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	57132.40	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	56258.36	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	56258.36	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	43356.12	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	43356.12	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	43356.12	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	43356.12	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	8906.22	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	8906.22	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	7096.76	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	7096.76	250.00

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Summary Internal Standard Report

Sample Name	J7784-FS(0)	**Injection Vial**	25
Sample ID	JAX-TCC-EB03-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:40:02	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	28297.29	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	28297.29	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	62826.24	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	62826.24	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	77660.69	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	77660.69	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	21860.72	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	21860.72	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	77660.69	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	77660.69	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	72404.75	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	72404.75	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	27680.75	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	27680.75	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	67124.64	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	67124.64	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	72163.78	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	72163.78	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	69682.03	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	69682.03	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	52832.82	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	52832.82	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	52832.82	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	52832.82	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	6867.84	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	6867.84	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	10546.79	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	10546.79	250.00

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Summary Internal Standard Report

Sample Name	J7778-FS(0)	**Injection Vial**	27
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:12:37	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	22889.99	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	22889.99	232.25
PFHxA_1	313.0 / 269.0	1.83	13C5-PFHxA	318.0 / 273.0	65622.67	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	65622.67	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	75448.50	250.00
PFHpA_2	363.0 / 169.0	2.23	13C8-PFOA	421.0 / 376.0	75448.50	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	24316.53	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	24316.53	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	75448.50	250.00
PFOA_2	413.0 / 169.0	2.62	13C8-PFOA	421.0 / 376.0	75448.50	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	74093.64	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	74093.64	250.00
PFOS_1	499.0 / 80.0	2.92	13C8-PFOS	507.0 / 99.0	25289.30	239.25
PFOS_2	499.0 / 99.0	3.00	13C8-PFOS	507.0 / 99.0	25289.30	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	66856.84	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	66856.84	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	64640.83	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	64640.83	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	61991.19	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	61991.19	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	38964.35	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	38964.35	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	38964.35	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	38964.35	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	8091.64	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	8091.64	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	8090.37	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8090.37	250.00

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Summary Internal Standard Report

Sample Name	J7778-FS-D(3)	**Injection Vial**	28
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:23:29	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	30837.33	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	30837.33	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	74762.14	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	74762.14	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	82071.02	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	82071.02	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	29640.69	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	29640.69	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	82071.02	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	82071.02	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	74312.46	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	74312.46	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	25302.00	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	25302.00	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	74014.20	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	74014.20	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	72199.95	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	72199.95	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	70291.30	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	70291.30	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	49739.54	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	49739.54	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	49739.54	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	49739.54	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	8948.10	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	8948.10	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	8329.48	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8329.48	250.00

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Summary Internal Standard Report

Sample Name	J7775-FS(0)	**Injection Vial**	29
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:34:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	25790.72	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	25790.72	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	65433.45	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	65433.45	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	73673.22	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	73673.22	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	27353.77	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	27353.77	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	73673.22	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	73673.22	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	68960.28	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	68960.28	250.00
PFOS_1	499.0 / 80.0	2.93	13C8-PFOS	507.0 / 99.0	25210.86	239.25
PFOS_2	499.0 / 99.0	3.02	13C8-PFOS	507.0 / 99.0	25210.86	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	66566.64	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	66566.64	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	62643.82	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	62643.82	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	65049.31	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	65049.31	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	50969.90	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	50969.90	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	50969.90	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	50969.90	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	5550.62	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	5550.62	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	6737.77	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	6737.77	250.00

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Summary Internal Standard Report

Sample Name	J7775-FS-D(3)	**Injection Vial**	30
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:45:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	31875.60	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	31875.60	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	71567.46	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	71567.46	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	78822.75	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	78822.75	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	26463.28	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	26463.28	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	78822.75	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	78822.75	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	71995.12	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	71995.12	250.00
PFOS_1	499.0 / 80.0	2.93	13C8-PFOS	507.0 / 99.0	27337.28	239.25
PFOS_2	499.0 / 99.0	3.02	13C8-PFOS	507.0 / 99.0	27337.28	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	69998.04	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	69998.04	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	71823.57	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	71823.57	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	68444.56	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	68444.56	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	55103.57	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	55103.57	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	55103.57	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	55103.57	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	6467.67	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	6467.67	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	7491.45	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	7491.45	250.00

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Summary Internal Standard Report

Sample Name	J7775-FS-D(5)	**Injection Vial**	31
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:56:05	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	32002.87	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	32002.87	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	62830.83	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	62830.83	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	72491.51	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	72491.51	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	24419.45	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	24419.45	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	72491.51	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	72491.51	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	72041.09	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	72041.09	250.00
PFOS_1	499.0 / 80.0	2.93	13C8-PFOS	507.0 / 99.0	28164.64	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	28164.64	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	69651.99	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	69651.99	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	73193.42	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	73193.42	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	67596.37	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	67596.37	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	53887.04	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	53887.04	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	53887.04	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	53887.04	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	8953.70	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	8953.70	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	9845.94	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	9845.94	250.00

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Summary Internal Standard Report

Sample Name	J7776-FS(0)	**Injection Vial**	32
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:06:57	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	23196.59	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	23196.59	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	55857.79	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	55857.79	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	61541.17	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	61541.17	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	23514.97	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	23514.97	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	61541.17	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	61541.17	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	59779.85	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	59779.85	250.00
PFOS_1	499.0 / 80.0	2.93	13C8-PFOS	507.0 / 99.0	20228.72	239.25
PFOS_2	499.0 / 99.0	3.02	13C8-PFOS	507.0 / 99.0	20228.72	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	54124.88	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	54124.88	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	55441.95	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	55441.95	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	58409.17	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	58409.17	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	45531.37	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	45531.37	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	45531.37	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	45531.37	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	5908.11	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	5908.11	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	6706.76	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	6706.76	250.00

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Summary Internal Standard Report

Sample Name	J7776-FS-D(3)	**Injection Vial**	33
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:17:49	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	28296.39	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	28296.39	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	60911.49	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	60911.49	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	65568.08	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	65568.08	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	22363.69	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	22363.69	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	65568.08	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	65568.08	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	62804.18	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	62804.18	250.00
PFOS_1	499.0 / 80.0	2.93	13C8-PFOS	507.0 / 99.0	24729.22	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	24729.22	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	64461.64	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	64461.64	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	63228.06	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	63228.06	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	63723.77	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	63723.77	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	49405.01	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	49405.01	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	49405.01	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	49405.01	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	6322.47	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	6322.47	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	7694.93	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	7694.93	250.00

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Summary Internal Standard Report

Sample Name	J7776-FS-D(5)	**Injection Vial**	34
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:28:40	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	33619.69	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	33619.69	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61531.45	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61531.45	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	74834.78	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	74834.78	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	20901.23	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	20901.23	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	74834.78	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	74834.78	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	72279.24	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	72279.24	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	24273.20	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	24273.20	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	69454.56	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	69454.56	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	72557.17	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	72557.17	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	65007.20	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	65007.20	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	52112.03	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	52112.03	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	52112.03	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	52112.03	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	7769.22	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	7769.22	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	8598.67	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8598.67	250.00

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Summary Internal Standard Report

Sample Name	J7779-FS(0)	**Injection Vial**	35
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:12:07	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	27860.90	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	27860.90	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	66105.50	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	66105.50	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	74800.72	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	74800.72	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	26736.65	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	26736.65	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	74800.72	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	74800.72	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	66569.96	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	66569.96	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	23137.57	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	23137.57	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	62626.42	250.00
PFDA_2	513.0 / 219.0	3.37	13C6-PFDA	519.0 / 474.0	62626.42	250.00
PFUnA_1	563.0 / 519.0	3.69	13C7-PFUnA	570.0 / 525.0	62124.61	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	62124.61	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	60577.65	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	60577.65	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	43268.72	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	43268.72	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	43268.72	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	43268.72	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	6688.17	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	6688.17	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	7657.86	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	7657.86	250.00

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Summary Internal Standard Report

Sample Name	J7779-FS-D(3)	**Injection Vial**	36
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:22:59	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	31759.47	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	31759.47	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	66714.04	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	66714.04	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	78139.18	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	78139.18	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	24283.26	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	24283.26	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	78139.18	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	78139.18	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	72179.55	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	72179.55	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	25737.76	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	25737.76	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	72962.14	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	72962.14	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	75815.41	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	75815.41	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	71376.93	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	71376.93	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	51349.74	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	51349.74	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	51349.74	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	51349.74	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	8502.75	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	8502.75	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	8597.66	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8597.66	250.00

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Summary Internal Standard Report

Sample Name	J7779-FS-D(5)	**Injection Vial**	37
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:33:50	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	33143.62	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	33143.62	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	72547.24	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	72547.24	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	81177.40	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	81177.40	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	23397.51	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	23397.51	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	81177.40	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	81177.40	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	74186.18	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	74186.18	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	27023.66	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	27023.66	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	70899.38	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	70899.38	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	66611.42	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	66611.42	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	67533.23	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	67533.23	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	50842.50	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	50842.50	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	50842.50	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	50842.50	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	8347.97	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	8347.97	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	8239.19	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8239.19	250.00

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Summary Internal Standard Report

Sample Name	J7780-FS(0)	**Injection Vial**	38
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:44:42	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	27910.36	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	27910.36	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	61474.33	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	61474.33	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	69561.43	250.00
PFHpA_2	363.0 / 169.0	2.24	13C8-PFOA	421.0 / 376.0	69561.43	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	22811.61	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	22811.61	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	69561.43	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	69561.43	250.00
PFNA_1	463.0 / 419.0	3.02	13C9-PFNA	472.0 / 427.0	69218.73	250.00
PFNA_2	463.0 / 219.0	3.02	13C9-PFNA	472.0 / 427.0	69218.73	250.00
PFOS_1	499.0 / 80.0	3.02	13C8-PFOS	507.0 / 99.0	18573.84	239.25
PFOS_2	499.0 / 99.0	3.02	13C8-PFOS	507.0 / 99.0	18573.84	239.25
PFDA_1	513.0 / 469.0	3.36	13C6-PFDA	519.0 / 474.0	70917.34	250.00
PFDA_2	513.0 / 219.0	3.36	13C6-PFDA	519.0 / 474.0	70917.34	250.00
PFUnA_1	563.0 / 519.0	3.69	13C7-PFUnA	570.0 / 525.0	64482.85	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	64482.85	250.00
PFDoA_1	613.0 / 569.0	3.97	13C2-PFDoA	615.0 / 570.0	76863.48	250.00
PFDoA_2	613.0 / 319.0	4.18	13C2-PFDoA	615.0 / 570.0	76863.48	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	35255.70	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	35255.70	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	35255.70	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	35255.70	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	6382.82	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	6382.82	250.00
NEtFOSAA_1	584.0 / 419.0	3.68	d5-EtFOSAA	589.0 / 419.0	9814.70	250.00
NEtFOSAA_2	584.0 / 483.0	3.67	d5-EtFOSAA	589.0 / 419.0	9814.70	250.00

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Summary Internal Standard Report

Sample Name	J7780-FS-D(3)	**Injection Vial**	39
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:55:34	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	32910.22	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	32910.22	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	59256.71	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	59256.71	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	66832.94	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	66832.94	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	20659.47	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	20659.47	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	66832.94	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	66832.94	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	66994.72	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	66994.72	250.00
PFOS_1	499.0 / 80.0	3.02	13C8-PFOS	507.0 / 99.0	23510.45	239.25
PFOS_2	499.0 / 99.0	3.02	13C8-PFOS	507.0 / 99.0	23510.45	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	72988.71	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	72988.71	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	60377.62	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	60377.62	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	87587.88	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	87587.88	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	49918.33	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	49918.33	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	49918.33	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	49918.33	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	6563.29	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	6563.29	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	8277.73	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8277.73	250.00

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Summary Internal Standard Report

Sample Name	J7780-FS-D(5)	**Injection Vial**	40
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:06:26	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	36707.97	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	36707.97	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	70325.88	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	70325.88	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	77159.96	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	77159.96	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	26093.62	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	26093.62	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	77159.96	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	77159.96	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	75558.06	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	75558.06	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	27545.77	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	27545.77	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	80006.19	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	80006.19	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	80785.09	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	80785.09	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	91166.08	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	91166.08	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	61327.07	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	61327.07	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	61327.07	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	61327.07	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	7234.12	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	7234.12	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	9611.48	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	9611.48	250.00

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Summary Internal Standard Report

Sample Name	J7777-FS(0)	**Injection Vial**	41
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:17:18	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	13C3-PFBS	302.0 / 99.0	30797.32	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	30797.32	232.25
PFHxA_1	313.0 / 269.0	1.83	13C5-PFHxA	318.0 / 273.0	68552.16	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	68552.16	250.00
PFHpA_1	363.0 / 319.0	2.24	13C8-PFOA	421.0 / 376.0	63294.64	250.00
PFHpA_2	363.0 / 169.0	2.23	13C8-PFOA	421.0 / 376.0	63294.64	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	23811.20	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	23811.20	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	63294.64	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	63294.64	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	58876.43	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	58876.43	250.00
PFOS_1	499.0 / 80.0	3.01	13C8-PFOS	507.0 / 99.0	22286.16	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	22286.16	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	65416.46	250.00
PFDA_2	513.0 / 219.0	3.38	13C6-PFDA	519.0 / 474.0	65416.46	250.00
PFUnA_1	563.0 / 519.0	3.69	13C7-PFUnA	570.0 / 525.0	65016.36	250.00
PFUnA_2	563.0 / 269.0	3.69	13C7-PFUnA	570.0 / 525.0	65016.36	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	66047.23	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	66047.23	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	48548.02	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	48548.02	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	48548.02	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	48548.02	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	7693.22	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	7693.22	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	8492.90	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	8492.90	250.00

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Summary Internal Standard Report

Sample Name	J7777-FS-D(3)	**Injection Vial**	42
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:28:10	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	37186.40	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	37186.40	232.25
PFHxA_1	313.0 / 269.0	1.83	13C5-PFHxA	318.0 / 273.0	75705.68	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	75705.68	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	74971.66	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	74971.66	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	27704.66	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	27704.66	236.50
PFOA_1	413.0 / 369.0	2.64	13C8-PFOA	421.0 / 376.0	74971.66	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	74971.66	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	73177.90	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	73177.90	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	22681.34	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	22681.34	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	76172.91	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	76172.91	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	74715.25	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	74715.25	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	73553.25	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	73553.25	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	57701.04	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	57701.04	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	57701.04	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	57701.04	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	6180.89	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	6180.89	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	9714.14	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	9714.14	250.00

Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	37663.37	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	37663.37	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	68017.84	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	68017.84	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	82504.44	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	82504.44	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	25492.84	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	25492.84	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	82504.44	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	82504.44	250.00
PFNA_1	463.0 / 419.0	3.04	13C9-PFNA	472.0 / 427.0	78191.80	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	78191.80	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	26097.68	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	26097.68	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	76178.50	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	76178.50	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	81193.81	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	81193.81	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	76501.92	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	76501.92	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	57433.04	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	57433.04	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	57433.04	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	57433.04	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	10717.25	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	10717.25	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	10764.84	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	10764.84	250.00

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Summary Internal Standard Report

Sample Name	JY46 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:35:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	65007.41	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	23110.50	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	23110.50	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	67042.08	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	67042.08	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	67042.08	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	67042.08	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	65007.41	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	65007.41	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	65007.41	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	23110.50	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	23110.50	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	23110.50	239.25

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Summary Internal Standard Report

Sample Name	CR817PB-FS(0)	**Injection Vial**	21
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:56:35	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	52580.90	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	20582.69	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	20582.69	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	53051.25	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	53051.25	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	53051.25	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	53051.25	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	52580.90	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	52580.90	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	52580.90	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	20582.69	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	20582.69	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	20582.69	239.25

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Summary Internal Standard Report

Sample Name	CR818LCS-FS(0)	**Injection Vial**	22
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:07:27	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	61177.12	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	21283.14	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	21283.14	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	59935.86	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	59935.86	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	59935.86	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	59935.86	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	61177.12	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	61177.12	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	61177.12	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	21283.14	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	21283.14	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	21283.14	239.25

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Summary Internal Standard Report

Sample Name	J7785-FS(0)	**Injection Vial**	23
Sample ID	JAX-TCC-FRB-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:18:19	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	73830.16	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	28679.95	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	28679.95	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	78551.20	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	78551.20	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	78551.20	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	78551.20	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	73830.16	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	73830.16	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	73830.16	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28679.95	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	28679.95	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	28679.95	239.25

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Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	66168.81	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	21220.95	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	21220.95	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	60571.43	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	60571.43	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	60571.43	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	60571.43	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	66168.81	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	66168.81	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	66168.81	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	21220.95	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	21220.95	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	21220.95	239.25

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Summary Internal Standard Report

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Sample Name	J7784-FS(0)	**Injection Vial**	25
Sample ID	JAX-TCC-EB03-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:40:02	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	72359.73	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	26930.10	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	26930.10	239.25
13C5-PFHxA	318.0 / 273.0	1.82	13C2-PFOA	415.0 / 370.0	71509.00	250.00
13C4-PFHpA	367.0 / 322.0	2.22	13C2-PFOA	415.0 / 370.0	71509.00	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	71509.00	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	71509.00	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	72359.73	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	72359.73	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	72359.73	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26930.10	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	26930.10	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	26930.10	239.25

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Summary Internal Standard Report

Sample Name	J7778-FS(0)	**Injection Vial**	27
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:12:37	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	68975.15	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	27817.65	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	27817.65	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	71433.97	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	71433.97	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	71433.97	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	71433.97	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	68975.15	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	68975.15	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	68975.15	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	27817.65	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	27817.65	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	27817.65	239.25

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Summary Internal Standard Report

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Sample Name	J7778-FS-D(3)	**Injection Vial**	28
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:23:29	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	77902.48	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	28315.52	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	28315.52	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	75911.25	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	75911.25	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	75911.25	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	75911.25	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	77902.48	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	77902.48	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	77902.48	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28315.52	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	28315.52	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	28315.52	239.25

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Summary Internal Standard Report

Sample Name	J7775-FS(0)	**Injection Vial**	29
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:34:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	88266.39	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	29617.94	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	29617.94	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	82151.72	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	82151.72	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	82151.72	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	82151.72	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	88266.39	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	88266.39	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	88266.39	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	29617.94	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	29617.94	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	29617.94	239.25

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Summary Internal Standard Report

Sample Name	J7775-FS-D(3)	**Injection Vial**	30
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:45:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	76425.76	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	28555.12	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	28555.12	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	76080.29	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	76080.29	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	76080.29	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	76080.29	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	76425.76	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	76425.76	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	76425.76	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28555.12	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	28555.12	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	28555.12	239.25

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Summary Internal Standard Report

Sample Name	J7775-FS-D(5)	**Injection Vial**	31
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:56:05	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	74381.92	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	26807.77	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	26807.77	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	69911.79	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	69911.79	250.00
13C8-PFOA	421.0 / 376.0	2.64	13C2-PFOA	415.0 / 370.0	69911.79	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	69911.79	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	74381.92	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	74381.92	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	74381.92	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	26807.77	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	26807.77	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	26807.77	239.25

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Summary Internal Standard Report

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Sample Name	J7776-FS(0)	**Injection Vial**	32
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:06:57	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	70892.91	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	21402.07	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	21402.07	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	65778.57	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	65778.57	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	65778.57	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	65778.57	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	70892.91	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	70892.91	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	70892.91	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	21402.07	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	21402.07	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	21402.07	239.25

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Summary Internal Standard Report

Sample Name	J7776-FS-D(3)	**Injection Vial**	33
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:17:49	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	63011.62	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	20665.44	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	20665.44	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	65977.30	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	65977.30	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	65977.30	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	65977.30	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	63011.62	250.00
13C7-PFUnA	570.0 / 525.0	3.69	13C2-PFDA	515.0 / 470.0	63011.62	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	63011.62	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	20665.44	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	20665.44	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	20665.44	239.25

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Summary Internal Standard Report

Sample Name	J7776-FS-D(5)	**Injection Vial**	34
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:28:40	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	73242.80	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	23450.87	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	23450.87	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	75909.18	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	75909.18	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	75909.18	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	75909.18	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	73242.80	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	73242.80	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	73242.80	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	23450.87	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	23450.87	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	23450.87	239.25

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Summary Internal Standard Report

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Sample Name	J7779-FS(0)	**Injection Vial**	35
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:12:07	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	72243.55	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	21832.68	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	21832.68	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	72674.59	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	72674.59	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	72674.59	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	72674.59	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	72243.55	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	72243.55	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	72243.55	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	21832.68	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	21832.68	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	21832.68	239.25

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Summary Internal Standard Report

Sample Name	J7779-FS-D(3)	**Injection Vial**	36
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:22:59	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	69569.50	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	25967.10	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	25967.10	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	71027.46	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	71027.46	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	71027.46	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	71027.46	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	69569.50	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	69569.50	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	69569.50	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	25967.10	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	25967.10	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	25967.10	239.25

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Summary Internal Standard Report

Sample Name	J7779-FS-D(5)	**Injection Vial**	37
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:33:50	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	72355.49	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	26654.59	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	26654.59	239.25
13C5-PFHxA	318.0 / 273.0	1.82	13C2-PFOA	415.0 / 370.0	77211.15	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	77211.15	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	77211.15	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	77211.15	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	72355.49	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	72355.49	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	72355.49	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26654.59	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	26654.59	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	26654.59	239.25

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Summary Internal Standard Report

Sample Name	J7780-FS(0)	**Injection Vial**	38
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:44:42	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	81104.72	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	22669.50	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	22669.50	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	71272.08	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	71272.08	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	71272.08	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	71272.08	250.00
13C6-PFDA	519.0 / 474.0	3.35	13C2-PFDA	515.0 / 470.0	81104.72	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	81104.72	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	81104.72	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	22669.50	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	22669.50	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	22669.50	239.25

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Summary Internal Standard Report

Sample Name	J7780-FS-D(3)	**Injection Vial**	39
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:55:34	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	71362.01	250.00
d3-MeFOSAA	573.0 / 419.0	3.53	13C4-PFOS	503.0 / 99.0	21441.48	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	21441.48	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	68877.14	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	68877.14	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	68877.14	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	68877.14	250.00
13C6-PFDA	519.0 / 474.0	3.35	13C2-PFDA	515.0 / 470.0	71362.01	250.00
13C7-PFUnA	570.0 / 525.0	3.67	13C2-PFDA	515.0 / 470.0	71362.01	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	71362.01	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	21441.48	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	21441.48	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	21441.48	239.25

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Summary Internal Standard Report

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Sample Name	J7780-FS-D(5)	**Injection Vial**	40
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:06:26	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	73066.71	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	24148.23	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	24148.23	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	70884.11	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	70884.11	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	70884.11	250.00
13C9-PFNA	472.0 / 427.0	3.01	13C2-PFOA	415.0 / 370.0	70884.11	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	73066.71	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	73066.71	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	73066.71	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	24148.23	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	24148.23	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	24148.23	239.25

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Summary Internal Standard Report

Sample Name	J7777-FS(0)	**Injection Vial**	41
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:17:18	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	74047.53	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	21734.72	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	21734.72	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	72332.66	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	72332.66	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	72332.66	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	72332.66	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	74047.53	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	74047.53	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	74047.53	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	21734.72	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	21734.72	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	21734.72	239.25

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Summary Internal Standard Report

Sample Name	J7777-FS-D(3)	**Injection Vial**	42
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:28:10	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	78718.64	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	24257.91	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	24257.91	239.25
13C5-PFHxA	318.0 / 273.0	1.82	13C2-PFOA	415.0 / 370.0	77594.28	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	77594.28	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	77594.28	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	77594.28	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	78718.64	250.00
13C7-PFUnA	570.0 / 525.0	3.69	13C2-PFDA	515.0 / 470.0	78718.64	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	78718.64	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	24257.91	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	24257.91	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	24257.91	239.25

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Summary Internal Standard Report

Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.97	13C2-PFDA	515.0 / 470.0	78823.90	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	28128.62	239.25
d5-EtFOSAA	589.0 / 419.0	3.69	13C4-PFOS	503.0 / 99.0	28128.62	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	75190.46	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	75190.46	250.00
13C8-PFOA	421.0 / 376.0	2.64	13C2-PFOA	415.0 / 370.0	75190.46	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	75190.46	250.00
13C6-PFDA	519.0 / 474.0	3.37	13C2-PFDA	515.0 / 470.0	78823.90	250.00
13C7-PFUnA	570.0 / 525.0	3.69	13C2-PFDA	515.0 / 470.0	78823.90	250.00
13C2-PFTeDA	715.0 / 670.0	4.43	13C2-PFDA	515.0 / 470.0	78823.90	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28128.62	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	28128.62	239.25
13C8-PFOS	507.0 / 99.0	3.02	13C4-PFOS	503.0 / 99.0	28128.62	239.25

Chromatograms

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Chromatogram Report

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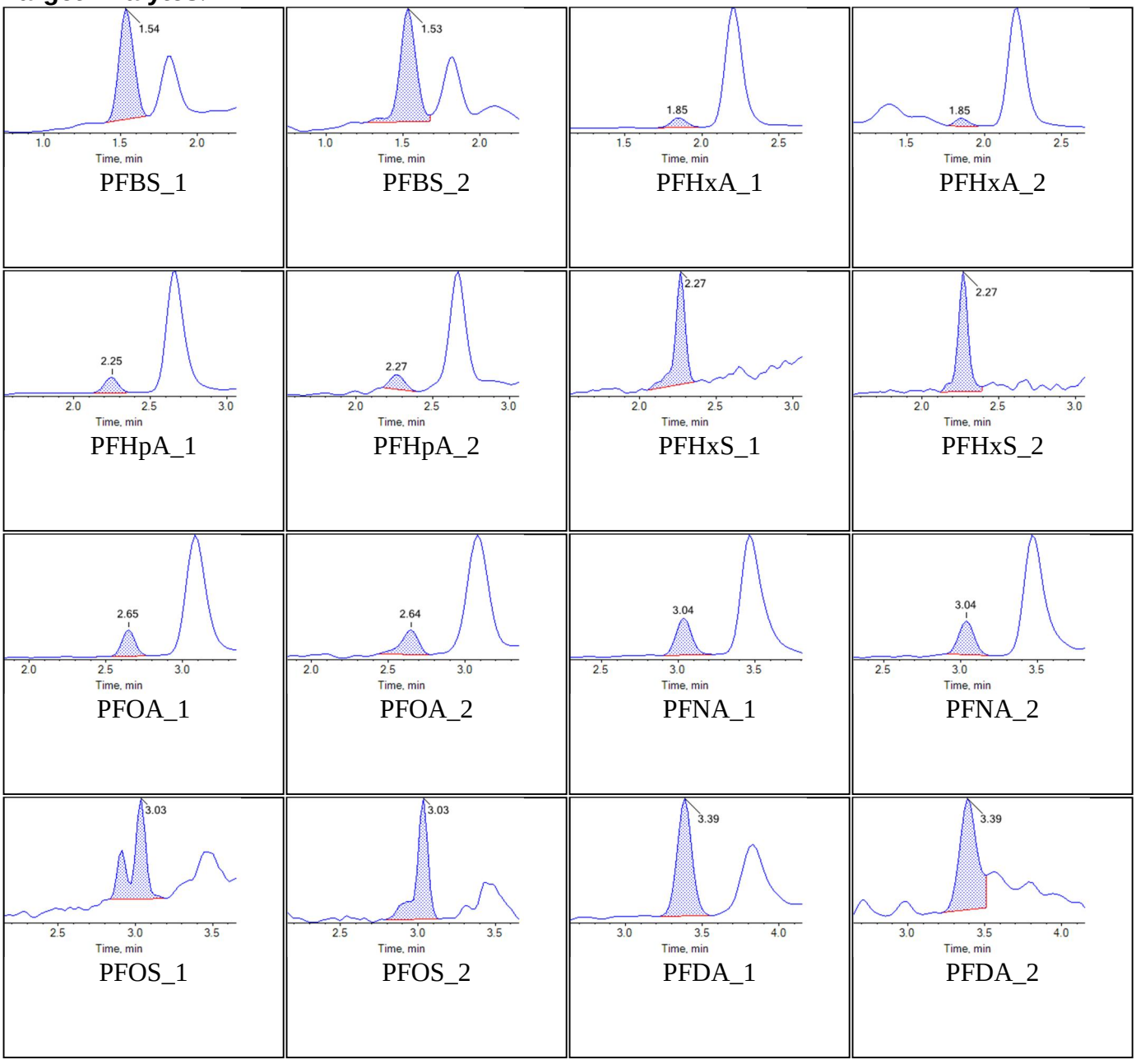
Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:19:17	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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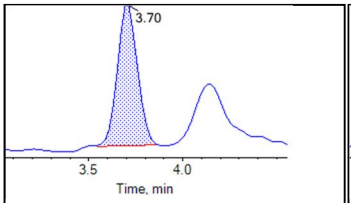

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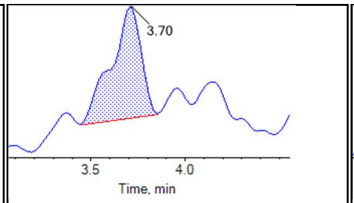
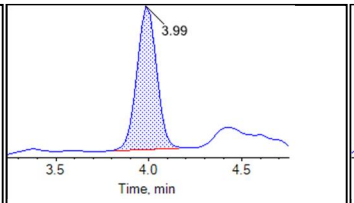
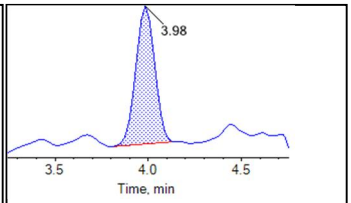


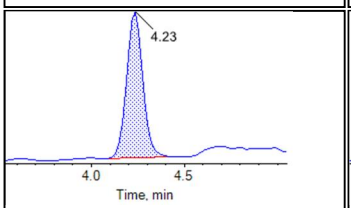
PFUnA_2



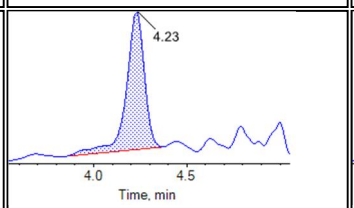
PFDoA_1



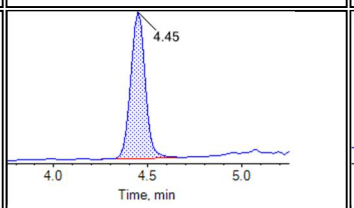
PFDoA_2



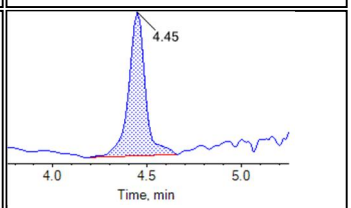
PFTrDA_1



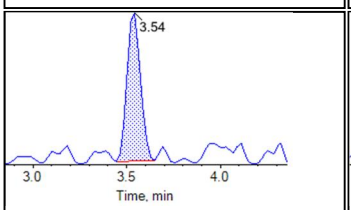
PFTrDA_2



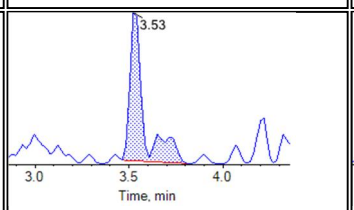
PFTeDA_1



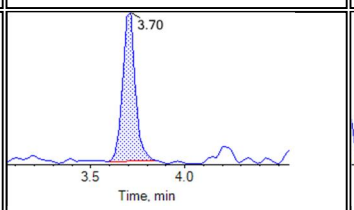
PFTeDA_2



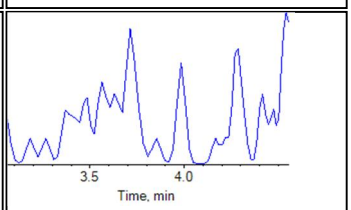
NMeFOSAA_1



NMeFOSAA_2

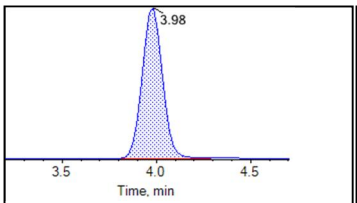


NEtFOSAA_1

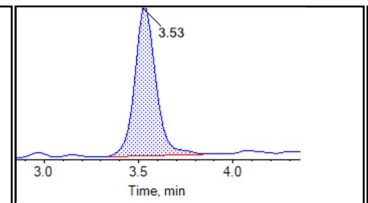


NEtFOSAA_2

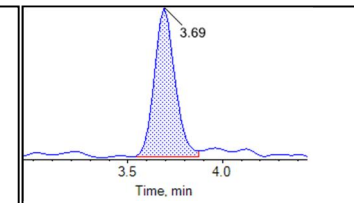
Internal Standards:



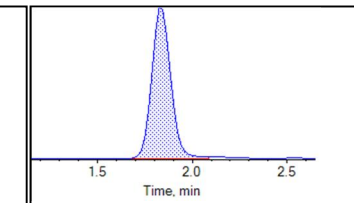
13C2-PFDoA



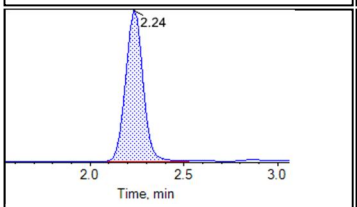
d3-MeFOSAA



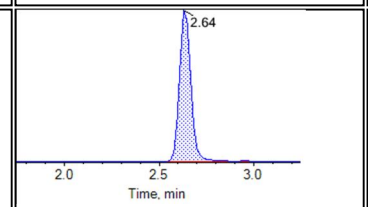
d5-EtFOSAA



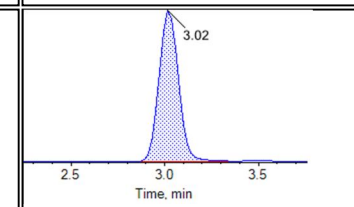
13C5-PFHxA



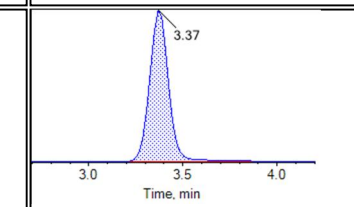
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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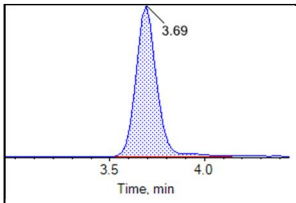
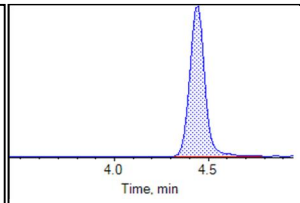
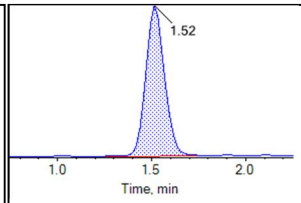


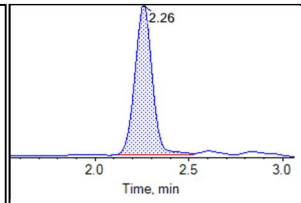
13C7-PFUnA



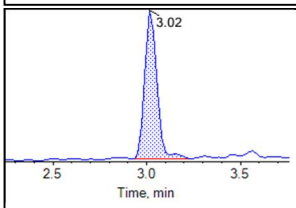
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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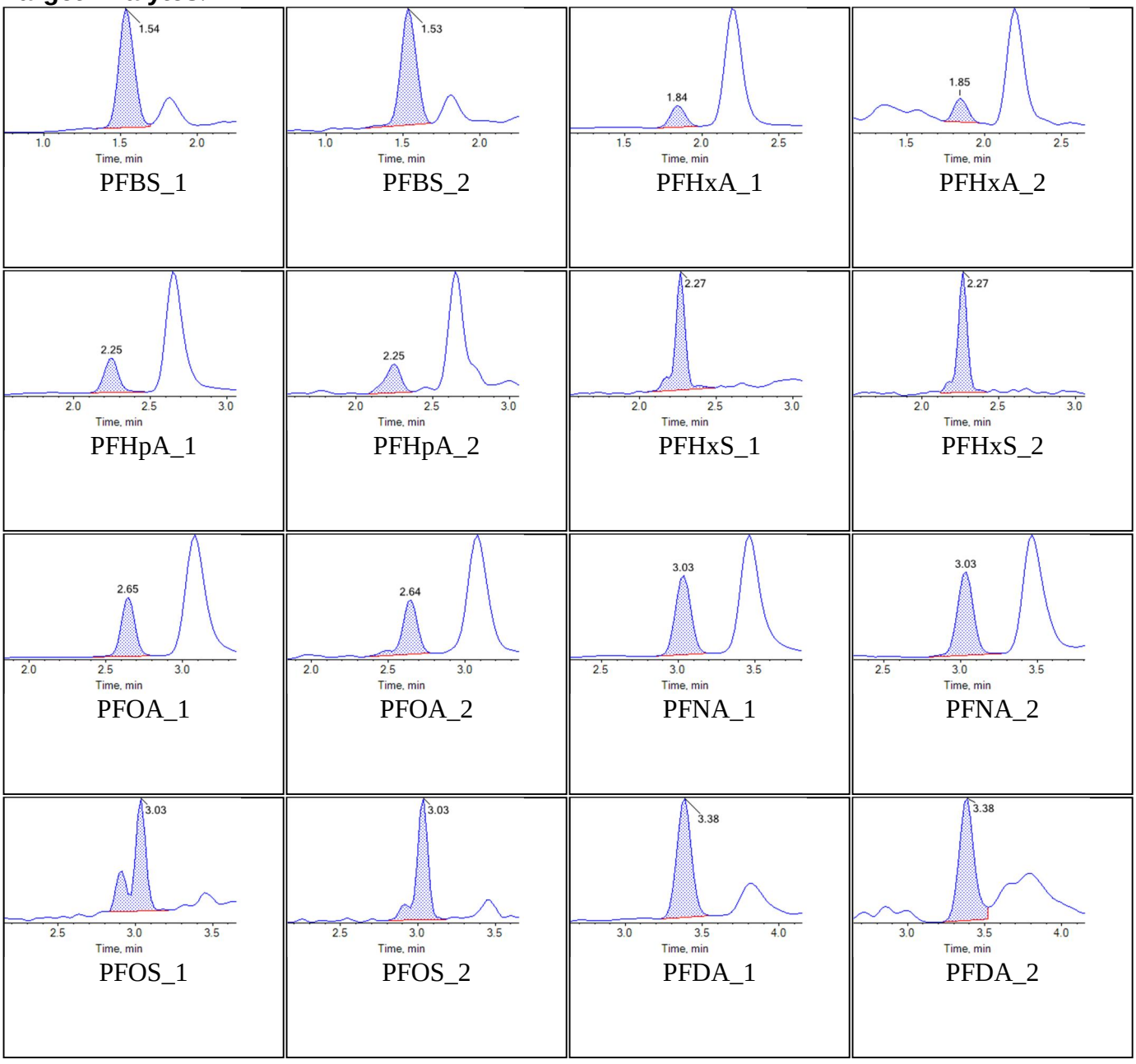
Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:30:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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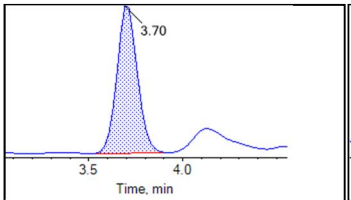
Printed: 18/09/2018 4:22:09 PM



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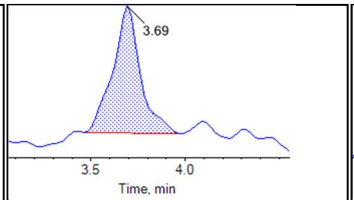
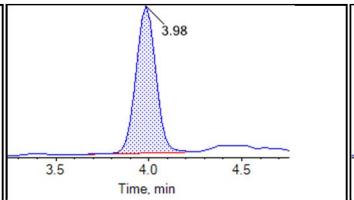
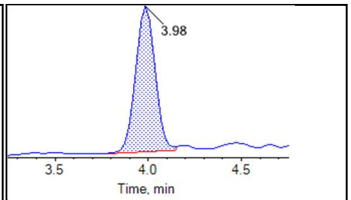


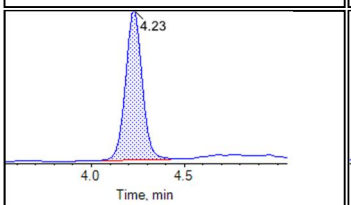
PFUnA_2



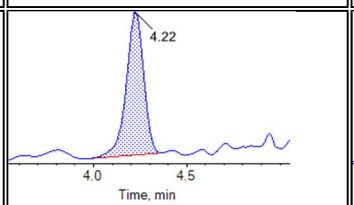
PFDoA_1



PFDoA_2



PFTrDA_1



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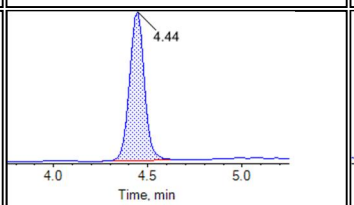

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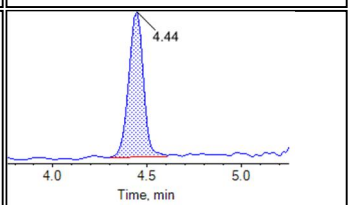
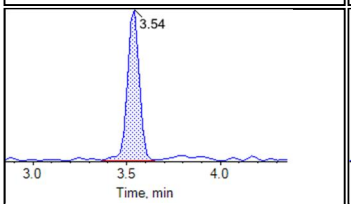
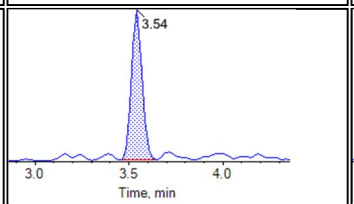


PFTeDA_2



NMeFOSAA_1



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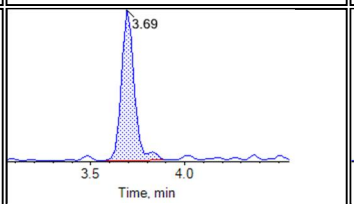

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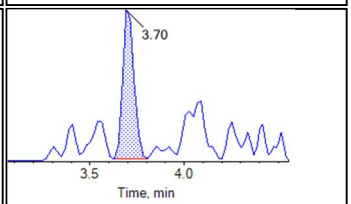
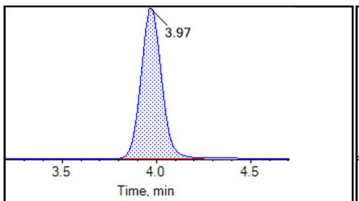
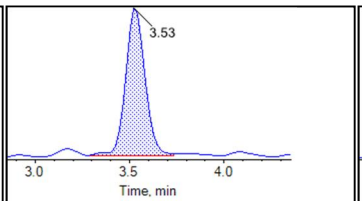


NEtFOSAA_2

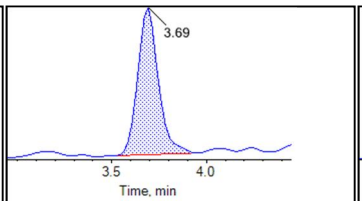
Internal Standards:



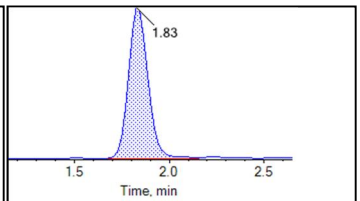
13C2-PFDoA



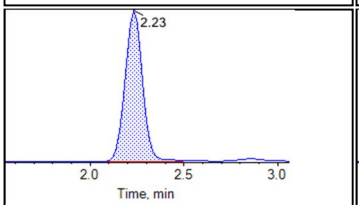
d3-MeFOSAA



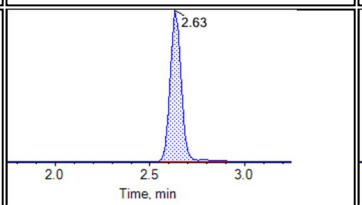
d5-EtFOSAA



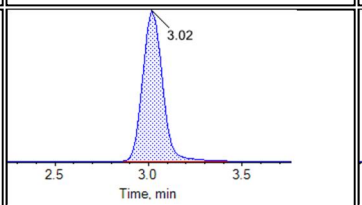
13C5-PFHxA



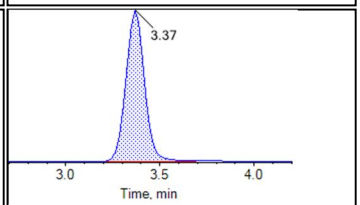
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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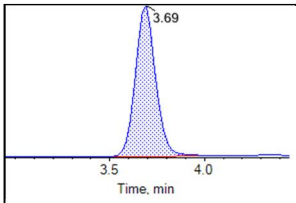
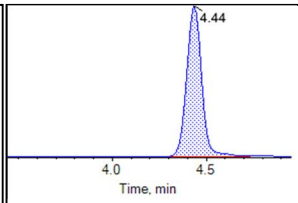
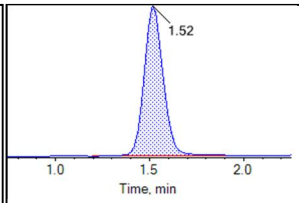


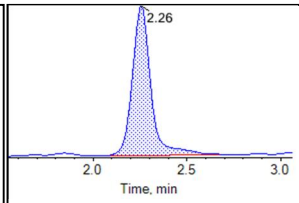
13C7-PFUnA



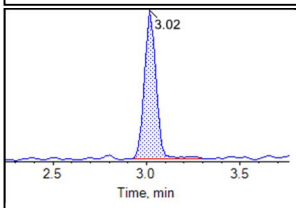
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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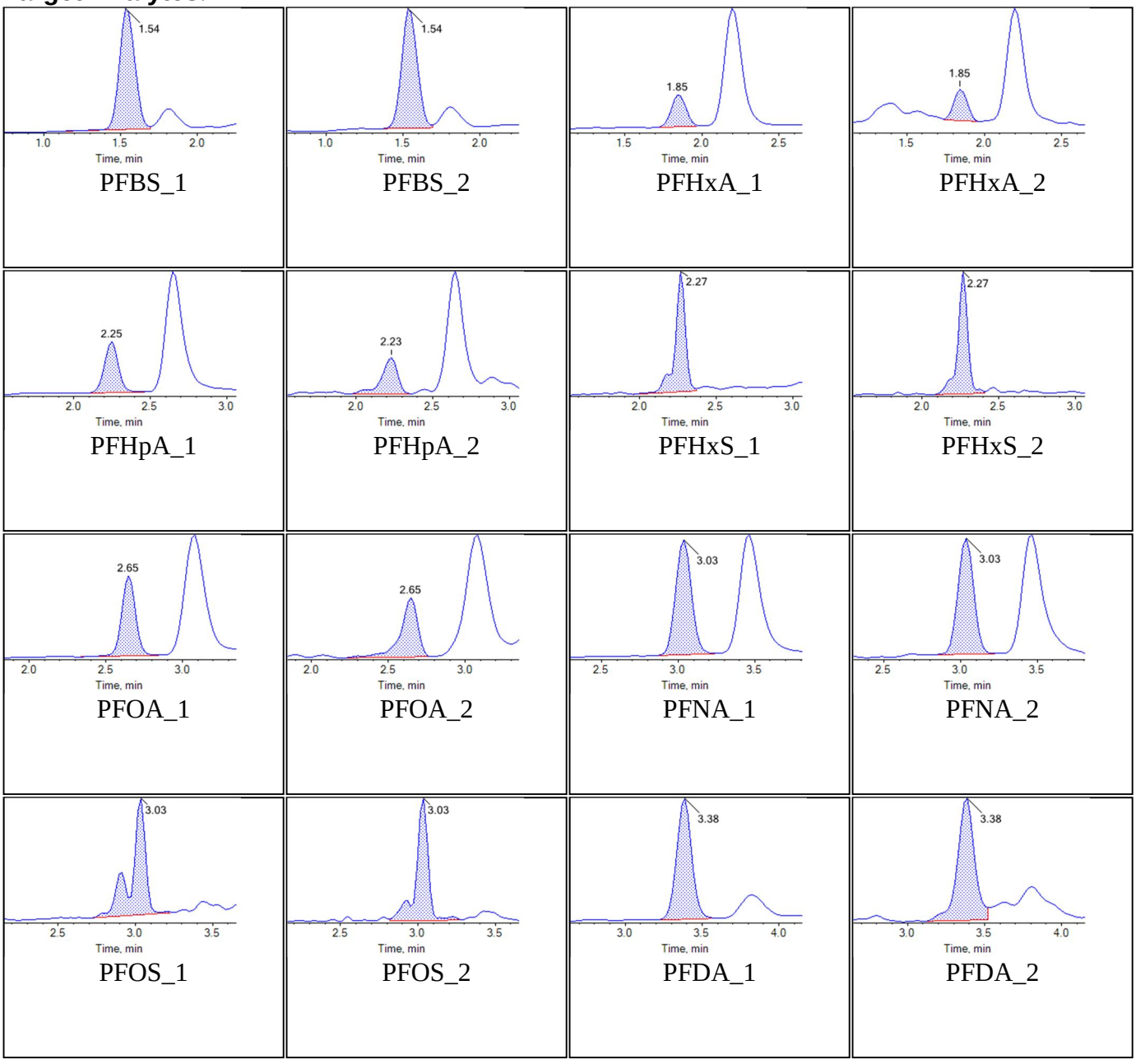
Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:41:03	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
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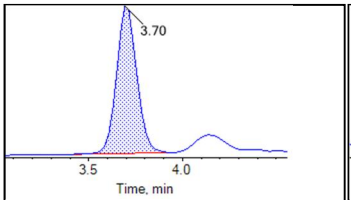
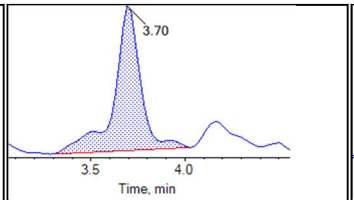
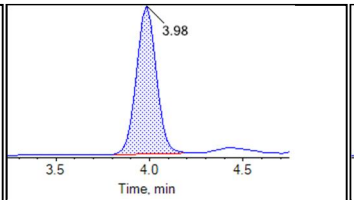


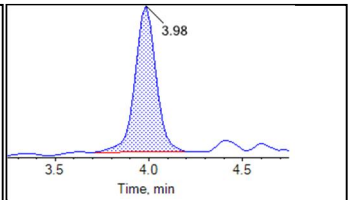
PFUnA_1



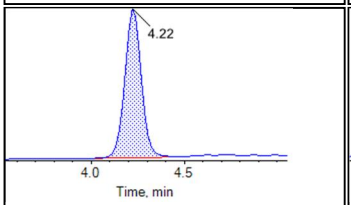
PFUnA_2



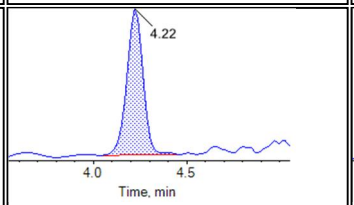
PFDoA_1



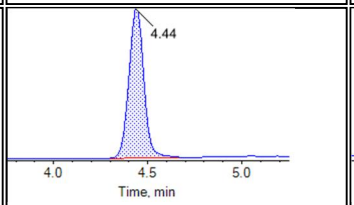
PFDoA_2



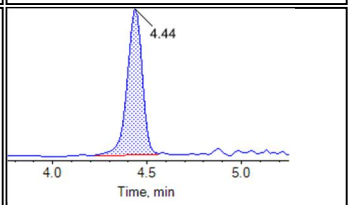
PFTrDA_1



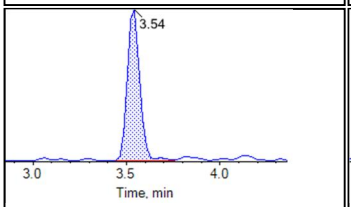
PFTrDA_2



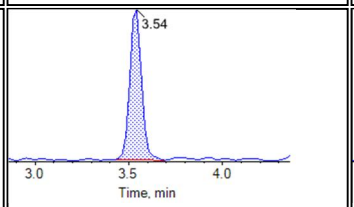
PFTeDA_1



PFTeDA_2



NMeFOSAA_1



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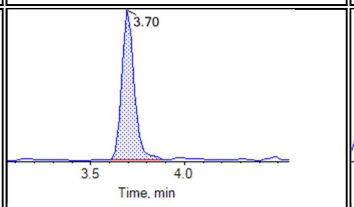
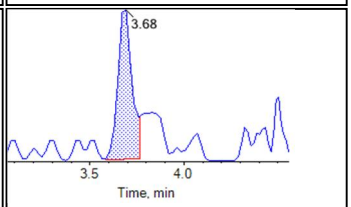
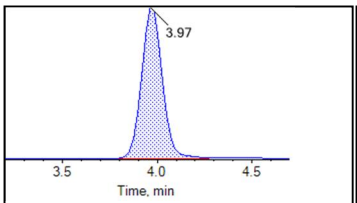


NEtFOSAA_1

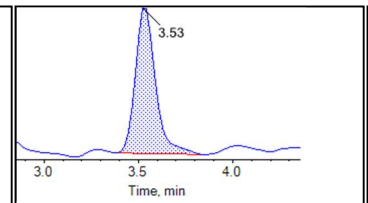


NEtFOSAA_2

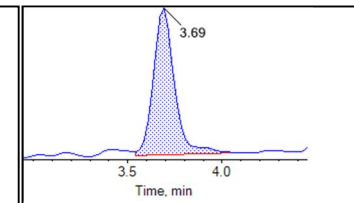
Internal Standards:



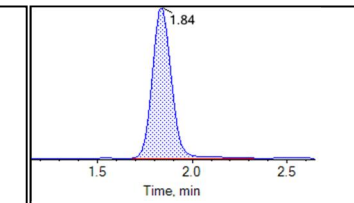
13C2-PFDoA



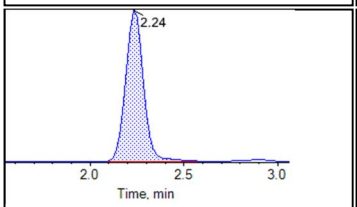
d3-MeFOSAA



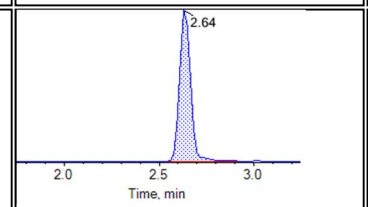
d5-EtFOSAA



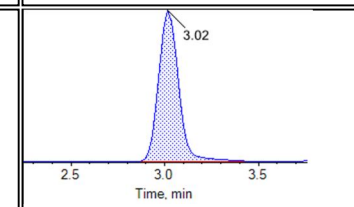
13C5-PFHxA



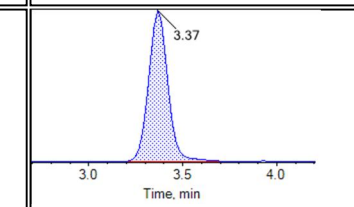
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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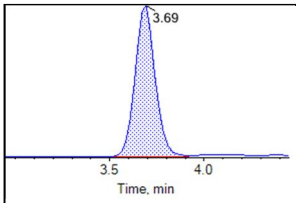
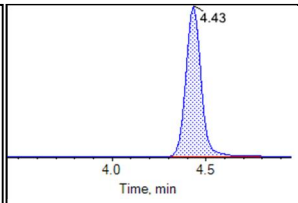
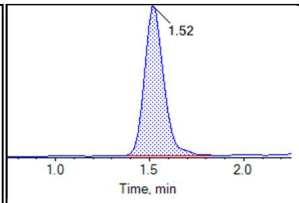


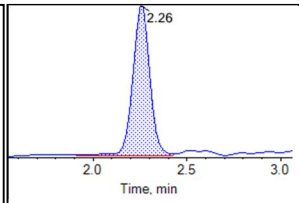
13C7-PFUnA



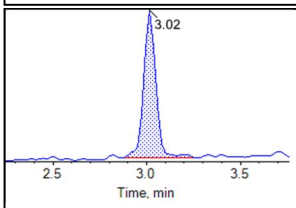
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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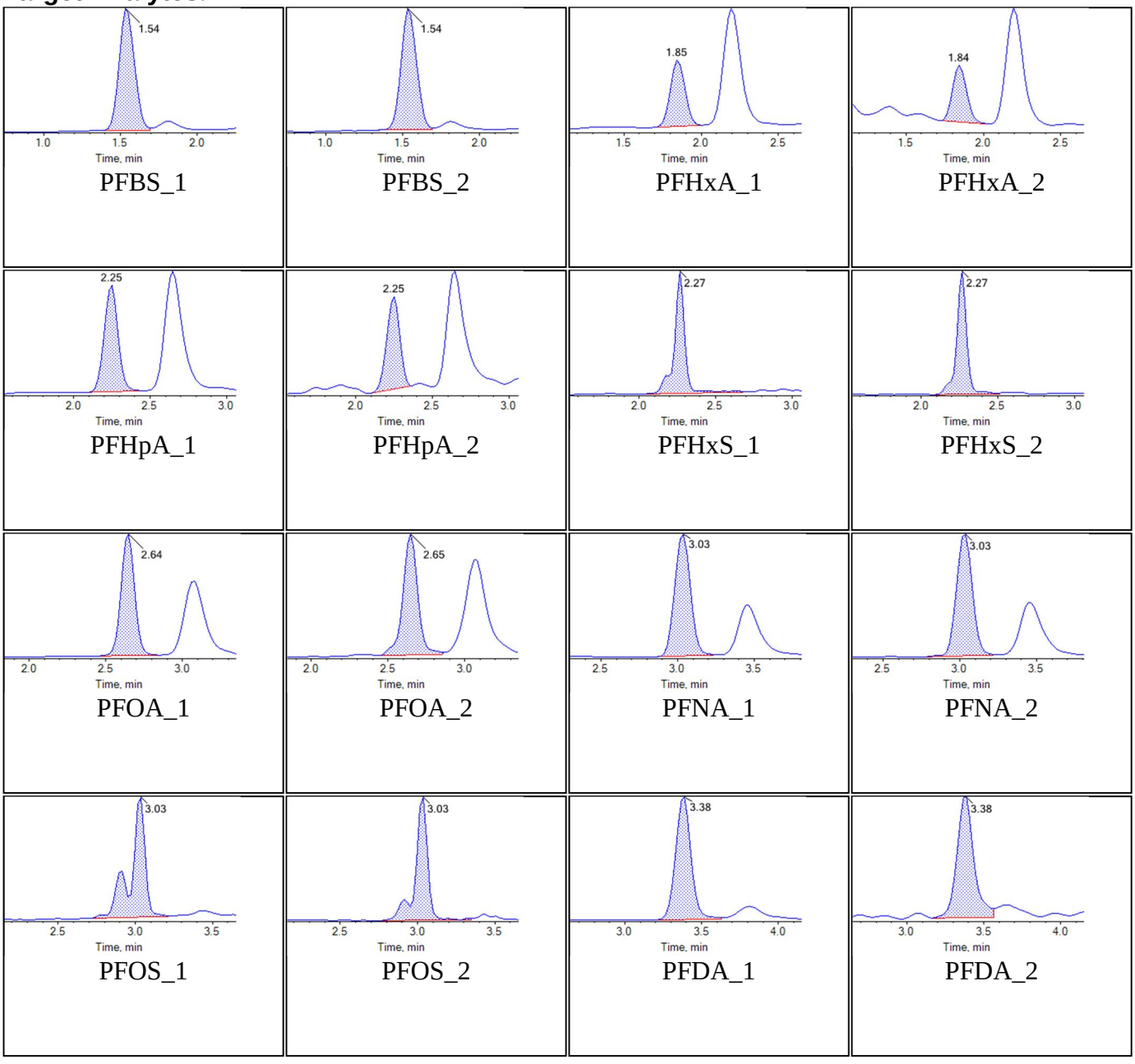
Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:51:56	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



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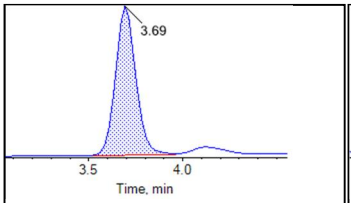
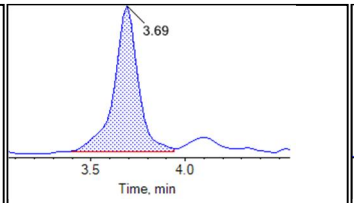
Chromatogram Report

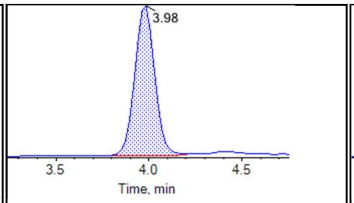
Created with Analyst Reporter
Printed: 18/09/2018 4:22:18 PM



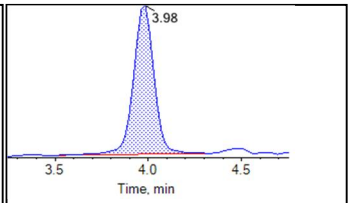
PFUnA_1



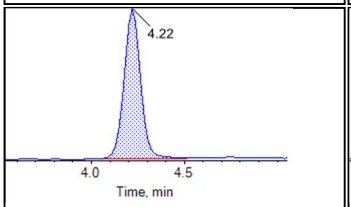
PFUnA_2



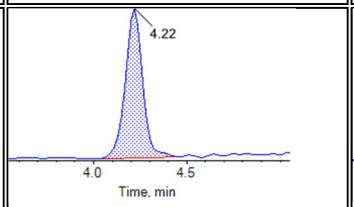
PFDoA_1



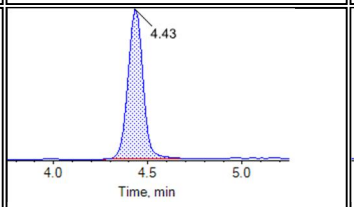
PFDoA_2



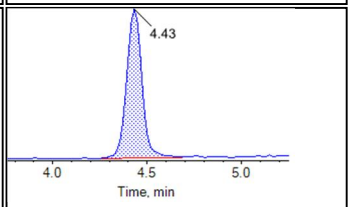
PFTrDA_1



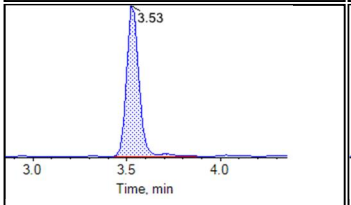
PFTrDA_2



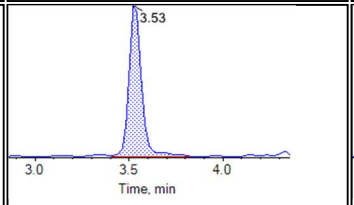
PFTeDA_1



PFTeDA_2



NMeFOSAA_1



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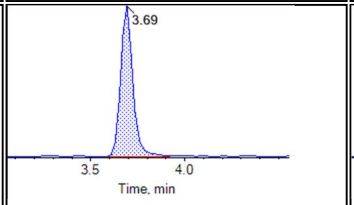
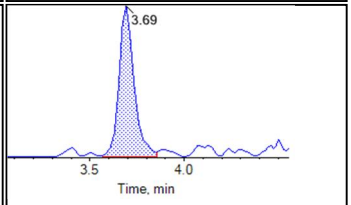
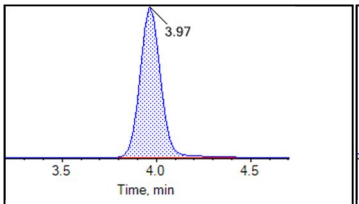


NEtFOSAA_1

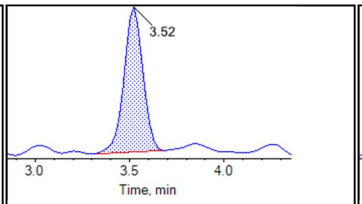


NEtFOSAA_2

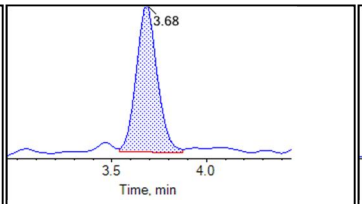
Internal Standards:



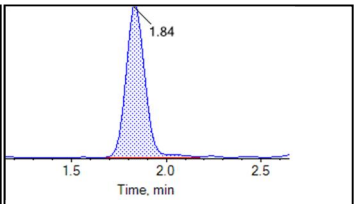
13C2-PFDoA



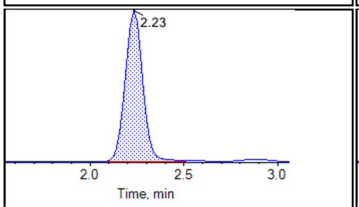
d3-MeFOSAA



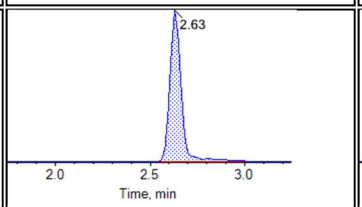
d5-EtFOSAA



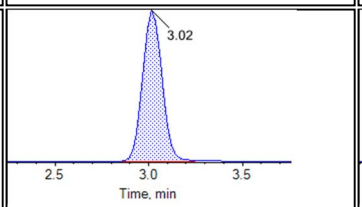
13C5-PFHxA



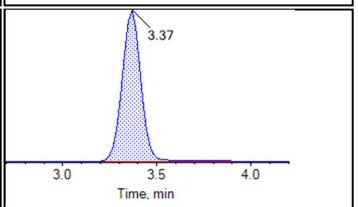
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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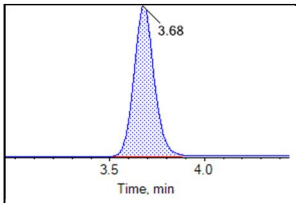
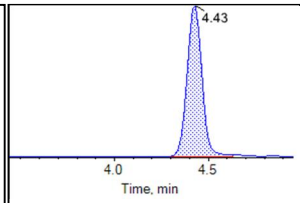
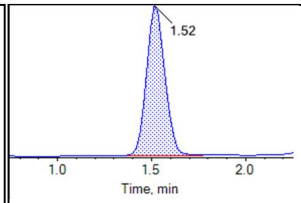


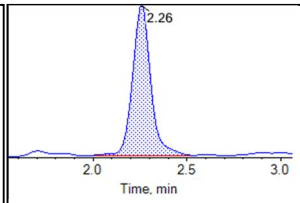
13C7-PFUnA



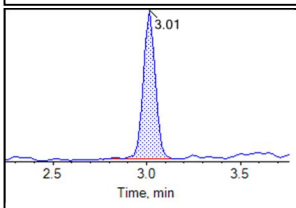
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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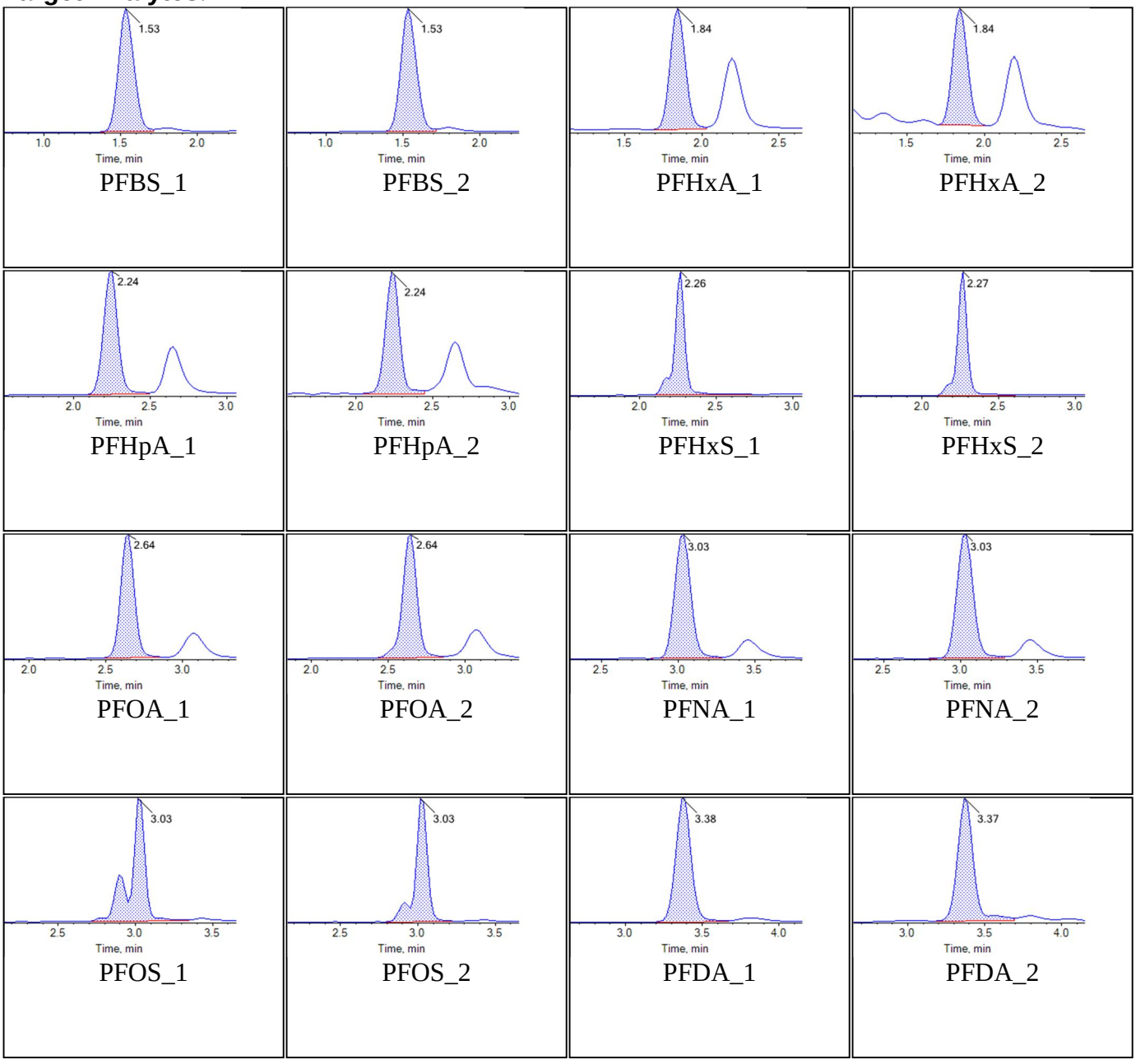
Printed: 18/09/2018 4:22:23 PM

Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:02:47	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

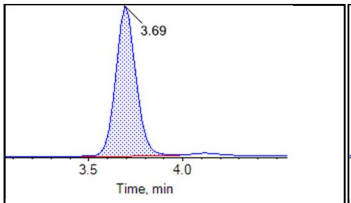
Target Analytes:



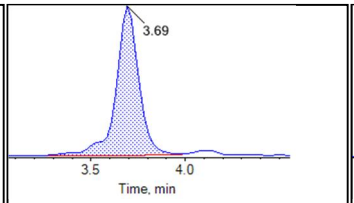
BATTELLE

Chromatogram Report

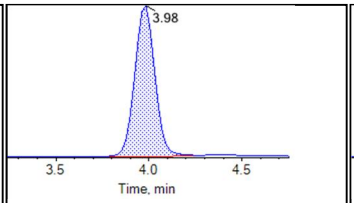
Created with Analyst Reporter
Printed: 18/09/2018 4:22:23 PM



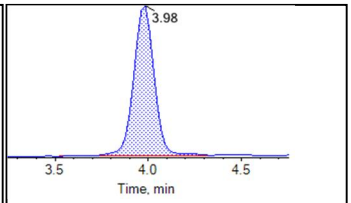
PFUnA_1



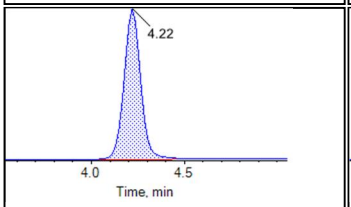
PFUnA_2



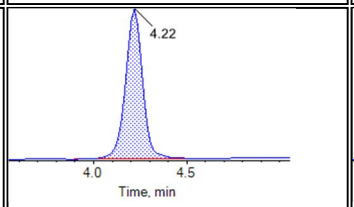
PFDoA_1



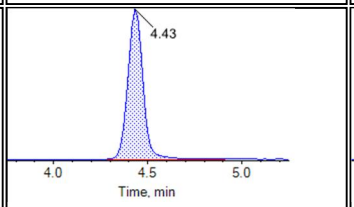
PFDoA_2



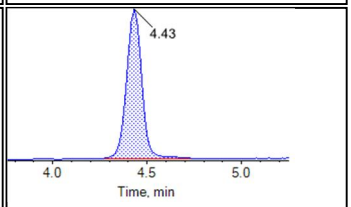
PFTrDA_1



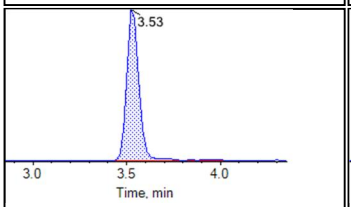
PFTrDA_2



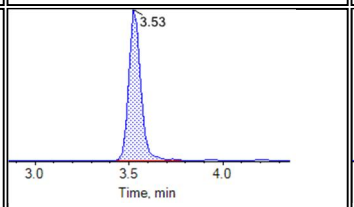
PFTeDA_1



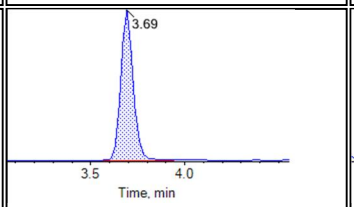
PFTeDA_2



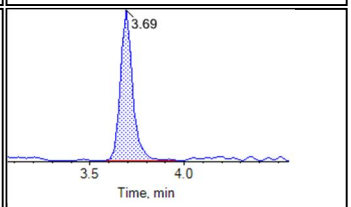
NMeFOSAA_1



NMeFOSAA_2

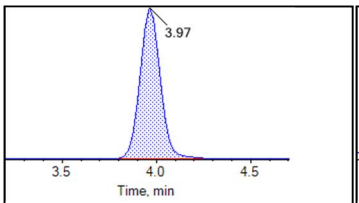


NEtFOSAA_1

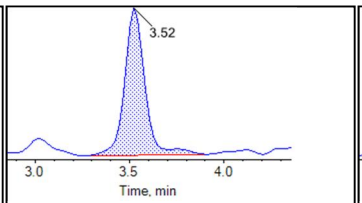


NEtFOSAA_2

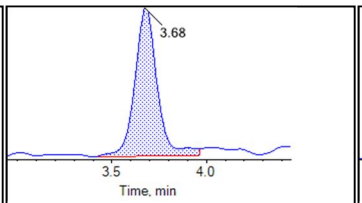
Internal Standards:



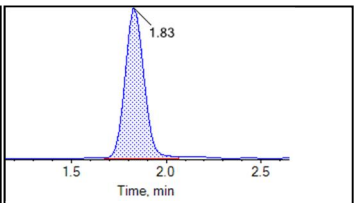
13C2-PFDoA



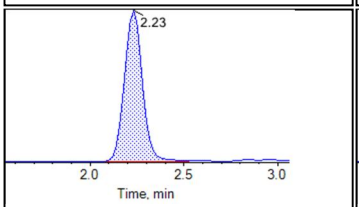
d3-MeFOSAA



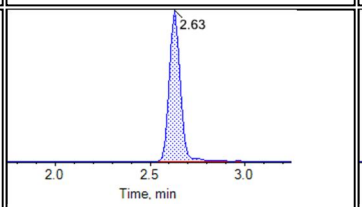
d5-EtFOSAA



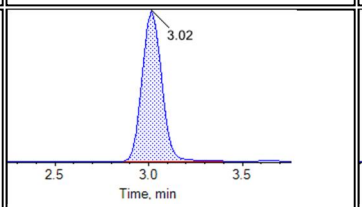
13C5-PFHxA



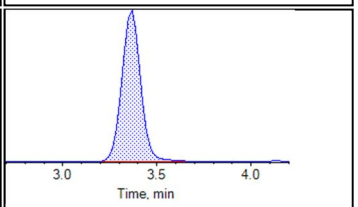
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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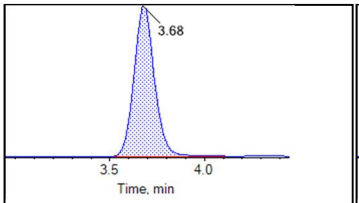
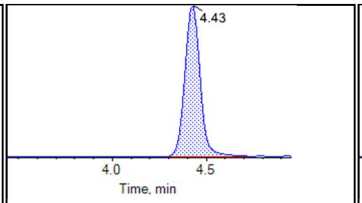
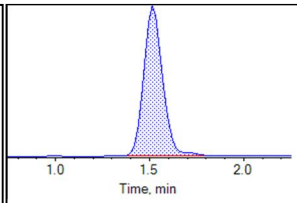


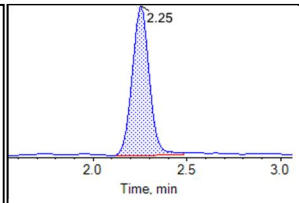
13C7-PFUnA



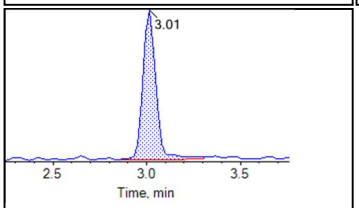
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

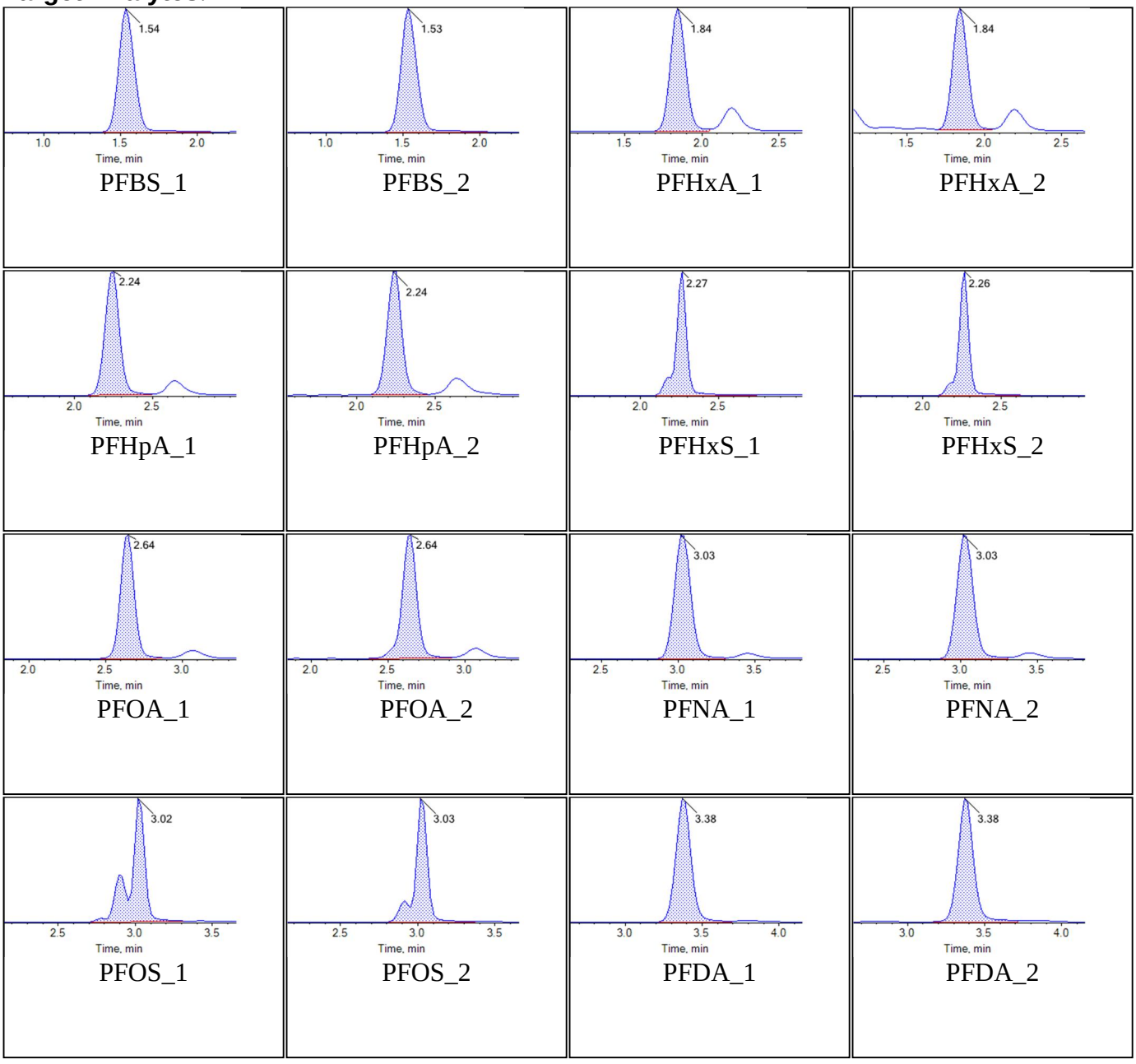
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:22:28 PM

Sample Name	KA91	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:13:39	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

Created with Analyst Reporter
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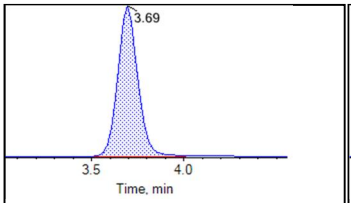
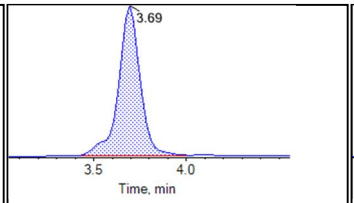
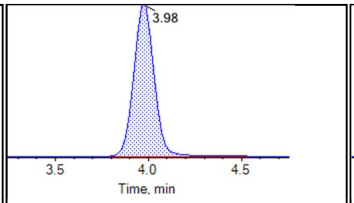


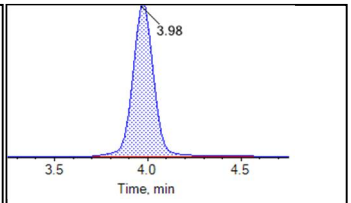
PFUnA_1



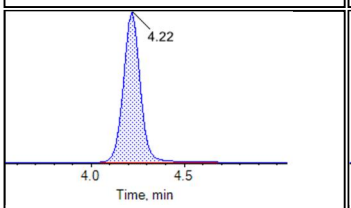
PFUnA_2



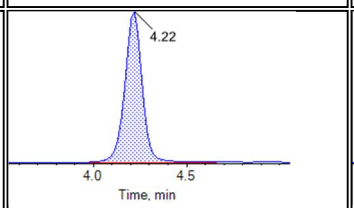
PFDoA_1



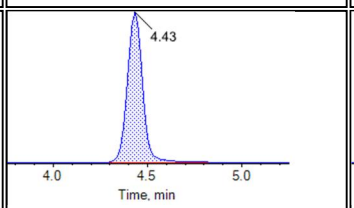
PFDoA_2



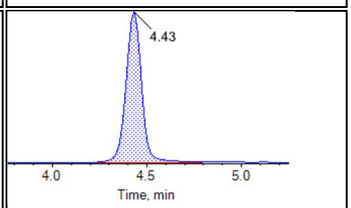
PFTrDA_1



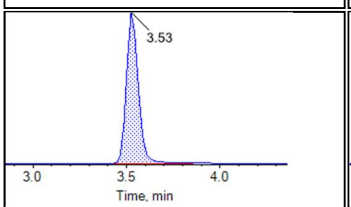
PFTrDA_2



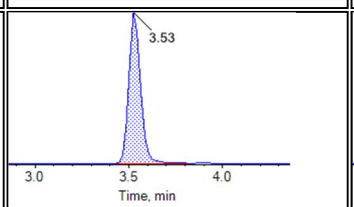
PFTeDA_1



PFTeDA_2



NMeFOSAA_1



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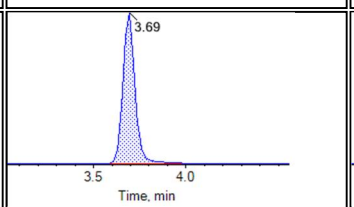

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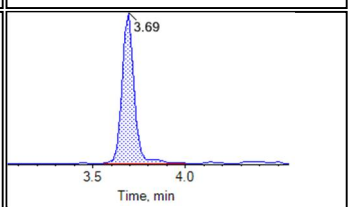
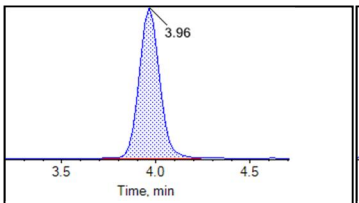
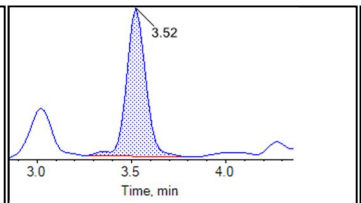


NEtFOSAA_2

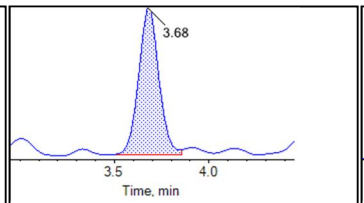
Internal Standards:



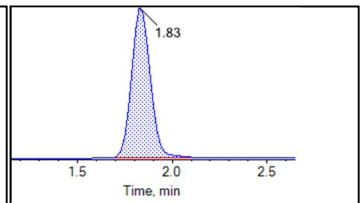
13C2-PFDoA



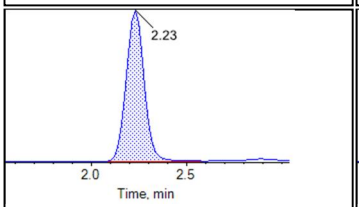
d3-MeFOSAA



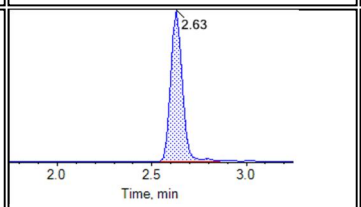
d5-EtFOSAA



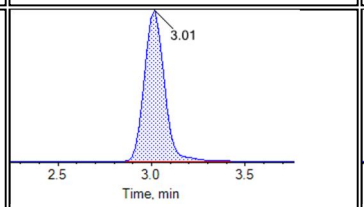
13C5-PFHxA



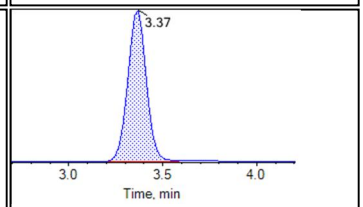
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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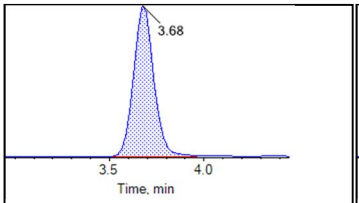
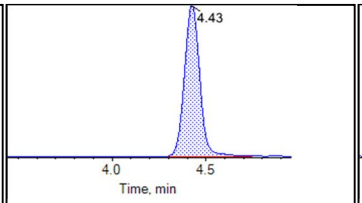
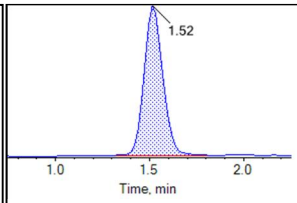


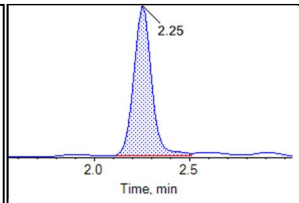
13C7-PFUnA



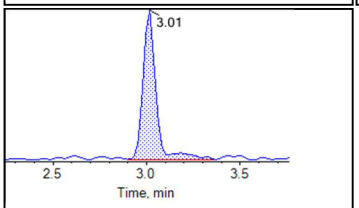
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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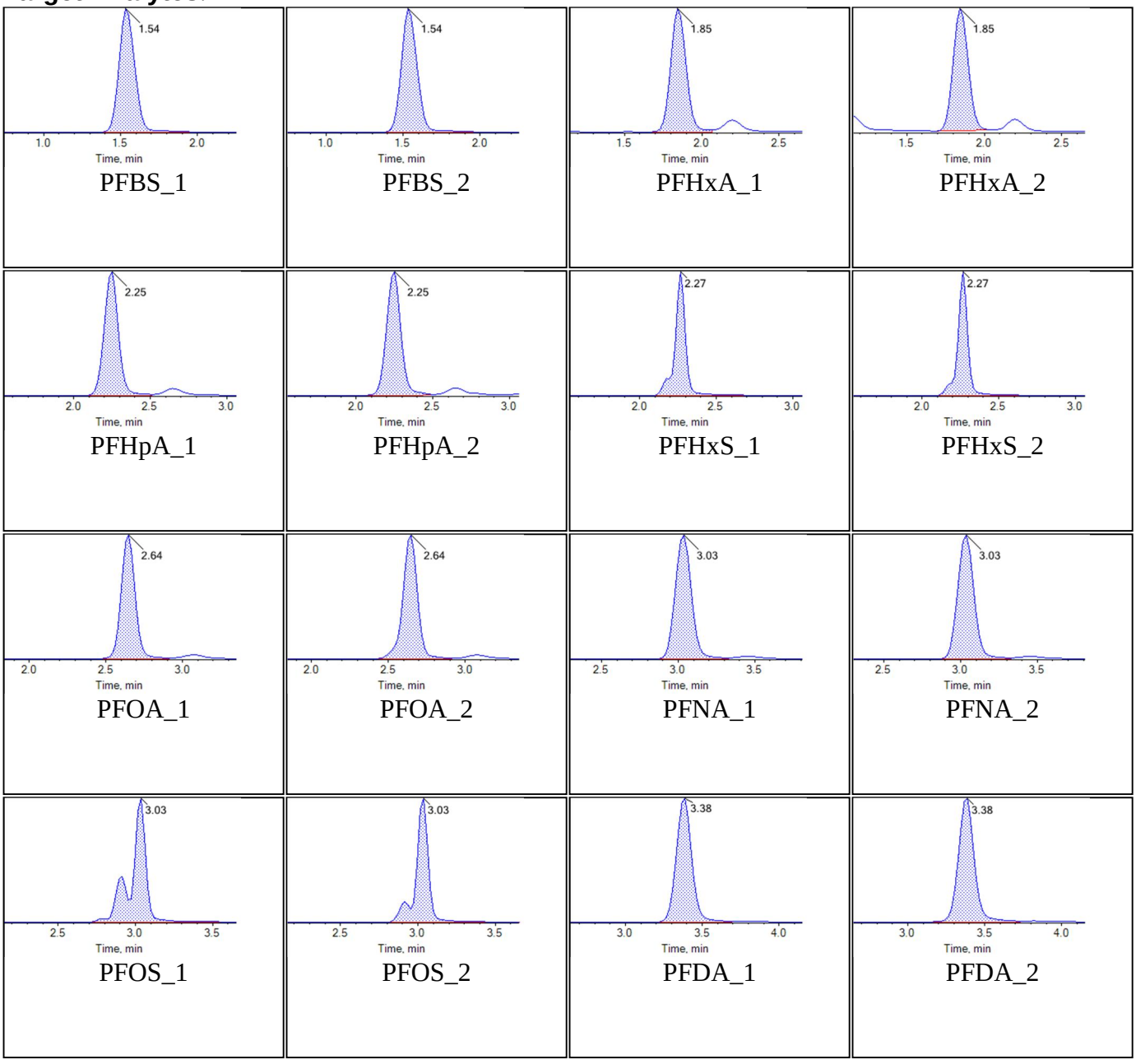
Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:24:30	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
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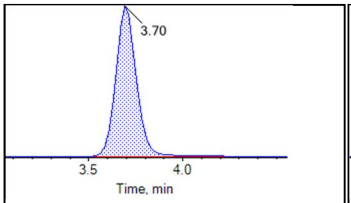
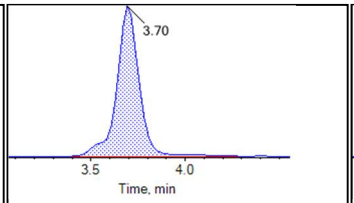


PFUnA_1



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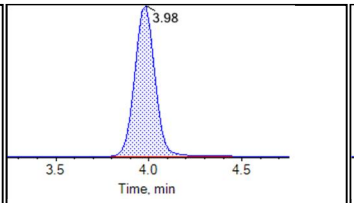
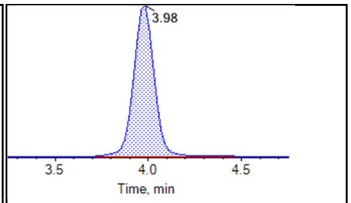


PFDoA_1



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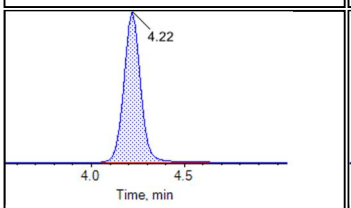

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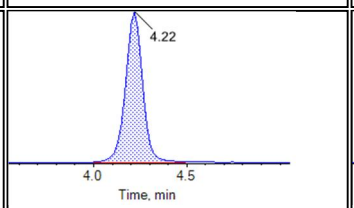

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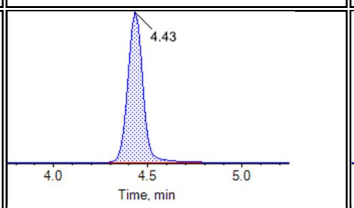
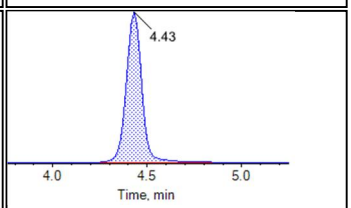
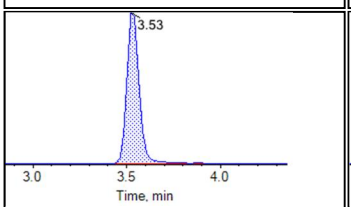


PFTeDA_1



PFTeDA_2



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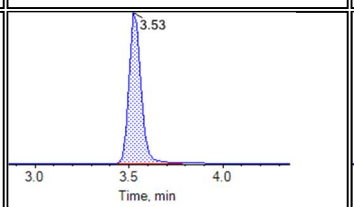

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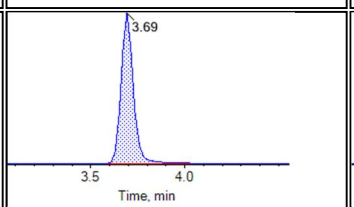
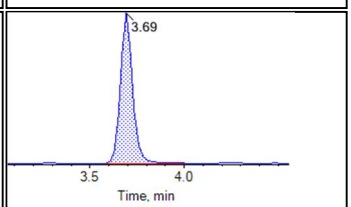
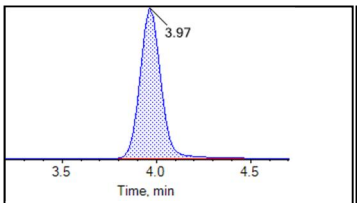


NEtFOSAA_1

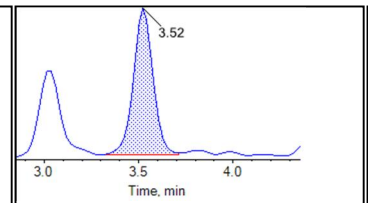


NEtFOSAA_2

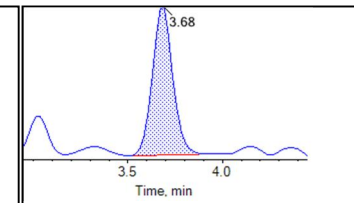
Internal Standards:



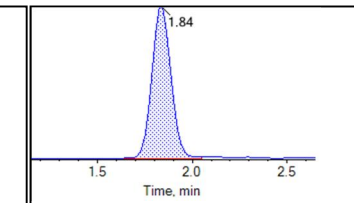
13C2-PFDoA



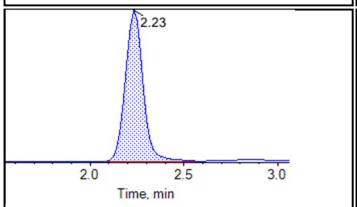
d3-MeFOSAA



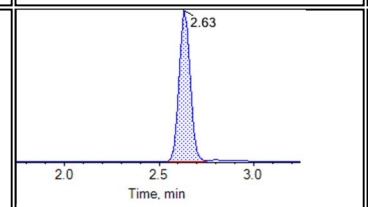
d5-EtFOSAA



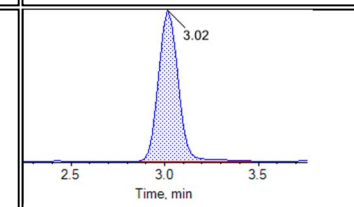
13C5-PFHxA



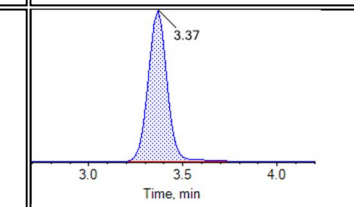
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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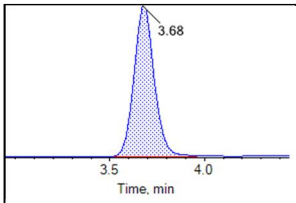
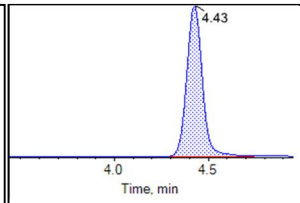
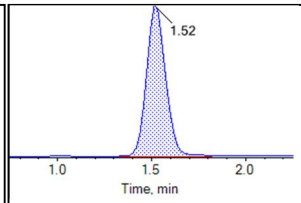


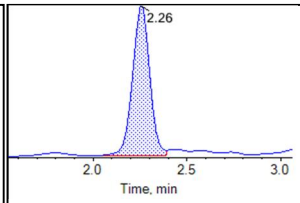
13C7-PFUnA



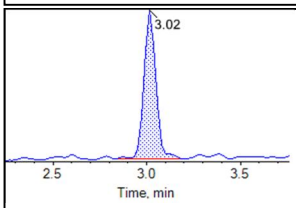
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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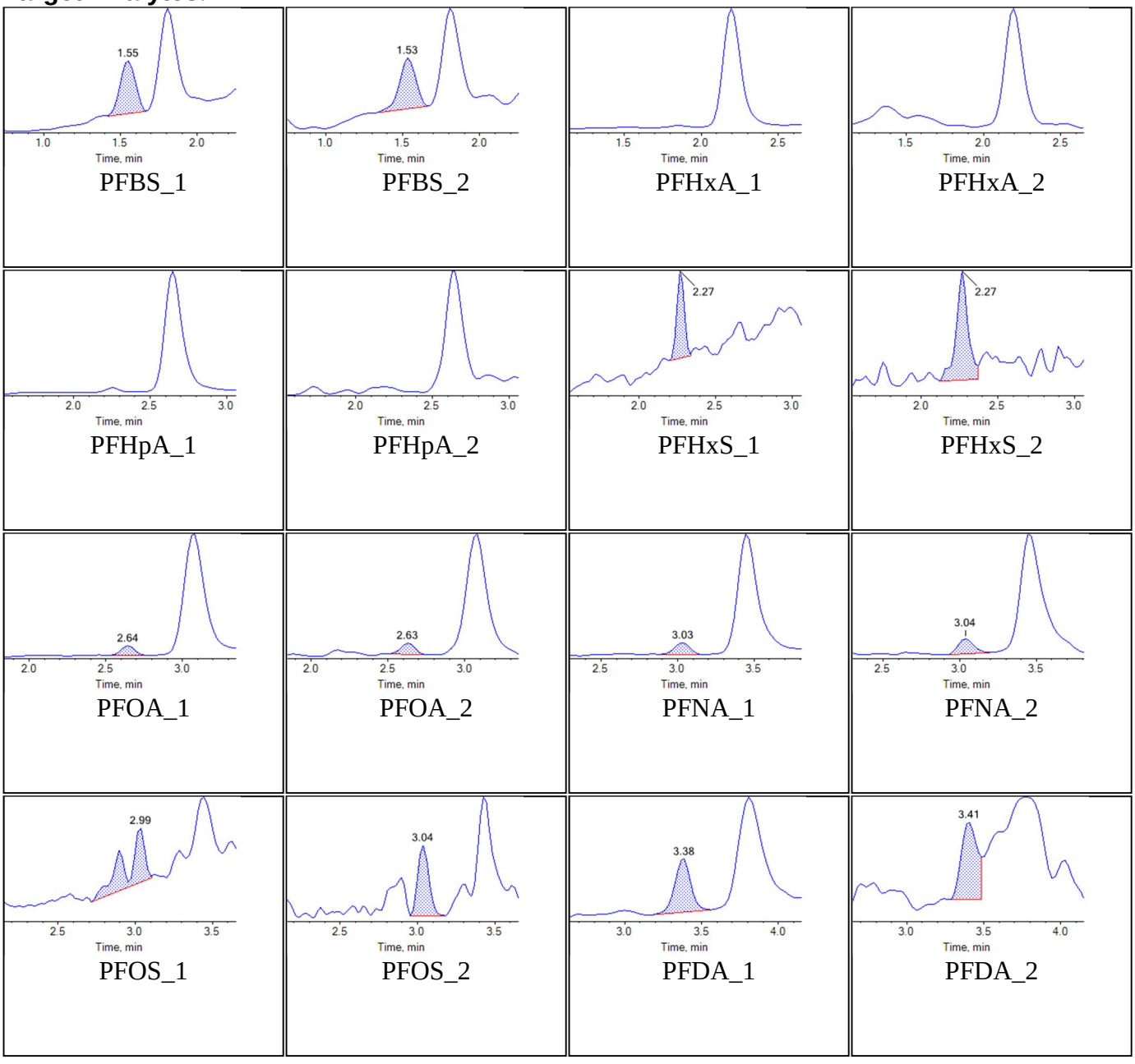
Sample Name	JY46 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:35:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



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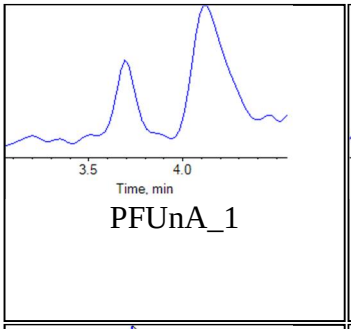
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:22:38 PM



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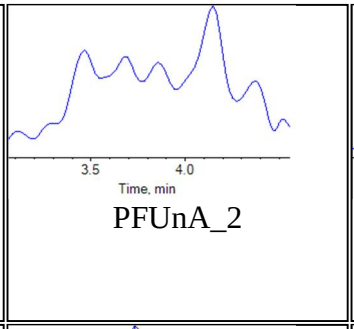
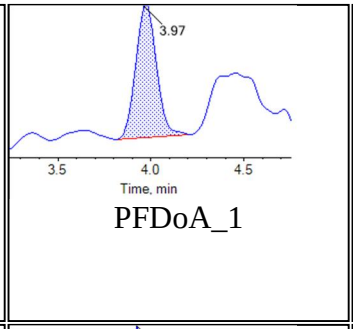
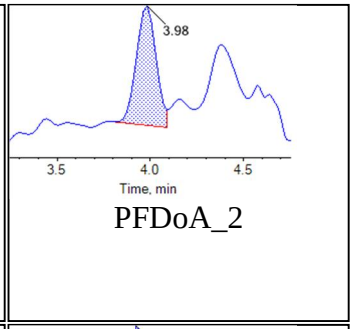


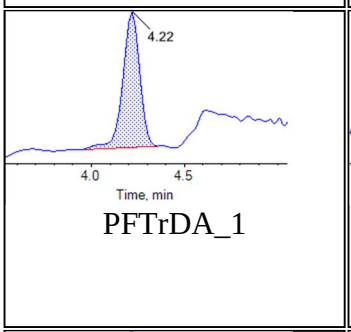
PFUnA_2



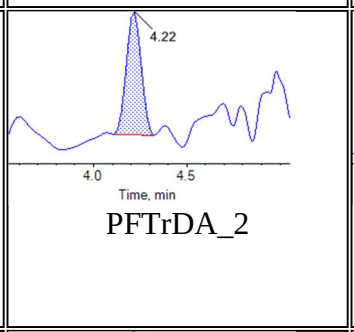
PFDoA_1



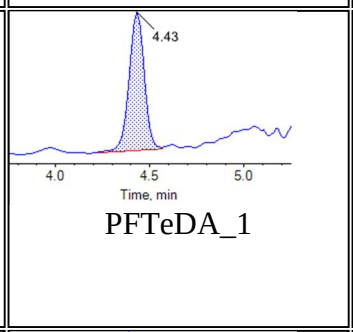
PFDoA_2



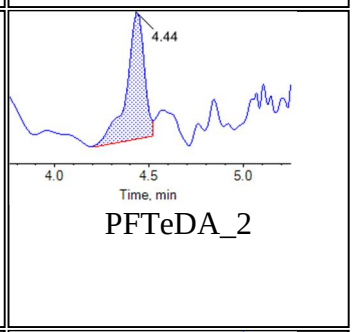
PFTrDA_1



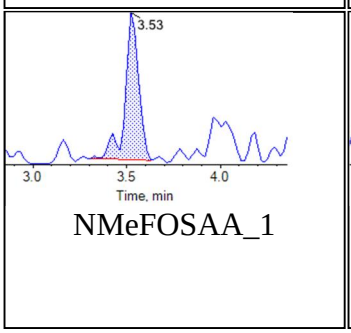
PFTrDA_2



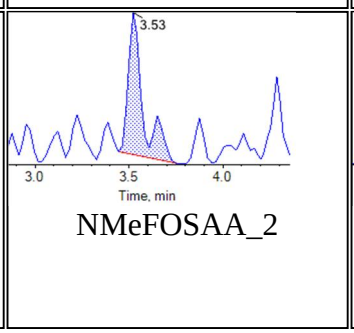
PFTeDA_1



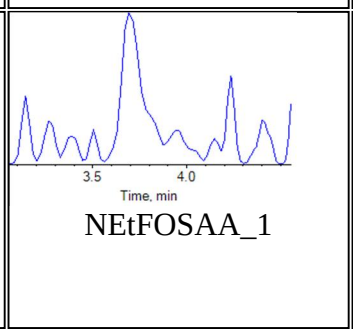
PFTeDA_2



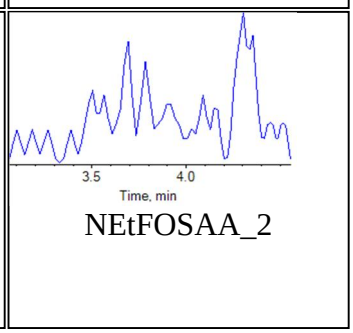
NMeFOSAA_1



NMeFOSAA_2

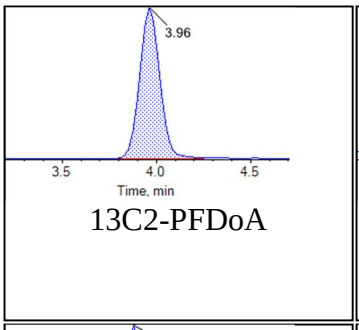


NEtFOSAA_1

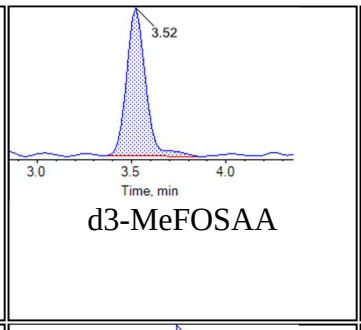


NEtFOSAA_2

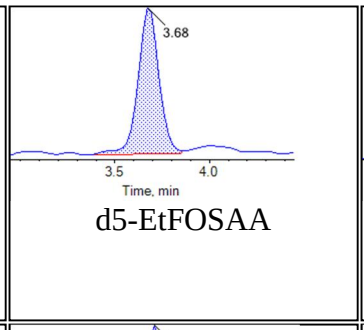
Internal Standards:



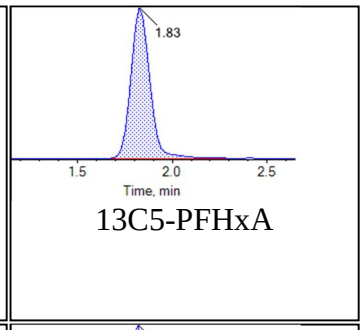
13C2-PFDoA



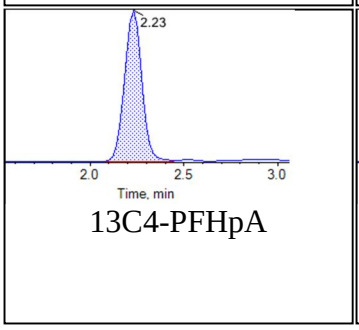
d3-MeFOSAA



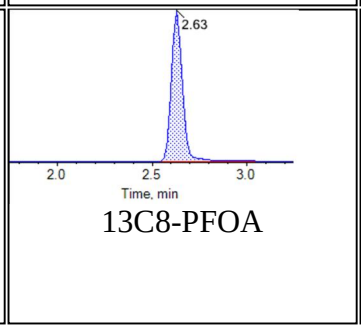
d5-EtFOSAA



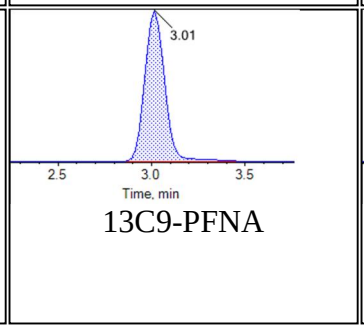
13C5-PFHxA



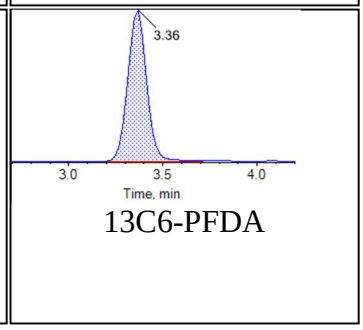
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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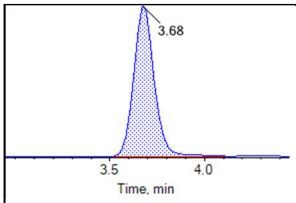
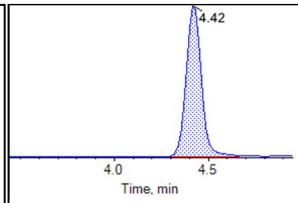
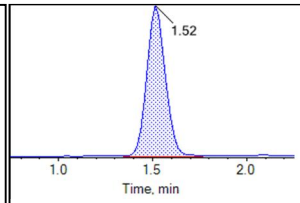


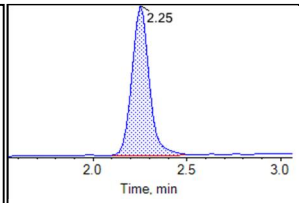
13C7-PFUnA



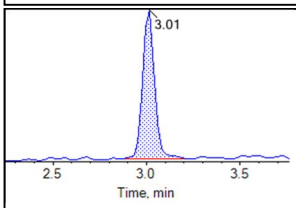
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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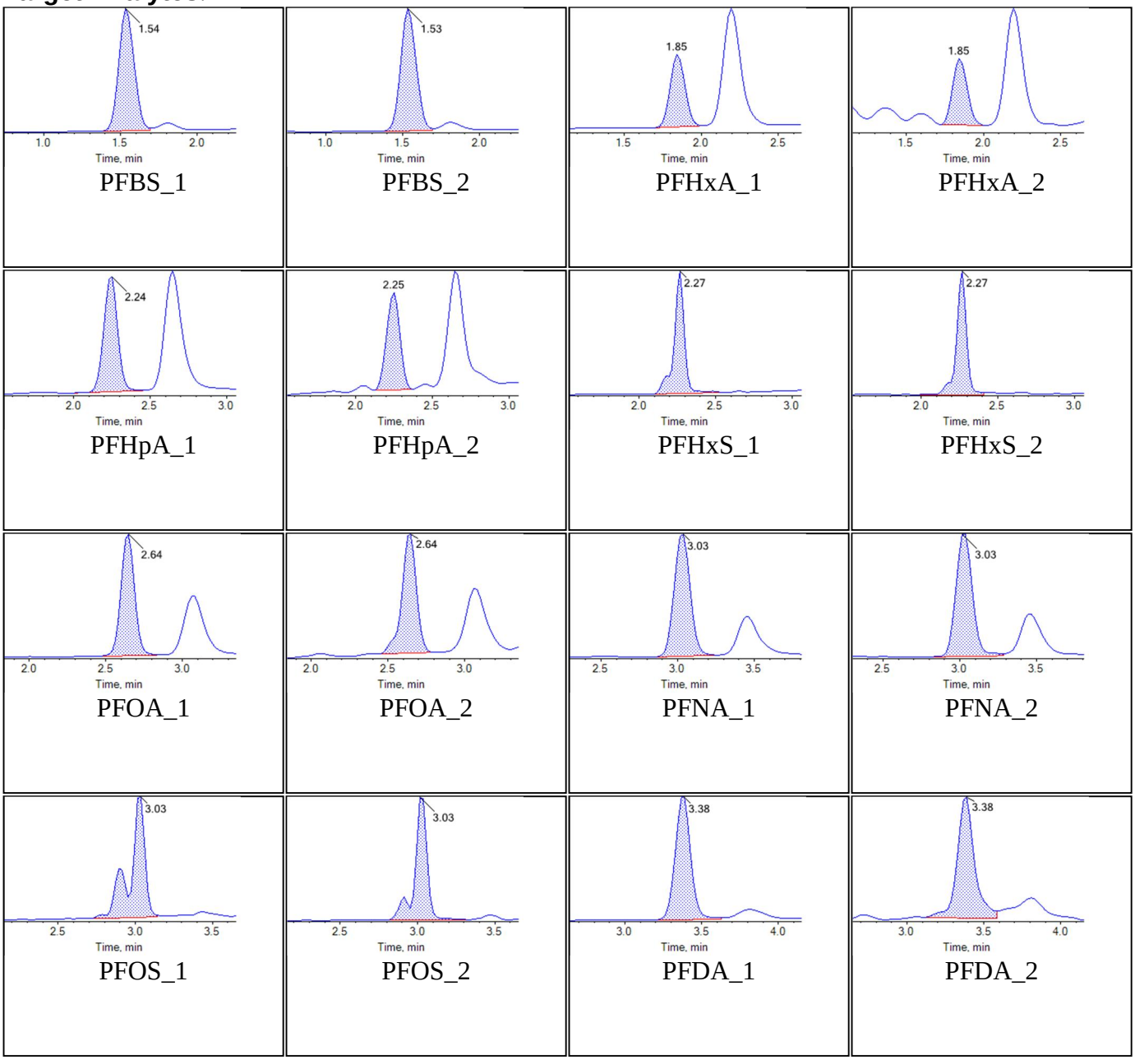
Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
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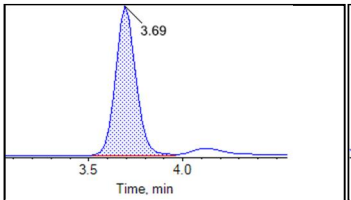
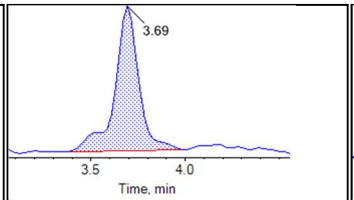
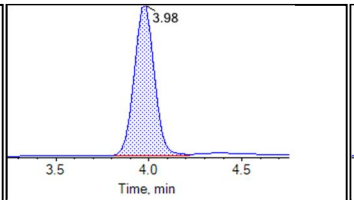


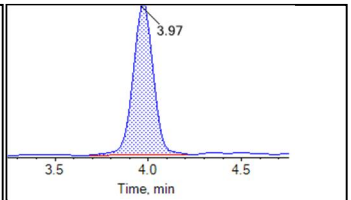
PFUnA_1



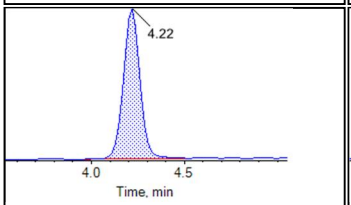
PFUnA_2



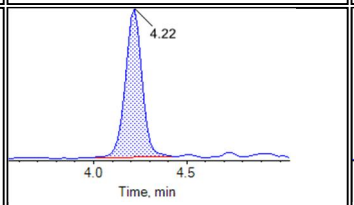
PFDoA_1



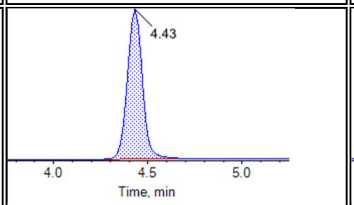
PFDoA_2



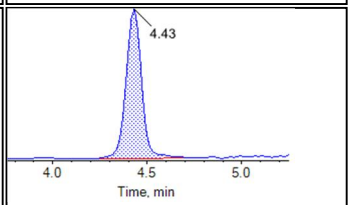
PFTrDA_1



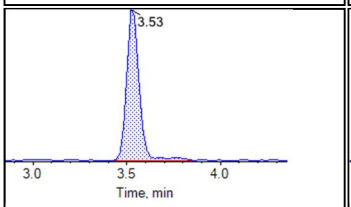
PFTrDA_2



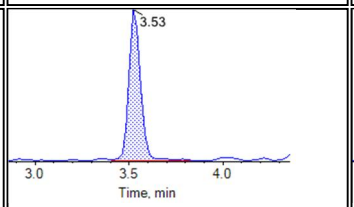
PFTeDA_1



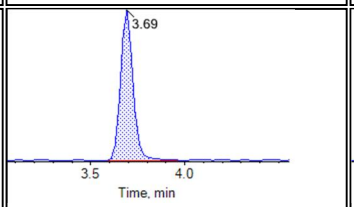
PFTeDA_2



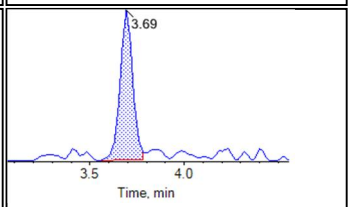
NMeFOSAA_1



NMeFOSAA_2

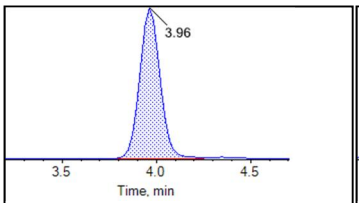


NEtFOSAA_1

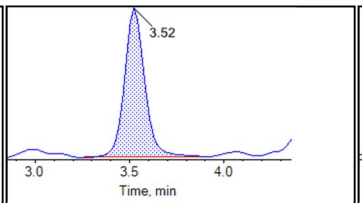


NEtFOSAA_2

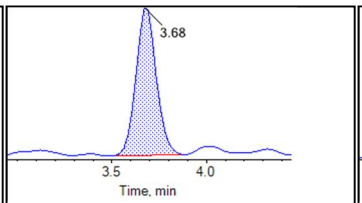
Internal Standards:



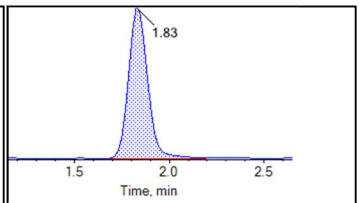
13C2-PFDoA



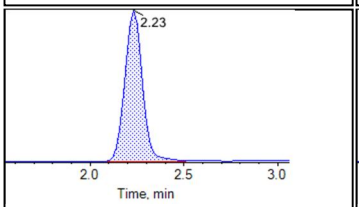
d3-MeFOSAA



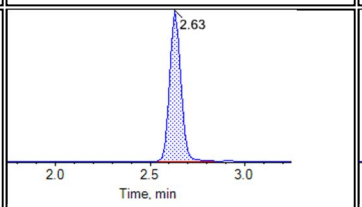
d5-EtFOSAA



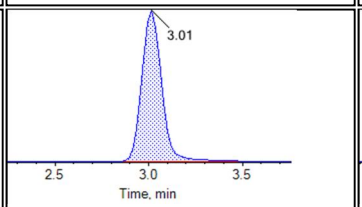
13C5-PFHxA



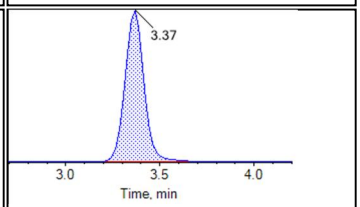
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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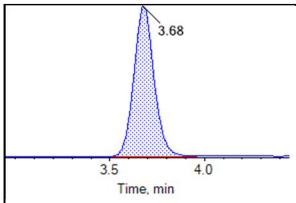
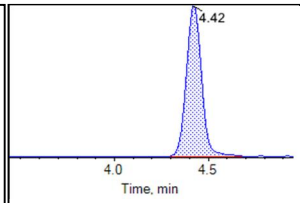
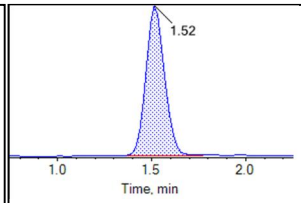


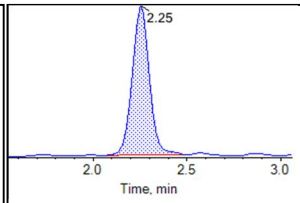
13C7-PFUnA



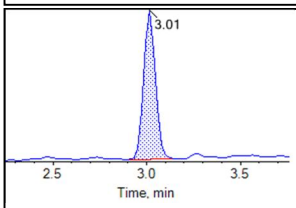
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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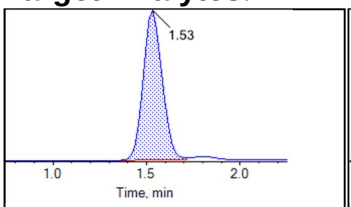
Printed: 18/09/2018 4:22:57 PM

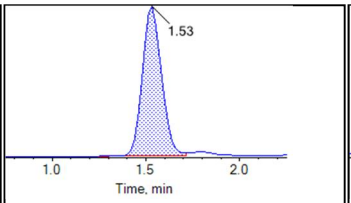
Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

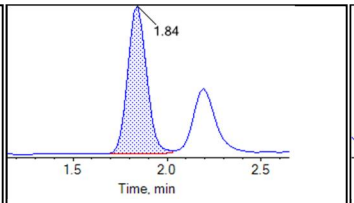
Target Analytes:



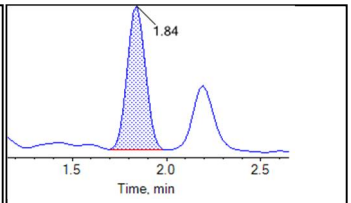
PFBS_1



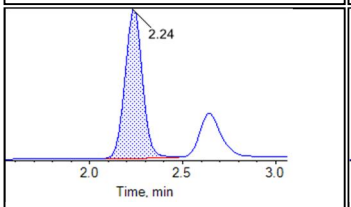
PFBS_2



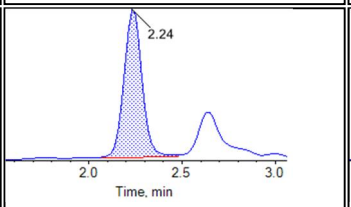
PFHxA_1



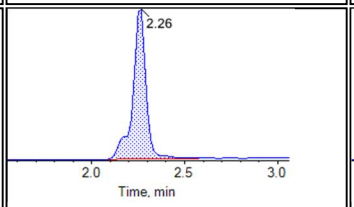
PFHxA_2



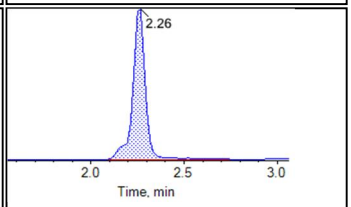
PFHpA_1



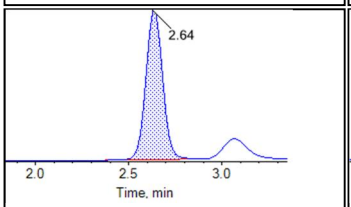
PFHpA_2



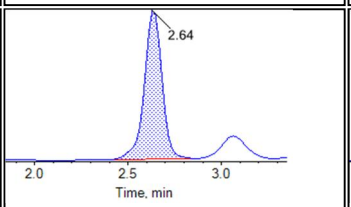
PFHxS_1



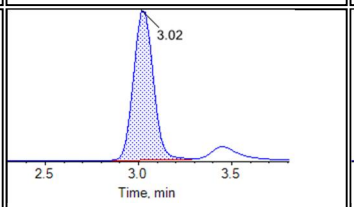
PFHxS_2



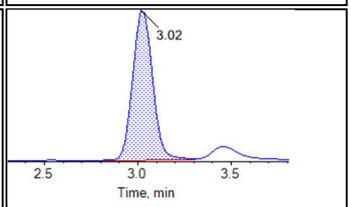
PFOA_1



PFOA_2



PFNA_1



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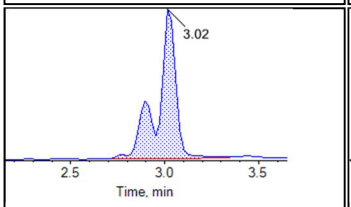

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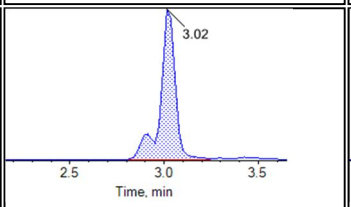

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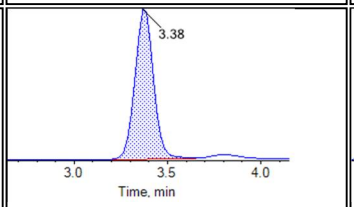

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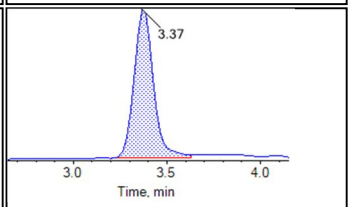

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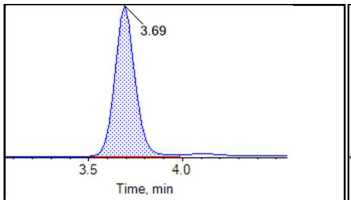

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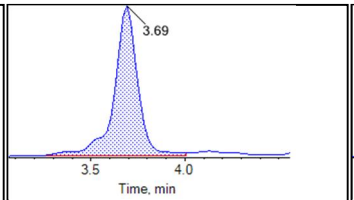

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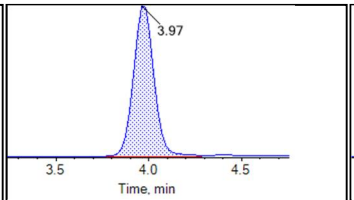

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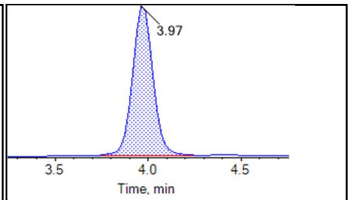

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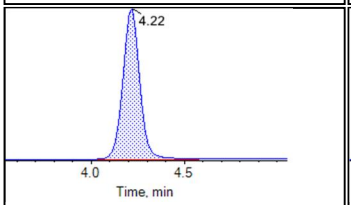

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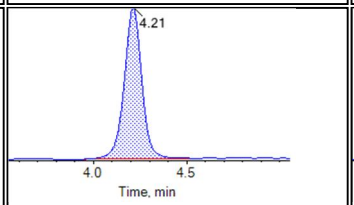

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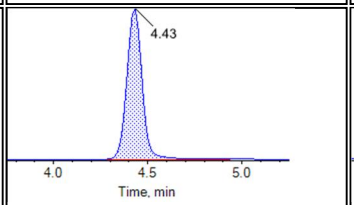

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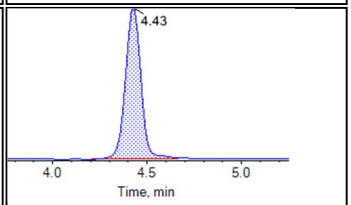

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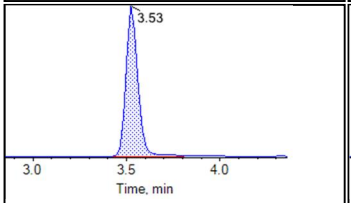

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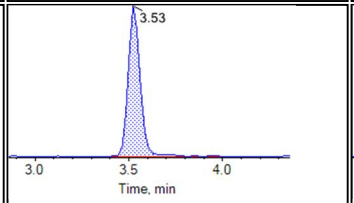

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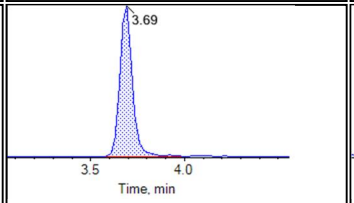

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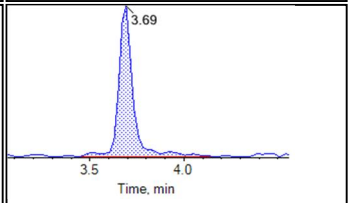

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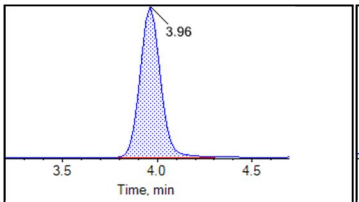

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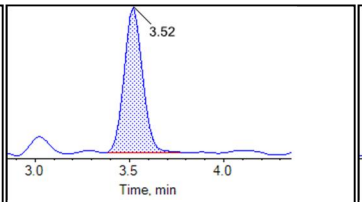

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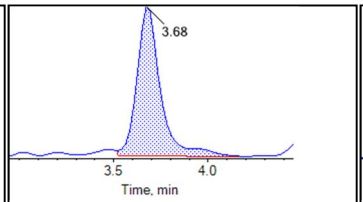

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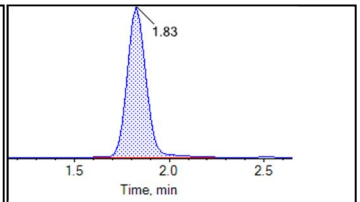

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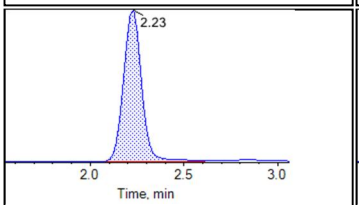

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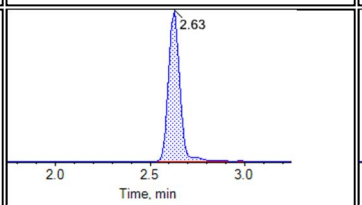

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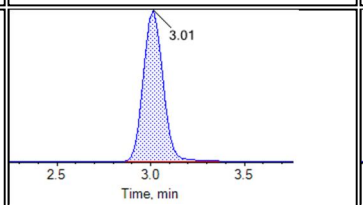

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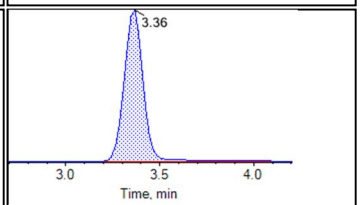

13C6-PFDA

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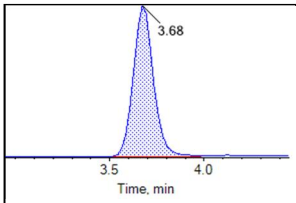

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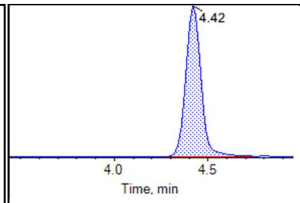

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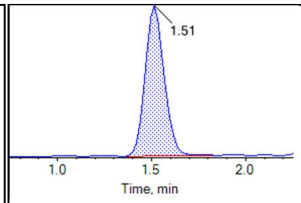

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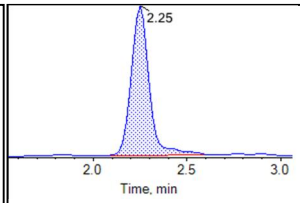

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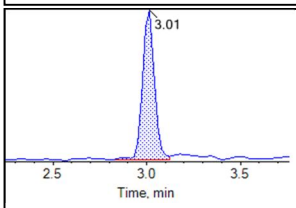

13C8-PFOS

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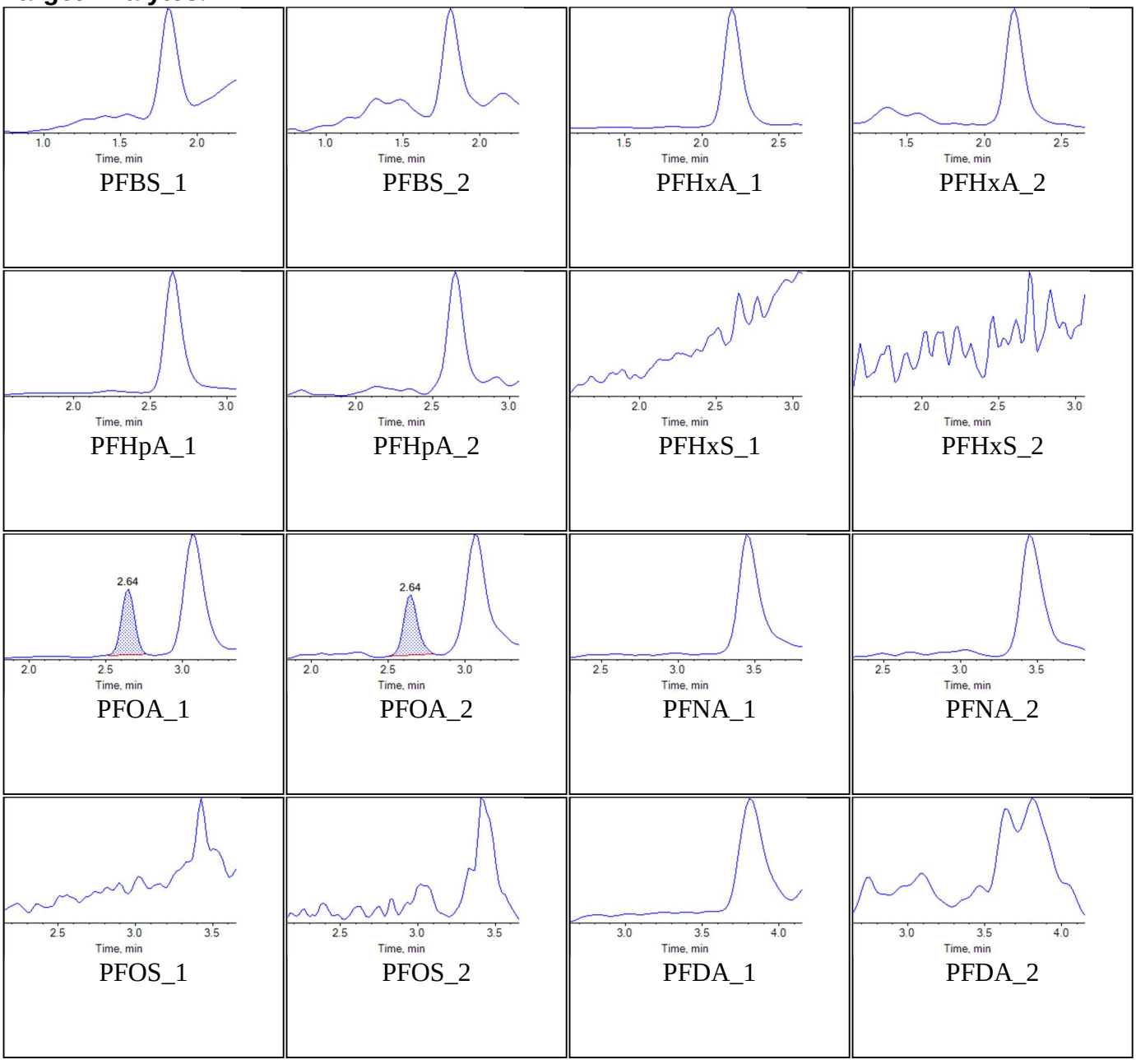
Sample Name	CR817PB-FS(0)	**Injection Vial**	21
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:56:35	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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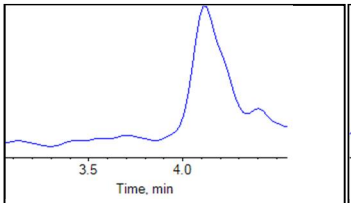

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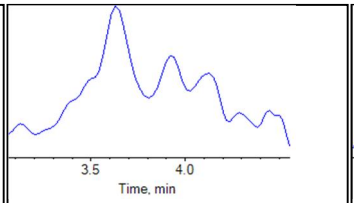

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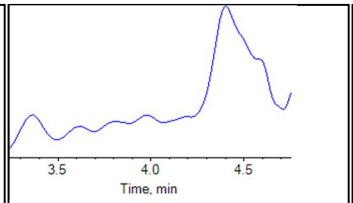

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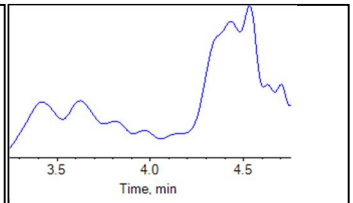

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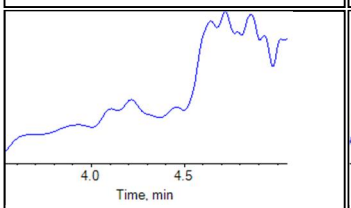

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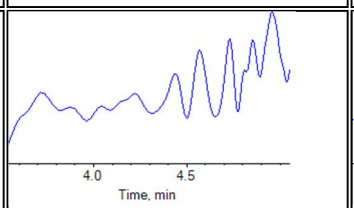

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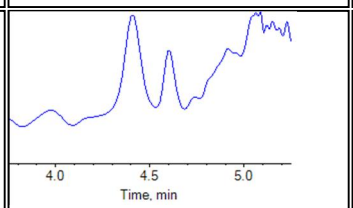

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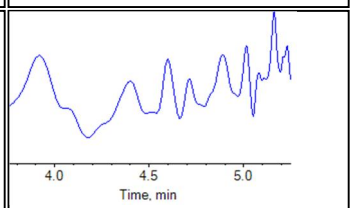

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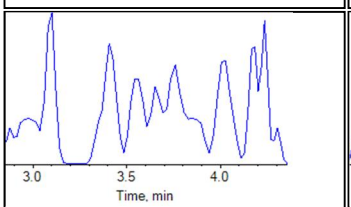

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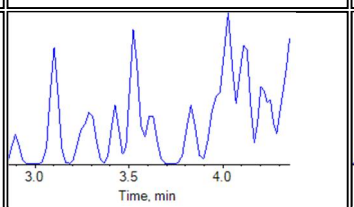

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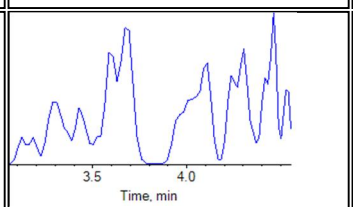

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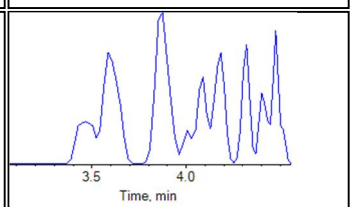

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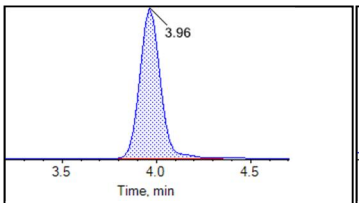

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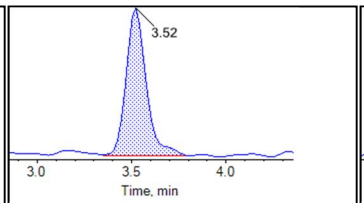

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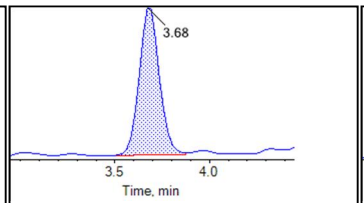

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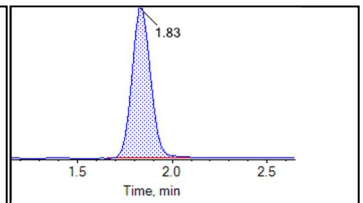

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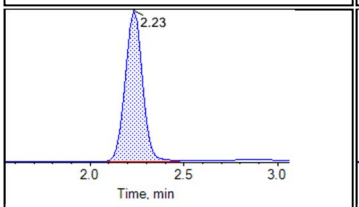

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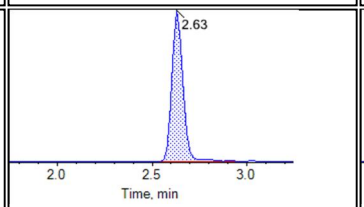

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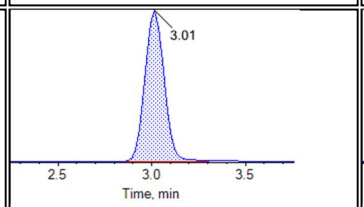

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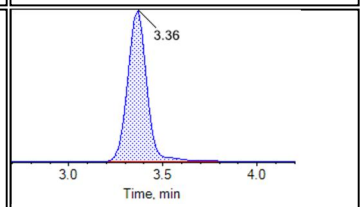

13C6-PFDA

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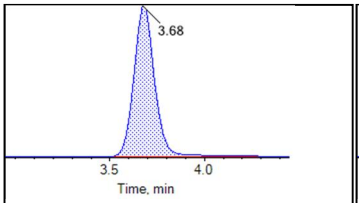

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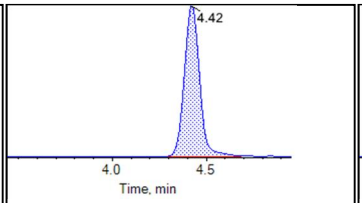

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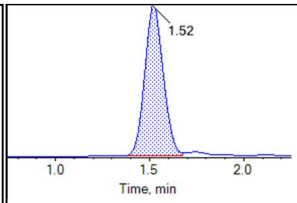

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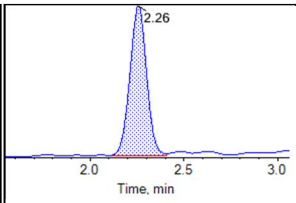
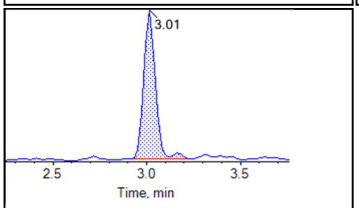


13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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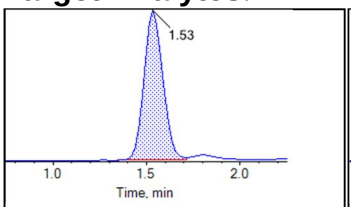
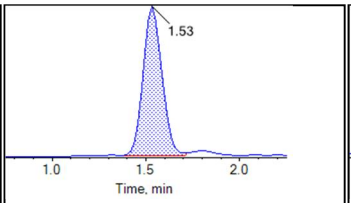
Sample Name	CR818LCS-FS(0)	**Injection Vial**	22
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:07:27	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

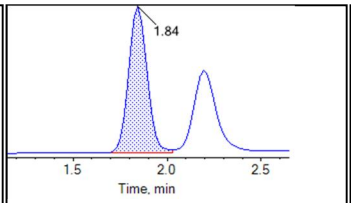
Target Analytes:



PFBS_1



PFBS_2



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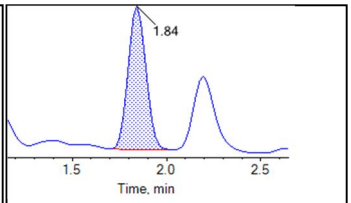

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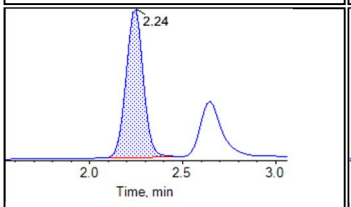

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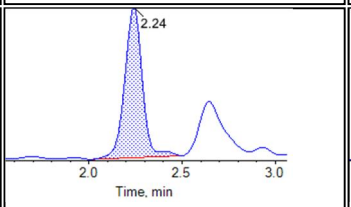

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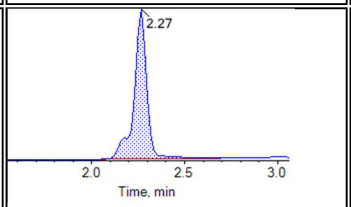

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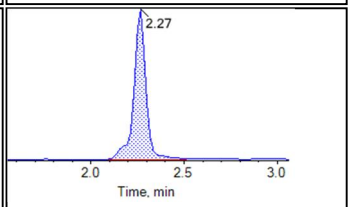

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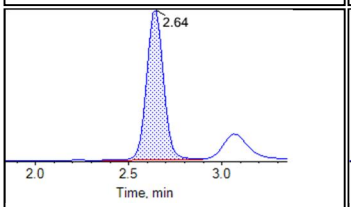

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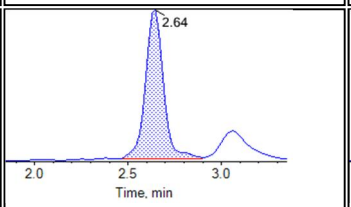

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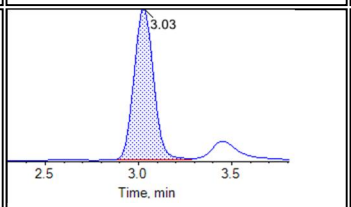

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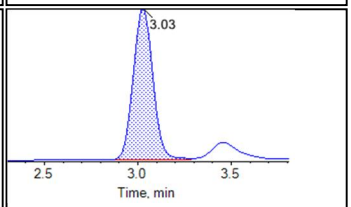

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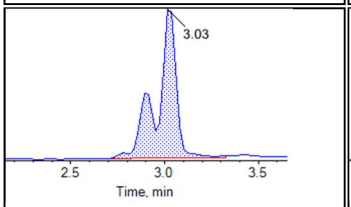

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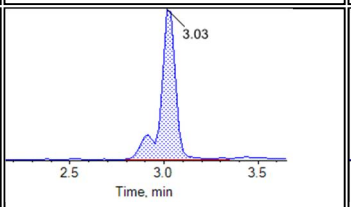

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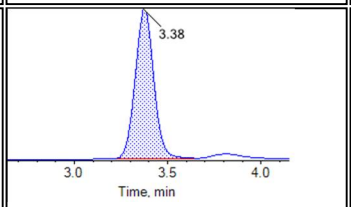

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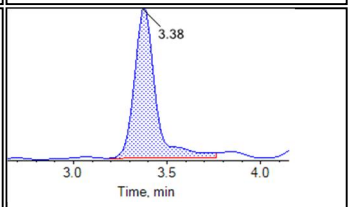

PFDA_2

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Chromatogram Report

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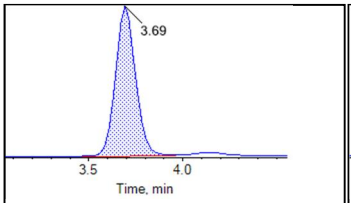

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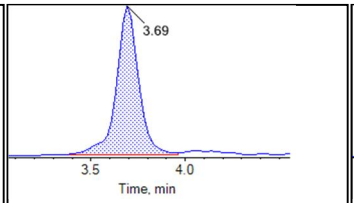

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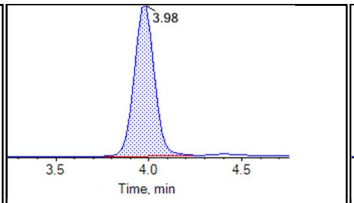

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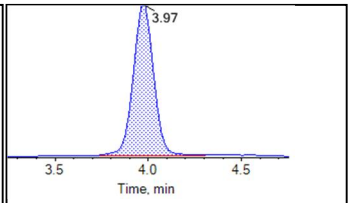

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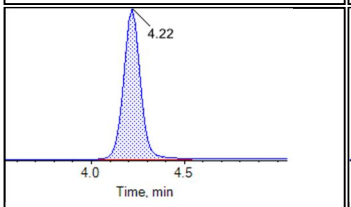

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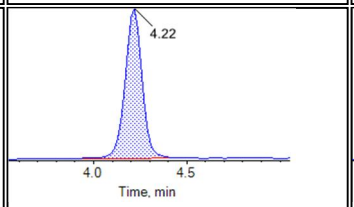

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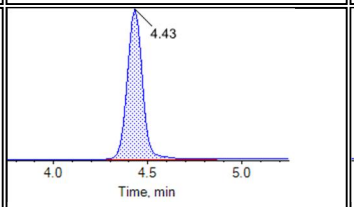

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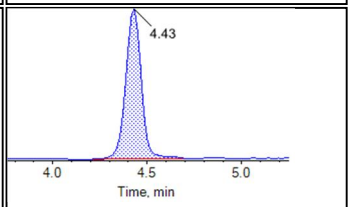

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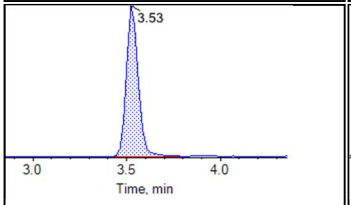

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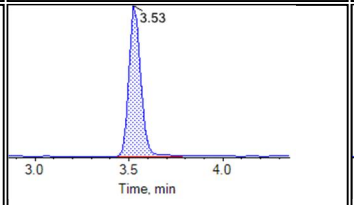

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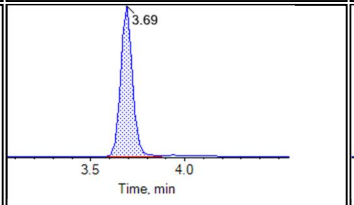

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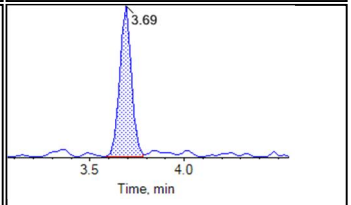
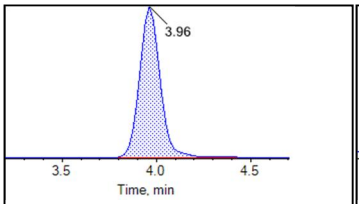
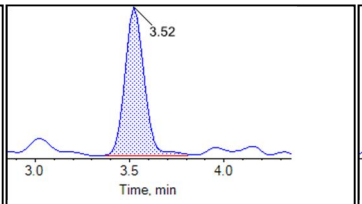


NEtFOSAA_2

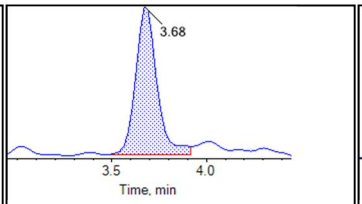
Internal Standards:



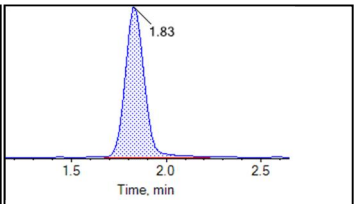
13C2-PFDoA



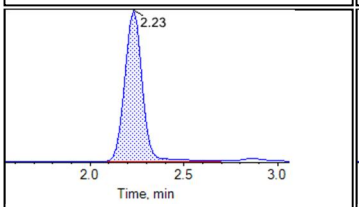
d3-MeFOSAA



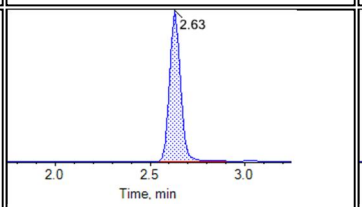
d5-EtFOSAA



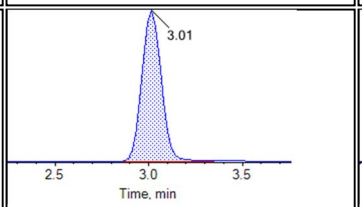
13C5-PFHxA



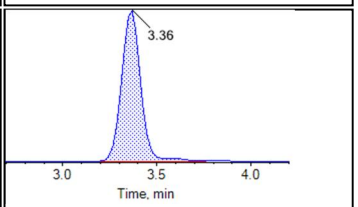
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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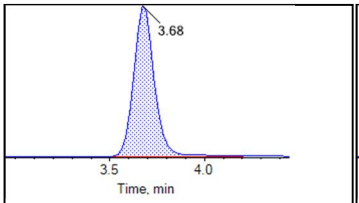
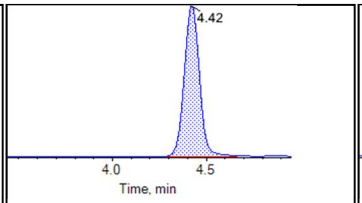
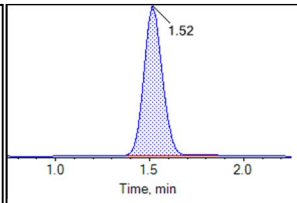


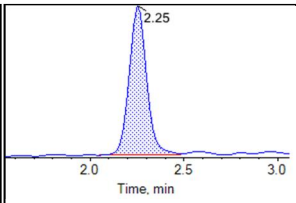
13C7-PFUnA



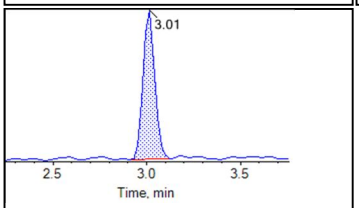
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

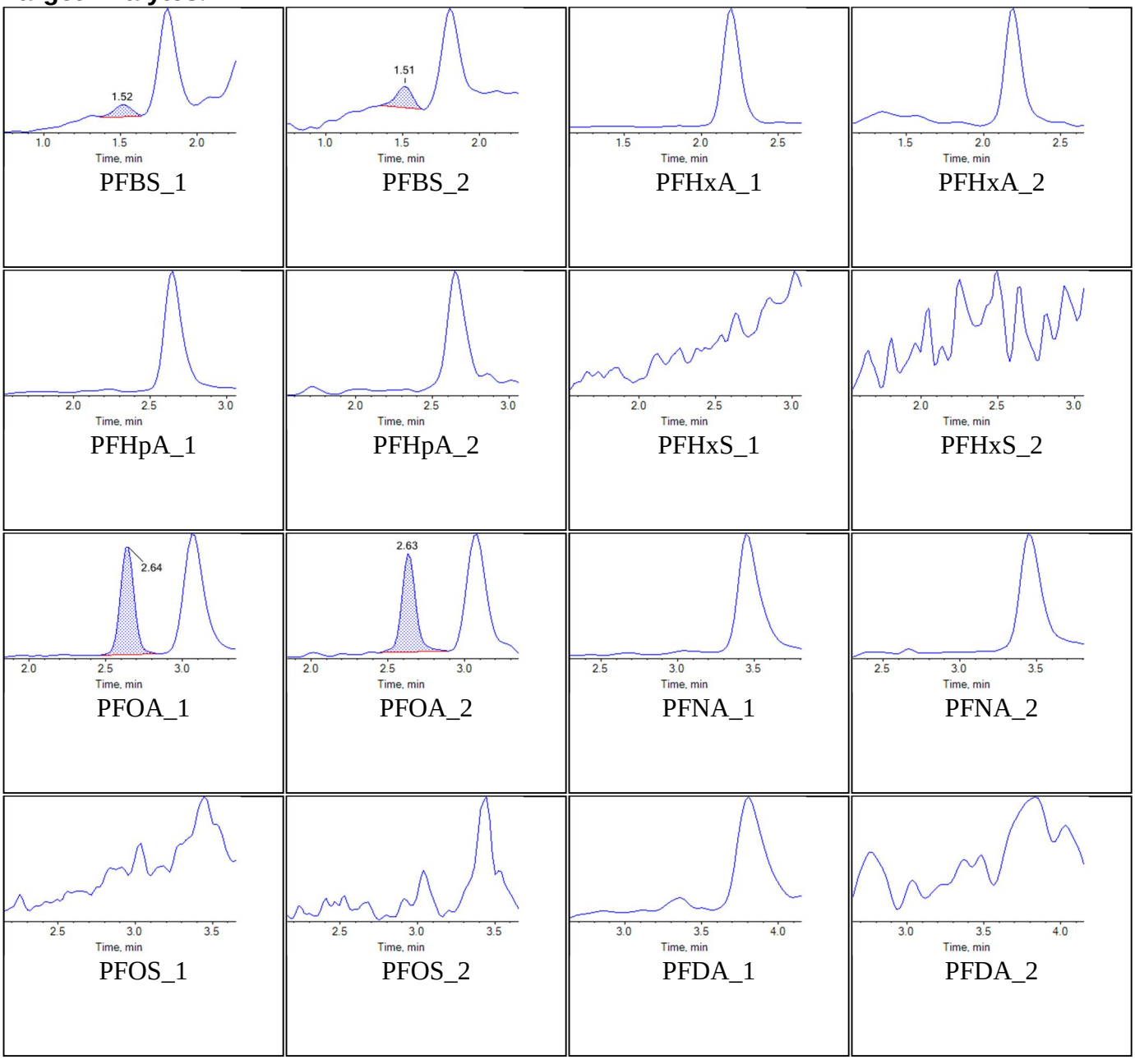
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:23:17 PM

Sample Name	J7785-FS(0)	**Injection Vial**	23
Sample ID	JAX-TCC-FRB-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:18:19	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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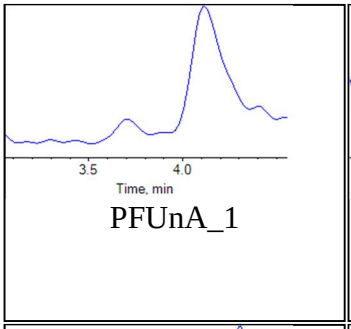
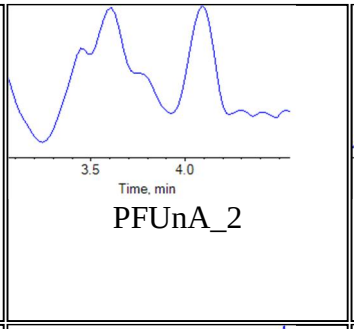
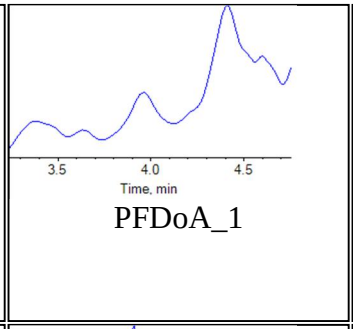


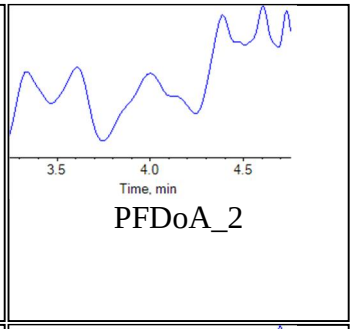
PFUnA_1



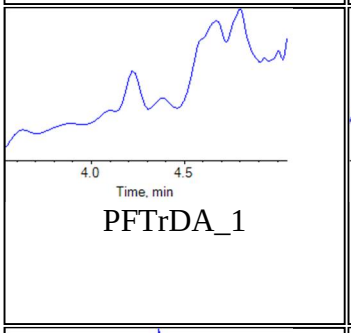
PFUnA_2



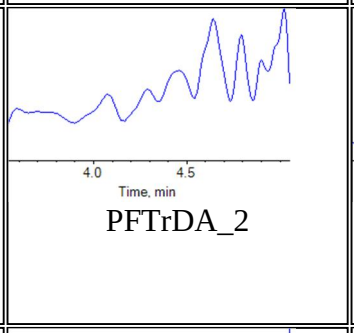
PFDoA_1



PFDoA_2



PFTrDA_1



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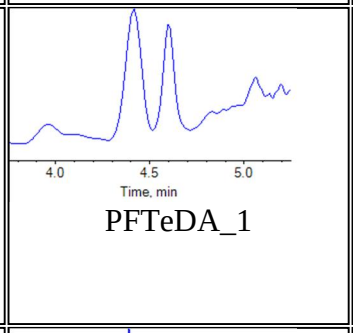

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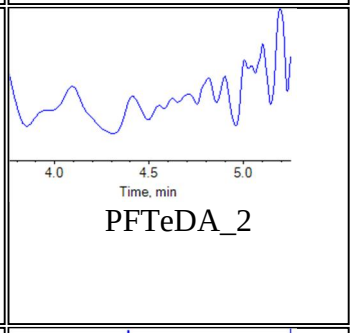

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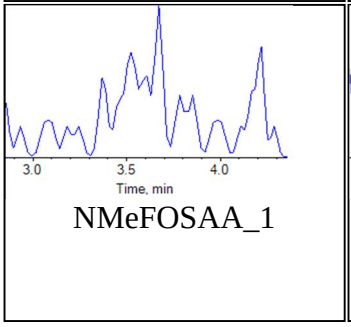
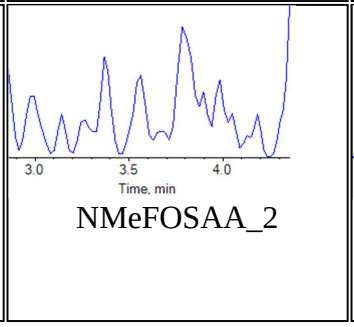
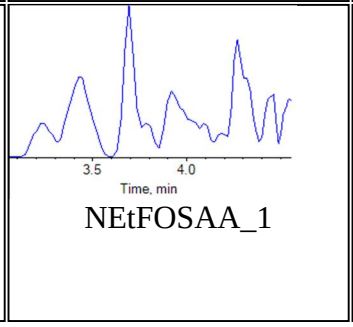


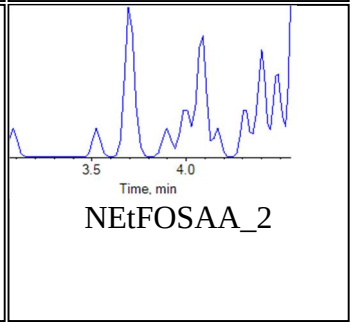
NMeFOSAA_1



NMeFOSAA_2

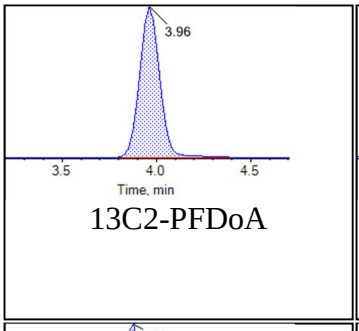


NEtFOSAA_1

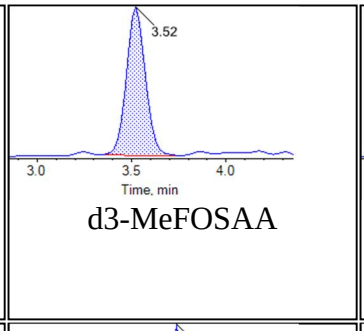


NEtFOSAA_2

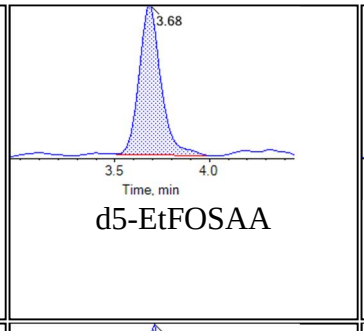
Internal Standards:



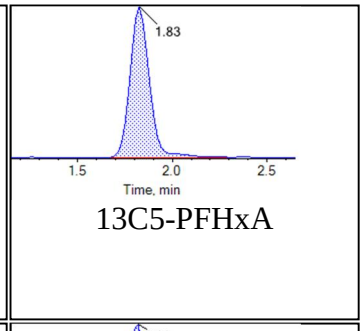
13C2-PFDoA



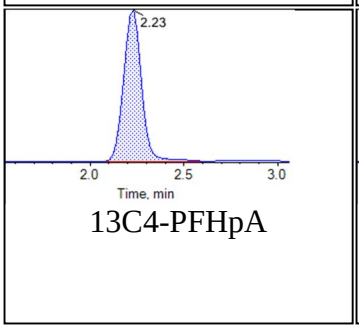
d3-MeFOSAA



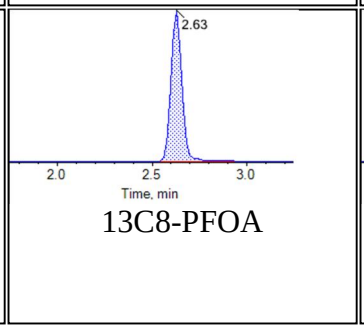
d5-EtFOSAA



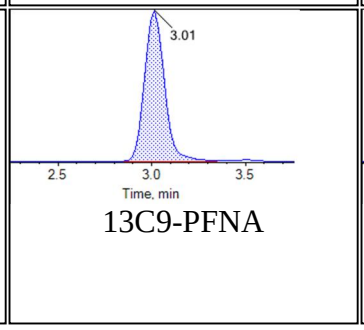
13C5-PFHxA



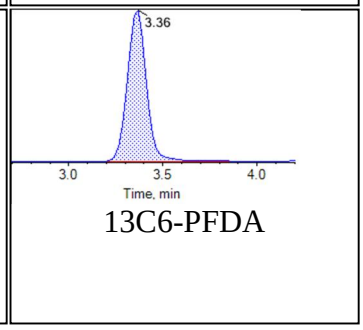
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

BATTELLE

Chromatogram Report

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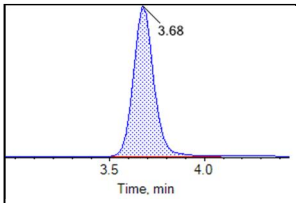
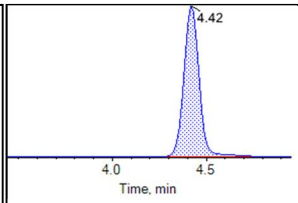
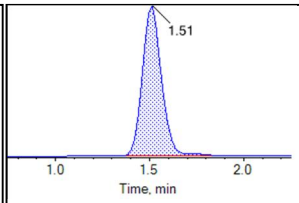


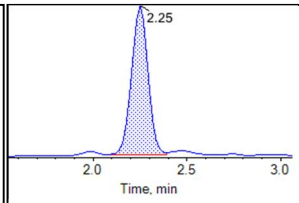
13C7-PFUnA



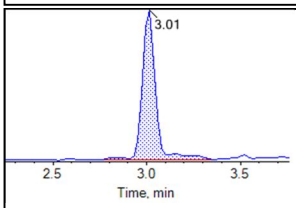
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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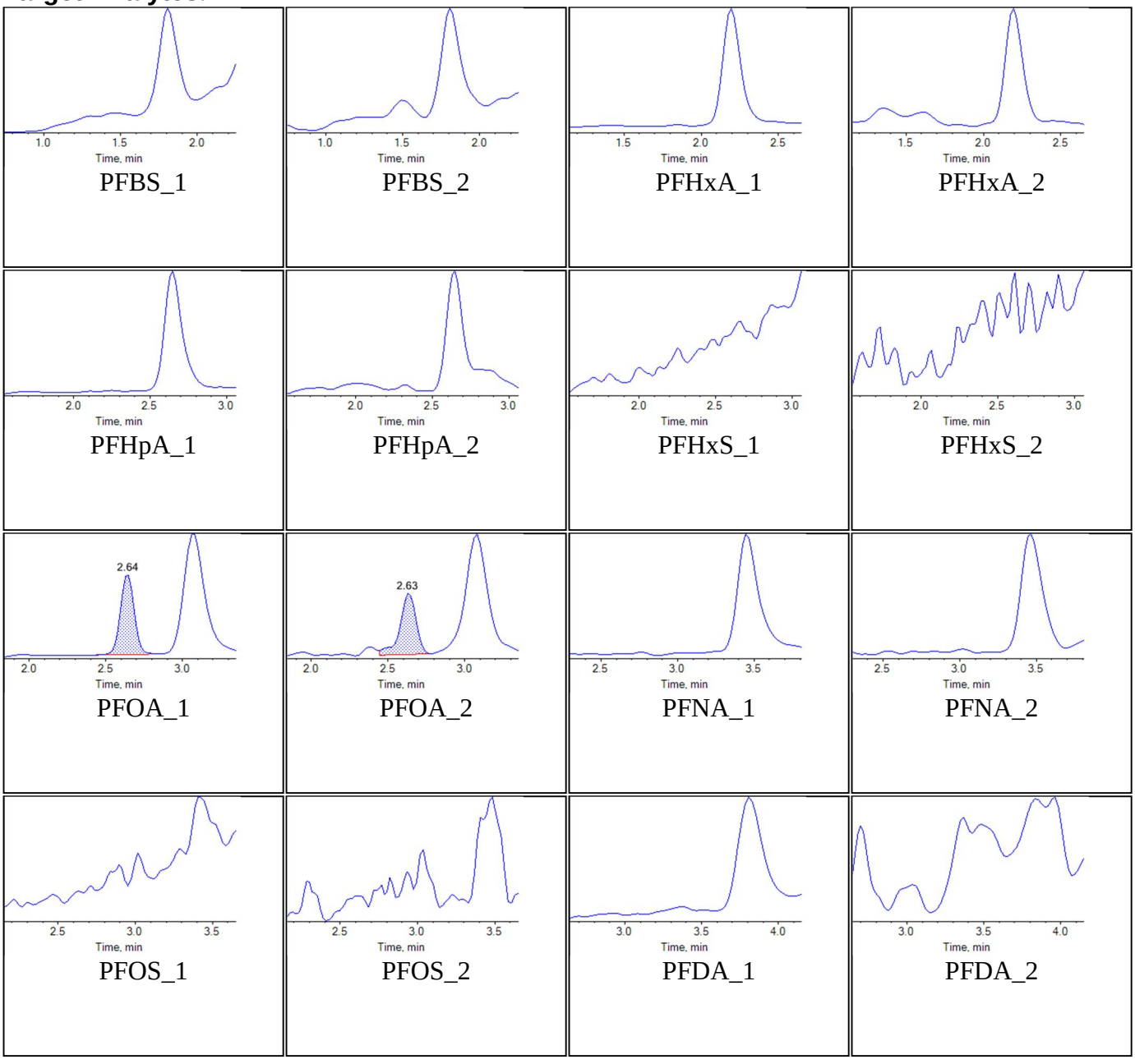
Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

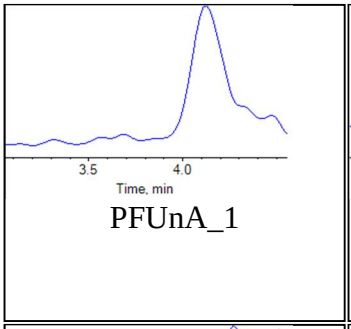
Target Analytes:



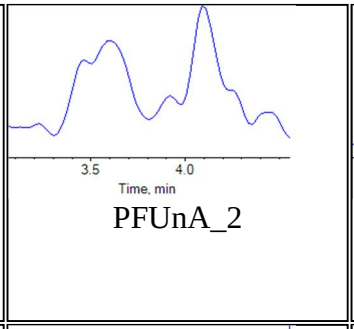
BATTELLE

Chromatogram Report

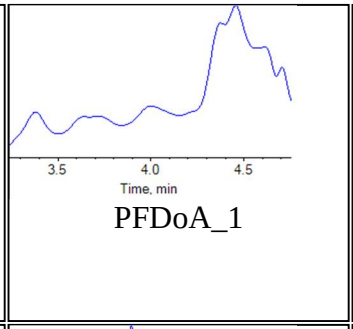
Created with Analyst Reporter
Printed: 18/09/2018 4:23:22 PM



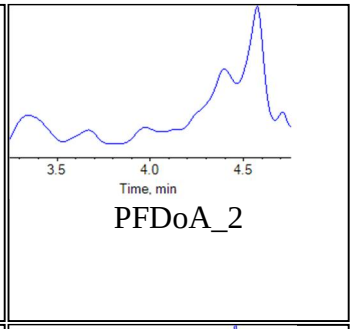
PFUnA_1



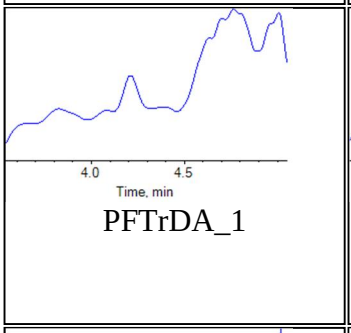
PFUnA_2



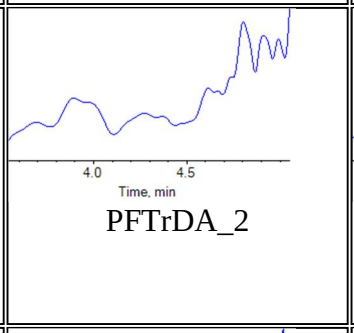
PFDoA_1



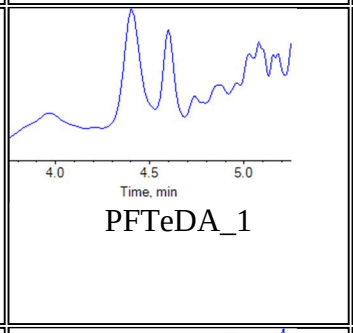
PFDoA_2



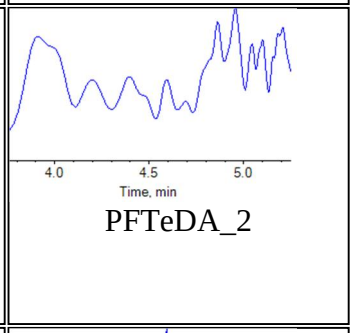
PFTrDA_1



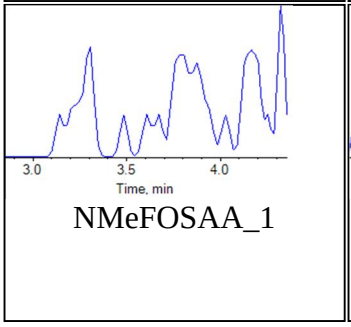
PFTrDA_2



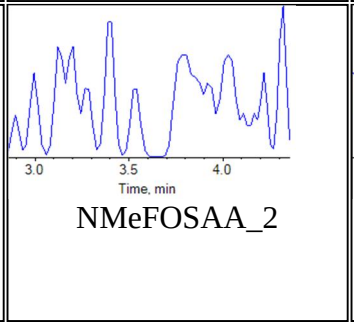
PFTeDA_1



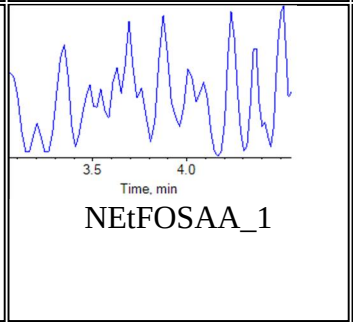
PFTeDA_2



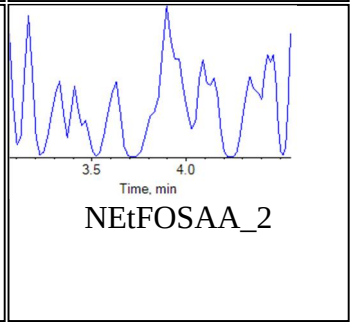
NMeFOSAA_1



NMeFOSAA_2

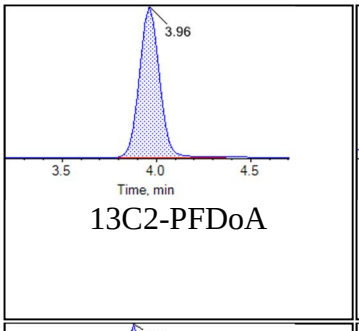


NEtFOSAA_1

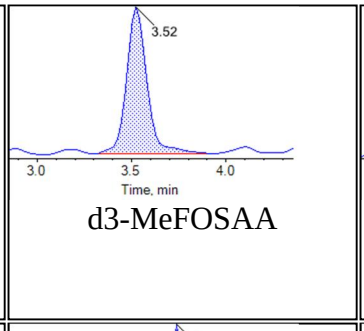


NEtFOSAA_2

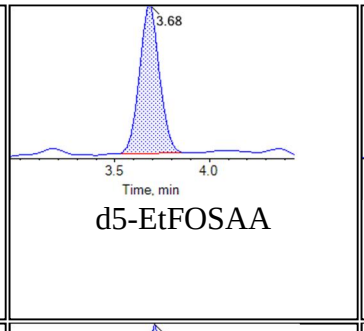
Internal Standards:



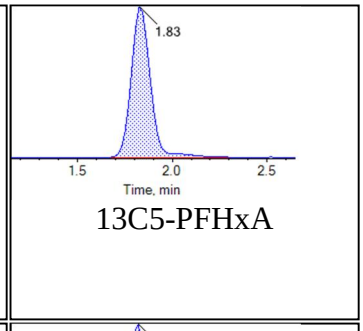
13C2-PFDoA



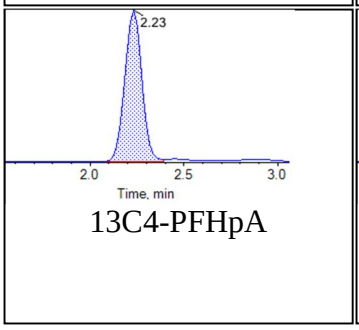
d3-MeFOSAA



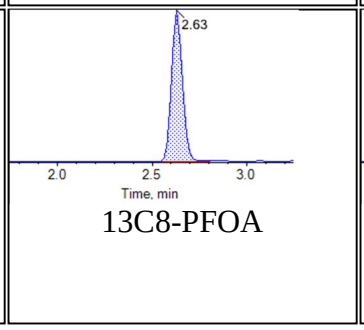
d5-EtFOSAA



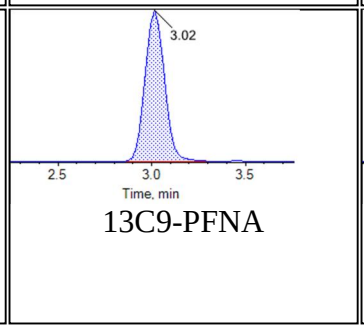
13C5-PFHxA



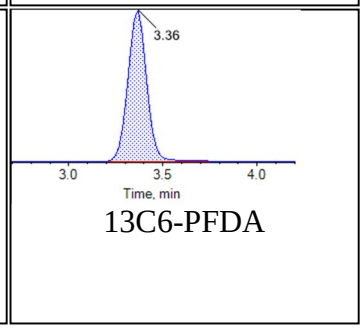
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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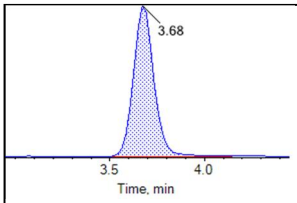
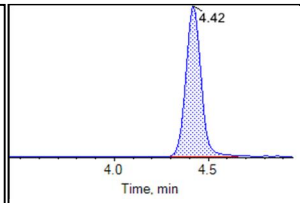
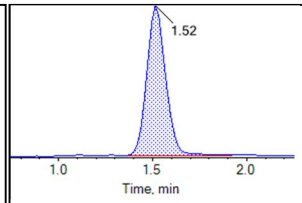


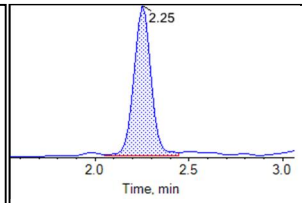
13C7-PFUnA



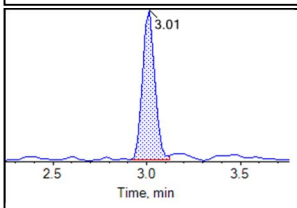
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:23:27 PM

Sample Name	J7784-FS(0)	**Injection Vial**	25
Sample ID	JAX-TCC-EB03-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:40:02	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

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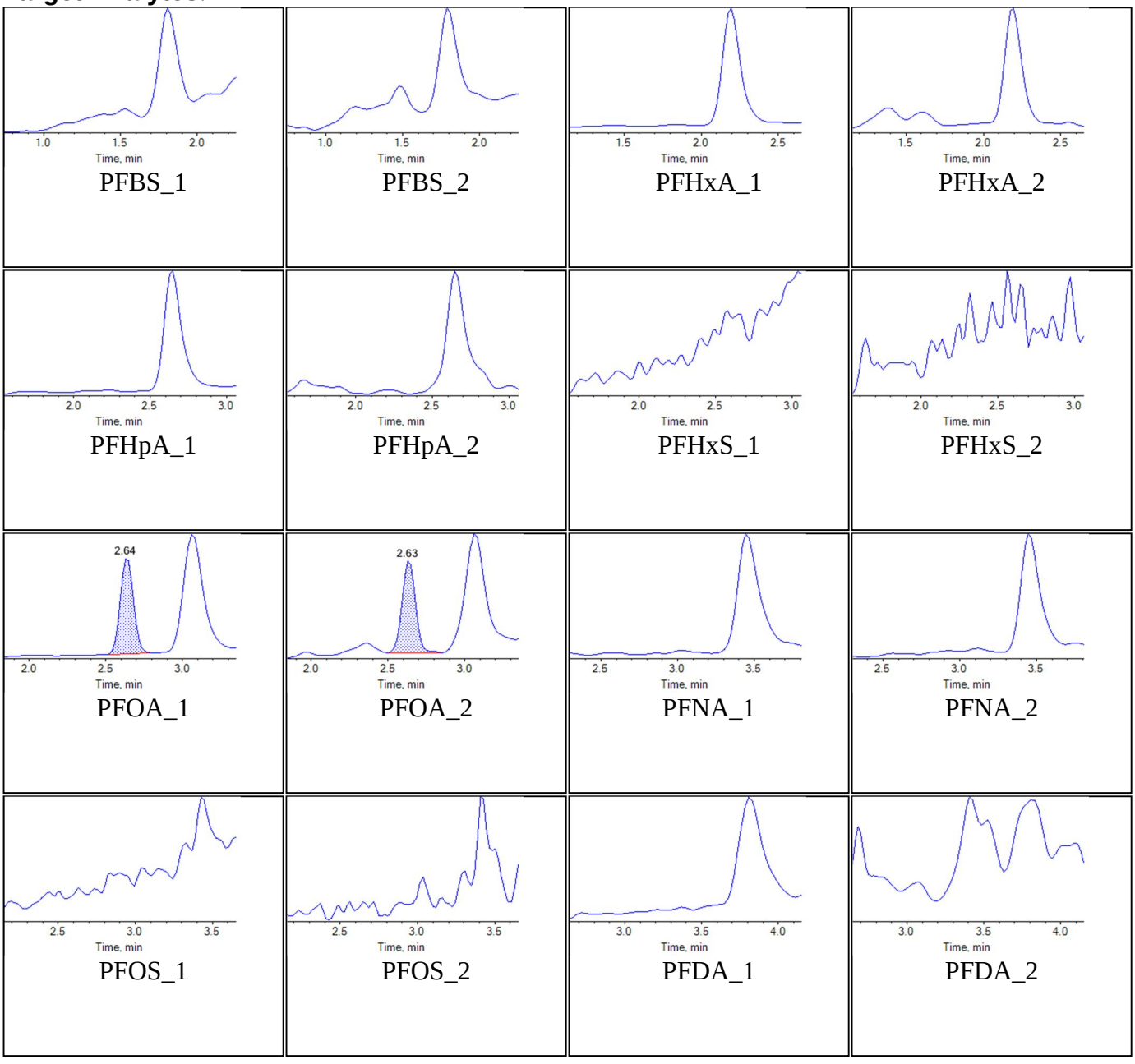

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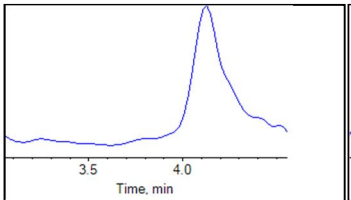
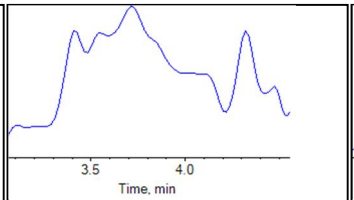
Chromatogram Report

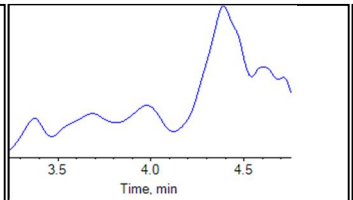
Created with Analyst Reporter
Printed: 18/09/2018 4:23:27 PM



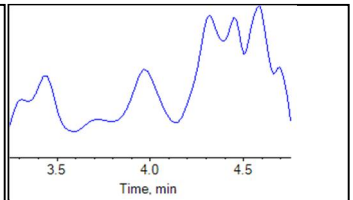
PFUnA_1



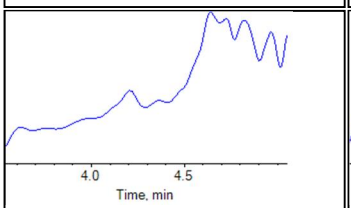
PFUnA_2



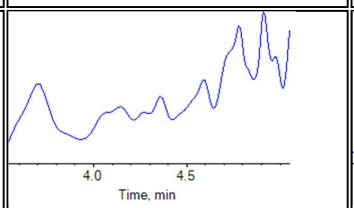
PFDoA_1



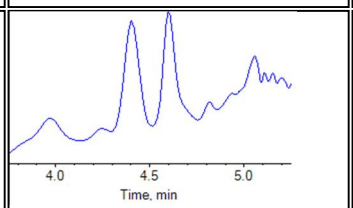
PFDoA_2



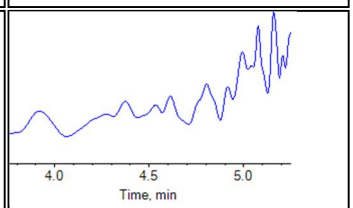
PFTrDA_1



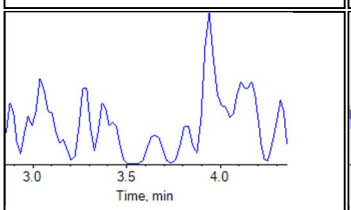
PFTrDA_2



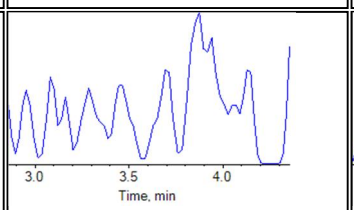
PFTeDA_1



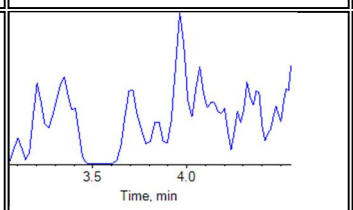
PFTeDA_2



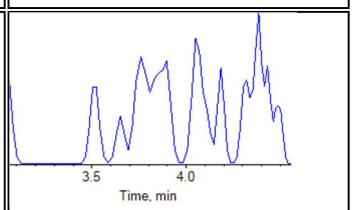
NMeFOSAA_1



NMeFOSAA_2

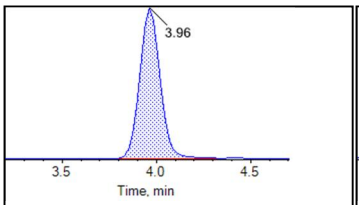


NEtFOSAA_1

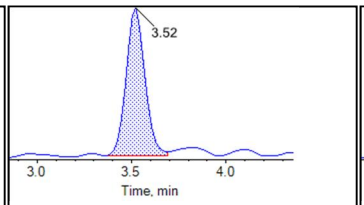


NEtFOSAA_2

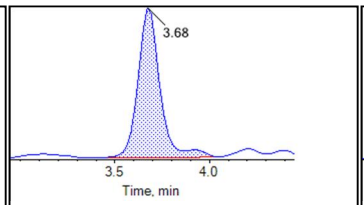
Internal Standards:



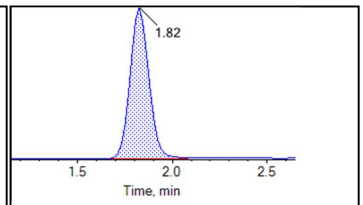
13C2-PFDoA



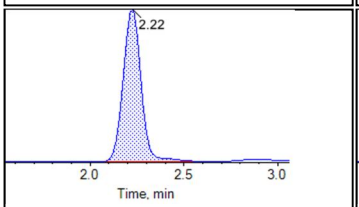
d3-MeFOSAA



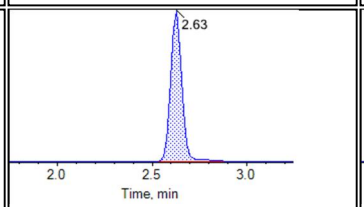
d5-EtFOSAA



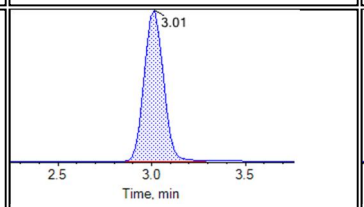
13C5-PFHxA



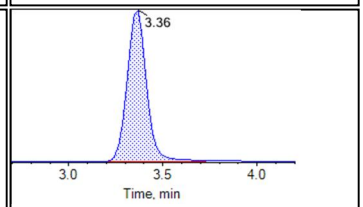
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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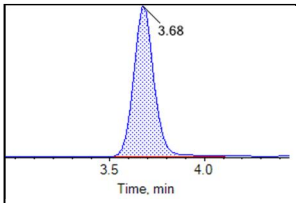
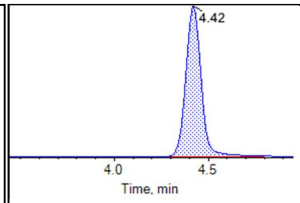
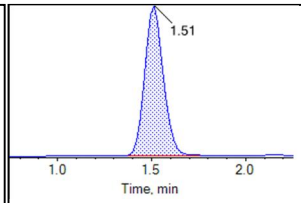


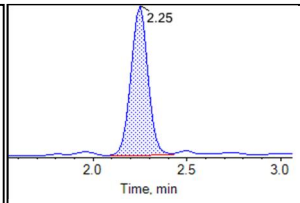
13C7-PFUnA



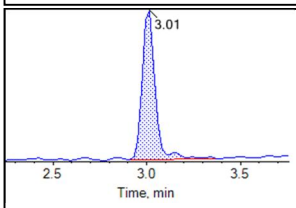
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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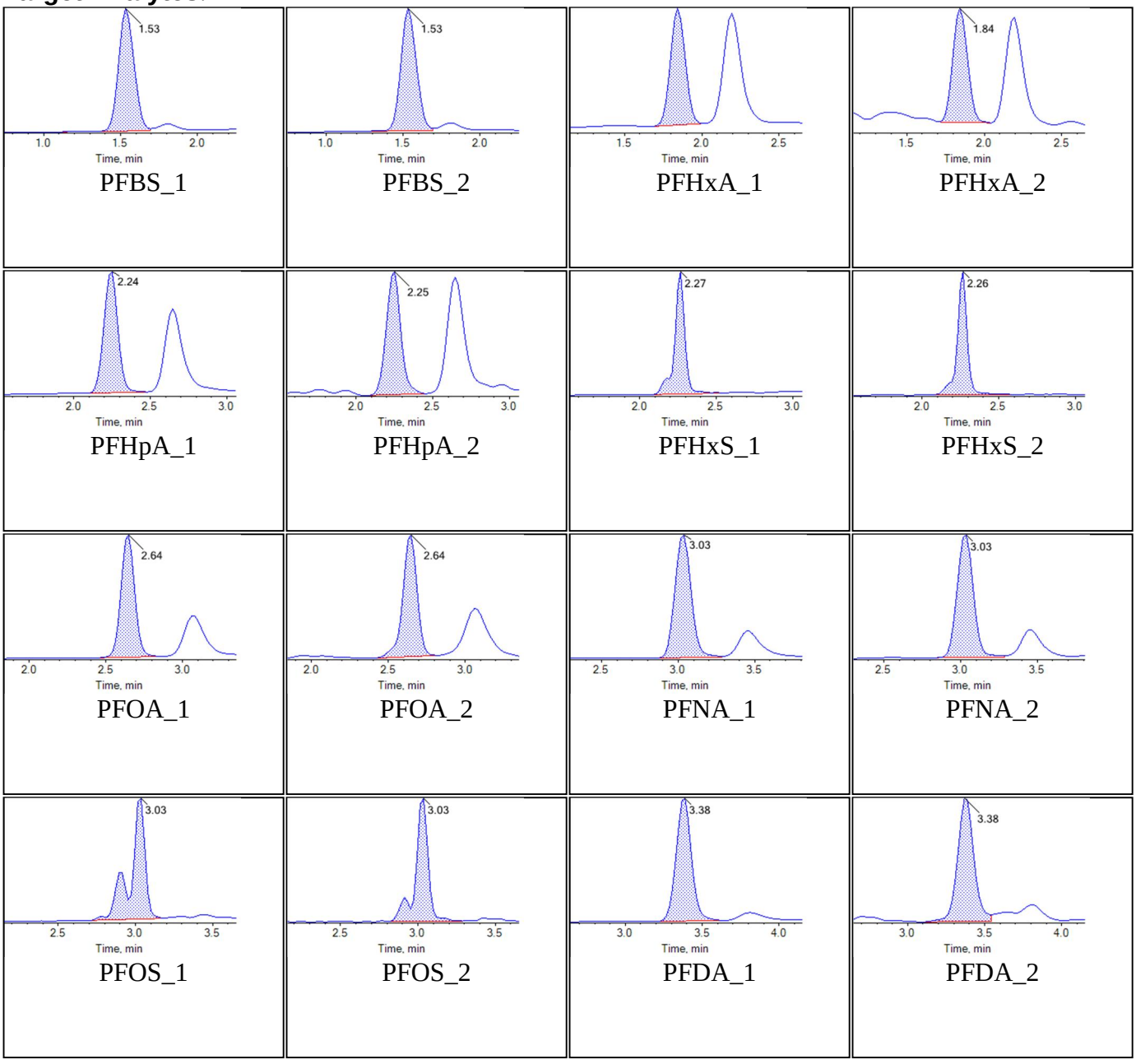
Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

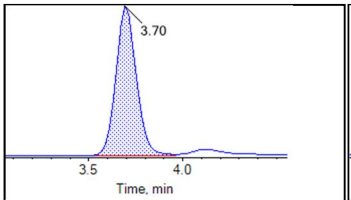
Target Analytes:



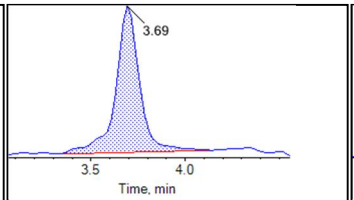
BATTELLE

Chromatogram Report

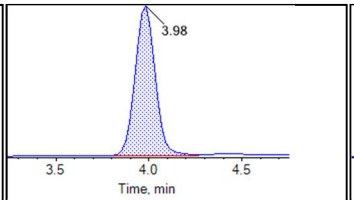
Created with Analyst Reporter
Printed: 18/09/2018 4:23:36 PM



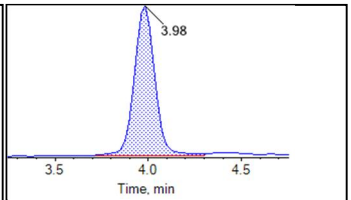
PFUnA_1



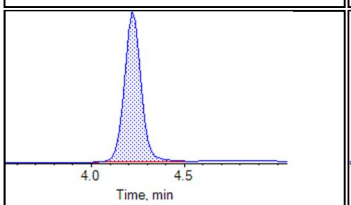
PFUnA_2



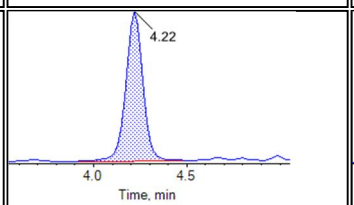
PFDoA_1



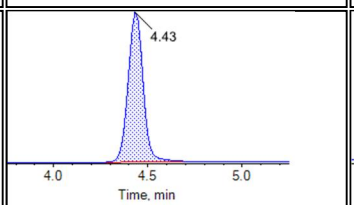
PFDoA_2



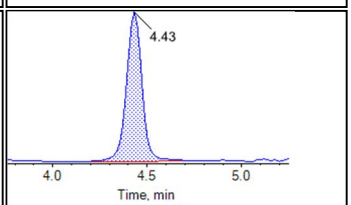
PFTrDA_1



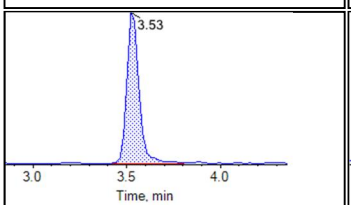
PFTrDA_2



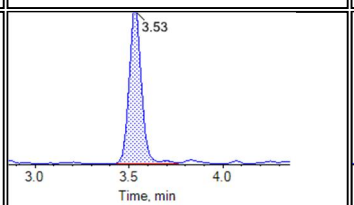
PFTeDA_1



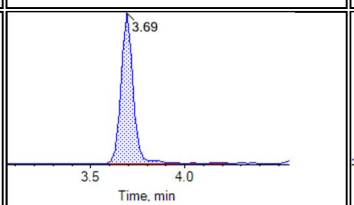
PFTeDA_2



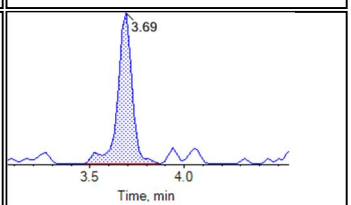
NMeFOSAA_1



NMeFOSAA_2

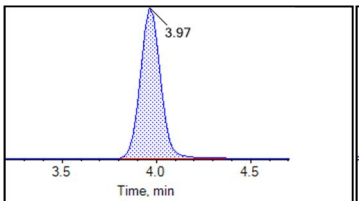


NEtFOSAA_1

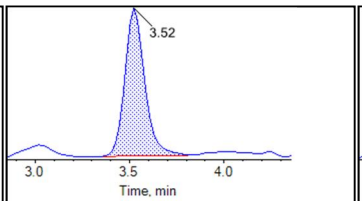


NEtFOSAA_2

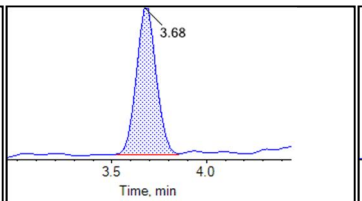
Internal Standards:



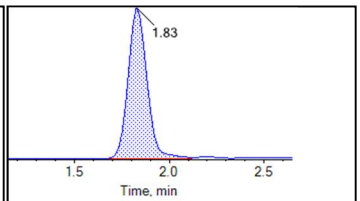
13C2-PFDoA



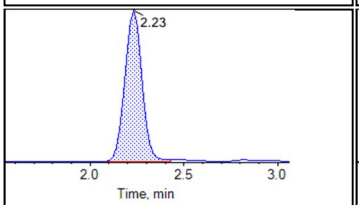
d3-MeFOSAA



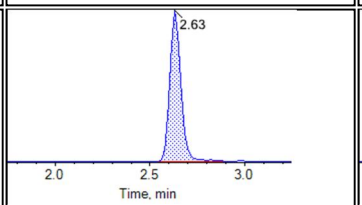
d5-EtFOSAA



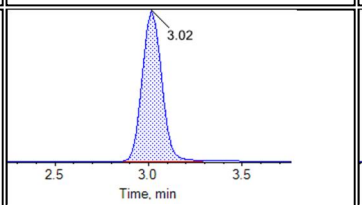
13C5-PFHxA



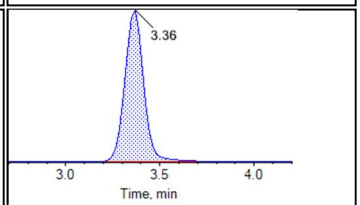
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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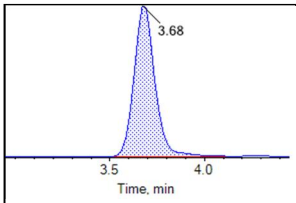
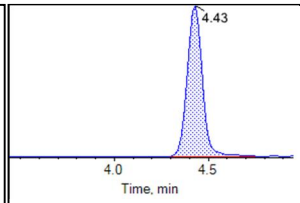
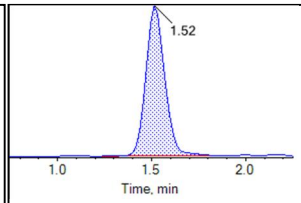


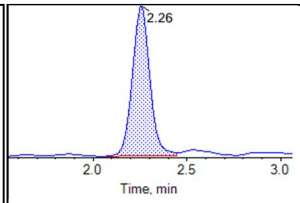
13C7-PFUnA



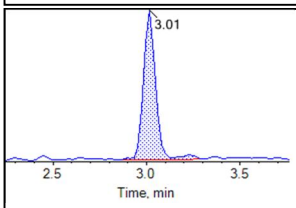
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

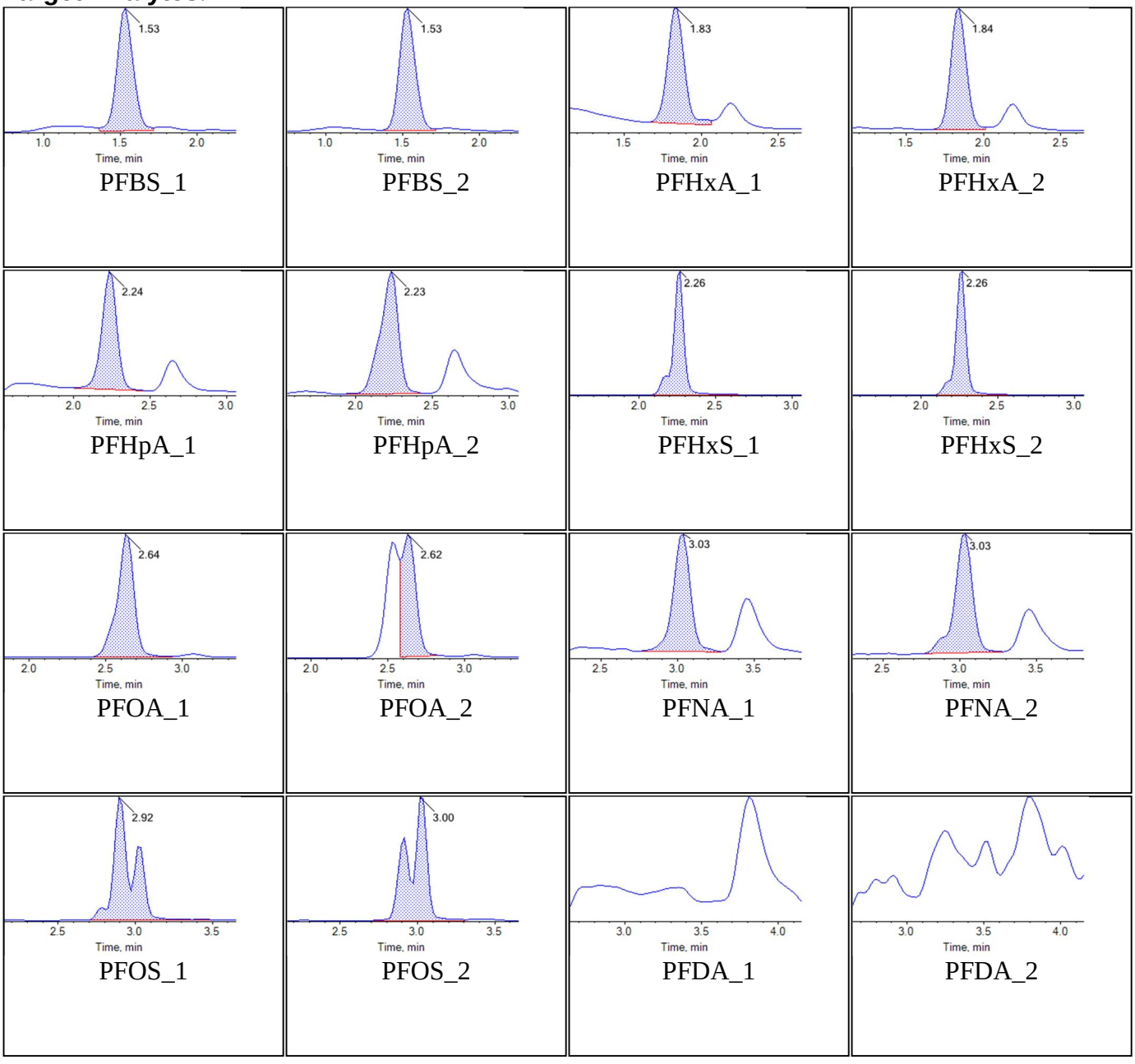
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:23:47 PM

Sample Name	J7778-FS(0)	**Injection Vial**	27
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:12:37	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



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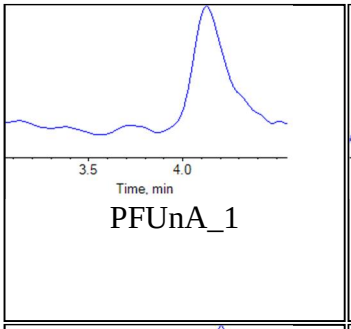
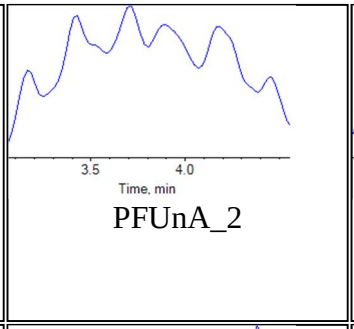
Chromatogram Report

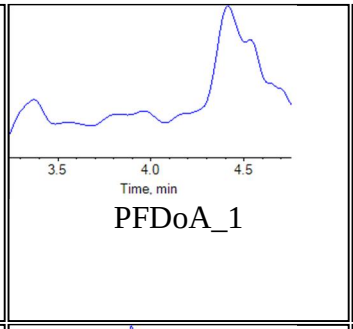
Created with Analyst Reporter
Printed: 18/09/2018 4:23:47 PM



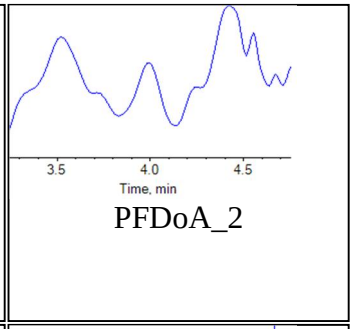
PFUnA_1



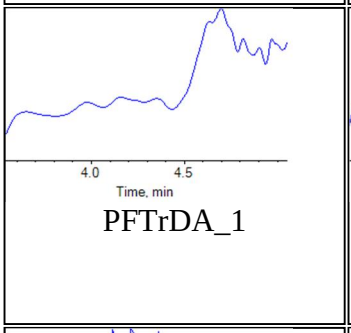
PFUnA_2



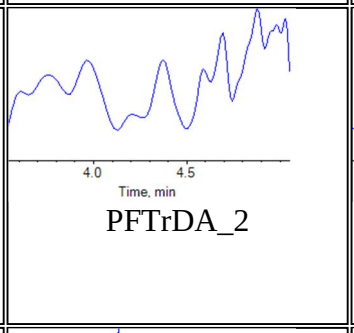
PFDoA_1



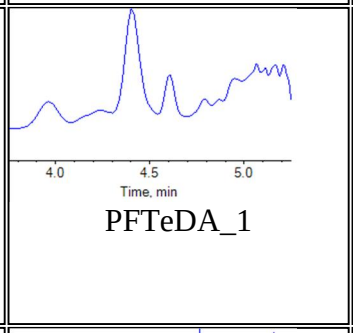
PFDoA_2



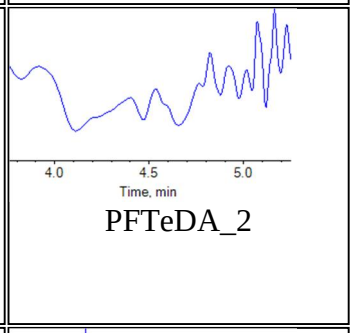
PFTrDA_1



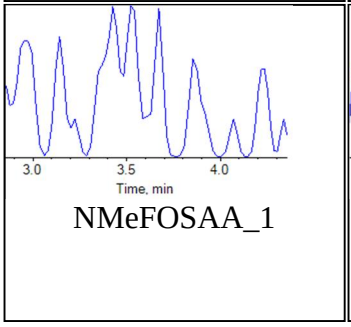
PFTrDA_2



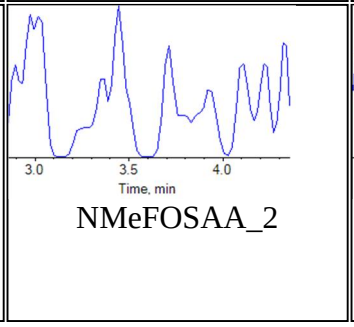
PFTeDA_1



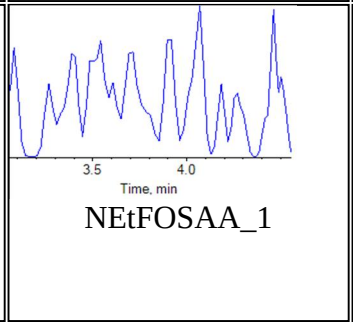
PFTeDA_2



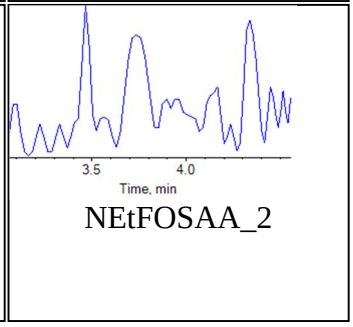
NMeFOSAA_1



NMeFOSAA_2

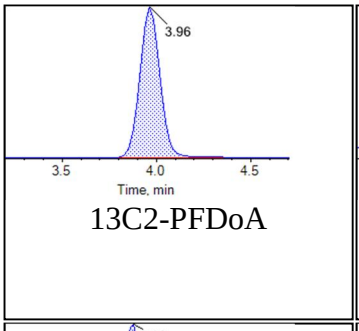


NEtFOSAA_1

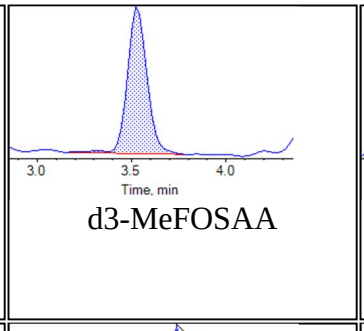


NEtFOSAA_2

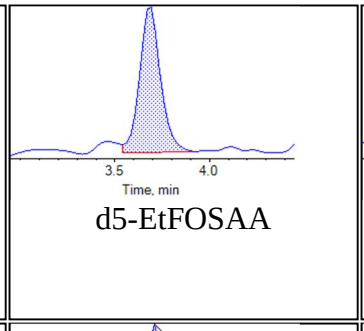
Internal Standards:



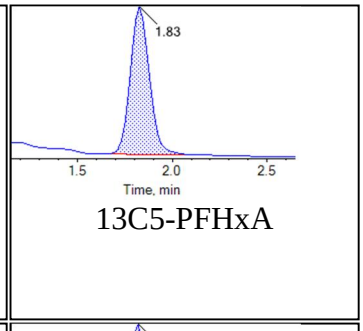
13C2-PFDoA



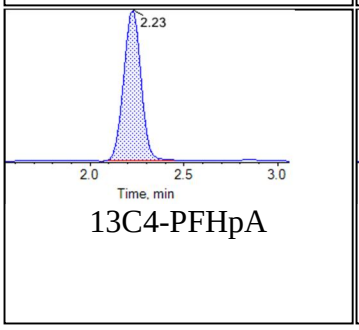
d3-MeFOSAA



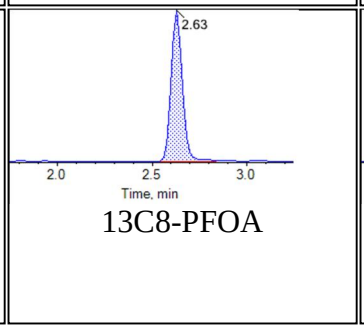
d5-EtFOSAA



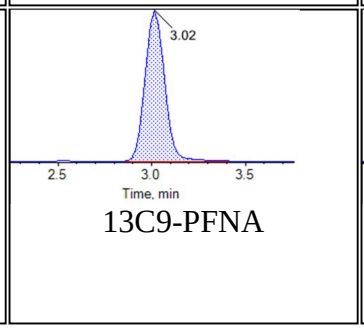
13C5-PFHxA



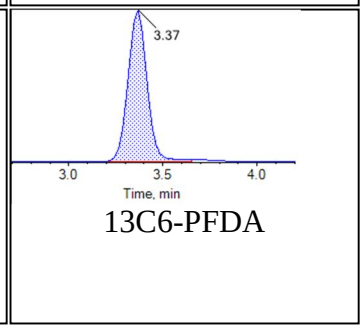
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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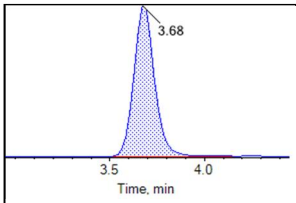
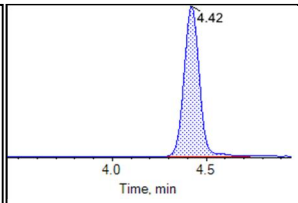
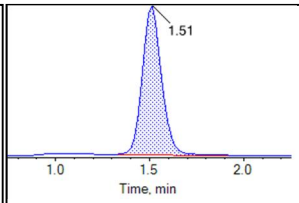


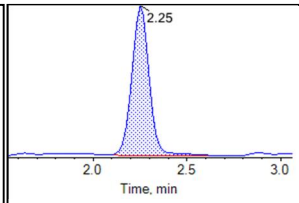
13C7-PFUnA



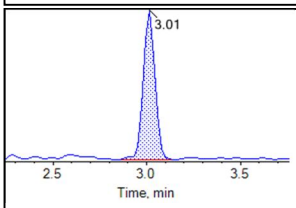
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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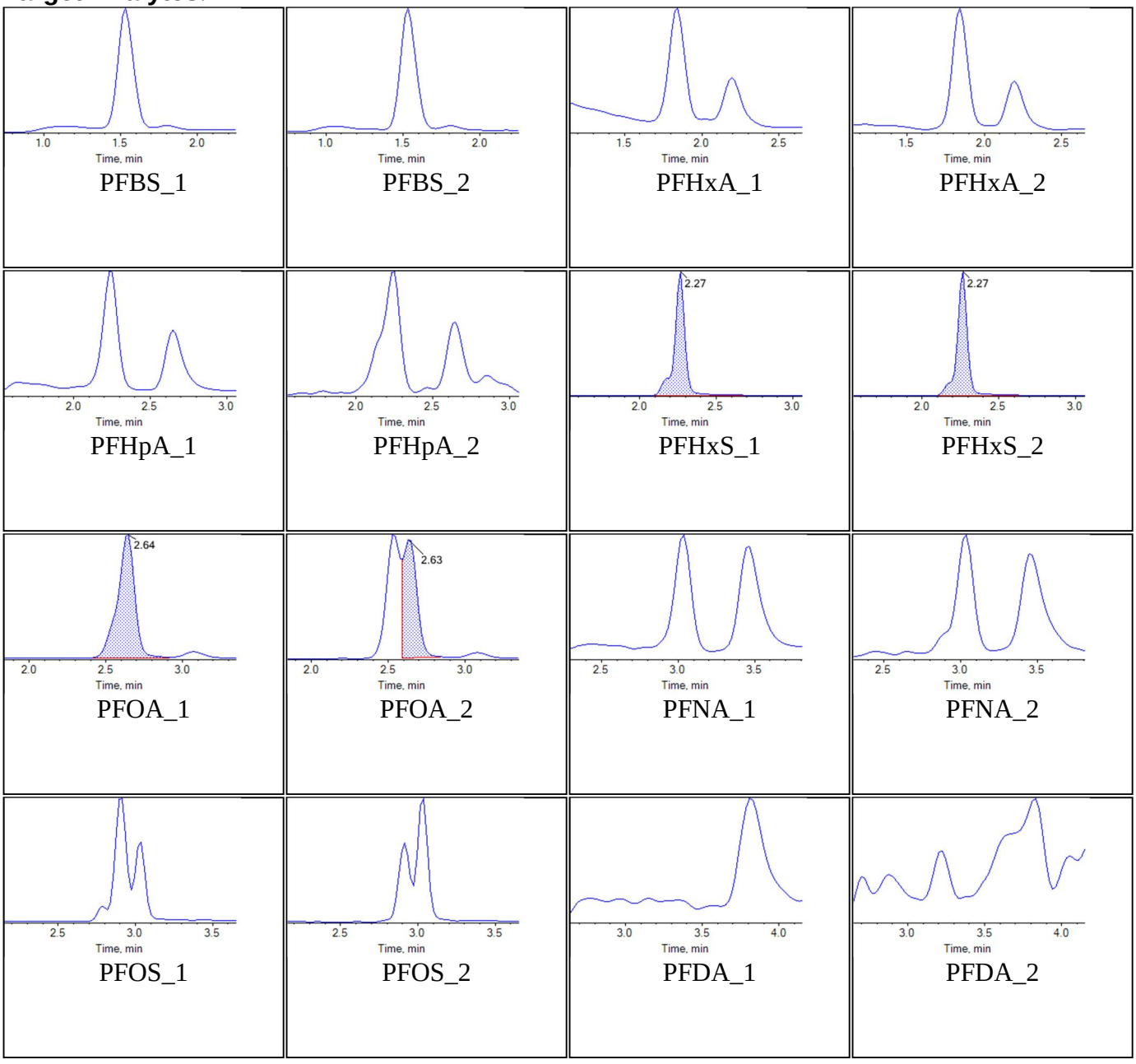
Printed: 18/09/2018 4:23:52 PM

Sample Name	J7778-FS-D(3)	**Injection Vial**	28
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:23:29	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

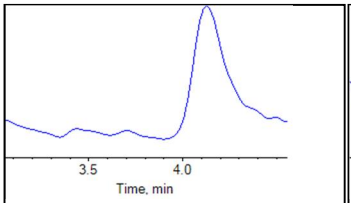
Target Analytes:



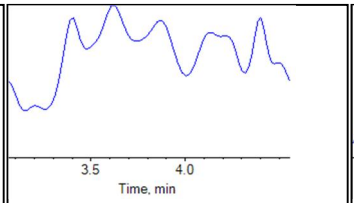
BATTELLE

Chromatogram Report

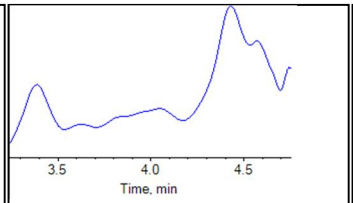
Created with Analyst Reporter
Printed: 18/09/2018 4:23:52 PM



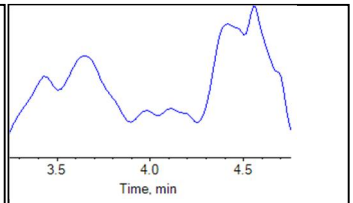
PFUnA_1



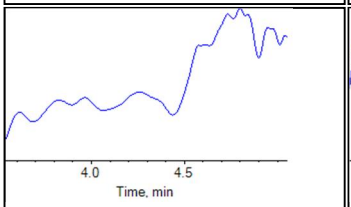
PFUnA_2



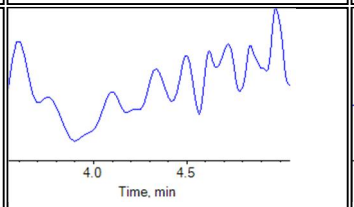
PFDoA_1



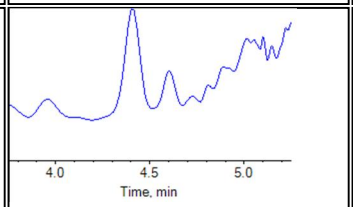
PFDoA_2



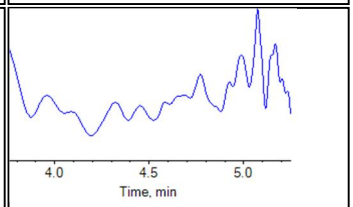
PFTrDA_1



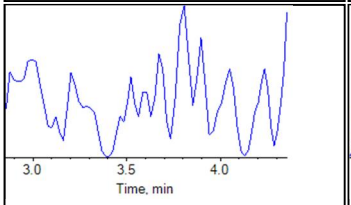
PFTrDA_2



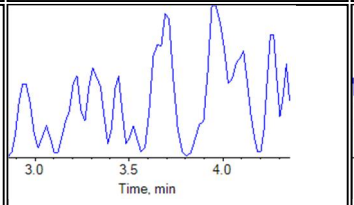
PFTeDA_1



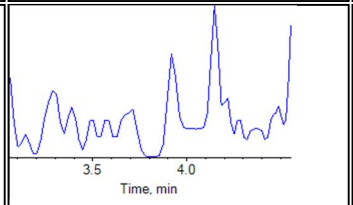
PFTeDA_2



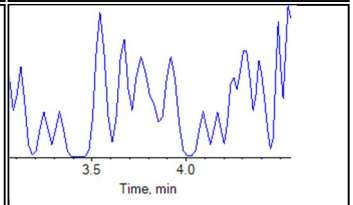
NMeFOSAA_1



NMeFOSAA_2

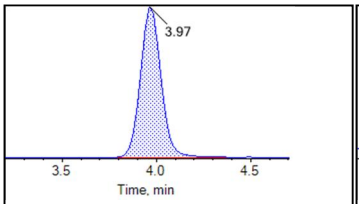


NEtFOSAA_1

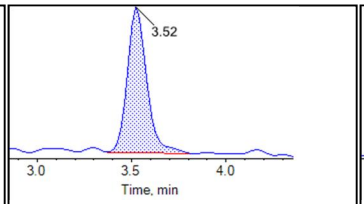


NEtFOSAA_2

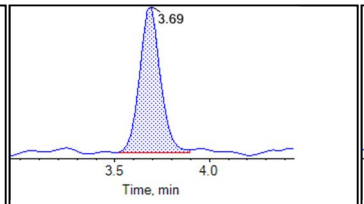
Internal Standards:



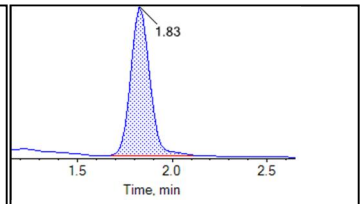
13C2-PFDoA



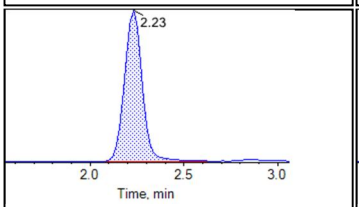
d3-MeFOSAA



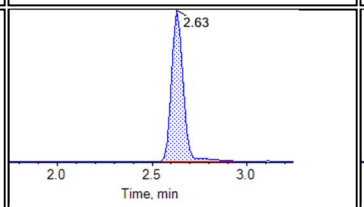
d5-EtFOSAA



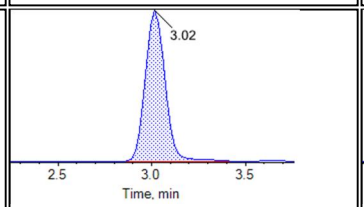
13C5-PFHxA



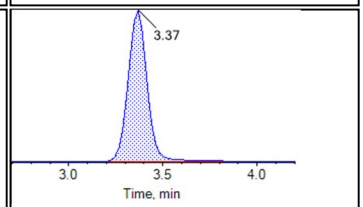
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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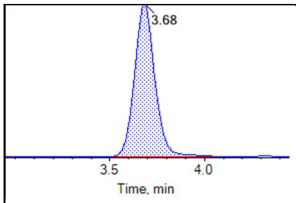
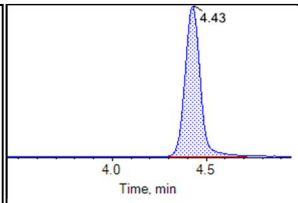
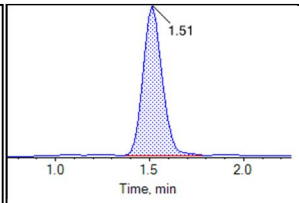


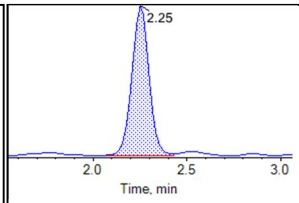
13C7-PFUnA



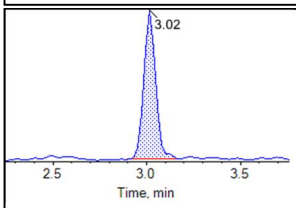
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:23:59 PM

Sample Name	J7775-FS(0)	**Injection Vial**	29
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:34:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

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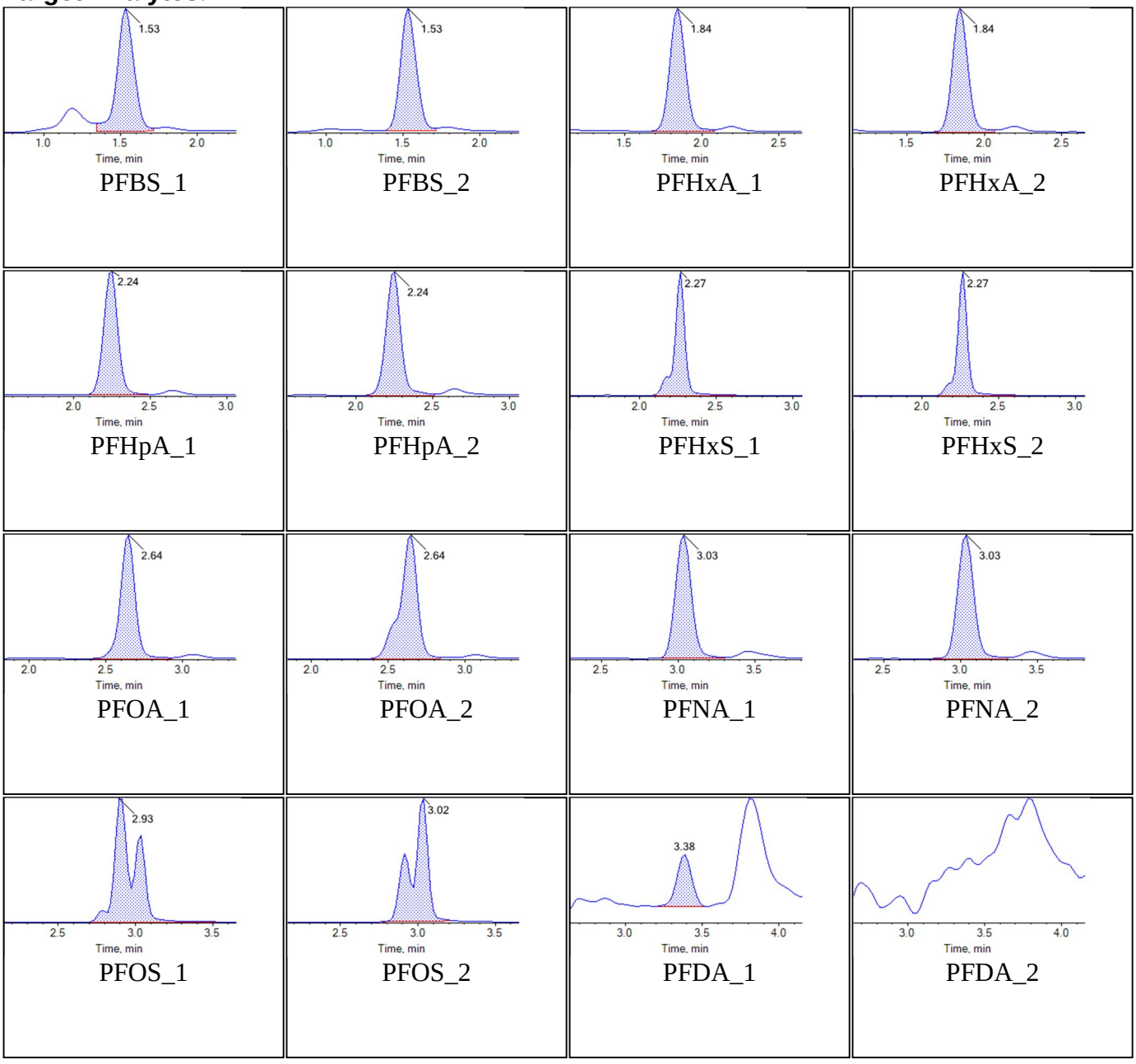

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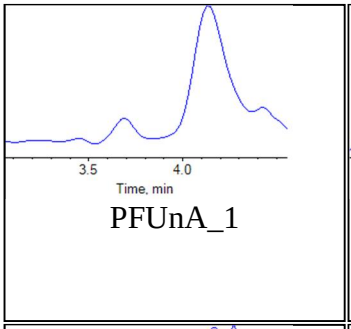
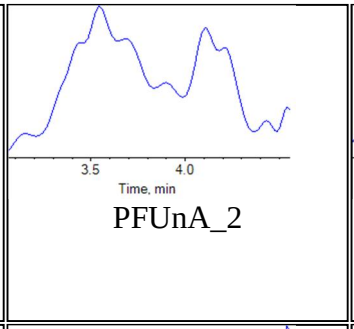
Chromatogram Report

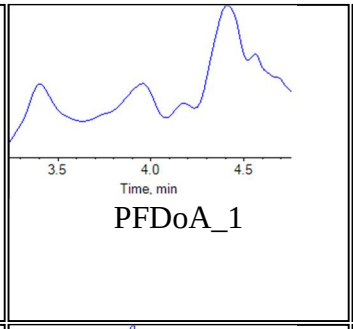
Created with Analyst Reporter
Printed: 18/09/2018 4:23:59 PM



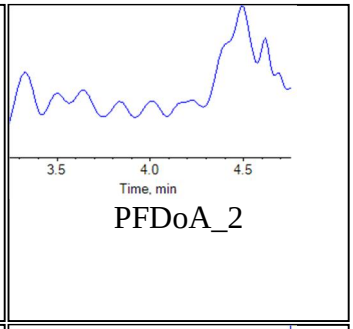
PFUnA_1



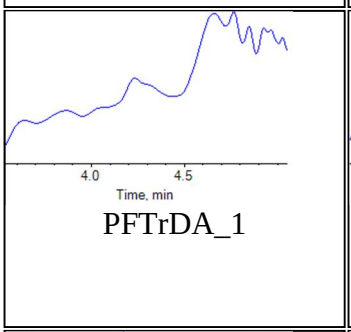
PFUnA_2



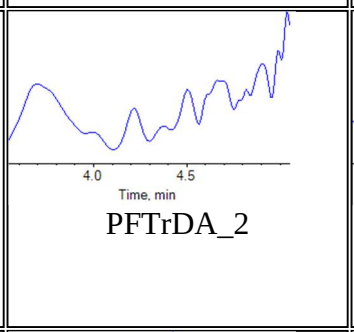
PFDoA_1



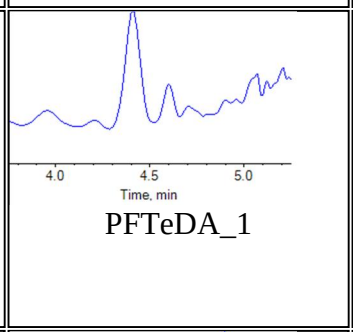
PFDoA_2



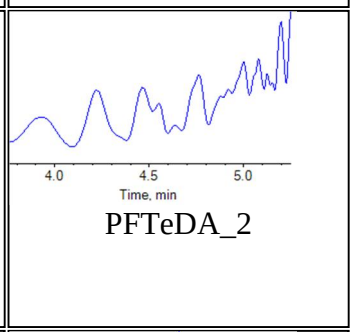
PFTrDA_1



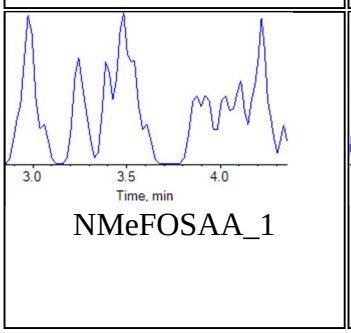
PFTrDA_2



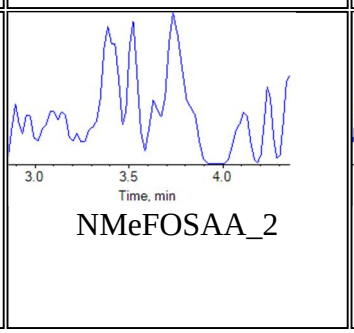
PFTeDA_1



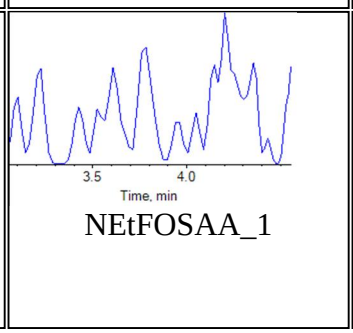
PFTeDA_2



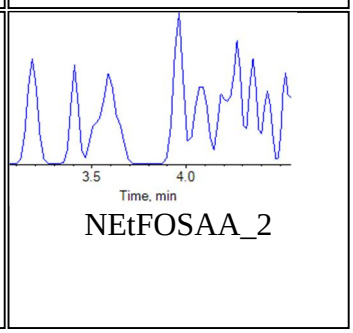
NMeFOSAA_1



NMeFOSAA_2

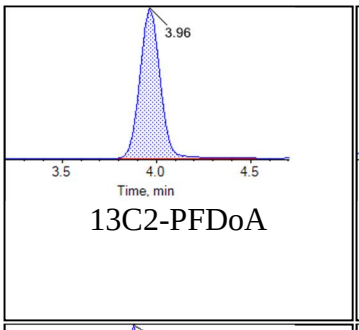


NEtFOSAA_1

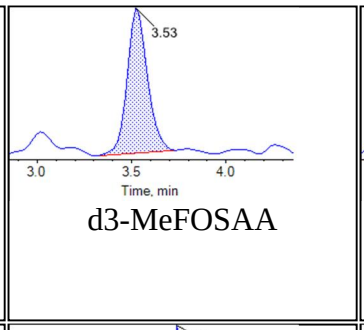


NEtFOSAA_2

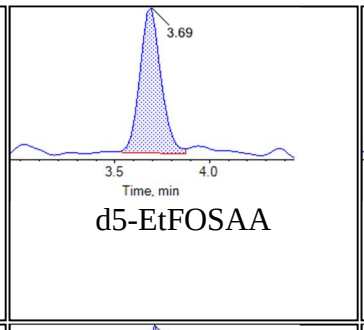
Internal Standards:



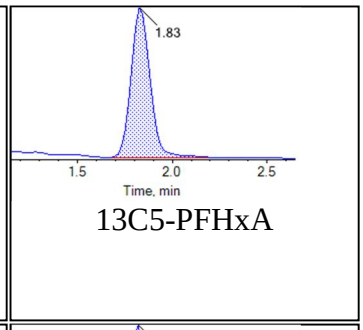
13C2-PFDoA



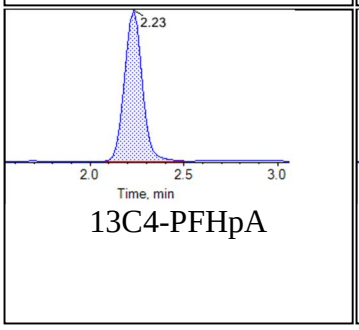
d3-MeFOSAA



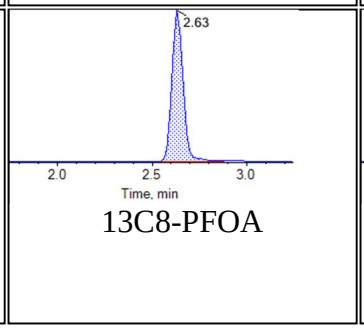
d5-EtFOSAA



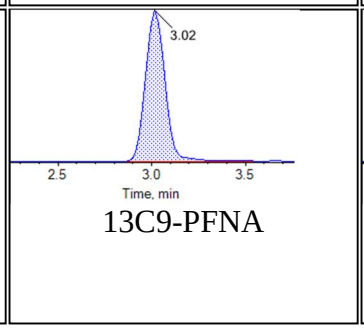
13C5-PFHxA



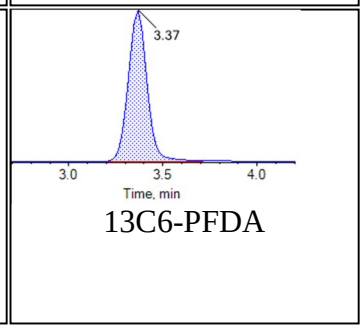
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

BATTELLE

Chromatogram Report

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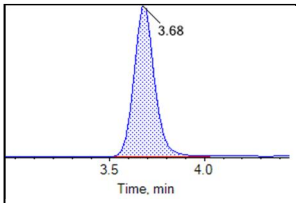
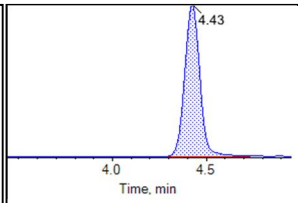
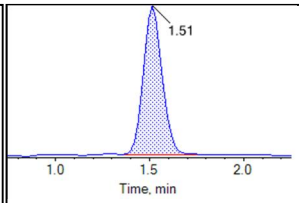


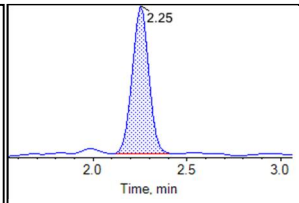
13C7-PFUnA



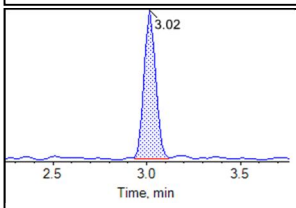
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

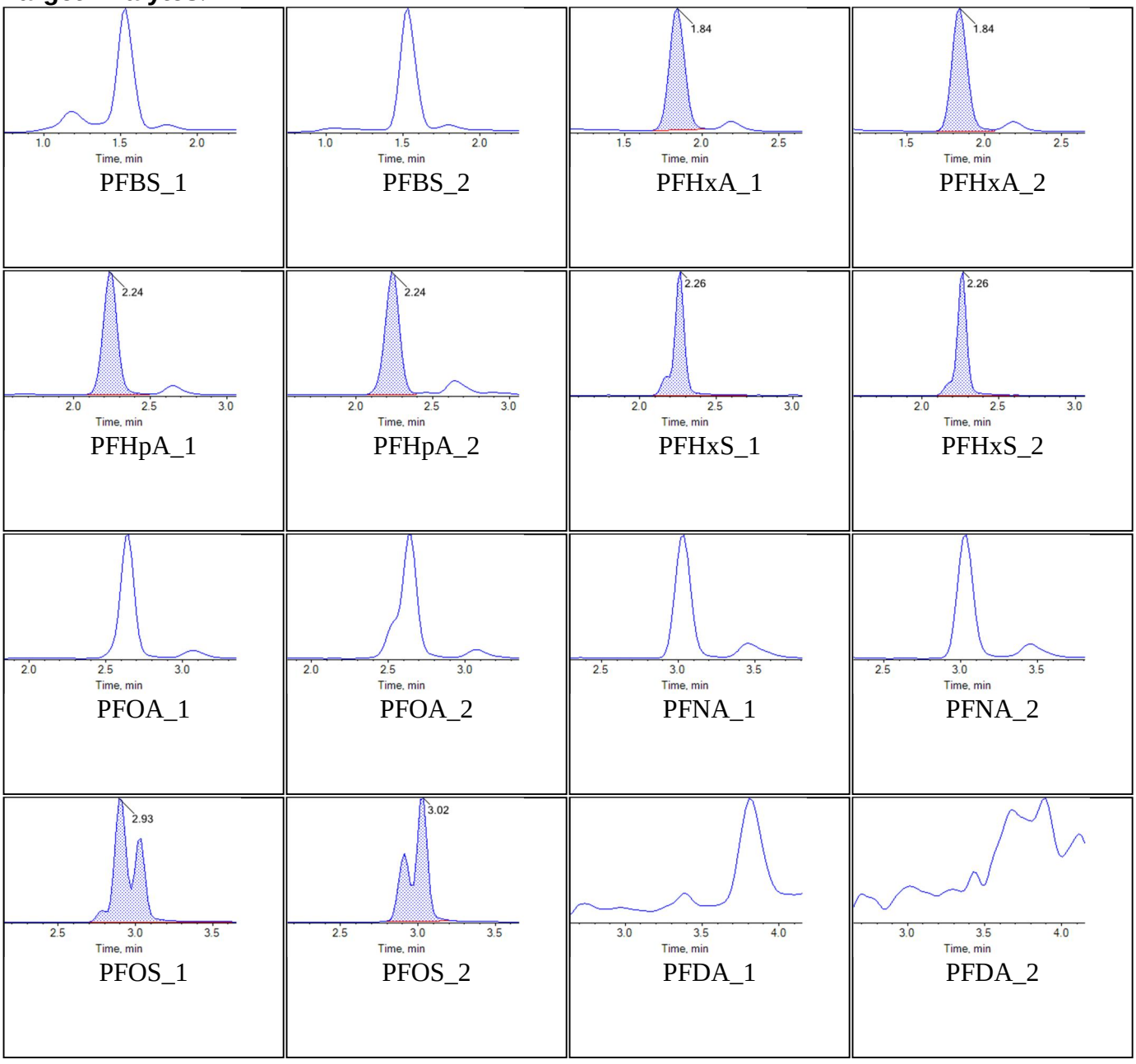
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:24:04 PM

Sample Name	J7775-FS-D(3)	**Injection Vial**	30
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:45:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

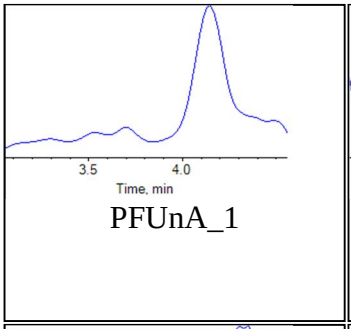
Target Analytes:



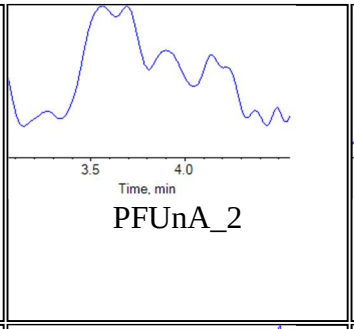
BATTELLE

Chromatogram Report

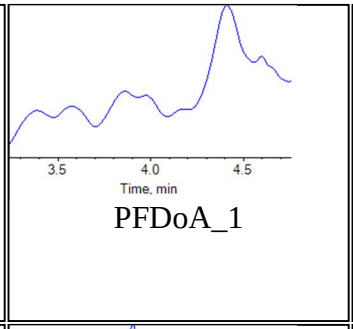
Created with Analyst Reporter
Printed: 18/09/2018 4:24:04 PM



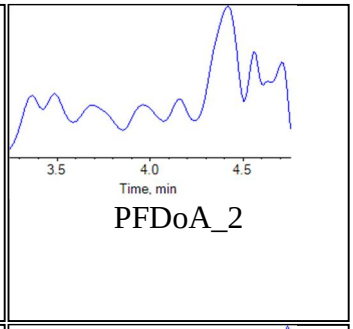
PFUnA_1



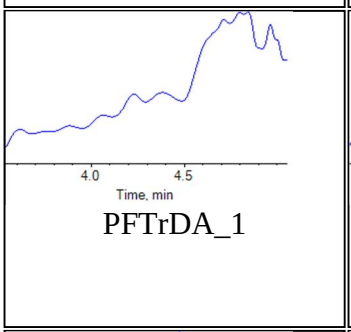
PFUnA_2



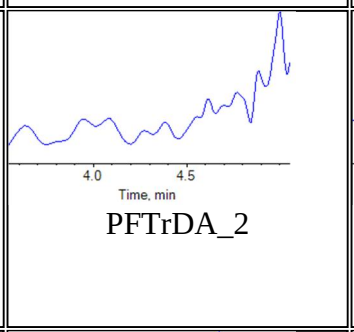
PFDoA_1



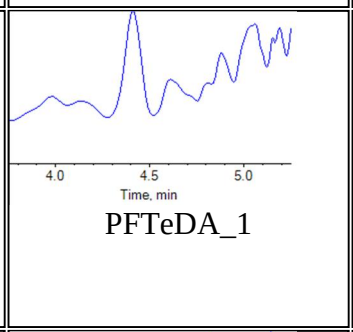
PFDoA_2



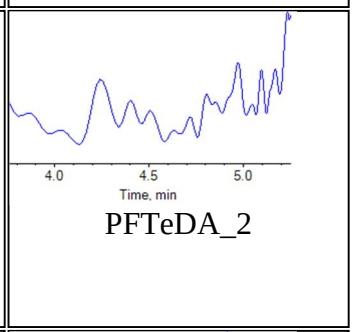
PFTrDA_1



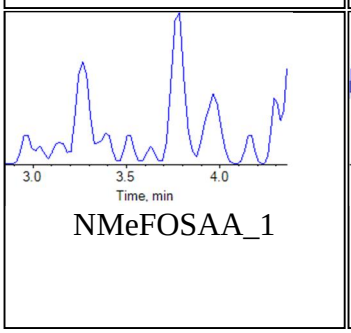
PFTrDA_2



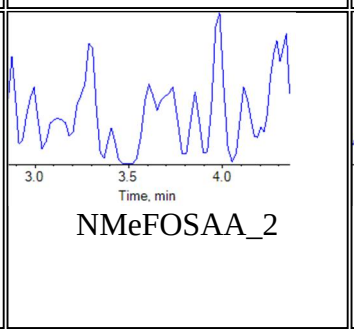
PFTeDA_1



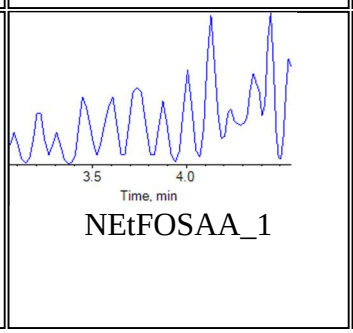
PFTeDA_2



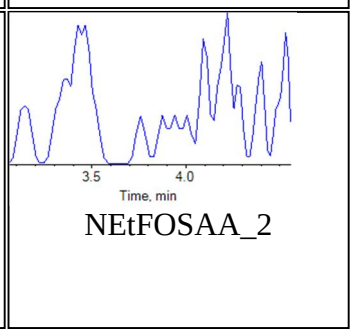
NMeFOSAA_1



NMeFOSAA_2

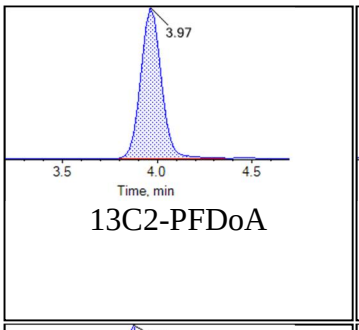


NEtFOSAA_1

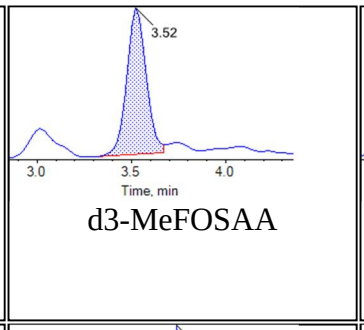


NEtFOSAA_2

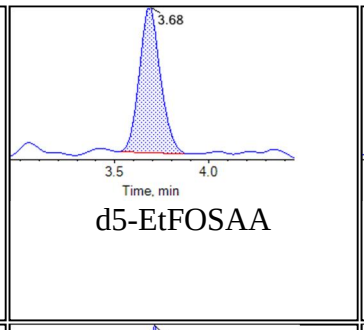
Internal Standards:



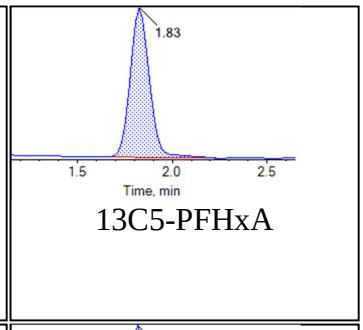
13C2-PFDoA



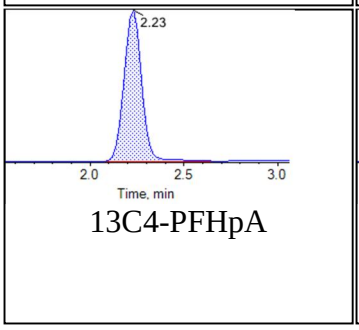
d3-MeFOSAA



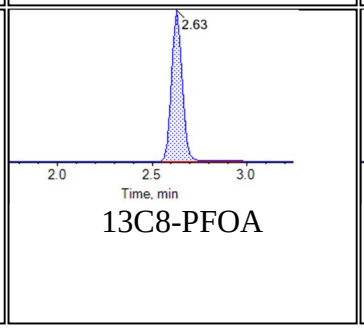
d5-EtFOSAA



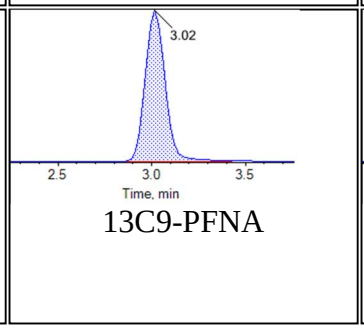
13C5-PFHxA



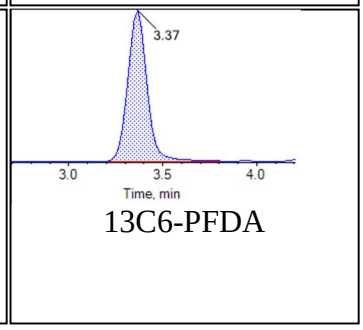
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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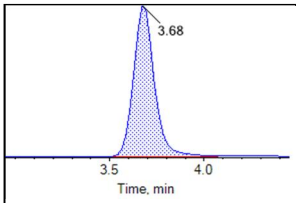
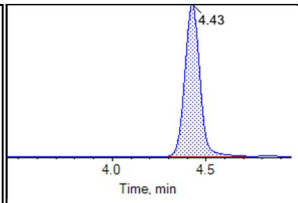
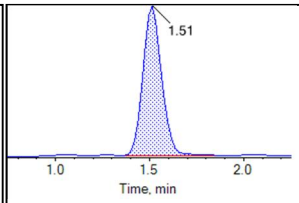


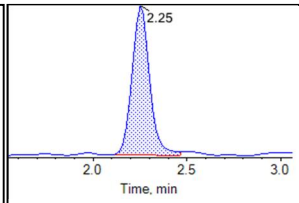
13C7-PFUnA



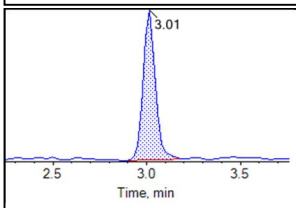
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

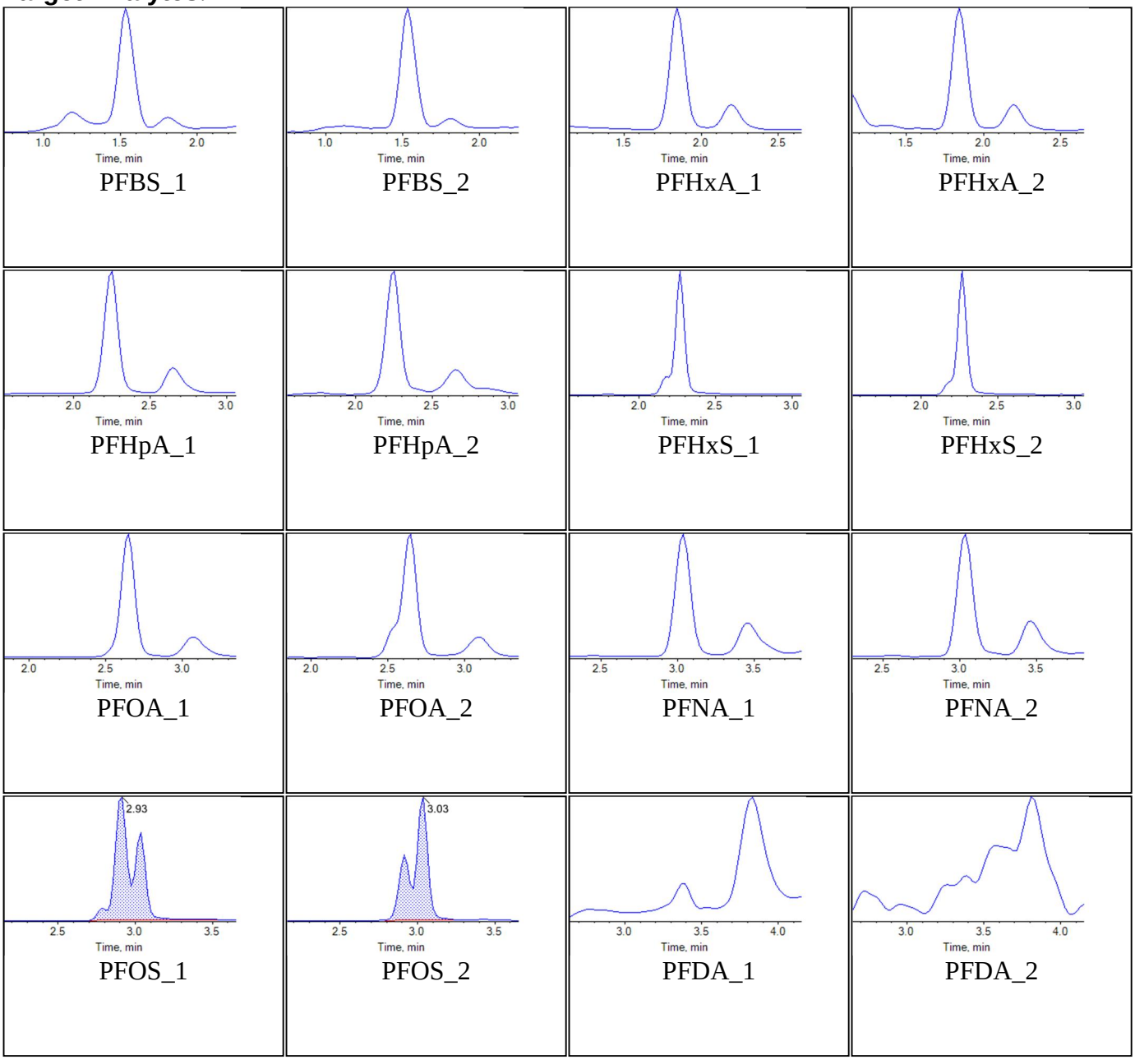
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:24:10 PM

Sample Name	J7775-FS-D(5)	**Injection Vial**	31
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:56:05	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

Created with Analyst Reporter
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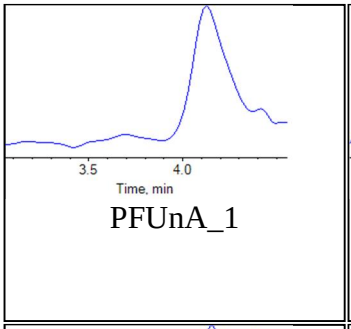
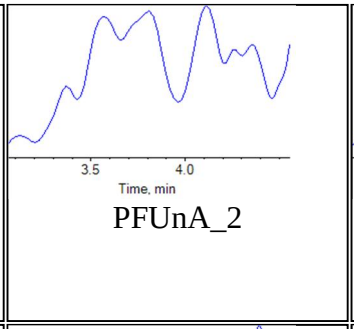
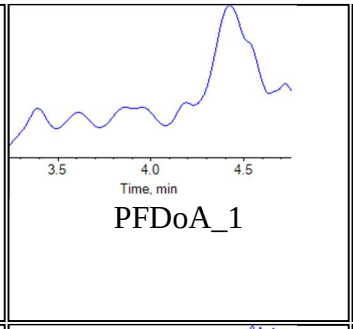


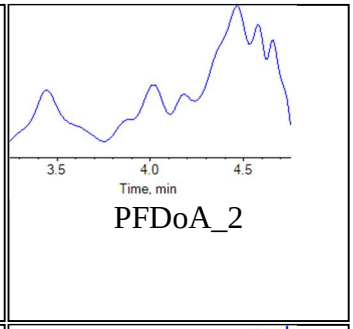
PFUnA_1



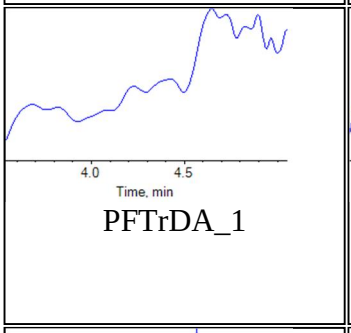
PFUnA_2



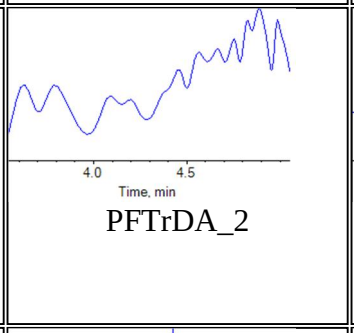
PFDoA_1



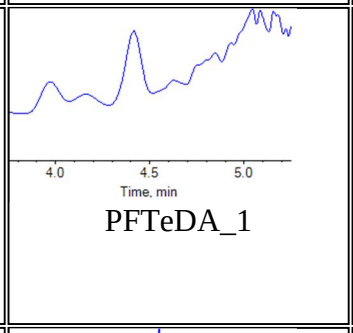
PFDoA_2



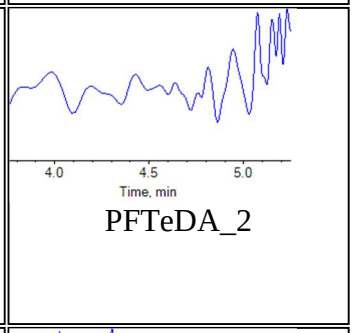
PFTrDA_1



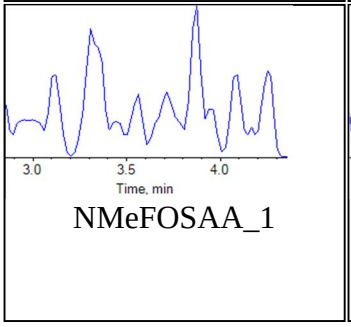
PFTrDA_2



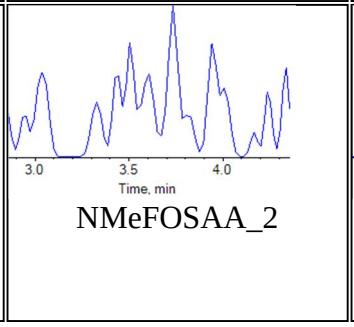
PFTeDA_1



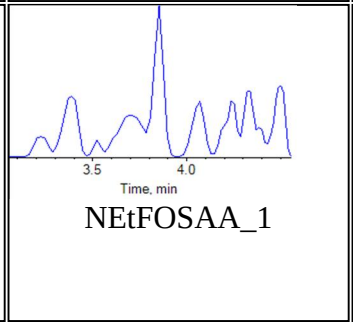
PFTeDA_2



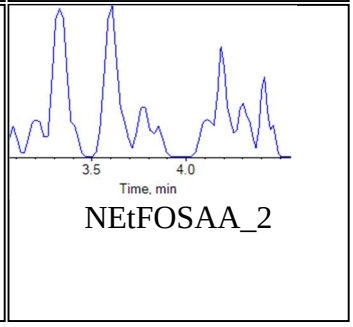
NMeFOSAA_1



NMeFOSAA_2

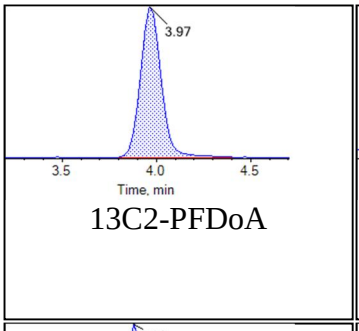


NEtFOSAA_1

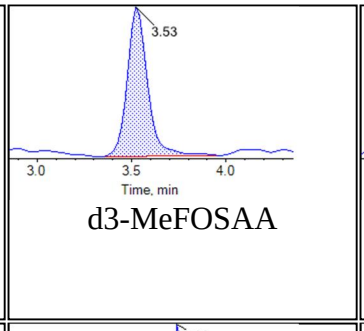


NEtFOSAA_2

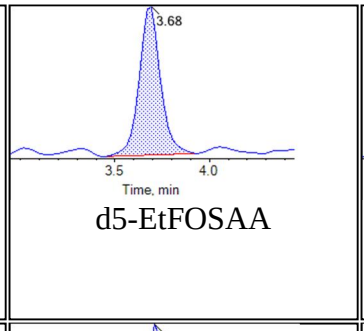
Internal Standards:



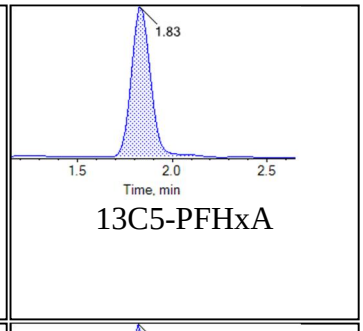
13C2-PFDoA



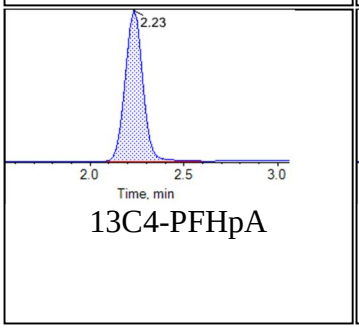
d3-MeFOSAA



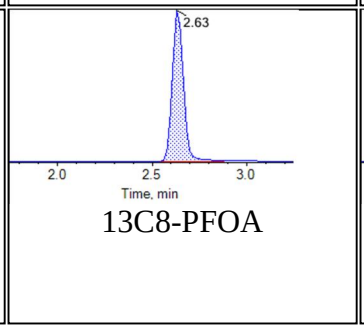
d5-EtFOSAA



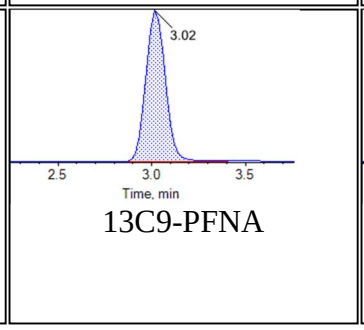
13C5-PFHxA



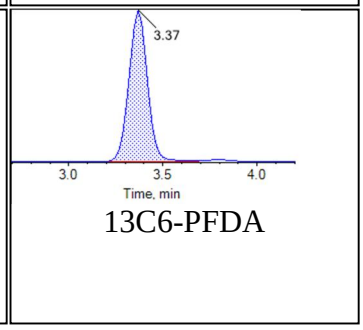
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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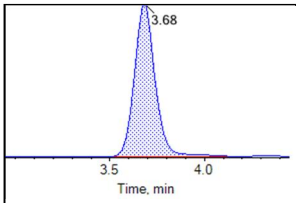
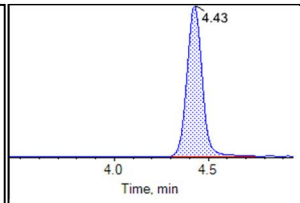
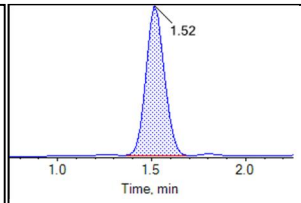


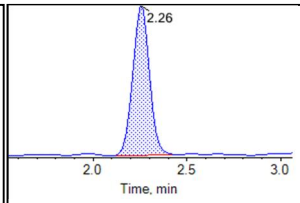
13C7-PFUnA



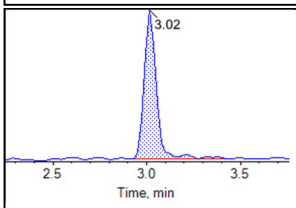
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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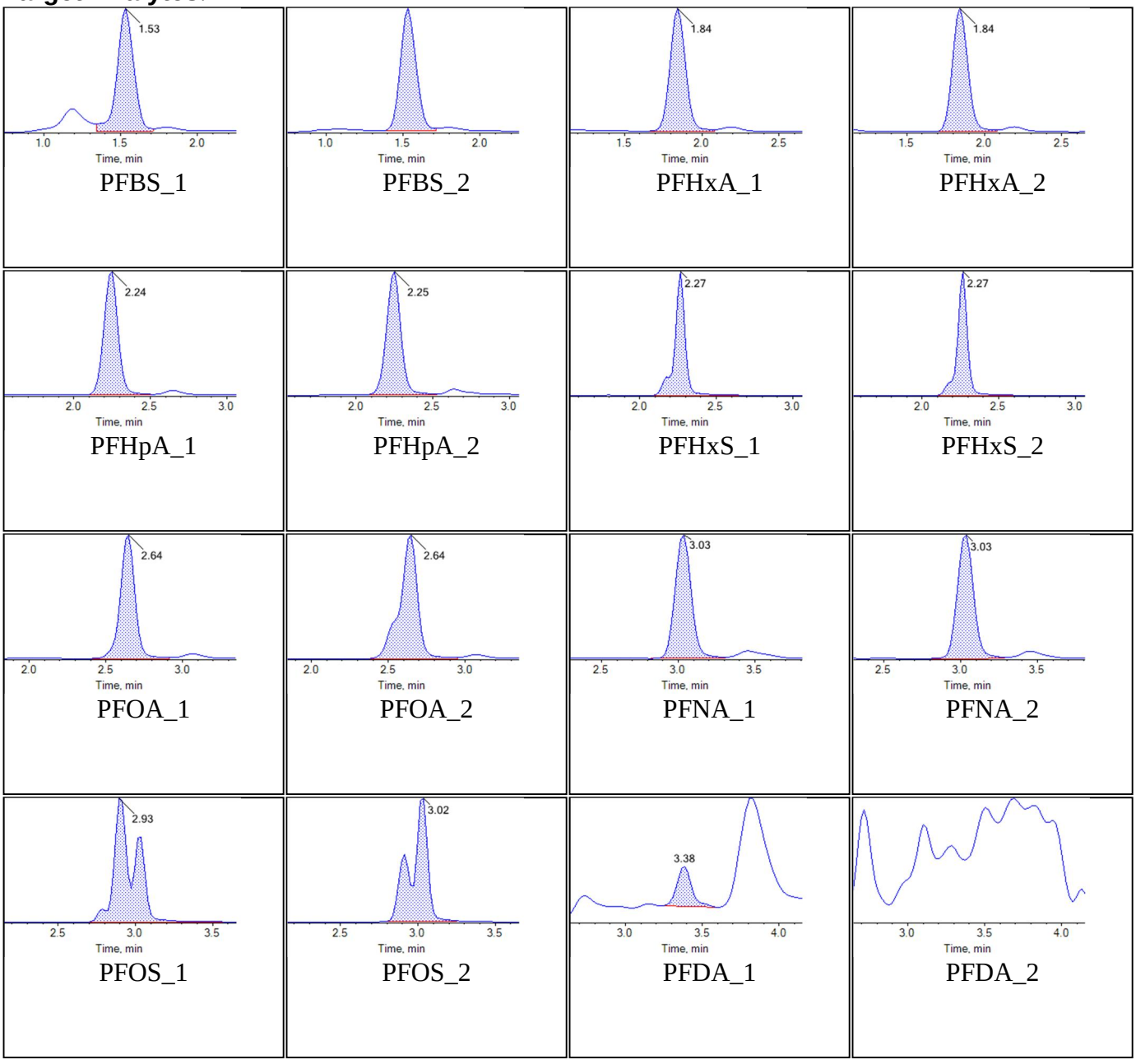
Sample Name	J7776-FS(0)	**Injection Vial**	32
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:06:57	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
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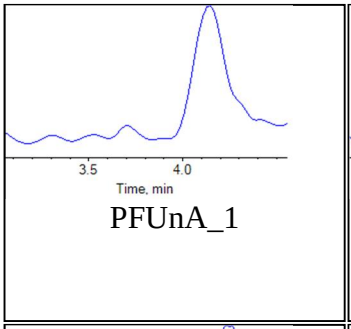
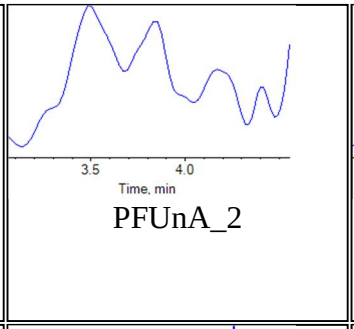
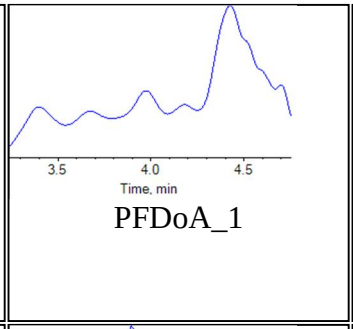


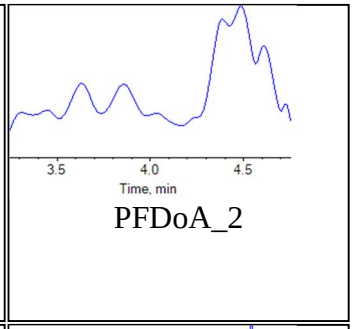
PFUnA_1



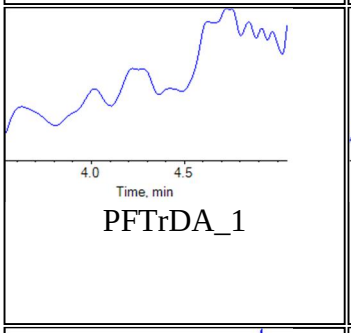
PFUnA_2



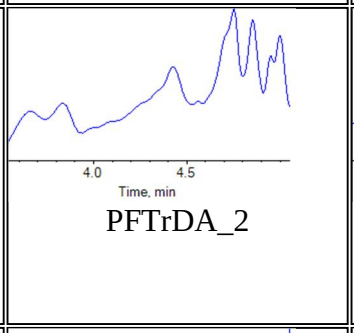
PFDoA_1



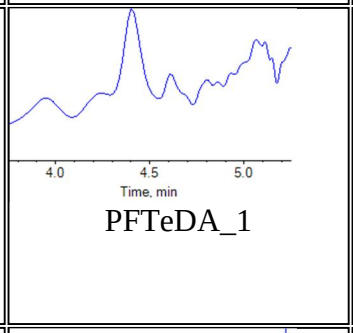
PFDoA_2



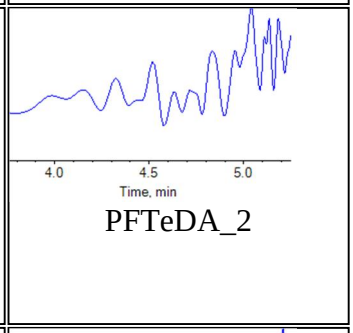
PFTrDA_1



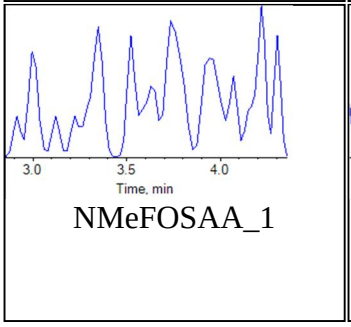
PFTrDA_2



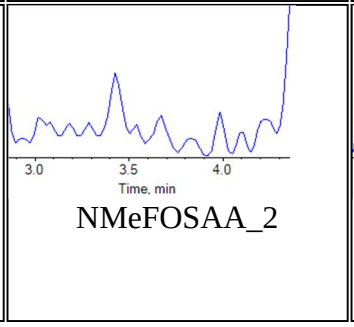
PFTeDA_1



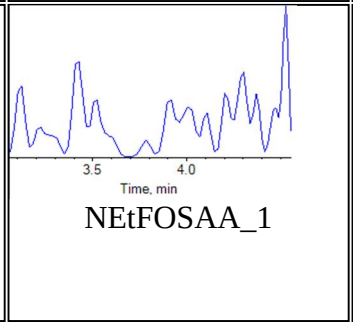
PFTeDA_2



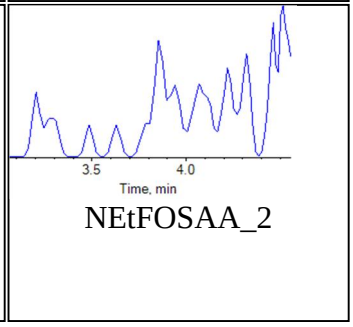
NMeFOSAA_1



NMeFOSAA_2

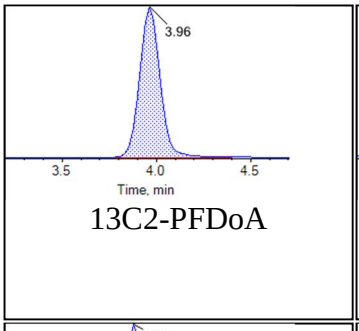


NEtFOSAA_1

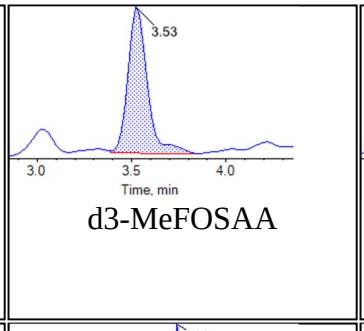


NEtFOSAA_2

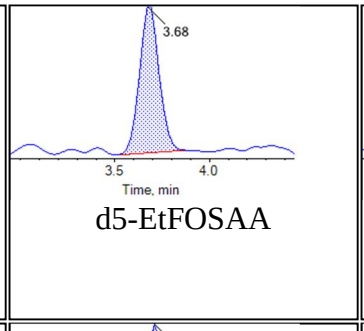
Internal Standards:



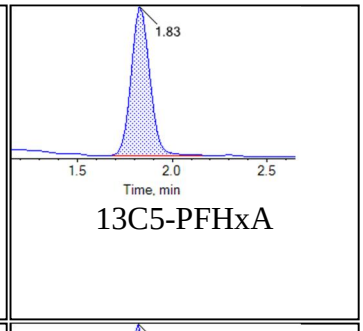
13C2-PFDoA



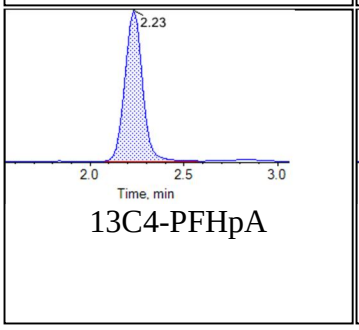
d3-MeFOSAA



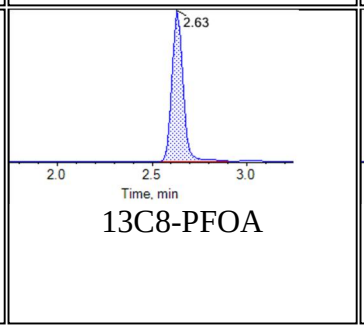
d5-EtFOSAA



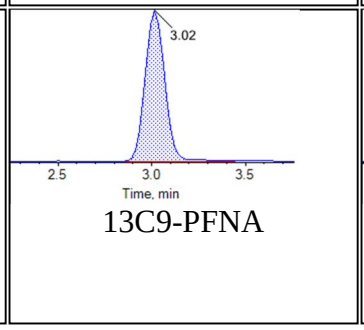
13C5-PFHxA



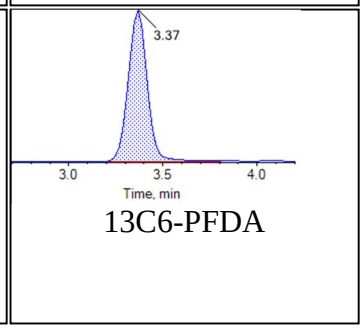
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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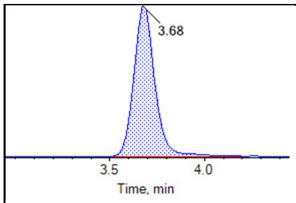
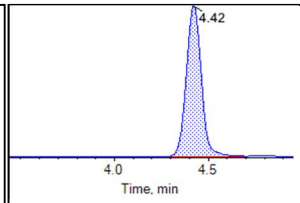
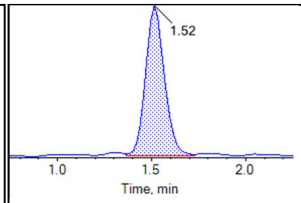


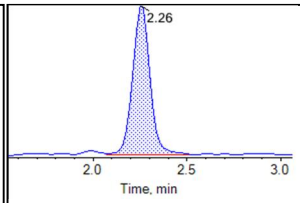
13C7-PFUnA



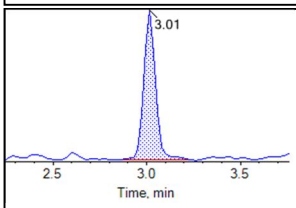
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Sample Name	J7776-FS-D(3)	**Injection Vial**	33
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:17:49	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

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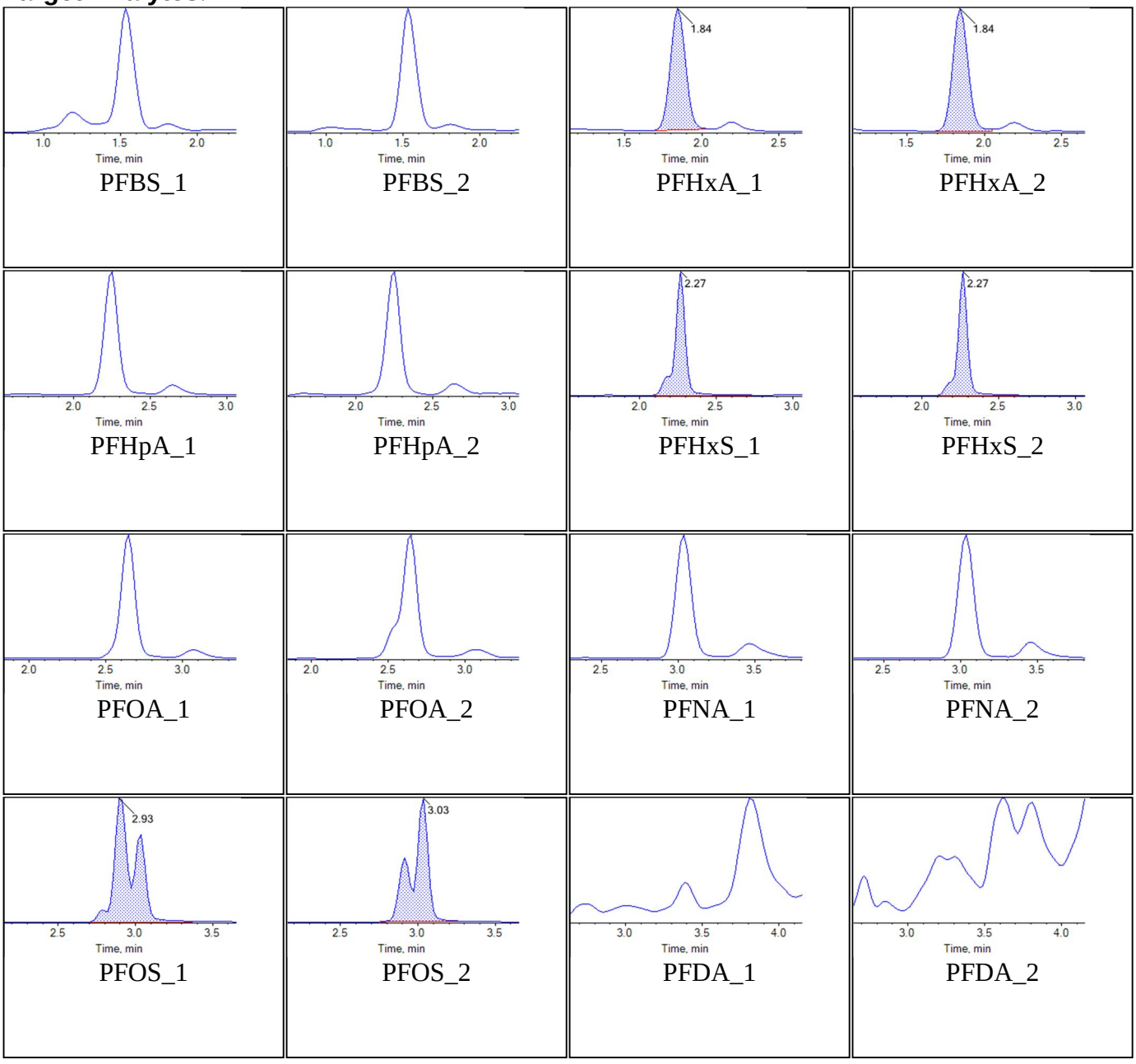

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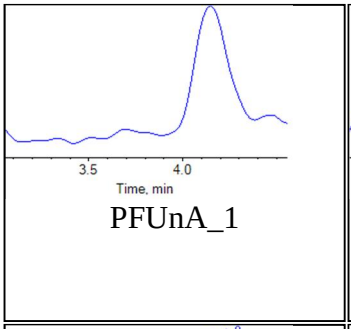
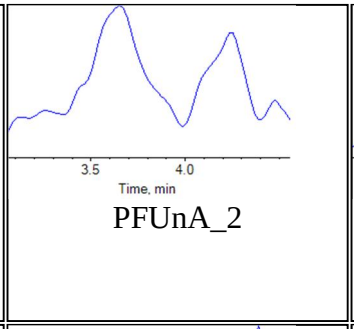
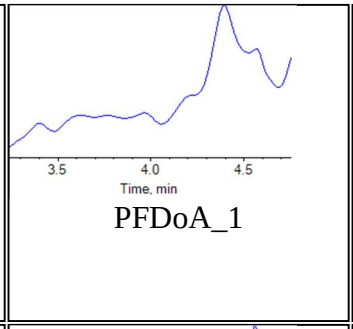


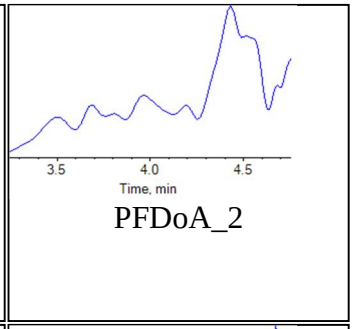
PFUnA_1



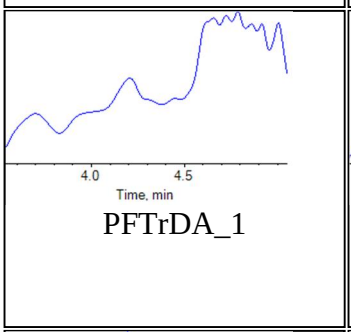
PFUnA_2



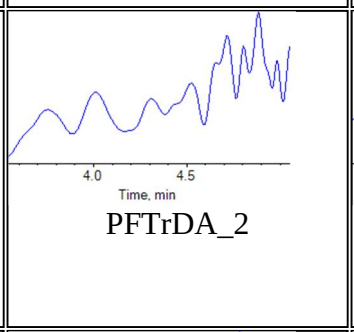
PFDoA_1



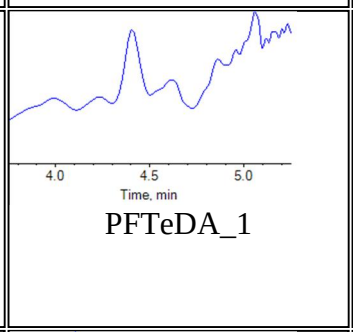
PFDoA_2



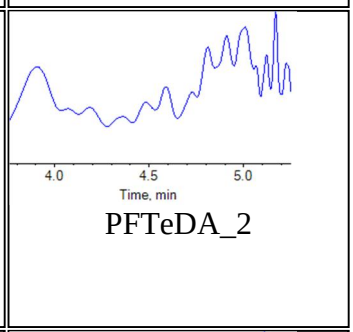
PFTrDA_1



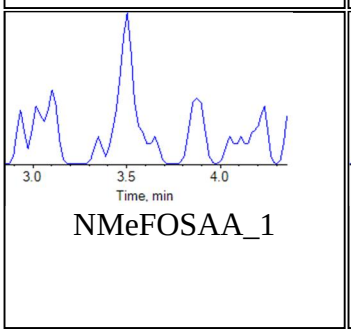
PFTrDA_2



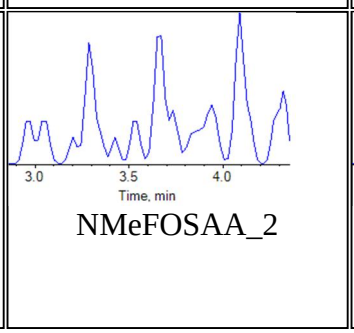
PFTeDA_1



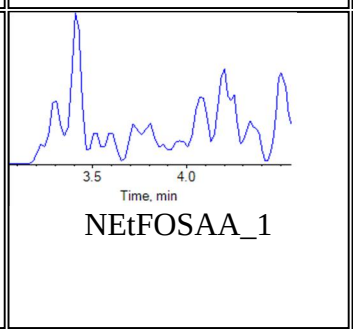
PFTeDA_2



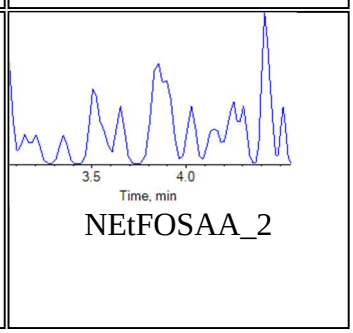
NMeFOSAA_1



NMeFOSAA_2

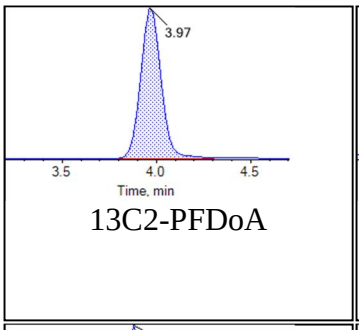


NEtFOSAA_1

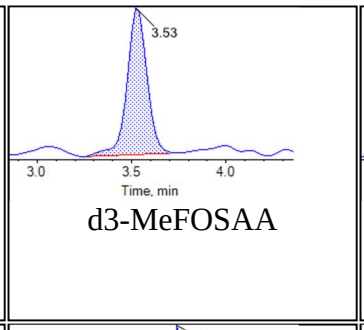


NEtFOSAA_2

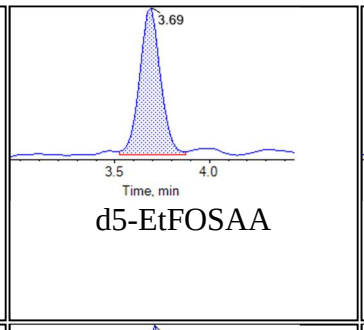
Internal Standards:



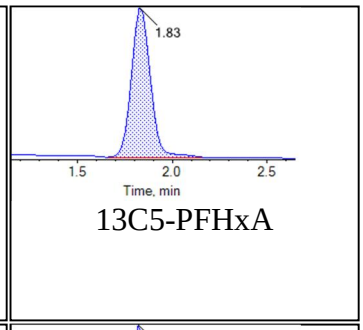
13C2-PFDoA



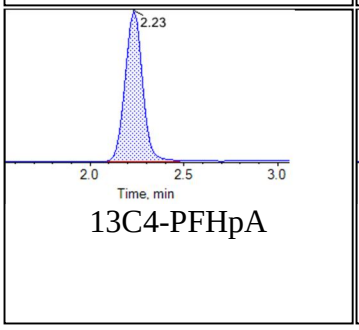
d3-MeFOSAA



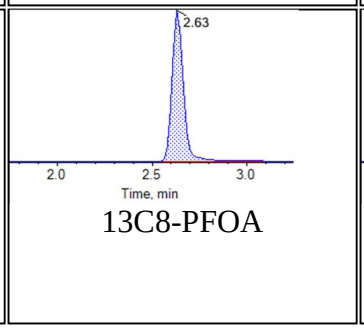
d5-EtFOSAA



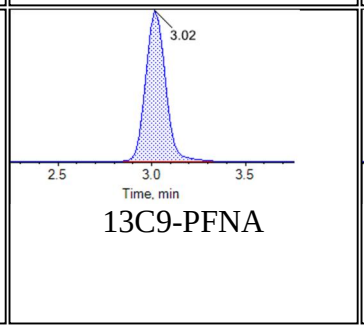
13C5-PFHxA



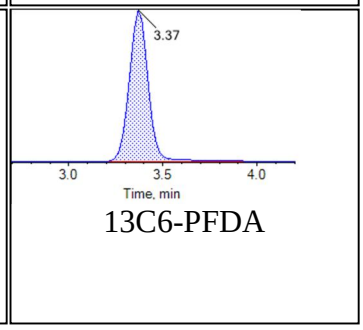
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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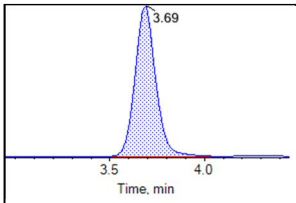
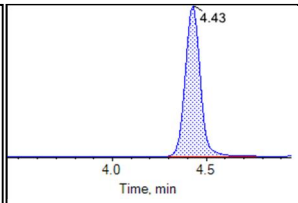
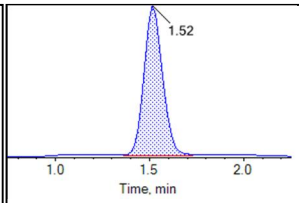


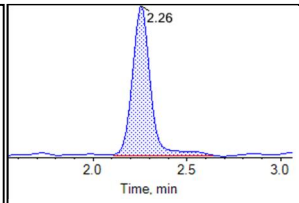
13C7-PFUnA



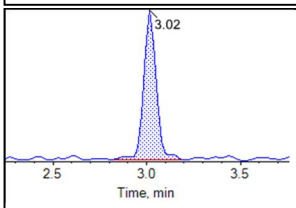
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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Sample Name	J7776-FS-D(5)	**Injection Vial**	34
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:28:40	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

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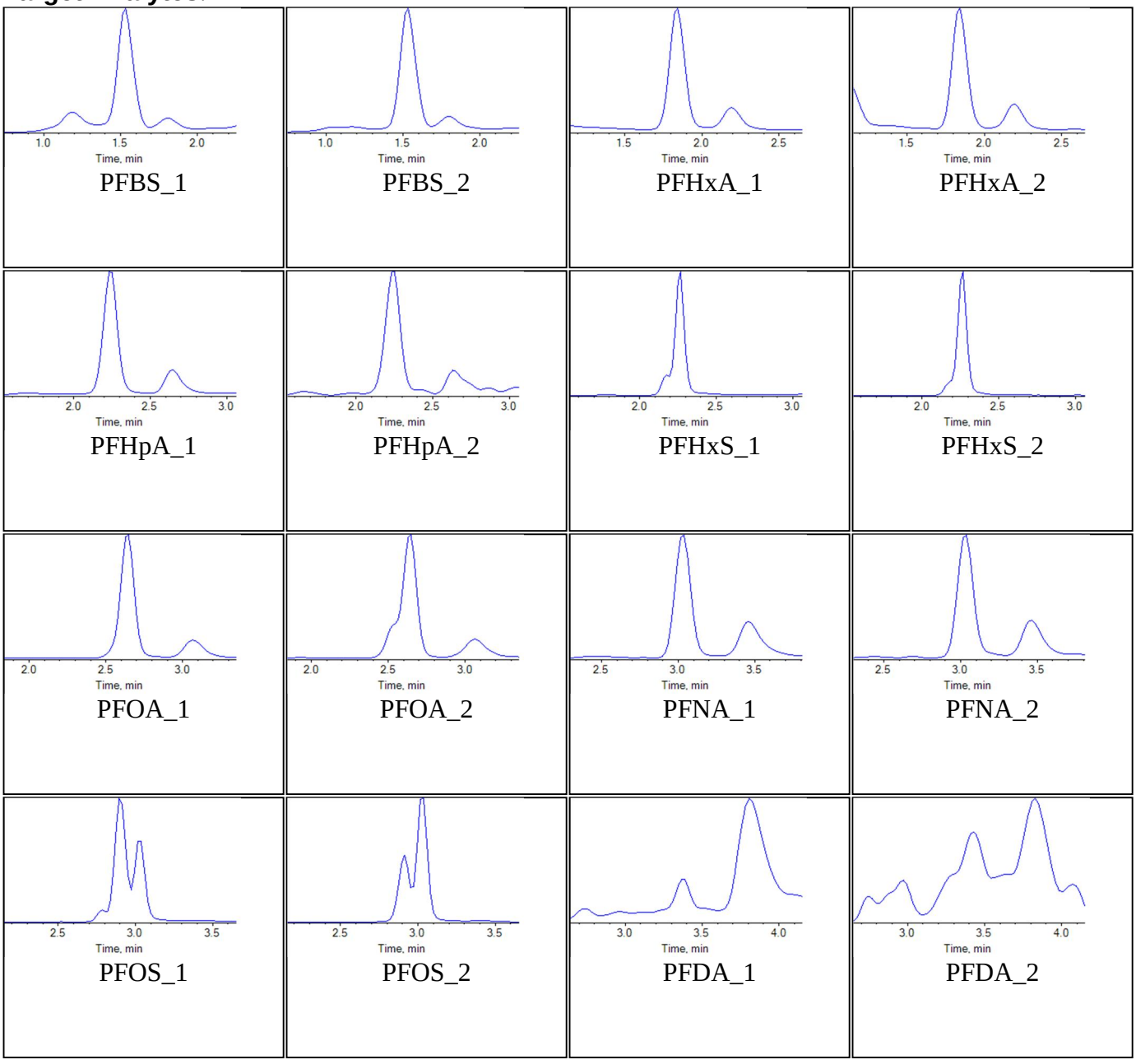

BATTELLE

Chromatogram Report

Created with Analyst Reporter
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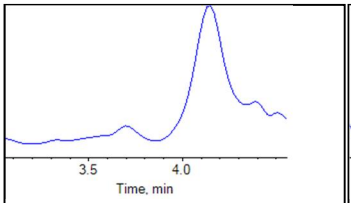
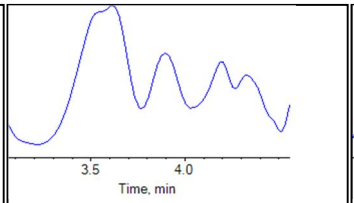


PFUnA_1



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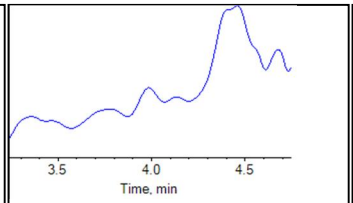
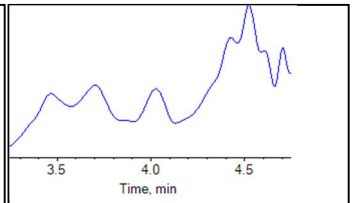
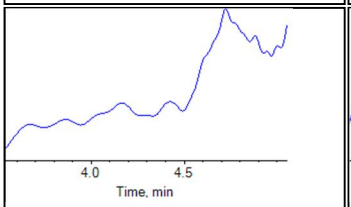


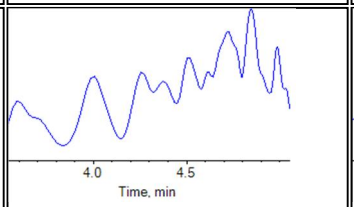
PFDoA_1



PFDoA_2



PFTrDA_1



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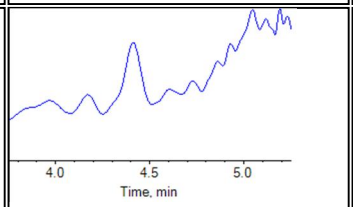

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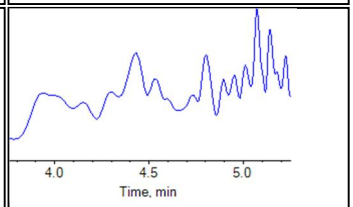
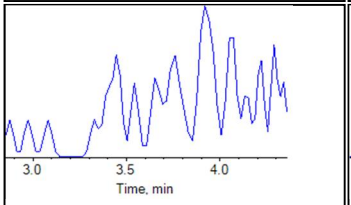
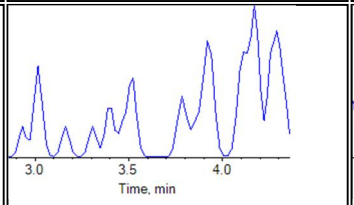


PFTeDA_2



NMeFOSAA_1



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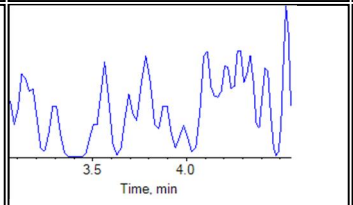

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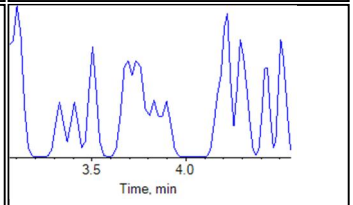
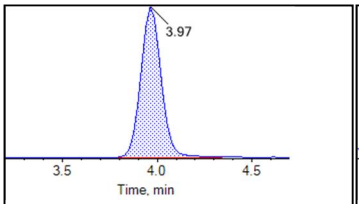
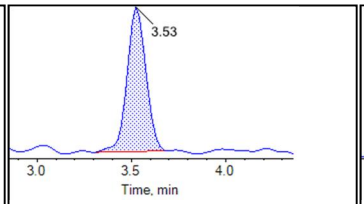


NEtFOSAA_2

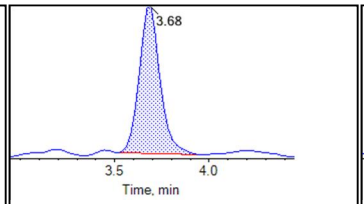
Internal Standards:



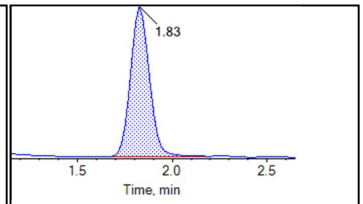
13C2-PFDoA



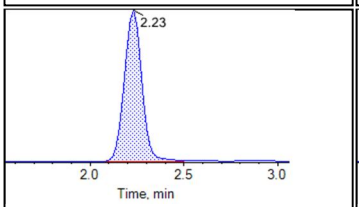
d3-MeFOSAA



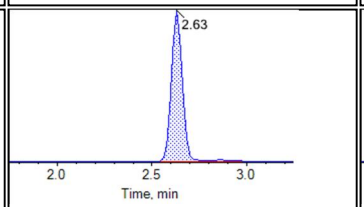
d5-EtFOSAA



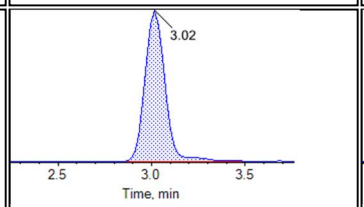
13C5-PFHxA



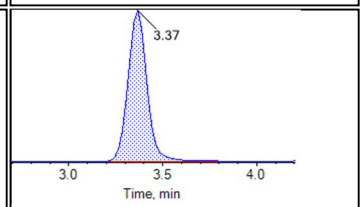
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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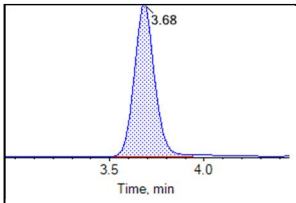
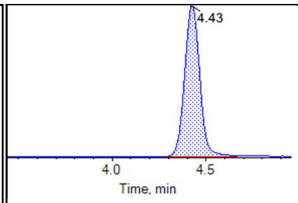


13C7-PFUnA



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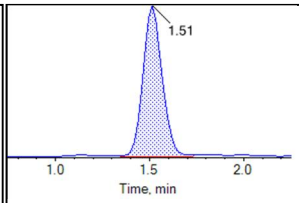
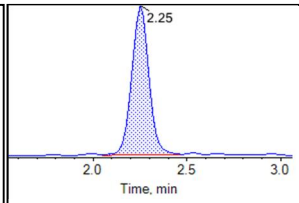


13C3-PFBS



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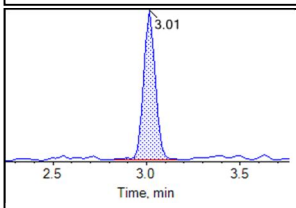

13C8-PFOS

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Chromatogram Report

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Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

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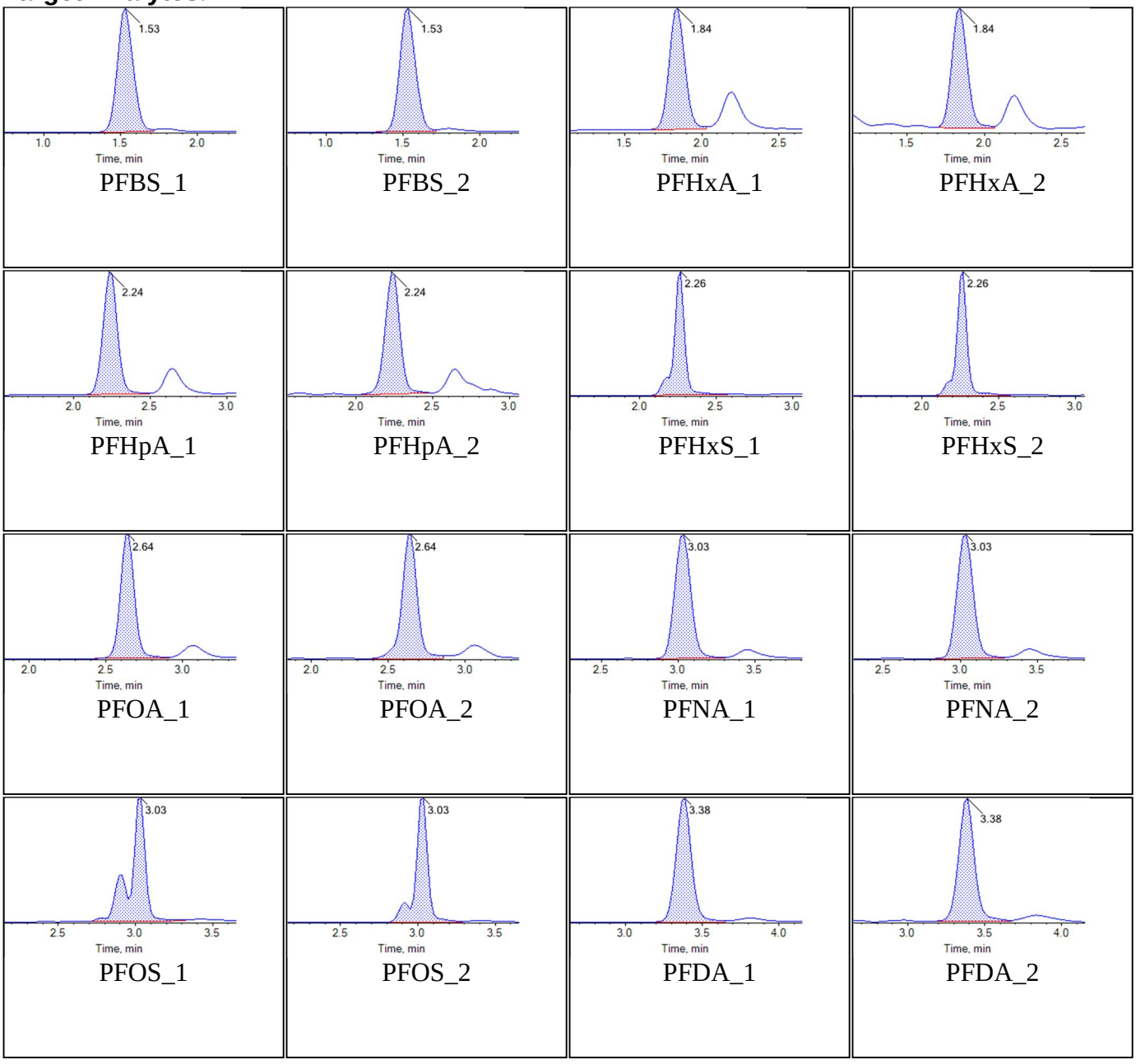

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Chromatogram Report

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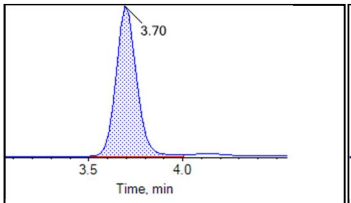
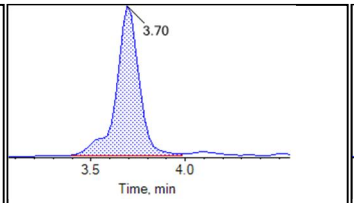
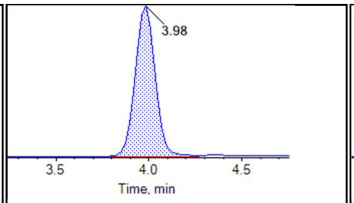


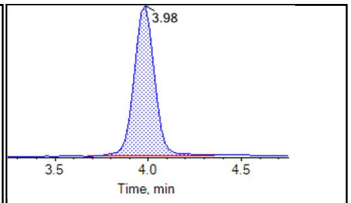
PFUnA_1



PFUnA_2



PFDoA_1



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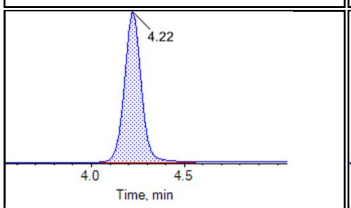
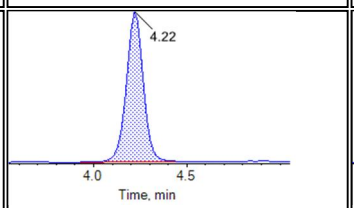
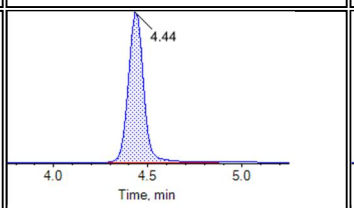


PFTrDA_1



PFTrDA_2



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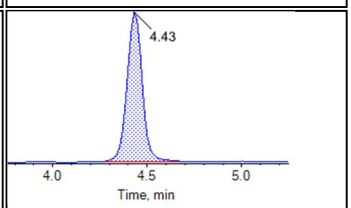

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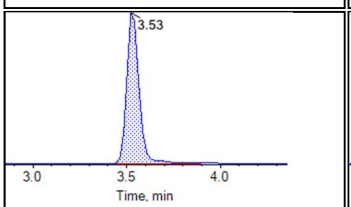

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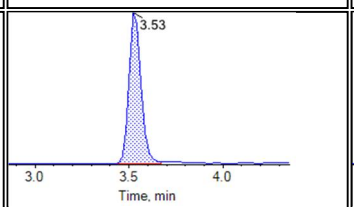

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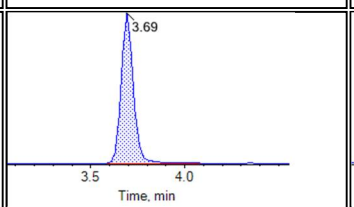

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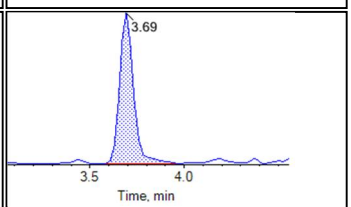
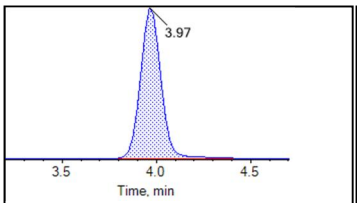
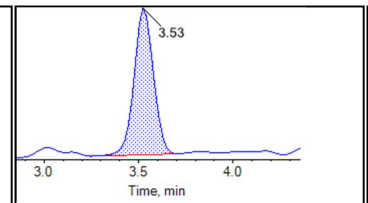


NEtFOSAA_2

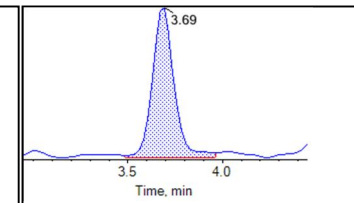
Internal Standards:



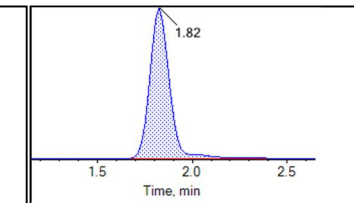
13C2-PFDoA



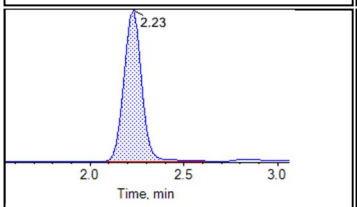
d3-MeFOSAA



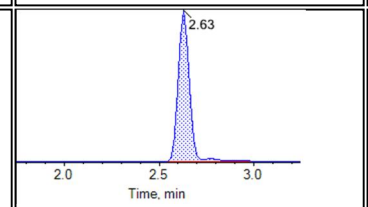
d5-EtFOSAA



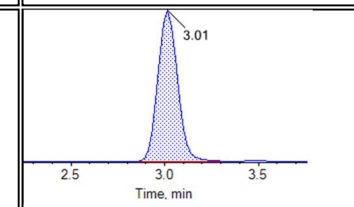
13C5-PFHxA



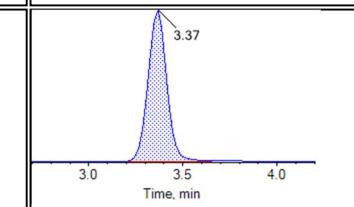
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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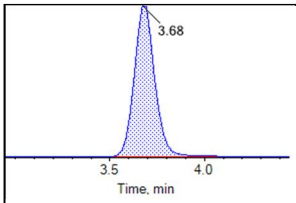
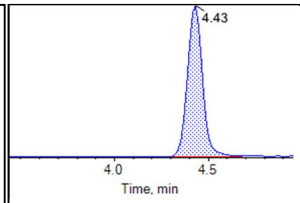
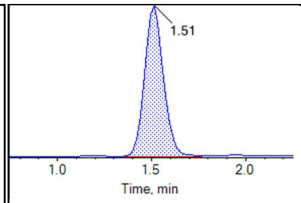


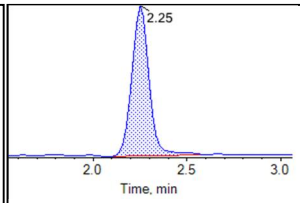
13C7-PFUnA



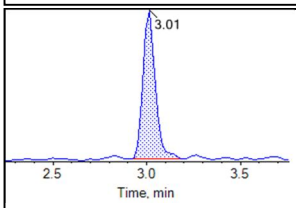
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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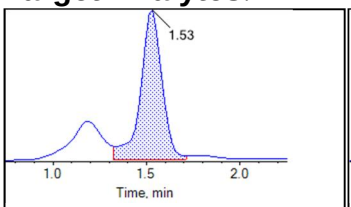
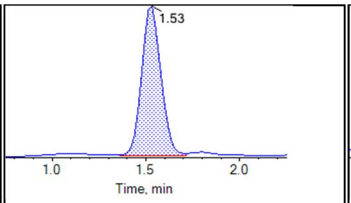
Sample Name	J7779-FS(0)	**Injection Vial**	35
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:12:07	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

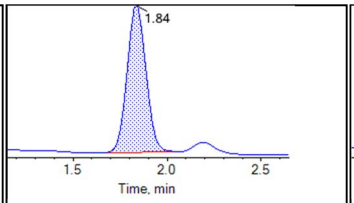
Target Analytes:



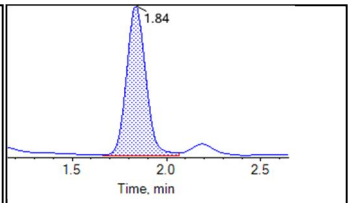
PFBS_1



PFBS_2



PFHxA_1



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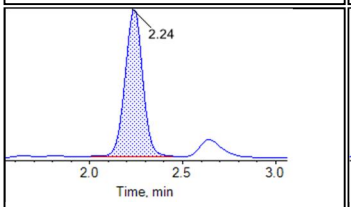

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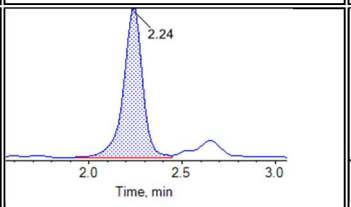
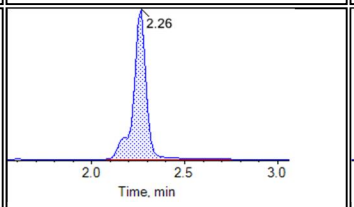
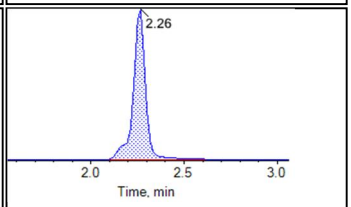


PFHpA_2



PFHxS_1



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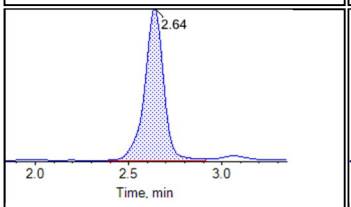
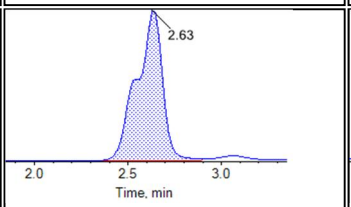


PFOA_1



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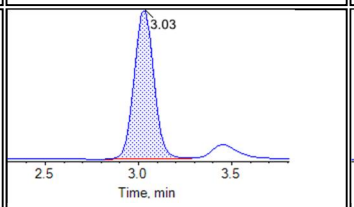

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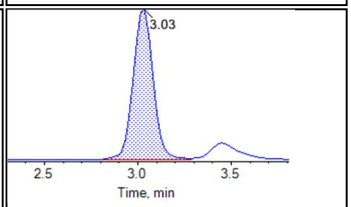

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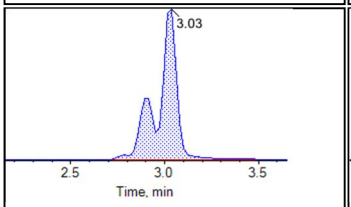

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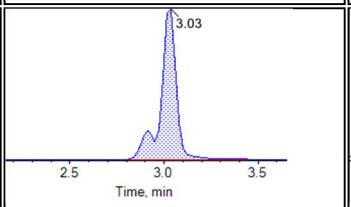
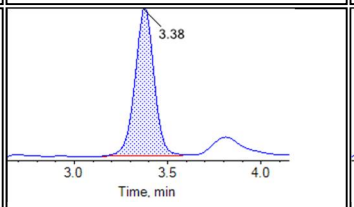


PFOS_2



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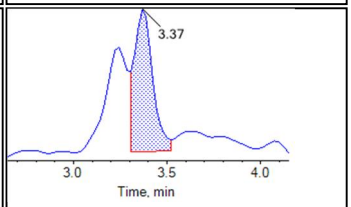

PFDA_2

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Chromatogram Report

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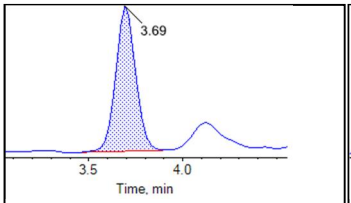
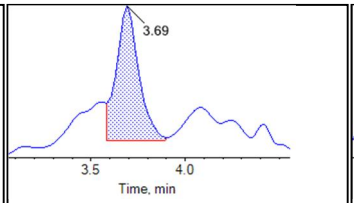
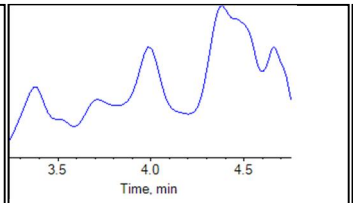


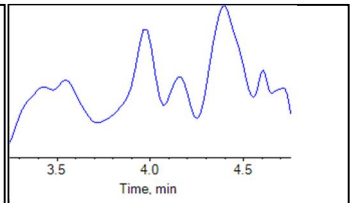
PFUnA_1



PFUnA_2



PFDoA_1



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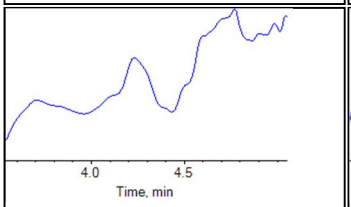

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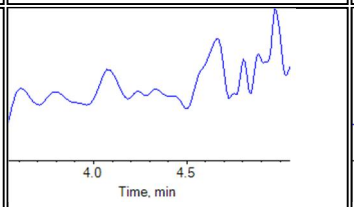

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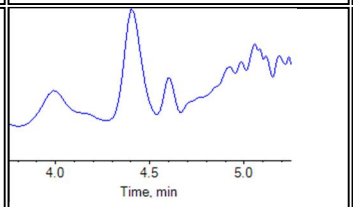

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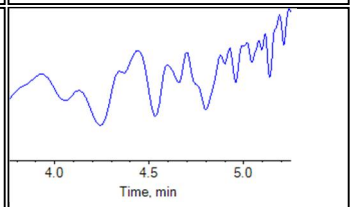
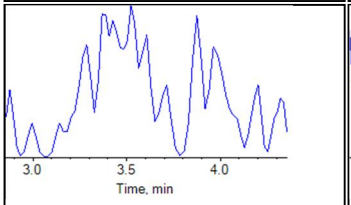


PFTeDA_2



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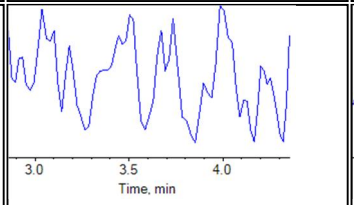
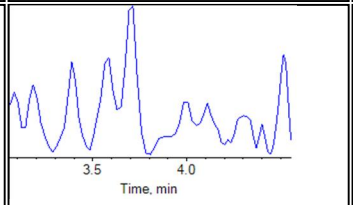


NMeFOSAA_2



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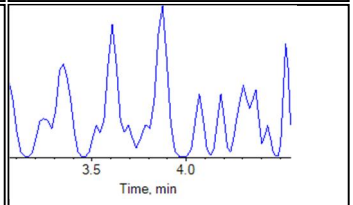
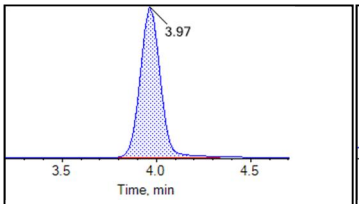
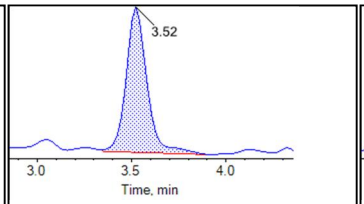


NEtFOSAA_2

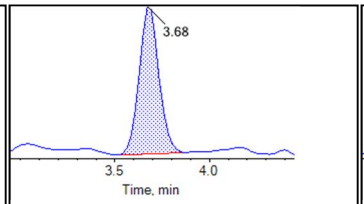
Internal Standards:



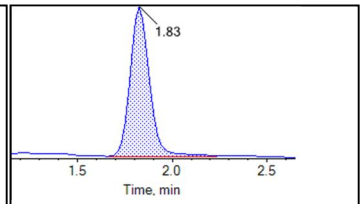
13C2-PFDoA



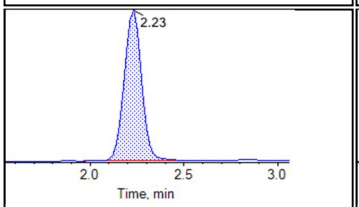
d3-MeFOSAA



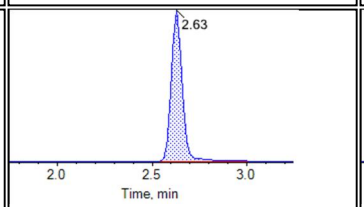
d5-EtFOSAA



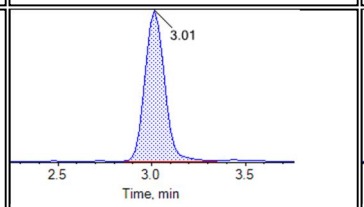
13C5-PFHxA



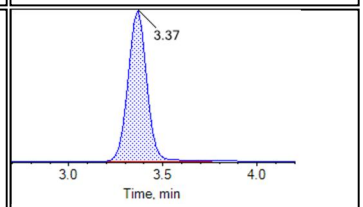
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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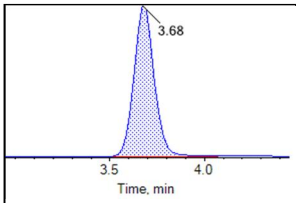
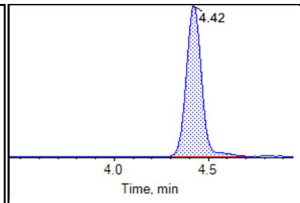
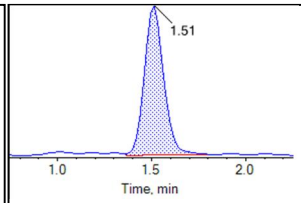


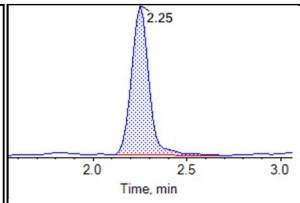
13C7-PFUnA



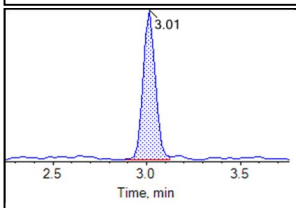
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

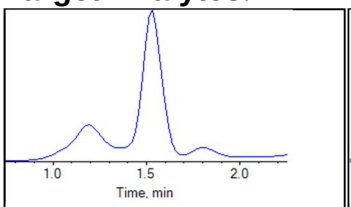
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:24:50 PM

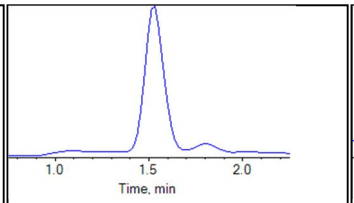
Sample Name	J7779-FS-D(3)	**Injection Vial**	36
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:22:59	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

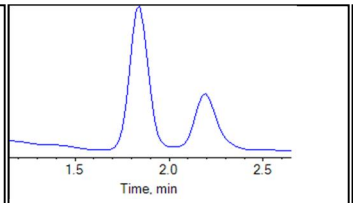
Target Analytes:



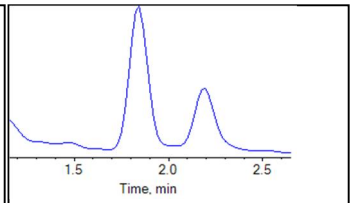
PFBS_1



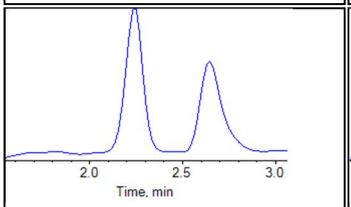
PFBS_2



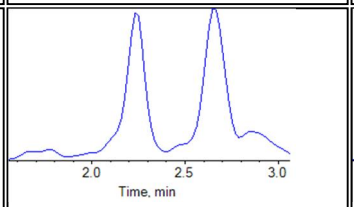
PFHxA_1



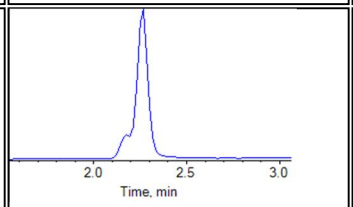
PFHxA_2



PFHpA_1



PFHpA_2



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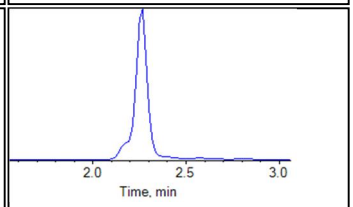

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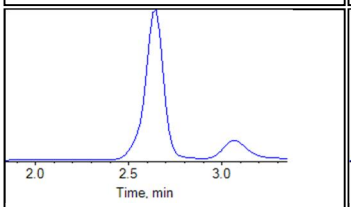
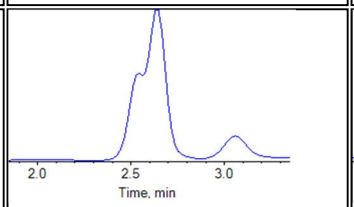
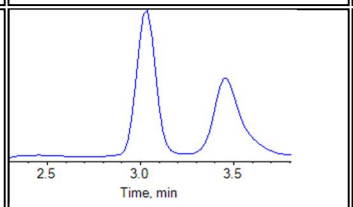


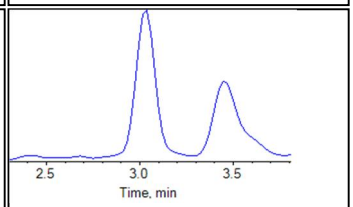
PFOA_1



PFOA_2



PFNA_1



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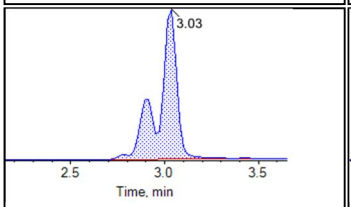

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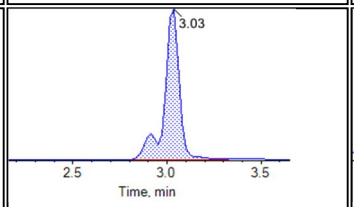

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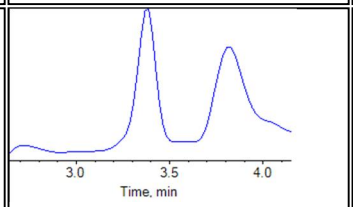

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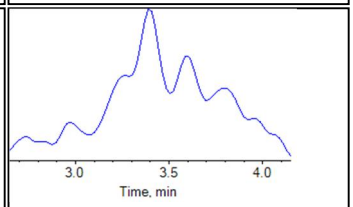

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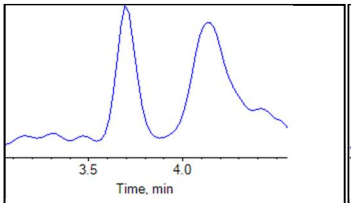

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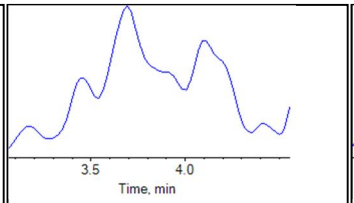

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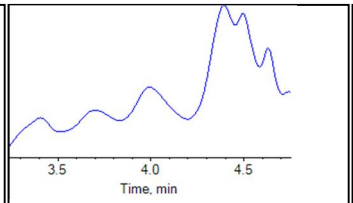

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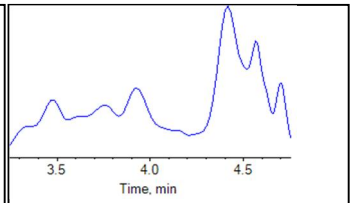

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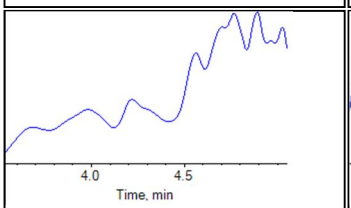

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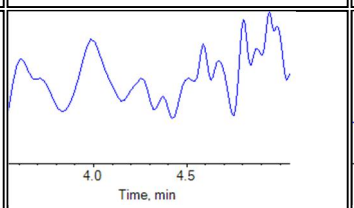

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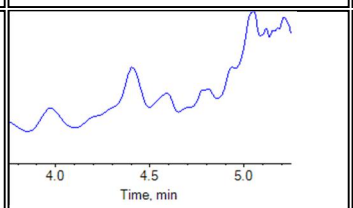

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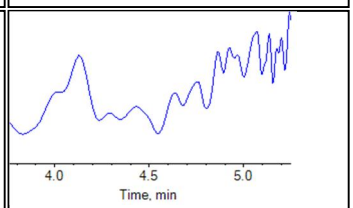

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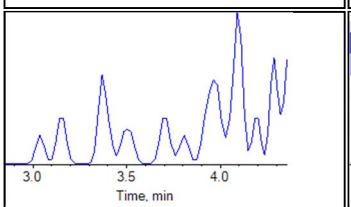

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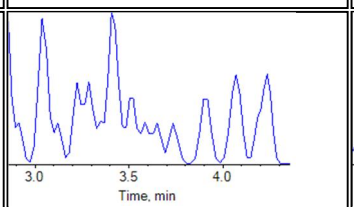

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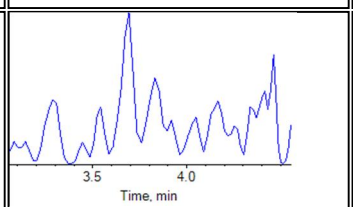

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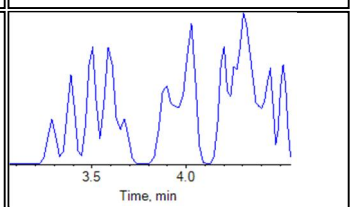

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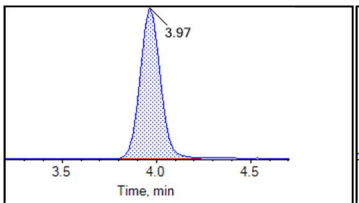

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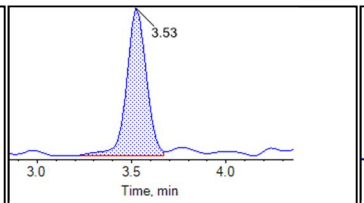

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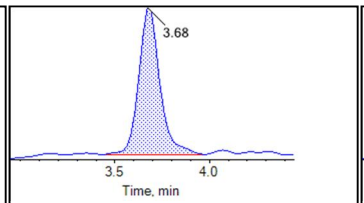

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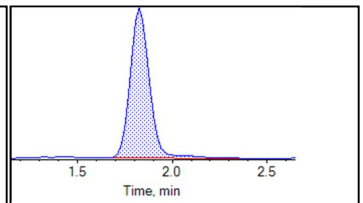

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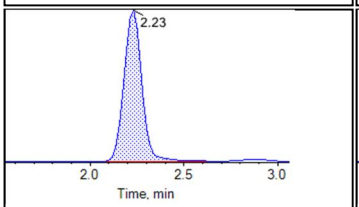

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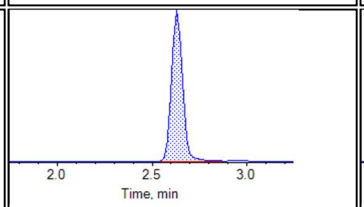

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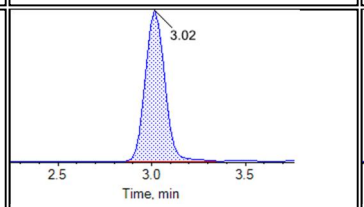

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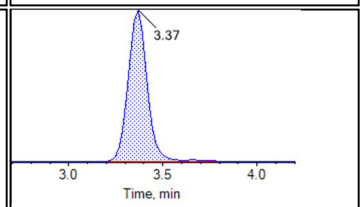

13C6-PFDA

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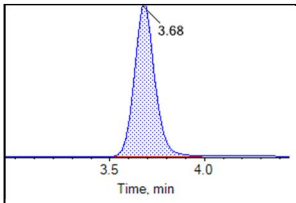

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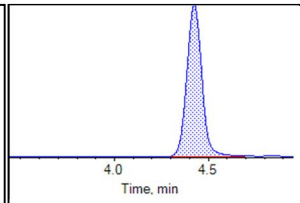

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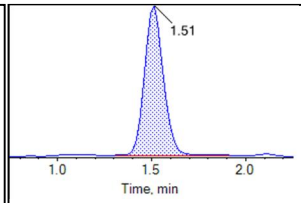

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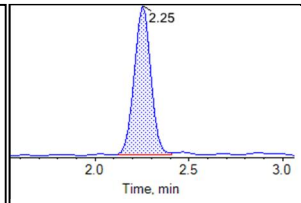

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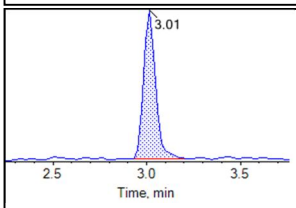

13C8-PFOS

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Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:33:50	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

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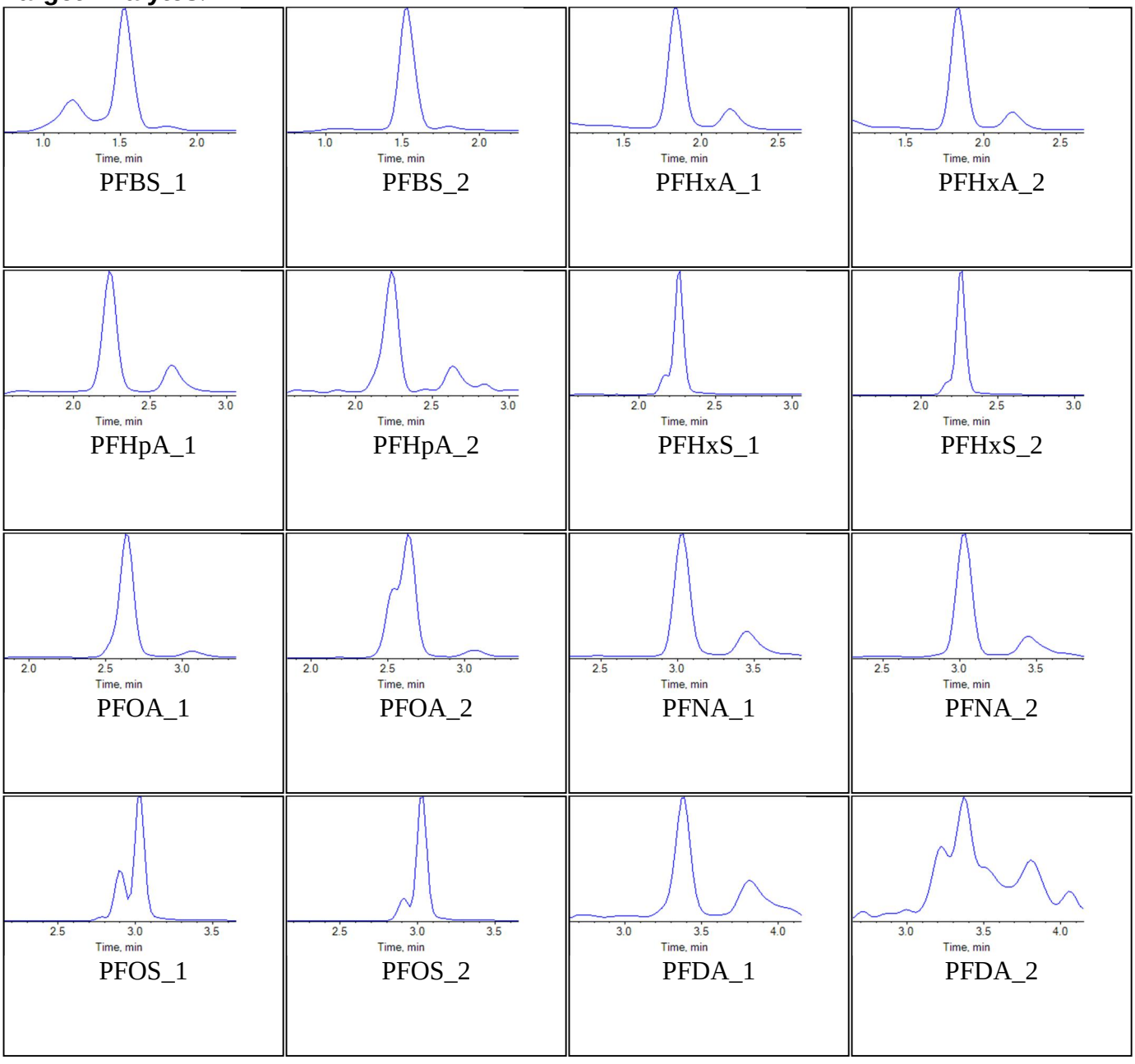

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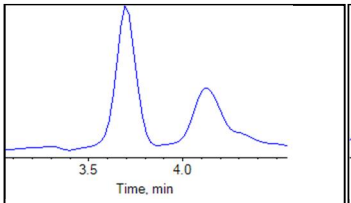

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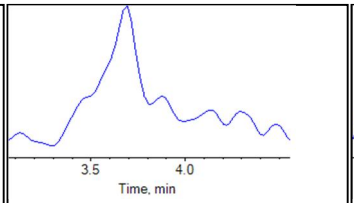

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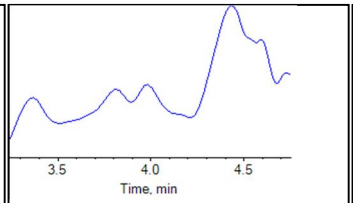

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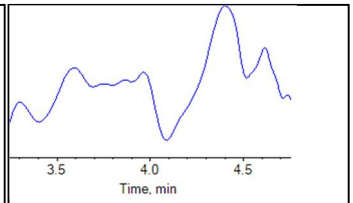

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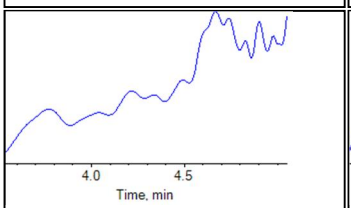

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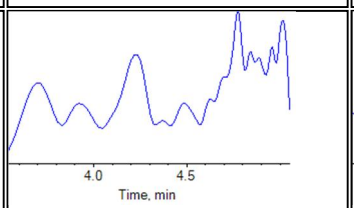

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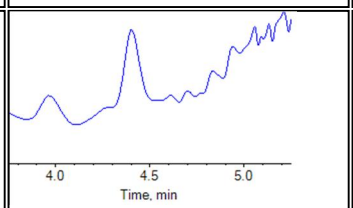

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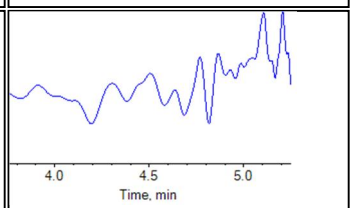

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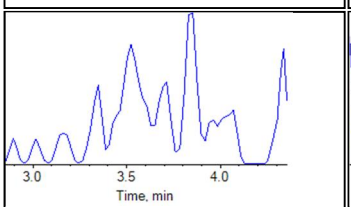

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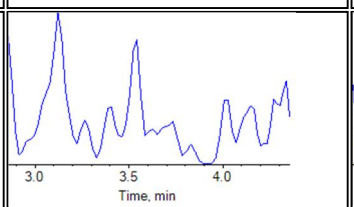

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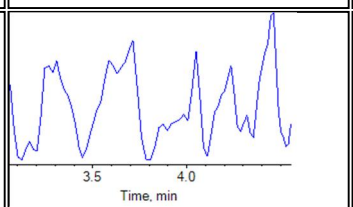

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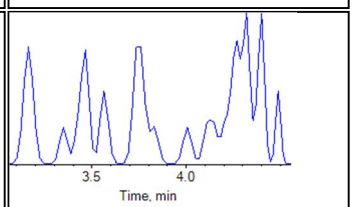

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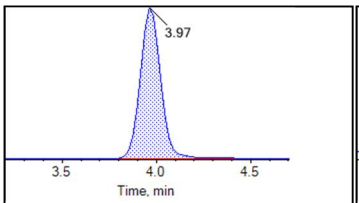

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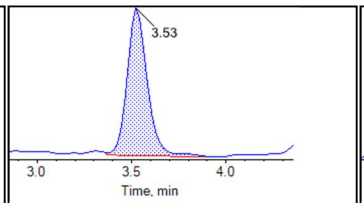

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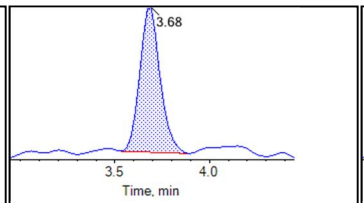

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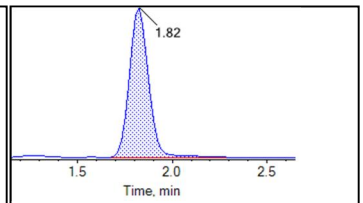

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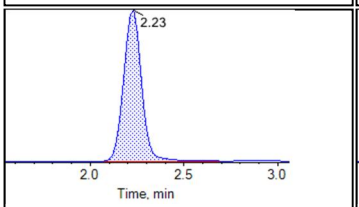

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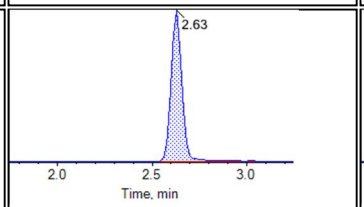

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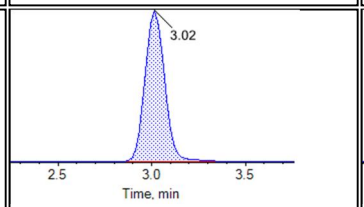

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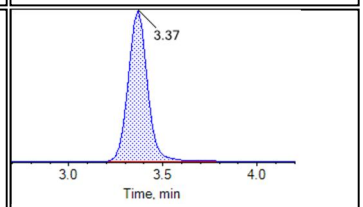

13C6-PFDA

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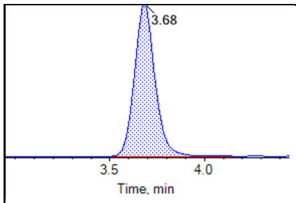

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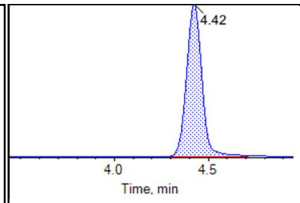

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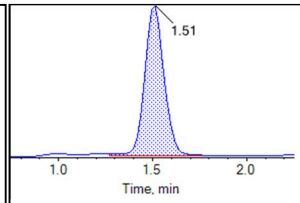

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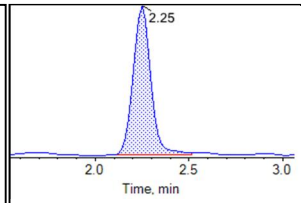
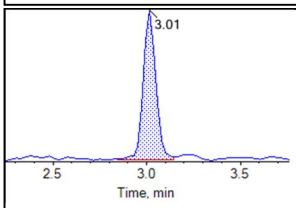


13C3-PFHxS



13C8-PFOS

BATTELLE

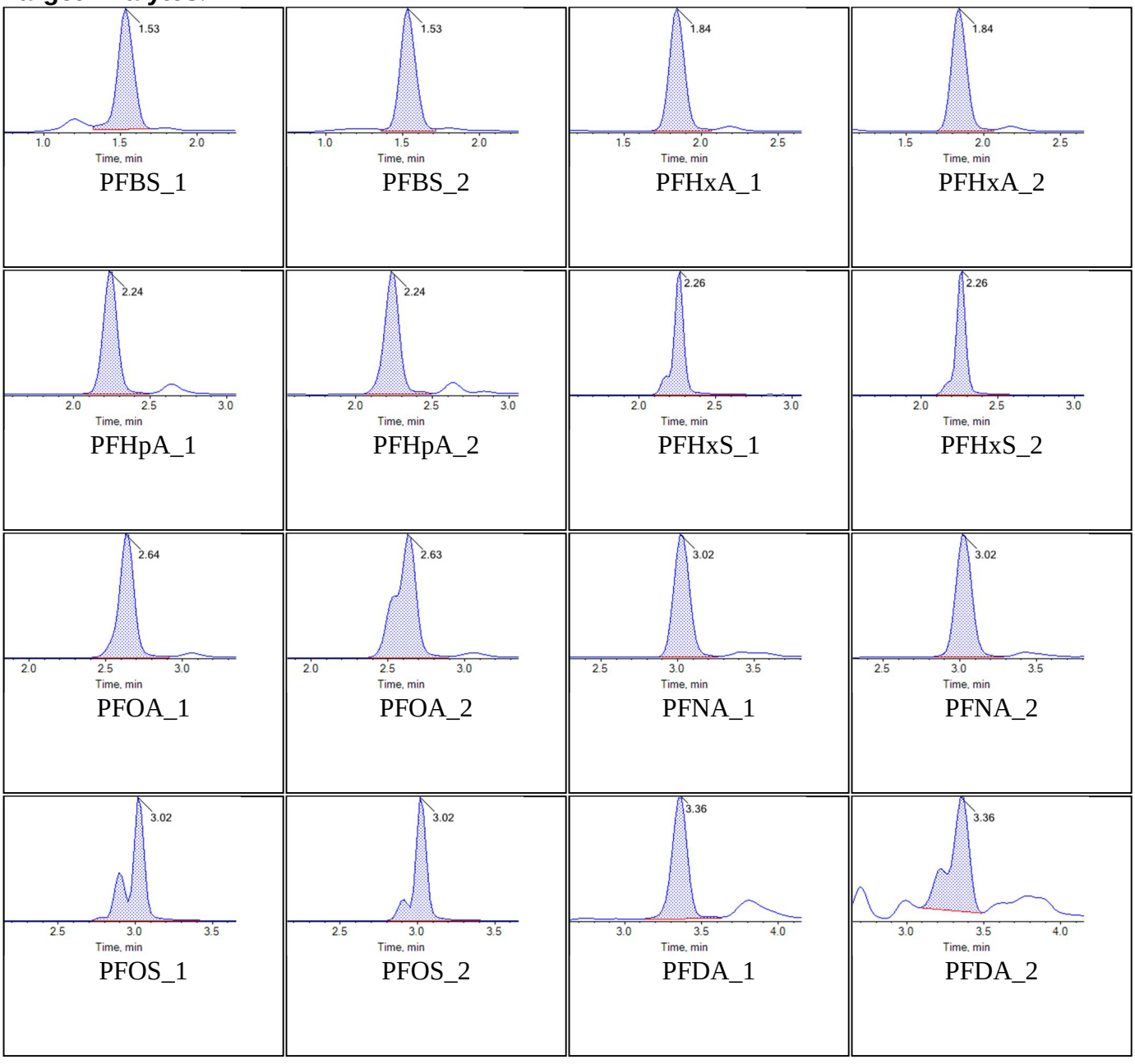
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:25:04 PM

Sample Name	J7780-FS(0)	**Injection Vial**	38
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:44:42	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

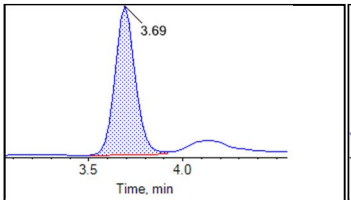
Target Analytes:



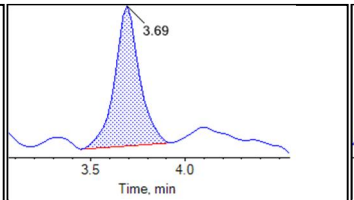
BATTELLE

Chromatogram Report

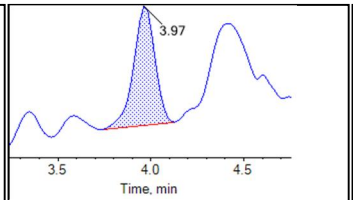
Created with Analyst Reporter
Printed: 18/09/2018 4:25:04 PM



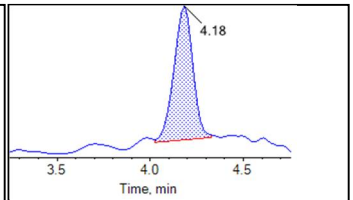
PFUnA_1



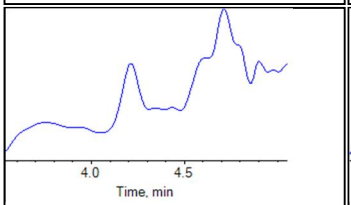
PFUnA_2



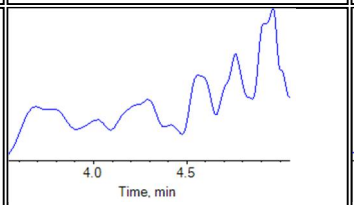
PFDoA_1



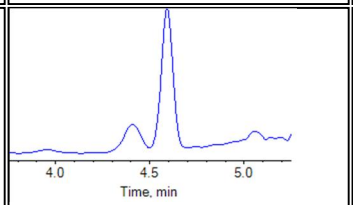
PFDoA_2



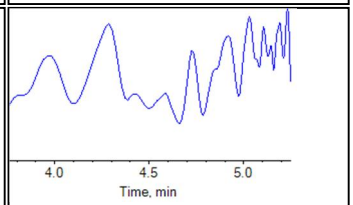
PFTrDA_1



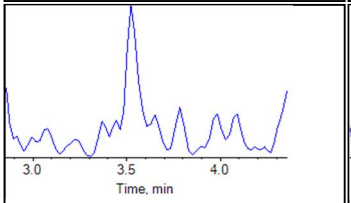
PFTrDA_2



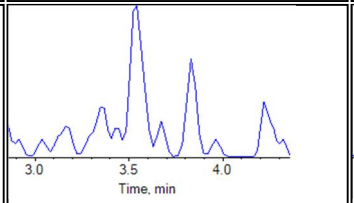
PFTeDA_1



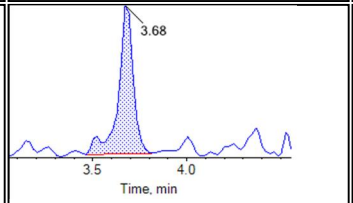
PFTeDA_2



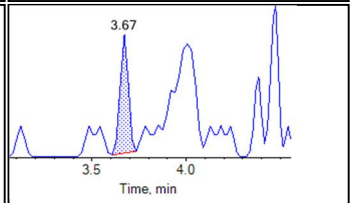
NMeFOSAA_1



NMeFOSAA_2

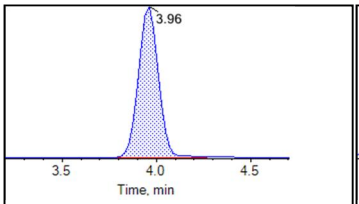


NEtFOSAA_1

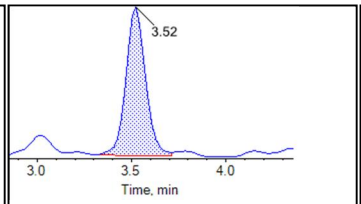


NEtFOSAA_2

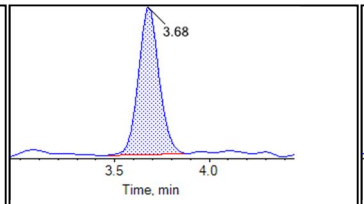
Internal Standards:



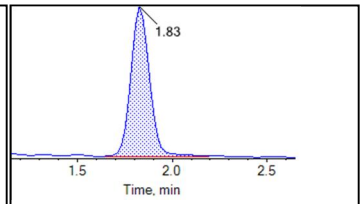
13C2-PFDoA



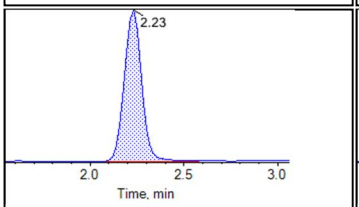
d3-MeFOSAA



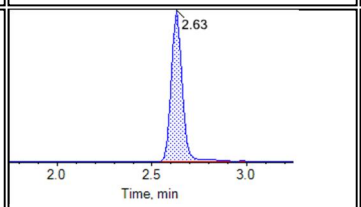
d5-EtFOSAA



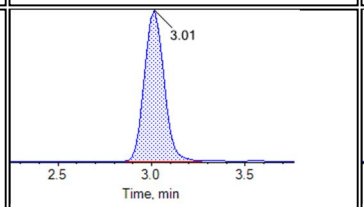
13C5-PFHxA



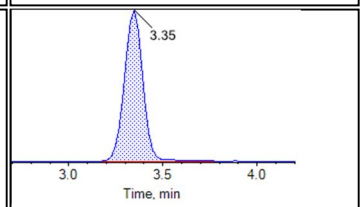
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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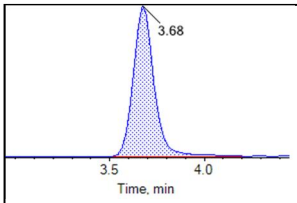
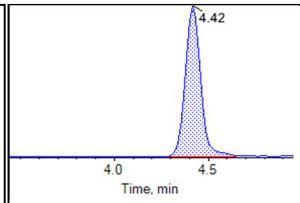
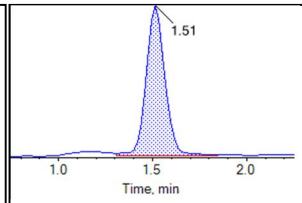


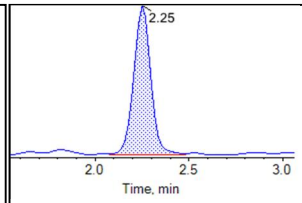
13C7-PFUnA



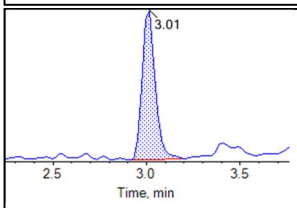
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

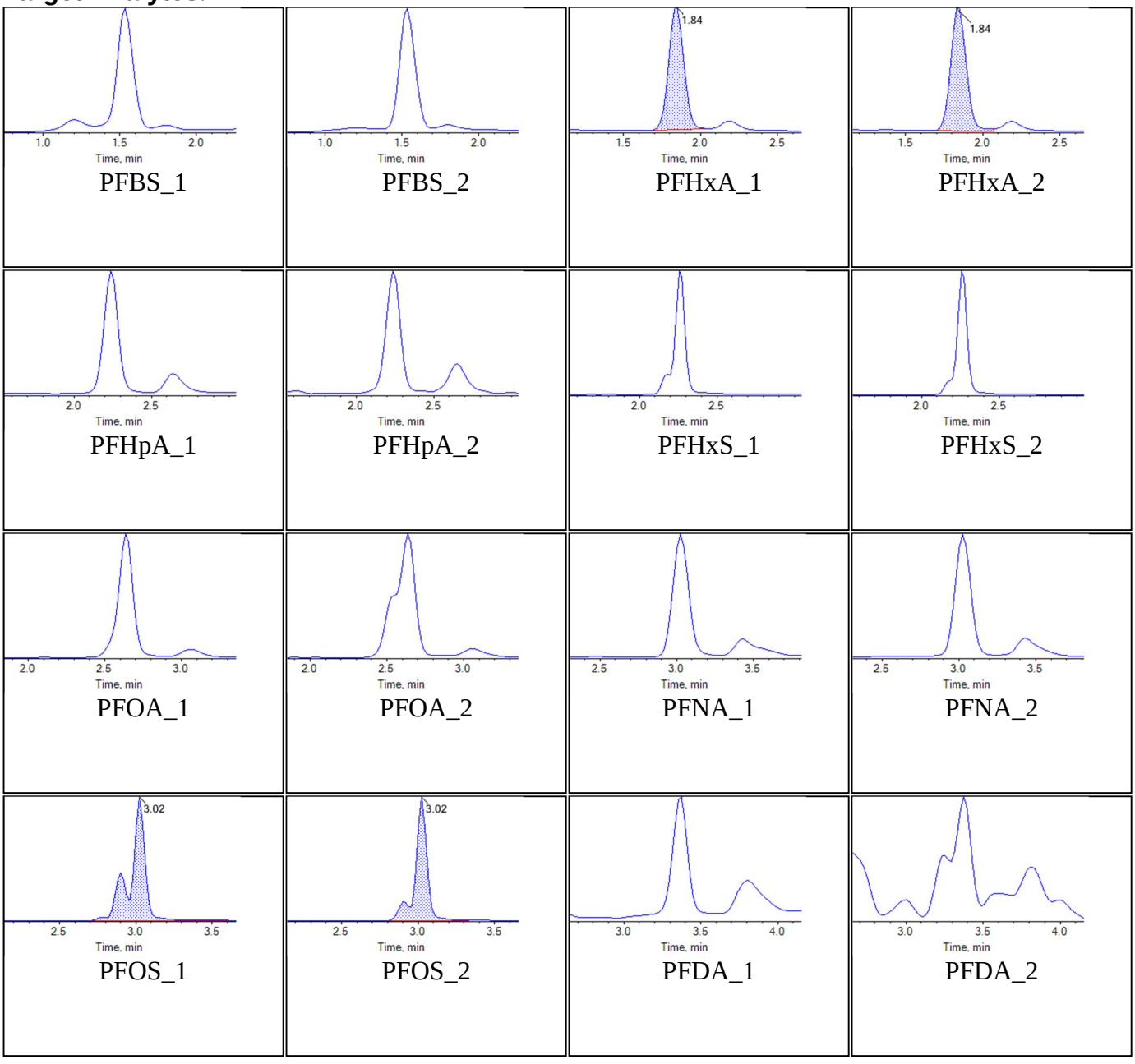
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:25:10 PM

Sample Name	J7780-FS-D(3)	**Injection Vial**	39
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:55:34	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

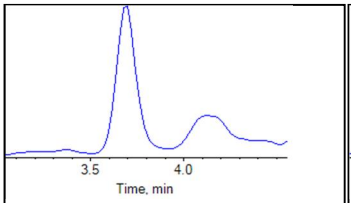
Target Analytes:



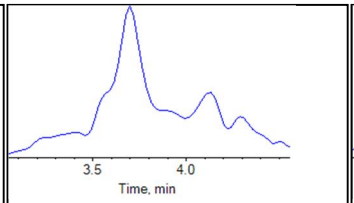
BATTELLE

Chromatogram Report

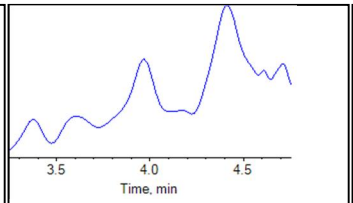
Created with Analyst Reporter
Printed: 18/09/2018 4:25:10 PM



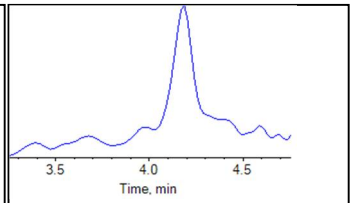
PFUnA_1



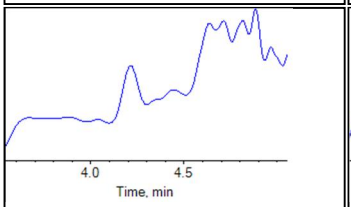
PFUnA_2



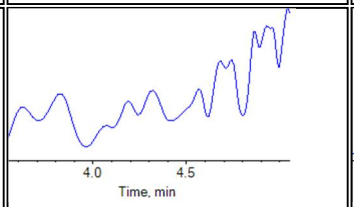
PFDoA_1



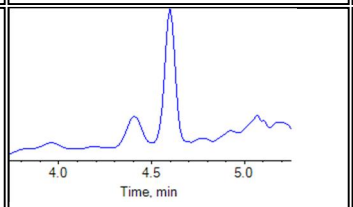
PFDoA_2



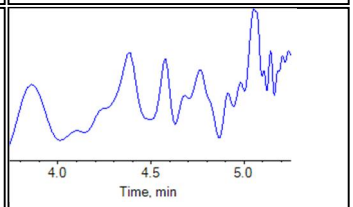
PFTrDA_1



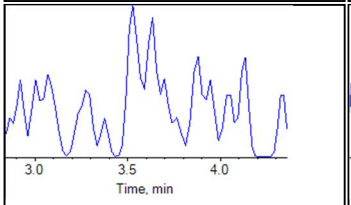
PFTrDA_2



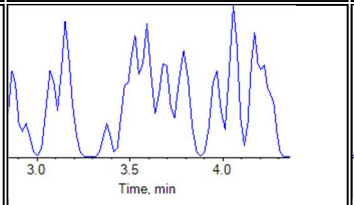
PFTeDA_1



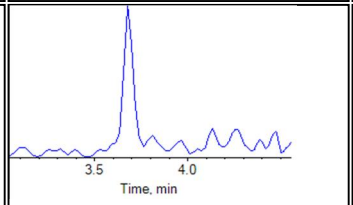
PFTeDA_2



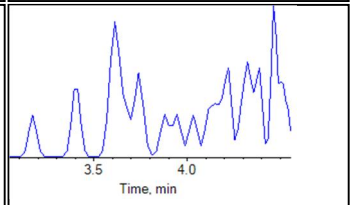
NMeFOSAA_1



NMeFOSAA_2

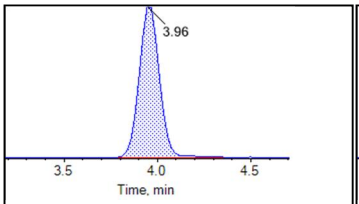


NEtFOSAA_1

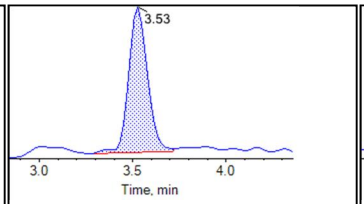


NEtFOSAA_2

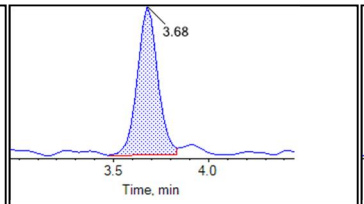
Internal Standards:



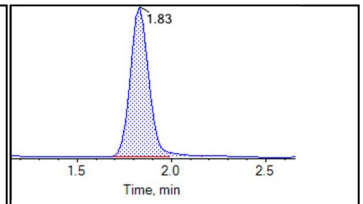
13C2-PFDoA



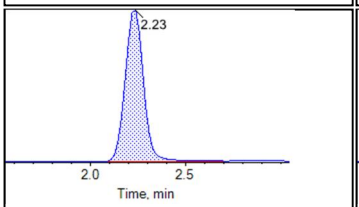
d3-MeFOSAA



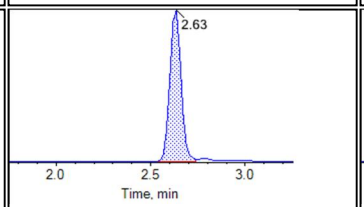
d5-EtFOSAA



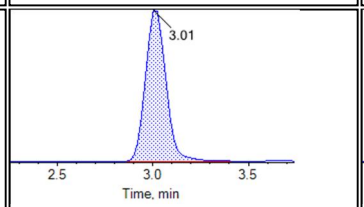
13C5-PFHxA



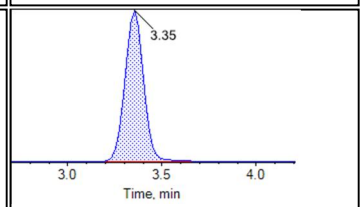
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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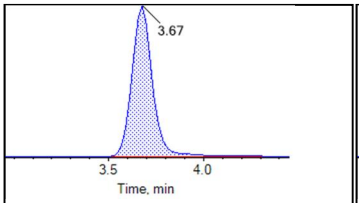
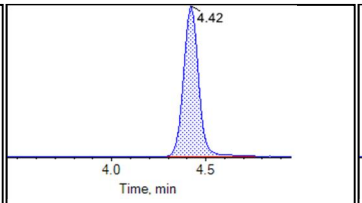
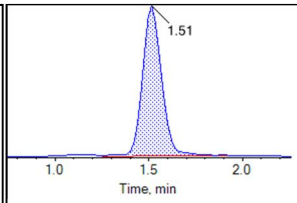
Printed: 18/09/2018 4:25:10 PM



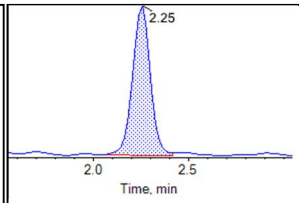
13C7-PFUnA



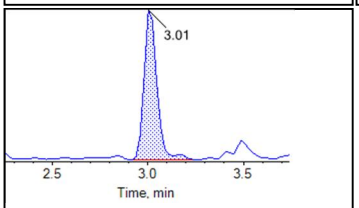
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:25:16 PM

Sample Name	J7780-FS-D(5)	**Injection Vial**	40
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:06:26	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

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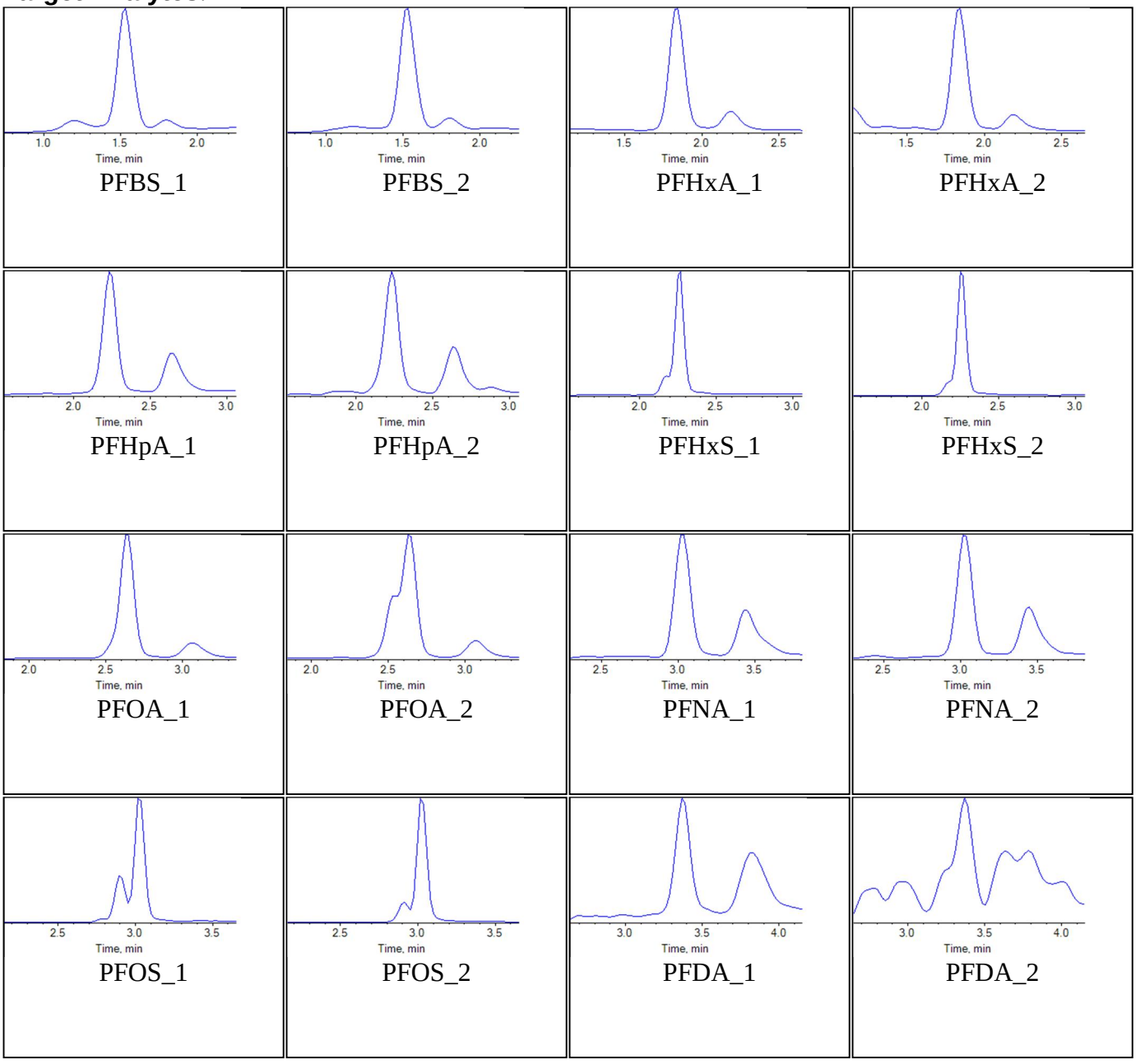

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Chromatogram Report

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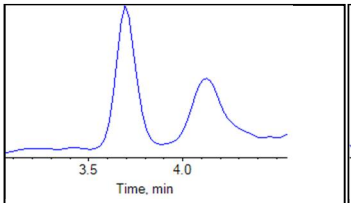

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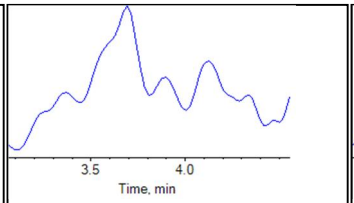

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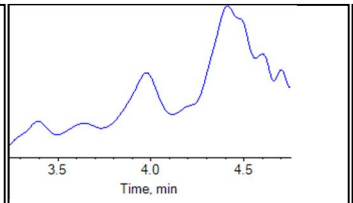

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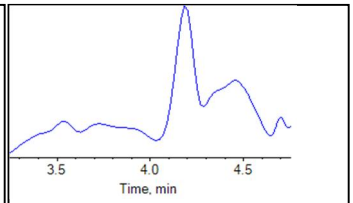

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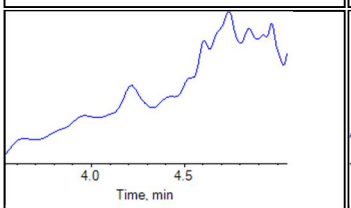

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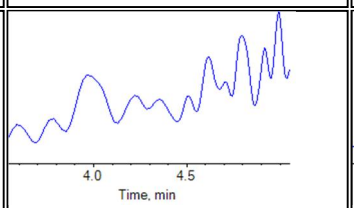

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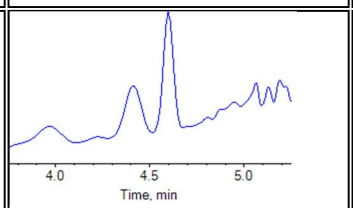

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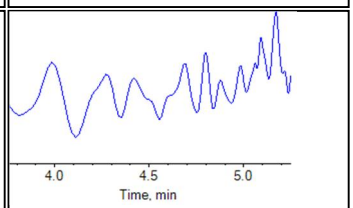

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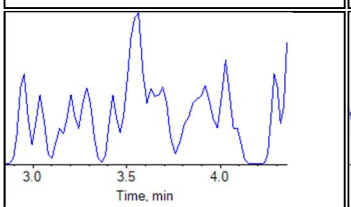

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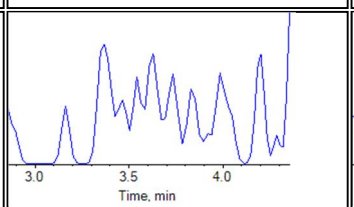

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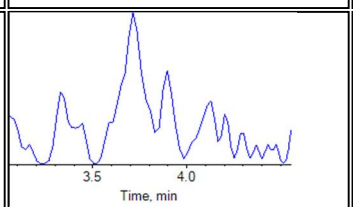

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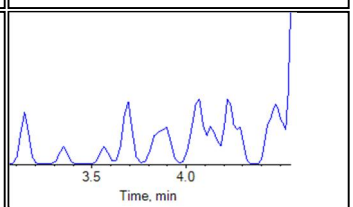

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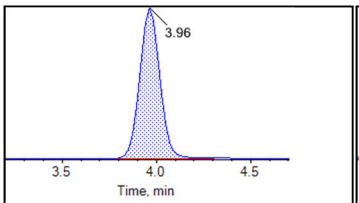
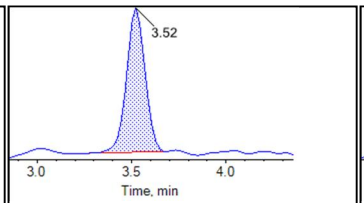
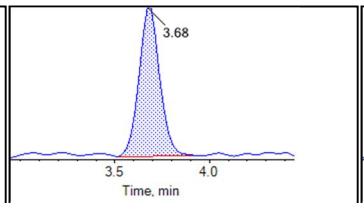
Internal Standards:



13C2-PFDoA



d3-MeFOSAA



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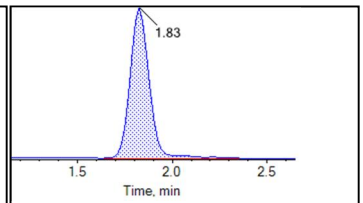

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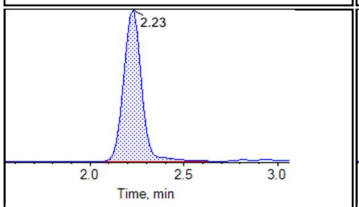
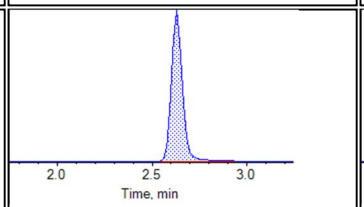


13C4-PFHpA



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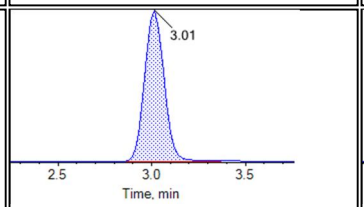

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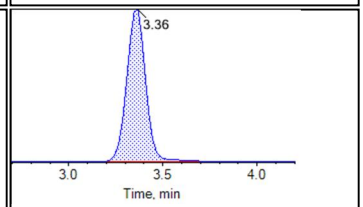

13C6-PFDA

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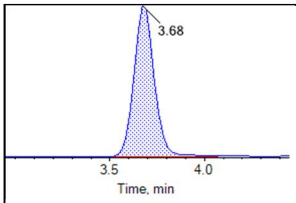

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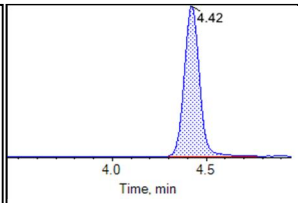
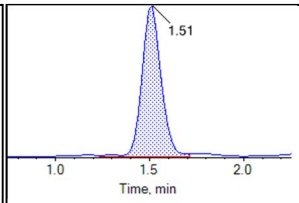
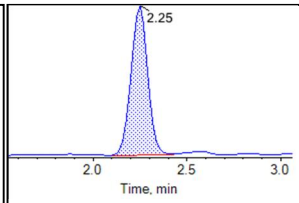


13C2-PFTeDA



13C3-PFBS



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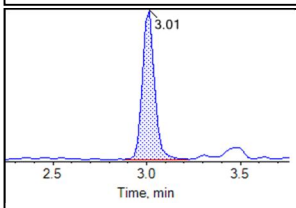

13C8-PFOS

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Chromatogram Report

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Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:17:18	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

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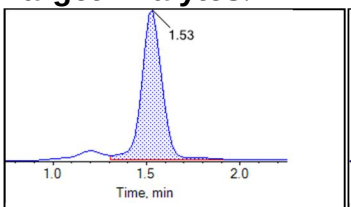

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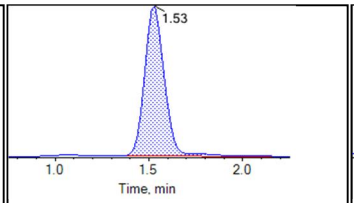

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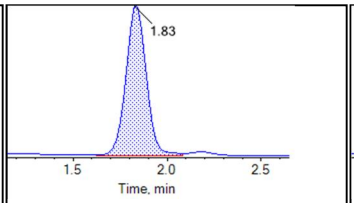

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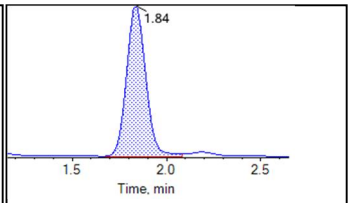

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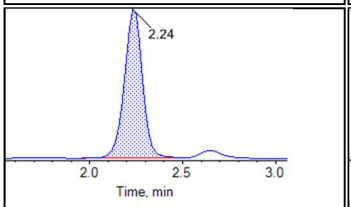

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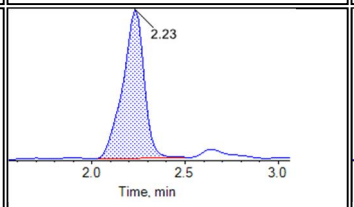

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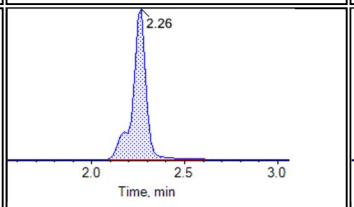

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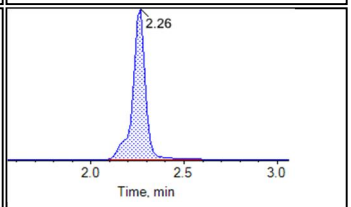

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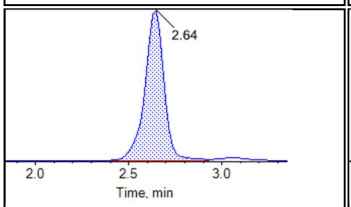

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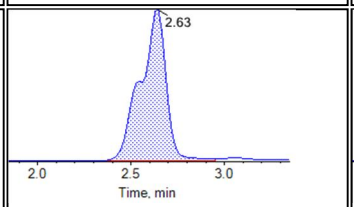

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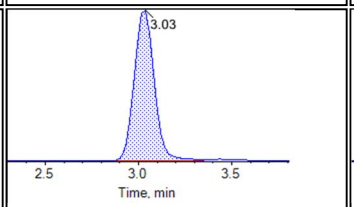

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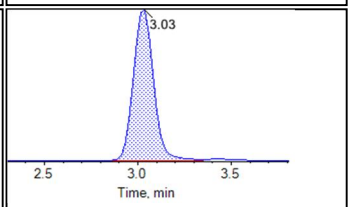

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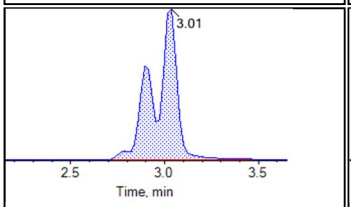

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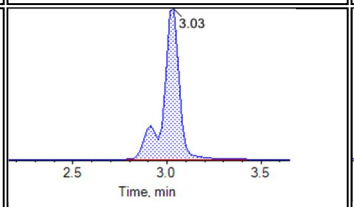

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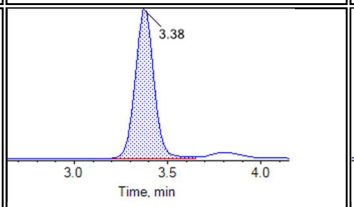

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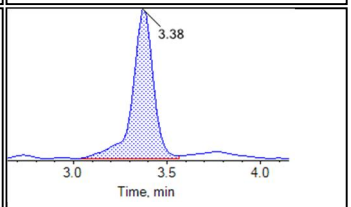

PFDA_2

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Chromatogram Report

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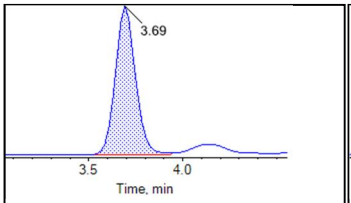

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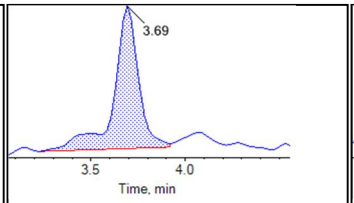

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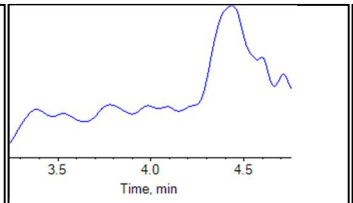

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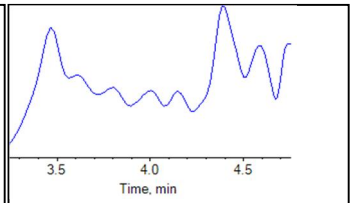

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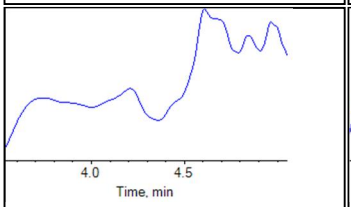

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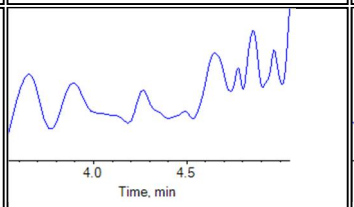

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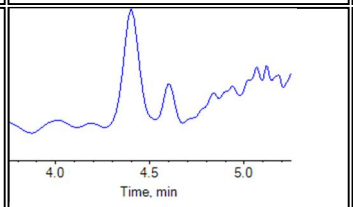

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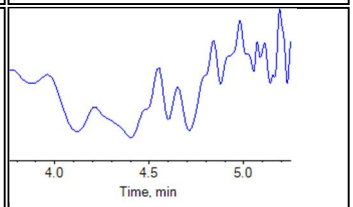

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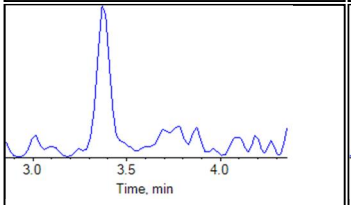

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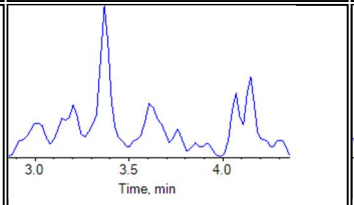

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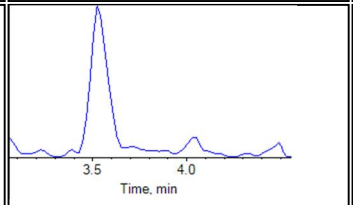

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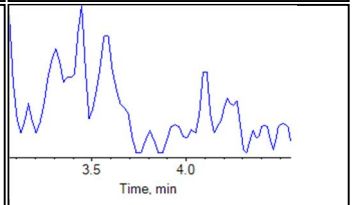

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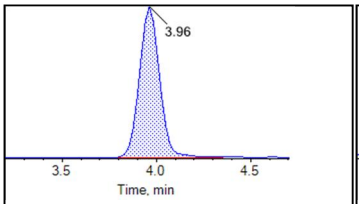

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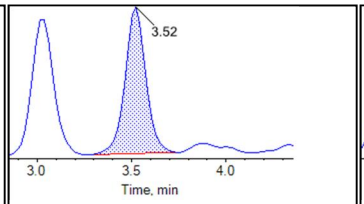
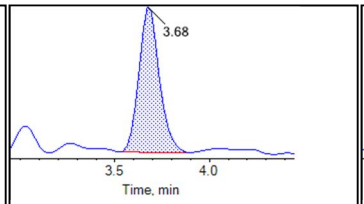
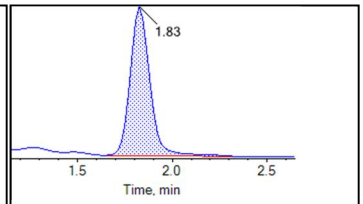


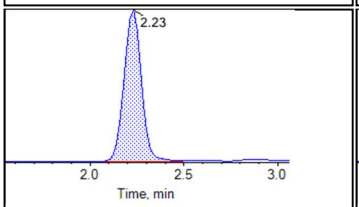
d3-MeFOSAA



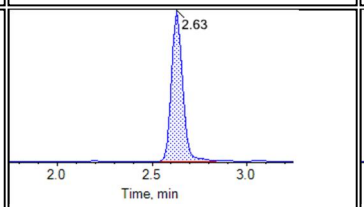
d5-EtFOSAA



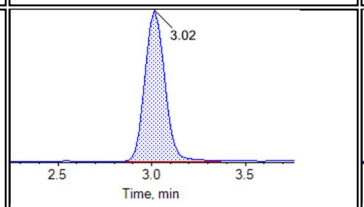
13C5-PFHxA



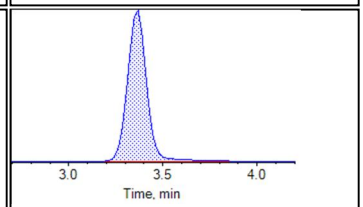
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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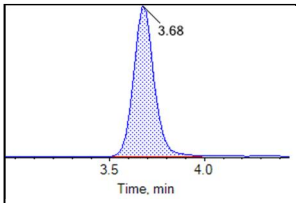
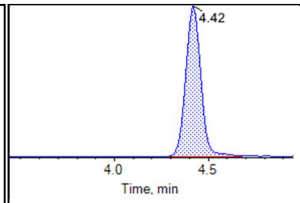
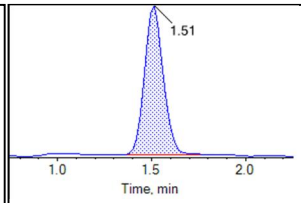


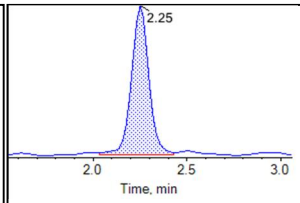
13C7-PFUnA



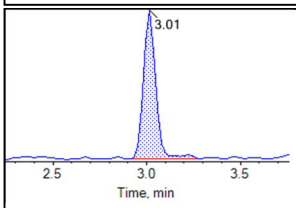
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

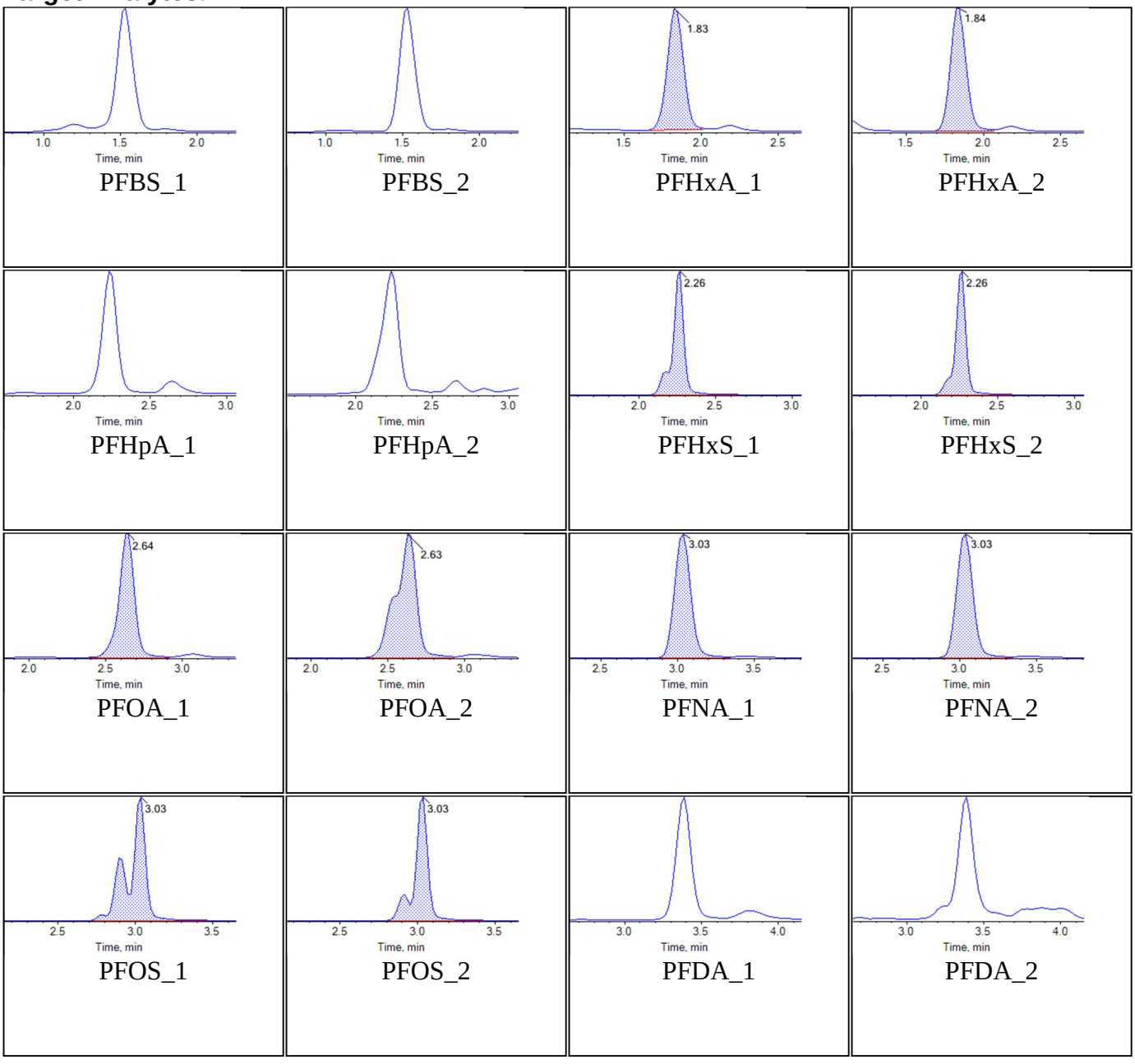
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:25:27 PM

Sample Name	J7777-FS-D(3)	**Injection Vial**	42
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:28:10	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

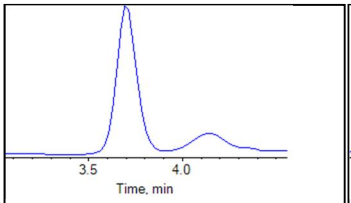
Target Analytes:



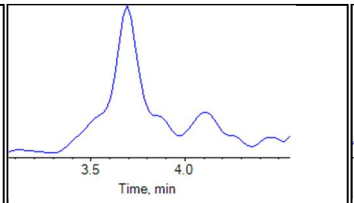
BATTELLE

Chromatogram Report

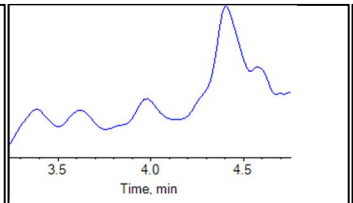
Created with Analyst Reporter
Printed: 18/09/2018 4:25:27 PM



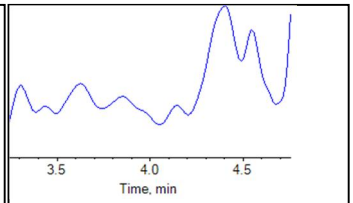
PFUnA_1



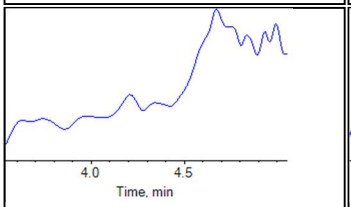
PFUnA_2



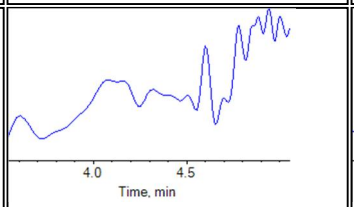
PFDoA_1



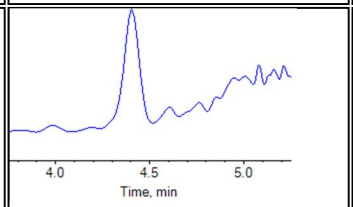
PFDoA_2



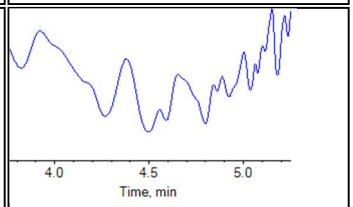
PFTrDA_1



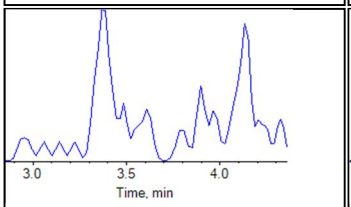
PFTrDA_2



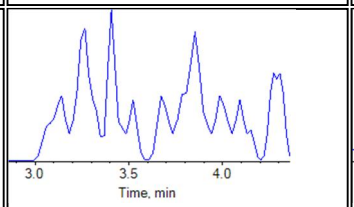
PFTeDA_1



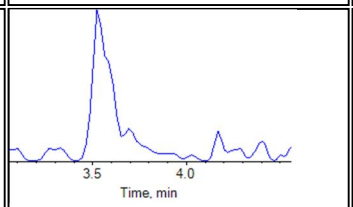
PFTeDA_2



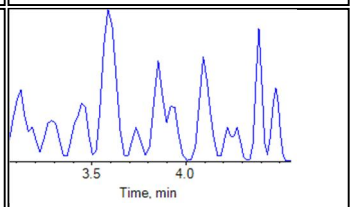
NMeFOSAA_1



NMeFOSAA_2

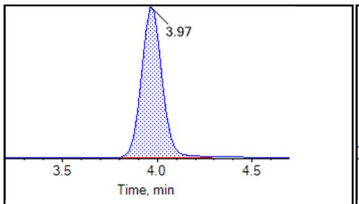


NEtFOSAA_1

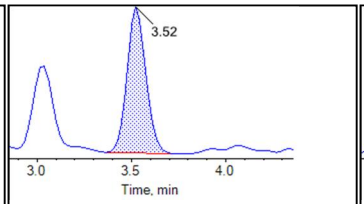


NEtFOSAA_2

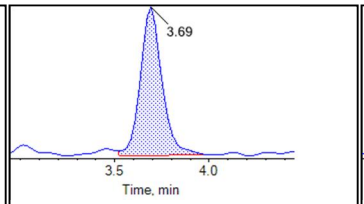
Internal Standards:



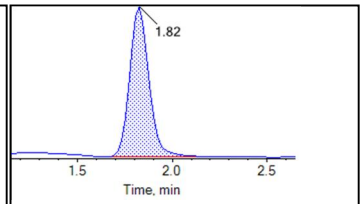
13C2-PFDoA



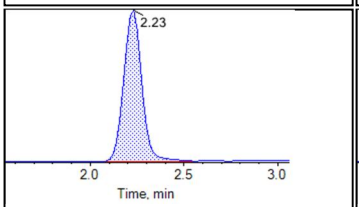
d3-MeFOSAA



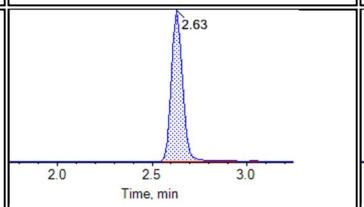
d5-EtFOSAA



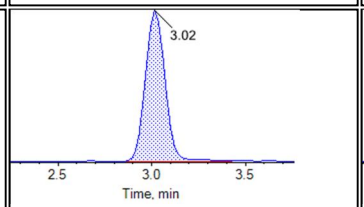
13C5-PFHxA



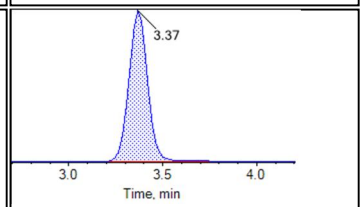
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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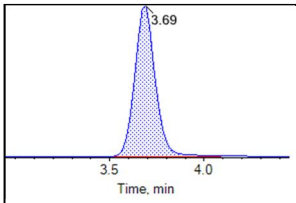
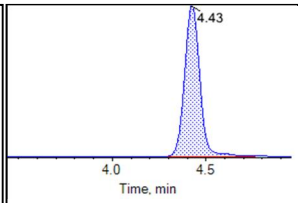
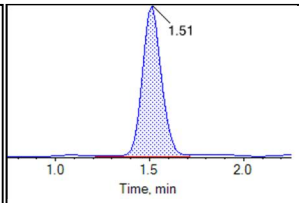


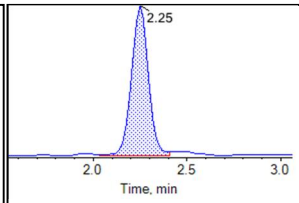
13C7-PFUnA



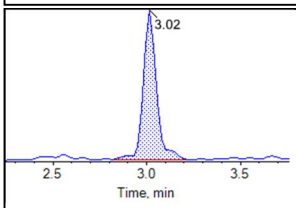
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

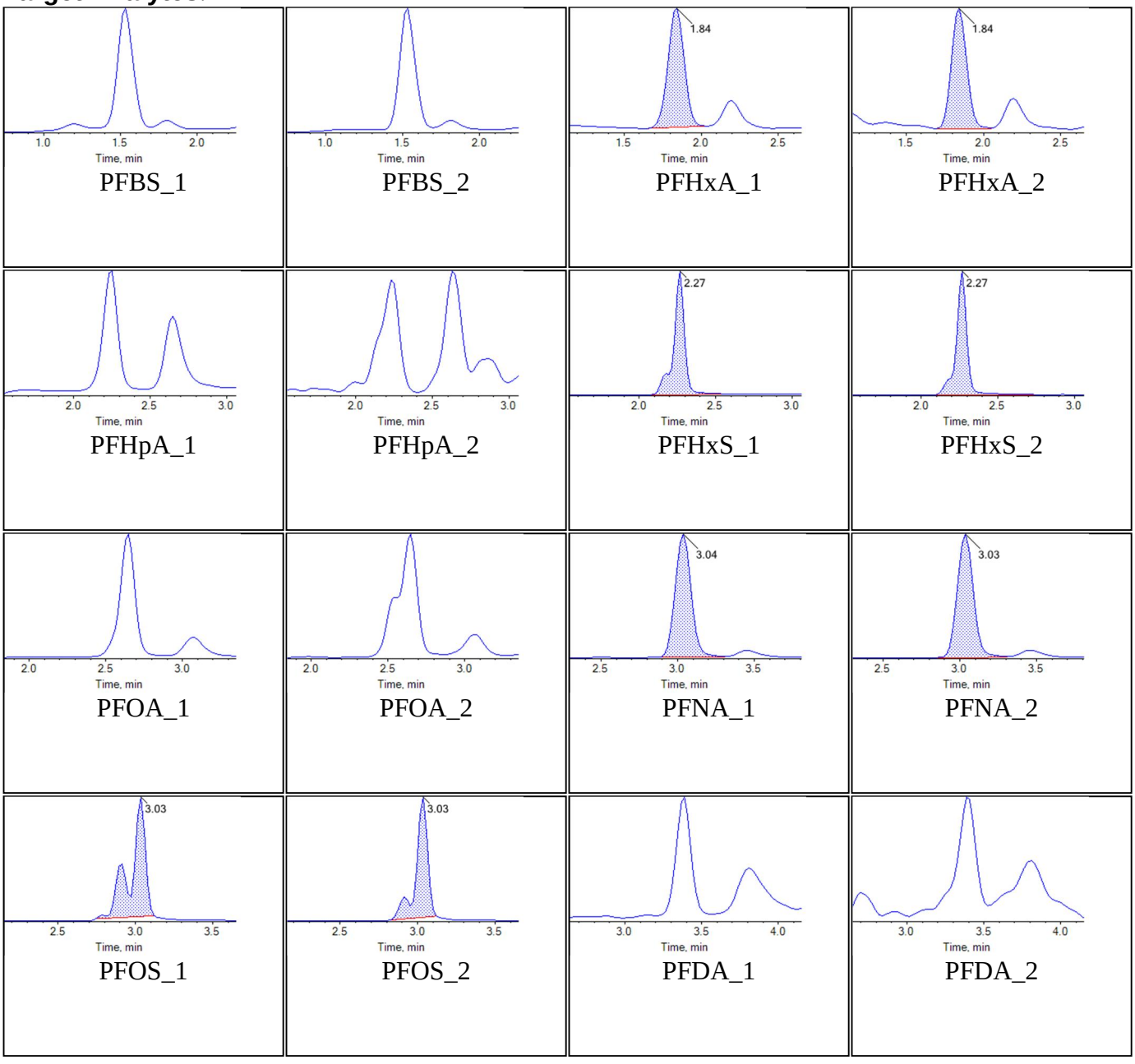
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:25:35 PM

Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

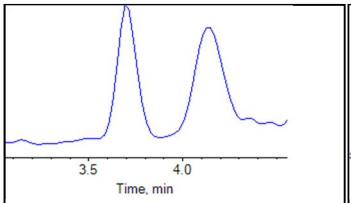
Target Analytes:



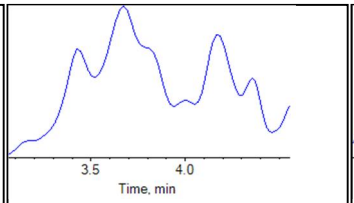
BATTELLE

Chromatogram Report

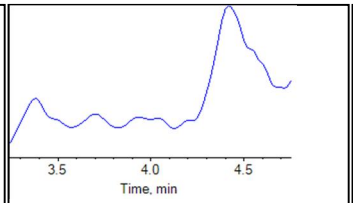
Created with Analyst Reporter
Printed: 18/09/2018 4:25:35 PM



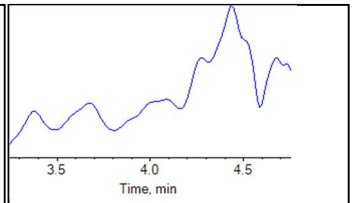
PFUnA_1



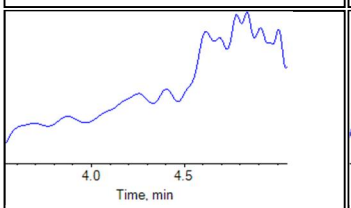
PFUnA_2



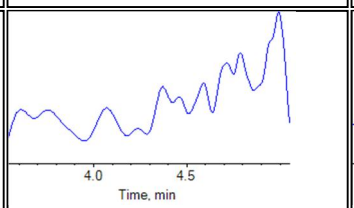
PFDoA_1



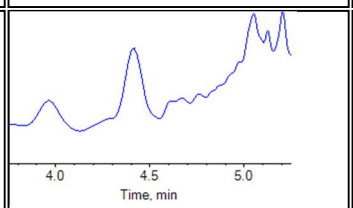
PFDoA_2



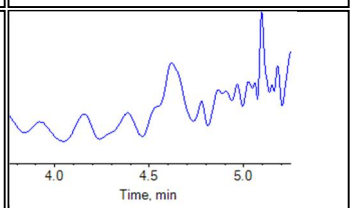
PFTrDA_1



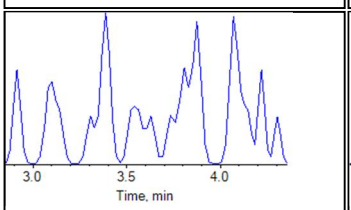
PFTrDA_2



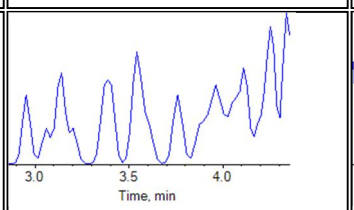
PFTeDA_1



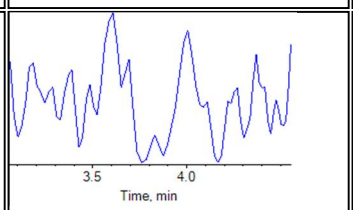
PFTeDA_2



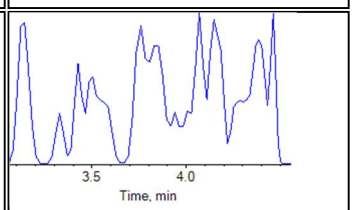
NMeFOSAA_1



NMeFOSAA_2

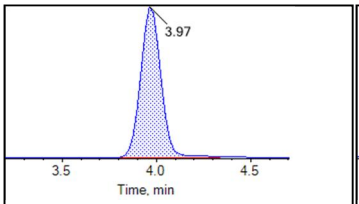


NEtFOSAA_1

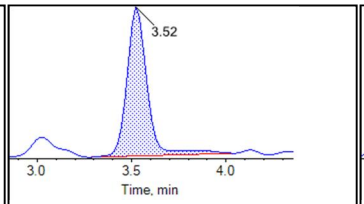


NEtFOSAA_2

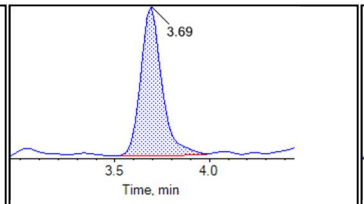
Internal Standards:



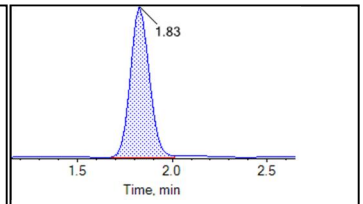
13C2-PFDoA



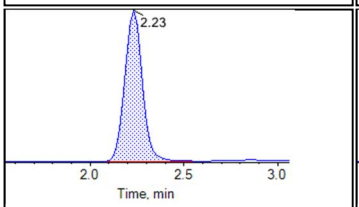
d3-MeFOSAA



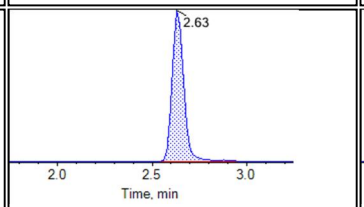
d5-EtFOSAA



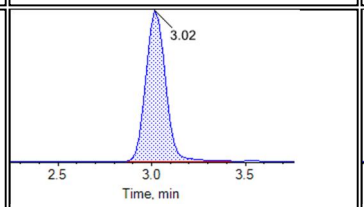
13C5-PFHxA



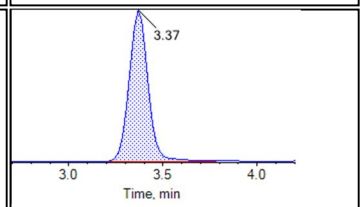
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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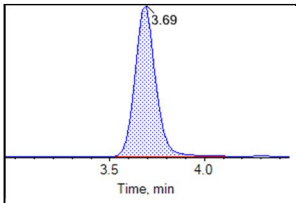
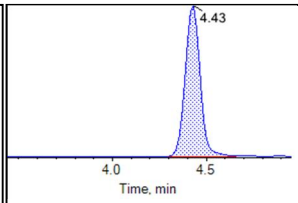
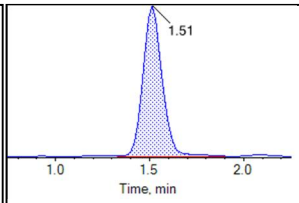


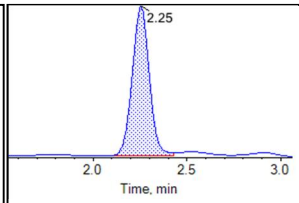
13C7-PFUnA



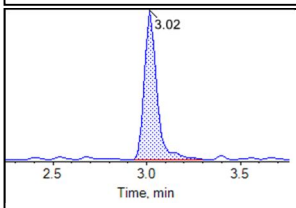
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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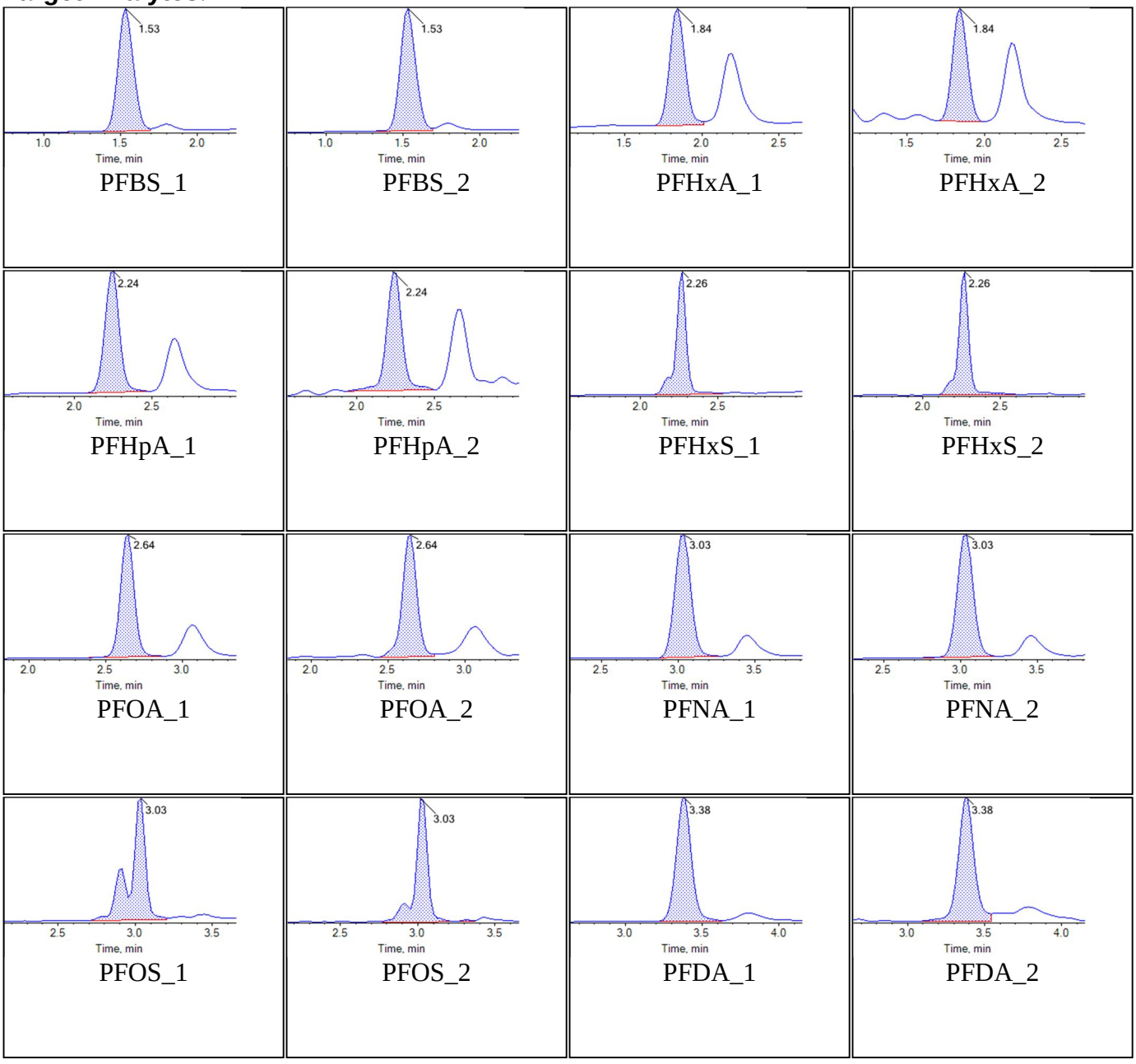
Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
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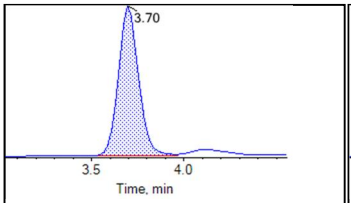
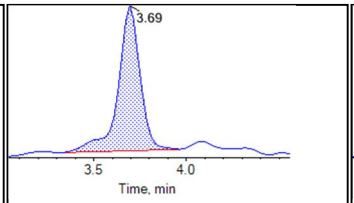
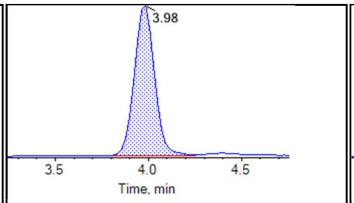


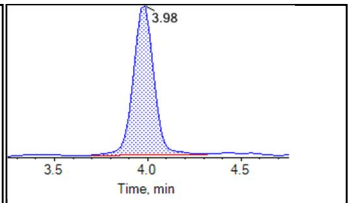
PFUnA_1



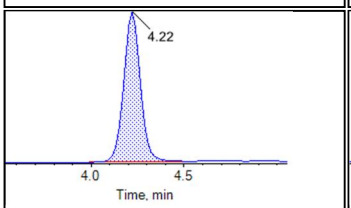
PFUnA_2



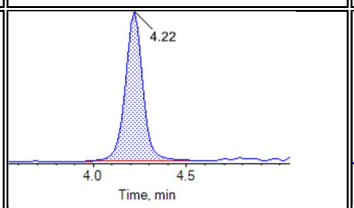
PFDoA_1



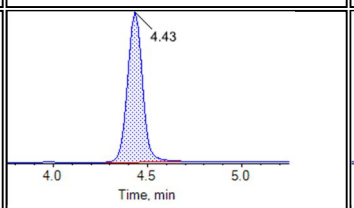
PFDoA_2



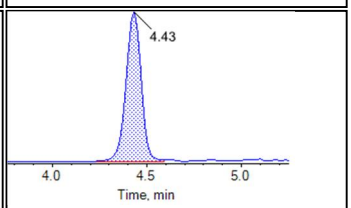
PFTrDA_1



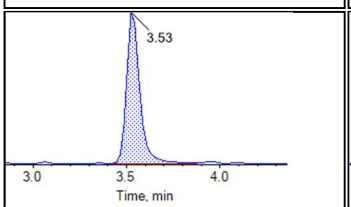
PFTrDA_2



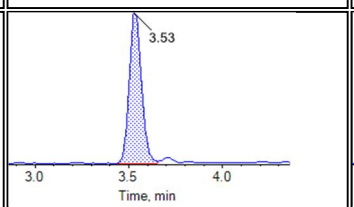
PFTeDA_1



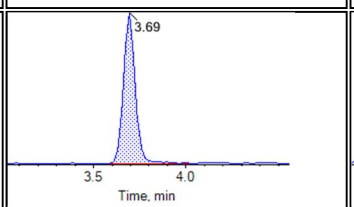
PFTeDA_2



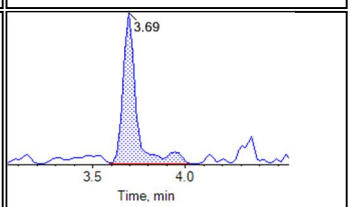
NMeFOSAA_1



NMeFOSAA_2

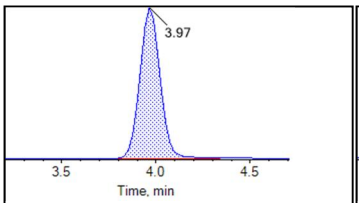


NEtFOSAA_1

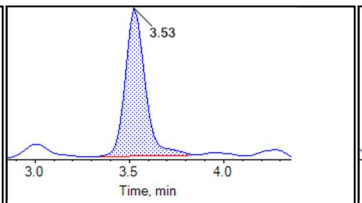


NEtFOSAA_2

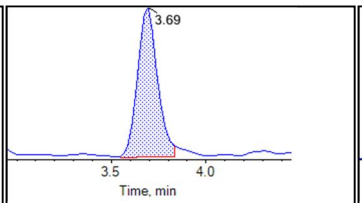
Internal Standards:



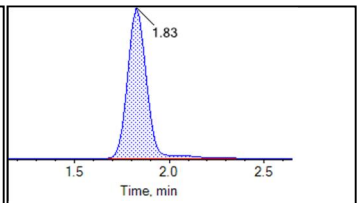
13C2-PFDoA



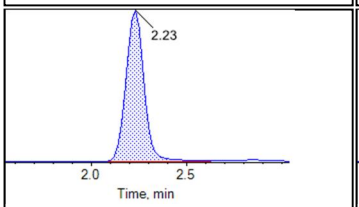
d3-MeFOSAA



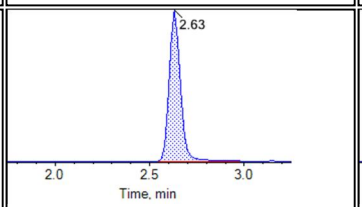
d5-EtFOSAA



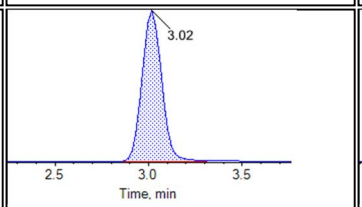
13C5-PFHxA



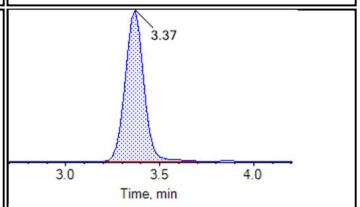
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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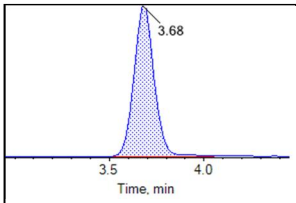
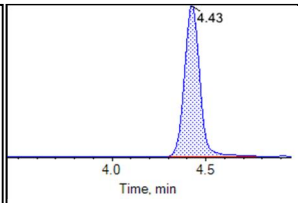
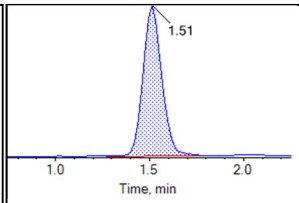


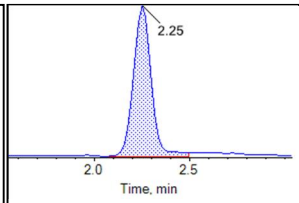
13C7-PFUnA



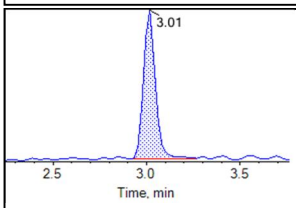
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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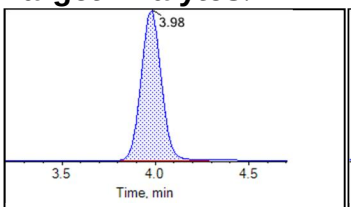
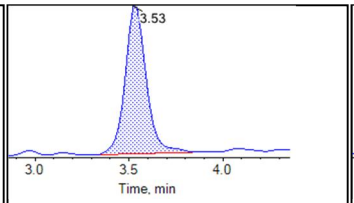
Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:19:17	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

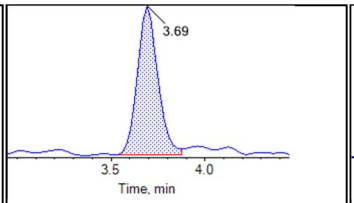
Target Analytes:



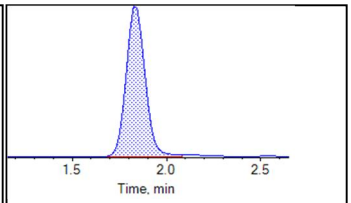
13C2-PFDoA



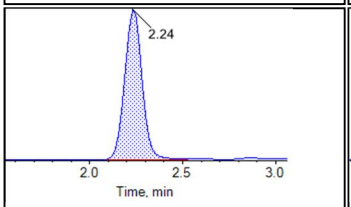
d3-MeFOSAA



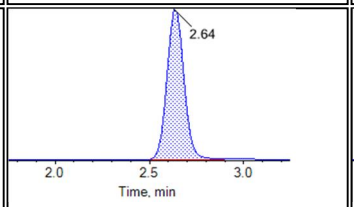
d5-EtFOSAA



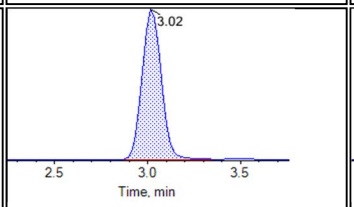
13C5-PFHxA



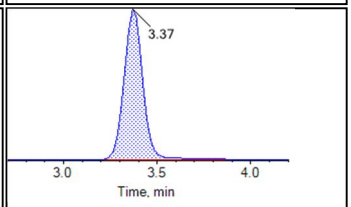
13C4-PFHpA



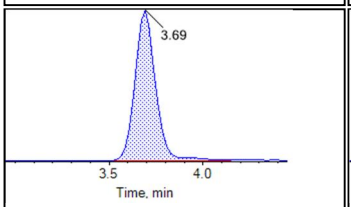
13C8-PFOA



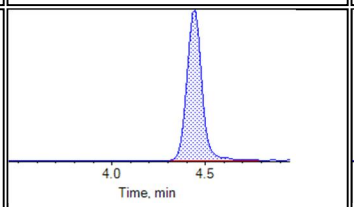
13C9-PFNA



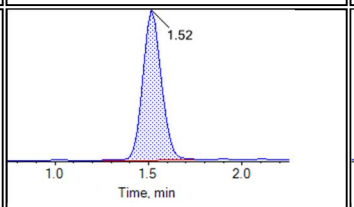
13C6-PFDA



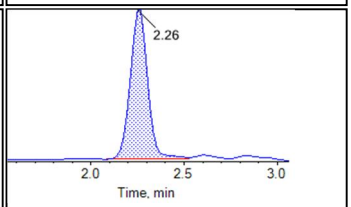
13C7-PFUnA



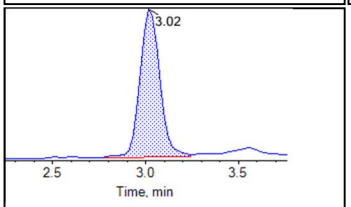
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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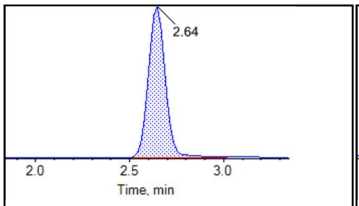
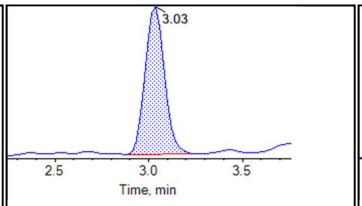
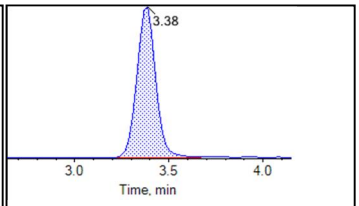
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

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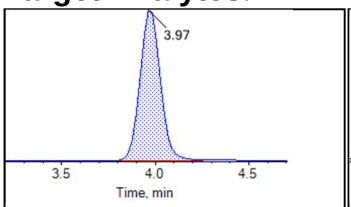
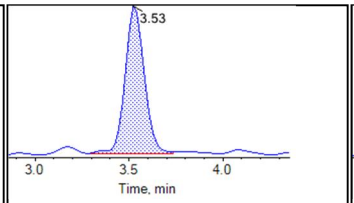
Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:30:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

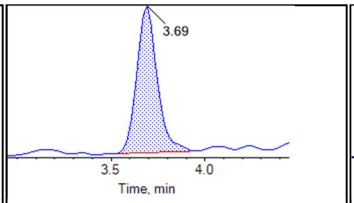
Target Analytes:



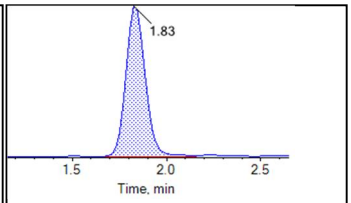
13C2-PFDoA



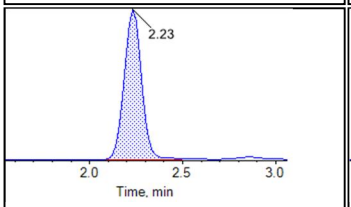
d3-MeFOSAA



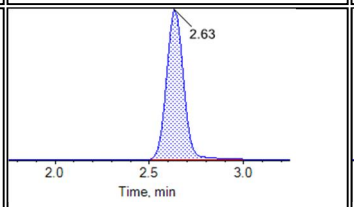
d5-EtFOSAA



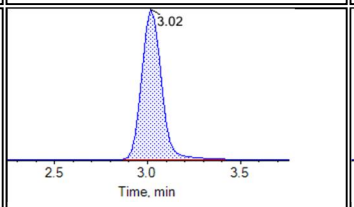
13C5-PFHxA



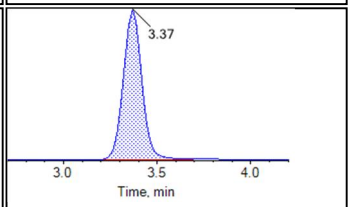
13C4-PFHpA



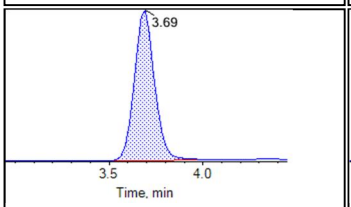
13C8-PFOA



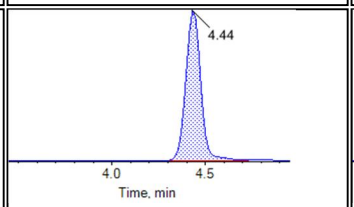
13C9-PFNA



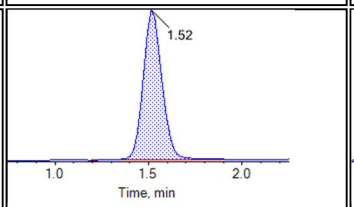
13C6-PFDA



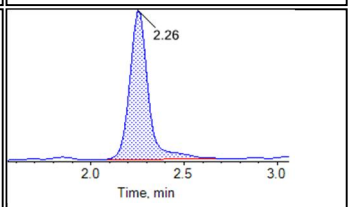
13C7-PFUnA



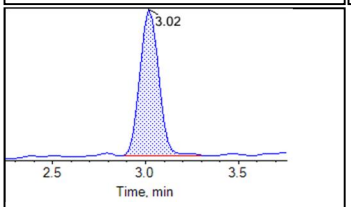
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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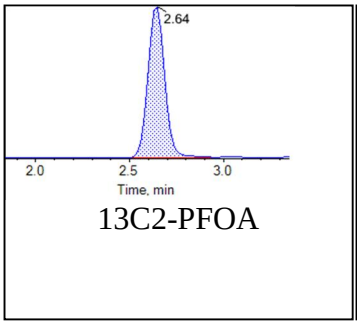
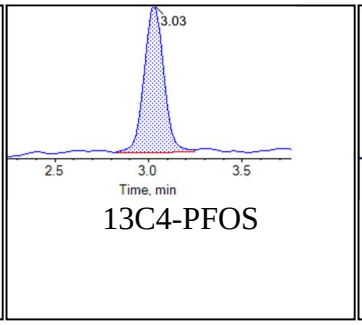
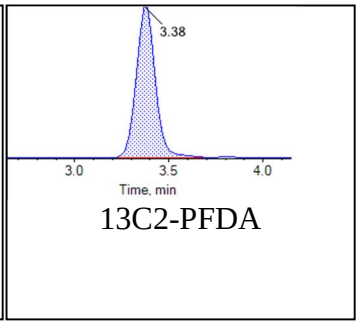
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

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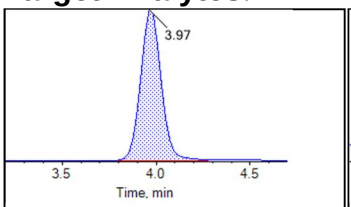
Printed: 18/09/2018 4:26:29 PM

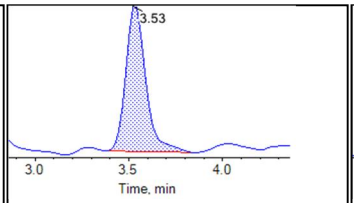
Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:41:03	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

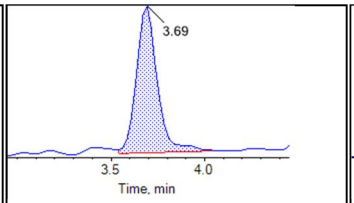
Target Analytes:



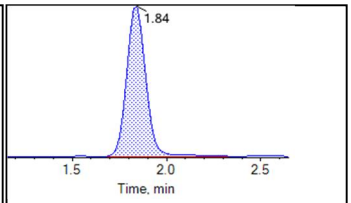
13C2-PFDoA



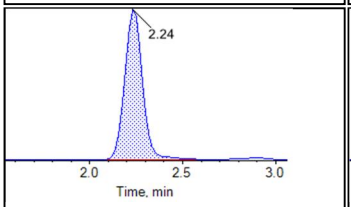
d3-MeFOSAA



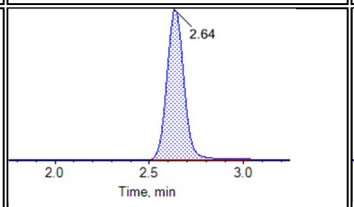
d5-EtFOSAA



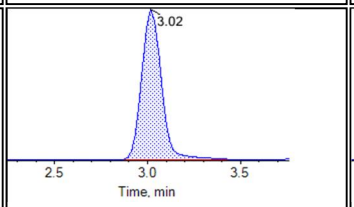
13C5-PFHxA



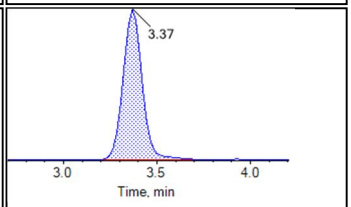
13C4-PFHpA



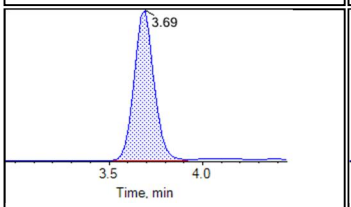
13C8-PFOA



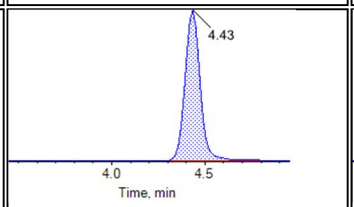
13C9-PFNA



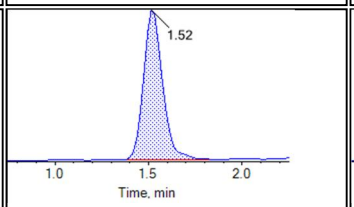
13C6-PFDA



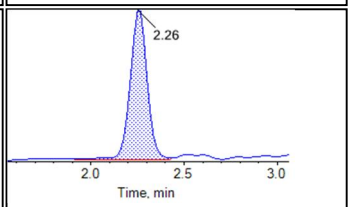
13C7-PFUnA



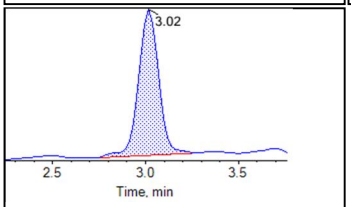
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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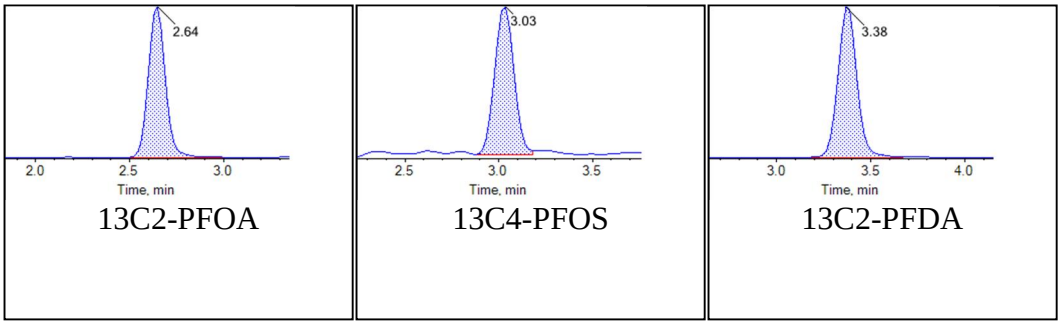
Internal Standards:



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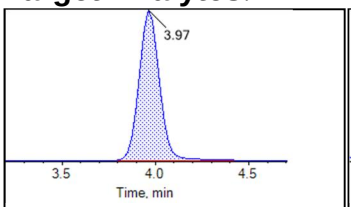
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:26:37 PM

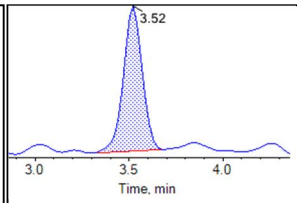
Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:51:56	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

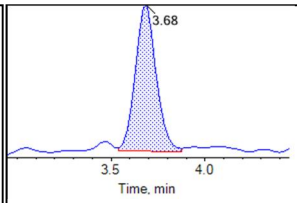
Target Analytes:



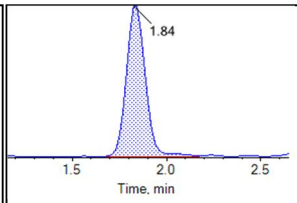
13C2-PFDoA



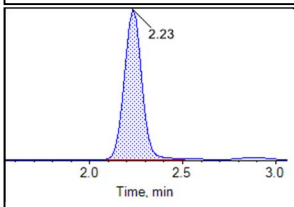
d3-MeFOSAA



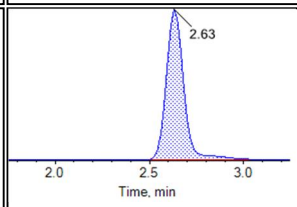
d5-EtFOSAA



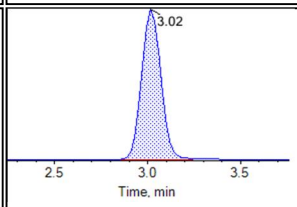
13C5-PFHxA



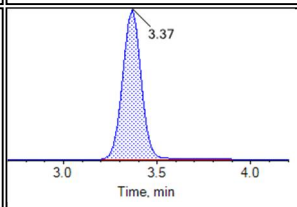
13C4-PFHpA



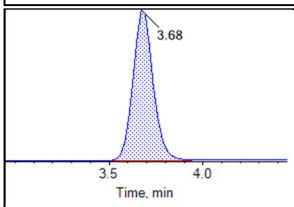
13C8-PFOA



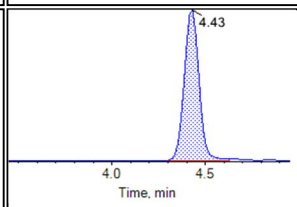
13C9-PFNA



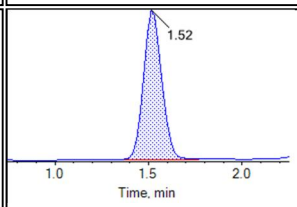
13C6-PFDA



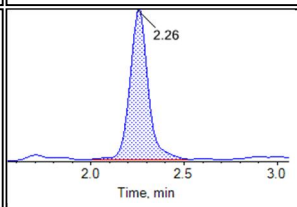
13C7-PFUnA



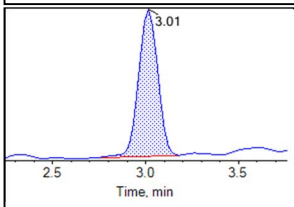
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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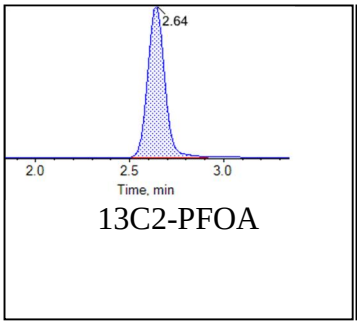
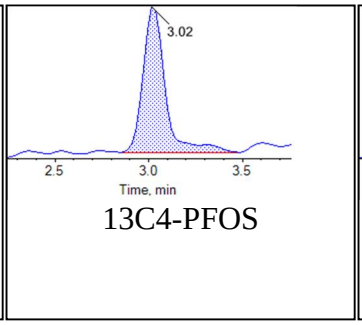
Printed: 18/09/2018 4:26:37 PM

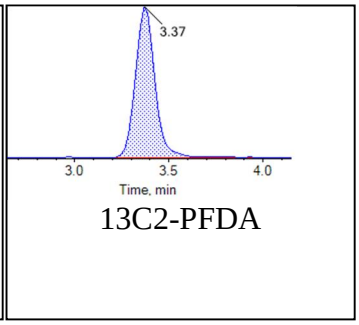
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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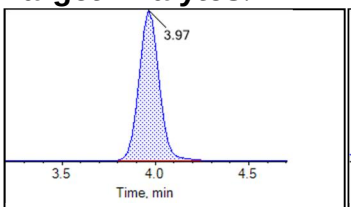
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:26:41 PM

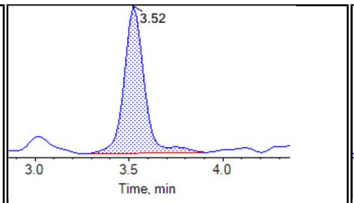
Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:02:47	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

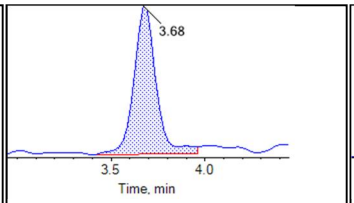
Target Analytes:



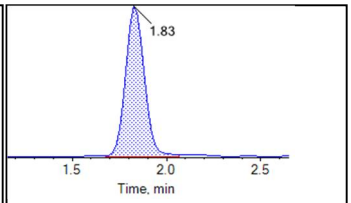
13C2-PFDoA



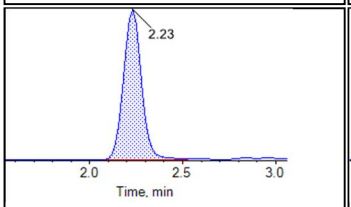
d3-MeFOSAA



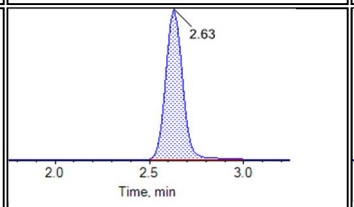
d5-EtFOSAA



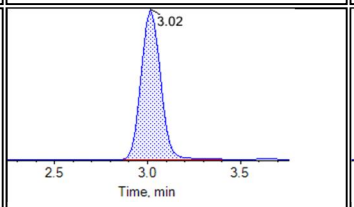
13C5-PFHxA



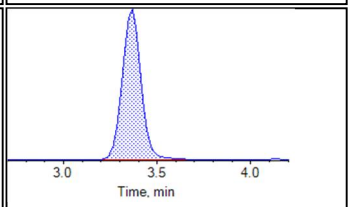
13C4-PFHpA



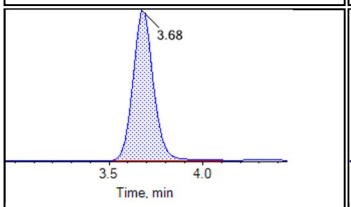
13C8-PFOA



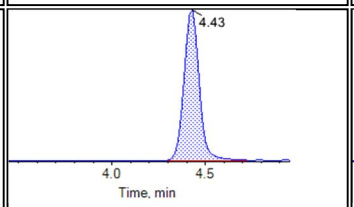
13C9-PFNA



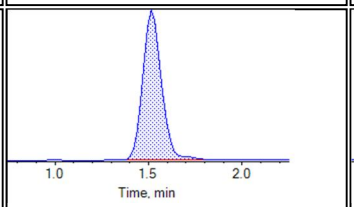
13C6-PFDA



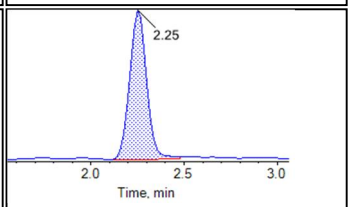
13C7-PFUnA



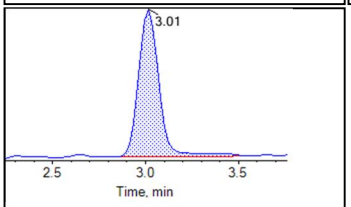
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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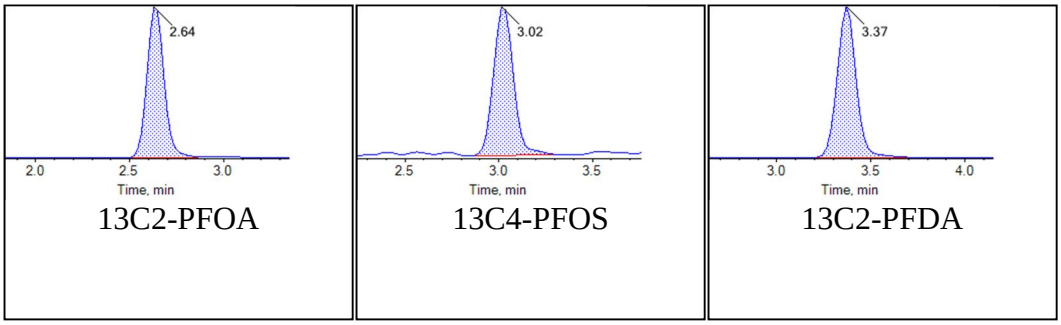
Printed: 18/09/2018 4:26:41 PM

Internal Standards:



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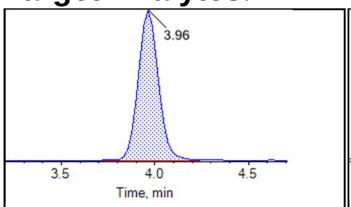
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:26:46 PM

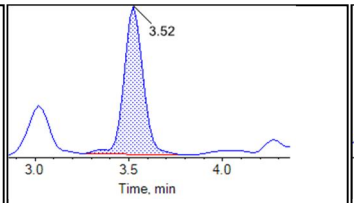
Sample Name	KA91	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:13:39	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

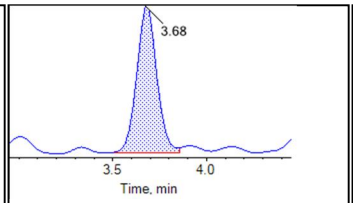
Target Analytes:



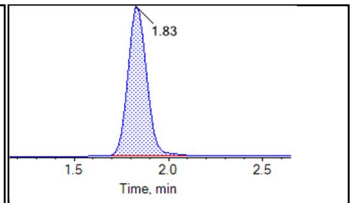
13C2-PFDoA



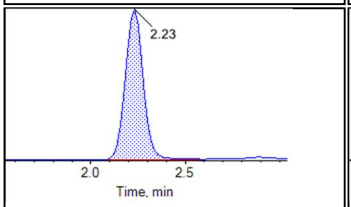
d3-MeFOSAA



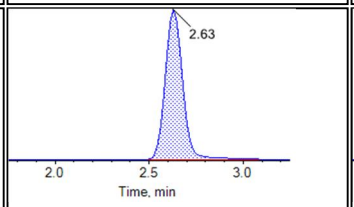
d5-EtFOSAA



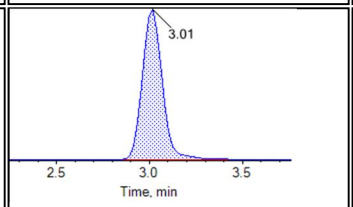
13C5-PFHxA



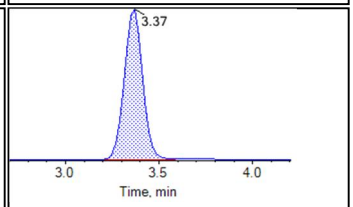
13C4-PFHpA



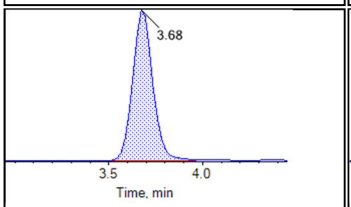
13C8-PFOA



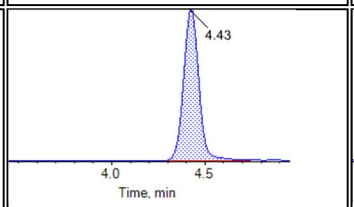
13C9-PFNA



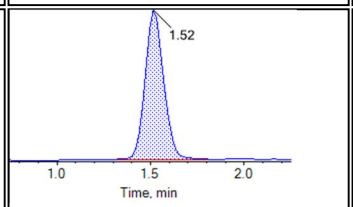
13C6-PFDA



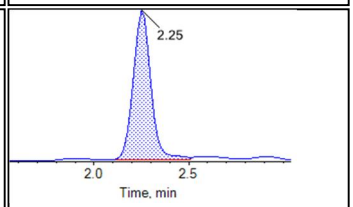
13C7-PFUnA



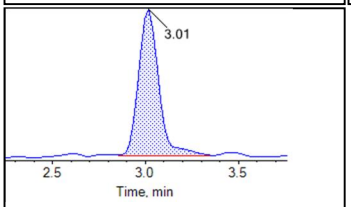
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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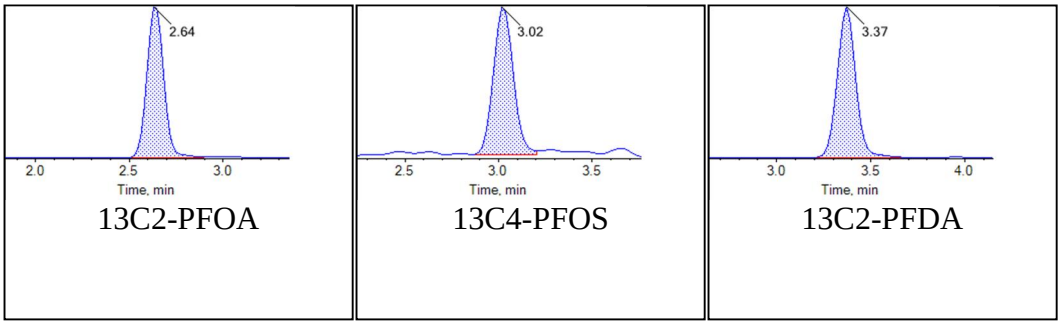
Internal Standards:



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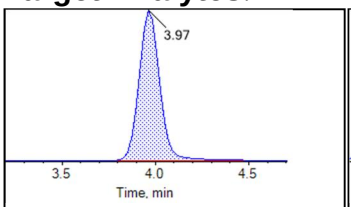
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:26:51 PM

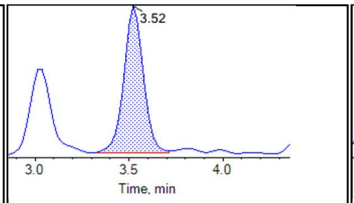
Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:24:30	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

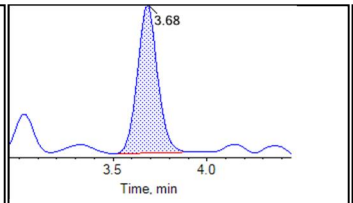
Target Analytes:



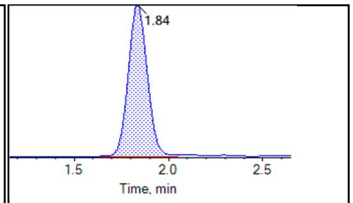
13C2-PFDoA



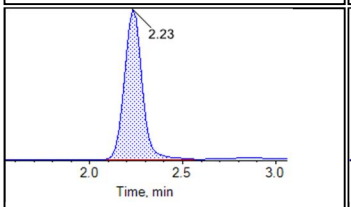
d3-MeFOSAA



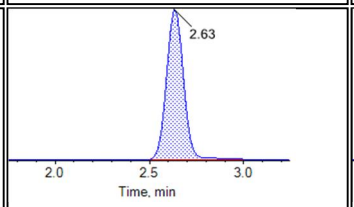
d5-EtFOSAA



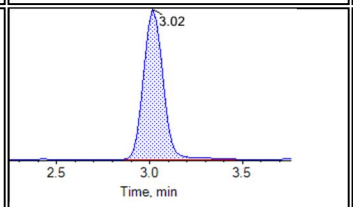
13C5-PFHxA



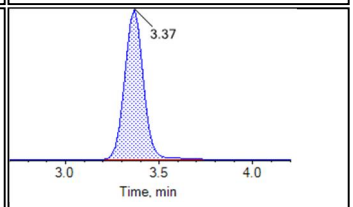
13C4-PFHpA



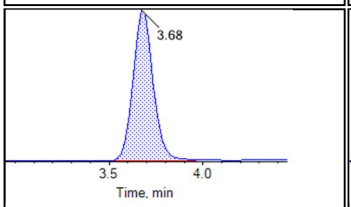
13C8-PFOA



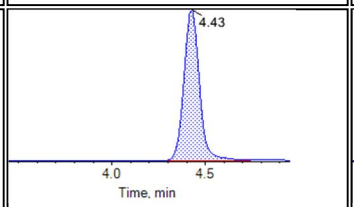
13C9-PFNA



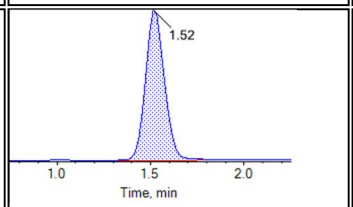
13C6-PFDA



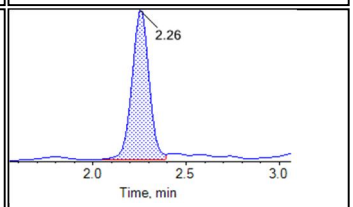
13C7-PFUnA



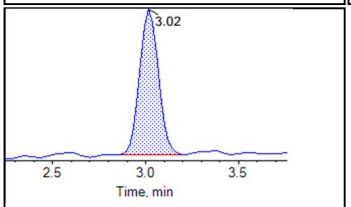
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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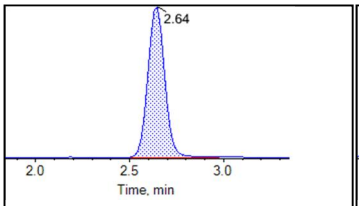
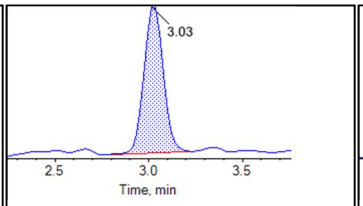
Printed: 18/09/2018 4:26:51 PM

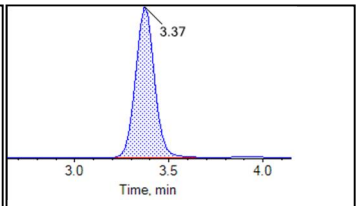
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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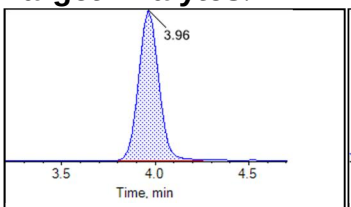
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:26:56 PM

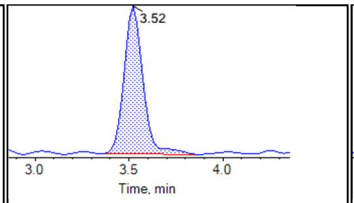
Sample Name	JY46 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:35:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

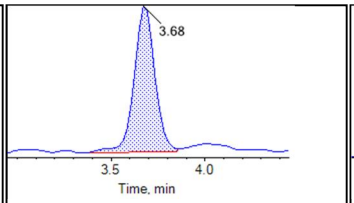
Target Analytes:



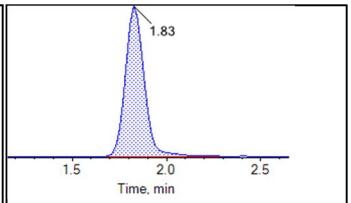
13C2-PFDoA



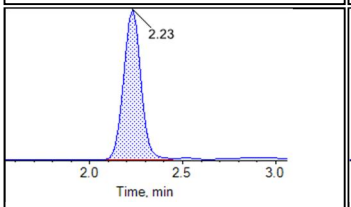
d3-MeFOSAA



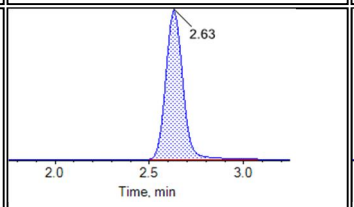
d5-EtFOSAA



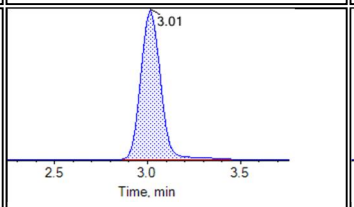
13C5-PFHxA



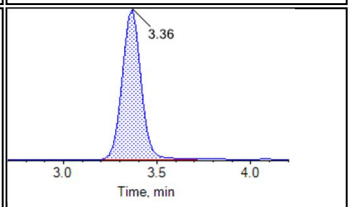
13C4-PFHpA



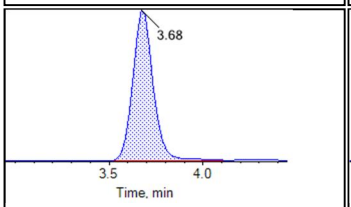
13C8-PFOA



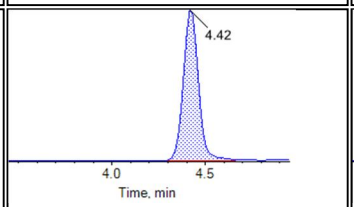
13C9-PFNA



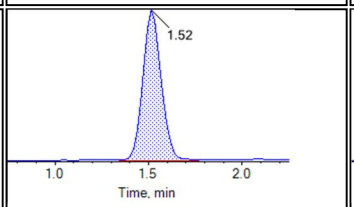
13C6-PFDA



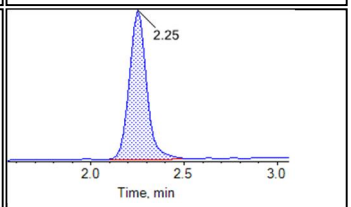
13C7-PFUnA



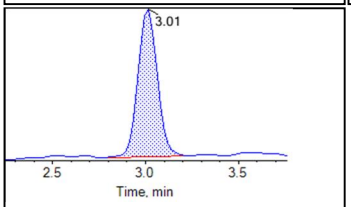
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



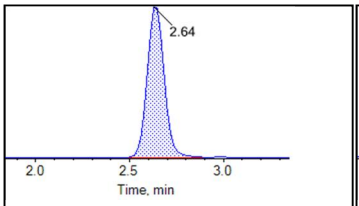
13C8-PFOS

BATTELLE

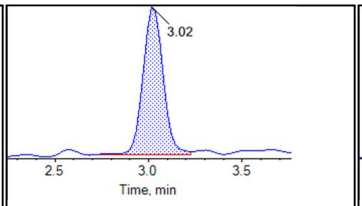
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:26:56 PM

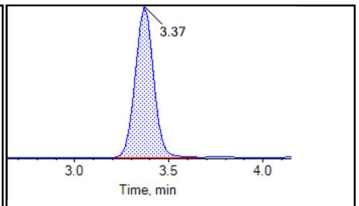
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

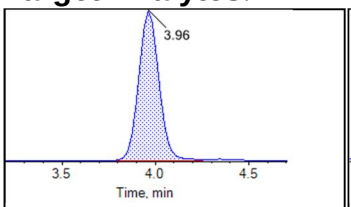
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:27:00 PM

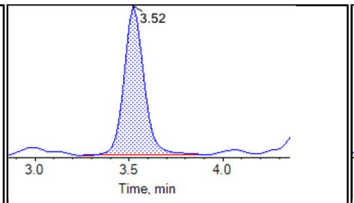
Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

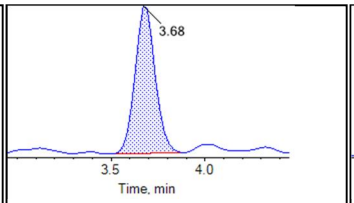
Target Analytes:



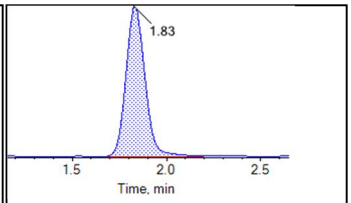
13C2-PFDoA



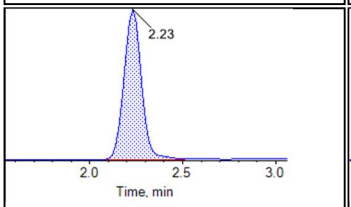
d3-MeFOSAA



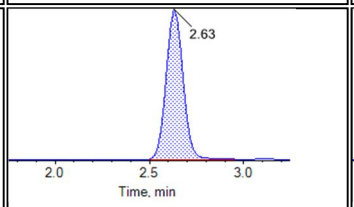
d5-EtFOSAA



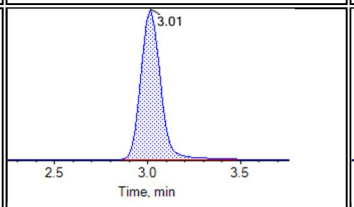
13C5-PFHxA



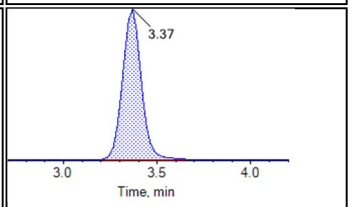
13C4-PFHpA



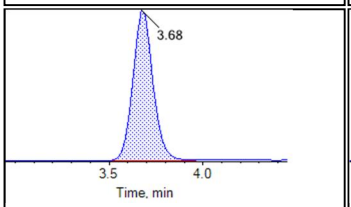
13C8-PFOA



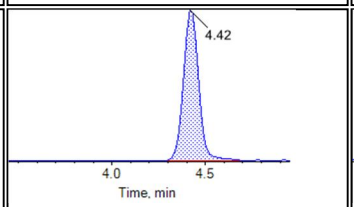
13C9-PFNA



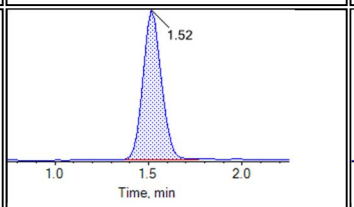
13C6-PFDA



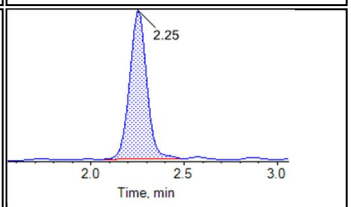
13C7-PFUnA



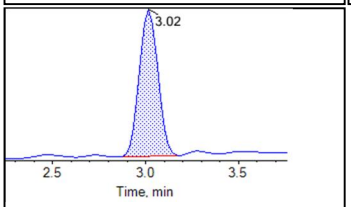
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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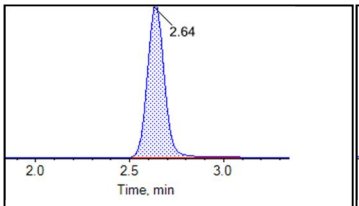
Printed: 18/09/2018 4:27:00 PM

Internal Standards:



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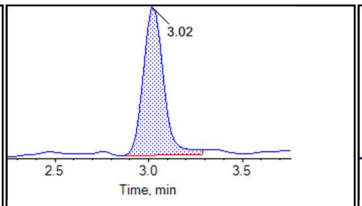
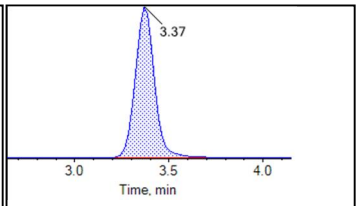


13C4-PFOS



13C2-PFDA

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Chromatogram Report

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Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

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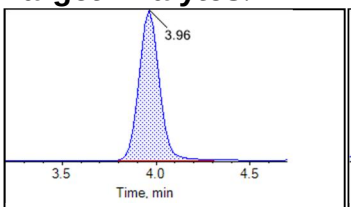
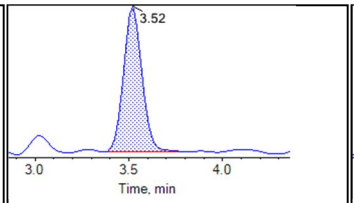
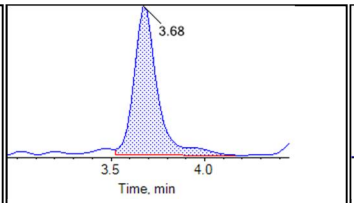


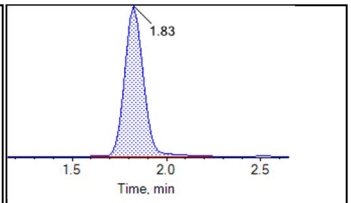
13C2-PFDoA



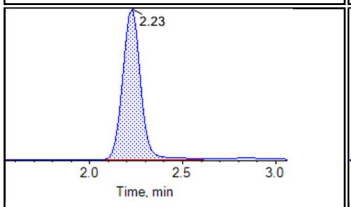
d3-MeFOSAA



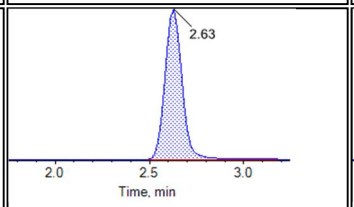
d5-EtFOSAA



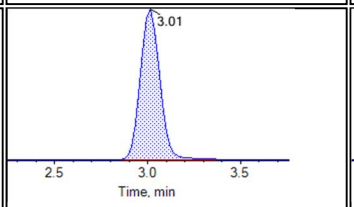
13C5-PFHxA



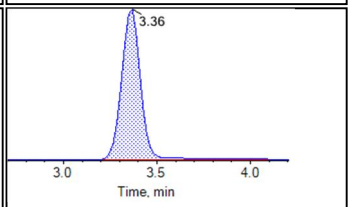
13C4-PFHpA



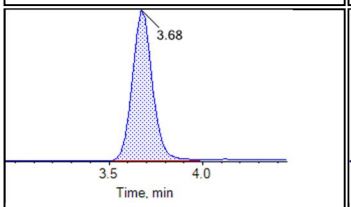
13C8-PFOA



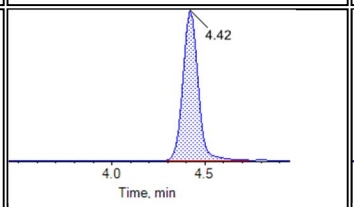
13C9-PFNA



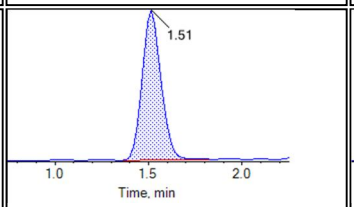
13C6-PFDA



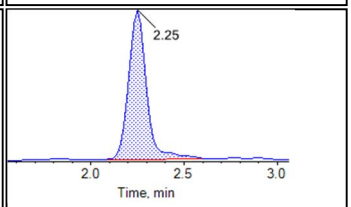
13C7-PFUnA



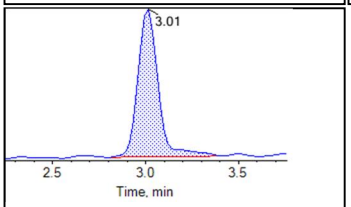
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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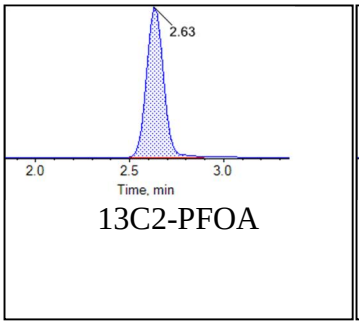
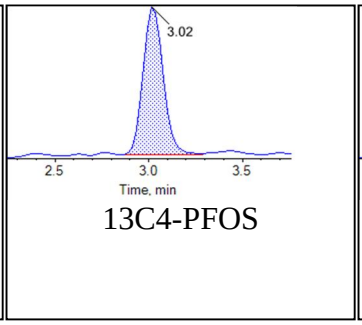
Printed: 18/09/2018 4:27:15 PM

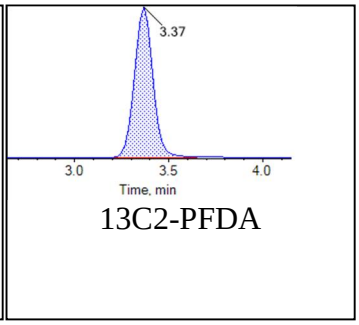
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

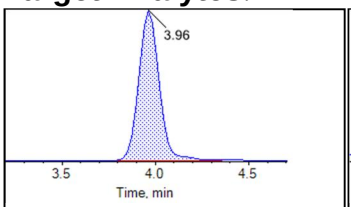
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:27:25 PM

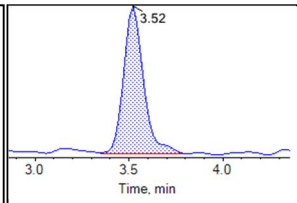
Sample Name	CR817PB-FS(0)	**Injection Vial**	21
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:56:35	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

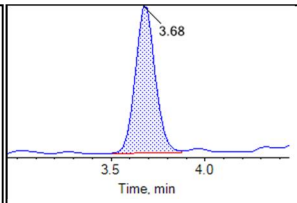
Target Analytes:



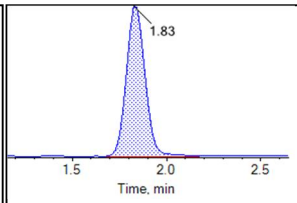
13C2-PFDoA



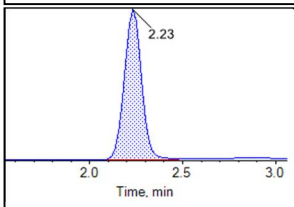
d3-MeFOSAA



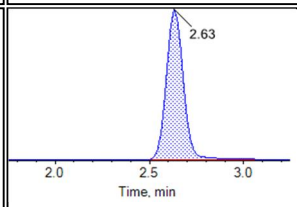
d5-EtFOSAA



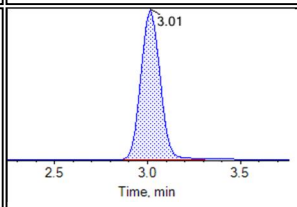
13C5-PFHxA



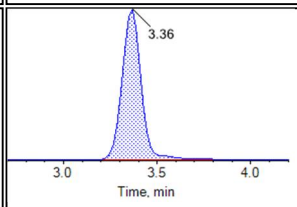
13C4-PFHpA



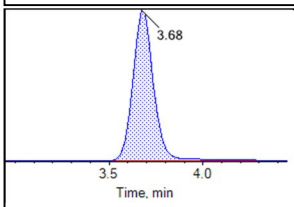
13C8-PFOA



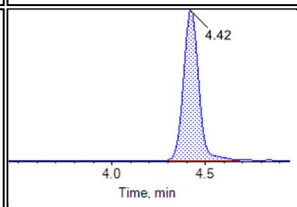
13C9-PFNA



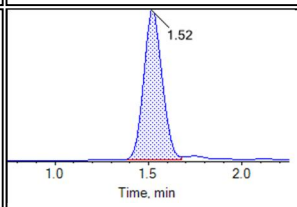
13C6-PFDA



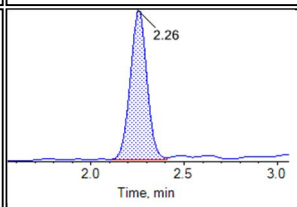
13C7-PFUnA



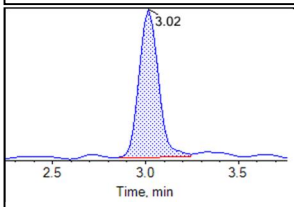
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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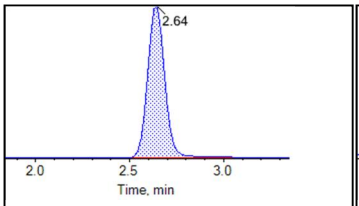
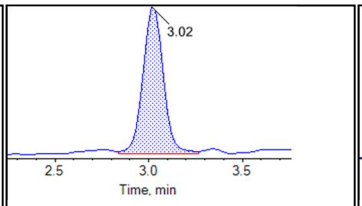
Printed: 18/09/2018 4:27:25 PM

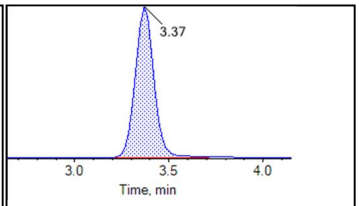
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

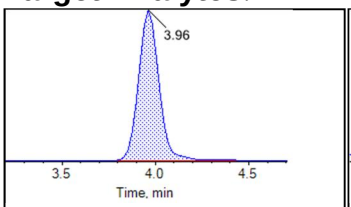
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:27:30 PM

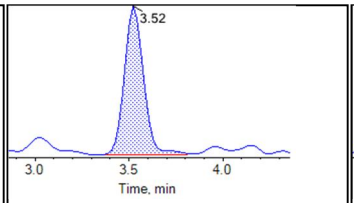
Sample Name	CR818LCS-FS(0)	**Injection Vial**	22
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:07:27	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

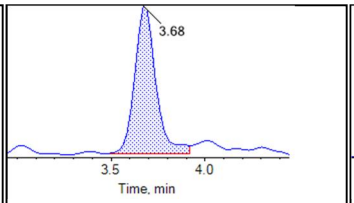
Target Analytes:



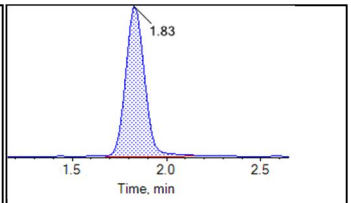
13C2-PFDoA



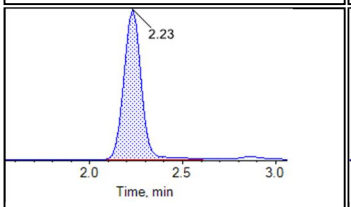
d3-MeFOSAA



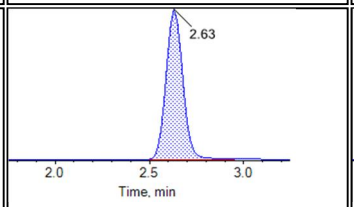
d5-EtFOSAA



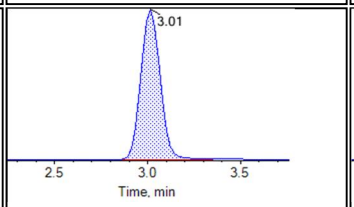
13C5-PFHxA



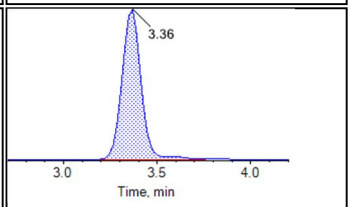
13C4-PFHpA



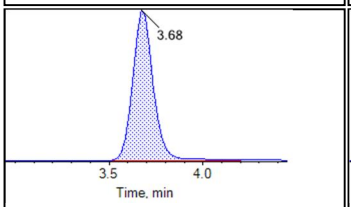
13C8-PFOA



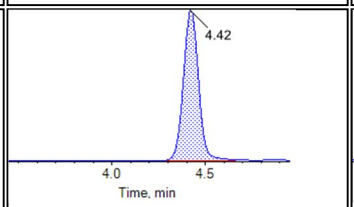
13C9-PFNA



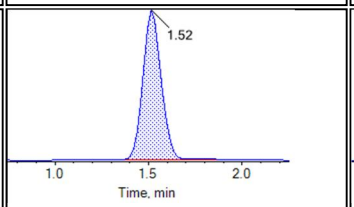
13C6-PFDA



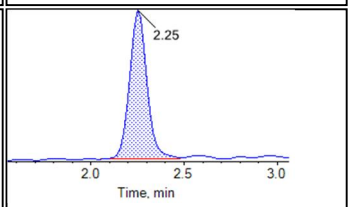
13C7-PFUnA



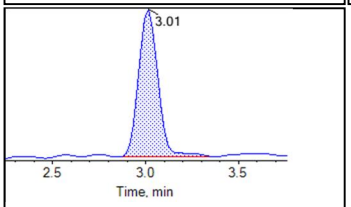
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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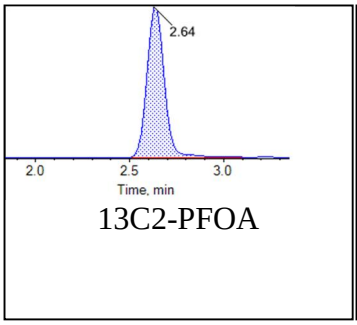
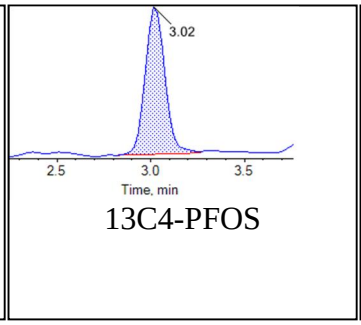
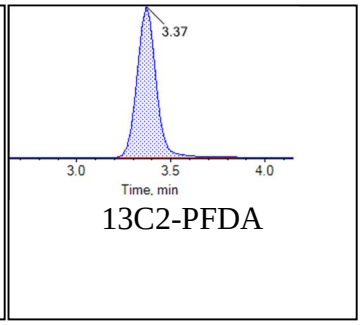
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

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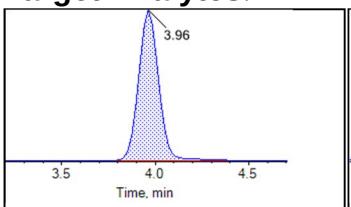
Printed: 18/09/2018 4:27:35 PM

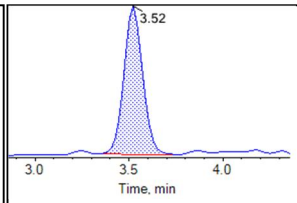
Sample Name	J7785-FS(0)	**Injection Vial**	23
Sample ID	JAX-TCC-FRB-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:18:19	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

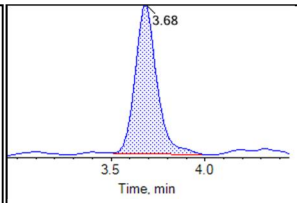
Target Analytes:



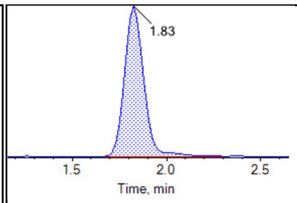
13C2-PFDoA



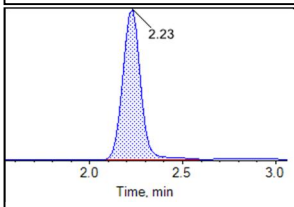
d3-MeFOSAA



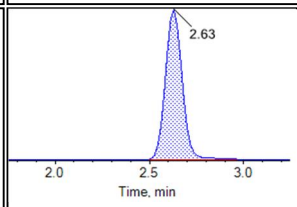
d5-EtFOSAA



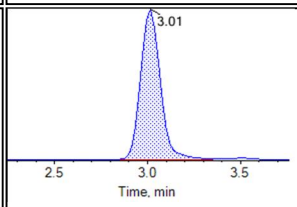
13C5-PFHxA



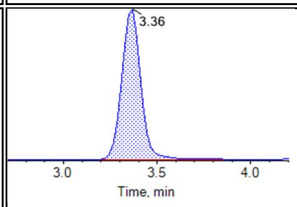
13C4-PFHpA



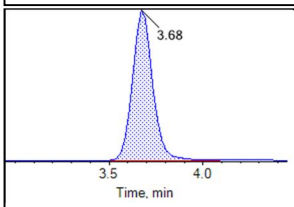
13C8-PFOA



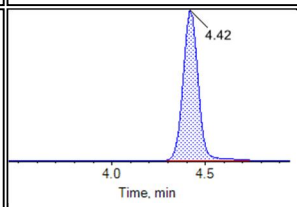
13C9-PFNA



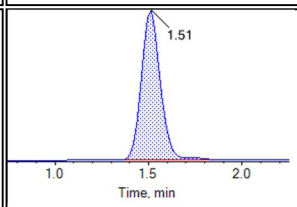
13C6-PFDA



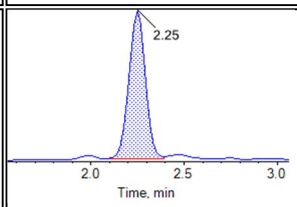
13C7-PFUnA



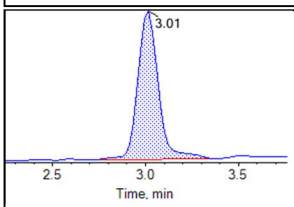
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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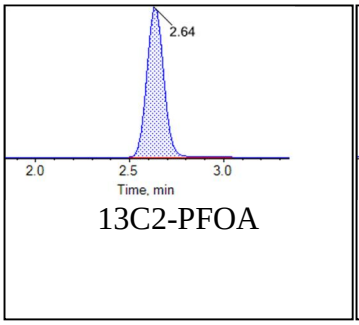
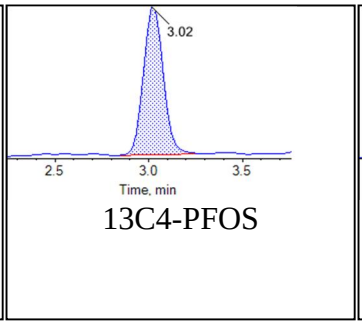
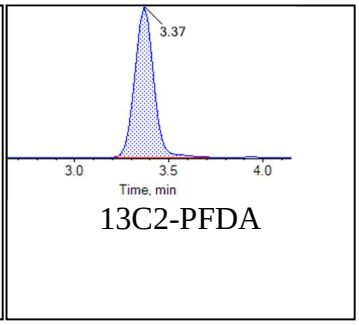
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:27:43 PM

Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

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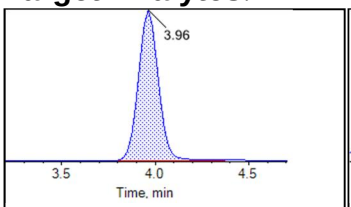
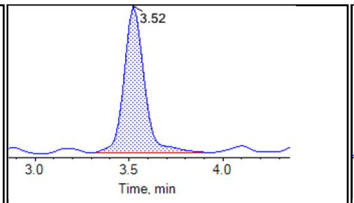
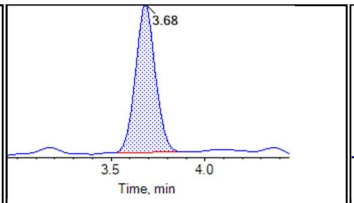


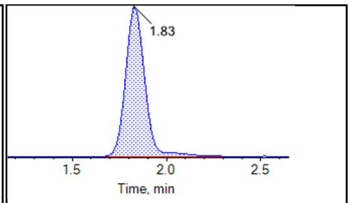
13C2-PFDoA



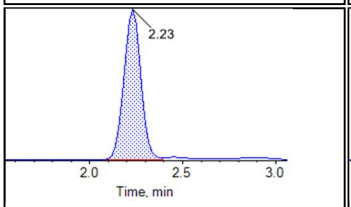
d3-MeFOSAA



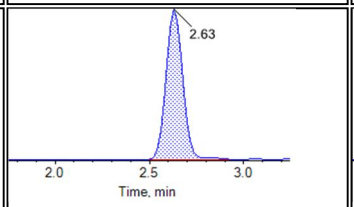
d5-EtFOSAA



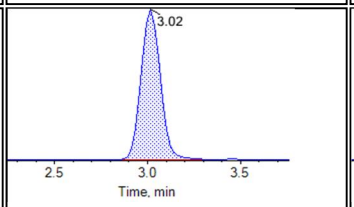
13C5-PFHxA



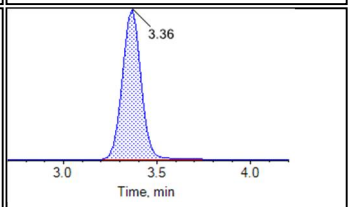
13C4-PFHpA



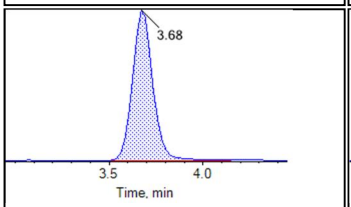
13C8-PFOA



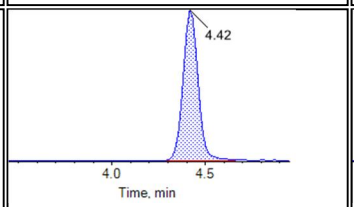
13C9-PFNA



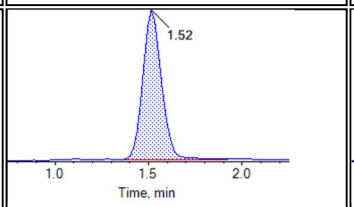
13C6-PFDA



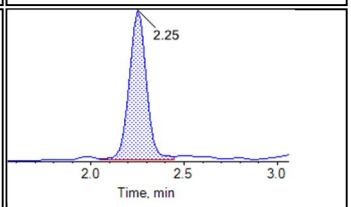
13C7-PFUnA



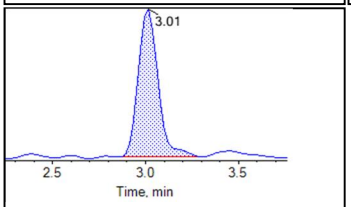
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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Printed: 18/09/2018 4:27:43 PM

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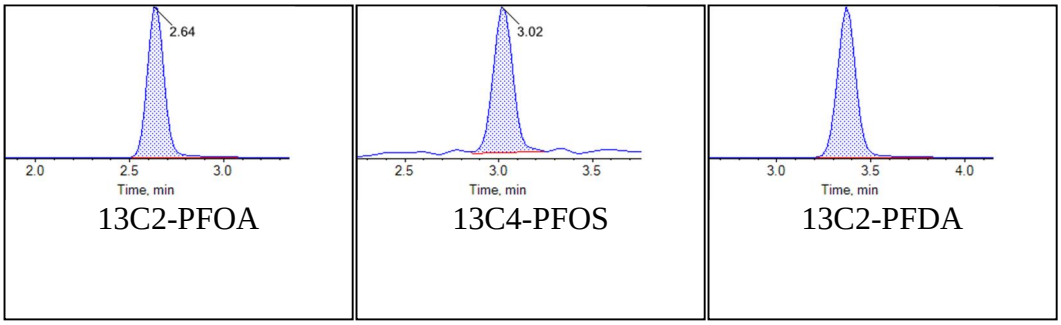


BATTELLE

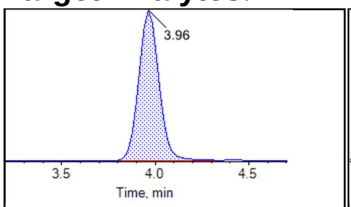
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:27:48 PM

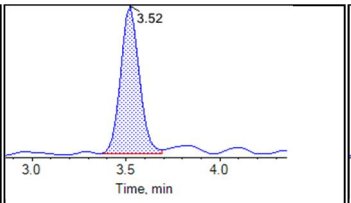
Sample Name	J7784-FS(0)	**Injection Vial**	25
Sample ID	JAX-TCC-EB03-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:40:02	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

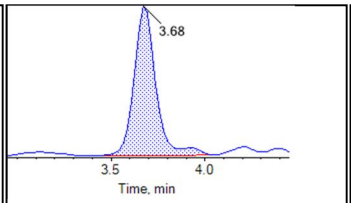
Target Analytes:



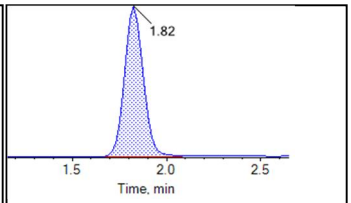
13C2-PFDoA



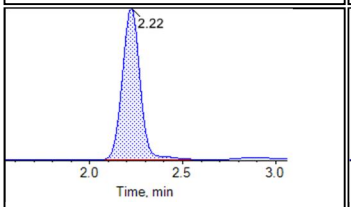
d3-MeFOSAA



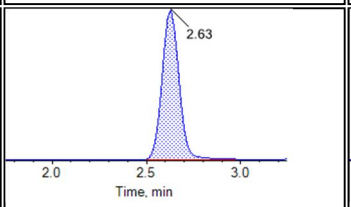
d5-EtFOSAA



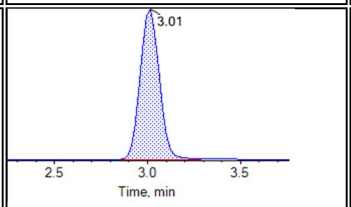
13C5-PFHxA



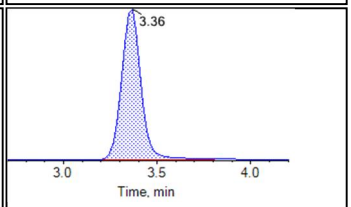
13C4-PFHpA



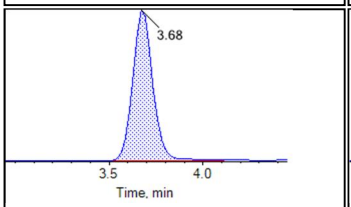
13C8-PFOA



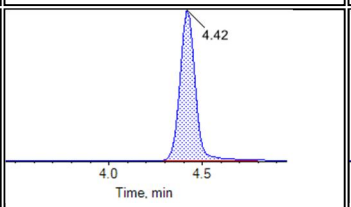
13C9-PFNA



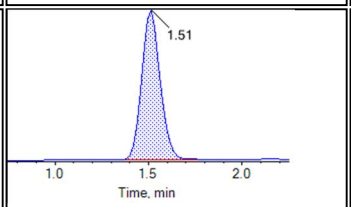
13C6-PFDA



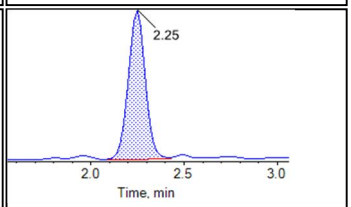
13C7-PFUnA



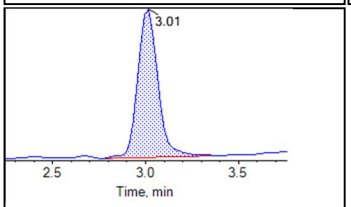
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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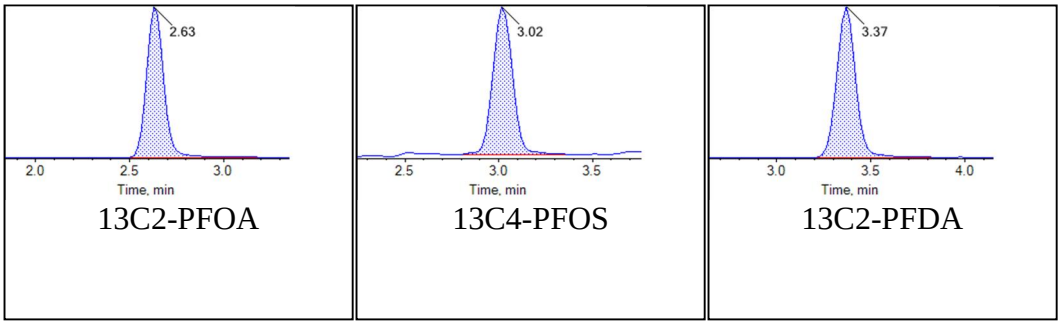
Printed: 18/09/2018 4:27:48 PM

Internal Standards:



BATTELLE

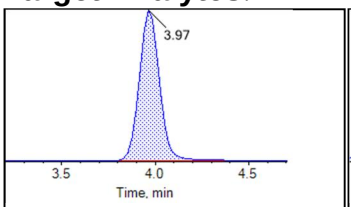
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:27:52 PM

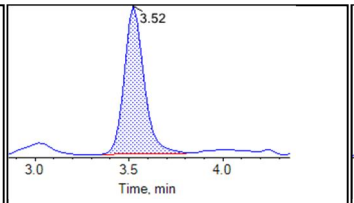
Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

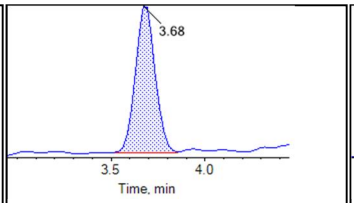
Target Analytes:



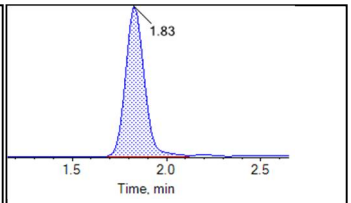
13C2-PFDoA



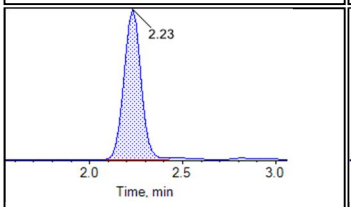
d3-MeFOSAA



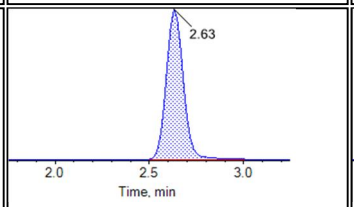
d5-EtFOSAA



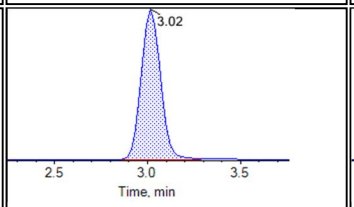
13C5-PFHxA



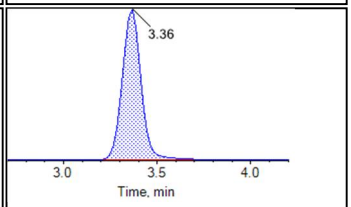
13C4-PFHpA



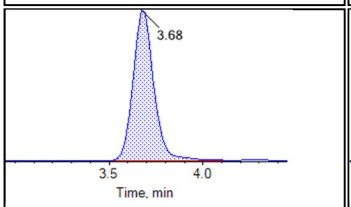
13C8-PFOA



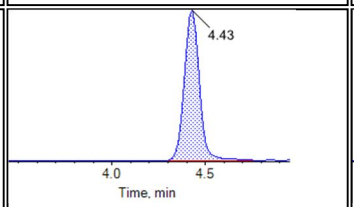
13C9-PFNA



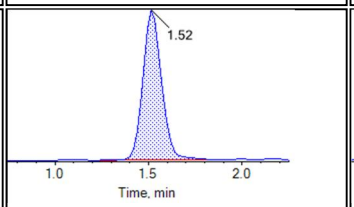
13C6-PFDA



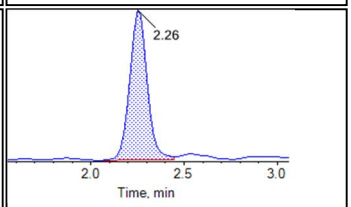
13C7-PFUnA



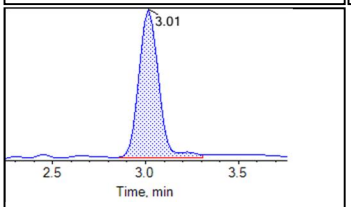
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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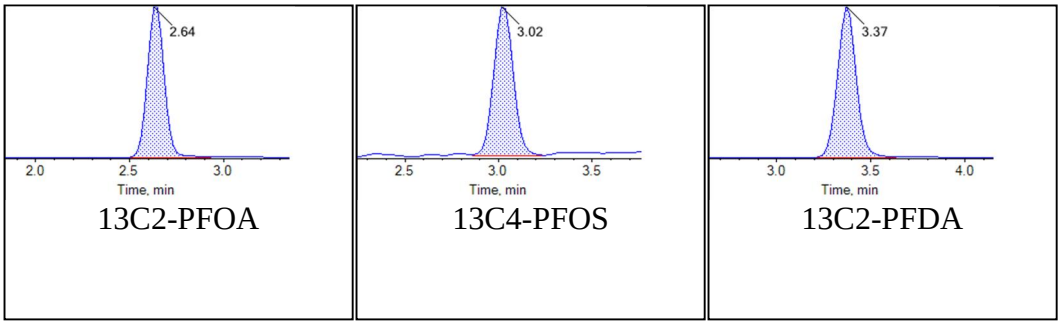
Printed: 18/09/2018 4:27:52 PM

Internal Standards:



BATTELLE

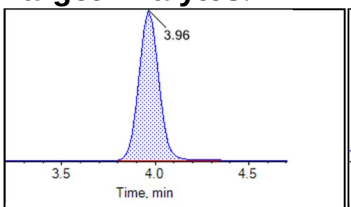
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:28:04 PM

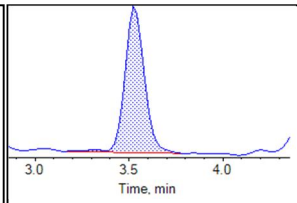
Sample Name	J7778-FS(0)	**Injection Vial**	27
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:12:37	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

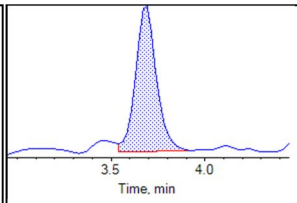
Target Analytes:



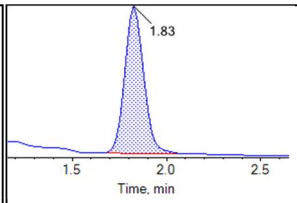
13C2-PFDoA



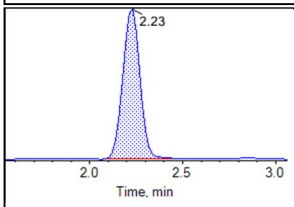
d3-MeFOSAA



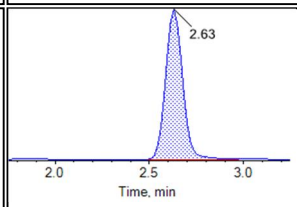
d5-EtFOSAA



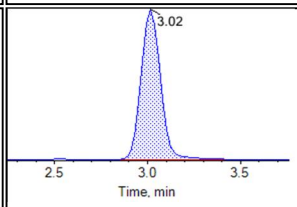
13C5-PFHxA



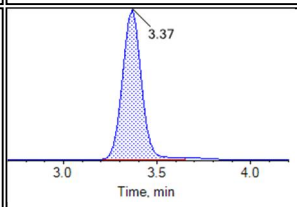
13C4-PFHpA



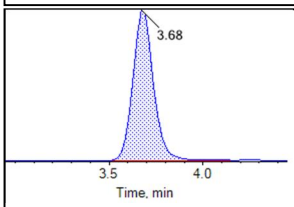
13C8-PFOA



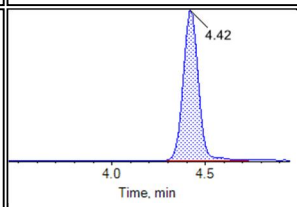
13C9-PFNA



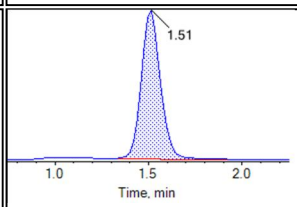
13C6-PFDA



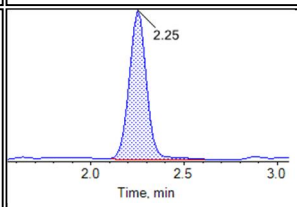
13C7-PFUnA



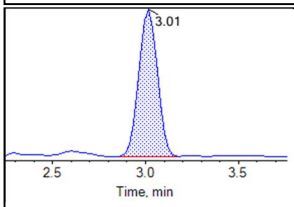
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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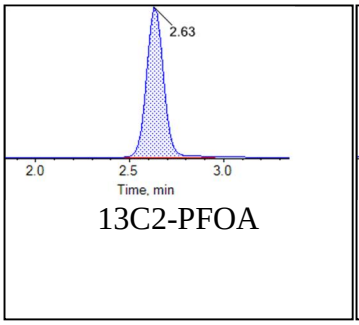
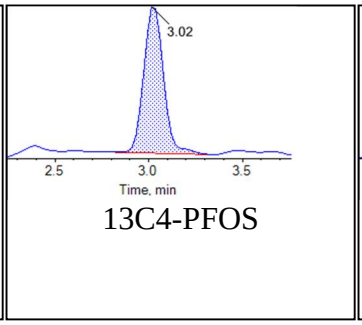
Printed: 18/09/2018 4:28:04 PM

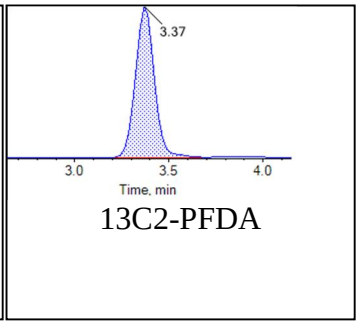
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

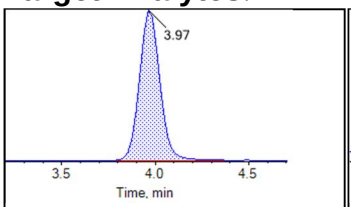
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:28:08 PM

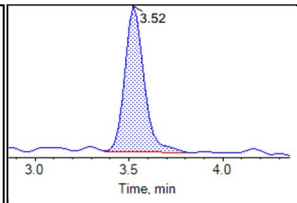
Sample Name	J7778-FS-D(3)	**Injection Vial**	28
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:23:29	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

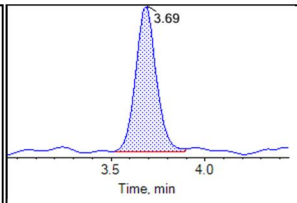
Target Analytes:



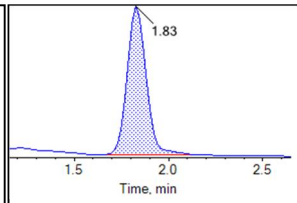
13C2-PFDoA



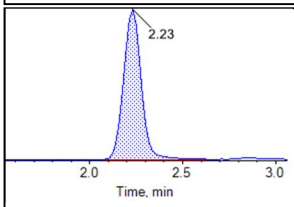
d3-MeFOSAA



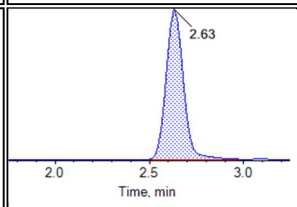
d5-EtFOSAA



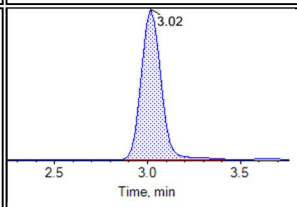
13C5-PFHxA



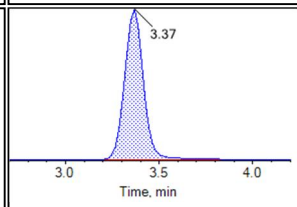
13C4-PFHpA



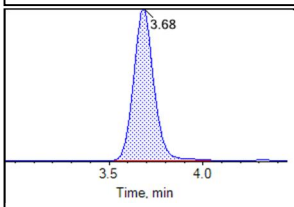
13C8-PFOA



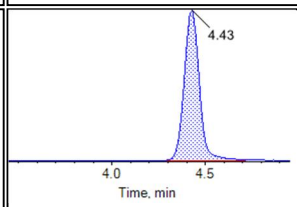
13C9-PFNA



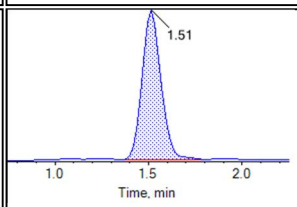
13C6-PFDA



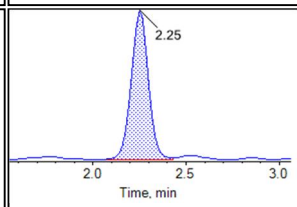
13C7-PFUnA



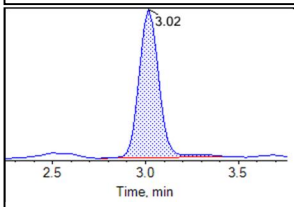
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



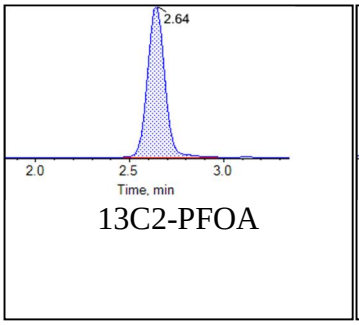
13C8-PFOS

BATTELLE

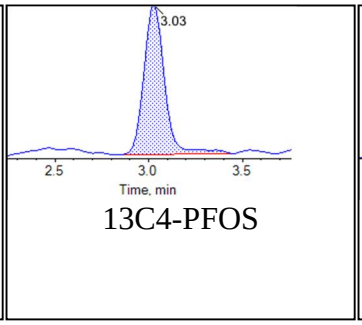
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:28:08 PM

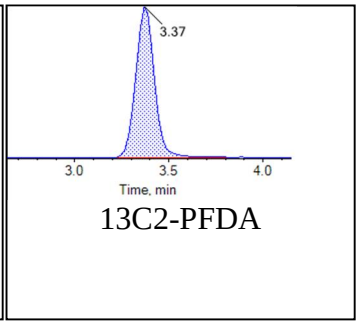
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

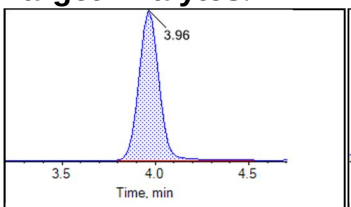
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:28:12 PM

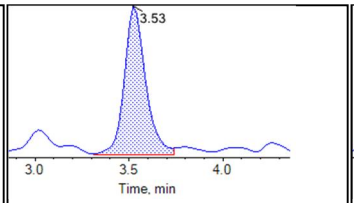
Sample Name	J7775-FS(0)	**Injection Vial**	29
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:34:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

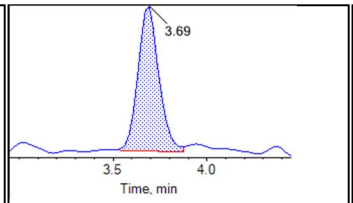
Target Analytes:



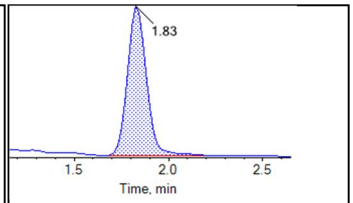
13C2-PFDoA



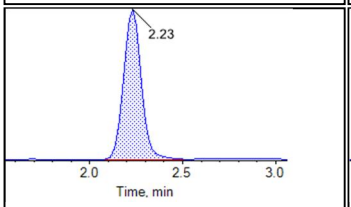
d3-MeFOSAA



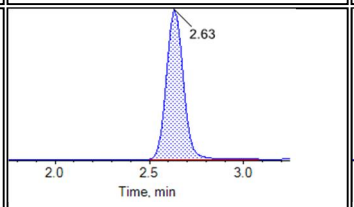
d5-EtFOSAA



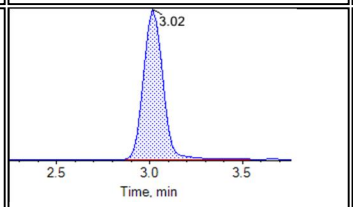
13C5-PFHxA



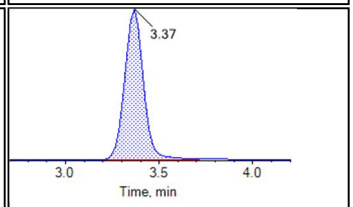
13C4-PFHpA



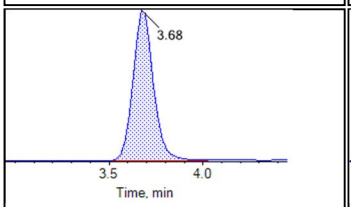
13C8-PFOA



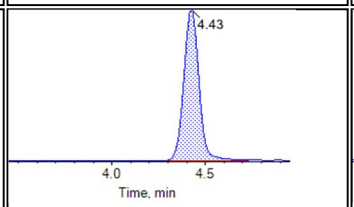
13C9-PFNA



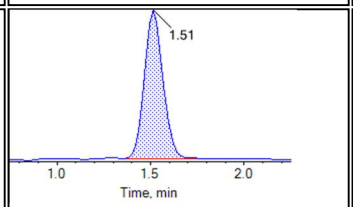
13C6-PFDA



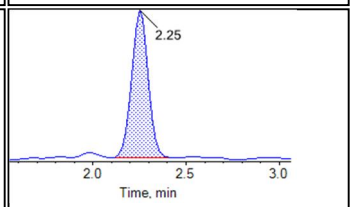
13C7-PFUnA



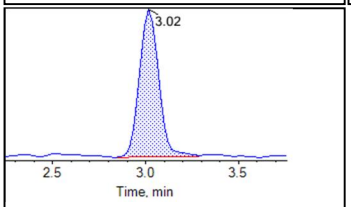
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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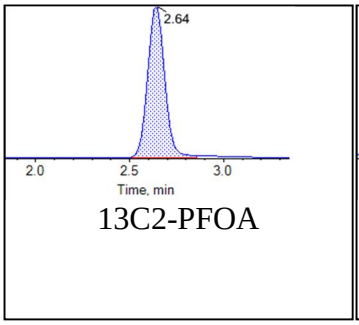
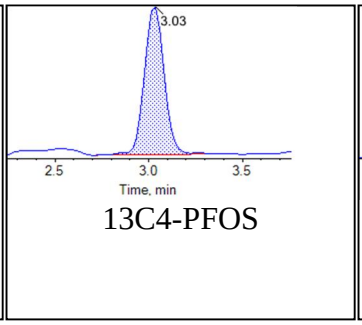
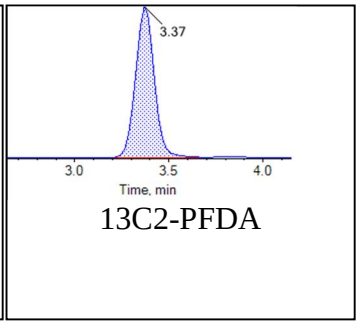


13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

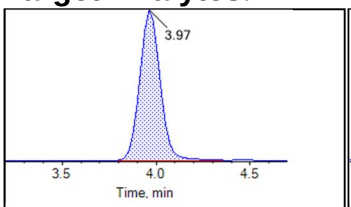
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:28:16 PM

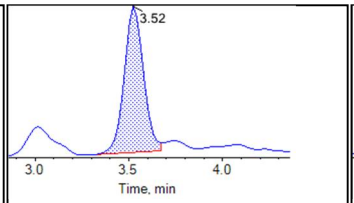
Sample Name	J7775-FS-D(3)	**Injection Vial**	30
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:45:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

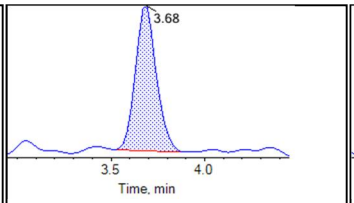
Target Analytes:



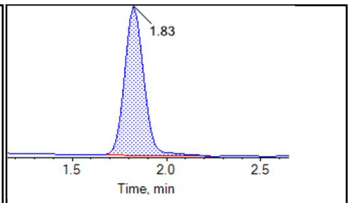
13C2-PFDoA



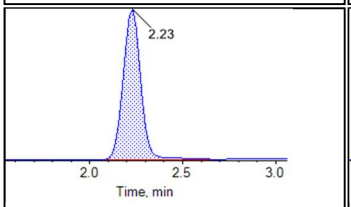
d3-MeFOSAA



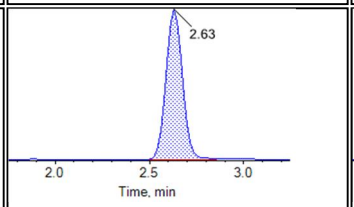
d5-EtFOSAA



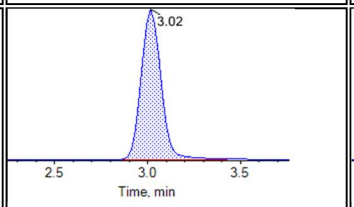
13C5-PFHxA



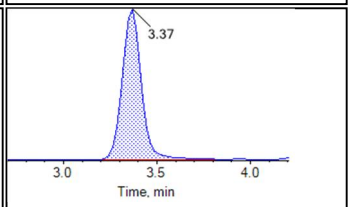
13C4-PFHpA



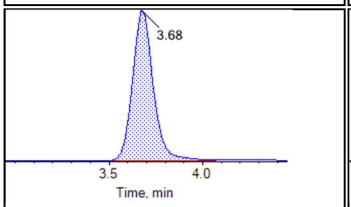
13C8-PFOA



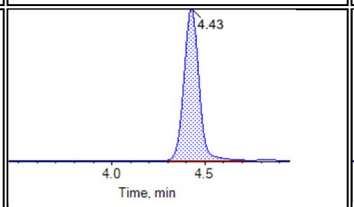
13C9-PFNA



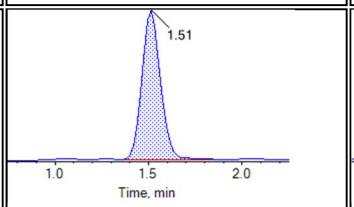
13C6-PFDA



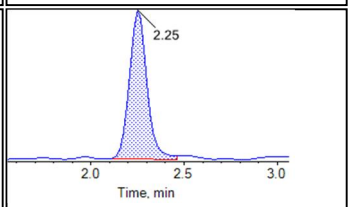
13C7-PFUnA



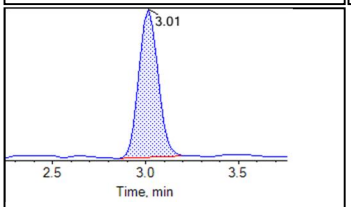
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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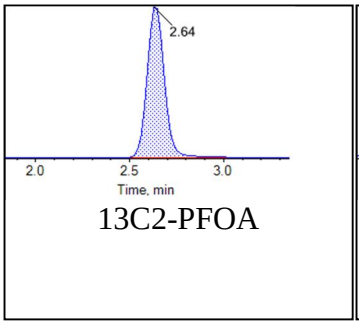
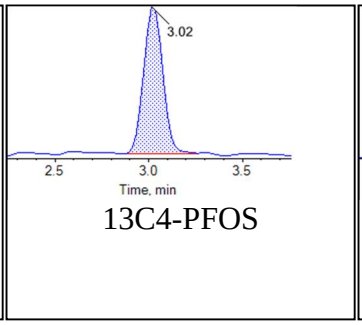
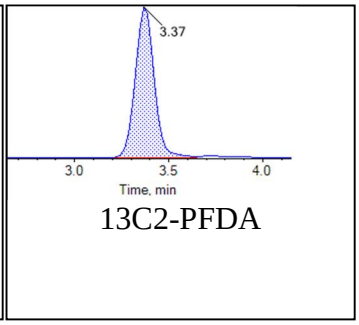
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

Created with Analyst Reporter
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Sample Name	J7775-FS-D(5)	**Injection Vial**	31
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:56:05	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

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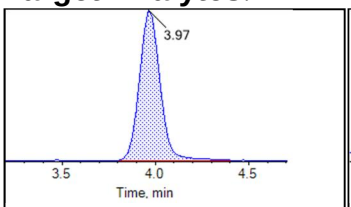
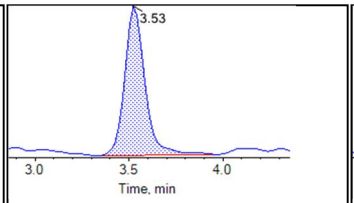
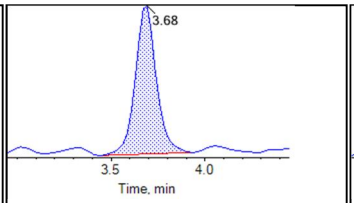


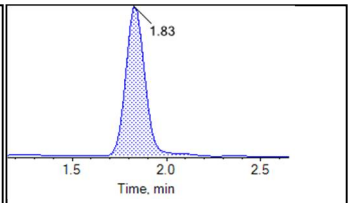
13C2-PFDoA



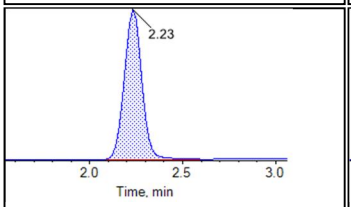
d3-MeFOSAA



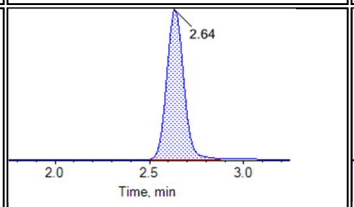
d5-EtFOSAA



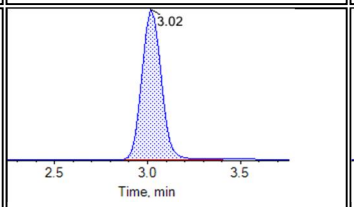
13C5-PFHxA



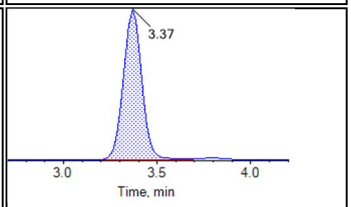
13C4-PFHpA



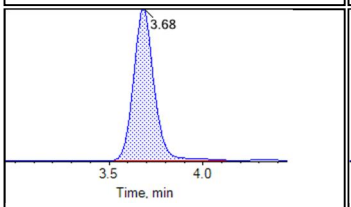
13C8-PFOA



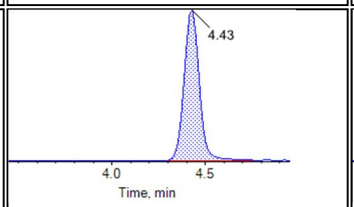
13C9-PFNA



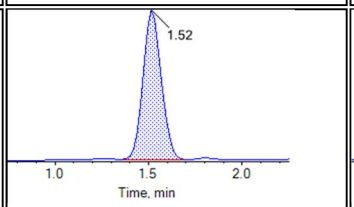
13C6-PFDA



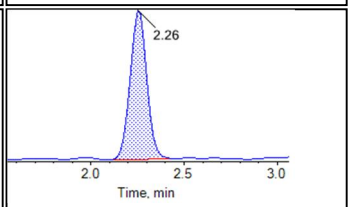
13C7-PFUnA



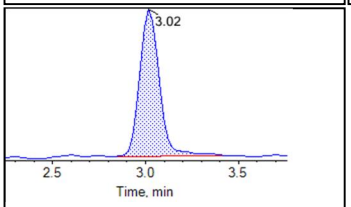
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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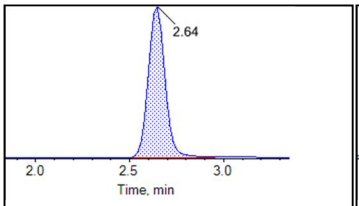
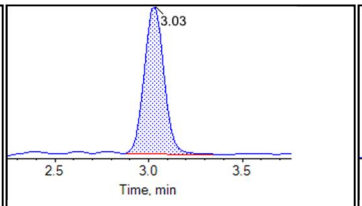
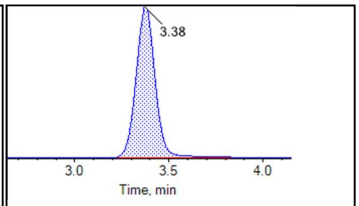


13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:28:25 PM

Sample Name	J7776-FS(0)	**Injection Vial**	32
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:06:57	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

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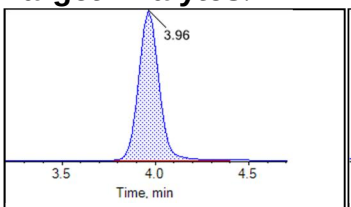
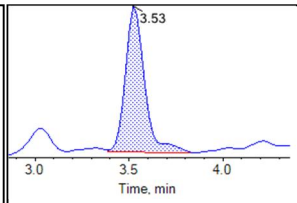
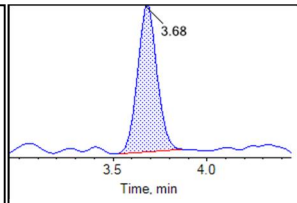


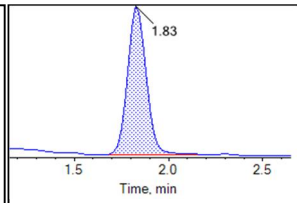
13C2-PFDoA



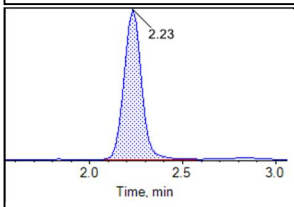
d3-MeFOSAA



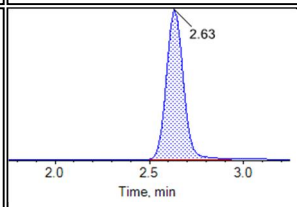
d5-EtFOSAA



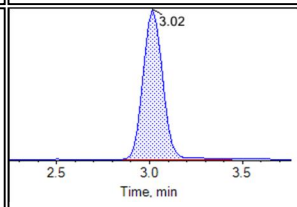
13C5-PFHxA



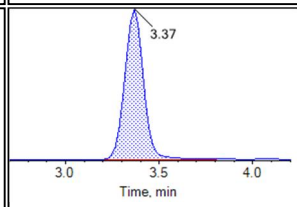
13C4-PFHpA



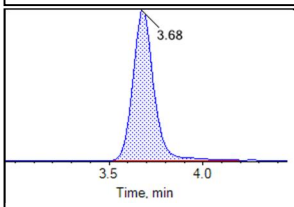
13C8-PFOA



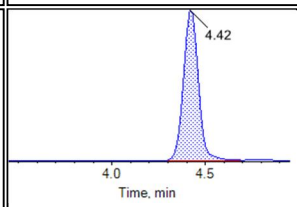
13C9-PFNA



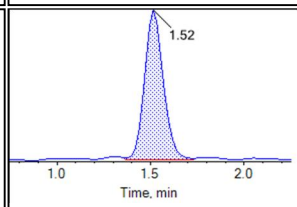
13C6-PFDA



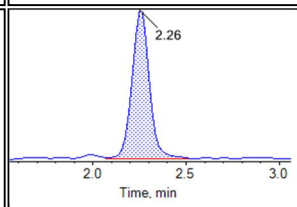
13C7-PFUnA



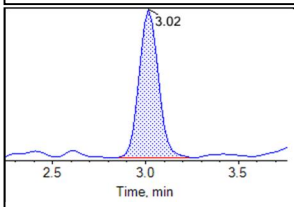
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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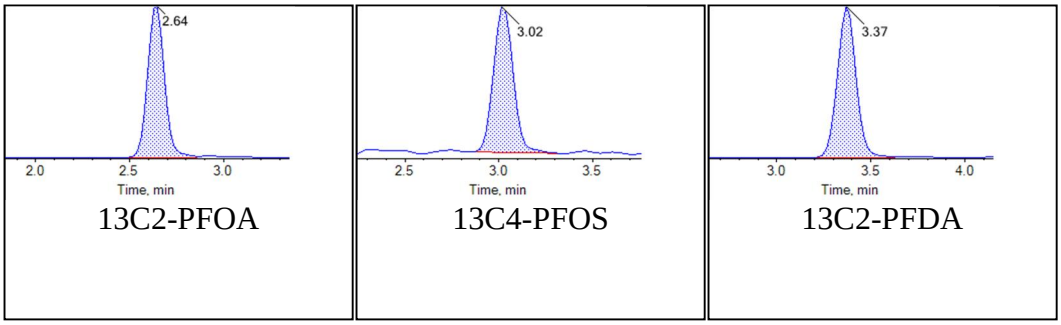
Printed: 18/09/2018 4:28:25 PM

Internal Standards:



BATTELLE

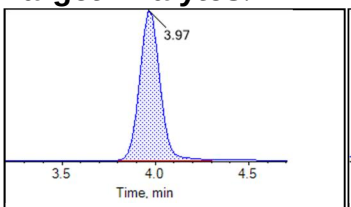
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:28:29 PM

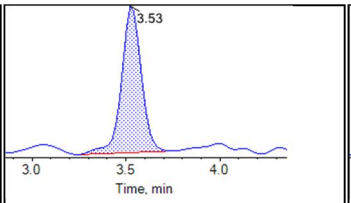
Sample Name	J7776-FS-D(3)	**Injection Vial**	33
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:17:49	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

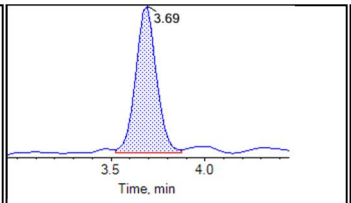
Target Analytes:



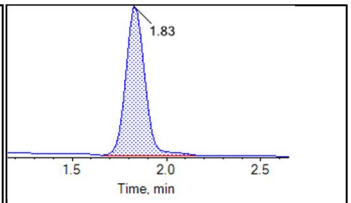
13C2-PFDoA



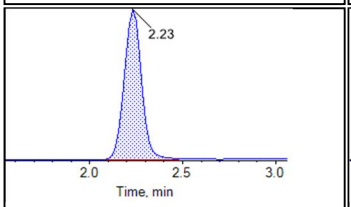
d3-MeFOSAA



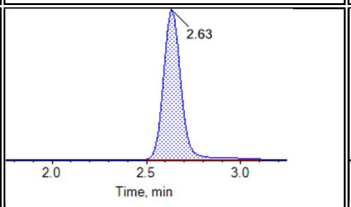
d5-EtFOSAA



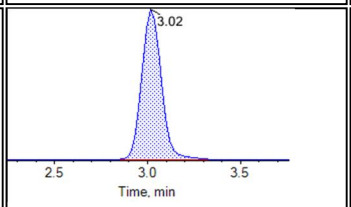
13C5-PFHxA



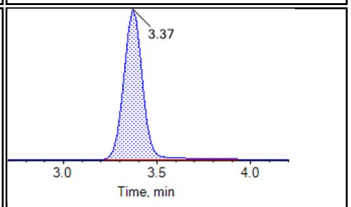
13C4-PFHpA



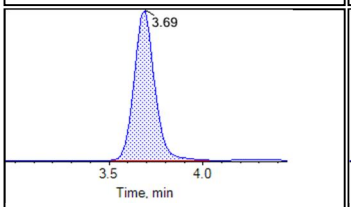
13C8-PFOA



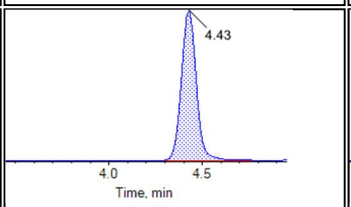
13C9-PFNA



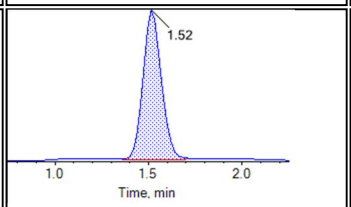
13C6-PFDA



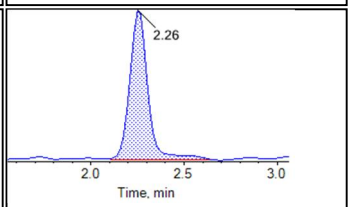
13C7-PFUnA



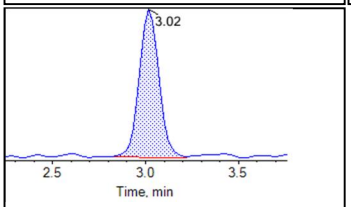
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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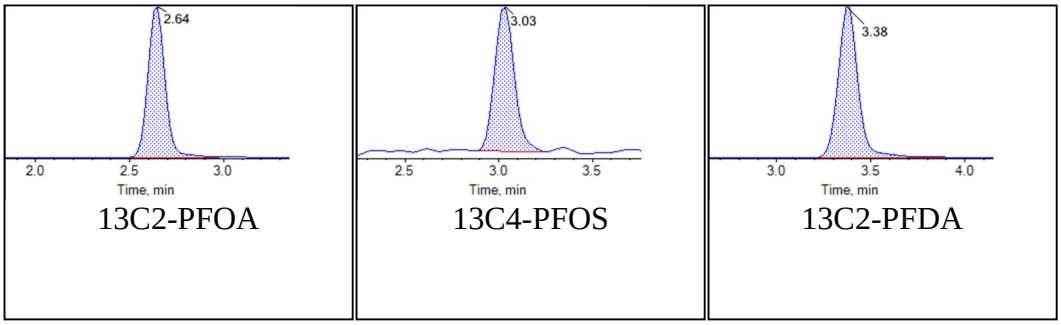
Internal Standards:



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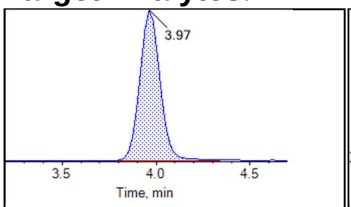
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:28:34 PM

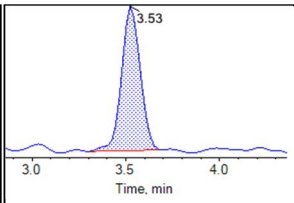
Sample Name	J7776-FS-D(5)	**Injection Vial**	34
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:28:40	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

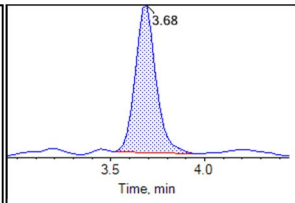
Target Analytes:



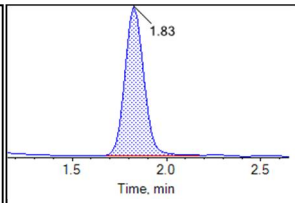
13C2-PFDoA



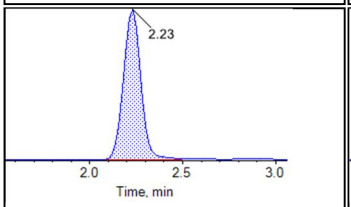
d3-MeFOSAA



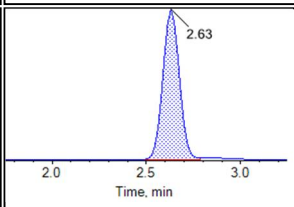
d5-EtFOSAA



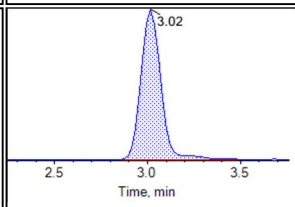
13C5-PFHxA



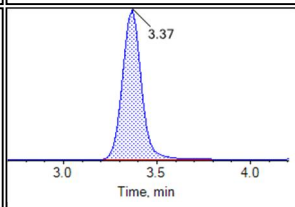
13C4-PFHpA



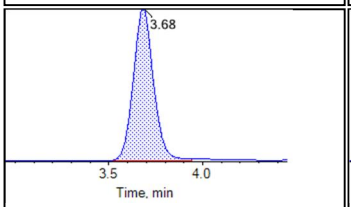
13C8-PFOA



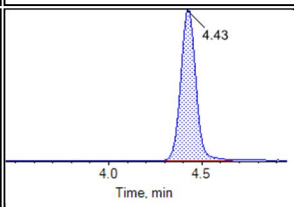
13C9-PFNA



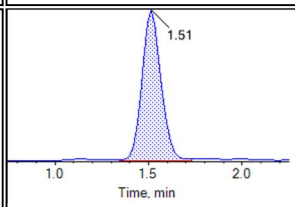
13C6-PFDA



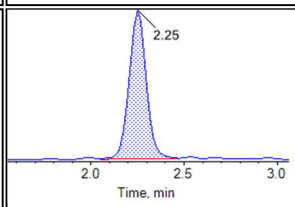
13C7-PFUnA



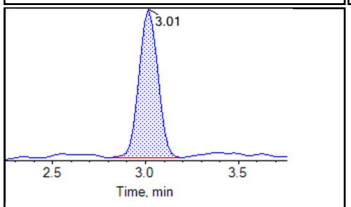
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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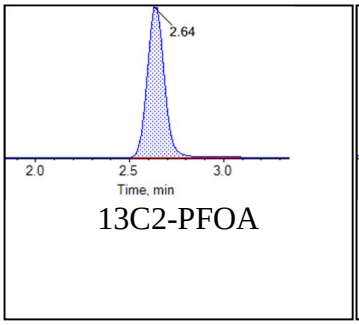
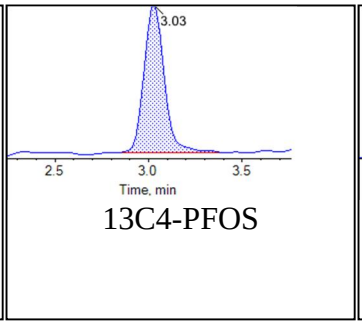
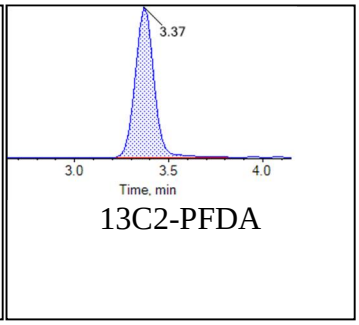
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

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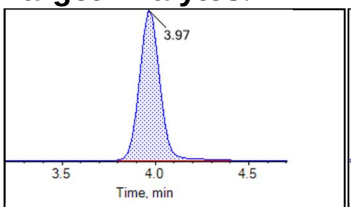
Printed: 18/09/2018 4:28:44 PM

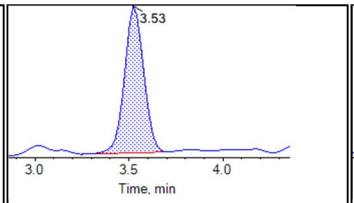
Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

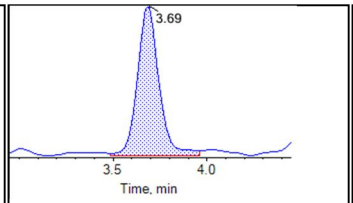
Target Analytes:



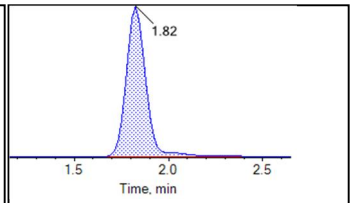
13C2-PFDoA



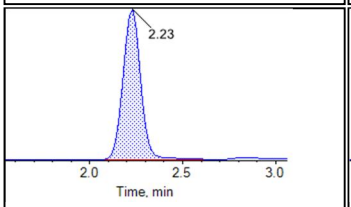
d3-MeFOSAA



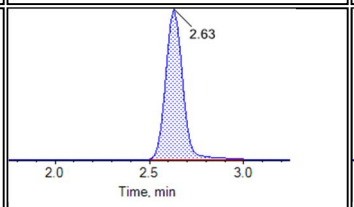
d5-EtFOSAA



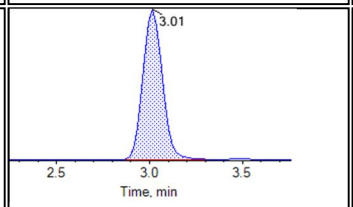
13C5-PFHxA



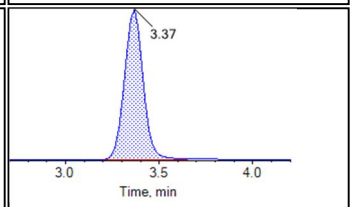
13C4-PFHpA



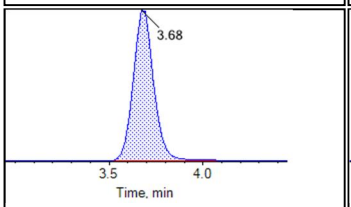
13C8-PFOA



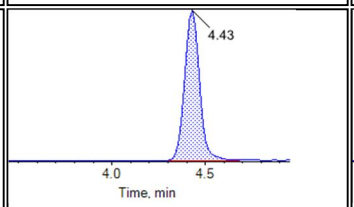
13C9-PFNA



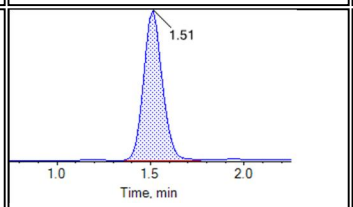
13C6-PFDA



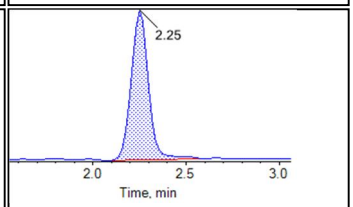
13C7-PFUnA



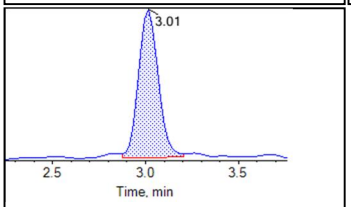
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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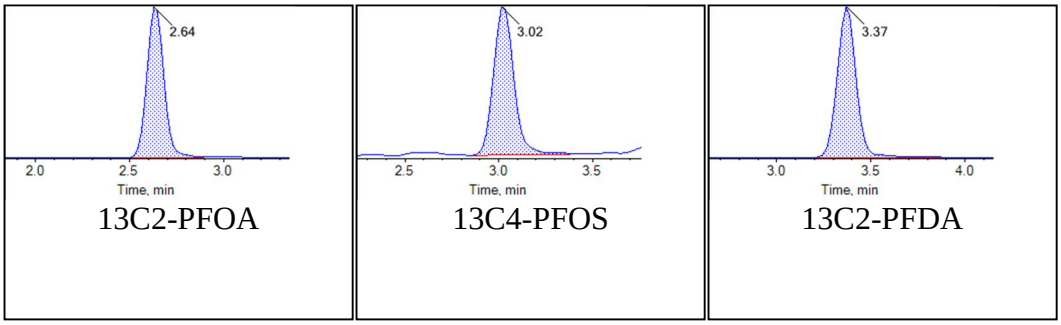
Internal Standards:



BATTELLE

Chromatogram Report

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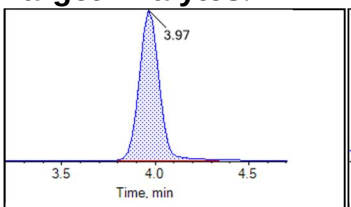
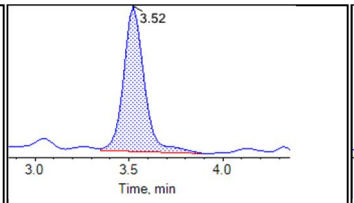
Sample Name	J7779-FS(0)	**Injection Vial**	35
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:12:07	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

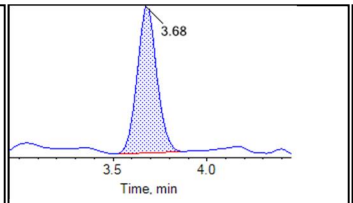
Target Analytes:



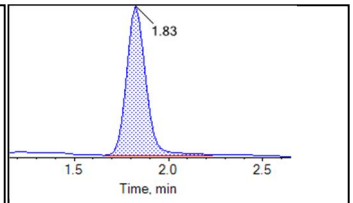
13C2-PFDoA



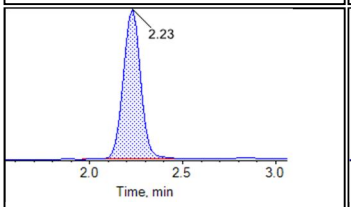
d3-MeFOSAA



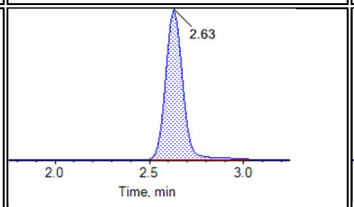
d5-EtFOSAA



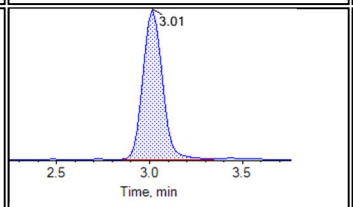
13C5-PFHxA



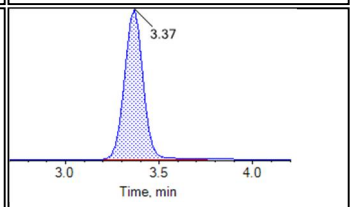
13C4-PFHpA



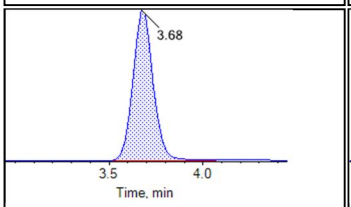
13C8-PFOA



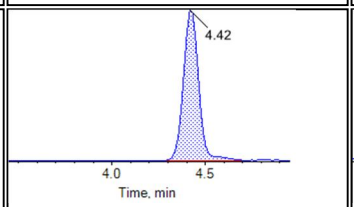
13C9-PFNA



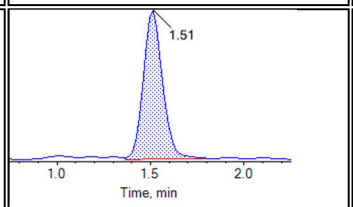
13C6-PFDA



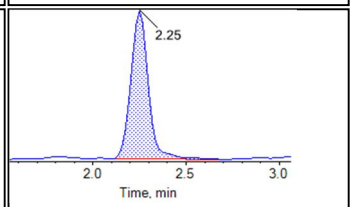
13C7-PFUnA



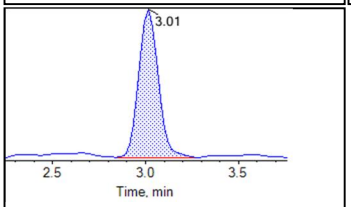
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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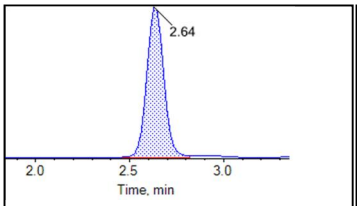
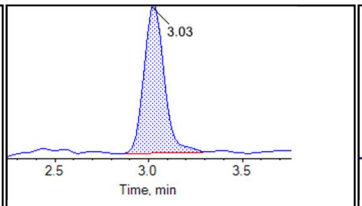
Printed: 18/09/2018 4:28:55 PM

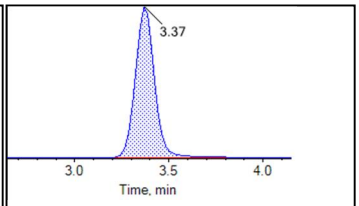
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

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Sample Name	J7779-FS-D(3)	**Injection Vial**	36
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:22:59	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

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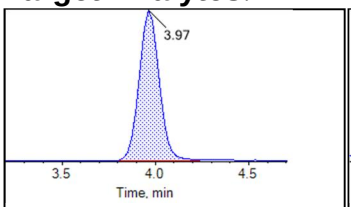
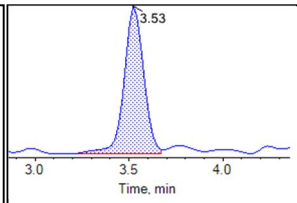
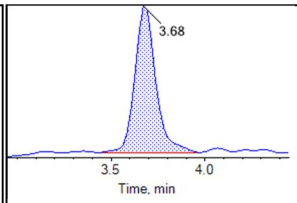


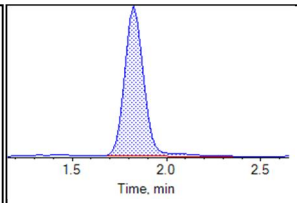
13C2-PFDoA



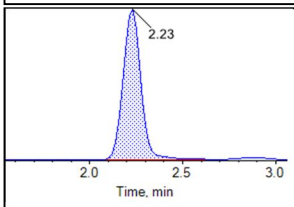
d3-MeFOSAA



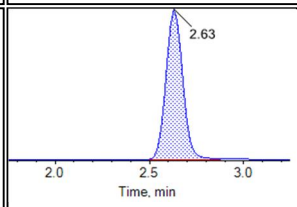
d5-EtFOSAA



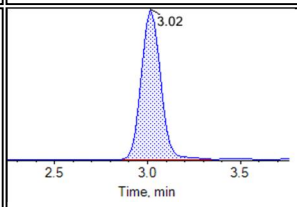
13C5-PFHxA



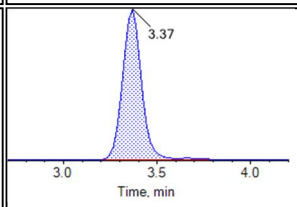
13C4-PFHpA



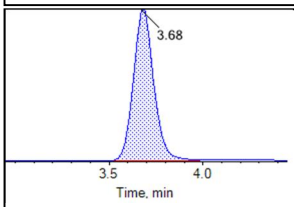
13C8-PFOA



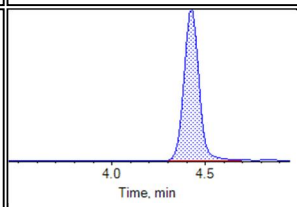
13C9-PFNA



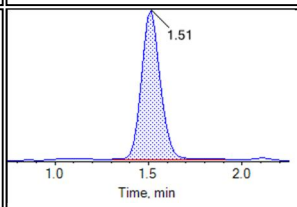
13C6-PFDA



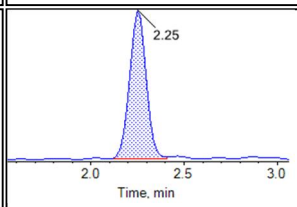
13C7-PFUnA



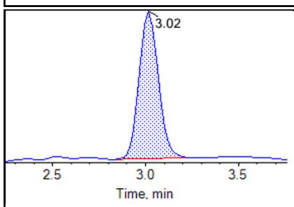
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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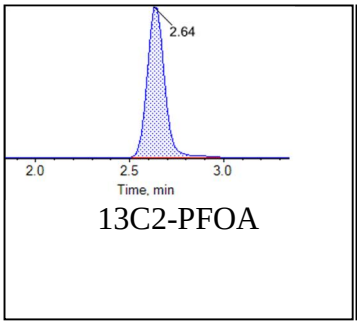
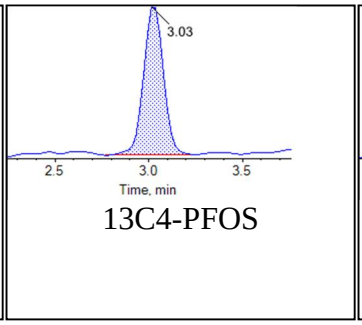
Printed: 18/09/2018 4:29:00 PM

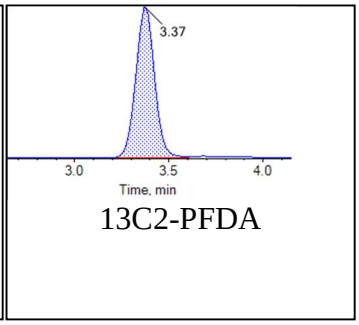
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

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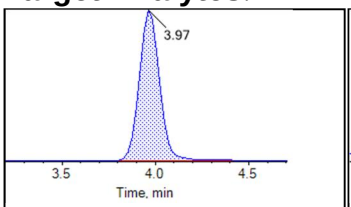
Printed: 18/09/2018 4:29:09 PM

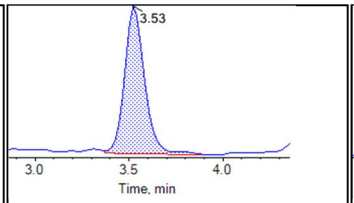
Sample Name	J7779-FS-D(5)	**Injection Vial**	37
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:33:50	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

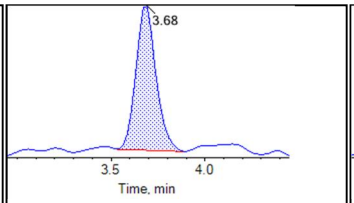
Target Analytes:



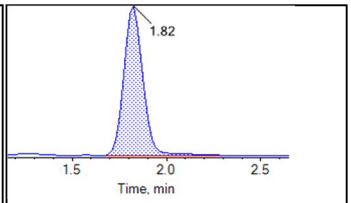
13C2-PFDoA



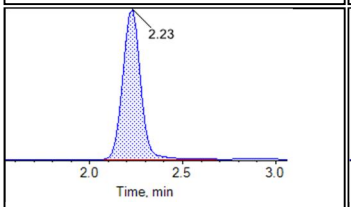
d3-MeFOSAA



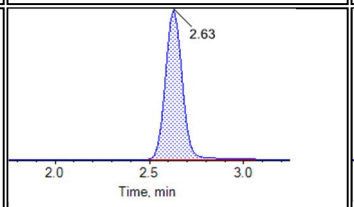
d5-EtFOSAA



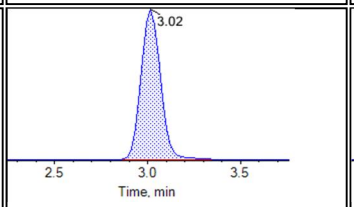
13C5-PFHxA



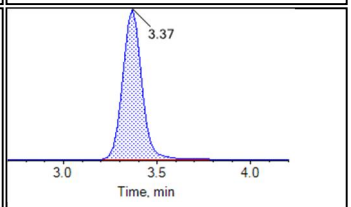
13C4-PFHpA



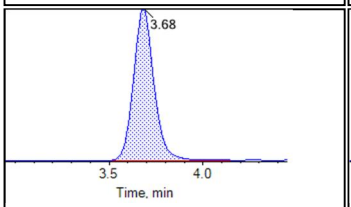
13C8-PFOA



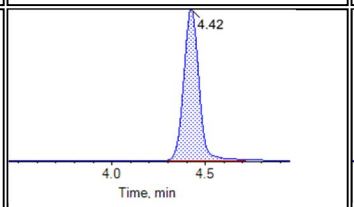
13C9-PFNA



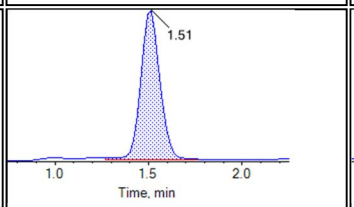
13C6-PFDA



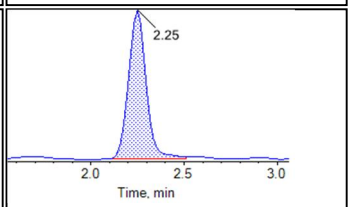
13C7-PFUnA



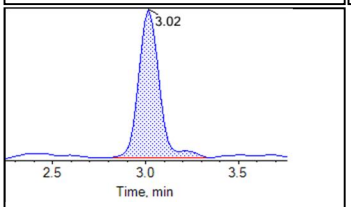
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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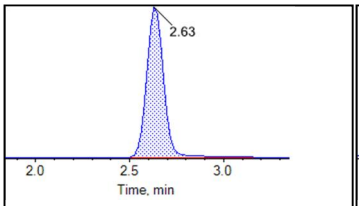
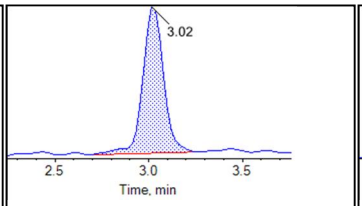
Printed: 18/09/2018 4:29:09 PM

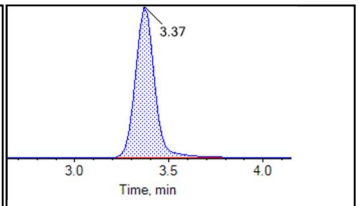
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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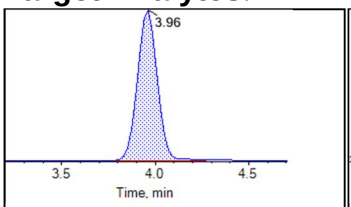
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:29:14 PM

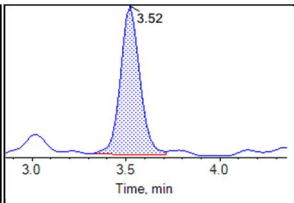
Sample Name	J7780-FS(0)	**Injection Vial**	38
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:44:42	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

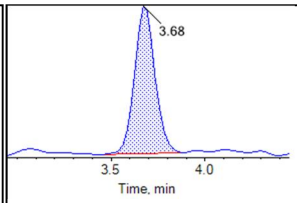
Target Analytes:



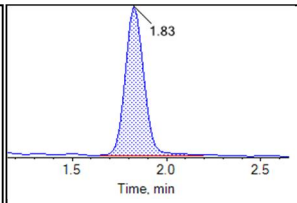
13C2-PFDoA



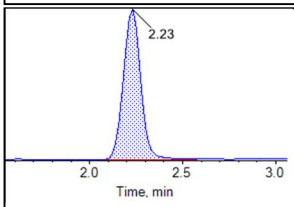
d3-MeFOSAA



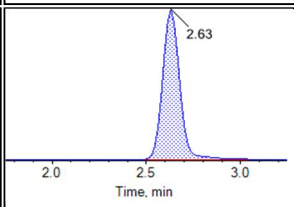
d5-EtFOSAA



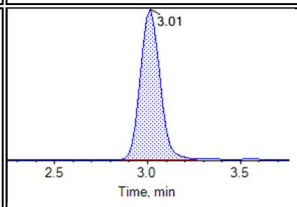
13C5-PFHxA



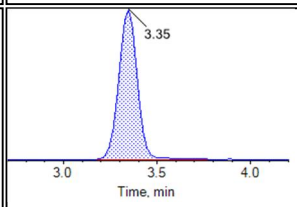
13C4-PFHpA



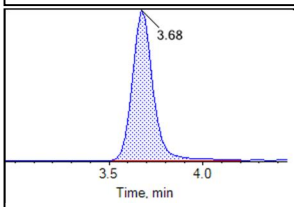
13C8-PFOA



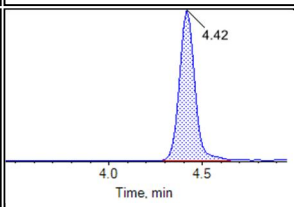
13C9-PFNA



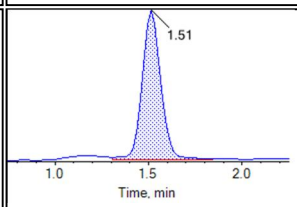
13C6-PFDA



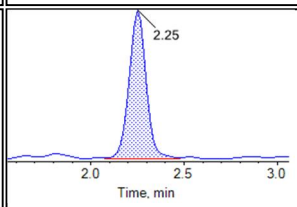
13C7-PFUnA



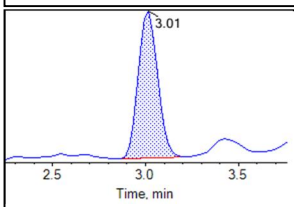
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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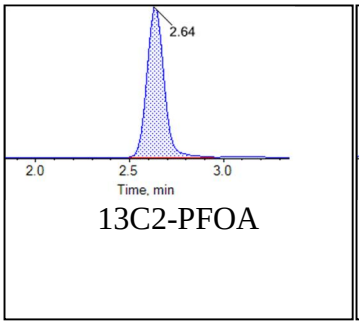
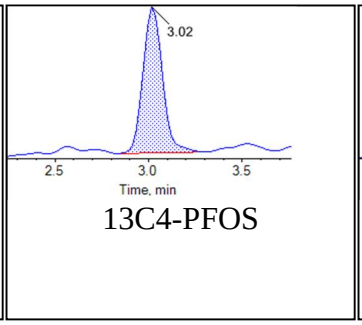
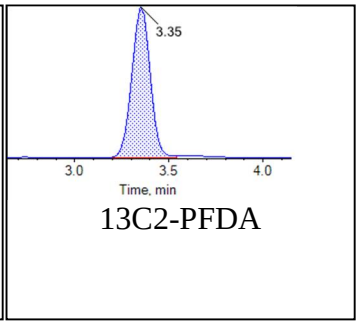
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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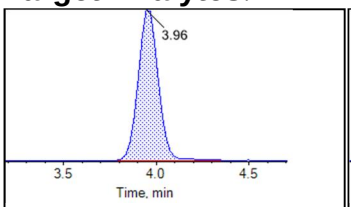
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:29:20 PM

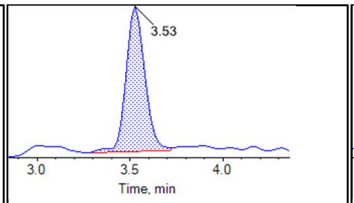
Sample Name	J7780-FS-D(3)	**Injection Vial**	39
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:55:34	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

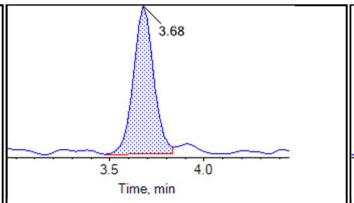
Target Analytes:



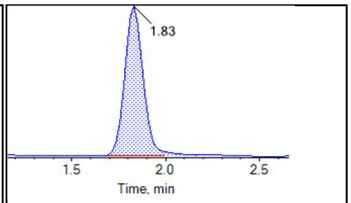
13C2-PFDoA



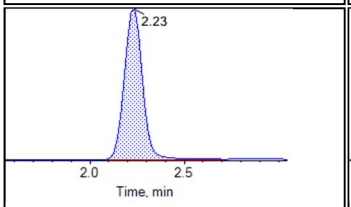
d3-MeFOSAA



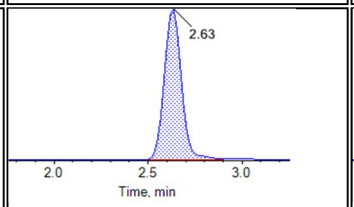
d5-EtFOSAA



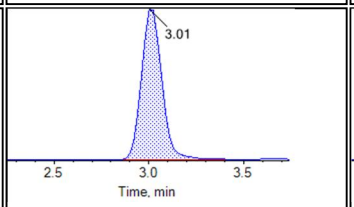
13C5-PFHxA



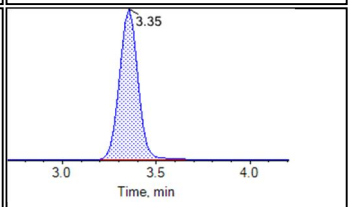
13C4-PFHpA



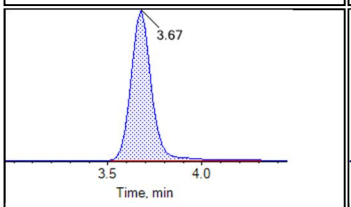
13C8-PFOA



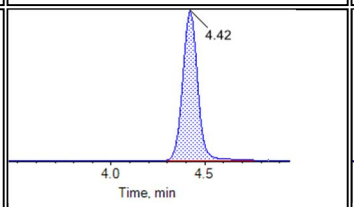
13C9-PFNA



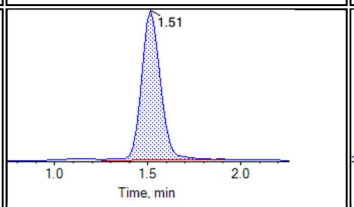
13C6-PFDA



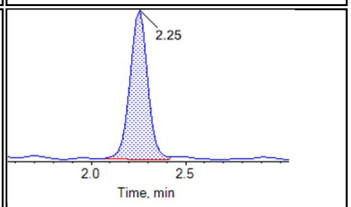
13C7-PFUnA



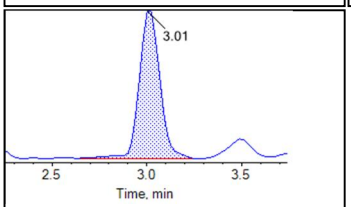
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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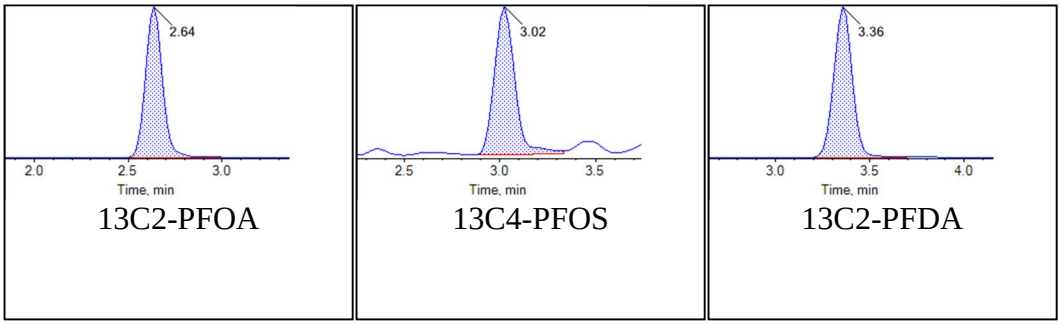
Internal Standards:



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Chromatogram Report

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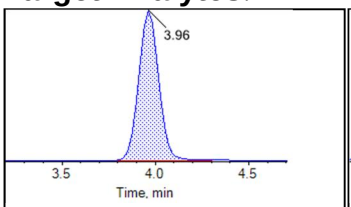
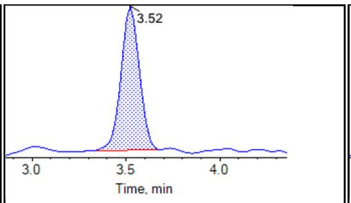
Sample Name	J7780-FS-D(5)	**Injection Vial**	40
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:06:26	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

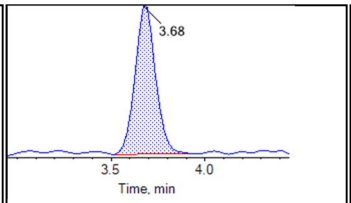
Target Analytes:



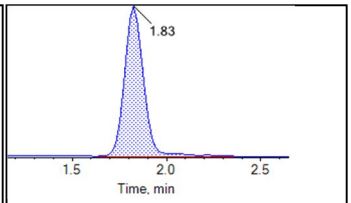
13C2-PFDoA



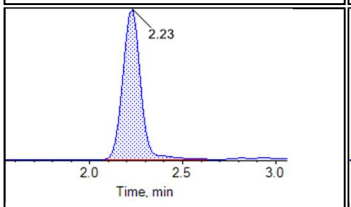
d3-MeFOSAA



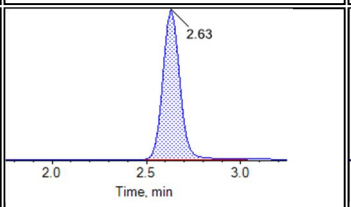
d5-EtFOSAA



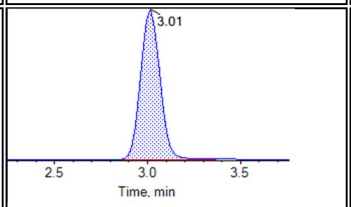
13C5-PFHxA



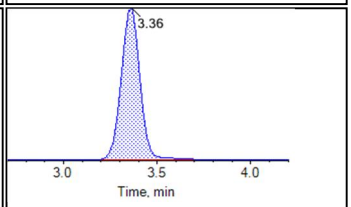
13C4-PFHpA



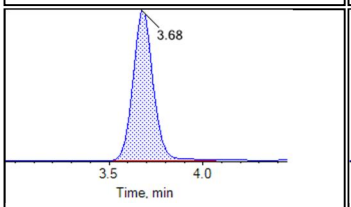
13C8-PFOA



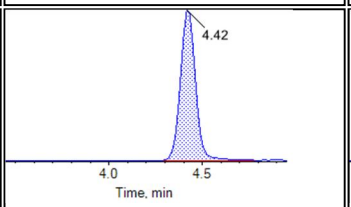
13C9-PFNA



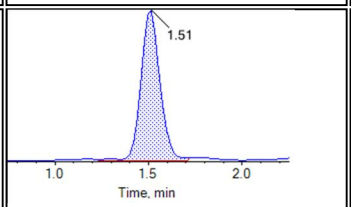
13C6-PFDA



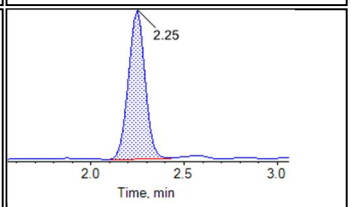
13C7-PFUnA



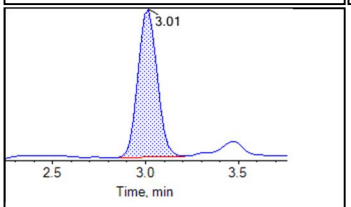
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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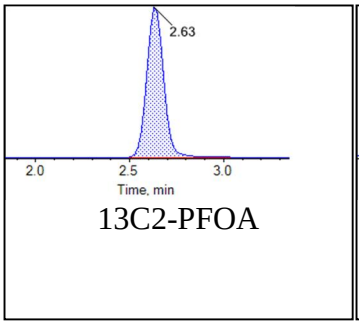
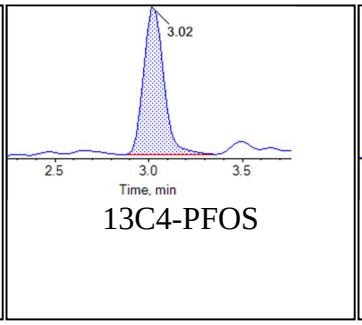
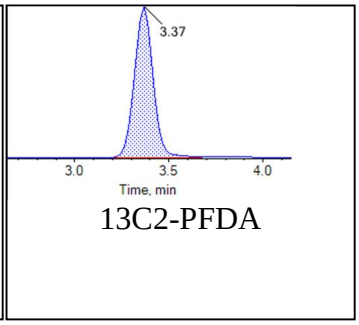


13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

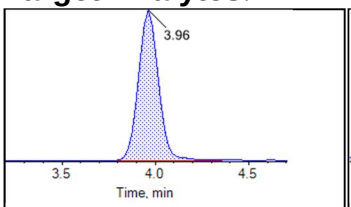
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:29:32 PM

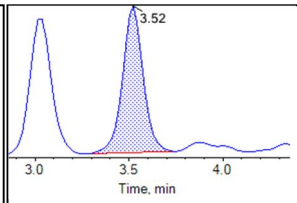
Sample Name	J7777-FS(0)	**Injection Vial**	41
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:17:18	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

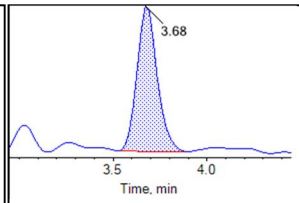
Target Analytes:



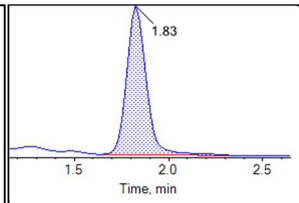
13C2-PFDoA



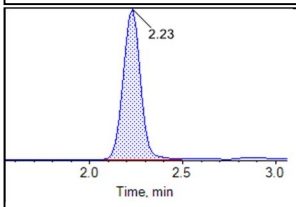
d3-MeFOSAA



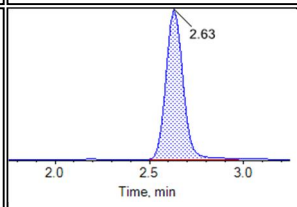
d5-EtFOSAA



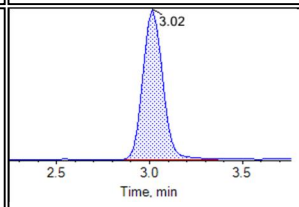
13C5-PFHxA



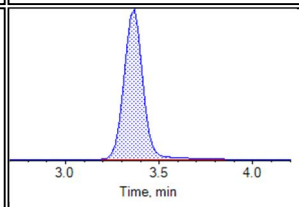
13C4-PFHpA



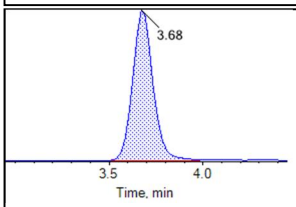
13C8-PFOA



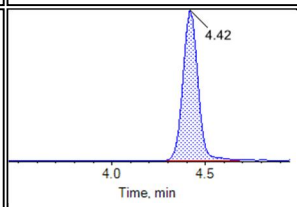
13C9-PFNA



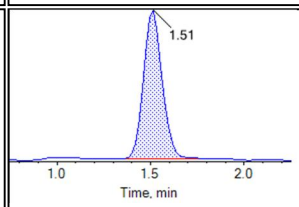
13C6-PFDA



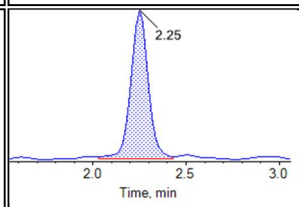
13C7-PFUnA



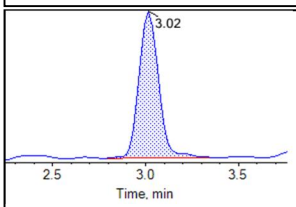
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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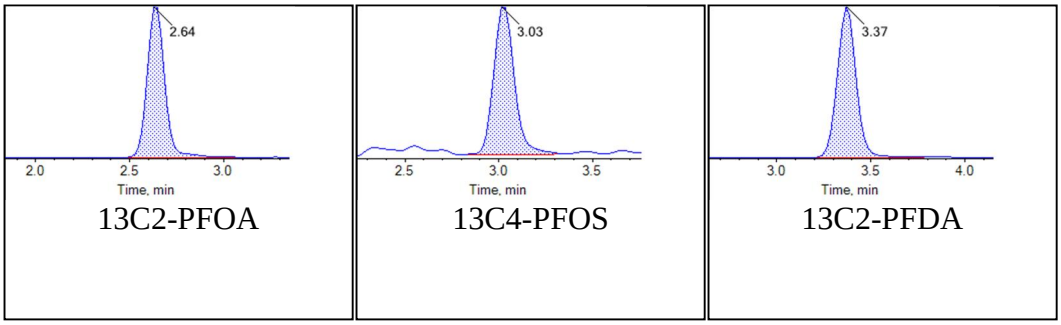
Printed: 18/09/2018 4:29:32 PM

Internal Standards:



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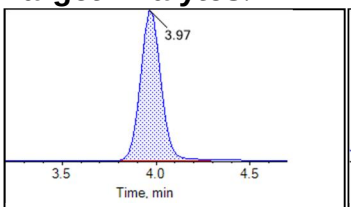
Chromatogram Report

Created with Analyst Reporter
Printed: 18/09/2018 4:29:36 PM

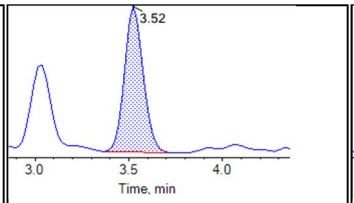
Sample Name	J7777-FS-D(3)	**Injection Vial**	42
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:28:10	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

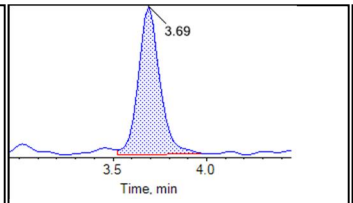
Target Analytes:



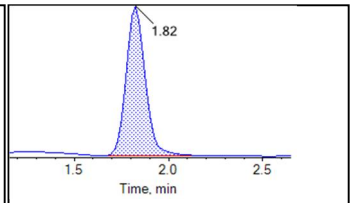
13C2-PFDoA



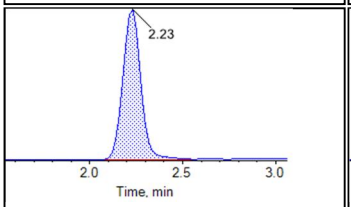
d3-MeFOSAA



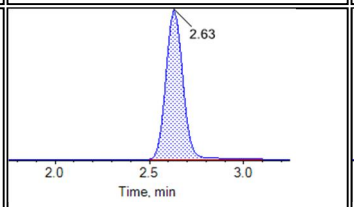
d5-EtFOSAA



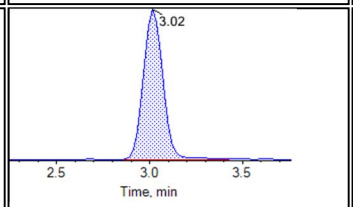
13C5-PFHxA



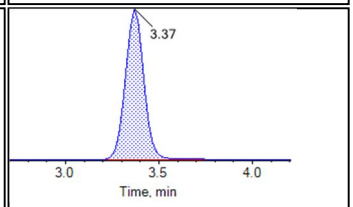
13C4-PFHpA



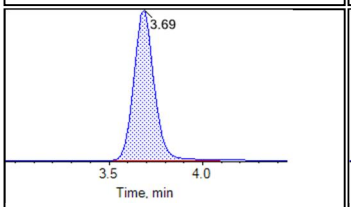
13C8-PFOA



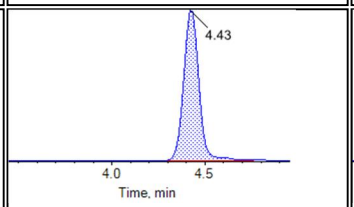
13C9-PFNA



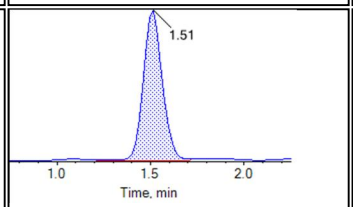
13C6-PFDA



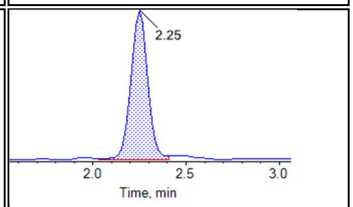
13C7-PFUnA



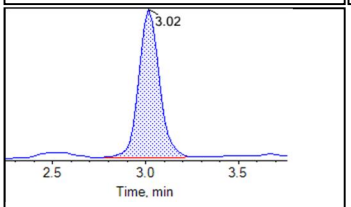
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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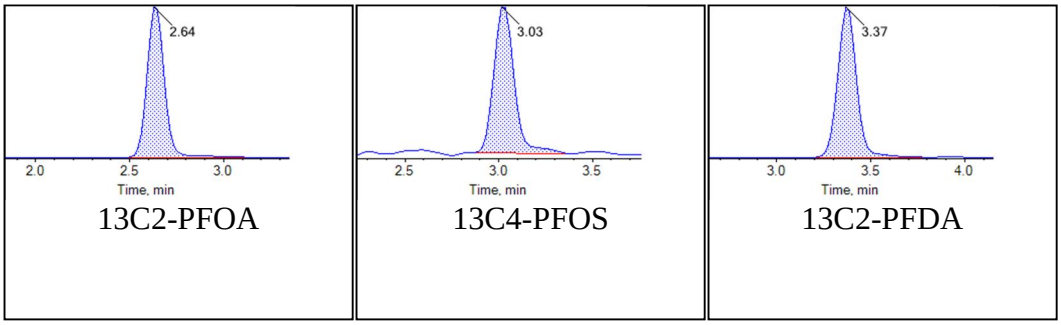
Internal Standards:



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Chromatogram Report

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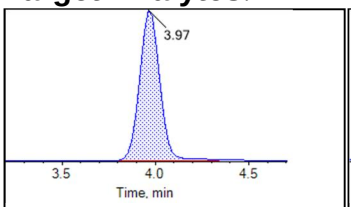
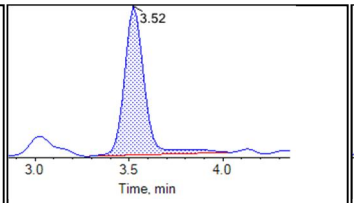
Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

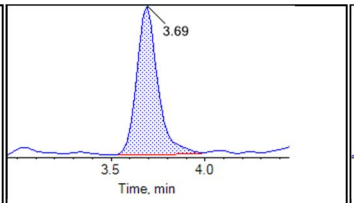
Target Analytes:



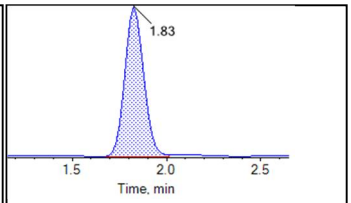
13C2-PFDoA



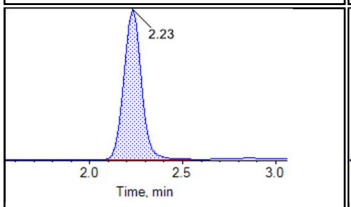
d3-MeFOSAA



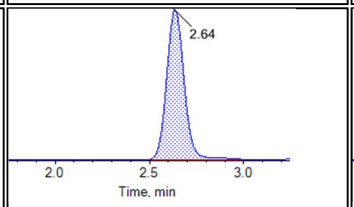
d5-EtFOSAA



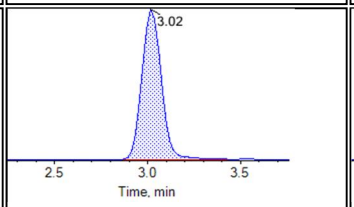
13C5-PFHxA



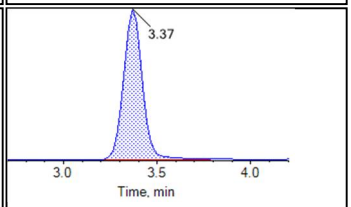
13C4-PFHpA



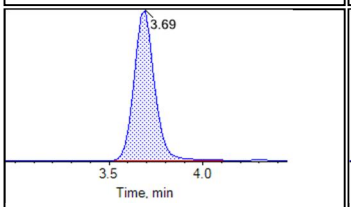
13C8-PFOA



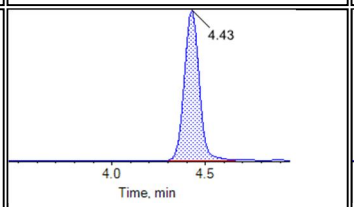
13C9-PFNA



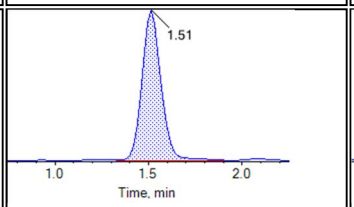
13C6-PFDA



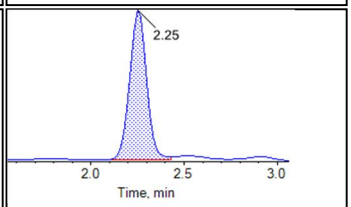
13C7-PFUnA



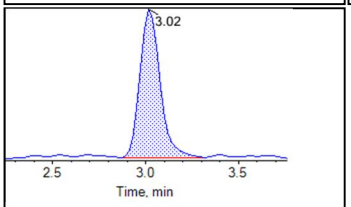
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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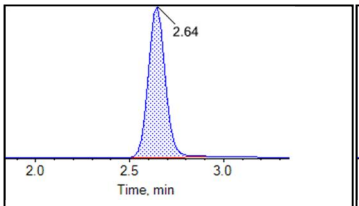
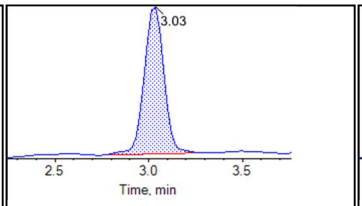
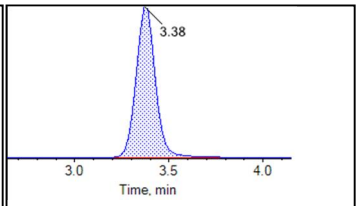
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

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Printed: 18/09/2018 4:29:48 PM

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Chromatograms

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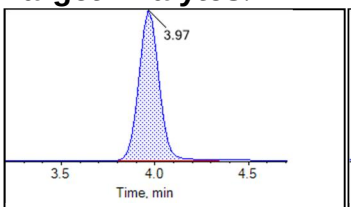
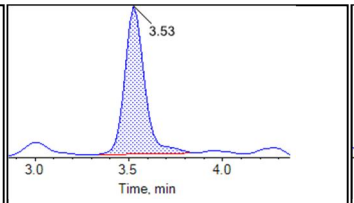
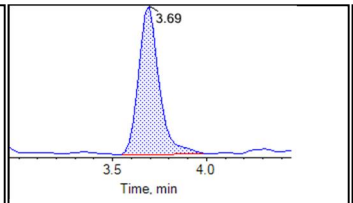


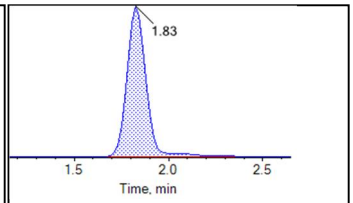
13C2-PFDoA



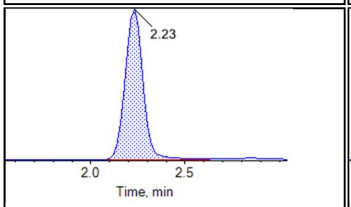
d3-MeFOSAA



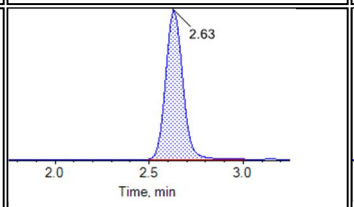
d5-EtFOSAA



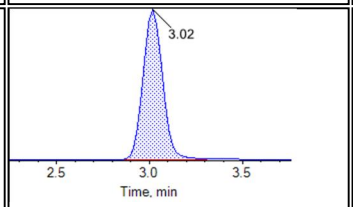
13C5-PFHxA



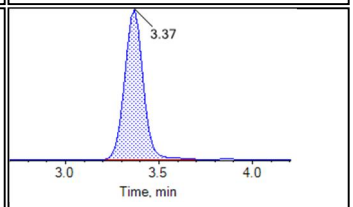
13C4-PFHpA



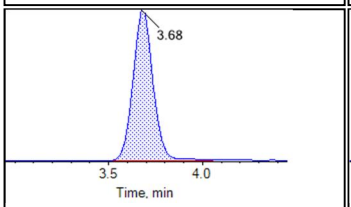
13C8-PFOA



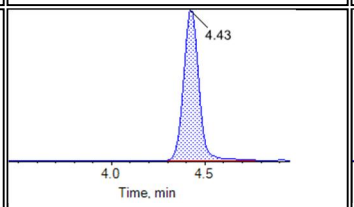
13C9-PFNA



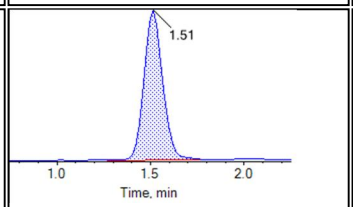
13C6-PFDA



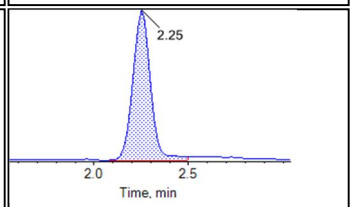
13C7-PFUnA



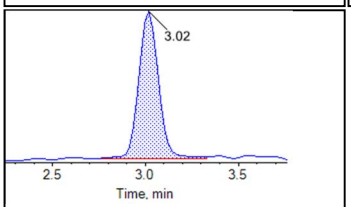
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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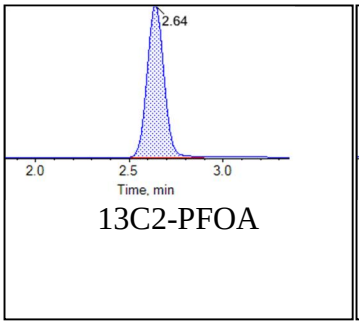
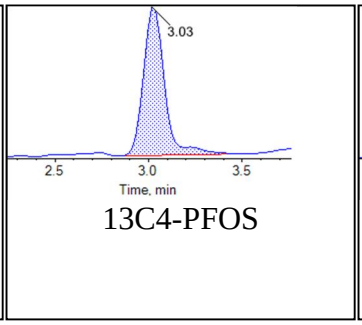
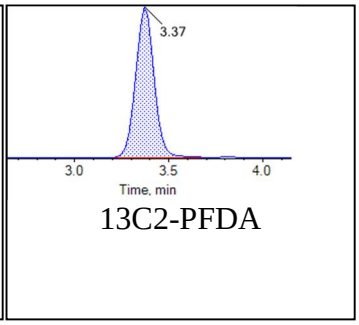
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","335-76-2","PFDA",".500000","ng/L","U",".16","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","2058-94-8","PFUnA","1.000000","ng/L","U",".29","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500","1.00",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","307-55-1","PFDoA",".500000","ng/L","U",".18","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","72629-94-8","PFTrDA",".500000","ng/L","U",".15","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","376-06-7","PFTeDA","1.000000","ng/L","U",".25","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500","1.00",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","2355-31-9","NMeFOSAA","2.000000","ng/L","U",".56","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500","2.00",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","2991-50-6","NEtFOSAA","1.000000","ng/L","U",".49","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500","1.00",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","375-73-5","PFBS",".500000","ng/L","U",".13","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","355-46-4","PFHxS",".400000","ng/L","U",".11","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500",".40",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","1763-23-1","PFOS",".500000","ng/L","U",".19","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2217","13C5-PFHxA","1.040000","ng/L","","-99.00","NA","","SIS","104.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2218","13C4-PFHpA",".960000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2219","13C8-PFOA","1.070000","ng/L","","-99.00","NA","","SIS","107.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2221","13C9-PFNA",".990000","ng/L","","-99.00","NA","","SIS","99.00","","-99.00","NA","YES","1.000000","",".250000",".00050

0",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2222","13C6-PFDA","1.010000","ng/L","","-99.00","NA","","SIS","101.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2223","13C7-PFUnA",".980000","ng/L","","-99.00","NA","","SIS","98.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2112","13C2-PFDoA",".910000","ng/L","","-99.00","NA","","SIS","91.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2224","13C2-PFTeDA",".850000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2125","d3-MeFOSAA",".820000","ng/L","","-99.00","NA","","SIS","82.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2126","d5-EtFOSAA",".910000","ng/L","","-99.00","NA","","SIS","91.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2226","13C3-PFBS",".780000","ng/L","","-99.00","NA","","SIS","84.00","","-99.00","NA","YES",".930000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2227","13C3-PFHxS",".830000","ng/L","","-99.00","NA","","SIS","87.00","","-99.00","NA","YES",".950000","",".250000",".000500",".50",""
"CR817PB-FS","SOP 5-369","Initial","CR817PB-FS","BNO","BDO-2228","13C8-PFOS",".830000","ng/L","","-99.00","NA","","SIS","87.00","","-99.00","NA","YES",".960000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","307-24-4","PFHxA","8.630000","ng/L","",".19","MDL","","T","85.00","","5.00","LOQ","YES","10.100000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","375-85-9","PFHpA","8.240000","ng/L","",".16","MDL","","T","82.00","","5.00","LOQ","YES","10.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","335-67-1","PFOA","10.050000","ng/L","",".18","MDL","","T","101.00","","5.00","LOQ","YES","10.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","375-95-1","PFNA","8.950000","ng/L","",".26","MDL","","T","90.00","","5.00","LOQ","YES","10.000000","",".250000",".000500","1.00",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","335-76-2","PFDA","9.860000","ng/L","",".16","MDL","","T","99.00","","5.00","LOQ","YES","10.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","2058-94-8","PFUnA","10.410000","ng/L","",".29","MDL","","T","104.00","","5.00","LOQ","YES","10.000000","",".250000",".000500","1.00",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","307-55-1","PFDoA","9.920000","ng/L","",".18","MDL","","T","99.00","","5.00","LOQ","YES","10.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","72629-94-8","PFTrDA","9.670000","ng/L","",".15","MDL","","T","97.00","","5.00","LOQ","YES","10.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","376-06-7","PFTeDA","9.960000","ng/L","",".25","MDL","","T","100.00","","5.00","LOQ","YES","10.000000","",".250000",".

000500","1.00",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","2355-31-9","NMeFOSAA","11.620000","ng/L","",".56","MDL","","T","116.00","","5.00","LOQ","YES","10.000000","",".250000",".000500","2.00",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","2991-50-6","NEtFOSAA","9.520000","ng/L","",".49","MDL","","T","95.00","","5.00","LOQ","YES","10.000000","",".250000",".000500","1.00",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","375-73-5","PFBS","9.430000","ng/L","",".13","MDL","","T","93.00","","5.00","LOQ","YES","10.100000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","355-46-4","PFHxS","8.780000","ng/L","",".11","MDL","","T","87.00","","5.00","LOQ","YES","10.100000","",".250000",".000500",".40",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","1763-23-1","PFOS","10.040000","ng/L","",".19","MDL","","T","100.00","","5.00","LOQ","YES","10.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2217","13C5-PFHxA",".950000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2218","13C4-PFHpA",".950000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2219","13C8-PFOA",".960000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2221","13C9-PFNA",".970000","ng/L","","-99.00","NA","","SIS","97.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2222","13C6-PFDA",".920000","ng/L","","-99.00","NA","","SIS","92.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2223","13C7-PFUnA",".850000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2112","13C2-PFDoA",".850000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2224","13C2-PFTeDA",".850000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2125","d3-MeFOSAA",".740000","ng/L","","-99.00","NA","","SIS","74.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2126","d5-EtFOSAA",".860000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES","1.000000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2226","13C3-PFBS",".850000","ng/L","","-99.00","NA","","SIS","92.00","","-99.00","NA","YES",".930000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2227","13C3-PFHxS",".920000","ng/L","","-99.00","NA","","SIS","98.00","","-99.00","NA","YES",".950000","",".250000",".000500",".50",""
"CR818LCS-FS","SOP 5-369","Initial","CR818LCS-FS","BNO","BDO-2228","13C8-PFOS",".840000","ng/L","","-99.00","NA","","SIS","88.00","","-99.00","NA","YES",".960000","",".250000",".000500

",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","307-24-4","PFHxA",".440000","ng/L","U",".17","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".44",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","375-85-9","PFHpA",".440000","ng/L","U",".14","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".44",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","335-67-1","PFOA",".990000","ng/L","J",".16","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".44",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","375-95-1","PFNA",".880000","ng/L","U",".23","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".88",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","335-76-2","PFDA",".440000","ng/L","U",".14","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".44",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","2058-94-8","PFUnA",".880000","ng/L","U",".25","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".88",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","307-55-1","PFDoA",".440000","ng/L","U",".16","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".44",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","72629-94-8","PFTrDA",".440000","ng/L","U",".13","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".44",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","376-06-7","PFTeDA",".880000","ng/L","U",".22","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".88",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","2355-31-9","NMeFOSAA","1.750000","ng/L","U",".49","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500","1.75",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","2991-50-6","NEtFOSAA",".880000","ng/L","U",".43","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".88",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","375-73-5","PFBS",".440000","ng/L","U",".11","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".44",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","355-46-4","PFHxS",".350000","ng/L","U",".10","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".35",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","1763-23-1","PFOS",".440000","ng/L","U",".17","MDL","","T","","","4.39","LOQ","YES","-99.000000","",".285000",".000500",".44",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2217","13C5-PFHxA",".830000","ng/L","","-99.00","NA","","SIS","94.00","","-99.00","NA","YES",".880000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2218","13C4-PFHpA",".790000","ng/L","","-99.00","NA","","SIS","90.00","","-99.00","NA","YES",".880000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2219","13C8-PFOA",".830000","ng/L","","-99.00","NA","","SIS","94.00","","-99.00","NA","YES",".880000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2221","13C9-PFNA",".840000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES",".880000","",".285000",".000500

",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2222","13C6-PFDA",".800000","ng/L","","-99.00","NA","","SIS","91.00","","-99.00","NA","YES",".880000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2223","13C7-PFUnA",".740000","ng/L","","-99.00","NA","","SIS","84.00","","-99.00","NA","YES",".880000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2112","13C2-PFDoA",".720000","ng/L","","-99.00","NA","","SIS","82.00","","-99.00","NA","YES",".880000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2224","13C2-PFTeDA",".700000","ng/L","","-99.00","NA","","SIS","79.00","","-99.00","NA","YES",".880000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2125","d3-MeFOSAA",".920000","ng/L","","-99.00","NA","","SIS","105.00","","-99.00","NA","YES",".880000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2126","d5-EtFOSAA",".720000","ng/L","","-99.00","NA","","SIS","82.00","","-99.00","NA","YES",".880000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2226","13C3-PFBS",".710000","ng/L","","-99.00","NA","","SIS","87.00","","-99.00","NA","YES",".820000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2227","13C3-PFHxS",".800000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES",".830000","",".285000",".000500",".50",""
"JAX-TCC-EB02-09112018","SOP 5-369","Initial","J7774-FS","BNO","BDO-2228","13C8-PFOS",".870000","ng/L","","-99.00","NA","","SIS","104.00","","-99.00","NA","YES",".840000","",".285000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Dilution","J7775-FS","BNO","307-24-4","PFHxA","82.280000","ng/L","D",".35","MDL","","T","","","9.26","LOQ","YES","-99.000000","",".270000",".000500",".93",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Dilution","J7775-FS","BNO","375-85-9","PFHpA","48.440000","ng/L","D",".30","MDL","","T","","","9.26","LOQ","YES","-99.000000","",".270000",".000500",".93",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","335-67-1","PFOA","39.900000","ng/L","",".17","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","375-95-1","PFNA","14.320000","ng/L","",".24","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".93",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","335-76-2","PFDA",".460000","ng/L","U",".15","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","2058-94-8","PFUnA",".930000","ng/L","U",".27","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".93",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","307-55-1","PFDoA",".460000","ng/L","U",".17","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","72629-94-8","PFTrDA",".460000","ng/L","U",".14","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","376-06-7","PFTeDA",".930000","ng/L","U",".23","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".0005

00",".93",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","2355-31-9","NMeFOSAA","1.850000","ng/L","U",".52","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500","1.85",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","2991-50-6","NEtFOSAA",".930000","ng/L","U",".45","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".93",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","375-73-5","PFBS","12.540000","ng/L","",".12","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Dilution","J7775-FS","BNO","355-46-4","PFHxS","66.110000","ng/L","D",".20","MDL","","T","","","9.26","LOQ","YES","-99.000000","",".270000",".000500",".74",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Dilution","J7775-FS","BNO","1763-23-1","PFOS","108.750000","ng/L","D",".88","MDL","","T","","","23.15","LOQ","YES","-99.000000","",".270000",".000500","2.31",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2217","13C5-PFHxA",".810000","ng/L","","-99.00","NA","","SIS","87.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2218","13C4-PFHpA",".910000","ng/L","","-99.00","NA","","SIS","99.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2219","13C8-PFOA",".780000","ng/L","","-99.00","NA","","SIS","84.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2221","13C9-PFNA",".760000","ng/L","","-99.00","NA","","SIS","82.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2222","13C6-PFDA",".680000","ng/L","","-99.00","NA","","SIS","74.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2223","13C7-PFUnA",".640000","ng/L","","-99.00","NA","","SIS","69.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2112","13C2-PFDoA",".660000","ng/L","","-99.00","NA","","SIS","71.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2224","13C2-PFTeDA",".650000","ng/L","","-99.00","NA","","SIS","70.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2125","d3-MeFOSAA",".470000","ng/L","","-99.00","NA","","SIS","50.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2126","d5-EtFOSAA",".520000","ng/L","","-99.00","NA","","SIS","56.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2226","13C3-PFBS",".590000","ng/L","","-99.00","NA","","SIS","68.00","","-99.00","NA","YES",".860000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2227","13C3-PFHxS",".830000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES",".880000","",".270000",".000500",".50",""
"JAX-TCC-MWC3-09112018","SOP 5-369","Initial","J7775-FS","BNO","BDO-2228","13C8-PFOS",".760000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".890000","",".270000",".000500

",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Dilution","J7776-FS","BNO","307-24-4","PFHxA","83.890000","ng/L","D",".35","MDL","","T","","","9.09","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","375-85-9","PFHpA","60.190000","ng/L","",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","335-67-1","PFOA","41.310000","ng/L","",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","375-95-1","PFNA","14.750000","ng/L","",".24","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","335-76-2","PFDA",".450000","ng/L","U",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","2058-94-8","PFUnA",".910000","ng/L","U",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","307-55-1","PFDoA",".450000","ng/L","U",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","72629-94-8","PFTrDA",".450000","ng/L","U",".14","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","376-06-7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","2355-31-9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500","1.82",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","2991-50-6","NEtFOSAA",".910000","ng/L","U",".45","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","375-73-5","PFBS","12.660000","ng/L","",".12","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Dilution","J7776-FS","BNO","355-46-4","PFHxS","64.830000","ng/L","D",".20","MDL","","T","","","9.09","LOQ","YES","-99.000000","",".275000",".000500",".73",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Dilution","J7776-FS","BNO","1763-23-1","PFOS","109.030000","ng/L","D",".35","MDL","","T","","","9.09","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2217","13C5-PFHxA",".840000","ng/L","","-99.00","NA","","SIS","93.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2218","13C4-PFHpA",".940000","ng/L","","-99.00","NA","","SIS","103.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2219","13C8-PFOA",".790000","ng/L","","-99.00","NA","","SIS","87.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2221","13C9-PFNA",".810000","ng/L","","-99.00","NA","","SIS","89.00","","-99.00","NA","YES",".910000","",".275000",".000500

",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2222","13C6-PFDA",".680000","ng/L","","-99.00","NA","","SIS","75.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2223","13C7-PFUnA",".690000","ng/L","","-99.00","NA","","SIS","76.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2112","13C2-PFDoA",".720000","ng/L","","-99.00","NA","","SIS","79.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2224","13C2-PFTeDA",".710000","ng/L","","-99.00","NA","","SIS","78.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2125","d3-MeFOSAA",".630000","ng/L","","-99.00","NA","","SIS","69.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2126","d5-EtFOSAA",".700000","ng/L","","-99.00","NA","","SIS","77.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2226","13C3-PFBS",".720000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES",".850000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2227","13C3-PFHxS",".970000","ng/L","","-99.00","NA","","SIS","113.00","","-99.00","NA","YES",".860000","",".275000",".000500",".50",""
"JAX-TCC-MWC3-09112018-FD","SOP 5-369","Initial","J7776-FS","BNO","BDO-2228","13C8-PFOS",".780000","ng/L","","-99.00","NA","","SIS","90.00","","-99.00","NA","YES",".870000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Dilution","J7777-FS","BNO","307-24-4","PFHxA","64.500000","ng/L","D","1.15","MDL","","T","","","30.30","LOQ","YES","-99.000000","",".275000",".000500","3.03",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","375-85-9","PFHpA","33.480000","ng/L","",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Dilution","J7777-FS","BNO","335-67-1","PFOA","71.970000","ng/L","D",".65","MDL","","T","","","18.18","LOQ","YES","-99.000000","",".275000",".000500","1.82",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Dilution","J7777-FS","BNO","375-95-1","PFNA","67.080000","ng/L","D","1.58","MDL","","T","","","30.30","LOQ","YES","-99.000000","",".275000",".000500","6.06",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","335-76-2","PFDA","6.210000","ng/L","",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","2058-94-8","PFUnA","2.010000","ng/L","J",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","307-55-1","PFDoA",".450000","ng/L","U",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","72629-94-8","PFTrDA",".450000","ng/L","U",".14","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","376-06-7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".0005

00",".91",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","2355-31-9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500","1.82",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","2991-50-6","NEtFOSAA",".910000","ng/L","U",".45","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","375-73-5","PFBS","33.810000","ng/L","",".12","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Dilution","J7777-FS","BNO","355-46-4","PFHxS","95.980000","ng/L","D",".67","MDL","","T","","","30.30","LOQ","YES","-99.000000","",".275000",".000500","2.42",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Dilution","J7777-FS","BNO","1763-23-1","PFOS","354.100000","ng/L","D","1.15","MDL","","T","","","30.30","LOQ","YES","-99.000000","",".275000",".000500","3.03",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2217","13C5-PFHxA",".940000","ng/L","","-99.00","NA","","SIS","104.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2218","13C4-PFHpA",".970000","ng/L","","-99.00","NA","","SIS","107.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2219","13C8-PFOA",".750000","ng/L","","-99.00","NA","","SIS","82.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2221","13C9-PFNA",".730000","ng/L","","-99.00","NA","","SIS","80.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2222","13C6-PFDA",".780000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2223","13C7-PFUnA",".780000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2112","13C2-PFDoA",".780000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2224","13C2-PFTeDA",".720000","ng/L","","-99.00","NA","","SIS","79.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2125","d3-MeFOSAA",".800000","ng/L","","-99.00","NA","","SIS","88.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2126","d5-EtFOSAA",".870000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2226","13C3-PFBS",".940000","ng/L","","-99.00","NA","","SIS","111.00","","-99.00","NA","YES",".850000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2227","13C3-PFHxS",".970000","ng/L","","-99.00","NA","","SIS","112.00","","-99.00","NA","YES",".860000","",".275000",".000500",".50",""
"JAX-TCC-MWI2-09112018","SOP 5-369","Initial","J7777-FS","BNO","BDO-2228","13C8-PFOS",".860000","ng/L","","-99.00","NA","","SIS","99.00","","-99.00","NA","YES",".870000","",".275000",".000500

",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","307-24-4","PFHxA","18.910000","ng/L","",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","375-85-9","PFHpA","8.670000","ng/L","",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Dilution","J7778-FS","BNO","335-67-1","PFOA","52.780000","ng/L","D",".33","MDL","","T","","","9.09","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","375-95-1","PFNA","1.720000","ng/L","J",".24","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","335-76-2","PFDA",".450000","ng/L","U",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","2058-94-8","PFUnA",".910000","ng/L","U",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","307-55-1","PFDoA",".450000","ng/L","U",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","72629-94-8","PFTrDA",".450000","ng/L","U",".14","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","376-06-7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","2355-31-9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500","1.82",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","2991-50-6","NEtFOSAA",".910000","ng/L","U",".45","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","375-73-5","PFBS","13.120000","ng/L","",".12","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Dilution","J7778-FS","BNO","355-46-4","PFHxS","86.760000","ng/L","D",".20","MDL","","T","","","9.09","LOQ","YES","-99.000000","",".275000",".000500",".73",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","1763-23-1","PFOS","27.980000","ng/L","",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2217","13C5-PFHxA",".910000","ng/L","","-99.00","NA","","SIS","100.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2218","13C4-PFHpA","1.030000","ng/L","","-99.00","NA","","SIS","113.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2219","13C8-PFOA",".910000","ng/L","","-99.00","NA","","SIS","100.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2221","13C9-PFNA",".920000","ng/L","","-99.00","NA","","SIS","102.00","","-99.00","NA","YES",".910000","",".275000",".00050

0","".50","""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2222","13C6-PFDA",".860000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2223","13C7-PFUnA",".830000","ng/L","","-99.00","NA","","SIS","91.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2112","13C2-PFDoA",".790000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2224","13C2-PFTeDA",".620000","ng/L","","-99.00","NA","","SIS","68.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2125","d3-MeFOSAA",".660000","ng/L","","-99.00","NA","","SIS","72.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2126","d5-EtFOSAA",".650000","ng/L","","-99.00","NA","","SIS","71.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2226","13C3-PFBS",".550000","ng/L","","-99.00","NA","","SIS","65.00","","-99.00","NA","YES",".850000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2227","13C3-PFHxS",".770000","ng/L","","-99.00","NA","","SIS","90.00","","-99.00","NA","YES",".860000","",".275000",".000500",".50",""
"JAX-TCC-MWB1-09112018","SOP 5-369","Initial","J7778-FS","BNO","BDO-2228","13C8-PFOS",".750000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".870000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","307-24-4","PFHxA","36.380000","ng/L","",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","375-85-9","PFHpA","14.230000","ng/L","",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","335-67-1","PFOA","42.000000","ng/L","",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","375-95-1","PFNA","6.950000","ng/L","",".24","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","335-76-2","PFDA","1.880000","ng/L","J",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","2058-94-8","PFUnA",".890000","ng/L","J",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","307-55-1","PFDoA",".450000","ng/L","U",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","72629-94-8","PFTrDA",".450000","ng/L","U",".14","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","376-06-7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".0005

00",".91",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","2355-31-9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500","1.82",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","2991-50-6","NEtFOSAA",".910000","ng/L","U",".45","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","375-73-5","PFBS","16.540000","ng/L","",".12","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","355-46-4","PFHxS","38.730000","ng/L","",".10","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".36",""
"JAX-TCC-SW01-09112018","SOP 5-369","Dilution","J7779-FS","BNO","1763-23-1","PFOS","133.690000","ng/L","D",".86","MDL","","T","","","22.73","LOQ","YES","-99.000000","",".275000",".000500","2.27",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2217","13C5-PFHxA",".900000","ng/L","","-99.00","NA","","SIS","99.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2218","13C4-PFHpA",".960000","ng/L","","-99.00","NA","","SIS","106.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2219","13C8-PFOA",".870000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2221","13C9-PFNA",".820000","ng/L","","-99.00","NA","","SIS","90.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2222","13C6-PFDA",".770000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2223","13C7-PFUnA",".760000","ng/L","","-99.00","NA","","SIS","84.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2112","13C2-PFDoA",".730000","ng/L","","-99.00","NA","","SIS","81.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2224","13C2-PFTeDA",".660000","ng/L","","-99.00","NA","","SIS","72.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2125","d3-MeFOSAA",".690000","ng/L","","-99.00","NA","","SIS","76.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2126","d5-EtFOSAA",".780000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2226","13C3-PFBS",".850000","ng/L","","-99.00","NA","","SIS","100.00","","-99.00","NA","YES",".850000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2227","13C3-PFHxS","1.080000","ng/L","","-99.00","NA","","SIS","126.00","","-99.00","NA","YES",".860000","",".275000",".000500",".50",""
"JAX-TCC-SW01-09112018","SOP 5-369","Initial","J7779-FS","BNO","BDO-2228","13C8-PFOS",".900000","ng/L","","-99.00","NA","","SIS","104.00","","-99.00","NA","YES",".870000","",".275000",".00050

0",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Dilution","J7780-FS","BNO","307-24-4","PFHxA","82.320000","ng/L","D",".35","MDL","","T","","","9.09","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","375-85-9","PFHpA","25.420000","ng/L","",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","335-67-1","PFOA","42.500000","ng/L","",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","375-95-1","PFNA","8.660000","ng/L","",".24","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","335-76-2","PFDA","1.910000","ng/L","J",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","2058-94-8","PFUnA","1.510000","ng/L","J",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","307-55-1","PFDoA",".450000","ng/L","U",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","72629-94-8","PFTrDA",".450000","ng/L","U",".14","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","376-06-7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","2355-31-9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500","1.82",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","2991-50-6","NEtFOSAA",".910000","ng/L","U",".45","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","375-73-5","PFBS","12.910000","ng/L","",".12","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","355-46-4","PFHxS","38.110000","ng/L","",".10","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".36",""
"JAX-TCC-SW02-09112018","SOP 5-369","Dilution","J7780-FS","BNO","1763-23-1","PFOS","103.580000","ng/L","D",".35","MDL","","T","","","9.09","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2217","13C5-PFHxA",".860000","ng/L","","-99.00","NA","","SIS","94.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2218","13C4-PFHpA",".890000","ng/L","","-99.00","NA","","SIS","98.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2219","13C8-PFOA",".830000","ng/L","","-99.00","NA","","SIS","91.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2221","13C9-PFNA",".870000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES",".910000","",".275000",".000500

",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2222","13C6-PFDA",".780000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2223","13C7-PFUnA",".700000","ng/L","","-99.00","NA","","SIS","77.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2112","13C2-PFDoA",".830000","ng/L","","-99.00","NA","","SIS","91.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2224","13C2-PFTeDA",".480000","ng/L","","-99.00","NA","","SIS","53.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2125","d3-MeFOSAA",".640000","ng/L","","-99.00","NA","","SIS","70.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2126","d5-EtFOSAA",".970000","ng/L","","-99.00","NA","","SIS","106.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2226","13C3-PFBS",".820000","ng/L","","-99.00","NA","","SIS","97.00","","-99.00","NA","YES",".850000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2227","13C3-PFHxS",".890000","ng/L","","-99.00","NA","","SIS","103.00","","-99.00","NA","YES",".860000","",".275000",".000500",".50",""
"JAX-TCC-SW02-09112018","SOP 5-369","Initial","J7780-FS","BNO","BDO-2228","13C8-PFOS",".670000","ng/L","","-99.00","NA","","SIS","77.00","","-99.00","NA","YES",".870000","",".275000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","307-24-4","PFHxA",".460000","ng/L","U",".18","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","375-85-9","PFHpA",".460000","ng/L","U",".15","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","335-67-1","PFOA",".970000","ng/L","J",".17","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","375-95-1","PFNA",".930000","ng/L","U",".24","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".93",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","335-76-2","PFDA",".460000","ng/L","U",".15","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","2058-94-8","PFUnA",".930000","ng/L","U",".27","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".93",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","307-55-1","PFDoA",".460000","ng/L","U",".17","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","72629-94-8","PFTrDA",".460000","ng/L","U",".14","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","376-06-7","PFTeDA",".930000","ng/L","U",".23","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".0005

00",".93",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","2355-31-9","NMeFOSAA","1.850000","ng/L","U",".52","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500","1.85",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","2991-50-6","NEtFOSAA",".930000","ng/L","U",".45","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".93",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","375-73-5","PFBS",".460000","ng/L","U",".12","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","355-46-4","PFHxS",".370000","ng/L","U",".10","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".37",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","1763-23-1","PFOS",".460000","ng/L","U",".18","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",".46",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2217","13C5-PFHxA",".890000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2218","13C4-PFHpA",".910000","ng/L","","-99.00","NA","","SIS","98.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2219","13C8-PFOA",".940000","ng/L","","-99.00","NA","","SIS","101.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2221","13C9-PFNA",".920000","ng/L","","-99.00","NA","","SIS","99.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2222","13C6-PFDA",".840000","ng/L","","-99.00","NA","","SIS","91.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2223","13C7-PFUnA",".900000","ng/L","","-99.00","NA","","SIS","97.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2112","13C2-PFDoA",".860000","ng/L","","-99.00","NA","","SIS","93.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2224","13C2-PFTeDA",".820000","ng/L","","-99.00","NA","","SIS","88.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2125","d3-MeFOSAA",".590000","ng/L","","-99.00","NA","","SIS","64.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2126","d5-EtFOSAA",".890000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES",".930000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2226","13C3-PFBS",".710000","ng/L","","-99.00","NA","","SIS","83.00","","-99.00","NA","YES",".860000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2227","13C3-PFHxS",".730000","ng/L","","-99.00","NA","","SIS","83.00","","-99.00","NA","YES",".880000","",".270000",".000500",".50",""
"JAX-TCC-EB03-09112018","SOP 5-369","Initial","J7784-FS","BNO","BDO-2228","13C8-PFOS",".880000","ng/L","","-99.00","NA","","SIS","99.00","","-99.00","NA","YES",".890000","",".270000",".000500

",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","307-24-4","PFHxA",".450000","ng/L","U",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","375-85-9","PFHpA",".450000","ng/L","U",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","335-67-1","PFOA","1.170000","ng/L","J",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","375-95-1","PFNA",".910000","ng/L","U",".24","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","335-76-2","PFDA",".450000","ng/L","U",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","2058-94-8","PFUnA",".910000","ng/L","U",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","307-55-1","PFDoA",".450000","ng/L","U",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","72629-94-8","PFTrDA",".450000","ng/L","U",".14","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","376-06-7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","2355-31-9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500","1.82",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","2991-50-6","NEtFOSAA",".910000","ng/L","U",".45","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".91",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","375-73-5","PFBS",".450000","ng/L","U",".12","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","355-46-4","PFHxS",".360000","ng/L","U",".10","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".36",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","1763-23-1","PFOS",".450000","ng/L","U",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",".45",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2217","13C5-PFHxA",".840000","ng/L","","-99.00","NA","","SIS","92.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2218","13C4-PFHpA",".880000","ng/L","","-99.00","NA","","SIS","97.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2219","13C8-PFOA",".840000","ng/L","","-99.00","NA","","SIS","93.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2221","13C9-PFNA",".840000","ng/L","","-99.00","NA","","SIS","92.00","","-99.00","NA","YES",".910000","",".275000",".000500

",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2222","13C6-PFDA",".940000","ng/L","","-99.00","NA","","SIS","103.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2223","13C7-PFUnA",".900000","ng/L","","-99.00","NA","","SIS","99.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2112","13C2-PFDoA",".880000","ng/L","","-99.00","NA","","SIS","97.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2224","13C2-PFTeDA",".860000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2125","d3-MeFOSAA",".790000","ng/L","","-99.00","NA","","SIS","87.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2126","d5-EtFOSAA",".820000","ng/L","","-99.00","NA","","SIS","90.00","","-99.00","NA","YES",".910000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2226","13C3-PFBS",".760000","ng/L","","-99.00","NA","","SIS","89.00","","-99.00","NA","YES",".850000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2227","13C3-PFHxS",".630000","ng/L","","-99.00","NA","","SIS","73.00","","-99.00","NA","YES",".860000","",".275000",".000500",".50",""
"JAX-TCC-FRB-09112018","SOP 5-369","Initial","J7785-FS","BNO","BDO-2228","13C8-PFOS",".800000","ng/L","","-99.00","NA","","SIS","92.00","","-99.00","NA","YES",".870000","",".275000",".000500",".50",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","CR817PB-FS","","WATER","CR817PB-FS","MB","","-99.000000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/17/2018 21:56","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/14/2018 10:37","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","CR818LCS-FS","","WATER","CR818LCS-FS","LCS","","-99.000000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/17/2018 22:07","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/14/2018 10:37","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-EB02-09112018","09/11/2018 12:55","QC","J7774-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/17/2018 22:29","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-MWC3-09112018","09/11/2018 13:40","GW","J7775-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Dilution","09/14/2018 10:37","09/17/2018 23:45","BNO","COA","NA","T","2.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-MWC3-09112018","09/11/2018 13:40","GW","J7775-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Dilution","09/14/2018 10:37","09/17/2018 23:56","BNO","COA","NA","T","5.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
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10:37","09/18/2018 00:17","BNO","COA","NA","T","2.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-MWC3-09112018-FD","09/11/2018 13:40","GW","J7776-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/18/2018 00:06","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-MWI2-09112018","09/11/2018 14:00","GW","J7777-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Dilution","09/14/2018 10:37","09/18/2018 02:28","BNO","COA","NA","T","4.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-MWI2-09112018","09/11/2018 14:00","GW","J7777-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Dilution","09/14/2018 10:37","09/18/2018 02:39","BNO","COA","NA","T","6.667","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-MWI2-09112018","09/11/2018 14:00","GW","J7777-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/18/2018 02:17","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-MWB1-09112018","09/11/2018 14:55","GW","J7778-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Dilution","09/14/2018 10:37","09/17/2018 23:23","BNO","COA","NA","T","2.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-MWB1-09112018","09/11/2018 14:55","GW","J7778-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/17/2018 23:12","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-SW01-09112018","09/11/2018 14:05","SW","J7779-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Dilution","09/14/2018 10:37","09/18/2018 01:22","BNO","COA","NA","T","5.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-SW01-09112018","09/11/2018 14:05","SW","J7779-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/18/2018 01:12","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-SW02-09112018","09/11/2018 14:35","SW","J7780-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Dilution","09/14/2018 10:37","09/18/2018 01:55","BNO","COA","NA","T","2.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-SW02-09112018","09/11/2018 14:35","SW","J7780-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/18/2018 01:44","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-EB03-09112018","09/11/2018 15:00","QC","J7784-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/17/2018 22:40","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""
"112G08005-SE0375","SE0375 ? NAS Jacksonville","JAX-TCC-FRB-09112018","09/11/2018 14:45","QC","J7785-FS","NM","SHP-180913-01","1.900000","SOP 5-369","Gen Prep","Initial","09/14/2018 10:37","09/17/2018 22:18","BNO","COA","NA","T","1.000","NA","NA","","100.000000","18-0560","18-0560","DP-18-0267","DP-18-0267","18-0560","09/12/2018 17:00","09/20/2018 10:13",""

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. PETERSON** **DATE:** **OCTOBER 5, 2018**

FROM: **MICHELLE L. WOEBER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – POLYFLUOROALKYL SUBSTANCES (PFAS)**
NAVAL AIR STATION (NAS), JACKSONVILLE
JACKSONVILLE, FLORIDA
SAMPLE DELIVERY GROUP (SDG) 18-0560

SAMPLES: 9/Aqueous/PFAS

JAX-TCC-EB02-09112018
JAX-TCC-FRB-09112018
JAX-TCC-MWC3-09112018
JAX-TCC-MWI2-09112018
JAX-TCC-SW02-09112018
JAX-TCC-EB03-09112018
JAX-TCC-MWB1-09112018
JAX-TCC-MWC3-09112018-FD
JAX-TCC-SW01-09112018

Overview

The sample set for NAS Jacksonville, SDG 18-0560 consisted of four (4) groundwater, two (2) surface water, two (2) equipment blanks, and one (1) Field Reagent Blank (FRB). All nine (9) samples were analyzed for polyfluoroalkyl substances (PFAS). One field duplicate sample pair was included in this SDG: JAX-TCC-MWC3-09112018/JAX-TCC-MWC3-09112018-FD.

The samples were collected by Tetra Tech, Inc. on September 11, 2018 and analyzed by Battelle Norwell Operations. All analyses were conducted in accordance with EPA 537 Modified analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

* • Data completeness
* • Hold times/Sample Preservation
* • Mass Calibration
* • LC/MS/MS System Tuning and Performance
* • Mass Spectral Acquisition Rate
* • Instrument Sensitivity Check
* • Ion Transition Check
* • Initial/Continuing Calibrations
• Laboratory Preparation/Method Blank Results
• Field Reagent Blank and Equipment Blank Results
* • Extraction Internal Standard Recoveries
* • Injection Internal Standard Recoveries
* • Laboratory Control Sample Recoveries
* • Matrix Spike/Matrix Spike Sample Duplicate Results
* • Field Duplicate Precision
* • Compound Identification
* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results

are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, and documentation supporting these findings is presented in Appendix C.

PFAS

Detected results reported below the LOQ but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Additional Comments

The following contaminants were detected (concentrations < ½ LOQ) in the instrument/preparation blanks and the FRB at the following maximum concentrations affecting all samples:

Compound	Maximum Concentration (ng/L)	Action Level > or < (LOQ)
Pentadecafluorooctanoic acid (PFOA)	1.17	< LOQ
Perfluorodecanoic acid (PFDA)	0.17	< LOQ
Perfluorobutanesulfonic acid (PFBS)	0.17	< LOQ
Perfluorohexanesulfonic acid (PFHxS)	0.17	< LOQ
Perfluorooctanesulfonic acid (PFOS)	0.28	< LOQ

Detected results for PFDA reported below the LOQ were qualified as nondetected (U). No action was necessary for the remaining analytes because all detections were greater than the LOQ. The equipment blanks and FRB are not qualified for laboratory contamination.

Some samples required further dilution:

Sample	Compound	Dilution
JAX-TCC-MWB1-09112018	Pentadecafluorooctanoic Acid (PFOA)	2X
	Perfluorohexanesulfonic Acid (PFHxS)	2X
JAX-TCC-MWC3-09112018	Perfluorohexanoic Acid (PFHxA)	2X
	Perfluorohexanesulfonic Acid (PFHxS)	2X
	Perfluoroheptanoic Acid (PFHpA)	2X
	Perfluorooctanesulfonic Acid (PFOS)	5X
JAX-TCC-MWC3-09112018-FD	Perfluorohexanesulfonic Acid (PFHxS)	2X
	Perfluorohexanoic Acid (PFHxA)	2X
	Perfluorooctanesulfonic Acid (PFOS)	2X
JAX-TCC-MWI2-09112018	Pentadecafluorooctanoic Acid (PFOA)	4X
	Perfluorohexanesulfonic Acid (PFHxS)	6.66X
	Perfluorohexanoic Acid (PFHxA)	6.66X
	Perfluorononanoic Acid (PFNA)	6.66X
	Perfluorooctanesulfonic Acid (PFOS)	6.66X
JAX-TCC-SW01-09112018	Perfluorooctanesulfonic Acid (PFOS)	5X
JAX-TCC-SW02-09112018	Perfluorohexanoic Acid (PFHxA)	2X
	Perfluorooctanesulfonic Acid (PFOS)	2X

Non-detected results were reported to the Method Detection Limit (MDL) in the database.

Executive Summary

Laboratory Performance Issues: A few contaminants were detected in the laboratory instrument/preparation blanks below the LOQ.

Other Factors Affecting Data Quality: A contaminant was detected in the equipment blanks and the FRB. Results below the LOQ were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017), EPA Method 537 Modified, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (2017). The text of this report has been formulated to address only those areas affecting data quality.

for Tetra Tech, Inc.
Michelle L. Woeber
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A - Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
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.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08005-SE03	NSAMPLE	JAX-TCC-EB02-09112018			JAX-TCC-EB03-09112018			JAX-TCC-FRB-09112018			JAX-TCC-MWB1-09112018		
SDG: 18-0560	LAB_ID	J7774-FS			J7784-FS			J7785-FS			J7778-FS		
FRACTION: PFAS	SAMP_DATE	9/11/2018			9/11/2018			9/11/2018			9/11/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NEFOSA)		0.43	U		0.45	U		0.45	U		0.45	U	
N-METHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NMFOSA)		0.49	U		0.52	U		0.51	U		0.51	U	
PENTADECAFLUOROOCTANOIC ACID (PFOA)		0.99	J	P	0.97	J	P	1.17	J	P	52.78		
PERFLUOROBUTANESULFONIC ACID (PFBS)		0.11	U		0.12	U		0.12	U		13.12		
PERFLUORODECANOIC ACID (PFDA)		0.14	U		0.15	U		0.15	U		0.15	U	
PERFLUORODODECANOIC ACID (PFDOA)		0.16	U		0.17	U		0.16	U		0.16	U	
PERFLUOROHEPTANOIC ACID (PFHPA)		0.14	U		0.15	U		0.15	U		8.67		
PERFLUOROHEXANESULFONIC ACID (PFHXS)		0.1	U		0.1	U		0.1	U		86.76		
PERFLUOROHEXANOIC ACID (PFHXA)		0.17	U		0.18	U		0.17	U		18.91		
PERFLUORONONANOIC ACID (PFNA)		0.23	U		0.24	U		0.24	U		1.72	J	P
PERFLUOROOCTANESULFONIC ACID (PFOS)		0.17	U		0.18	U		0.17	U		27.98		
PERFLUOROTETRADECANOIC ACID (PFTEA)		0.22	U		0.23	U		0.23	U		0.23	U	
PERFLUOROTRIDECANOIC ACID (PFTRIA)		0.13	U		0.14	U		0.14	U		0.14	U	
PERFLUOROUNDECANOIC ACID (PFUNA)		0.25	U		0.27	U		0.26	U		0.26	U	

PROJ_NO: 08005-SE03	NSAMPLE	JAX-TCC-MWC3-09112018			JAX-TCC-MWC3-09112018-DL			JAX-TCC-MWC3-09112018-DLRE			JAX-TCC-MWC3-09112018-FD		
SDG: 18-0560	LAB_ID	J7775-FS			J7775-FS			J7775-FS			J7776-FS		
FRACTION: PFAS	SAMP_DATE	9/11/2018			9/11/2018			9/11/2018			9/11/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF										JAX-TCC-MWC3-09112018		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NEFOSA)		0.45	U								0.45	U	
N-METHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NMFOSA)		0.52	U								0.51	U	
PENTADECAFLUOROOCTANOIC ACID (PFOA)		39.9									41.31		
PERFLUOROBUTANESULFONIC ACID (PFBS)		12.54									12.66		
PERFLUORODECANOIC ACID (PFDA)		0.15	U								0.15	U	
PERFLUORODODECANOIC ACID (PFDOA)		0.17	U								0.16	U	
PERFLUOROHEPTANOIC ACID (PFHPA)					48.44						60.19		
PERFLUOROHEXANESULFONIC ACID (PFHXS)					66.11						64.83		
PERFLUOROHEXANOIC ACID (PFHXA)					82.28						83.89		
PERFLUORONONANOIC ACID (PFNA)		14.32									14.75		
PERFLUOROOCTANESULFONIC ACID (PFOS)								108.75			109.03		
PERFLUOROTETRADECANOIC ACID (PFTEA)		0.23	U								0.23	U	
PERFLUOROTRIDECANOIC ACID (PFTRIA)		0.14	U								0.14	U	
PERFLUOROUNDECANOIC ACID (PFUNA)		0.27	U								0.26	U	

PROJ_NO: 08005-SE03	NSAMPLE	JAX-TCC-MWI2-09112018			JAX-TCC-MWI2-09112018-DL			JAX-TCC-MWI2-09112018-DLRE			JAX-TCC-SW01-09112018		
SDG: 18-0560	LAB_ID	J7777-FS			J7777-FS			J7777-FS			J7779-FS		
FRACTION: PFAS	SAMP_DATE	9/11/2018			9/11/2018			9/11/2018			9/11/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NEFOSA)		0.45	U								0.45	U	
N-METHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NMFOSA)		0.51	U								0.51	U	
PENTADECAFLUOROOCTANOIC ACID (PFOA)					71.97						42		
PERFLUOROBUTANESULFONIC ACID (PFBS)		33.81									16.54		
PERFLUORODECANOIC ACID (PFDA)		6.21									1.88	U	A
PERFLUORODODECANOIC ACID (PFDOA)		0.16	U								0.16	U	
PERFLUOROHEPTANOIC ACID (PFHPA)		33.48									14.23		
PERFLUOROHEXANESULFONIC ACID (PFHXS)								95.98			38.73		
PERFLUOROHEXANOIC ACID (PFHXA)								64.5			36.38		
PERFLUORONONANOIC ACID (PFNA)								67.08			6.95		
PERFLUOROOCTANESULFONIC ACID (PFOS)								354.1			133.69		
PERFLUOROTETRADECANOIC ACID (PFTEA)		0.23	U								0.23	U	
PERFLUOROTRIDECANOIC ACID (PFTRIA)		0.14	U								0.14	U	
PERFLUOROUNDECANOIC ACID (PFUNA)		2.01	J	P							0.89	J	P

PROJ_NO: 08005-SE03	NSAMPLE	JAX-TCC-SW02-09112018		
SDG: 18-0560	LAB_ID	J7780-FS		
FRACTION: PFAS	SAMP_DATE	9/11/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	NG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
N-ETHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NEFOSA)		0.45	U	
N-METHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NMFOSA)		0.51	U	
PENTADECAFLUOROOCTANOIC ACID (PFOA)		42.5		
PERFLUOROBUTANESULFONIC ACID (PFBS)		12.91		
PERFLUORODECANOIC ACID (PFDA)		1.91	U	A
PERFLUORODODECANOIC ACID (PFDOA)		0.16	U	
PERFLUOROHEPTANOIC ACID (PFHPA)		25.42		
PERFLUOROHEXANESULFONIC ACID (PFHXS)		38.11		
PERFLUOROHEXANOIC ACID (PFHXA)		82.32		
PERFLUORONONANOIC ACID (PFNA)		8.66		
PERFLUOROOCTANESULFONIC ACID (PFOS)		103.58		
PERFLUOROTETRADECANOIC ACID (PFTEA)		0.23	U	
PERFLUOROTRIDECANOIC ACID (PFTRIA)		0.14	U	
PERFLUOROUNDECANOIC ACID (PFUNA)		1.51	J	P

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-EB02-09112018			
Battelle ID		J7774-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		QC			
Sample Size		0.285			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.44 U	0.17	0.44	4.39
PFHpA	375-85-9	0.44 U	0.14	0.44	4.39
PFOA	335-67-1	0.99 J	0.16	0.44	4.39
PFNA	375-95-1	0.88 U	0.23	0.88	4.39
PFDA	335-76-2	0.44 U	0.14	0.44	4.39
PFUnA	2058-94-8	0.88 U	0.25	0.88	4.39
PFDoA	307-55-1	0.44 U	0.16	0.44	4.39
PFTrDA	72629-94-8	0.44 U	0.13	0.44	4.39
PFTeDA	376-06-7	0.88 U	0.22	0.88	4.39
NMeFOSAA	2355-31-9	1.75 U	0.49	1.75	4.39
NEtFOSAA	2991-50-6	0.88 U	0.43	0.88	4.39
PFBS	375-73-5	0.44 U	0.11	0.44	4.39
PFHxS	355-46-4	0.35 U	0.10	0.35	4.39
PFOS	1763-23-1	0.44 U	0.17	0.44	4.39

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	90
13C8-PFOA	94
13C9-PFNA	95
13C6-PFDA	91
13C7-PFUnA	84
13C2-PFDoA	82
13C2-PFTeDA	79
d3-MeFOSAA	105
d5-EtFOSAA	82
13C3-PFBS	87
13C3-PFHxS	96
13C8-PFOS	104

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-MWC3-09112018				
Battelle ID		J7775-FS				
Sample Type		SA				
Collection Date		09/11/2018				
Extraction Date		09/14/2018				
Analysis Date		09/17/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.270				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	82.28	D	0.35	0.93	9.26
PFHpA	375-85-9	48.44	D	0.30	0.93	9.26
PFOA	335-67-1	39.90		0.17	0.46	4.63
PFNA	375-95-1	14.32		0.24	0.93	4.63
PFDA	335-76-2	0.46	U	0.15	0.46	4.63
PFUnA	2058-94-8	0.93	U	0.27	0.93	4.63
PFDoA	307-55-1	0.46	U	0.17	0.46	4.63
PFTrDA	72629-94-8	0.46	U	0.14	0.46	4.63
PFTeDA	376-06-7	0.93	U	0.23	0.93	4.63
NMeFOSAA	2355-31-9	1.85	U	0.52	1.85	4.63
NEtFOSAA	2991-50-6	0.93	U	0.45	0.93	4.63
PFBS	375-73-5	12.54		0.12	0.46	4.63
PFHxS	355-46-4	66.11	D	0.20	0.74	9.26
PFOS	1763-23-1	108.75	D	0.88	2.31	23.15

Surrogate Recoveries (%)

13C5-PFHxA	87
13C4-PFHpA	99
13C8-PFOA	84
13C9-PFNA	82
13C6-PFDA	74
13C7-PFUnA	69
13C2-PFDoA	71
13C2-PFTeDA	70
d3-MeFOSAA	50
d5-EtFOSAA	56
13C3-PFBS	68
13C3-PFHxS	95
13C8-PFOS	86

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-MWC3-09112018-FD				
Battelle ID		J7776-FS				
Sample Type		SA				
Collection Date		09/11/2018				
Extraction Date		09/14/2018				
Analysis Date		09/18/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	83.89	D	0.35	0.91	9.09
PFHpA	375-85-9	60.19		0.15	0.45	4.55
PFOA	335-67-1	41.31		0.16	0.45	4.55
PFNA	375-95-1	14.75		0.24	0.91	4.55
PFDA	335-76-2	0.45	U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91	U	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91	U	0.45	0.91	4.55
PFBS	375-73-5	12.66		0.12	0.45	4.55
PFHxS	355-46-4	64.83	D	0.20	0.73	9.09
PFOS	1763-23-1	109.03	D	0.35	0.91	9.09

Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	103
13C8-PFOA	87
13C9-PFNA	89
13C6-PFDA	75
13C7-PFUnA	76
13C2-PFDoA	79
13C2-PFTeDA	78
d3-MeFOSAA	69
d5-EtFOSAA	77
13C3-PFBS	85
13C3-PFHxS	113
13C8-PFOS	90

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-MWI2-09112018			
Battelle ID		J7777-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/18/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	64.50 D	1.15	3.03	30.30
PFHpA	375-85-9	33.48	0.15	0.45	4.55
PFOA	335-67-1	71.97 D	0.65	1.82	18.18
PFNA	375-95-1	67.08 D	1.58	6.06	30.30
PFDA	335-76-2	6.21	0.15	0.45	4.55
PFUnA	2058-94-8	2.01 J	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91 U	0.45	0.91	4.55
PFBS	375-73-5	33.81	0.12	0.45	4.55
PFHxS	355-46-4	95.98 D	0.67	2.42	30.30
PFOS	1763-23-1	354.10 D	1.15	3.03	30.30

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	107
13C8-PFOA	82
13C9-PFNA	80
13C6-PFDA	86
13C7-PFUnA	85
13C2-PFDoA	86
13C2-PFTeDA	79
d3-MeFOSAA	88
d5-EtFOSAA	96
13C3-PFBS	111
13C3-PFHxS	112
13C8-PFOS	99

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-MWB1-09112018			
Battelle ID		J7778-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	18.91	0.17	0.45	4.55
PFHpA	375-85-9	8.67	0.15	0.45	4.55
PFOA	335-67-1	52.78 D	0.33	0.91	9.09
PFNA	375-95-1	1.72 J	0.24	0.91	4.55
PFDA	335-76-2	0.45 U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91 U	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91 U	0.45	0.91	4.55
PFBS	375-73-5	13.12	0.12	0.45	4.55
PFHxS	355-46-4	86.76 D	0.20	0.73	9.09
PFOS	1763-23-1	27.98	0.17	0.45	4.55

Surrogate Recoveries (%)

13C5-PFHxA	100
13C4-PFHpA	113
13C8-PFOA	100
13C9-PFNA	102
13C6-PFDA	95
13C7-PFUnA	91
13C2-PFDoA	86
13C2-PFTeDA	68
d3-MeFOSAA	72
d5-EtFOSAA	71
13C3-PFBS	65
13C3-PFHxS	90
13C8-PFOS	86

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-SW01-09112018			
Battelle ID		J7779-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/18/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		SW			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	36.38	0.17	0.45	4.55
PFHpA	375-85-9	14.23	0.15	0.45	4.55
PFOA	335-67-1	42.00	0.16	0.45	4.55
PFNA	375-95-1	6.95	0.24	0.91	4.55
PFDA	335-76-2	1.88 J	0.15	0.45	4.55
PFUnA	2058-94-8	0.89 J	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91 U	0.45	0.91	4.55
PFBS	375-73-5	16.54	0.12	0.45	4.55
PFHxS	355-46-4	38.73	0.10	0.36	4.55
PFOS	1763-23-1	133.69 D	0.86	2.27	22.73

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	106
13C8-PFOA	96
13C9-PFNA	90
13C6-PFDA	85
13C7-PFUnA	84
13C2-PFDoA	81
13C2-PFTeDA	72
d3-MeFOSAA	76
d5-EtFOSAA	86
13C3-PFBS	100
13C3-PFHxS	126
13C8-PFOS	104

BATTELLE
It can be done

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-SW02-09112018				
Battelle ID		J7780-FS				
Sample Type		SA				
Collection Date		09/11/2018				
Extraction Date		09/14/2018				
Analysis Date		09/18/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		SW				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	82.32	D	0.35	0.91	9.09
PFHpA	375-85-9	25.42		0.15	0.45	4.55
PFOA	335-67-1	42.50		0.16	0.45	4.55
PFNA	375-95-1	8.66		0.24	0.91	4.55
PFDA	335-76-2	1.91	J	0.15	0.45	4.55
PFUnA	2058-94-8	1.51	J	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91	U	0.45	0.91	4.55
PFBS	375-73-5	12.91		0.12	0.45	4.55
PFHxS	355-46-4	38.11		0.10	0.36	4.55
PFOS	1763-23-1	103.58	D	0.35	0.91	9.09

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	98
13C8-PFOA	91
13C9-PFNA	95
13C6-PFDA	85
13C7-PFUnA	77
13C2-PFDoA	91
13C2-PFTeDA	53
d3-MeFOSAA	70
d5-EtFOSAA	106
13C3-PFBS	97
13C3-PFHxS	103
13C8-PFOS	77

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-EB03-09112018			
Battelle ID		J7784-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		QC			
Sample Size		0.270			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.46 U	0.18	0.46	4.63
PFHpA	375-85-9	0.46 U	0.15	0.46	4.63
PFOA	335-67-1	0.97 J	0.17	0.46	4.63
PFNA	375-95-1	0.93 U	0.24	0.93	4.63
PFDA	335-76-2	0.46 U	0.15	0.46	4.63
PFUnA	2058-94-8	0.93 U	0.27	0.93	4.63
PFDoA	307-55-1	0.46 U	0.17	0.46	4.63
PFTrDA	72629-94-8	0.46 U	0.14	0.46	4.63
PFTeDA	376-06-7	0.93 U	0.23	0.93	4.63
NMeFOSAA	2355-31-9	1.85 U	0.52	1.85	4.63
NEtFOSAA	2991-50-6	0.93 U	0.45	0.93	4.63
PFBS	375-73-5	0.46 U	0.12	0.46	4.63
PFHxS	355-46-4	0.37 U	0.10	0.37	4.63
PFOS	1763-23-1	0.46 U	0.18	0.46	4.63

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	98
13C8-PFOA	101
13C9-PFNA	99
13C6-PFDA	91
13C7-PFUnA	97
13C2-PFDoA	93
13C2-PFTeDA	88
d3-MeFOSAA	64
d5-EtFOSAA	96
13C3-PFBS	83
13C3-PFHxS	83
13C8-PFOS	99

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JAX-TCC-FRB-09112018			
Battelle ID		J7785-FS			
Sample Type		SA			
Collection Date		09/11/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		QC			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.45 U	0.17	0.45	4.55
PFHpA	375-85-9	0.45 U	0.15	0.45	4.55
PFOA	335-67-1	1.17 J	0.16	0.45	4.55
PFNA	375-95-1	0.91 U	0.24	0.91	4.55
PFDA	335-76-2	0.45 U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91 U	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91 U	0.45	0.91	4.55
PFBS	375-73-5	0.45 U	0.12	0.45	4.55
PFHxS	355-46-4	0.36 U	0.10	0.36	4.55
PFOS	1763-23-1	0.45 U	0.17	0.45	4.55

Surrogate Recoveries (%)

13C5-PFHxA	92
13C4-PFHpA	97
13C8-PFOA	93
13C9-PFNA	92
13C6-PFDA	103
13C7-PFUnA	99
13C2-PFDoA	97
13C2-PFTeDA	95
d3-MeFOSAA	87
d5-EtFOSAA	90
13C3-PFBS	89
13C3-PFHxS	73
13C8-PFOS	92

APPENDIX C

SUPPORT DOCUMENTATION

NAS JACKSONVILLE
SDG 18-0560

PFAS Concentration = *$[(PA - b)/m] * C_{IS} * PIV * DF/S$*

Where:

PA	Area of target analyte/ area of internal standard
b	y Intercept from calibration curve
C_{IS}	Concentration of internal standard (ng/L)
m	Slope of calibration
DF	Dilution factor
S	Sample Size
PIV	Pre-injection volume (L)

Target Analyte	PFOS
Sample ID	JAX-TCC-MWI2-09112018
Laboratory Sample ID	J7777
Sample Size (L)	0.275
Dilution Factor	6.667
PIV (L)	0.001
PFOS Area	7299051.8
IS Area	26097.68
IS Amount (ng/L)	239.25
Calibration Curve	y = 4.59265 x + -0.69673
Concentration (ng/L)	354.10

(((207917.31/20153.38)+0.36483)/4.76291)*239.25*0.001*1/0.270

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:07:42 PM

Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.84	791039.00	2660.315711	108.6	false
PFHxA_2	313.0 / 119.0	1.84	53949.79	2579.551100	87.6	false
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	2.27	1579702.35	3958.814850	327.0	false
PFHxS_2	399.0 / 99.0	2.27	470245.48	4186.735645	773.8	false
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	3.04	853186.36	2767.056973	341.5	false
PFNA_2	463.0 / 219.0	3.03	264370.89	2774.583687	384.1	false
PFOS_1	499.0 / 80.0	3.03	7299051.80	14606.062497	287.0	true
PFOS_2	499.0 / 99.0	3.03	1287119.08	14674.785018	898.0	true
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	N/A	N/A	N/A	N/A	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

BATTELLE

Summary Internal Standard Report

Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	37663.37	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	37663.37	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	68017.84	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	68017.84	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	82504.44	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	82504.44	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	25492.84	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	25492.84	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	82504.44	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	82504.44	250.00
PFNA_1	463.0 / 419.0	3.04	13C9-PFNA	472.0 / 427.0	78191.80	250.00
PFNA_2	463.0 / 219.0	3.03	13C9-PFNA	472.0 / 427.0	78191.80	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	26097.68	239.25
PFOS_2	499.0 / 99.0	3.03	13C8-PFOS	507.0 / 99.0	26097.68	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	76178.50	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	76178.50	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	81193.81	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	81193.81	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	76501.92	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	76501.92	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	57433.04	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	57433.04	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	57433.04	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	57433.04	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	10717.25	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	10717.25	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	10764.84	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	10764.84	250.00

NAS JACKSONVILLE
SDG 18-0560

Surrgoate Concentration = $[(PA)/m] * C_{IS}$

Where:

PA	Area of target analyte/ area of internal standard
C_{IS}	Concentration of internal standard (ng/L)
m	Slope of calibration
Surrogate spike amount	250

Surrogate	13C2-PFDoA
Sample ID	JAX-TCC-EB02-09112018
Laboratory Sample ID	J7774
13C2-PFDoA Area	56258.36
IS Area	66168.81
IS Amount (ng/L)	250
Calibration Curve	y = 1.03997 x
Concentration (ng/L)	204.39

((56258.36/66168.81)/1.03997)*250

Surrgoate Recovery (%)	***Reported Recovery (%)***
((204.39/250)*100)	
81.8	82

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 18/09/2018 4:08:21 PM

Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.96	56258.36	204.387146	816.9	false
d3-MeFOSAA	573.0 / 419.0	3.52	8906.22	261.486465	125.8	false
d5-EtFOSAA	589.0 / 419.0	3.68	7096.76	205.162940	126.2	false
13C5-PFHxA	318.0 / 273.0	1.83	52217.41	235.507735	456.8	false
13C4-PFHpA	367.0 / 322.0	2.23	54620.91	224.266635	333.2	false
13C8-PFOA	421.0 / 376.0	2.63	60898.43	236.163139	846.4	false
13C9-PFNA	472.0 / 427.0	3.02	58820.77	238.102826	626.9	false
13C6-PFDA	519.0 / 474.0	3.36	61821.44	228.226677	530.4	false
13C7-PFUnA	570.0 / 525.0	3.68	57132.40	210.132567	392.4	false
13C2-PFTeDA	715.0 / 670.0	4.42	43356.12	198.126992	751.9	false
13C3-PFBS	302.0 / 99.0	1.52	23511.44	202.568941	274.7	false
13C3-PFHxS	402.0 / 99.0	2.25	19890.93	227.308201	188.5	false
13C8-PFOS	507.0 / 99.0	3.01	22436.39	247.517100	138.8	false

BATTELLE

Summary Internal Standard Report

Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	3.96	13C2-PFDA	515.0 / 470.0	66168.81	250.00
d3-MeFOSAA	573.0 / 419.0	3.52	13C4-PFOS	503.0 / 99.0	21220.95	239.25
d5-EtFOSAA	589.0 / 419.0	3.68	13C4-PFOS	503.0 / 99.0	21220.95	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	60571.43	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	60571.43	250.00
13C8-PFOA	421.0 / 376.0	2.63	13C2-PFOA	415.0 / 370.0	60571.43	250.00
13C9-PFNA	472.0 / 427.0	3.02	13C2-PFOA	415.0 / 370.0	60571.43	250.00
13C6-PFDA	519.0 / 474.0	3.36	13C2-PFDA	515.0 / 470.0	66168.81	250.00
13C7-PFUnA	570.0 / 525.0	3.68	13C2-PFDA	515.0 / 470.0	66168.81	250.00
13C2-PFTeDA	715.0 / 670.0	4.42	13C2-PFDA	515.0 / 470.0	66168.81	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	21220.95	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	21220.95	239.25
13C8-PFOS	507.0 / 99.0	3.01	13C4-PFOS	503.0 / 99.0	21220.95	239.25

BATTELLE

Calibration Summary Report

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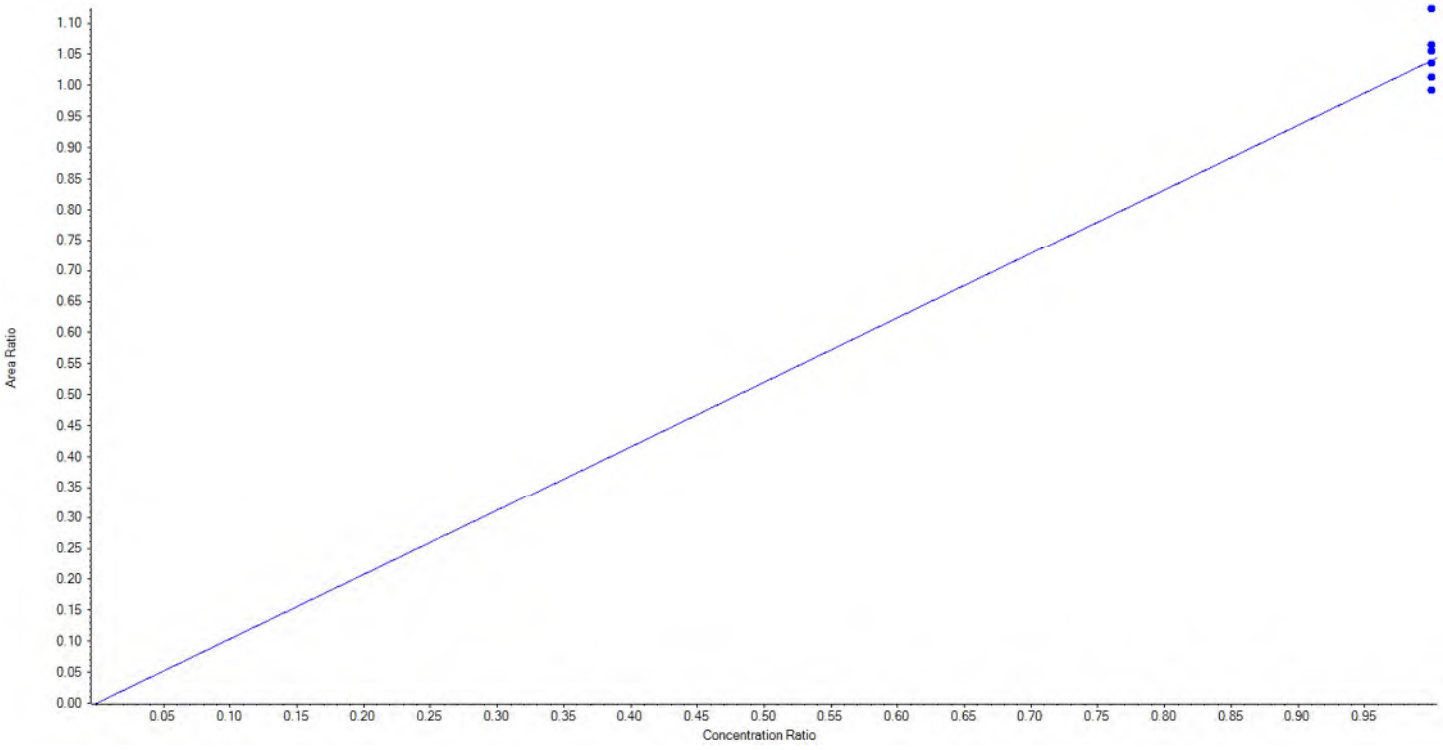
Analyte Name	13C2-PFDoA	**Data File**	09172018.wiff
MRM Transition	615.0 / 570.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03997 x (std. dev. = 0.04677) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	249.086588	99.6
3	KA87	L2	True	250.00	238.645940	95.5
4	KA88	L3	True	250.00	238.394426	95.4
5	KA89	L4	True	250.00	243.830078	97.5
6	KA90	L5	True	250.00	253.934265	101.6
7	KA91	L6	True	250.00	270.113460	108.1
8	KA92	L7	True	250.00	255.995243	102.4



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SDG 18-0560

LABORATORY CONTROL SAMPLE

	Result	Target	Calculation	Recovery	Reported Recovery
PFHxA	8.63 ng/L	10.10 ng/L	8.63/10.1*100	85.4	85

ICC RECOVERY (%)	Result	Target	Calculation	Recovery	Reported Recovery
PFBS	1116.33 ng/L	1010.00 ng/L	1116.33/1010*100	110.5277228	110.53

Tetra Tech, Inc. CHAIN OF CUSTODY | NUMBER No. 3420 | PAGE 1 OF 1

PROJECT NO: 1126-08003-SE0325	FACILITY: JAX-TCC	PROJECT MANAGER Mark Patterson	PHONE NUMBER 9046366125	LABORATORY NAME AND CONTACT: Jon Thorn Battelle
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER Dave Sofka	PHONE NUMBER " " "	ADDRESS 141 Longwater Drive Suite 202
		CARRIER/WAYBILL NUMBER		CITY, STATE Norwell, MA 02061 ~~Jacksonville, FL~~

STANDARD TAT ☐
RUSH TAT ☑ 5 day
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P P
PRESERVATIVE USED: N/A N/A
TYPE OF ANALYSIS: PFAS 537

DATE (YEAR 2018)	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS		COMMENTS
9/11	1255	JAX-TCC-EB02-09112018				QC	G	2	2	J7774
9/11	1340	JAX-TCC-MW03-09112018				GW	G	2	2	J7775
9/11	1340	JAX-TCC-MW03-09112018-FD				GW	G	2	2	J7776
9/11	1400	JAX-TCC-MW12-09112018				GW	G	2	2	J7777
9/11	1455	JAX-TCC-MW[illegible]-09112018				GW	G	2	2	J7778
9/11	1405	JAX-TCC-SW01-09112018		MG		SW	G	2	2	J7779
9/11	1435	JAX-TCC-SW02-09112018	MG			SW	G	2	2	J7780
9/11	1505	JAX-TCC-SD02-09112018				SD	G	1	1	J7781
9/11	1515	JAX-TCC-SD03-09112018				SD	G	1	1	J7782
9/11	1525	JAX-TCC-SD04-09112018				SD	G	1	1	J7783
9/11	1500	JAX-TCC-EB03-09112018				QC	G	2	2	J7784
9/11	1445	JAX-TCC-FRB-09112018				QC	G	1	1	J7785

MG

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	9/11/2018	1630	1. RECEIVED BY FedEx		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY Battelle	DATE 9-12-18	TIME 5:00 PM
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

BATTELLE
It can be done

ShpNo SHP-180913-01

Battelle Project No:

Sample Receipt Form

Approved: ☐ Authorized ☐

Project Number: 112G0800J-SE0375 **Client:** Tetra Tech
Received by: Schumitz, Matt **Date/Time Received:** Wednesday, September 12, 2018 5:00 PM
No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Commercial Carrier **Tracking Number:** 7827 3593 6708
COC Forms: ☑ Shipped with samples ☐ No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smps
1 of 1	Cooler	7827 3593 6708	Custody Seals	Intact	Intact	Therm_2	1.9	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): 1.9 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:** J7774 - J7785
Samples logged in by: Schumitz, Matt **Date/Time:** 09/12/2018 5:00 PM
Approved By: **Approved On:**
Authorized By: **Authorized On:**

BATTELLE
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ShpNo SHP-180913-01

Battelle Project No:

Sample Receipt Form Details

Approved: ☐ Authorized ☐

Project Number: 112G0800J-SE0375 **Client:** Tetra Tech

Received by: Schumitz, Matt **Date/Time Received:** Wednesday, September 12, 2018 5:00 PM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J7774	JAX-TCC-EB02-09112018	09/11/18 12:55	09/13/18 8:54	2	QC	1.9	NA	NA	NA	R0119 (NA)			
J7775	JAX-TCC-MWC3-09112018	09/11/18 13:40	09/13/18 8:54	2	GW	1.9	NA	NA	NA	R0119 (NA)			
J7776	JAX-TCC-MWC3-09112018-FD	09/11/18 13:40	09/13/18 8:55	2	GW	1.9	NA	NA	NA	R0119 (NA)			
J7777	JAX-TCC-MWI2-09112018	09/11/18 14:00	09/13/18 8:55	2	GW	1.9	NA	NA	NA	R0119 (NA)			
J7778	JAX-TCC-MWB1-09112018	09/11/18 14:55	09/13/18 8:55	2	GW	1.9	NA	NA	NA	R0119 (NA)			
J7779	JAX-TCC-SW01-09112018	09/11/18 14:05	09/13/18 8:56	2	SW	1.9	NA	NA	NA	R0119 (NA)			
J7780	JAX-TCC-SW02-09112018	09/11/18 14:35	09/13/18 8:56	2	SW	1.9	NA	NA	NA	R0119 (NA)			
J7781	JAX-TCC-SD02-09112018	09/11/18 15:05	09/13/18 8:56	1	SD	1.9	NA	NA	NA	F0117 (NA)			
J7782	JAX-TCC-SD03-09112018	09/11/18 15:15	09/13/18 8:57	1	SD	1.9	NA	NA	NA	F0117 (NA)			
J7783	JAX-TCC-SD04-09112018	09/11/18 15:25	09/13/18 8:57	1	SD	1.9	NA	NA	NA	F0117 (NA)			
J7784	JAX-TCC-EB03-09112018	09/11/18 15:00	09/13/18 8:57	2	QC	1.9	NA	NA	NA	R0119 (NA)			
J7785	JAX-TCC-FRB-09112018	09/11/18 14:45	09/13/18 8:58	1	QC	1.9	NA	NA	NA	R0119 (NA)			

Total Samples: 12

QA/QC Summary
Batch 18-0560

Project:	CTO-SE0375: Naval Air Station Jacksonville
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	GW, SW, QC
Data Set:	DP-18-0267
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/11/2018	9/12/2018	1.9
Corrective Actions	None	
Sample Storage	The water samples were stored refrigerated until extraction.	
Related samples	The related FRB sample is included in this SDG, there is no separate SDG for the FRB sample.	

	METHOD SUMMARIES
Sample Preparation	Water samples were spiked with surrogates in the original sample container from the field. The water was extracted using a weak ion exchange solid phase extraction (SPE) cartridge and eluted from the SPE with 0.4% NH_3 in methanol. 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 using 500 µL of sample from bottle 2 prior to full SPE extraction. Sample JAX-TCC-SW02-09112018 (J7780-FS) clogged the filter in the SPE cartridge, as a result, the filter was manually moved to ensure proper flow of sample through the bed material. A green algae like substance was present. As a result of a preparation error while making the dilution, the dilution for J7777-FS-D(3), field sample JAX-TCC-MWI2-09112018, was made at a final PIV of 500 µL, not 1,000 µL.
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/L concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS.

QA/QC Summary
Batch 18-0560

Holding Times	Extraction Date(s)	Analysis Date(s)
	9/14/2018	9/17-18/2018

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.

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	Not applicable.
	A MS/MSD was not prepared with this data set.

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 quadradic 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.

QA/QC Summary
Batch 18-0560

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.
	No comments.

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

BATTELLE
It can be done

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project Number: 100119154-SE0375
Preparation Batch: 18-0560
Data Set: DP-18-0267
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	NA	NA
Matrix Spike / Matrix Spike Duplicate Precision	NA	NA
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

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BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-SE0375: Naval Air Station Jackson	**Data Set Number:**	DP-18-0267
Project Number:	100119154-SE0375	**Prep Batch Number:**	18-0560
Entered By:	Robert Lizotte Jr	**Entered On:**	09/18/2018
Test Code (Matrix Type):	Master_369(L)		

Package assembled by Robert Lizotte. Samples integrated by Denise Schumitz. Samples that were manually integrated are noted on the quant reports with the comment (TRUE).
-BL 9/18/2018

KA86 is not being used in method 18-0559_18-0560_BASE for NMeFOSAA. There is no impact on the data once this point is removed from the calibration.
-BL 9/18/2018

KA92 is not being used in method 18-0559_18-0560_BASE for NMeFOSAA. There is no impact on the data once this point is removed from the calibration.
-BL 9/18/2018

KA92 is not being used in method 18-0559_18-0560_SIS for d3-MeFOSAA. There is no impact on the data once this point is removed from the calibration.
-BL 9/18/2018

In all instances where the ion ratio was>50% in the sequences associated with this package, either the result was below calibration or was not reported from the extract that had an exceedence.
-BL 9/18/2018

Task Leader Approval:

SupervisorApproval:

PM Approval:

Digitally signed by Jonathan Thorn
Date: 2018.09.19 07:04:39 -04'00'

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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 highers 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

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Example Calculation for PFAS

Calculation of final concentration from area:

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

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:	J7775-FS-D(3)
Client Sample ID:	JAX-TCC-MWC3-09112018
Sample Size:	0.27
Units:	L
Dilution Factor:	2.000
PIV (L):	0.001
Target Analyte:	PFHxA
MRM Transition:	313.0 / 269.0
Data file:	09172018.wiff
Result table:	18-0559_18-0560_BASE
Area:	3,485,711.38
IS Name:	13C5-PFHxA
IS Area:	71,567.46
IS Amount (ng/L):	250
y-intercept:	-0.04646
slope:	1.09727

$$\text{Concentration} = \frac{[(3485711.38/71567.46) - -0.04646]}{1.09727} * 250 * 0.001 * 2 / 0.27$$

ng/L = 82.28

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It can be done

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375
Preparation Batch: 18-0560
Data Set: DP-18-0267

		CR817PB-FS (Procedural Blank)	CR818LCS-FS (Laboratory Control Sample)	J7774-FS (JAX-TCC-EB02-09112018)	J7775-FS (JAX-TCC-MWC3-09112018)	J7776-FS (JAX-TCC-MWC3-09112018-FD)	J7777-FS (JAX-TCC-MWI2-09112018)
PFHxA	307-24-4	-	L	-	L	L	L
PFHpA	375-85-9	-	L	-	L	L	L
PFOA	335-67-1	L	L	L	L	L	L
PFNA	375-95-1	-	L	-	L	L	L
PFDA	335-76-2	-	L	-	-	-	L
PFUnA	2058-94-8	-	L	-	-	-	L
PFDoA	307-55-1	-	L	-	-	-	-
PFTrDA	72629-94-8	-	L	-	-	-	-
PFTeDA	376-06-7	-	L	-	-	-	-
NMeFOSAA	2355-31-9	-	L	-	-	-	-
NEtFOSAA	2991-50-6	-	L	-	-	-	-
PFBS	375-73-5	-	L	-	L	L	L
PFHxS	355-46-4	-	L/Br	-	L/Br	L/Br	L/Br
PFOS	1763-23-1	-	L/Br	-	L/Br	L/Br	L/Br

"L" :Linear
"Br": branched
"L/Br": Linear/Branched
"-": Not detected

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375
Preparation Batch
Data Set: DP-18-(

	J7778-FS (JAX-TCC-MWB1-09112018)	J7779-FS (JAX-TCC-SW01-09112018)	J7780-FS (JAX-TCC-SW02-09112018)	J7784-FS (JAX-TCC-EB03-09112018)	J7785-FS (JAX-TCC-FRB-09112018)
PFHxA	L	L	L	-	-
PFHpA	L	L	L	-	-
PFOA	L	L	L	L	L
PFNA	L	L	L	-	-
PFDA	-	L	L	-	-
PFUnA	-	L	L	-	-
PFDoA	-	-	-	-	-
PFTrDA	-	-	-	-	-
PFTeDA	-	-	-	-	-
NMeFOSAA	-	-	-	-	-
NEtFOSAA	-	-	-	-	-
PFBS	L	L	L	-	-
PFHxS	L/Br	L/Br	L/Br	-	-
PFOS	L/Br	L/Br	L/Br	-	-

"L" :Linear
"Br": branched
"L/Br": Linear/Bra
"-": Not detected

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KA90	L5	9/17/18 19:02	13C2-PFOA	60,385.02	30,192.51	90,577.53

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	9/17/18 18:19	13C2-PFOA	64,521.69	30,192.51	90,577.53	
KA87	L2	9/17/18 18:30	13C2-PFOA	58,412.50	30,192.51	90,577.53	
KA88	L3	9/17/18 18:41	13C2-PFOA	44,126.10	30,192.51	90,577.53	
KA89	L4	9/17/18 18:51	13C2-PFOA	49,957.68	30,192.51	90,577.53	
KA90	L5	9/17/18 19:02	13C2-PFOA	60,385.02	30,192.51	90,577.53	
KA91	L6	9/17/18 19:13	13C2-PFOA	52,038.12	30,192.51	90,577.53	
KA92	L7	9/17/18 19:24	13C2-PFOA	53,157.48	30,192.51	90,577.53	
JY46 IB	Instrument Blank	9/17/18 19:35	13C2-PFOA	67,042.08	30,192.51	90,577.53	
JY45 ICC	ICC	9/17/18 19:46	13C2-PFOA	54,959.55	30,192.51	90,577.53	
KA90 CCV	CCV	9/17/18 21:34	13C2-PFOA	70,260.72	30,192.51	90,577.53	
CR817PB-FS(0)	Procedural Blank	9/17/18 21:56	13C2-PFOA	53,051.25	30,192.51	90,577.53	
CR818LCS-FS(0)	Laboratory Control Sample	9/17/18 22:07	13C2-PFOA	59,935.86	30,192.51	90,577.53	
J7785-FS(0)	JAX-TCC-FRB-09112018	9/17/18 22:18	13C2-PFOA	78,551.20	30,192.51	90,577.53	
J7774-FS(0)	JAX-TCC-EB02-09112018	9/17/18 22:29	13C2-PFOA	60,571.43	30,192.51	90,577.53	
J7784-FS(0)	JAX-TCC-EB03-09112018	9/17/18 22:40	13C2-PFOA	71,509.00	30,192.51	90,577.53	
KA89 CCV	CCV	9/17/18 22:50	13C2-PFOA	65,879.42	30,192.51	90,577.53	
J7778-FS(0)	JAX-TCC-MWB1-09112018	9/17/18 23:12	13C2-PFOA	71,433.97	30,192.51	90,577.53	
J7778-FS-D(3)	JAX-TCC-MWB1-09112018	9/17/18 23:23	13C2-PFOA	75,911.25	30,192.51	90,577.53	
J7775-FS(0)	JAX-TCC-MWC3-09112018	9/17/18 23:34	13C2-PFOA	82,151.72	30,192.51	90,577.53	
J7775-FS-D(3)	JAX-TCC-MWC3-09112018	9/17/18 23:45	13C2-PFOA	76,080.29	30,192.51	90,577.53	
J7775-FS-D(5)	JAX-TCC-MWC3-09112018	9/17/18 23:56	13C2-PFOA	69,911.79	30,192.51	90,577.53	
J7776-FS(0)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:06	13C2-PFOA	65,778.57	30,192.51	90,577.53	
J7776-FS-D(3)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:17	13C2-PFOA	65,977.30	30,192.51	90,577.53	
J7776-FS-D(5)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:28	13C2-PFOA	75,909.18	30,192.51	90,577.53	
KA90 CCV	CCV	9/18/18 0:50	13C2-PFOA	72,776.45	30,192.51	90,577.53	
J7779-FS(0)	JAX-TCC-SW01-09112018	9/18/18 1:12	13C2-PFOA	72,674.59	30,192.51	90,577.53	
J7779-FS-D(3)	JAX-TCC-SW01-09112018	9/18/18 1:22	13C2-PFOA	71,027.46	30,192.51	90,577.53	
J7779-FS-D(5)	JAX-TCC-SW01-09112018	9/18/18 1:33	13C2-PFOA	77,211.15	30,192.51	90,577.53	
J7780-FS(0)	JAX-TCC-SW02-09112018	9/18/18 1:44	13C2-PFOA	71,272.08	30,192.51	90,577.53	
J7780-FS-D(3)	JAX-TCC-SW02-09112018	9/18/18 1:55	13C2-PFOA	68,877.14	30,192.51	90,577.53	
J7780-FS-D(5)	JAX-TCC-SW02-09112018	9/18/18 2:06	13C2-PFOA	70,884.11	30,192.51	90,577.53	
J7777-FS(0)	JAX-TCC-MWI2-09112018	9/18/18 2:17	13C2-PFOA	72,332.66	30,192.51	90,577.53	
J7777-FS-D(3)	JAX-TCC-MWI2-09112018	9/18/18 2:28	13C2-PFOA	77,594.28	30,192.51	90,577.53	
J7777-FS-D(5)	JAX-TCC-MWI2-09112018	9/18/18 2:39	13C2-PFOA	75,190.46	30,192.51	90,577.53	
KA89 CCV	CCV	9/18/18 3:00	13C2-PFOA	65,846.37	30,192.51	90,577.53	

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KA90	L5	9/17/18 19:02	13C2-PFDA	61,266.67	30,633.34	91,900.01

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	9/17/18 18:19	13C2-PFDA	62,612.00	30,633.34	91,900.01	
KA87	L2	9/17/18 18:30	13C2-PFDA	57,413.84	30,633.34	91,900.01	
KA88	L3	9/17/18 18:41	13C2-PFDA	47,686.88	30,633.34	91,900.01	
KA89	L4	9/17/18 18:51	13C2-PFDA	47,657.14	30,633.34	91,900.01	
KA90	L5	9/17/18 19:02	13C2-PFDA	61,266.67	30,633.34	91,900.01	
KA91	L6	9/17/18 19:13	13C2-PFDA	48,271.12	30,633.34	91,900.01	
KA92	L7	9/17/18 19:24	13C2-PFDA	57,726.45	30,633.34	91,900.01	
JY46 IB	Instrument Blank	9/17/18 19:35	13C2-PFDA	65,007.41	30,633.34	91,900.01	
JY45 ICC	ICC	9/17/18 19:46	13C2-PFDA	56,928.59	30,633.34	91,900.01	
KA90 CCV	CCV	9/17/18 21:34	13C2-PFDA	74,049.18	30,633.34	91,900.01	
CR817PB-FS(0)	Procedural Blank	9/17/18 21:56	13C2-PFDA	52,580.90	30,633.34	91,900.01	
CR818LCS-FS(0)	Laboratory Control Sample	9/17/18 22:07	13C2-PFDA	61,177.12	30,633.34	91,900.01	
J7785-FS(0)	JAX-TCC-FRB-09112018	9/17/18 22:18	13C2-PFDA	73,830.16	30,633.34	91,900.01	
J7774-FS(0)	JAX-TCC-EB02-09112018	9/17/18 22:29	13C2-PFDA	66,168.81	30,633.34	91,900.01	
J7784-FS(0)	JAX-TCC-EB03-09112018	9/17/18 22:40	13C2-PFDA	72,359.73	30,633.34	91,900.01	
KA89 CCV	CCV	9/17/18 22:50	13C2-PFDA	62,464.07	30,633.34	91,900.01	
J7778-FS(0)	JAX-TCC-MWB1-09112018	9/17/18 23:12	13C2-PFDA	68,975.15	30,633.34	91,900.01	
J7778-FS-D(3)	JAX-TCC-MWB1-09112018	9/17/18 23:23	13C2-PFDA	77,902.48	30,633.34	91,900.01	
J7775-FS(0)	JAX-TCC-MWC3-09112018	9/17/18 23:34	13C2-PFDA	88,266.39	30,633.34	91,900.01	
J7775-FS-D(3)	JAX-TCC-MWC3-09112018	9/17/18 23:45	13C2-PFDA	76,425.76	30,633.34	91,900.01	
J7775-FS-D(5)	JAX-TCC-MWC3-09112018	9/17/18 23:56	13C2-PFDA	74,381.92	30,633.34	91,900.01	
J7776-FS(0)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:06	13C2-PFDA	70,892.91	30,633.34	91,900.01	
J7776-FS-D(3)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:17	13C2-PFDA	63,011.62	30,633.34	91,900.01	
J7776-FS-D(5)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:28	13C2-PFDA	73,242.80	30,633.34	91,900.01	
KA90 CCV	CCV	9/18/18 0:50	13C2-PFDA	72,417.41	30,633.34	91,900.01	
J7779-FS(0)	JAX-TCC-SW01-09112018	9/18/18 1:12	13C2-PFDA	72,243.55	30,633.34	91,900.01	
J7779-FS-D(3)	JAX-TCC-SW01-09112018	9/18/18 1:22	13C2-PFDA	69,569.50	30,633.34	91,900.01	
J7779-FS-D(5)	JAX-TCC-SW01-09112018	9/18/18 1:33	13C2-PFDA	72,355.49	30,633.34	91,900.01	
J7780-FS(0)	JAX-TCC-SW02-09112018	9/18/18 1:44	13C2-PFDA	81,104.72	30,633.34	91,900.01	
J7780-FS-D(3)	JAX-TCC-SW02-09112018	9/18/18 1:55	13C2-PFDA	71,362.01	30,633.34	91,900.01	
J7780-FS-D(5)	JAX-TCC-SW02-09112018	9/18/18 2:06	13C2-PFDA	73,066.71	30,633.34	91,900.01	
J7777-FS(0)	JAX-TCC-MWI2-09112018	9/18/18 2:17	13C2-PFDA	74,047.53	30,633.34	91,900.01	
J7777-FS-D(3)	JAX-TCC-MWI2-09112018	9/18/18 2:28	13C2-PFDA	78,718.64	30,633.34	91,900.01	
J7777-FS-D(5)	JAX-TCC-MWI2-09112018	9/18/18 2:39	13C2-PFDA	78,823.90	30,633.34	91,900.01	
KA89 CCV	CCV	9/18/18 3:00	13C2-PFDA	71,257.30	30,633.34	91,900.01	

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KA90	L5	9/17/18 19:02	13C4-PFOS	23,857.68	11,928.84	35,786.52

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	9/17/18 18:19	13C4-PFOS	19,991.76	11,928.84	35,786.52	
KA87	L2	9/17/18 18:30	13C4-PFOS	19,680.67	11,928.84	35,786.52	
KA88	L3	9/17/18 18:41	13C4-PFOS	18,034.60	11,928.84	35,786.52	
KA89	L4	9/17/18 18:51	13C4-PFOS	16,124.75	11,928.84	35,786.52	
KA90	L5	9/17/18 19:02	13C4-PFOS	23,857.68	11,928.84	35,786.52	
KA91	L6	9/17/18 19:13	13C4-PFOS	18,411.39	11,928.84	35,786.52	
KA92	L7	9/17/18 19:24	13C4-PFOS	20,888.13	11,928.84	35,786.52	
JY46 IB	Instrument Blank	9/17/18 19:35	13C4-PFOS	23,110.50	11,928.84	35,786.52	
JY45 ICC	ICC	9/17/18 19:46	13C4-PFOS	22,540.57	11,928.84	35,786.52	
KA90 CCV	CCV	9/17/18 21:34	13C4-PFOS	23,913.38	11,928.84	35,786.52	
CR817PB-FS(0)	Procedural Blank	9/17/18 21:56	13C4-PFOS	20,582.69	11,928.84	35,786.52	
CR818LCS-FS(0)	Laboratory Control Sample	9/17/18 22:07	13C4-PFOS	21,283.14	11,928.84	35,786.52	
J7785-FS(0)	JAX-TCC-FRB-09112018	9/17/18 22:18	13C4-PFOS	28,679.95	11,928.84	35,786.52	
J7774-FS(0)	JAX-TCC-EB02-09112018	9/17/18 22:29	13C4-PFOS	21,220.95	11,928.84	35,786.52	
J7784-FS(0)	JAX-TCC-EB03-09112018	9/17/18 22:40	13C4-PFOS	26,930.10	11,928.84	35,786.52	
KA89 CCV	CCV	9/17/18 22:50	13C4-PFOS	24,646.76	11,928.84	35,786.52	
J7778-FS(0)	JAX-TCC-MWB1-09112018	9/17/18 23:12	13C4-PFOS	27,817.65	11,928.84	35,786.52	
J7778-FS-D(3)	JAX-TCC-MWB1-09112018	9/17/18 23:23	13C4-PFOS	28,315.52	11,928.84	35,786.52	
J7775-FS(0)	JAX-TCC-MWC3-09112018	9/17/18 23:34	13C4-PFOS	29,617.94	11,928.84	35,786.52	
J7775-FS-D(3)	JAX-TCC-MWC3-09112018	9/17/18 23:45	13C4-PFOS	28,555.12	11,928.84	35,786.52	
J7775-FS-D(5)	JAX-TCC-MWC3-09112018	9/17/18 23:56	13C4-PFOS	26,807.77	11,928.84	35,786.52	
J7776-FS(0)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:06	13C4-PFOS	21,402.07	11,928.84	35,786.52	
J7776-FS-D(3)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:17	13C4-PFOS	20,665.44	11,928.84	35,786.52	
J7776-FS-D(5)	JAX-TCC-MWC3-09112018-FD	9/18/18 0:28	13C4-PFOS	23,450.87	11,928.84	35,786.52	
KA90 CCV	CCV	9/18/18 0:50	13C4-PFOS	26,409.02	11,928.84	35,786.52	
J7779-FS(0)	JAX-TCC-SW01-09112018	9/18/18 1:12	13C4-PFOS	21,832.68	11,928.84	35,786.52	
J7779-FS-D(3)	JAX-TCC-SW01-09112018	9/18/18 1:22	13C4-PFOS	25,967.10	11,928.84	35,786.52	
J7779-FS-D(5)	JAX-TCC-SW01-09112018	9/18/18 1:33	13C4-PFOS	26,654.59	11,928.84	35,786.52	
J7780-FS(0)	JAX-TCC-SW02-09112018	9/18/18 1:44	13C4-PFOS	22,669.50	11,928.84	35,786.52	
J7780-FS-D(3)	JAX-TCC-SW02-09112018	9/18/18 1:55	13C4-PFOS	21,441.48	11,928.84	35,786.52	
J7780-FS-D(5)	JAX-TCC-SW02-09112018	9/18/18 2:06	13C4-PFOS	24,148.23	11,928.84	35,786.52	
J7777-FS(0)	JAX-TCC-MWI2-09112018	9/18/18 2:17	13C4-PFOS	21,734.72	11,928.84	35,786.52	
J7777-FS-D(3)	JAX-TCC-MWI2-09112018	9/18/18 2:28	13C4-PFOS	24,257.91	11,928.84	35,786.52	
J7777-FS-D(5)	JAX-TCC-MWI2-09112018	9/18/18 2:39	13C4-PFOS	28,128.62	11,928.84	35,786.52	
KA89 CCV	CCV	9/18/18 3:00	13C4-PFOS	26,272.03	11,928.84	35,786.52	

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 18/09/2018 3:56:55 PM

Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 7:24:30 PM	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS_1	298.9 / 80.0	1.54	49	>10
PFBS_2	298.9 / 99.0	1.54	50	>10
PFHxA_1	313.0 / 269.0	1.85	23	>10
PFHxA_2	313.0 / 119.0	1.85	21	>10
PFHpA_1	363.0 / 319.0	2.25	27	>10
PFHpA_2	363.0 / 169.0	2.25	31	>10
PFHxS_1	399.0 / 80.0	2.27	49	>10
PFHxS_2	399.0 / 99.0	2.27	54	>10
PFOA_1	413.0 / 369.0	2.64	30	>10
PFOA_2	413.0 / 169.0	2.64	33	>10
PFNA_1	463.0 / 419.0	3.03	27	>10
PFNA_2	463.0 / 219.0	3.03	33	>10
PFOS_1	499.0 / 80.0	3.03	70	>10
PFOS_2	499.0 / 99.0	3.03	57	>10
PFDA_1	513.0 / 469.0	3.38	31	>10
PFDA_2	513.0 / 219.0	3.38	34	>10
PFUnA_1	563.0 / 519.0	3.70	59	>10
PFUnA_2	563.0 / 269.0	3.70	52	>10
PFDoA_1	613.0 / 569.0	3.98	66	>10
PFDoA_2	613.0 / 319.0	3.98	66	>10
PFTrDA_1	663.0 / 619.0	4.22	73	>10
PFTrDA_2	663.0 / 169.0	4.22	38	>10
PFTeDA_1	713.0 / 669.0	4.43	58	>10
PFTeDA_2	713.0 / 169.0	4.43	66	>10
NMeFOSAA_1	570.0 / 419.0	3.53	40	>10
NMeFOSAA_2	570.0 / 512.0	3.53	20	>10
NEtFOSAA_1	584.0 / 419.0	3.69	28	>10
NEtFOSAA_2	584.0 / 483.0	3.69	26	>10

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 18/09/2018 3:57:39 PM

Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 7:24:30 PM	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
13C2-PFDoA	615.0 / 570.0	3.97	48	>10
d3-MeFOSAA	573.0 / 419.0	3.52	21	>10
d5-EtFOSAA	589.0 / 419.0	3.68	20	>10
13C5-PFHxA	318.0 / 273.0	1.84	30	>10
13C4-PFHpA	367.0 / 322.0	2.23	32	>10
13C8-PFOA	421.0 / 376.0	2.63	33	>10
13C9-PFNA	472.0 / 427.0	3.02	46	>10
13C6-PFDA	519.0 / 474.0	3.37	37	>10
13C7-PFUnA	570.0 / 525.0	3.68	22	>10
13C2-PFTeDA	715.0 / 670.0	4.43	40	>10
13C3-PFBS	302.0 / 99.0	1.52	34	>10
13C3-PFHxS	402.0 / 99.0	2.26	25	>10
13C8-PFOS	507.0 / 99.0	3.02	19	>10

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It can be done

Precision and Bias at the LOQ for PFAS in non-potable Water

Analyte	CAS No.	Average (ng/L)	ST DEV	2 Sigma	n
PFBA	375-22-4	12.29	2.02	4.04	13
PFPeA	2706-90-3	10.73	1.51	3.02	9
PFHxA	307-24-4	9.93	1.30	2.60	39
PFHpA	375-85-9	9.42	1.57	3.14	39
PFOA	335-67-1	10.18	1.47	2.94	40
PFNA	375-95-1	9.64	1.15	2.30	39
PFDA	335-76-2	9.89	1.32	2.64	39
PFUnA	2058-94-8	9.86	1.31	2.62	39
PFDoA	307-55-1	10.75	1.29	2.58	39
PFTrDA	72629-94-8	11.18	1.54	3.08	39
PFTeDA	376-06-7	10.70	1.91	3.82	39
NMeFOSAA	2355-31-9	10.26	1.87	3.74	39
NEtFOSAA	2991-50-6	9.63	1.54	3.08	39
PFOSA	754-91-6	9.74	1.14	2.28	4
PFBS	375-73-5	10.05	1.44	2.88	40
PFPeS	BDO-2114	9.80	0.96	1.92	5
PFHxS	355-46-4	9.76	1.40	2.80	39
PFHpS	375-99-6	10.96	0.96	1.92	10
PFOS	1763-23-1	10.09	1.36	2.72	38
PFNS	98789-57-2	9.34	1.10	2.20	4
PFDS	2806-15-7	10.13	1.88	3.76	9
4:2FTS	BDO-2205	11.03	1.26	2.52	9
6:2FTS	27619-97-2	12.52	2.91	5.82	9
8:2FTS	39108-34-4	12.11	2.54	5.08	9

BATTELLE DETECTION LIMITS FOR PFAS IN NON-POTABLE WATER

Analytical SOP 5-369
Extraction SOP 5-370

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

Analyte	CAS No.	MDL (ng/L)	LOD (ng/L)	LOQ (ng/L)
PFBA	375-22-4	0.14	0.5	5.0
PFPeA	2706-90-3	0.31	1.0	5.0
PFHxA	307-24-4	0.19	0.5	5.0
PFHpA	375-85-9	0.16	0.5	5.0
PFOA	335-67-1	0.18	0.5	5.0
PFNA	375-95-1	0.26	1.0	5.0
PFDA	335-76-2	0.16	0.5	5.0
PFUnA	2058-94-8	0.29	1.0	5.0
PFDoA	307-55-1	0.18	0.5	5.0
PFTrDA	72629-94-8	0.15	0.5	5.0
PFTeDA	376-06-7	0.25	1.0	5.0
NMeFOSAA	2355-31-9	0.56	2.0	5.0
NEtFOSAA	2991-50-6	0.49	1.0	5.0
PFOSA	754-91-6	TBD	TBD	TBD
PFBS	375-73-5	0.13	0.5	5.0
PFPeS	BDO-2114	0.67	2.5	5.0
PFHxS	355-46-4	0.11	0.4	5.0
PFHpS	375-99-6	0.20	0.5	5.0
PFOS	1763-23-1	0.19	0.5	5.0
PFNS	98789-57-2	0.46	1.0	5.0
PFDS	2806-15-7	0.17	0.5	5.0
4:2FTS	BDO-2205	0.14	0.5	5.0
6:2FTS	27619-97-2	1.36	2.5	5.0
8:2FTS	39108-34-4	0.22	0.5	5.0

Analytes on NELAP and ELAP QSM 5.1 Scope of accreditation

ID 596 04/18

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-PFHpA	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-PFUnA	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

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Non-Potable Water Calibration to Sample Equivalents

ICAL (ng/L)	PIV (mL)	DF[1]	Sample Size (L)	Sample Equivalent (ng/L)[2]
25	1	1	0.250	0.1
50	1	1	0.250	0.2
100	1	1	0.250	0.4
250	1	1	0.250	1.0
500	1	1	0.250	2.0
1,000	1	1	0.250	4.0
2,500	1	1	0.250	10.0
10,000	1	1	0.250	40.0
20,000	1	1	0.250	80.0

[1] - base level dilution as part of the extraction procedure

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

BATTELLE
It can be done

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		JY46 IB			
Battelle ID		JY46 IB_09/17/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		Water			
Sample Size		0.250			
Size Unit-Basis		NA			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00
PFHpA	375-85-9	0.50 U	0.16	0.50	5.00
PFOA	335-67-1	0.20 J	0.18	0.50	5.00
PFNA	375-95-1	1.00 U	0.26	1.00	5.00
PFDA	335-76-2	0.17 J	0.16	0.50	5.00
PFUnA	2058-94-8	1.00 U	0.29	1.00	5.00
PFDoA	307-55-1	0.50 U	0.18	0.50	5.00
PFTrDA	72629-94-8	0.50 U	0.15	0.50	5.00
PFTeDA	376-06-7	1.00 U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	2.00 U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	1.00 U	0.49	1.00	5.00
PFBS	375-73-5	0.17 J	0.13	0.50	5.00
PFHxS	355-46-4	0.17 J	0.11	0.40	5.00
PFOS	1763-23-1	0.28 J	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	91
13C8-PFOA	102
13C9-PFNA	101
13C6-PFDA	103
13C7-PFUnA	103
13C2-PFDoA	94
13C2-PFTeDA	93
d3-MeFOSAA	85
d5-EtFOSAA	90
13C3-PFBS	100
13C3-PFHxS	95
13C8-PFOS	99

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		Procedural Blank			
Battelle ID		CR817PB-FS			
Sample Type		PB			
Collection Date		09/14/2018			
Extraction Date		09/14/2018			
Analysis Date		09/17/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		WATER			
Sample Size		0.250			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00
PFHpA	375-85-9	0.50 U	0.16	0.50	5.00
PFOA	335-67-1	0.99 J	0.18	0.50	5.00
PFNA	375-95-1	1.00 U	0.26	1.00	5.00
PFDA	335-76-2	0.50 U	0.16	0.50	5.00
PFUnA	2058-94-8	1.00 U	0.29	1.00	5.00
PFDoA	307-55-1	0.50 U	0.18	0.50	5.00
PFTrDA	72629-94-8	0.50 U	0.15	0.50	5.00
PFTeDA	376-06-7	1.00 U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	2.00 U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	1.00 U	0.49	1.00	5.00
PFBS	375-73-5	0.50 U	0.13	0.50	5.00
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	96
13C8-PFOA	107
13C9-PFNA	99
13C6-PFDA	101
13C7-PFUnA	98
13C2-PFDoA	91
13C2-PFTeDA	85
d3-MeFOSAA	82
d5-EtFOSAA	91
13C3-PFBS	84
13C3-PFHxS	87
13C8-PFOS	87

Project Client: Tetra Tech
Project Name: CTO-SE0375: Naval Air Station Jacksonville
Project No.: 100119154-SE0375

Client ID		Laboratory Control Sample					
Battelle ID		CR818LCS-FS					
Sample Type		LCS					
Collection Date		09/14/2018					
Extraction Date		09/14/2018					
Analysis Date		09/17/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS					
% Moisture		NA					
Matrix		WATER					
Sample Size		0.250					
Size Unit-Basis		L				Control Limits	
Units		ng/L	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	8.63	10.10	85		51	137
PFHpA	375-85-9	8.24	10.00	82		48	136
PFOA	335-67-1	10.05	10.00	101		49	141
PFNA	375-95-1	8.95	10.00	90		58	122
PFDA	335-76-2	9.86	10.00	99		59	135
PFUnA	2058-94-8	10.41	10.00	104		64	134
PFDoA	307-55-1	9.92	10.00	99		75	131
PFTrDA	72629-94-8	9.67	10.00	97		42	148
PFTeDA	376-06-7	9.96	10.00	100		42	158
NMeFOSAA	2355-31-9	11.62	10.00	116		50	146
NEtFOSAA	2991-50-6	9.52	10.00	95		51	131
PFBS	375-73-5	9.43	10.10	93		56	134
PFHxS	355-46-4	8.78	10.10	87		52	128
PFOS	1763-23-1	10.04	10.00	100		40	144
Surrogate Recoveries (%)							
13C5-PFHxA		95					
13C4-PFHpA		95					
13C8-PFOA		96					
13C9-PFNA		97					
13C6-PFDA		92					
13C7-PFUnA		85					
13C2-PFDoA		85					
13C2-PFTeDA		85					
d3-MeFOSAA		74					
d5-EtFOSAA		86					
13C3-PFBS		92					
13C3-PFHxS		98					
13C8-PFOS		88					

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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 (x 10^{-5} Torr)	Acceptance Criteria
☑ CAD 0	0.6	0.4 to 1.1 x10^{-5} Torr
☑ CAD Low	1.3	Read Only
☑ CAD Medium	2.7	Read Only
☑ CAD High	3.7	Read Only
☑ CAD 12	3.7	2.4 to 4.5 x10^{-5} Torr

☑ Check for Front end contamination symptoms. Run Q1 POS PPG using PPG 2e-7for 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-7for 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. ☐ N/A
☑ Clean and inspect built-in divert valve if used. ☐ N/A
☑ 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 (x 10^{-5} Torr)	Acceptance Criteria
☑ CAD 0	0.7	0.4 to 1.1 x10^{-5} Torr
☑ CAD Low	1.3	Read Only
☑ CAD Medium	2.7	Read Only
☑ CAD High	3.7	Read Only
☑ CAD 12	3.7	2.4 to 4.5 x10^{-5} Torr

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

Mass	Q1 Intensity		Q1 Width	Width Specs
	Value	Spec	Value	
Scan Rate 10 Da/s Record 10 mca				
Q1 175.133	5.04 e6	≥1.2^{e}6	0.6737	0.6 to 0.8
Q1 500.380	1.60 e7	≥9.0^{e}6	0.6961	0.6 to 0.8
Q1 906.673	2.84 e7	≥1.4^{e}7	0.7179	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q1 906.673	1.33 e8	≥6.8^{e}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	Width Specs
	Value	Spec	Value	
Scan Rate 10 Da/s Record 10 mca				
Q3 175.133	5.02 e6	≥1.2^{e}6	0.6719	0.6 to 0.8
Q3 500.380	1.72 e7	≥9.0^{e}6	0.7443	0.6 to 0.8
Q3 906.673	3.00 e7	≥1.4^{e}7	0.7504	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q3 906.673	1.46 e8	≥6.8^{e}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% (≥ 10.0%)

Mass	MSMS Intensity		Width	Width Specs
	Value	Spec	Value	
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	≥1.0^{e}7	0.7486	0.6 to 0.8
Q1 933.636	1000	50	7.52 e7	≥4.0^{e}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	≥8.0^{e}6	0.7492	0.6 to 0.8
Q3 933.636	1000	50	8.33 e7	≥4.0^{e}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	≥7.2 ^{e}6	0.1473	<0.35
ER 922.010	0.05	4.96 e7	≥2.8 ^{e}6	0.2434	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 118.087	0.05		≥2.4 ^{e}7		<0.65
ER 922.010	0.05		≥6.8 ^{e}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	≥4.4 ^{e}7	0.1862	<0.35
ER 601.978	0.05	1.70 e8	≥5.6 ^{e}7	0.1809	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 431.982	0.05	5.72 e8	≥1.2 ^{e}8	0.5102	<0.65
ER 601.978	0.05	4.52 e8	≥1.6 ^{e}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	≥2.0 e6	> 7.0 e6	≥6.4 e6

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

Mass	Scan Rate (Da/s)	Fragamentation OFF		Fragmentation ON	
		Intensity	Spec	Intensity	Spec
MS3 397.2	1000	Yes	Contains only 397.2	N/A	N/A
☐ 236 OR ☑ 365	1000	Yes	Fragment Intensity	> 2.0 e6	≥1.6x $10^{e}6$

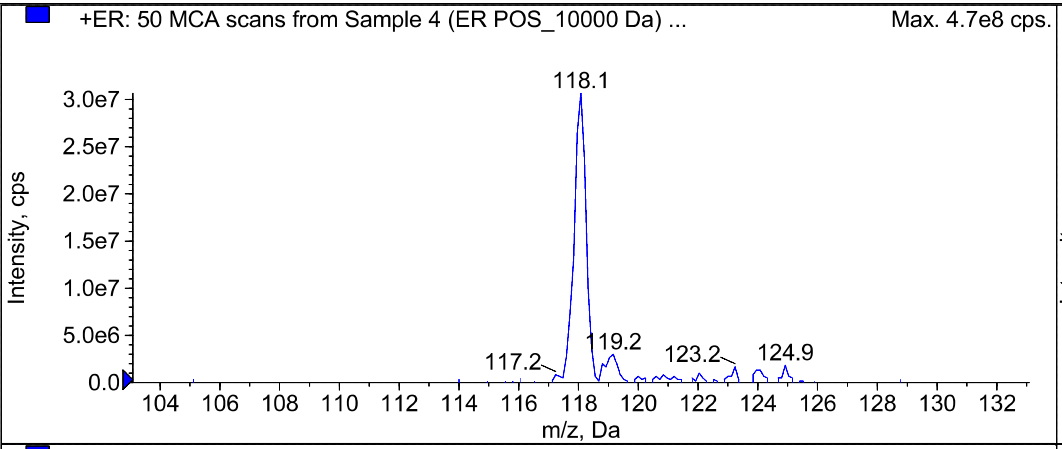
REVIEW:

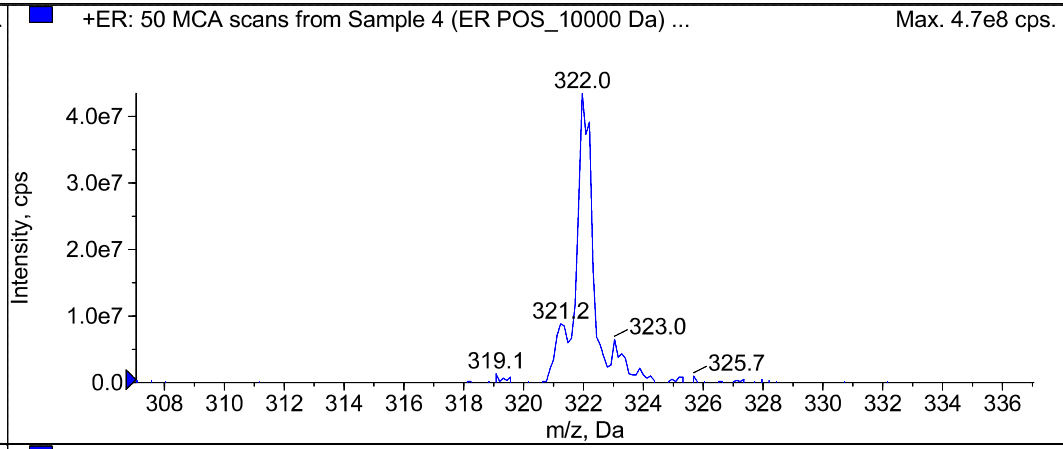
☑ Attach all spectrums printouts to this procedure.
☑ If any parameter setting access modes were changed during the PM, ensure they are returned to their normal access mode and that their offsets are adjusted to match optimized values from the post-PM acquisition files.
☐ Empty tuning cache folder, if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

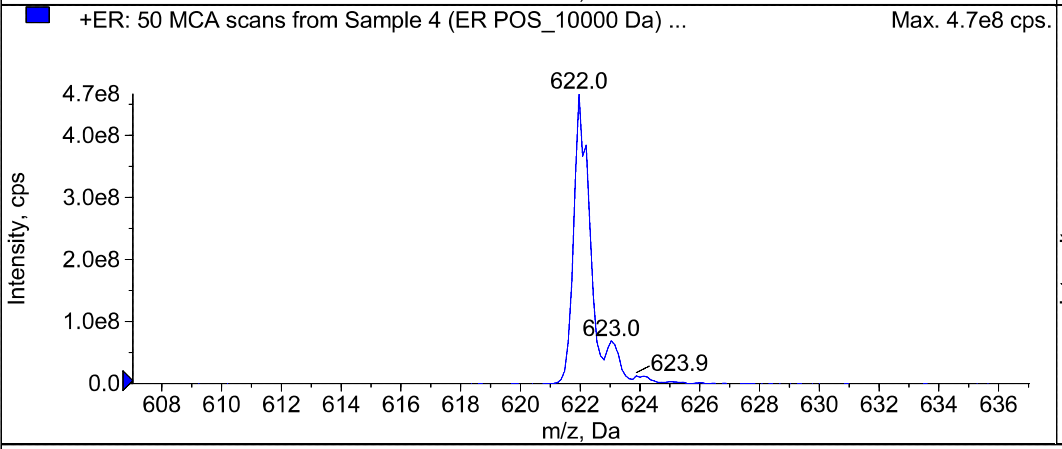
END OF PREVENTIVE MAINTENANCE CHECKLIST

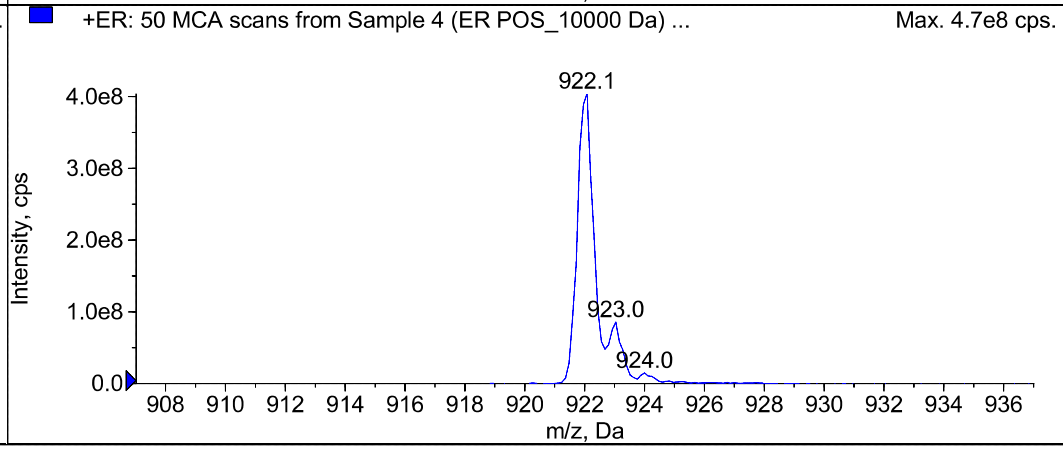
Document history:

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)
JY26	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
JY28	PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS)	JY27	180726-05
JY45	PFAS - DoD ICC	JY27	180726-05
JY45	PFAS - DoD ICC	JZ27	171025-01
JY45	PFAS - DoD ICC	JY25	180726-04
JY46	PFAS - DoD Instrument Blank	JY25	180726-04
JY46	PFAS - DoD Instrument Blank	JY27	180726-05
JZ88	PFAS - DoD Second Source LCS/MS Solution	-	170724-01
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-02
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-03
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-04
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-06
KA29	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-07
KA86	PFAS - DoD Calibration L1	JY23	180705-02
KA86	PFAS - DoD Calibration L1	JY25	180726-04
KA86	PFAS - DoD Calibration L1	JY27	180726-05
KA87	PFAS - DoD Calibration L2	JY25	180726-04
KA87	PFAS - DoD Calibration L2	JY23	180705-02
KA87	PFAS - DoD Calibration L2	JY27	180726-05
KA88	PFAS - DoD Calibration L3	JY27	180726-05
KA88	PFAS - DoD Calibration L3	JY25	180726-04
KA88	PFAS - DoD Calibration L3	KA85	180705-02
KA89	PFAS - DoD Calibration L4	KA85	180705-02
KA89	PFAS - DoD Calibration L4	JY25	180726-04
KA89	PFAS - DoD Calibration L4	JY27	180726-05
KA90	PFAS - DoD Calibration L5	JY27	180726-05
KA90	PFAS - DoD Calibration L5	JY25	180726-04
KA90	PFAS - DoD Calibration L5	KA85	180705-02
KA91	PFAS - DoD Calibration L6	KA85	180705-02
KA91	PFAS - DoD Calibration L6	JY25	180726-04
KA91	PFAS - DoD Calibration L6	JY27	180726-05
KA92	PFAS - DoD Calibration L7	JY27	180726-05
KA92	PFAS - DoD Calibration L7	JY25	180726-04
KA92	PFAS - DoD Calibration L7	KA85	180705-02

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BATTELLE - NORWELL OPERATIONS
SAMPLE PREPARATION RECORDS

Project Title(s)	**Project No.(s)**
CTO-SE0375: Naval Air Station Jacksonville	100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

SOP Numbers (see workplan for modifications)

ExtractionSOP No. 5-370

This Batch Contains The Following Samples:	
CR817PB-FS	J7778-FS
CR818LCS-FS	J7779-FS
J7774-FS	J7780-FS
J7775-FS	J7784-FS
J7776-FS	J7785-FS
J7777-FS	

Laboratory Preparation Records

COMPLETE AND VALIDATED

Prep Task Leader: Stephanie Schultz

Approved By:	Date	Initials
Denise Schumitz	09/19/2018	DMS

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SAMPLE IDENTIFICATION PAGE

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Sample ID	Description
CR817PB-FS	Procedural Blank
CR818LCS-FS	Laboratory Control Sample
J7774-FS	JAX-TCC-EB02-09112018
J7775-FS	JAX-TCC-MWC3-09112018
J7776-FS	JAX-TCC-MWC3-09112018-FD
J7777-FS	JAX-TCC-MWI2-09112018
J7778-FS	JAX-TCC-MWB1-09112018
J7779-FS	JAX-TCC-SW01-09112018
J7780-FS	JAX-TCC-SW02-09112018
J7784-FS	JAX-TCC-EB03-09112018
J7785-FS	JAX-TCC-FRB-09112018

Samples Assigned By: Jonathan Thorn Date : September 13, 2018

Comments:

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BATTELLE - NORWELL OPERATIONS
LIQUID SAMPLE ID FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Sample ID	Description	Volume (mL)	Bottles	*	Date Initials
CR817PB-FS	Procedural Blank	250.0	NA	--	09/14/18 SAS
CR818LCS-FS	Laboratory Control Sample	250.0	NA	--	09/14/18 SAS
J7774-FS	JAX-TCC-EB02-09112018	285.0	1	C	09/14/18 SAS
J7775-FS	JAX-TCC-MWC3-09112018	270.0	1	C	09/14/18 SAS
J7776-FS	JAX-TCC-MWC3-09112018-FD	275.0	1	C	09/14/18 SAS
J7777-FS	JAX-TCC-MWI2-09112018	275.0	1	C	09/14/18 SAS
J7778-FS	JAX-TCC-MWB1-09112018	275.0	1	C	09/14/18 SAS
J7779-FS	JAX-TCC-SW01-09112018	275.0	1	C	09/14/18 SAS
J7780-FS	JAX-TCC-SW02-09112018	275.0	1	C	09/14/18 SAS
J7784-FS	JAX-TCC-EB03-09112018	270.0	1	C	09/14/18 SAS
J7785-FS	JAX-TCC-FRB-09112018	275.0	1	C	09/14/18 SAS

Comments:

Samples Assigned By Jonathan Thorn Date : September 13, 2018

* - "C" = Sample is Consumed

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BATTELLE - NORWELL OPERATIONS
SURROGATE SPIKE FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CR817PB-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
CR818LCS-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
CR818LCS-FS	JZ88	LCS/MS	1	50	09/14/18 SAS	DMS	NA
J7774-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7775-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7776-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7777-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7778-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7779-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7780-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7784-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA
J7785-FS	JY28	SIS	1	50	09/14/18 SAS	DMS	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
JY28	Pipette	B814659662
JZ88	Pipette	B814659662

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BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
CR817PB-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
CR818LCS-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7774-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7775-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7775-FS-D(3)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG
J7775-FS-D(5)	960	40	JY26	50	1	1000	5.000	09/17/18 SAS	LMG
J7776-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7776-FS-D(3)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG
J7776-FS-D(5)	960	40	JY26	50	1	1000	5.000	09/17/18 SAS	LMG
J7777-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7777-FS-D(3)	487	13	JY26	25.5	1	500	4.000	09/17/18 SAS	LMG
J7777-FS-D(5)	955	45	JY26	52.5	1	1000	6.667	09/17/18 SAS	LMG
J7778-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7778-FS-D(3)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG
J7779-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7779-FS-D(3)	960	40	JY26	50	1	1000	5.000	09/17/18 SAS	LMG
J7779-FS-D(5)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG
J7780-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7780-FS-D(3)	975	25	JY26	50	1	1000	2.000	09/17/18 SAS	LMG

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

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BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
J7780-FS-D(5)	960	40	JY26	50	1	1000	5.000	09/17/18 SAS	LMG
J7784-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG
J7785-FS(0)	950	50	JY26	50	1	1000	1.000	09/17/18 SAS	LMG

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
JY26	Pipette	B814659662
JY28	Pipette	B814659662

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

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BATTELLE - NORWELL OPERATIONS
EXTRACT SPIKE FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Extract Id	DF	Std. ID	Type	Vial No.	Vol. Added (uL)	Conc (ug/mL)	Added (ng)	Date Spiked/ Spiked By	Witn'd By
J7775-FS-D(3)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7775-FS-D(5)	5	JY28	SIS	1	40	0	0	09/17/18 SAS	LMG
J7776-FS-D(3)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7776-FS-D(5)	5	JY28	SIS	1	40	0	0	09/17/18 SAS	LMG
J7777-FS-D(3)	4	JY28	SIS	1	13	0	0	09/17/18 SAS	LMG
J7777-FS-D(5)	6.667	JY28	SIS	1	45	0	0	09/17/18 SAS	LMG
J7778-FS-D(3)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7779-FS-D(3)	5	JY28	SIS	1	40	0	0	09/17/18 SAS	LMG
J7779-FS-D(5)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7780-FS-D(3)	2	JY28	SIS	1	25	0	0	09/17/18 SAS	LMG
J7780-FS-D(5)	5	JY28	SIS	1	40	0	0	09/17/18 SAS	LMG

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
JY26	Pipette	B814659662
JY28	Pipette	B814659662

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BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CR817PB-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
CR818LCS-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7774-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7775-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7775-FS	2	C	9/17/2018 3:25:00 PM	J7775-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7775-FS-D	3	--	9/17/2018 3:25:00 PM	J7775-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7775-FS	4	--	9/17/2018 3:34:00 PM	J7775-FS	2	500	300	1.667	3.333	09/17/18 SAS
J7775-FS-D	5	--	9/17/2018 3:34:00 PM	J7775-FS	2	500	200	2.500	5.000	09/17/18 SAS
J7776-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7776-FS	2	C	9/17/2018 3:25:00 PM	J7776-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7776-FS-D	3	--	9/17/2018 3:25:00 PM	J7776-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7776-FS	4	--	9/17/2018 3:34:00 PM	J7776-FS	2	500	300	1.667	3.333	09/17/18 SAS
J7776-FS-D	5	--	9/17/2018 3:34:00 PM	J7776-FS	2	500	200	2.500	5.000	09/17/18 SAS
J7777-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

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It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J7777-FS	2	C	9/17/2018 3:25:00 PM	J7777-FS	0	1000	750	1.333	1.333	09/17/18 SAS
J7777-FS-D	3	--	9/17/2018 3:25:00 PM	J7777-FS	0	1000	250	4.000	4.000	09/17/18 SAS
J7777-FS	4	--	9/17/2018 3:37:00 PM	J7777-FS	2	500	400	1.250	1.667	09/17/18 SAS
J7777-FS-D	5	--	9/17/2018 3:37:00 PM	J7777-FS	2	500	100	5.000	6.667	09/17/18 SAS
J7778-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7778-FS	2	--	9/17/2018 3:25:00 PM	J7778-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7778-FS-D	3	--	9/17/2018 3:25:00 PM	J7778-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7779-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7779-FS	2	C	9/17/2018 3:37:00 PM	J7779-FS	0	1000	800	1.250	1.250	09/17/18 SAS
J7779-FS-D	3	--	9/17/2018 3:37:00 PM	J7779-FS	0	1000	200	5.000	5.000	09/17/18 SAS
J7779-FS	4	--	9/17/2018 3:38:00 PM	J7779-FS	2	800	300	2.667	3.333	09/17/18 SAS
J7779-FS-D	5	--	9/17/2018 3:38:00 PM	J7779-FS	2	800	500	1.600	2.000	09/17/18 SAS
J7780-FS	0	C	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7780-FS	2	C	9/17/2018 3:25:00 PM	J7780-FS	0	1000	500	2.000	2.000	09/17/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

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BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J7780-FS-D	3	--	9/17/2018 3:25:00 PM	J7780-FS	0	1000	500	2.000	2.000	09/17/18 SAS
J7780-FS	4	--	9/17/2018 3:34:00 PM	J7780-FS	2	500	300	1.667	3.333	09/17/18 SAS
J7780-FS-D	5	--	9/17/2018 3:34:00 PM	J7780-FS	2	500	200	2.500	5.000	09/17/18 SAS
J7784-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG
J7785-FS	0	--	9/13/2018	NA		NA	NA	1.000	1.000	09/13/18 LMG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

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BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560
CTO-SE0375: Non-Potable Water PFAS Analysis
GW, QC, SW

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Sep 13 2018 11:51AM LMG	**Received On/By:**	Sep 13 2018 11:51AM LMG
Relinquished From:	Sample Preparation: NA	**Received Location:**	LC Laboratory: NA
Relinquish Comment:	NA	**Received Comment:**	screening purposes only, see misc doc for details

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	J7774-FS(0)	1000	1	Intact	NA
2	J7775-FS(0)	1000	1	Intact	NA
3	J7776-FS(0)	1000	1	Intact	NA
4	J7777-FS(0)	1000	1	Intact	NA
5	J7778-FS(0)	1000	1	Intact	NA
6	J7779-FS(0)	1000	1	Intact	NA
7	J7780-FS(0)	1000	1	Intact	NA
8	J7784-FS(0)	1000	1	Intact	NA
9	J7785-FS(0)	1000	1	Intact	NA

Total Extracts: 9

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BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Sep 17 2018 5:14PM SAS	**Received On/By:**	Sep 17 2018 5:52PM DMS
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	CR817PB-FS(0)	1000	1	Intact	NA
2	CR818LCS-FS(0)	1000	1	Intact	NA
3	J7774-FS(0)	1000	1	Intact	NA
4	J7775-FS(0)	1000	1	Intact	NA
5	J7776-FS(0)	1000	1	Intact	NA
6	J7777-FS(0)	1000	1	Intact	NA
7	J7778-FS(0)	1000	1	Intact	NA
8	J7779-FS(0)	1000	1	Intact	NA
9	J7780-FS(0)	1000	1	Intact	NA
10	J7784-FS(0)	1000	1	Intact	NA
11	J7785-FS(0)	1000	1	Intact	NA

Total Extracts: 11

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It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Sep 17 2018 5:14PM SAS	**Received On/By:**	Sep 17 2018 5:53PM DMS
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	J7775-FS-D(3)	1000	2	Intact	NA
2	J7775-FS-D(5)	1000	5	Intact	NA
3	J7776-FS-D(3)	1000	2	Intact	NA
4	J7776-FS-D(5)	1000	5	Intact	NA
5	J7777-FS-D(3)	500	4	Intact	NA
6	J7777-FS-D(5)	1000	6.667	Intact	NA
7	J7778-FS-D(3)	1000	2	Intact	NA
8	J7779-FS-D(3)	1000	5	Intact	NA
9	J7779-FS-D(5)	1000	2	Intact	NA
10	J7780-FS-D(3)	1000	2	Intact	NA
11	J7780-FS-D(5)	1000	5	Intact	NA

Total Extracts: 11

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE SPECIFIC COMMENTS

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Sample ID:	Comment:	Date/Initials:
CR817PB-FS	Extraction for all samples began at 10:37am	09/14/18 SAS
CR817PB-FS	Sample extraction ended at 11:32am	09/14/18 SAS
CR818LCS-FS	Sample extraction ended at 11:27am	09/14/18 SAS
J7774-FS	Sample extraction ended at 11:44am	09/14/18 SAS
J7775-FS	Sample extraction ended at 11:44am	09/14/18 SAS
J7776-FS	Sample extraction ended at 11:36am	09/14/18 SAS
J7777-FS	Sample extraction ended at 11:38am	09/14/18 SAS
J7778-FS	Sample extraction ended at 11:45am	09/14/18 SAS
J7779-FS	Sample extraction ended at 11:44am	09/14/18 SAS
J7780-FS	Due to sample clogging the filter, the filter of the SPE was popped off. Filter had a green algae like substance on it.	09/14/18 SAS
J7780-FS	Sample extraction ended at 12:35pm	09/14/18 SAS
J7784-FS	Sample extraction ended at 11:33am	09/14/18 SAS
J7785-FS	Sample extraction ended at 11:42am	09/14/18 SAS

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It can be done

BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Entered By:	Lauren Griffith	**On:**	09/14/2018

For pre-screening by direct inject, extracts were prepared as follows.

For each sample, 400 uL of methanol (180724-02) were pipetted (B820865811) into eppendorf tubes, followed by 50 uL each of JY26 and JY28 (pipette B814659662). Addition of standard solutions was witnessed by Bob Lizotte. Samples were mixed by inverting several times; then a 500 uL aliquot (pipette B1100330B) of each was transferred to one of the eppendorf tubes containing spiked methanol. The tubes were then capped and vortexed to mix. An aliquot of direct inject extract was then transferred to an autosampler vial and submitted for analysis.

Task Leader Approval:	Lauren Griffith	**On:**	09/18/2018
SupervisorApproval:	Denise Schumitz	**On:**	09/18/2018
PM Approval:	Jonathan Thorn	**On:**	09/19/2018

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It can be done

BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title(s)
CTO-SE0375: Naval Air Station Jacksonville

Project No.(s)
100119154-SE0375

18-0560

CTO-SE0375: Non-Potable Water PFAS Analysis

GW, QC, SW

Entered By:	Stephanie Schultz	**On:**	09/18/2018

For dilution J7777-FS-D(3), the original 500uL split was inadvertantly added to the tube containing spikes for the 10x dilution (J7777-FS-D(5)). Dilution was remade at 500uL instead of 1000uL with spikes at 13uL for both JY26 and JY28 due to the low sample volume left over.

Task Leader Approval:	Stephanie Schultz	**On:**	09/18/2018
SupervisorApproval:	Denise Schumitz	**On:**	09/19/2018
PM Approval:	Jonathan Thorn	**On:**	09/19/2018

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Sequence Report

Created with Analyst Reporter
Printed: 18/09/2018 3:13:06 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	MeOH		9/17/2018 6:08:24 PM	5-0369.dam	09172018.wiff
2	KA86	L1	9/17/2018 6:19:17 PM	5-0369.dam	09172018.wiff
3	KA87	L2	9/17/2018 6:30:11 PM	5-0369.dam	09172018.wiff
4	KA88	L3	9/17/2018 6:41:03 PM	5-0369.dam	09172018.wiff
5	KA89	L4	9/17/2018 6:51:56 PM	5-0369.dam	09172018.wiff
6	KA90	L5	9/17/2018 7:02:47 PM	5-0369.dam	09172018.wiff
7	KA91	L6	9/17/2018 7:13:39 PM	5-0369.dam	09172018.wiff
8	KA92	L7	9/17/2018 7:24:30 PM	5-0369.dam	09172018.wiff
9	JY46 IB	Instrument Blank	9/17/2018 7:35:21 PM	5-0369.dam	09172018.wiff
10	JY45 ICC	ICC	9/17/2018 7:46:13 PM	5-0369.dam	09172018.wiff
11	KA29 BRANCH	Branch Standard	9/17/2018 7:57:05 PM	5-0369.dam	09172018.wiff
12	MeOH		9/17/2018 8:07:57 PM	5-0369.dam	09172018.wiff
13	CR815PB-FS(3)	Procedural Blank	9/17/2018 8:18:50 PM	5-0369.dam	09172018.wiff
14	CR816LCS-FS(3)	Laboratory Control Sample	9/17/2018 8:29:42 PM	5-0369.dam	09172018.wiff
15	J7781-FS(3)	JAX-TCC-SD02-09112018	9/17/2018 8:40:33 PM	5-0369.dam	09172018.wiff
16	J7782-FS(3)	JAX-TCC-SD03-09112018	9/17/2018 8:51:25 PM	5-0369.dam	09172018.wiff
17	J7782MS-FS(3)	JAX-TCC-SD03-09112018	9/17/2018 9:02:16 PM	5-0369.dam	09172018.wiff
18	J7782MSD-FS(3)	JAX-TCC-SD03-09112018	9/17/2018 9:13:07 PM	5-0369.dam	09172018.wiff
19	J7783-FS(3)	JAX-TCC-SD04-09112018	9/17/2018 9:23:58 PM	5-0369.dam	09172018.wiff
6	KA90 CCV	CCV	9/17/2018 9:34:51 PM	5-0369.dam	09172018.wiff
20	MeOH		9/17/2018 9:45:43 PM	5-0369.dam	09172018.wiff
21	CR817PB-FS(0)	Procedural Blank	9/17/2018 9:56:35 PM	5-0369.dam	09172018.wiff
22	CR818LCS-FS(0)	Laboratory Control Sample	9/17/2018 10:07:27 PM	5-0369.dam	09172018.wiff
23	J7785-FS(0)	JAX-TCC-FRB-09112018	9/17/2018 10:18:19 PM	5-0369.dam	09172018.wiff
24	J7774-FS(0)	JAX-TCC-EB02-09112018	9/17/2018 10:29:11 PM	5-0369.dam	09172018.wiff
25	J7784-FS(0)	JAX-TCC-EB03-09112018	9/17/2018 10:40:02 PM	5-0369.dam	09172018.wiff
5	KA89 CCV	CCV	9/17/2018 10:50:54	5-0369.dam	09172018.wiff

1

1 - Not reported with this batch. BL 9/20/2018

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Sequence Report

Created with Analyst Reporter
Printed: 18/09/2018 3:13:06 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			PM		
26	MeOH		9/17/2018 11:01:47 PM	5-0369.dam	09172018.wiff
27	J7778-FS(0)	JAX-TCC-MWB1-09112018	9/17/2018 11:12:37 PM	5-0369.dam	09172018.wiff
28	J7778-FS-D(3)	JAX-TCC-MWB1-09112018	9/17/2018 11:23:29 PM	5-0369.dam	09172018.wiff
29	J7775-FS(0)	JAX-TCC-MWC3-09112018	9/17/2018 11:34:21 PM	5-0369.dam	09172018.wiff
30	J7775-FS-D(3)	JAX-TCC-MWC3-09112018	9/17/2018 11:45:13 PM	5-0369.dam	09172018.wiff
31	J7775-FS-D(5)	JAX-TCC-MWC3-09112018	9/17/2018 11:56:05 PM	5-0369.dam	09172018.wiff
32	J7776-FS(0)	JAX-TCC-MWC3-09112018-FD	9/18/2018 12:06:57 AM	5-0369.dam	09172018.wiff
33	J7776-FS-D(3)	JAX-TCC-MWC3-09112018-FD	9/18/2018 12:17:49 AM	5-0369.dam	09172018.wiff
34	J7776-FS-D(5)	JAX-TCC-MWC3-09112018-FD	9/18/2018 12:28:40 AM	5-0369.dam	09172018.wiff
26	MeOH		9/18/2018 12:39:31 AM	5-0369.dam	09172018.wiff
6	KA90 CCV	CCV	9/18/2018 12:50:22 AM	5-0369.dam	09172018.wiff
20	MeOH		9/18/2018 1:01:15 AM	5-0369.dam	09172018.wiff
35	J7779-FS(0)	JAX-TCC-SW01-09112018	9/18/2018 1:12:07 AM	5-0369.dam	09172018.wiff
36	J7779-FS-D(3)	JAX-TCC-SW01-09112018	9/18/2018 1:22:59 AM	5-0369.dam	09172018.wiff
37	J7779-FS-D(5)	JAX-TCC-SW01-09112018	9/18/2018 1:33:50 AM	5-0369.dam	09172018.wiff
38	J7780-FS(0)	JAX-TCC-SW02-09112018	9/18/2018 1:44:42 AM	5-0369.dam	09172018.wiff
39	J7780-FS-D(3)	JAX-TCC-SW02-09112018	9/18/2018 1:55:34 AM	5-0369.dam	09172018.wiff
40	J7780-FS-D(5)	JAX-TCC-SW02-09112018	9/18/2018 2:06:26 AM	5-0369.dam	09172018.wiff
41	J7777-FS(0)	JAX-TCC-MWI2-09112018	9/18/2018 2:17:18 AM	5-0369.dam	09172018.wiff
42	J7777-FS-D(3)	JAX-TCC-MWI2-09112018	9/18/2018 2:28:10 AM	5-0369.dam	09172018.wiff
43	J7777-FS-D(5)	JAX-TCC-MWI2-09112018	9/18/2018 2:39:01 AM	5-0369.dam	09172018.wiff
12	MeOH		9/18/2018 2:49:52 AM	5-0369.dam	09172018.wiff
5	KA89 CCV	CCV	9/18/2018 3:00:45 AM	5-0369.dam	09172018.wiff

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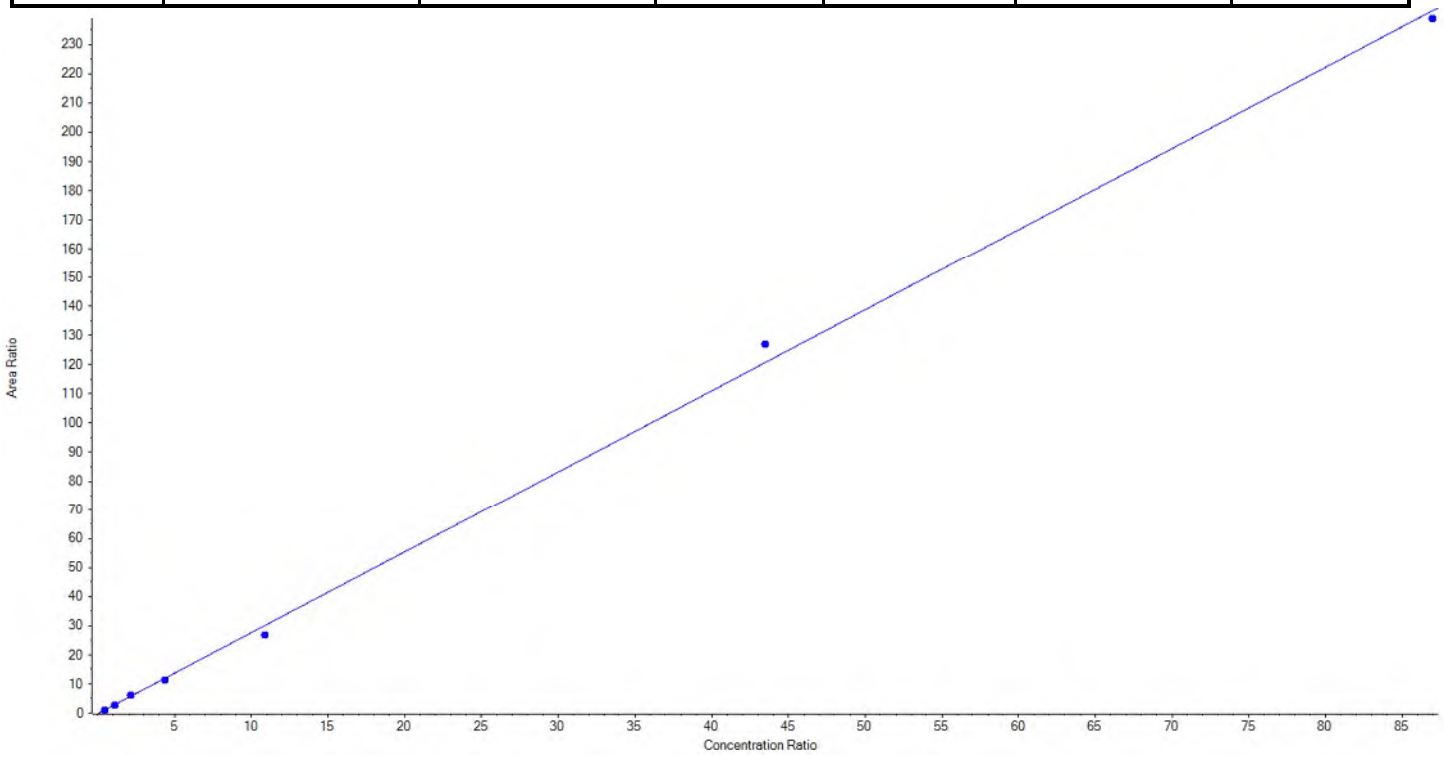
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFBS_1	**Data File**	09172018.wiff
MRM Transition	298.9 / 80.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 2.77909 x + -0.17589 (r = 0.99902) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	107.210507	106.2
3	KA87	L2	True	252.00	256.792877	101.9
4	KA88	L3	True	505.00	522.951445	103.6
5	KA89	L4	True	1010.00	961.467448	95.2
6	KA90	L5	True	2525.00	2251.753492	89.2
7	KA91	L6	True	10100.00	10619.448743	105.1
8	KA92	L7	True	20200.00	19973.375488	98.9



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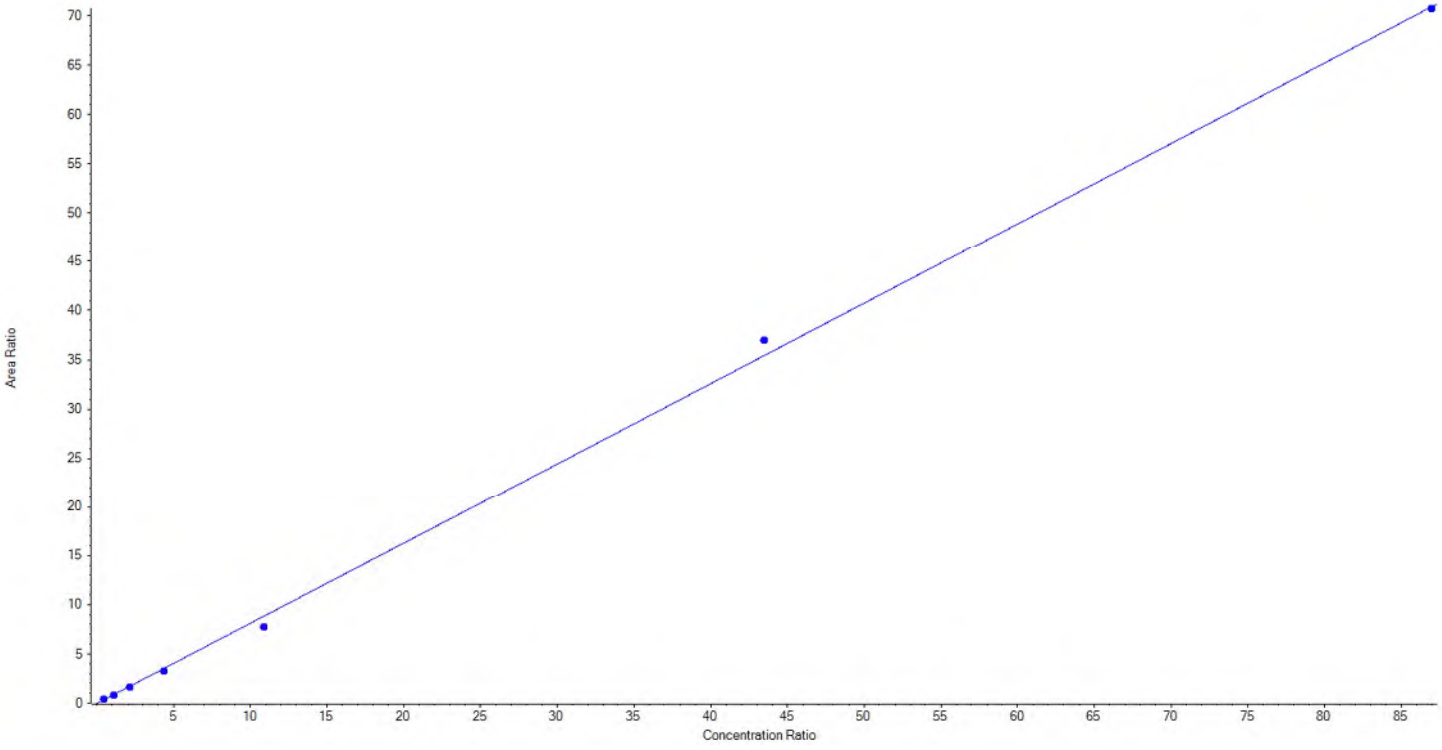
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFBS_2	**Data File**	09172018.wiff
MRM Transition	298.9 / 99.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.81561 x + -0.04043 (r = 0.99896) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	124.306355	123.1
3	KA87	L2	True	252.00	242.352302	96.2
4	KA88	L3	True	505.00	480.256328	95.1
5	KA89	L4	True	1010.00	947.233424	93.8
6	KA90	L5	True	2525.00	2218.136856	87.9
7	KA91	L6	True	10100.00	10531.345026	104.3
8	KA92	L7	True	20200.00	20149.369708	99.8



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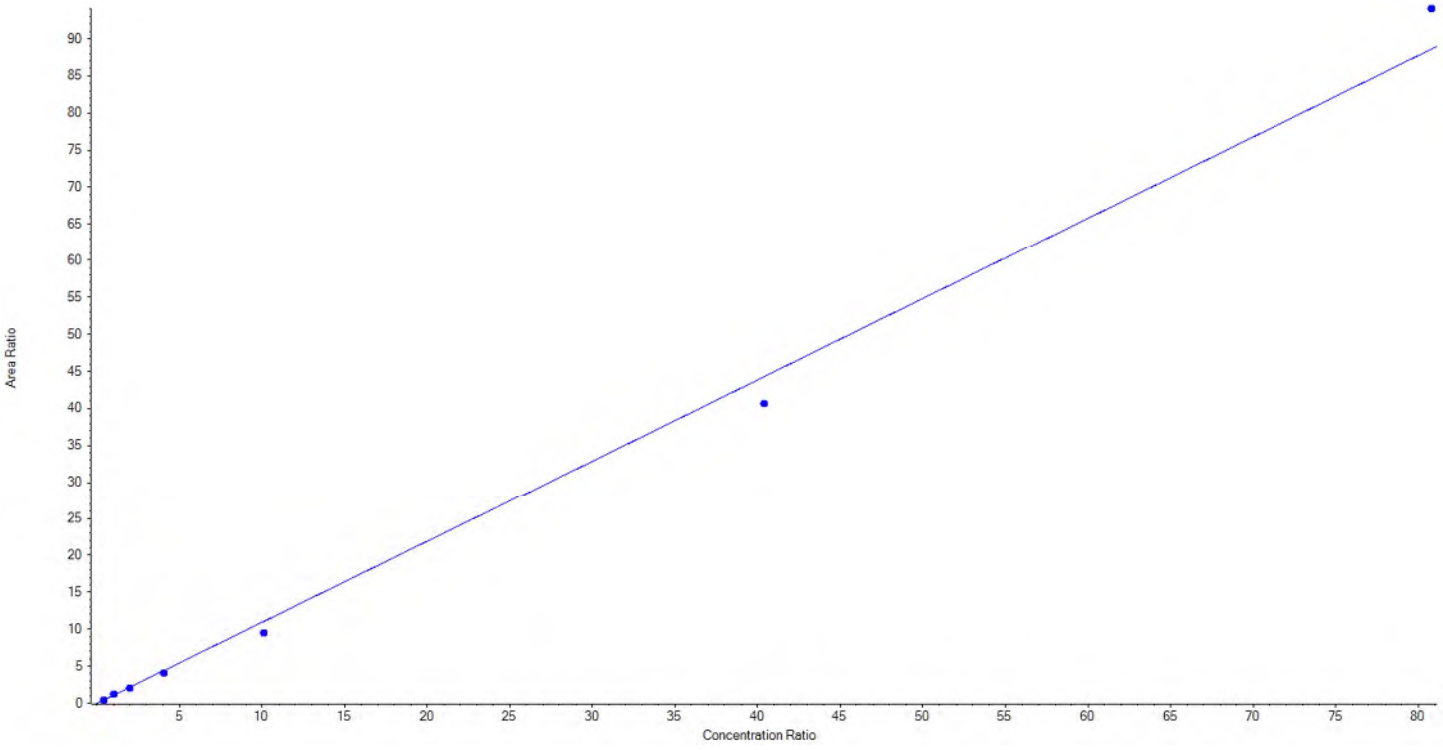
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHxA_1	**Data File**	09172018.wiff
MRM Transition	313.0 / 269.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.09727 x + -0.04646 (r = 0.99674) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	116.251169	115.1
3	KA87	L2	True	252.00	288.265557	114.4
4	KA88	L3	True	505.00	469.463253	93.0
5	KA89	L4	True	1010.00	946.375417	93.7
6	KA90	L5	True	2525.00	2171.771994	86.0
7	KA91	L6	True	10100.00	9261.678272	91.7
8	KA92	L7	True	20200.00	21439.194338	106.1



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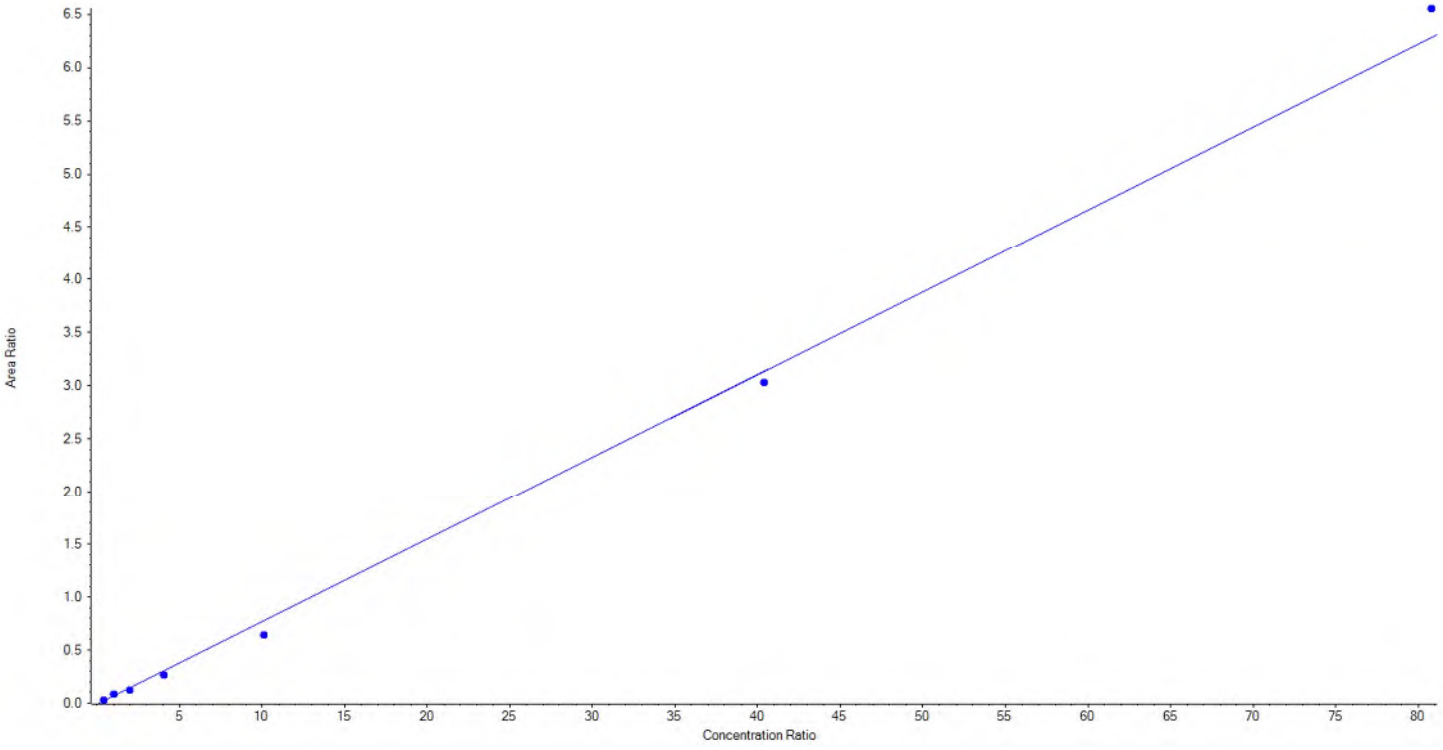
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHxA_2	**Data File**	09172018.wiff
MRM Transition	313.0 / 119.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.07785 x + -0.01012 (r = 0.99736) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	118.706895	117.5
3	KA87	L2	True	252.00	315.063029	125.0
4	KA88	L3	True	505.00	436.406684	86.4
5	KA89	L4	True	1010.00	880.568908	87.2
6	KA90	L5	True	2525.00	2088.102209	82.7
7	KA91	L6	True	10100.00	9776.953274	96.8
8	KA92	L7	True	20200.00	21077.199002	104.3



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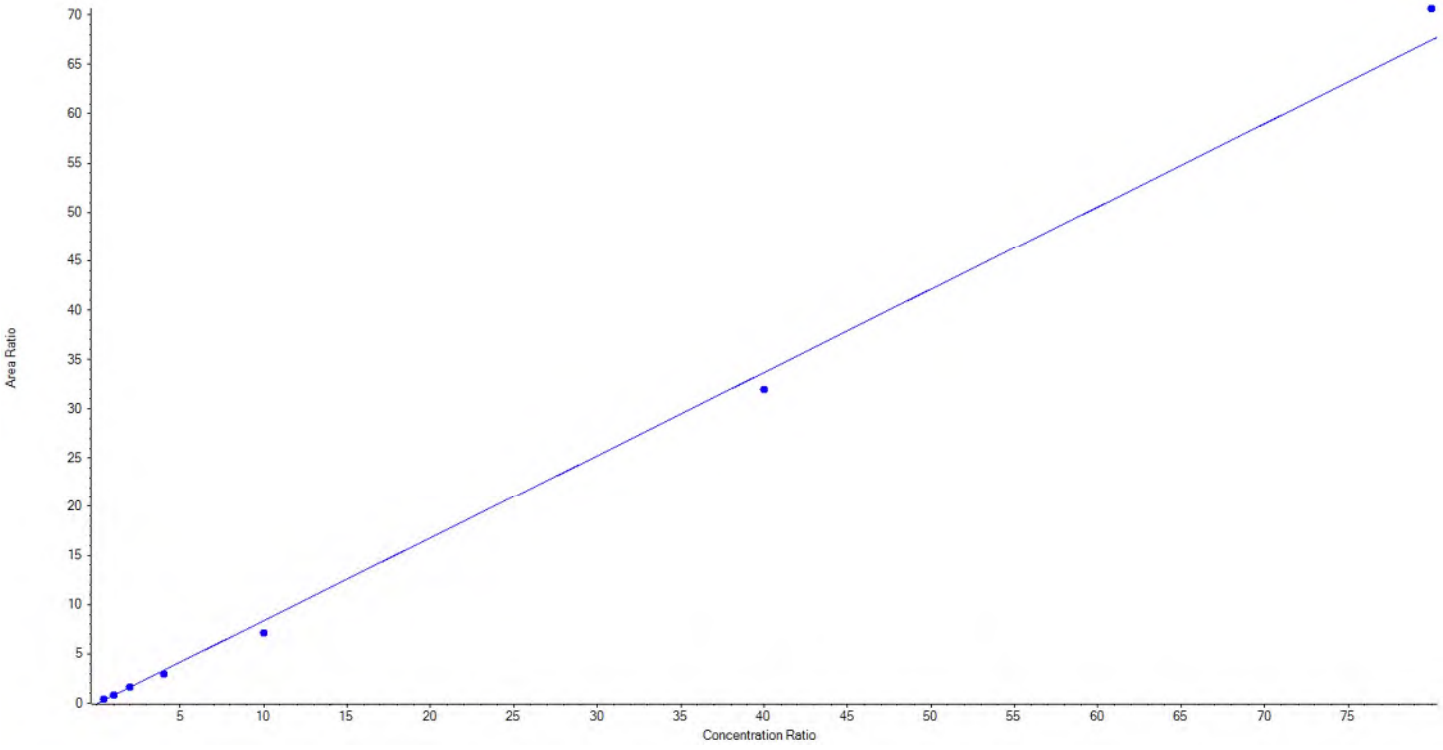
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHpA_1	**Data File**	09172018.wiff
MRM Transition	363.0 / 319.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.84373 x + -0.06432 (r = 0.99777) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	126.435711	126.4
3	KA87	L2	True	250.00	247.462947	99.0
4	KA88	L3	True	500.00	494.594695	98.9
5	KA89	L4	True	1000.00	908.164781	90.8
6	KA90	L5	True	2500.00	2128.310132	85.1
7	KA91	L6	True	10000.00	9497.225875	95.0
8	KA92	L7	True	20000.00	20947.805860	104.7



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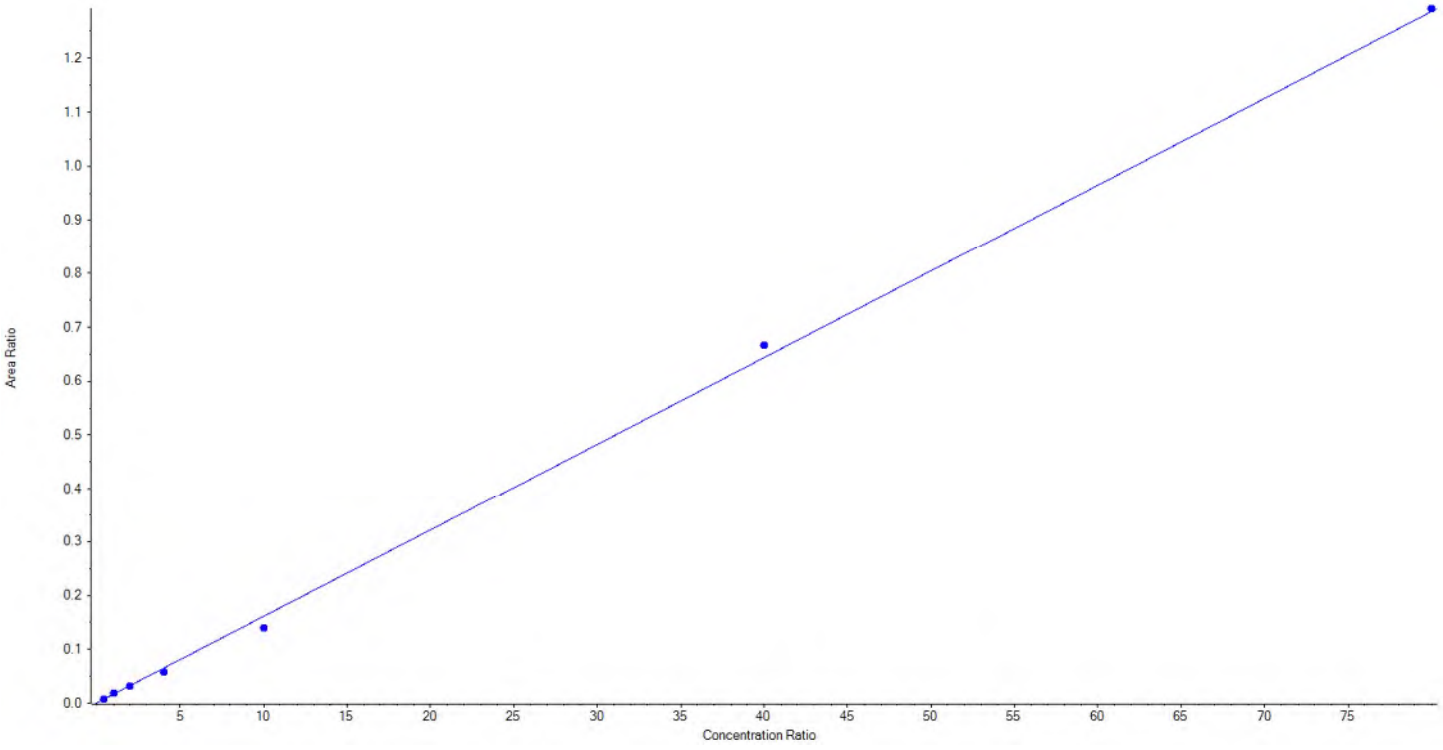
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHpA_2	**Data File**	09172018.wiff
MRM Transition	363.0 / 169.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.01607 x + 5.40020e-4 (r = 0.99871) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	117.894562	117.9
3	KA87	L2	True	250.00	272.310493	108.9
4	KA88	L3	True	500.00	476.146385	95.2
5	KA89	L4	True	1000.00	874.726007	87.5
6	KA90	L5	True	2500.00	2160.243680	86.4
7	KA91	L6	True	10000.00	10365.244292	103.7
8	KA92	L7	True	20000.00	20083.434581	100.4



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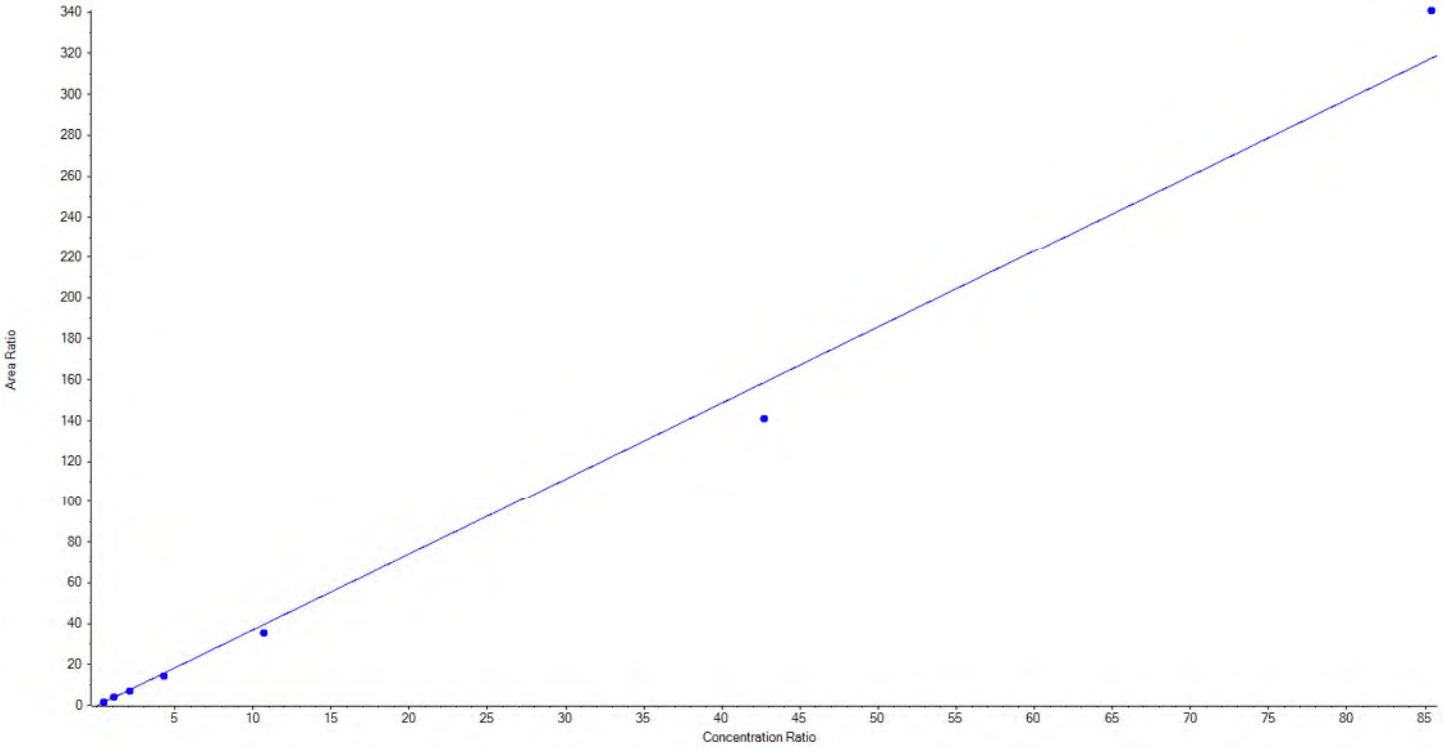
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFHxS_1	**Data File**	09172018.wiff
MRM Transition	399.0 / 80.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 3.72115 x + -0.32244 (r = 0.99560) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	125.028959	123.8
3	KA87	L2	True	252.00	277.132033	110.0
4	KA88	L3	True	505.00	449.866974	89.1
5	KA89	L4	True	1010.00	917.601880	90.9
6	KA90	L5	True	2525.00	2277.653301	90.2
7	KA91	L6	True	10100.00	8965.996617	88.8
8	KA92	L7	True	20200.00	21679.720237	107.3



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Calibration Summary Report

Created with Analyst Reporter
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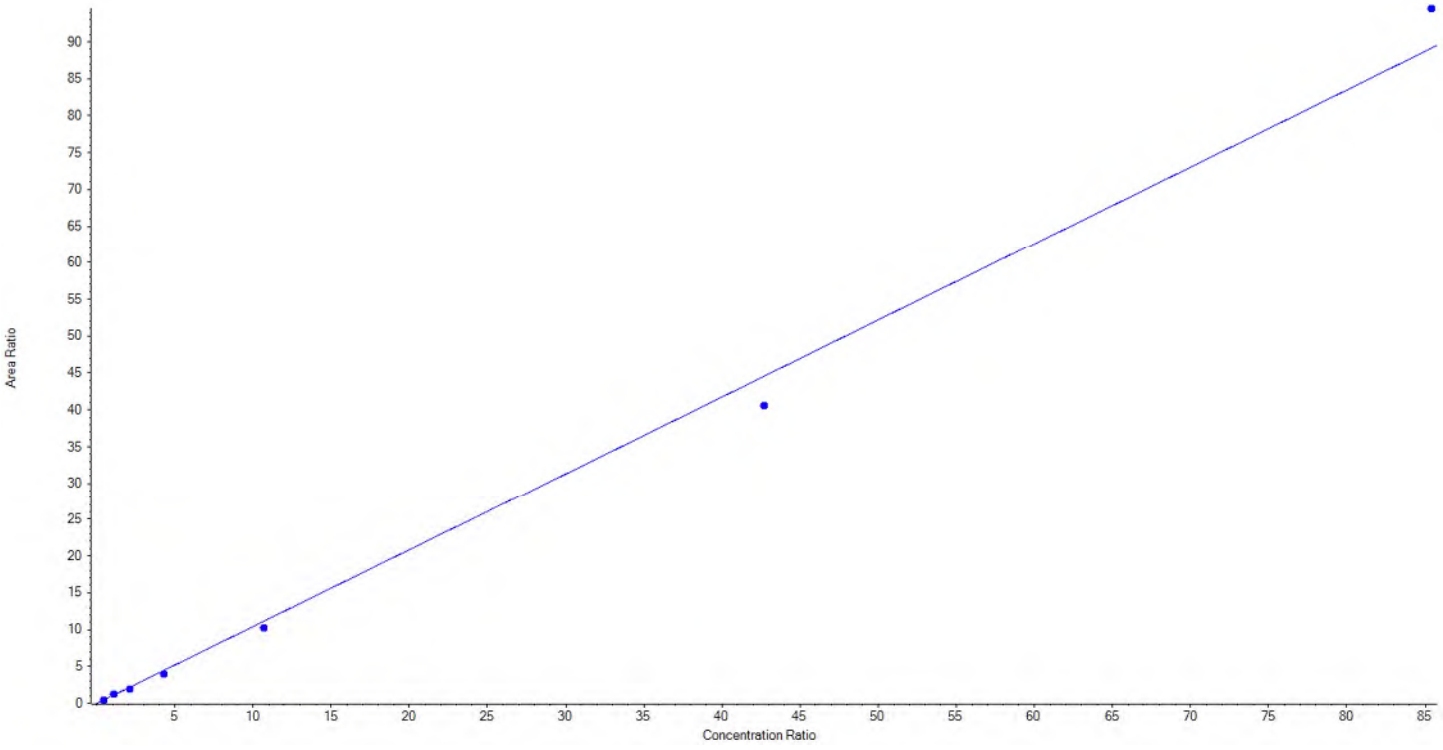
Analyte Name	PFHxS_2	**Data File**	09172018.wiff
MRM Transition	399.0 / 99.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04400 x + -0.03566 (r = 0.99689) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	101.00	115.879496	114.7
3	KA87	L2	True	252.00	298.762264	118.6
4	KA88	L3	True	505.00	452.963101	89.7
5	KA89	L4	True	1010.00	891.385065	88.3
6	KA90	L5	True	2525.00	2312.226195	91.6
7	KA91	L6	True	10100.00	9209.878255	91.2
8	KA92	L7	True	20200.00	21411.905624	106.0



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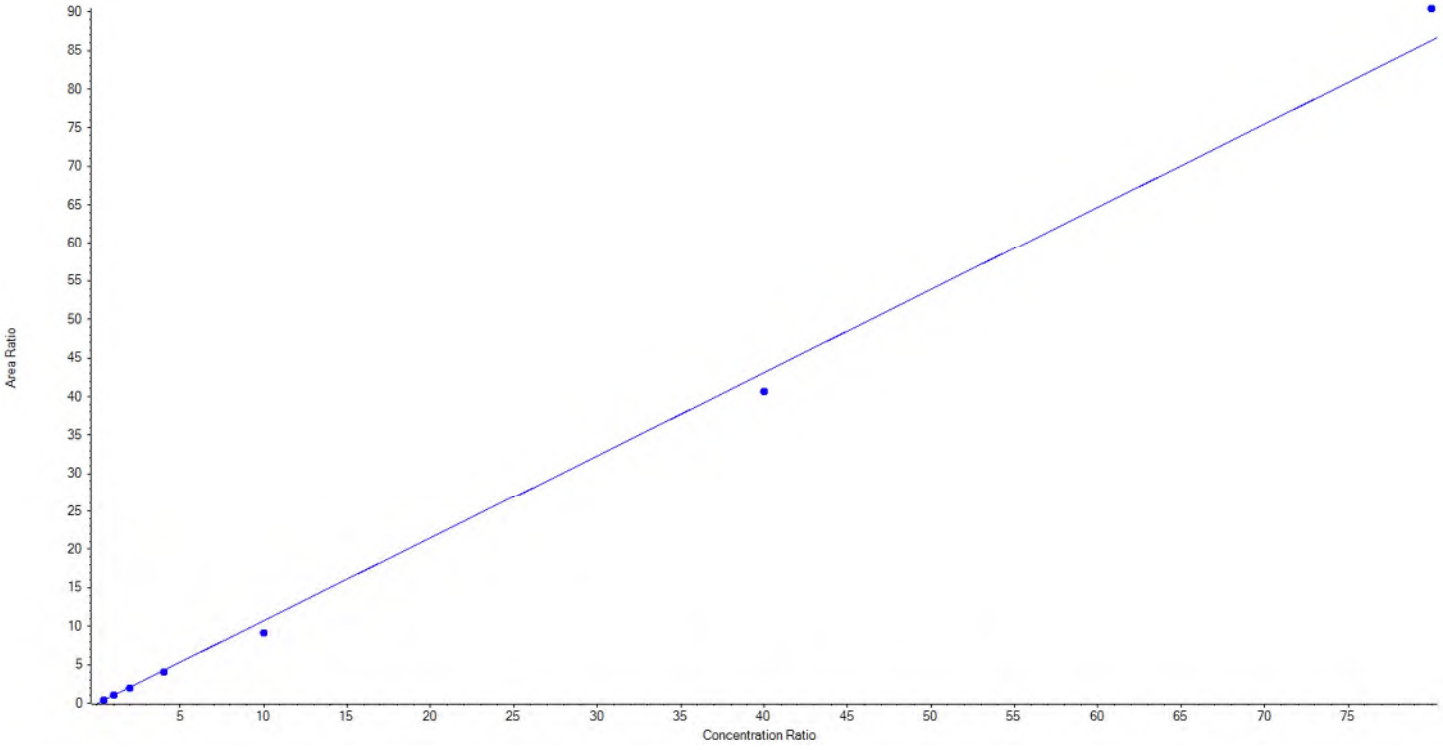
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFOA_1	**Data File**	09172018.wiff
MRM Transition	413.0 / 369.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.07936 x + -0.07884 (r = 0.99776) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	120.628781	120.6
3	KA87	L2	True	250.00	267.473813	107.0
4	KA88	L3	True	500.00	457.308715	91.5
5	KA89	L4	True	1000.00	964.357849	96.4
6	KA90	L5	True	2500.00	2129.724084	85.2
7	KA91	L6	True	10000.00	9448.533833	94.5
8	KA92	L7	True	20000.00	20961.972925	104.8



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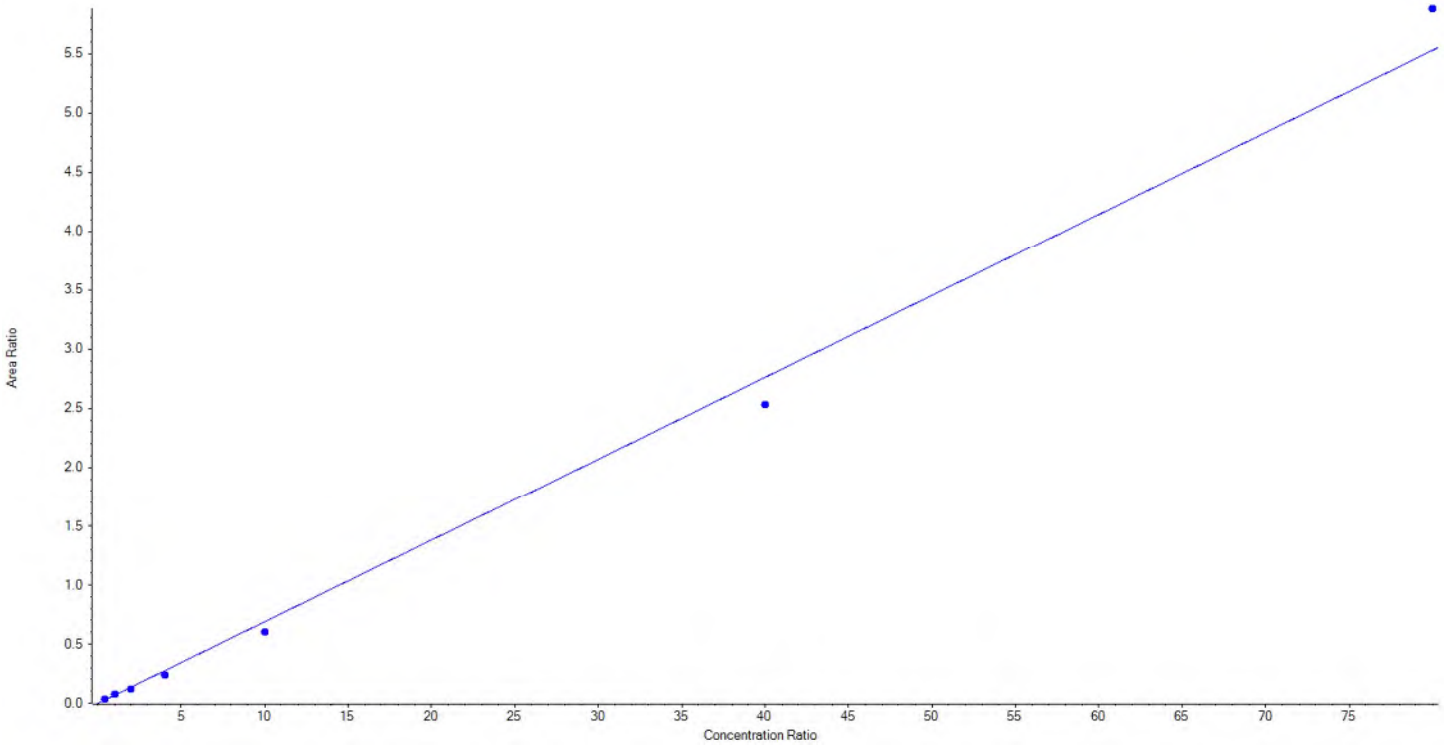
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFOA_2	**Data File**	09172018.wiff
MRM Transition	413.0 / 169.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06913 x + -0.00318 (r = 0.99653) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	128.340625	128.3
3	KA87	L2	True	250.00	274.279064	109.7
4	KA88	L3	True	500.00	442.322655	88.5
5	KA89	L4	True	1000.00	876.025066	87.6
6	KA90	L5	True	2500.00	2197.982787	87.9
7	KA91	L6	True	10000.00	9161.230341	91.6
8	KA92	L7	True	20000.00	21269.819462	106.4



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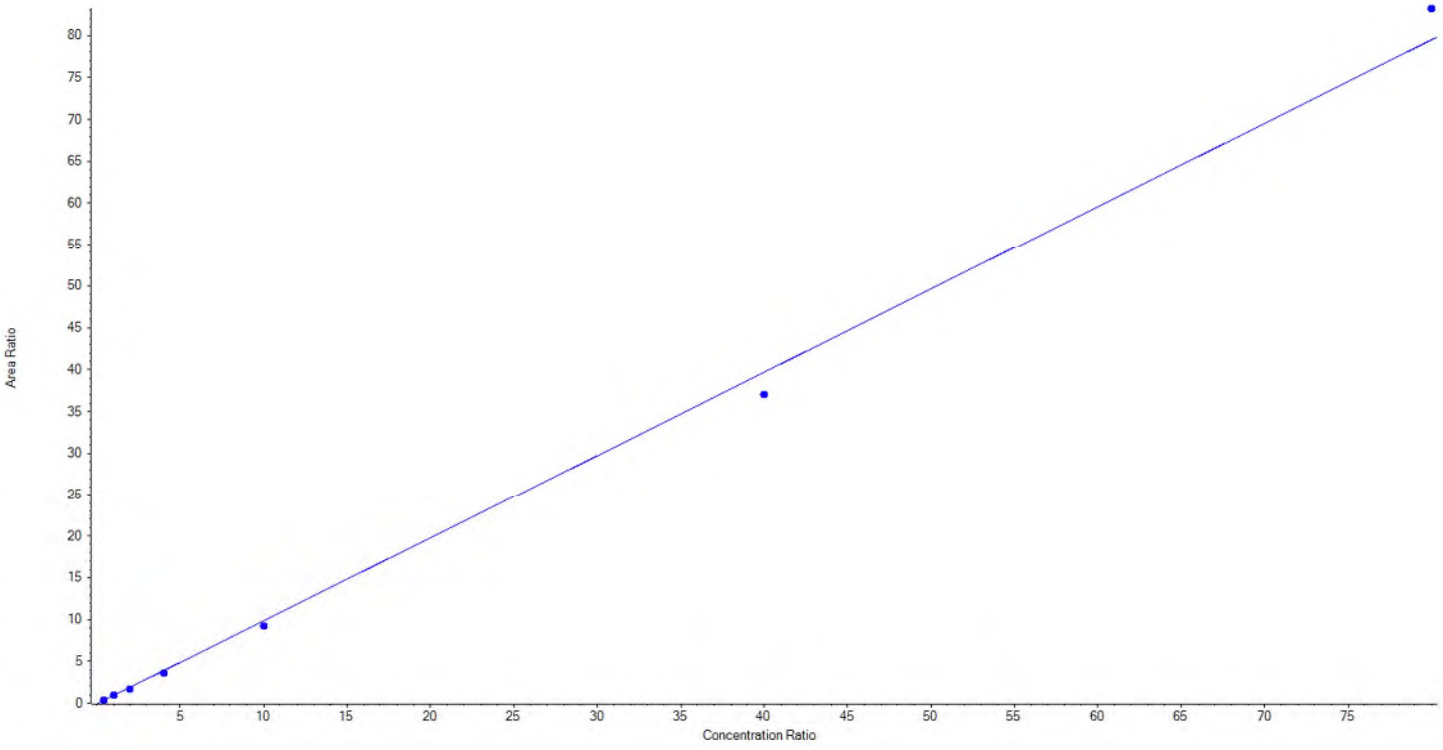
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFNA_1	**Data File**	09172018.wiff
MRM Transition	463.0 / 419.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.99457 x + -0.09664 (r = 0.99813) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	126.420004	126.4
3	KA87	L2	True	250.00	251.786479	100.7
4	KA88	L3	True	500.00	440.018950	88.0
5	KA89	L4	True	1000.00	935.526977	93.6
6	KA90	L5	True	2500.00	2333.848398	93.4
7	KA91	L6	True	10000.00	9328.596873	93.3
8	KA92	L7	True	20000.00	20933.802318	104.7



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Calibration Summary Report

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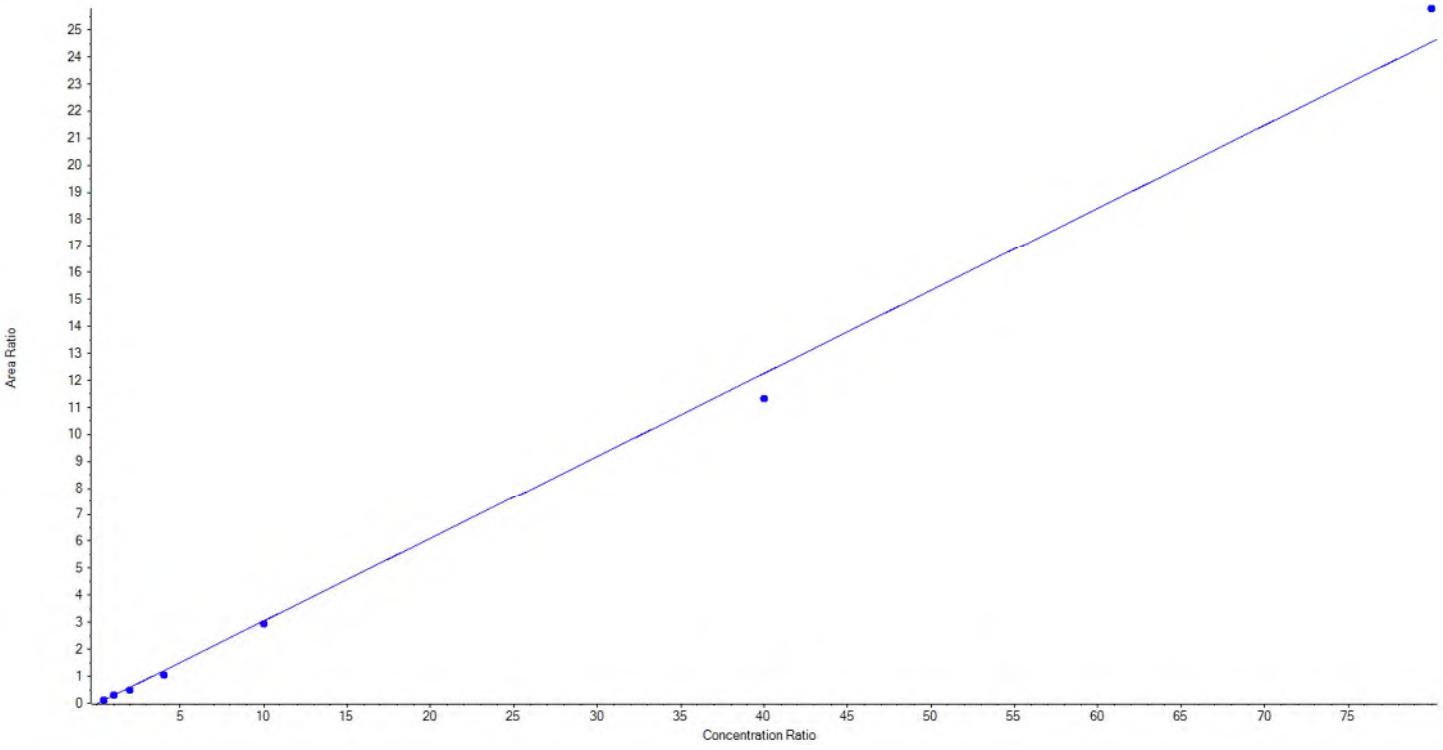
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFNA_2	**Data File**	09172018.wiff
MRM Transition	463.0 / 219.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.30725 x + -0.02895 (r = 0.99770) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	125.402344	125.4
3	KA87	L2	True	250.00	271.570220	108.6
4	KA88	L3	True	500.00	426.763431	85.4
5	KA89	L4	True	1000.00	869.989302	87.0
6	KA90	L5	True	2500.00	2402.105144	96.1
7	KA91	L6	True	10000.00	9252.579507	92.5
8	KA92	L7	True	20000.00	21001.590051	105.0



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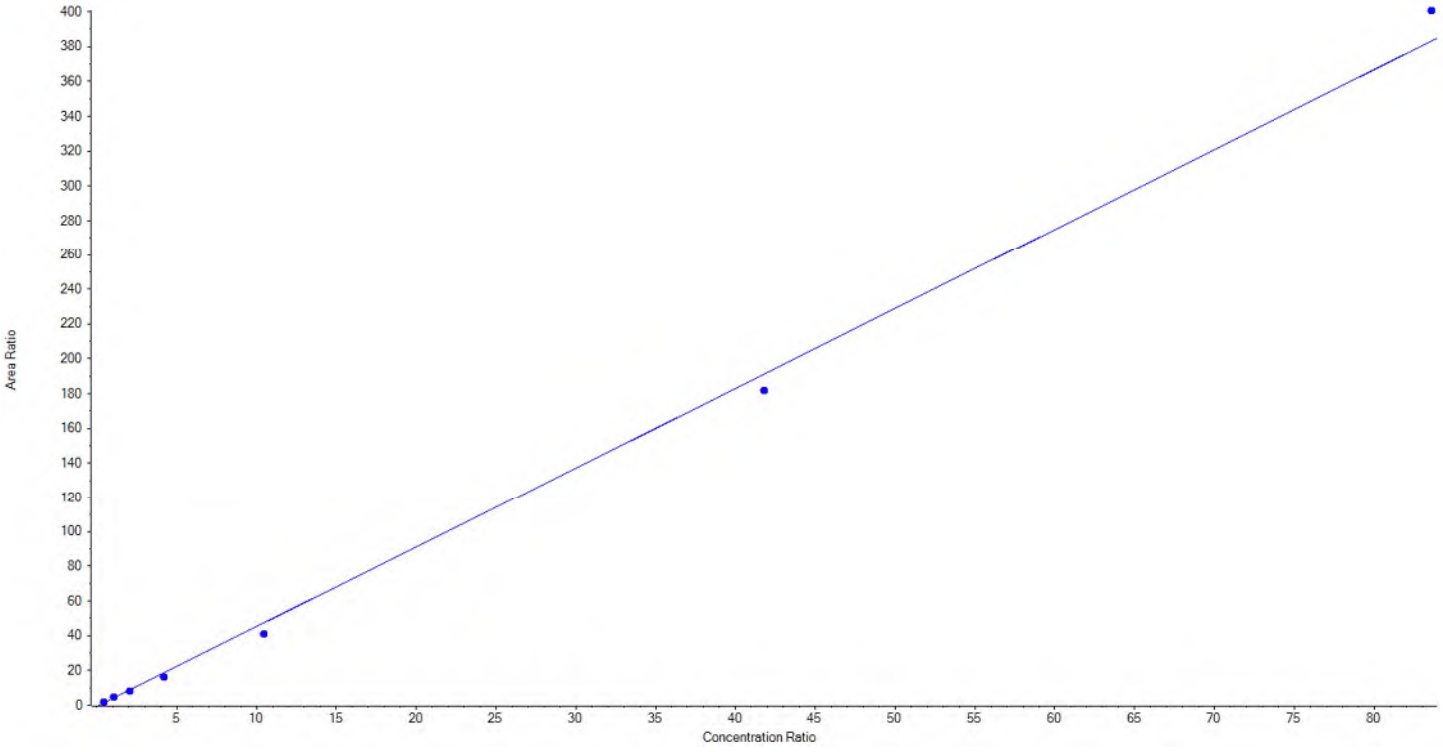
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFOS_1	**Data File**	09172018.wiff
MRM Transition	499.0 / 80.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 4.59265 x + -0.69673 (r = 0.99797) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	119.339962	119.3
3	KA87	L2	True	250.00	281.982603	112.8
4	KA88	L3	True	500.00	462.945369	92.6
5	KA89	L4	True	1000.00	882.307346	88.2
6	KA90	L5	True	2500.00	2184.290401	87.4
7	KA91	L6	True	10000.00	9515.980092	95.2
8	KA92	L7	True	20000.00	20903.154227	104.5



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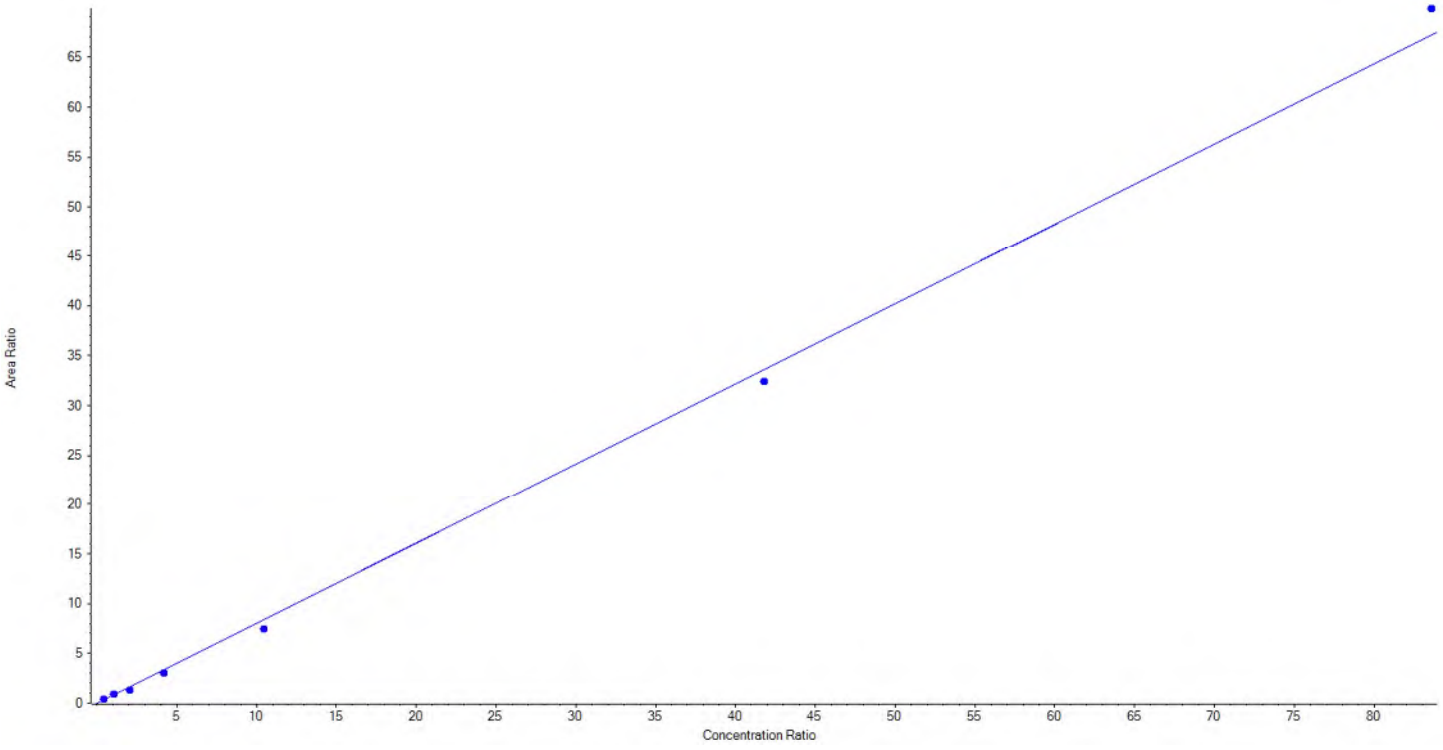
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFOS_2	**Data File**	09172018.wiff
MRM Transition	499.0 / 99.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.80443 x + -0.02185 (r = 0.99812) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	125.505534	125.5
3	KA87	L2	True	250.00	288.650412	115.5
4	KA88	L3	True	500.00	405.249707	81.1
5	KA89	L4	True	1000.00	892.164074	89.2
6	KA90	L5	True	2500.00	2209.859495	88.4
7	KA91	L6	True	10000.00	9646.143779	96.5
8	KA92	L7	True	20000.00	20782.426999	103.9



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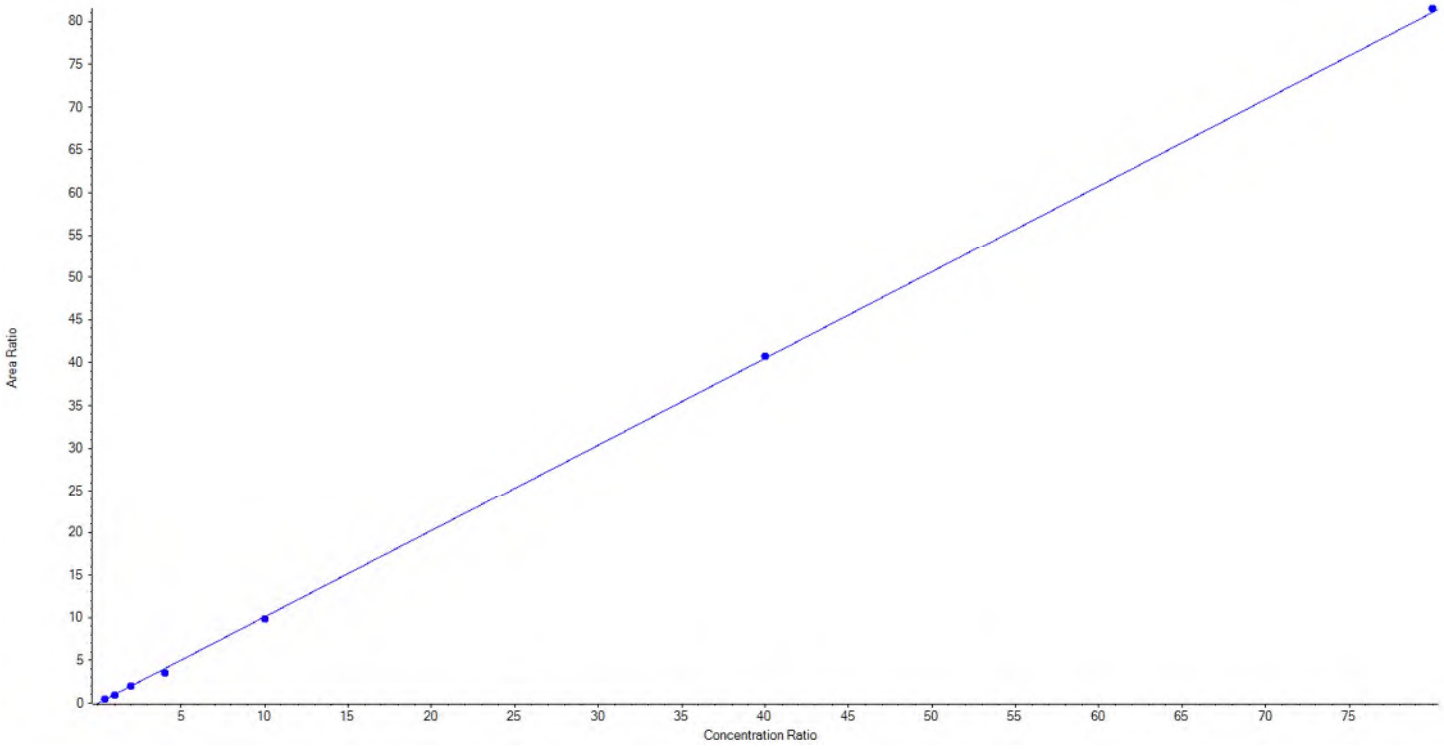
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFDA_1	**Data File**	09172018.wiff
MRM Transition	513.0 / 469.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.01339 x + -0.02388 (r = 0.99961) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	123.381231	123.4
3	KA87	L2	True	250.00	229.784275	91.9
4	KA88	L3	True	500.00	489.210038	97.8
5	KA89	L4	True	1000.00	877.127184	87.7
6	KA90	L5	True	2500.00	2446.700602	97.9
7	KA91	L6	True	10000.00	10072.665193	100.7
8	KA92	L7	True	20000.00	20111.131477	100.6



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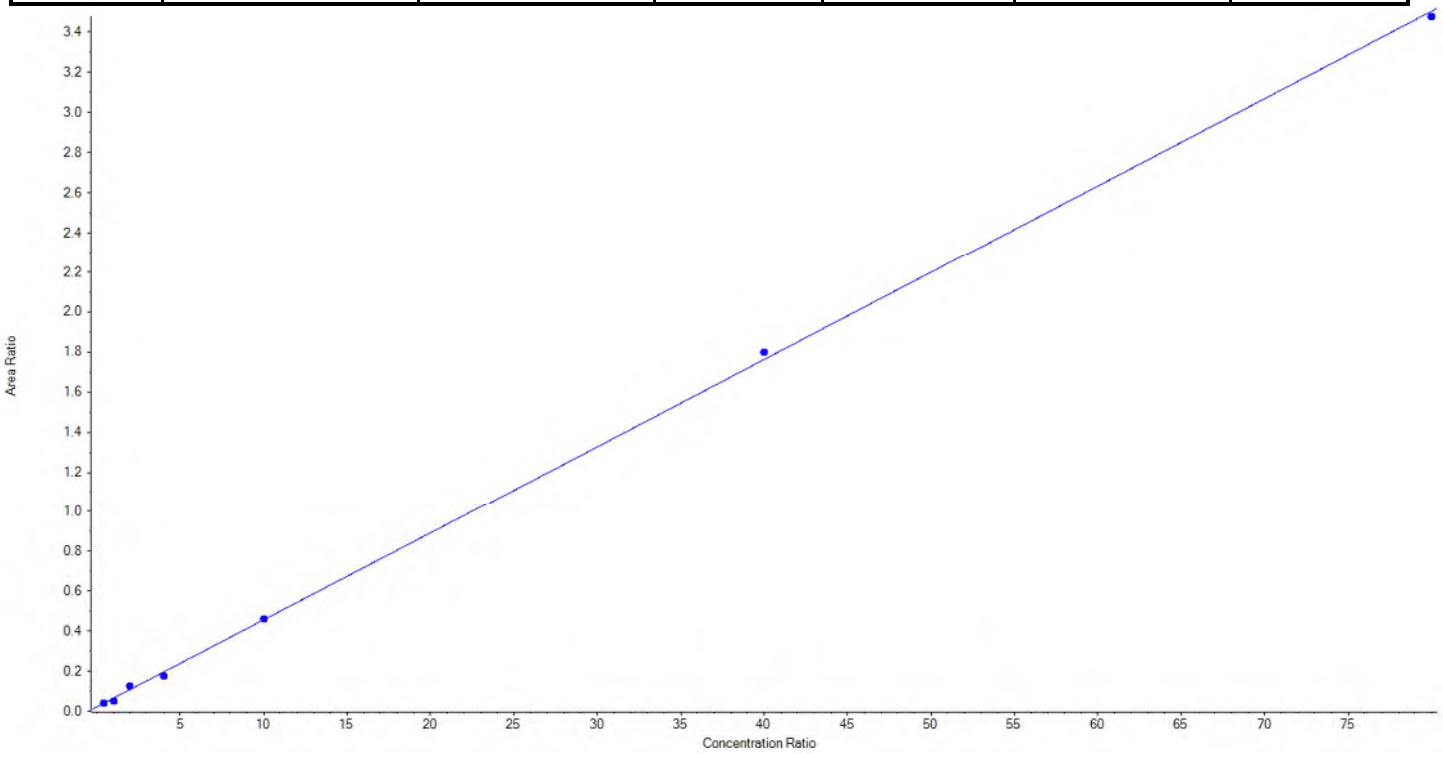
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFDA_2	**Data File**	09172018.wiff
MRM Transition	513.0 / 219.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.04354 x + 0.02103 (r = 0.99909) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	120.626037	120.6
3	KA87	L2	True	250.00	179.629735	71.9
4	KA88	L3	True	500.00	584.610035	116.9
5	KA89	L4	True	1000.00	885.454676	88.6
6	KA90	L5	True	2500.00	2516.263417	100.7
7	KA91	L6	True	10000.00	10217.395513	102.2
8	KA92	L7	True	20000.00	19846.020588	99.2



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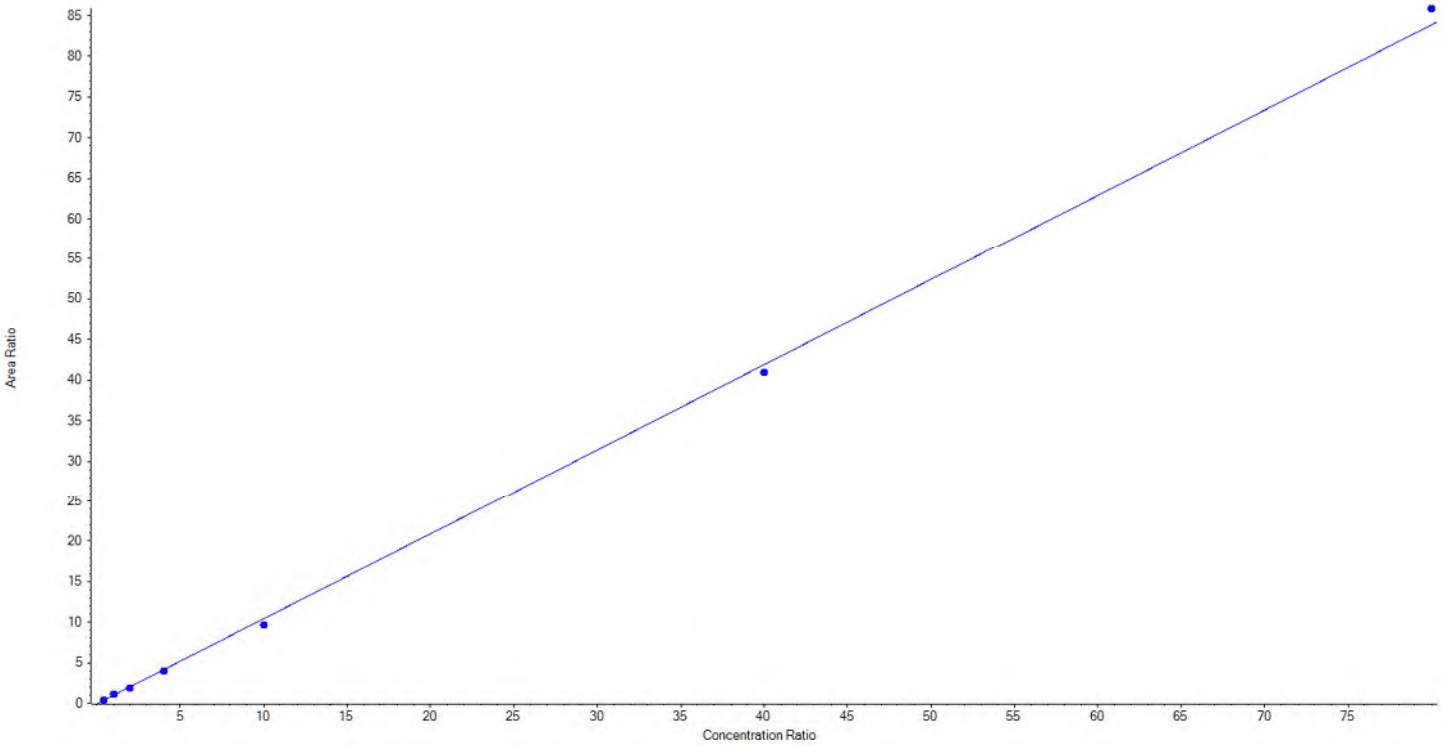
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFUnA_1	**Data File**	09172018.wiff
MRM Transition	563.0 / 519.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04951 x + -0.07889 (r = 0.99938) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	112.077862	112.1
3	KA87	L2	True	250.00	269.635011	107.9
4	KA88	L3	True	500.00	464.306485	92.9
5	KA89	L4	True	1000.00	947.368226	94.7
6	KA90	L5	True	2500.00	2308.798801	92.4
7	KA91	L6	True	10000.00	9775.798827	97.8
8	KA92	L7	True	20000.00	20472.014787	102.4



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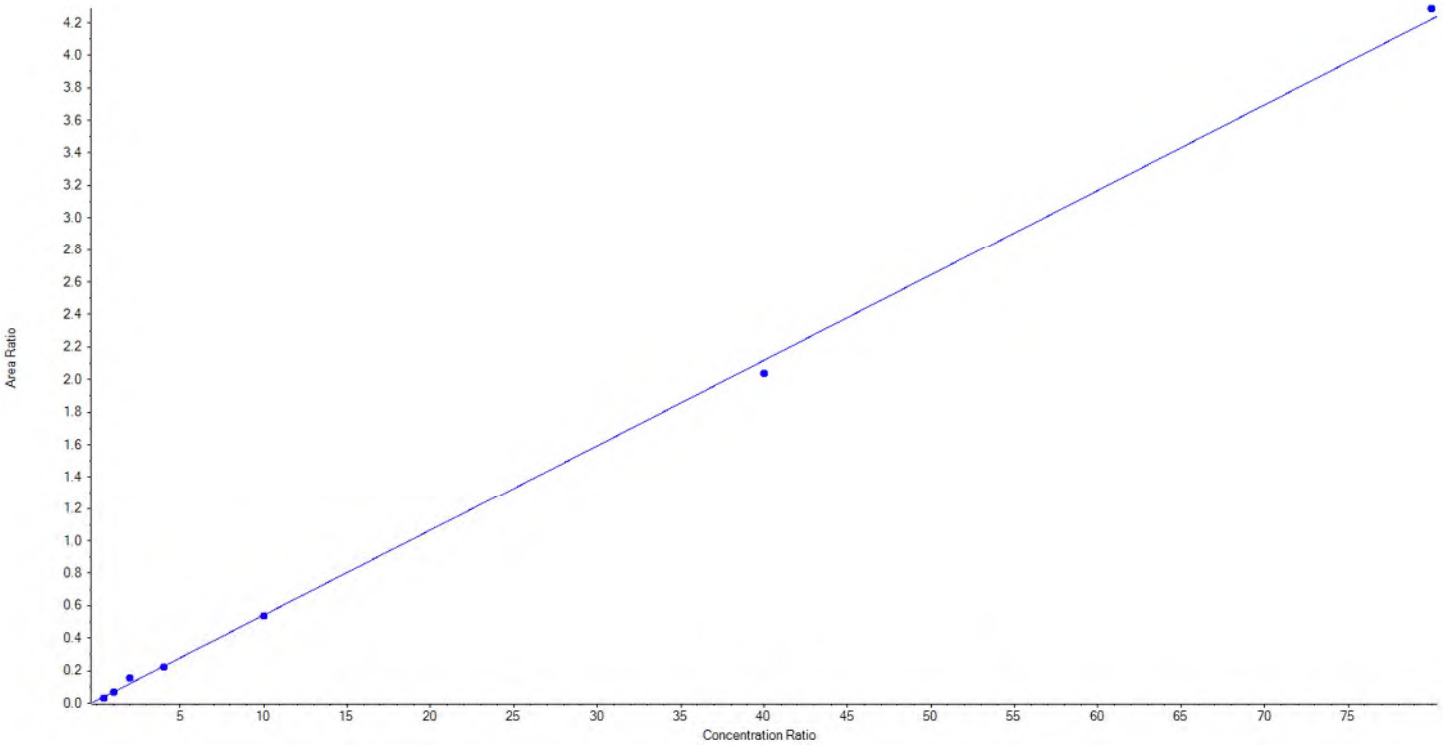
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFUnA_2	**Data File**	09172018.wiff
MRM Transition	563.0 / 269.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05256 x + 0.01624 (r = 0.99876) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	79.576176	79.6
3	KA87	L2	True	250.00	232.688592	93.1
4	KA88	L3	True	500.00	662.089510	132.4
5	KA89	L4	True	1000.00	981.865681	98.2
6	KA90	L5	True	2500.00	2478.234771	99.1
7	KA91	L6	True	10000.00	9607.359880	96.1
8	KA92	L7	True	20000.00	20308.185390	101.5



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Calibration Summary Report

Created with Analyst Reporter
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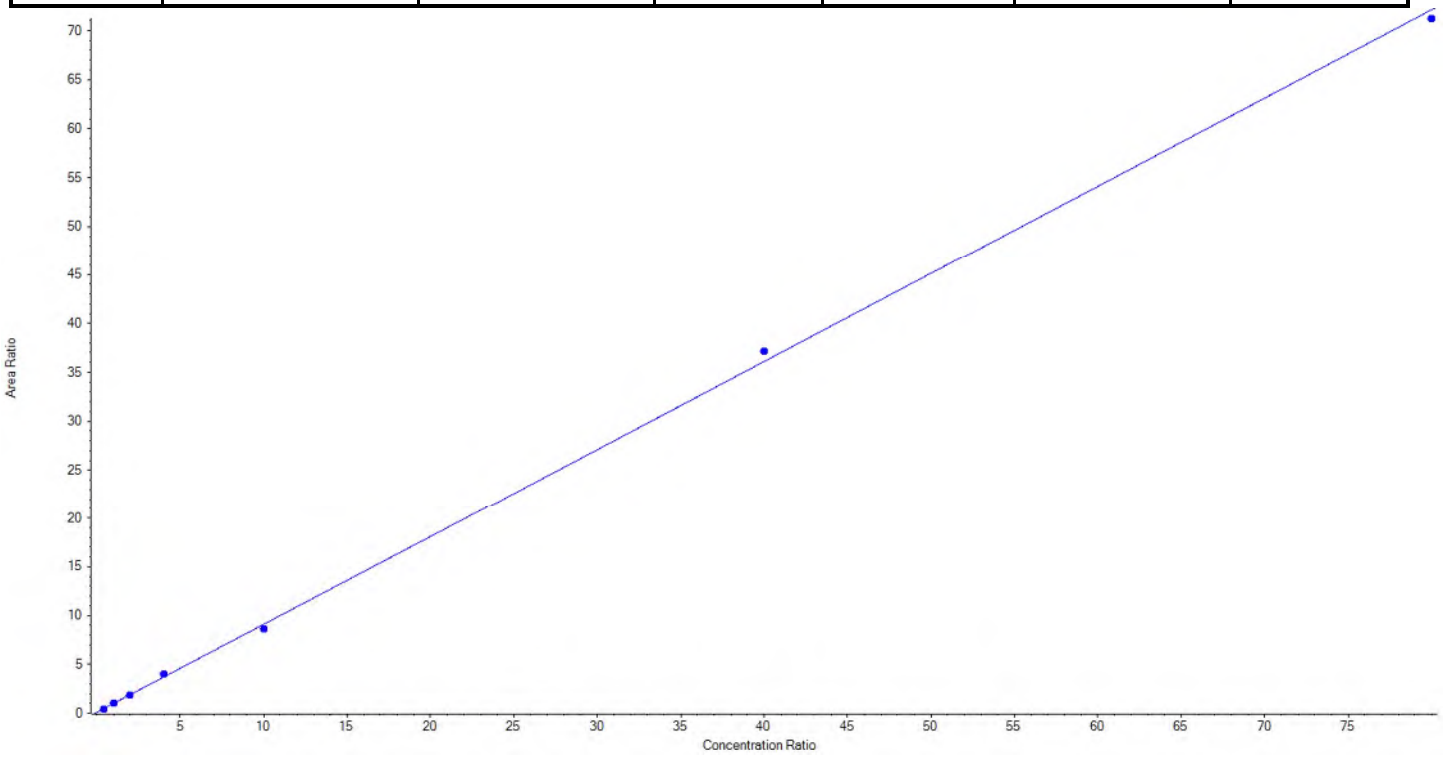
Analyte Name	PFDoA_1	**Data File**	09172018.wiff
MRM Transition	613.0 / 569.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.90040 x + 0.08961 (r = 0.99955) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	88.128553	88.1
3	KA87	L2	True	250.00	273.764190	109.5
4	KA88	L3	True	500.00	492.124770	98.4
5	KA89	L4	True	1000.00	1073.842486	107.4
6	KA90	L5	True	2500.00	2369.692338	94.8
7	KA91	L6	True	10000.00	10301.327343	103.0
8	KA92	L7	True	20000.00	19751.120321	98.8



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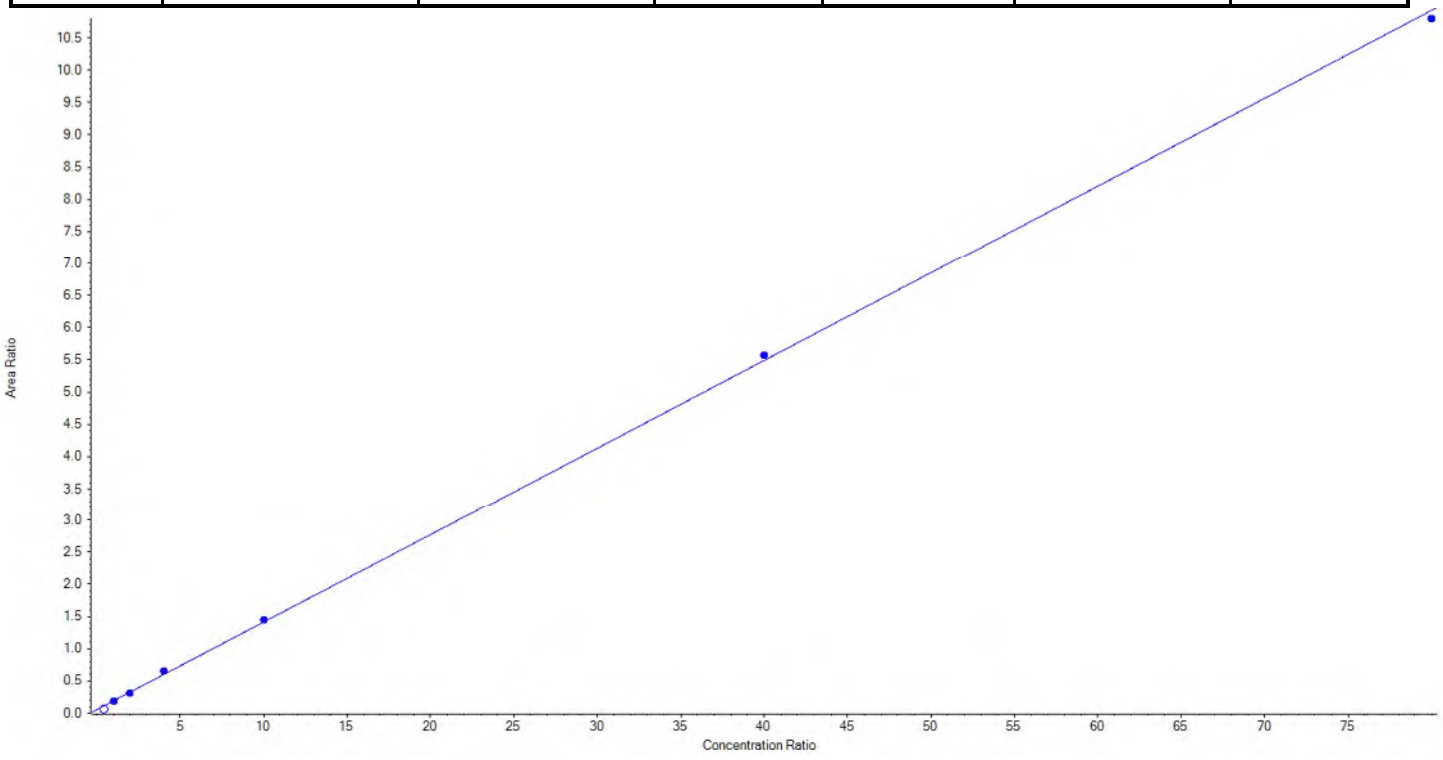
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFDoA_2	**Data File**	09172018.wiff
MRM Transition	613.0 / 319.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.13583 x + 0.05473 (r = 0.99972) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	False	100.00	7.034440	7.0
3	KA87	L2	True	250.00	239.702506	95.9
4	KA88	L3	True	500.00	464.229195	92.9
5	KA89	L4	True	1000.00	1088.014716	108.8
6	KA90	L5	True	2500.00	2557.504369	102.3
7	KA91	L6	True	10000.00	10133.753203	101.3
8	KA92	L7	True	20000.00	19766.796011	98.8



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Calibration Summary Report

Created with Analyst Reporter
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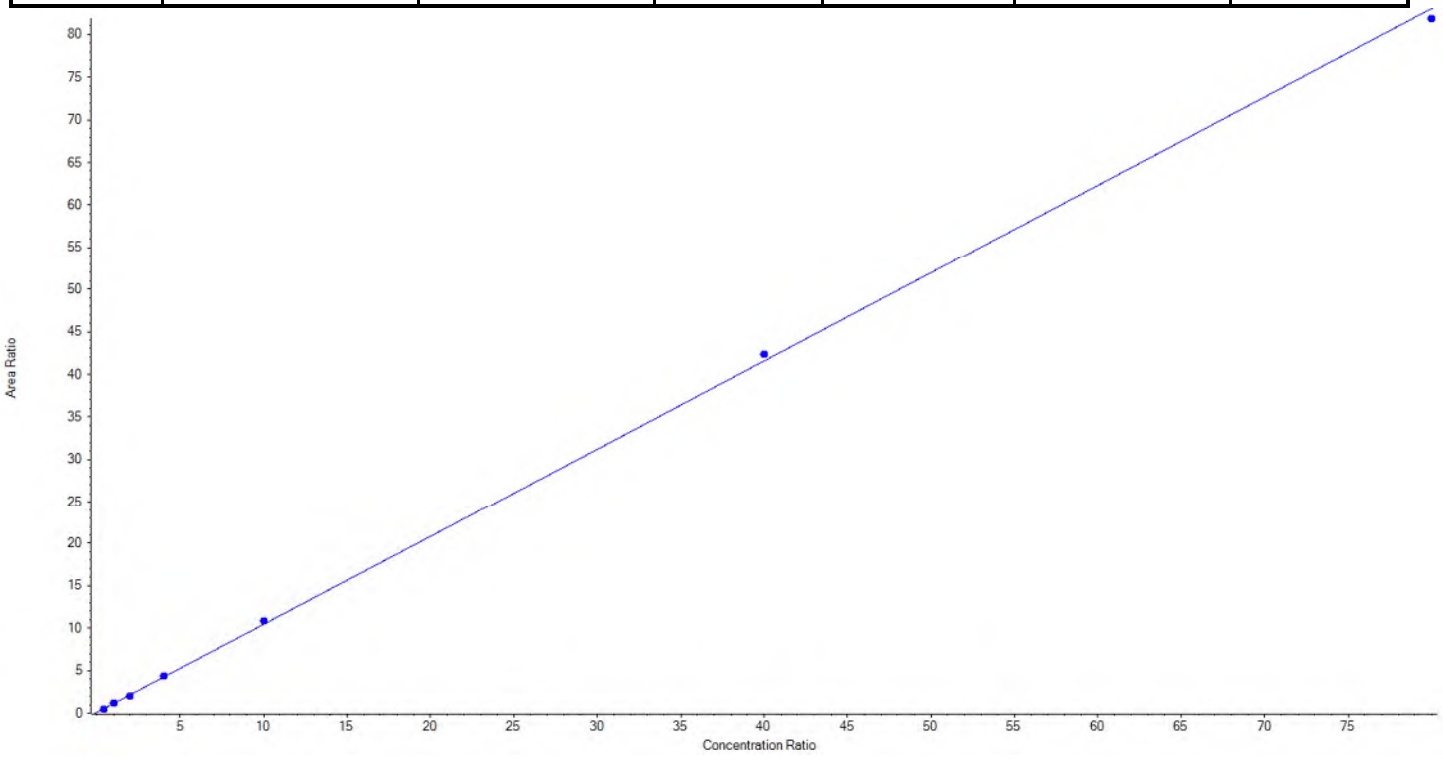
Analyte Name	PFTrDA_1	**Data File**	09172018.wiff
MRM Transition	663.0 / 619.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03709 x + 0.08501 (r = 0.99977) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	99.790493	99.8
3	KA87	L2	True	250.00	250.094800	100.0
4	KA88	L3	True	500.00	467.113857	93.4
5	KA89	L4	True	1000.00	1021.949549	102.2
6	KA90	L5	True	2500.00	2600.667405	104.0
7	KA91	L6	True	10000.00	10195.049043	102.0
8	KA92	L7	True	20000.00	19715.334854	98.6



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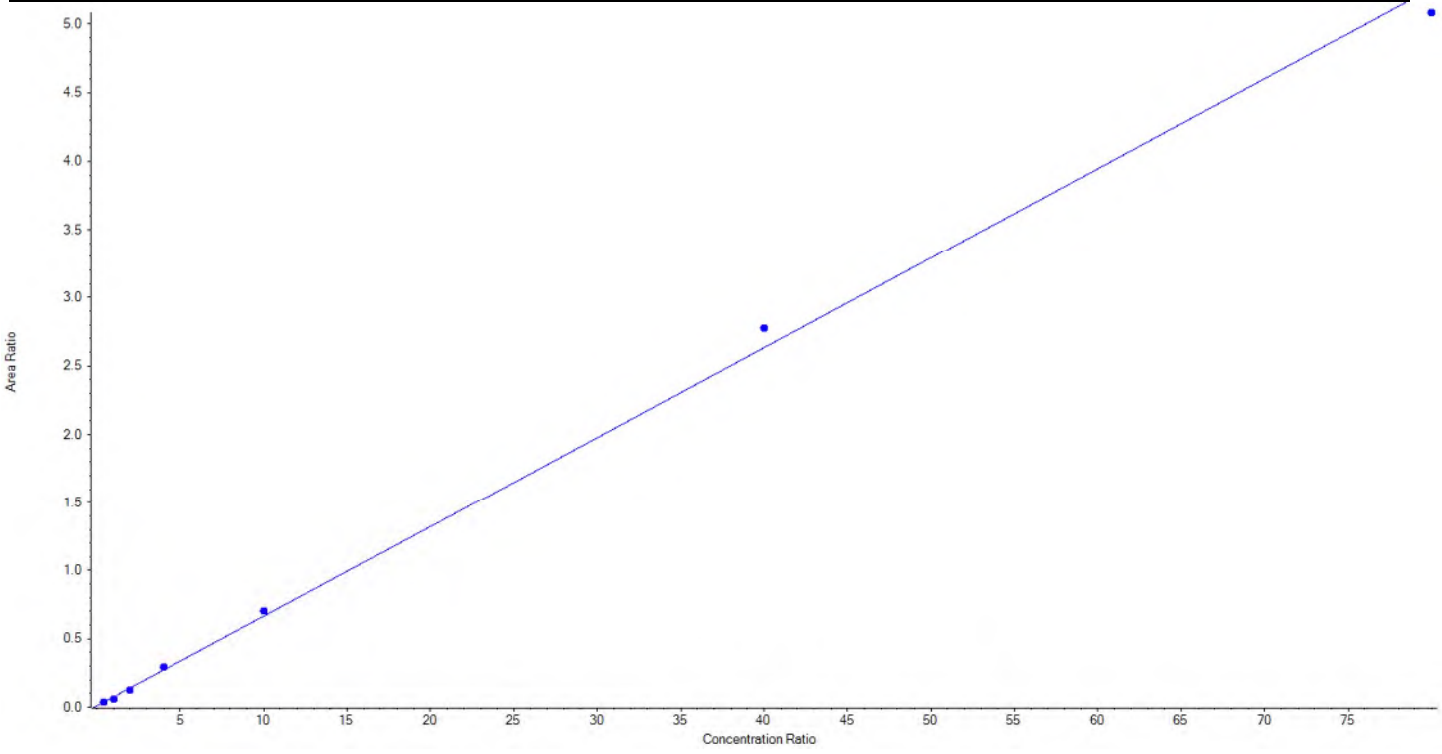
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFTrDA_2	**Data File**	09172018.wiff
MRM Transition	663.0 / 169.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06563 x + 0.00866 (r = 0.99864) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	116.473665	116.5
3	KA87	L2	True	250.00	203.820813	81.5
4	KA88	L3	True	500.00	434.539421	86.9
5	KA89	L4	True	1000.00	1074.636675	107.5
6	KA90	L5	True	2500.00	2635.720549	105.4
7	KA91	L6	True	10000.00	10554.718378	105.6
8	KA92	L7	True	20000.00	19330.090498	96.7



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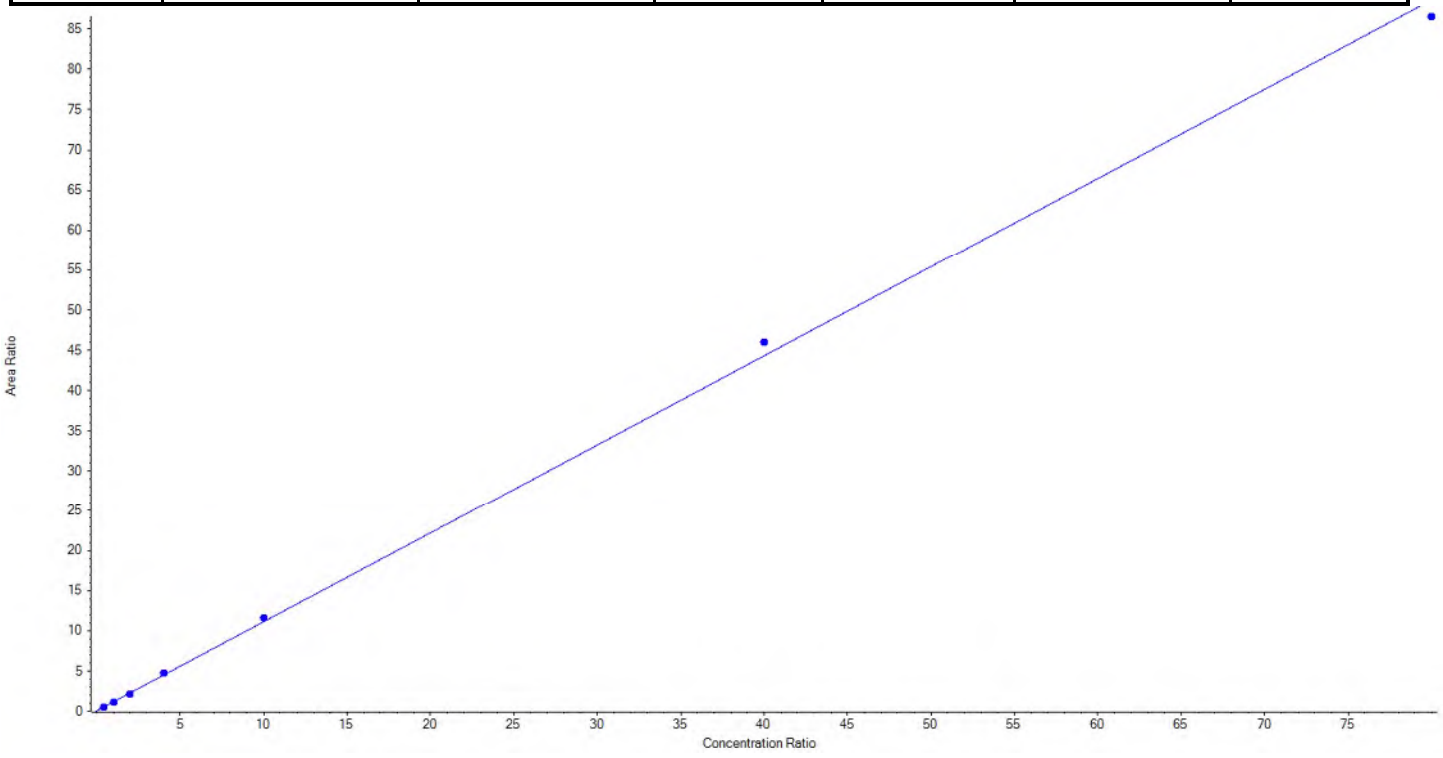
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFTeDA_1	**Data File**	09172018.wiff
MRM Transition	713.0 / 669.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.10654 x + 0.05698 (r = 0.99946) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	100.402544	100.4
3	KA87	L2	True	250.00	246.214443	98.5
4	KA88	L3	True	500.00	457.165546	91.4
5	KA89	L4	True	1000.00	1043.554804	104.4
6	KA90	L5	True	2500.00	2599.020799	104.0
7	KA91	L6	True	10000.00	10368.809522	103.7
8	KA92	L7	True	20000.00	19534.832341	97.7



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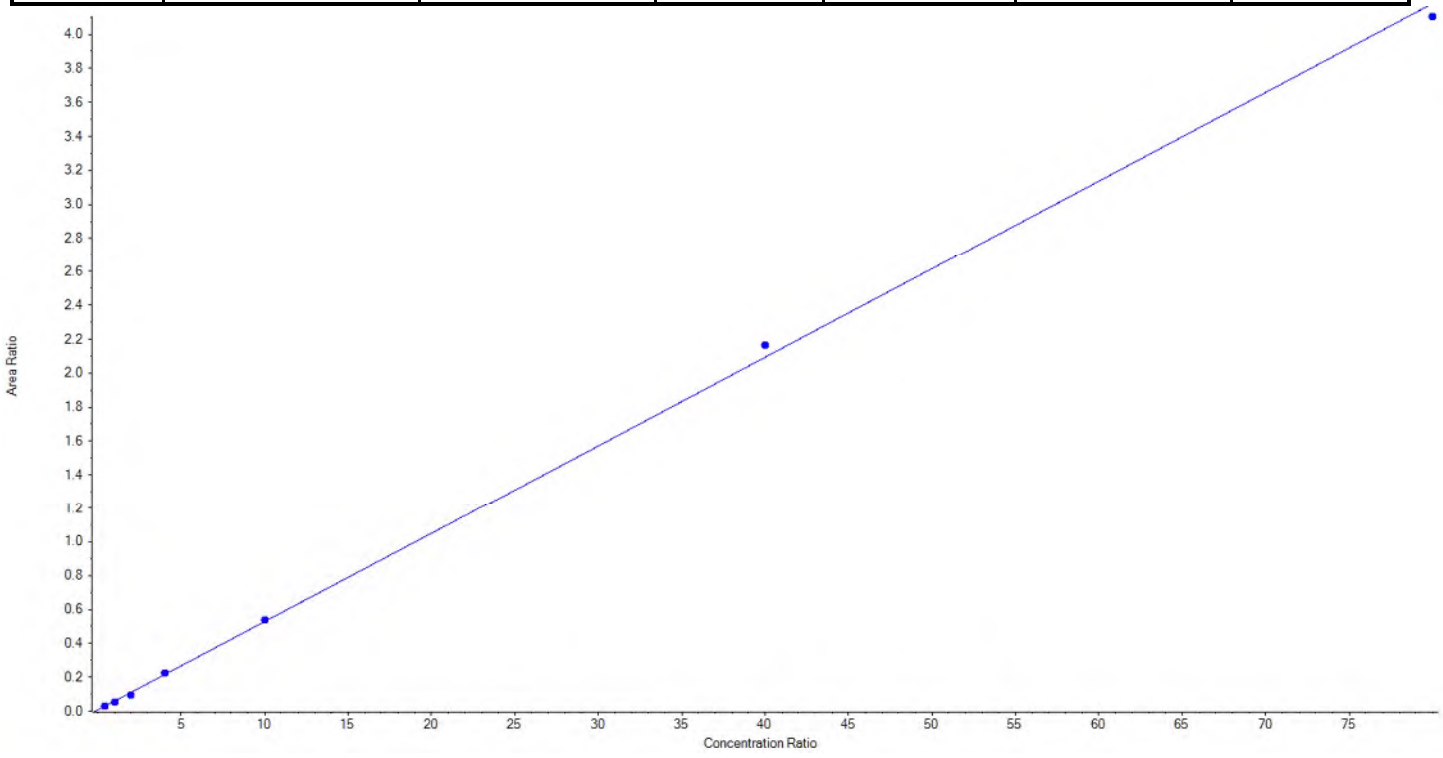
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	PFTeDA_2	**Data File**	09172018.wiff
MRM Transition	713.0 / 169.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05217 x + 0.00647 (r = 0.99939) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	116.090955	116.1
3	KA87	L2	True	250.00	225.543930	90.2
4	KA88	L3	True	500.00	425.923534	85.2
5	KA89	L4	True	1000.00	1049.410678	104.9
6	KA90	L5	True	2500.00	2546.869712	101.9
7	KA91	L6	True	10000.00	10352.020695	103.5
8	KA92	L7	True	20000.00	19634.140495	98.2



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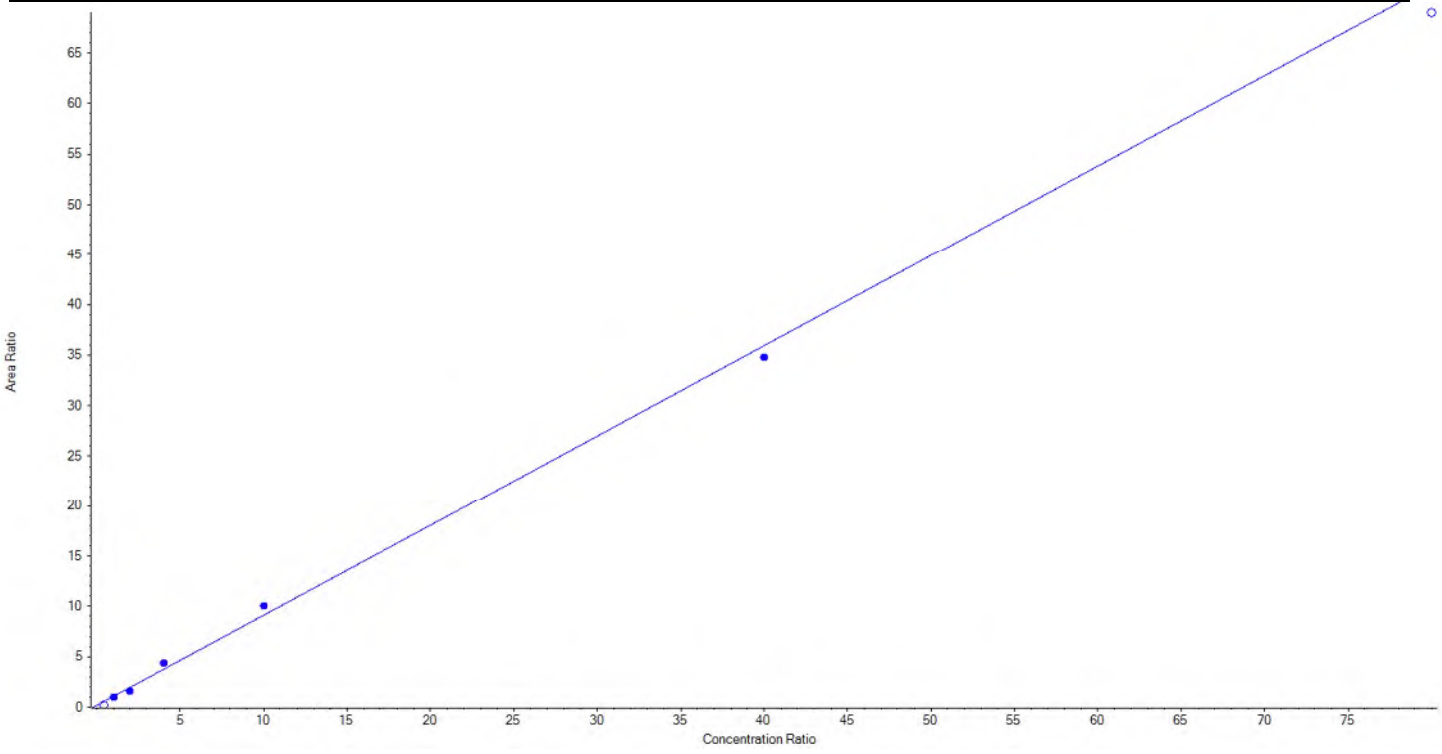
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	NMeFOSAA_1	**Data File**	09172018.wiff
MRM Transition	570.0 / 419.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.89404 x + 0.17215 (r = 0.99565) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	False	100.00	6.793695	6.8
3	KA87	L2	True	250.00	239.301241	95.7
4	KA88	L3	True	500.00	393.377176	78.7
5	KA89	L4	True	1000.00	1183.519250	118.4
6	KA90	L5	True	2500.00	2763.804001	110.6
7	KA91	L6	True	10000.00	9669.998332	96.7
8	KA92	L7	False	20000.00	19238.393743	96.2



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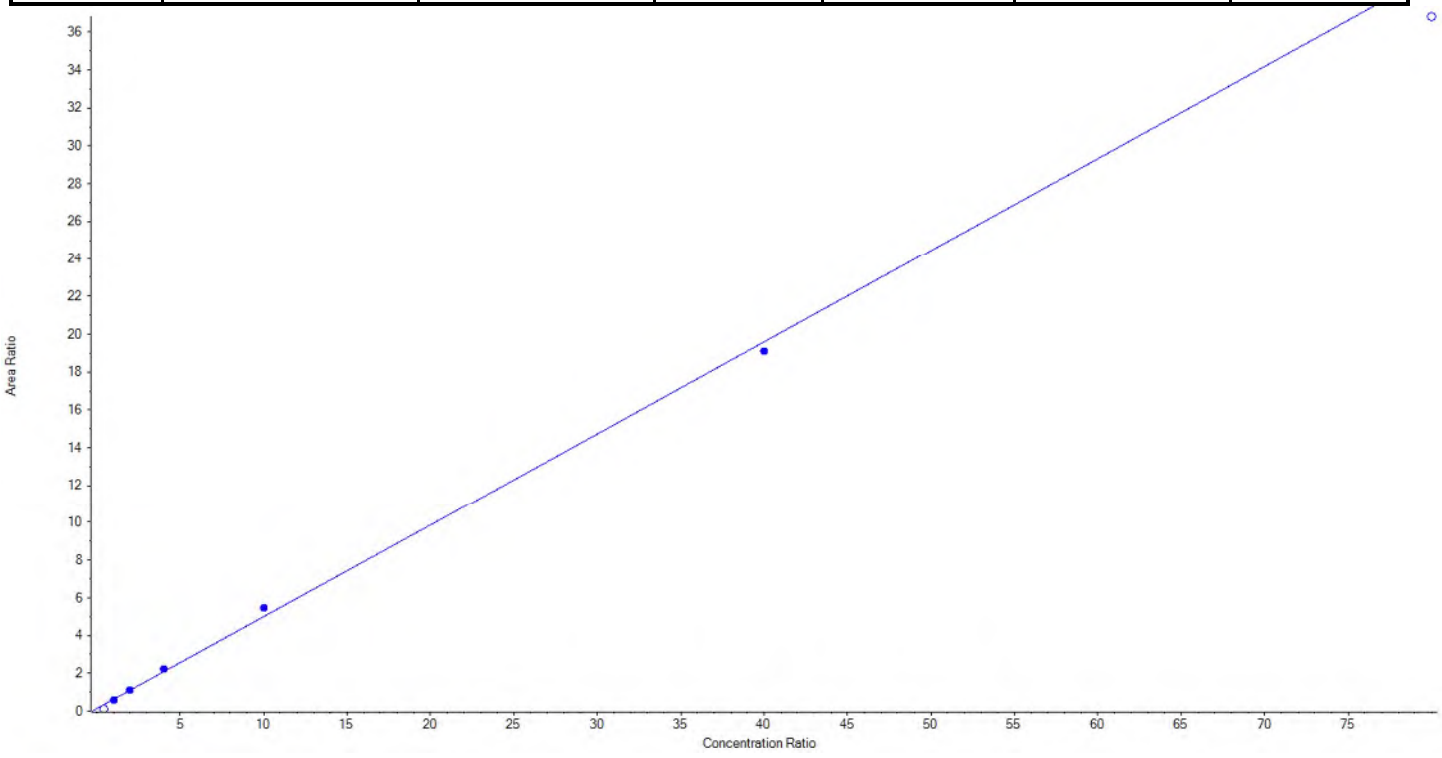
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	NMeFOSAA_2	**Data File**	09172018.wiff
MRM Transition	570.0 / 512.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.48641 x + 0.13587 (r = 0.99843) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	False	100.00	< 0	N/A
3	KA87	L2	True	250.00	222.372754	89.0
4	KA88	L3	True	500.00	489.969333	98.0
5	KA89	L4	True	1000.00	1065.570036	106.6
6	KA90	L5	True	2500.00	2725.971649	109.0
7	KA91	L6	True	10000.00	9746.116228	97.5
8	KA92	L7	False	20000.00	18850.385028	94.3



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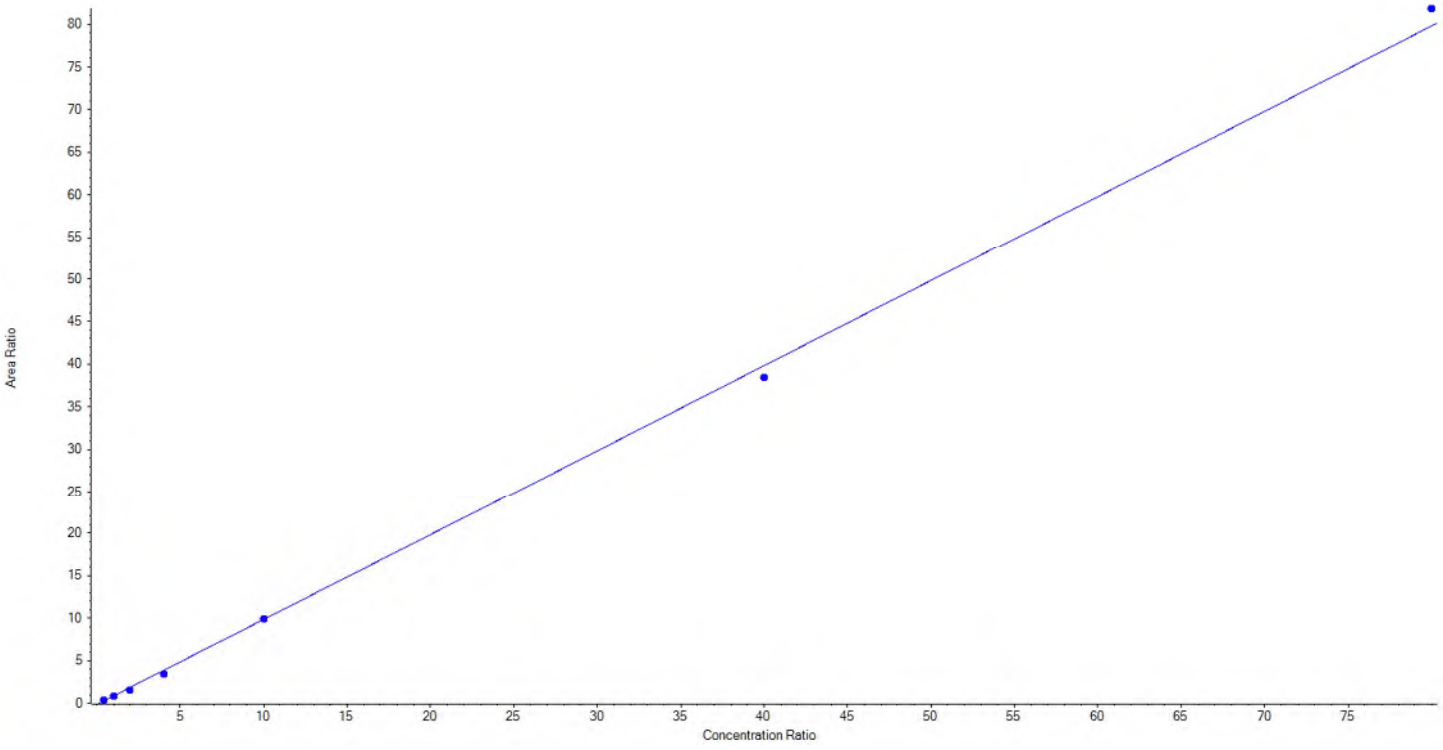
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	NEtFOSAA_1	**Data File**	09172018.wiff
MRM Transition	584.0 / 419.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.99925 x + -0.14634 (r = 0.99910) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	100.00	126.817690	126.8
3	KA87	L2	True	250.00	251.047435	100.4
4	KA88	L3	True	500.00	422.904833	84.6
5	KA89	L4	True	1000.00	891.010106	89.1
6	KA90	L5	True	2500.00	2501.814267	100.1
7	KA91	L6	True	10000.00	9645.351972	96.5
8	KA92	L7	True	20000.00	20511.053697	102.6



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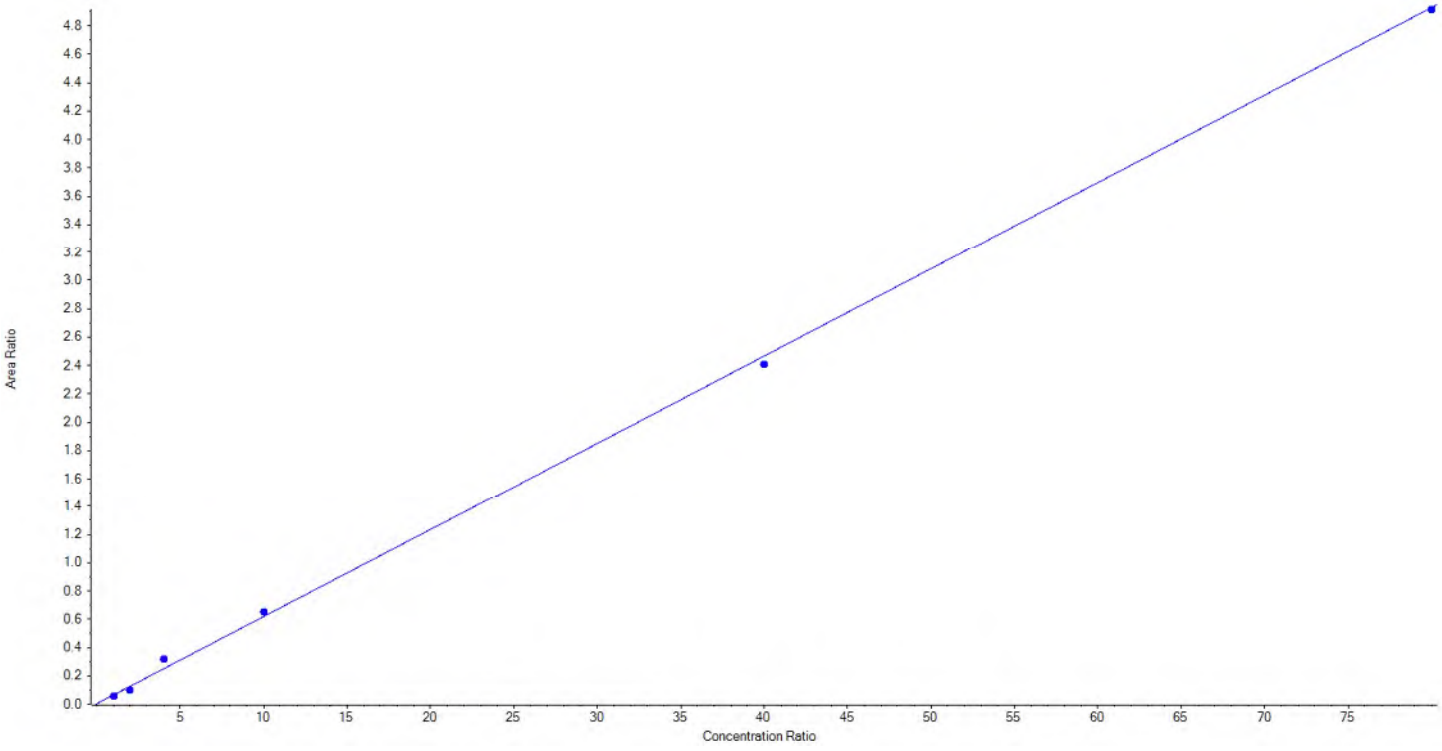
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:22:35 PM

Analyte Name	NEtFOSAA_2	**Data File**	09172018.wiff
MRM Transition	584.0 / 483.0	**Result Table**	18-0559_18-0560_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06155 x + 0.00341 (r = 0.99795) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	False	100.00	N/A	N/A
3	KA87	L2	True	250.00	227.466765	91.0
4	KA88	L3	True	500.00	388.255864	77.7
5	KA89	L4	True	1000.00	1285.149703	128.5
6	KA90	L5	True	2500.00	2635.702419	105.4
7	KA91	L6	True	10000.00	9770.385587	97.7
8	KA92	L7	True	20000.00	19943.039662	99.7



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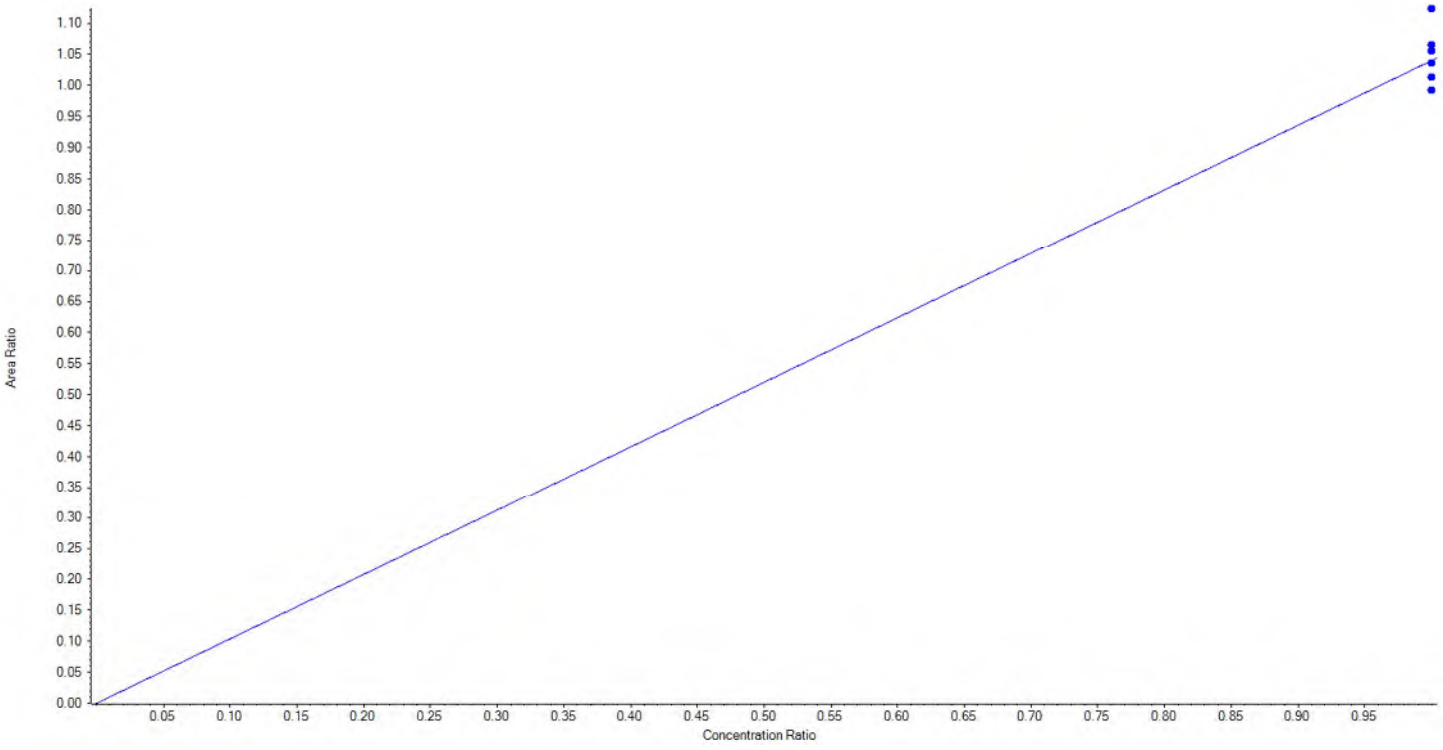
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C2-PFDoA	**Data File**	09172018.wiff
MRM Transition	615.0 / 570.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03997 x (std. dev. = 0.04677) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	249.086588	99.6
3	KA87	L2	True	250.00	238.645940	95.5
4	KA88	L3	True	250.00	238.394426	95.4
5	KA89	L4	True	250.00	243.830078	97.5
6	KA90	L5	True	250.00	253.934265	101.6
7	KA91	L6	True	250.00	270.113460	108.1
8	KA92	L7	True	250.00	255.995243	102.4



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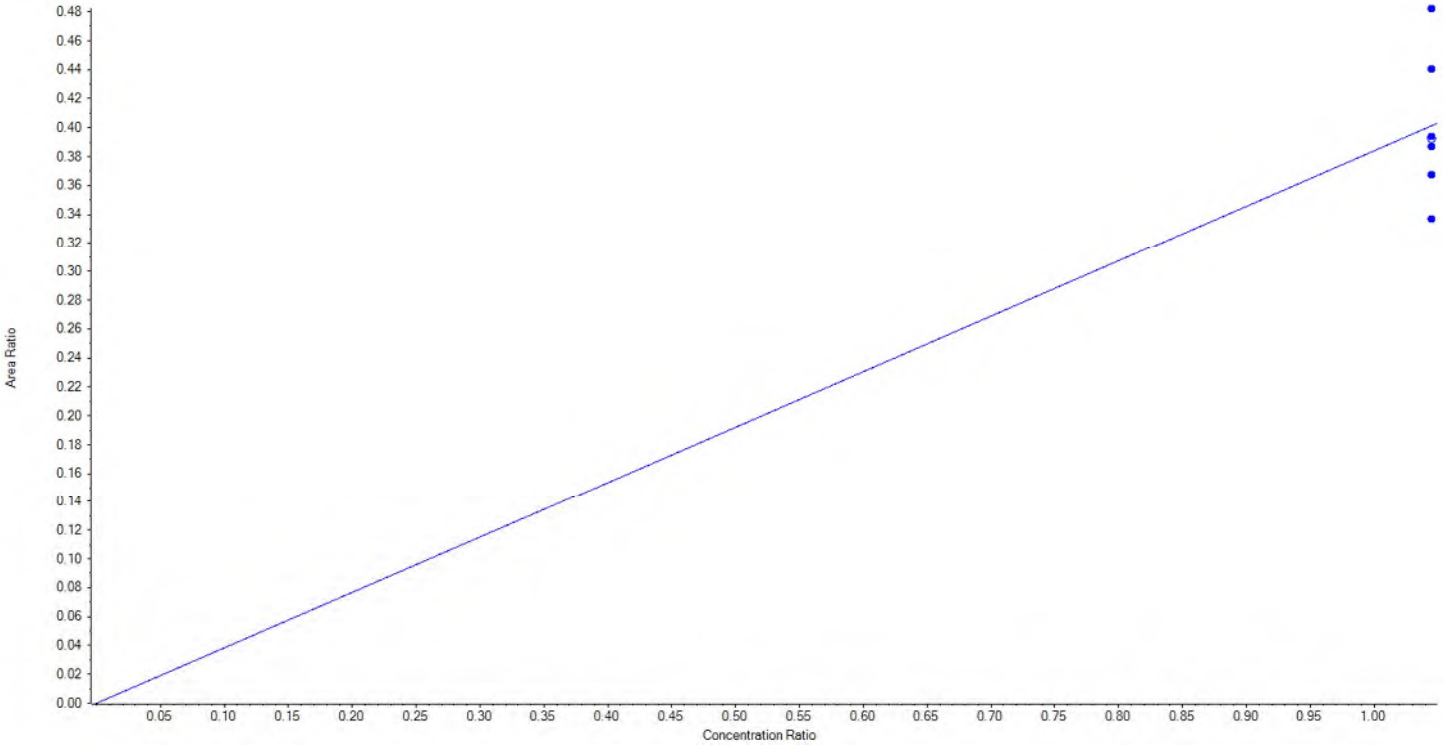
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	d3-MeFOSAA	**Data File**	09172018.wiff
MRM Transition	573.0 / 419.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.38400 x (std. dev. = 0.05004) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	300.400671	120.2
3	KA87	L2	True	250.00	274.452400	109.8
4	KA88	L3	True	250.00	228.785668	91.5
5	KA89	L4	True	250.00	245.527562	98.2
6	KA90	L5	True	250.00	209.762632	83.9
7	KA91	L6	True	250.00	241.071066	96.4
8	KA92	L7	False	250.00	244.509991	97.8



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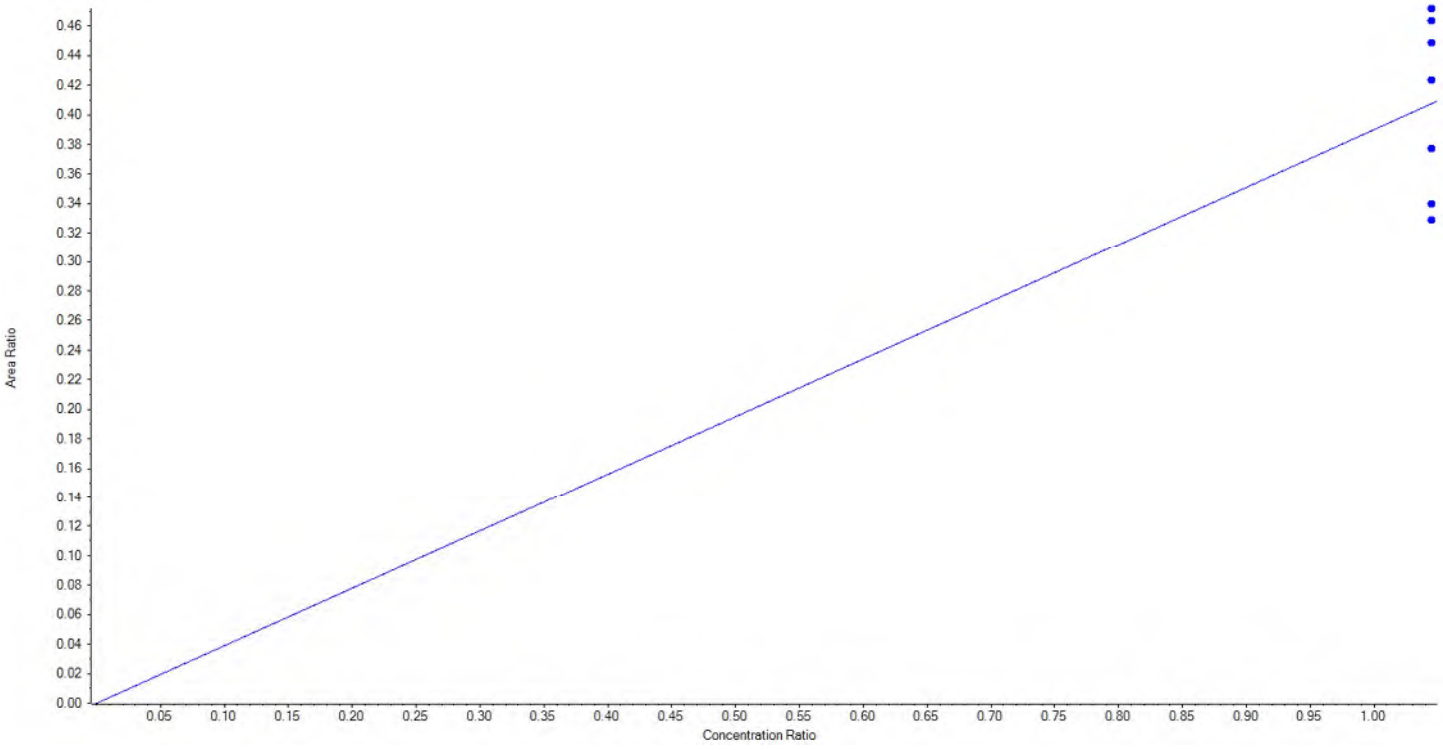
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	d5-EtFOSAA	**Data File**	09172018.wiff
MRM Transition	589.0 / 419.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.38999 x (std. dev. = 0.05649) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	275.037347	110.0
3	KA87	L2	True	250.00	284.389280	113.8
4	KA88	L3	True	250.00	259.734770	103.9
5	KA89	L4	True	250.00	289.399919	115.8
6	KA90	L5	True	250.00	208.474609	83.4
7	KA91	L6	True	250.00	231.311069	92.5
8	KA92	L7	True	250.00	201.653006	80.7



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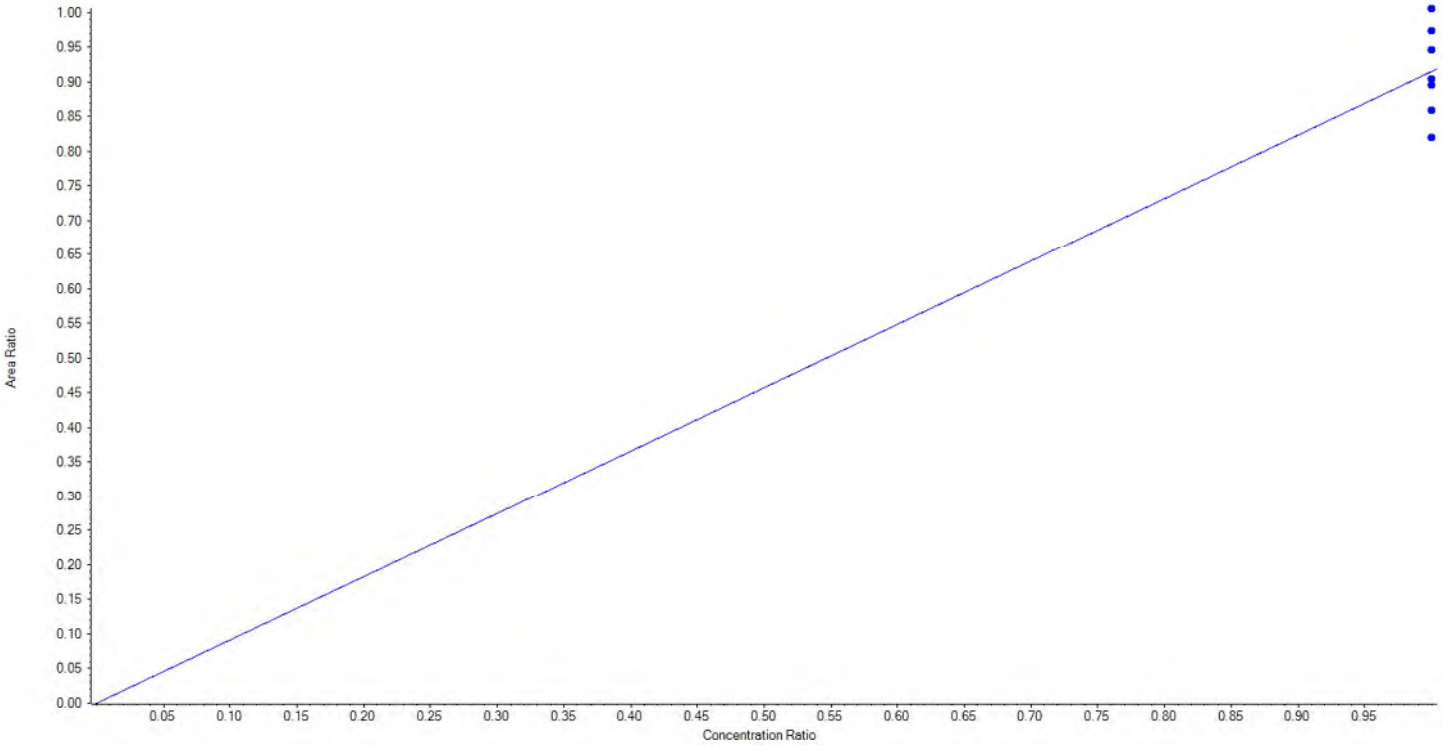
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C5-PFHxA	**Data File**	09172018.wiff
MRM Transition	318.0 / 273.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.91513 x (std. dev. = 0.06468) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	258.596536	103.4
3	KA87	L2	True	250.00	224.229706	89.7
4	KA88	L3	True	250.00	265.935039	106.4
5	KA89	L4	True	250.00	244.637046	97.9
6	KA90	L5	True	250.00	274.765057	109.9
7	KA91	L6	True	250.00	247.025554	98.8
8	KA92	L7	True	250.00	234.811063	93.9



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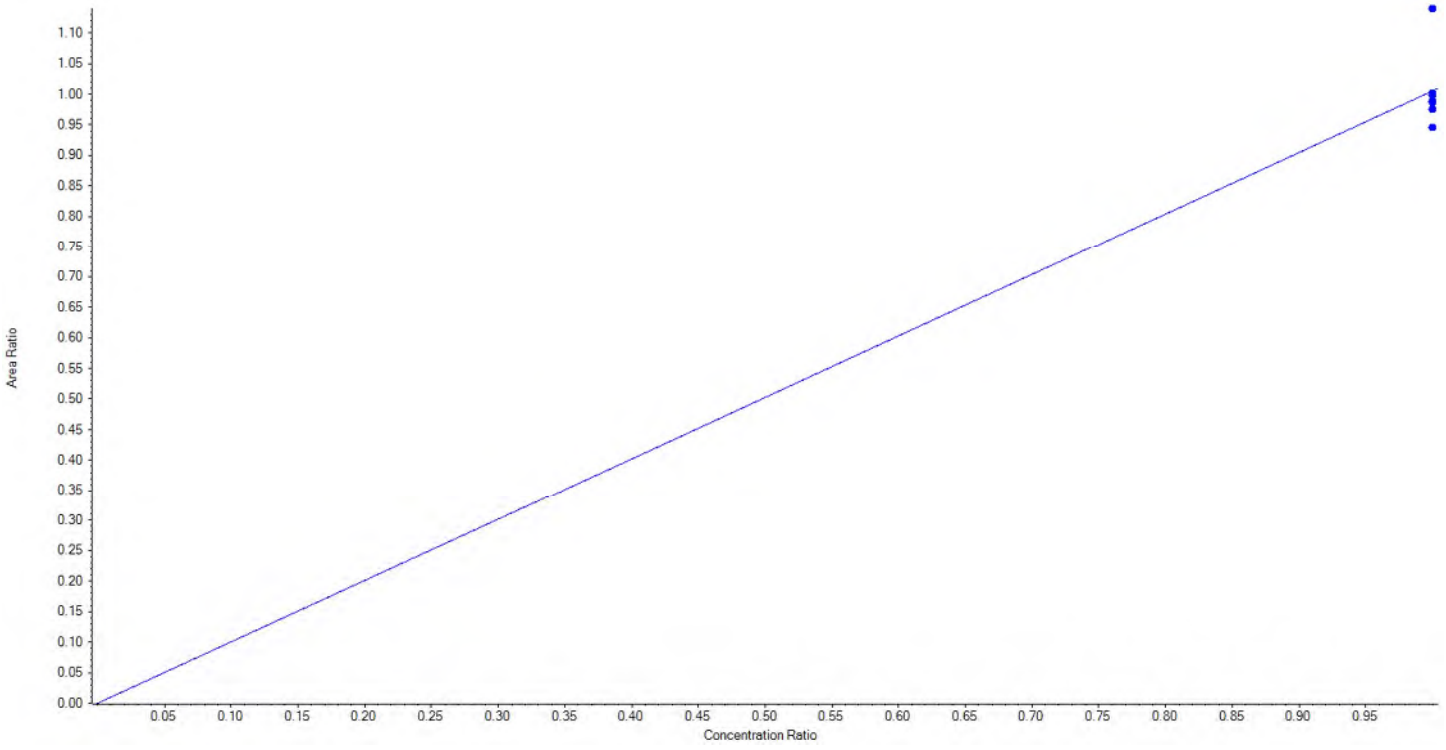
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C4-PFHpA	**Data File**	09172018.wiff
MRM Transition	367.0 / 322.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00523 x (std. dev. = 0.06210) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	248.258573	99.3
3	KA87	L2	True	250.00	249.175721	99.7
4	KA88	L3	True	250.00	283.398669	113.4
5	KA89	L4	True	250.00	242.518576	97.0
6	KA90	L5	True	250.00	246.012403	98.4
7	KA91	L6	True	250.00	245.447951	98.2
8	KA92	L7	True	250.00	235.188108	94.1



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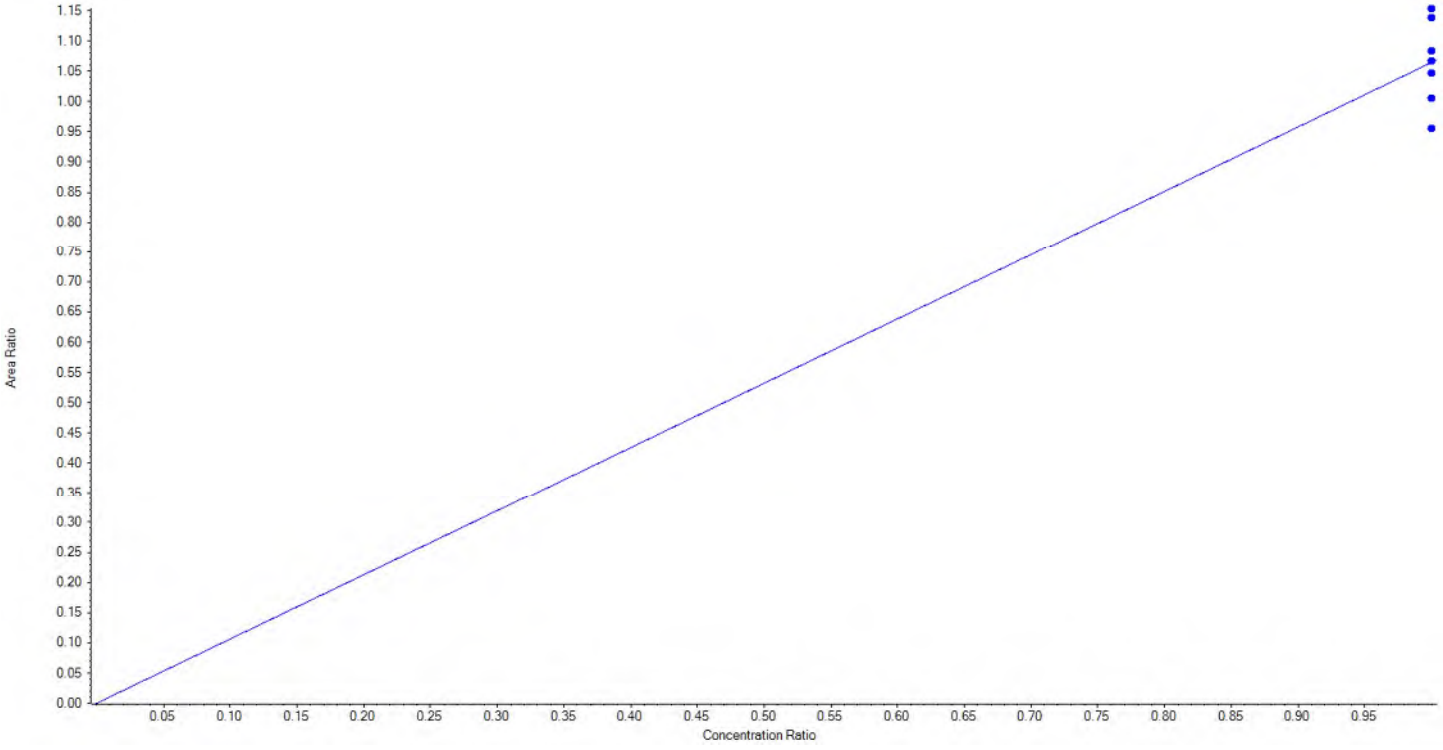
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C8-PFOA	**Data File**	09172018.wiff
MRM Transition	421.0 / 376.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.06431 x (std. dev. = 0.06971) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	245.870251	98.4
3	KA87	L2	True	250.00	267.208605	106.9
4	KA88	L3	True	250.00	250.678923	100.3
5	KA89	L4	True	250.00	254.619374	101.9
6	KA90	L5	True	250.00	270.900302	108.4
7	KA91	L6	True	250.00	236.095879	94.4
8	KA92	L7	True	250.00	224.626665	89.9



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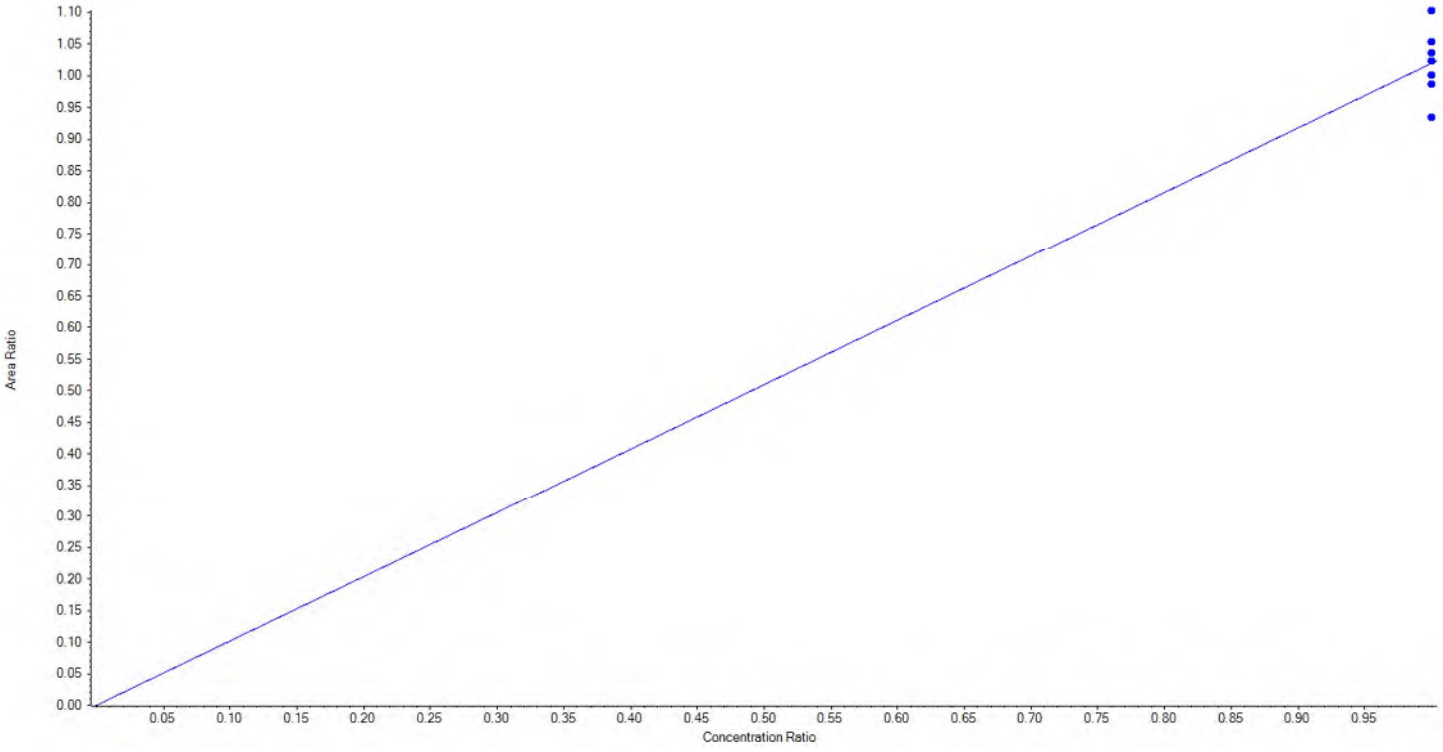
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C9-PFNA	**Data File**	09172018.wiff
MRM Transition	472.0 / 427.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.01962 x (std. dev. = 0.05344) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	241.798020	96.7
3	KA87	L2	True	250.00	258.175435	103.3
4	KA88	L3	True	250.00	270.414804	108.2
5	KA89	L4	True	250.00	253.992581	101.6
6	KA90	L5	True	250.00	251.046463	100.4
7	KA91	L6	True	250.00	245.616386	98.3
8	KA92	L7	True	250.00	228.956311	91.6



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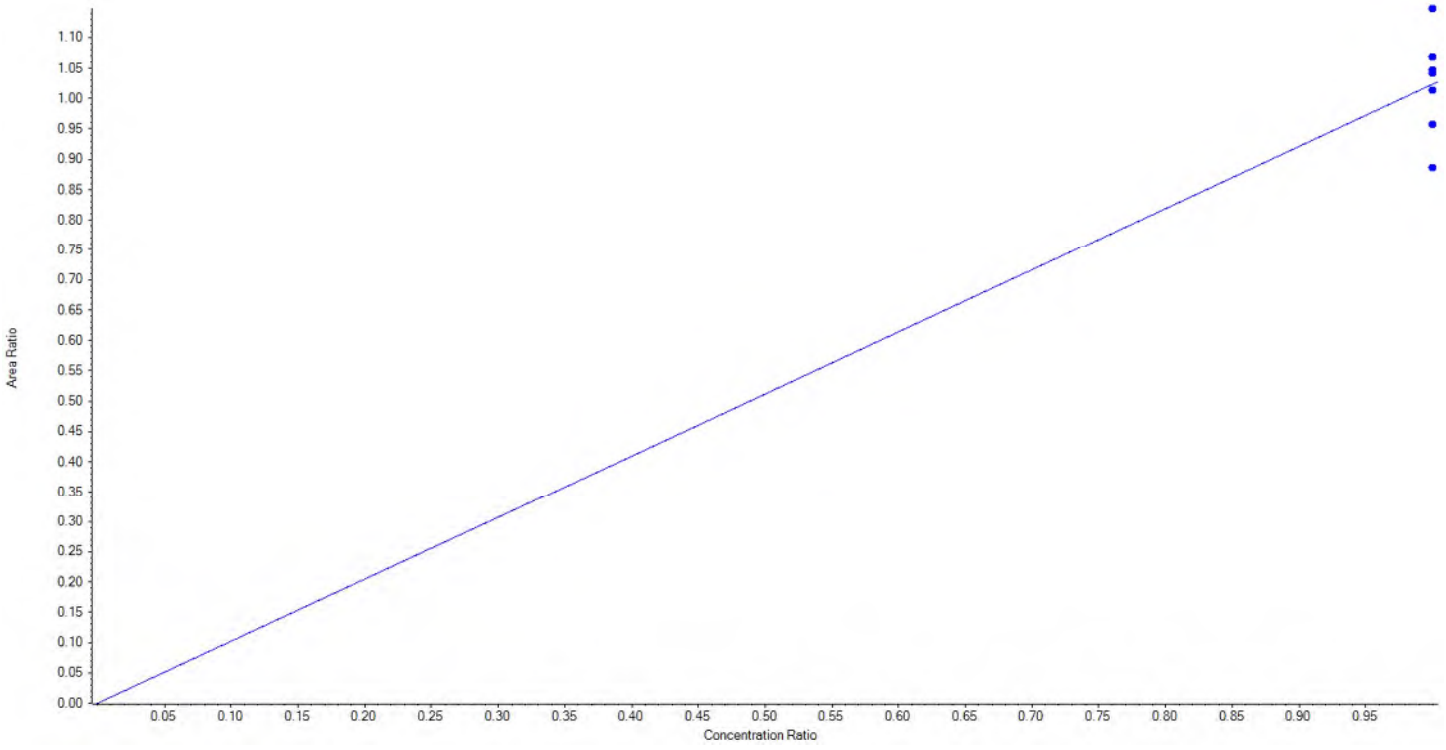
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C6-PFDA	**Data File**	09172018.wiff
MRM Transition	519.0 / 474.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.02343 x (std. dev. = 0.08321) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	247.777319	99.1
3	KA87	L2	True	250.00	261.125158	104.5
4	KA88	L3	True	250.00	233.826304	93.5
5	KA89	L4	True	250.00	280.316761	112.1
6	KA90	L5	True	250.00	254.616538	101.9
7	KA91	L6	True	250.00	255.736225	102.3
8	KA92	L7	True	250.00	216.601695	86.6



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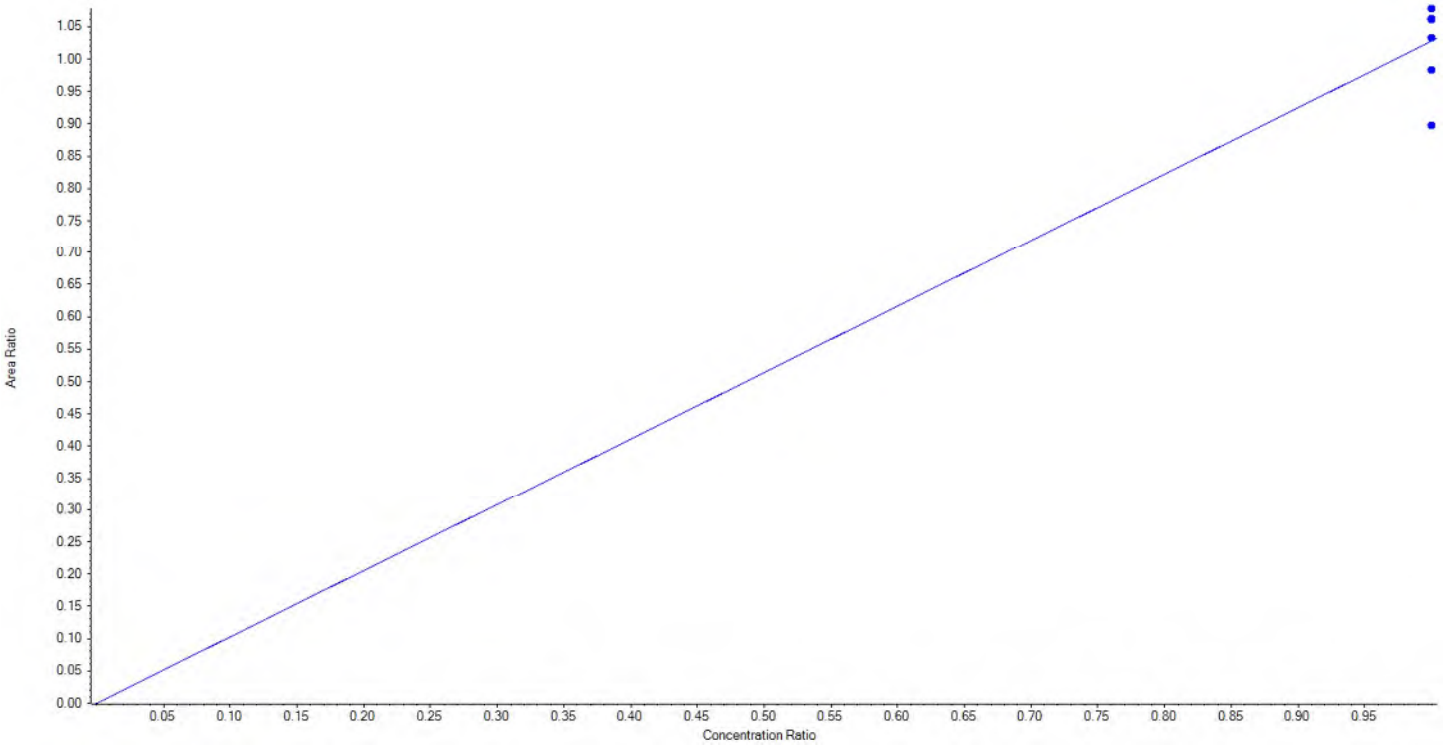
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C7-PFUnA	**Data File**	09172018.wiff
MRM Transition	570.0 / 525.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.02725 x (std. dev. = 0.06601) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	258.185111	103.3
3	KA87	L2	True	250.00	262.221787	104.9
4	KA88	L3	True	250.00	239.003232	95.6
5	KA89	L4	True	250.00	262.150729	104.9
6	KA90	L5	True	250.00	251.397262	100.6
7	KA91	L6	True	250.00	258.498069	103.4
8	KA92	L7	True	250.00	218.543809	87.4



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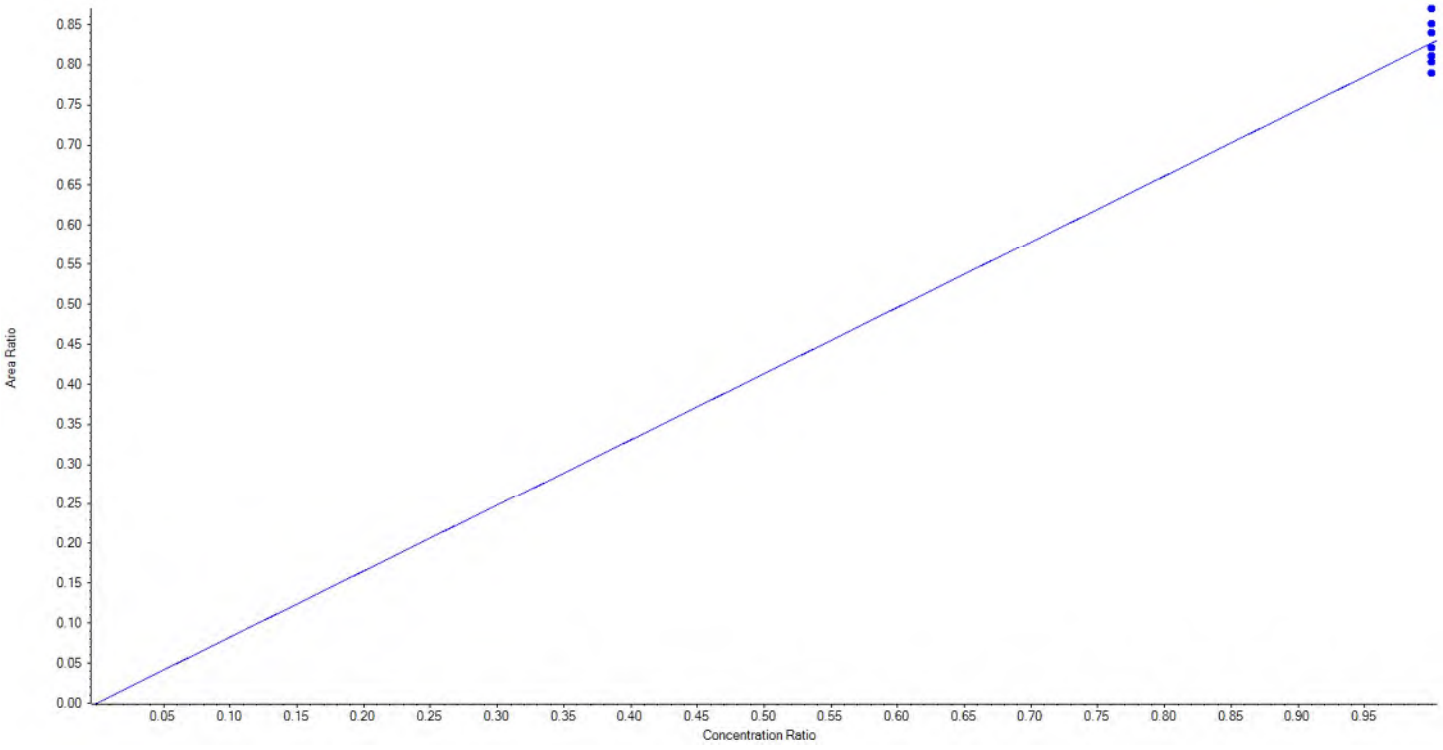
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C2-PFTeDA	**Data File**	09172018.wiff
MRM Transition	715.0 / 670.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.82679 x (std. dev. = 0.02827) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	250.00	248.382765	99.4
3	KA87	L2	True	250.00	263.062594	105.2
4	KA88	L3	True	250.00	243.100760	97.2
5	KA89	L4	True	250.00	253.842582	101.5
6	KA90	L5	True	250.00	238.899644	95.6
7	KA91	L6	True	250.00	257.517382	103.0
8	KA92	L7	True	250.00	245.194272	98.1



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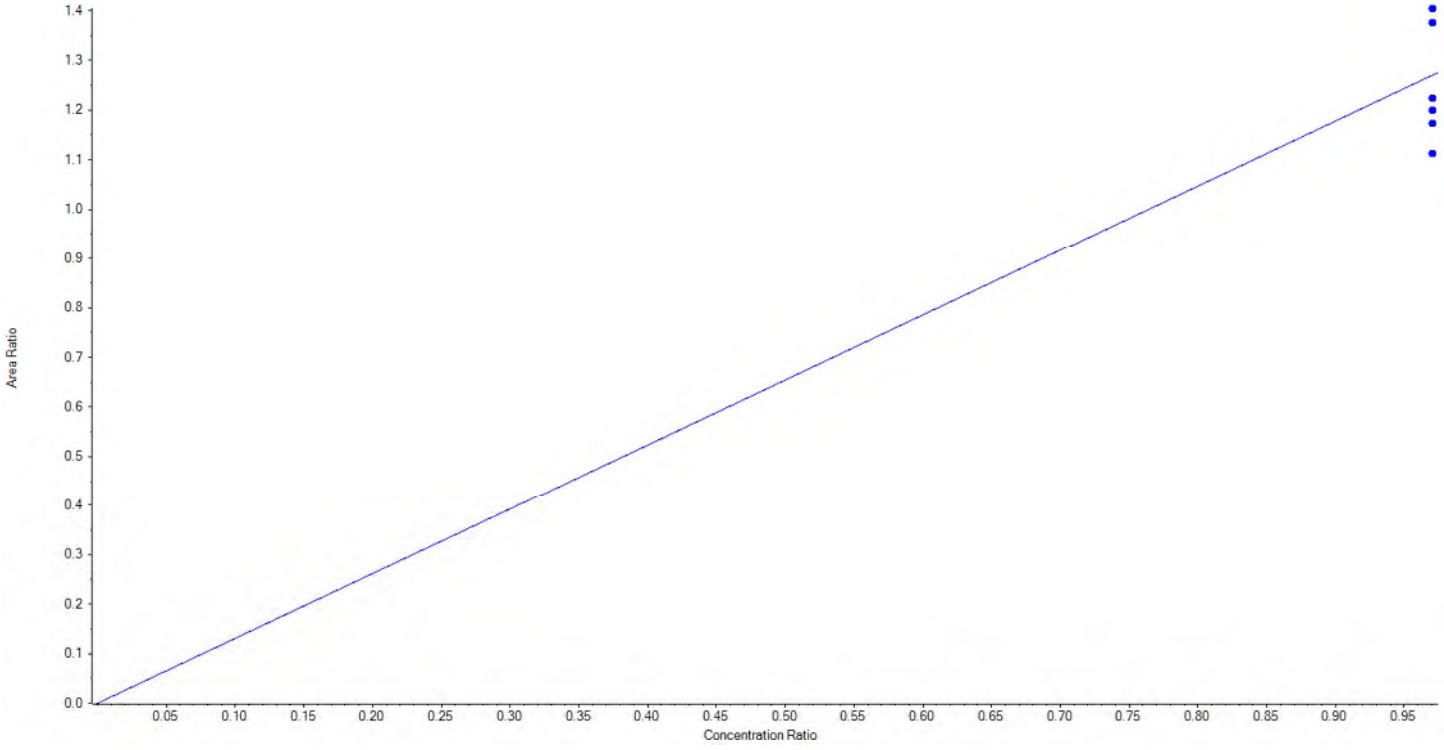
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C3-PFBS	**Data File**	09172018.wiff
MRM Transition	302.0 / 99.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.30856 x (std. dev. = 0.12475) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	232.25	251.432640	108.3
3	KA87	L2	True	232.25	256.671394	110.5
4	KA88	L3	True	232.25	203.536121	87.6
5	KA89	L4	True	232.25	256.647766	110.5
6	KA90	L5	True	232.25	223.775177	96.4
7	KA91	L6	True	232.25	214.520986	92.4
8	KA92	L7	True	232.25	219.165917	94.4



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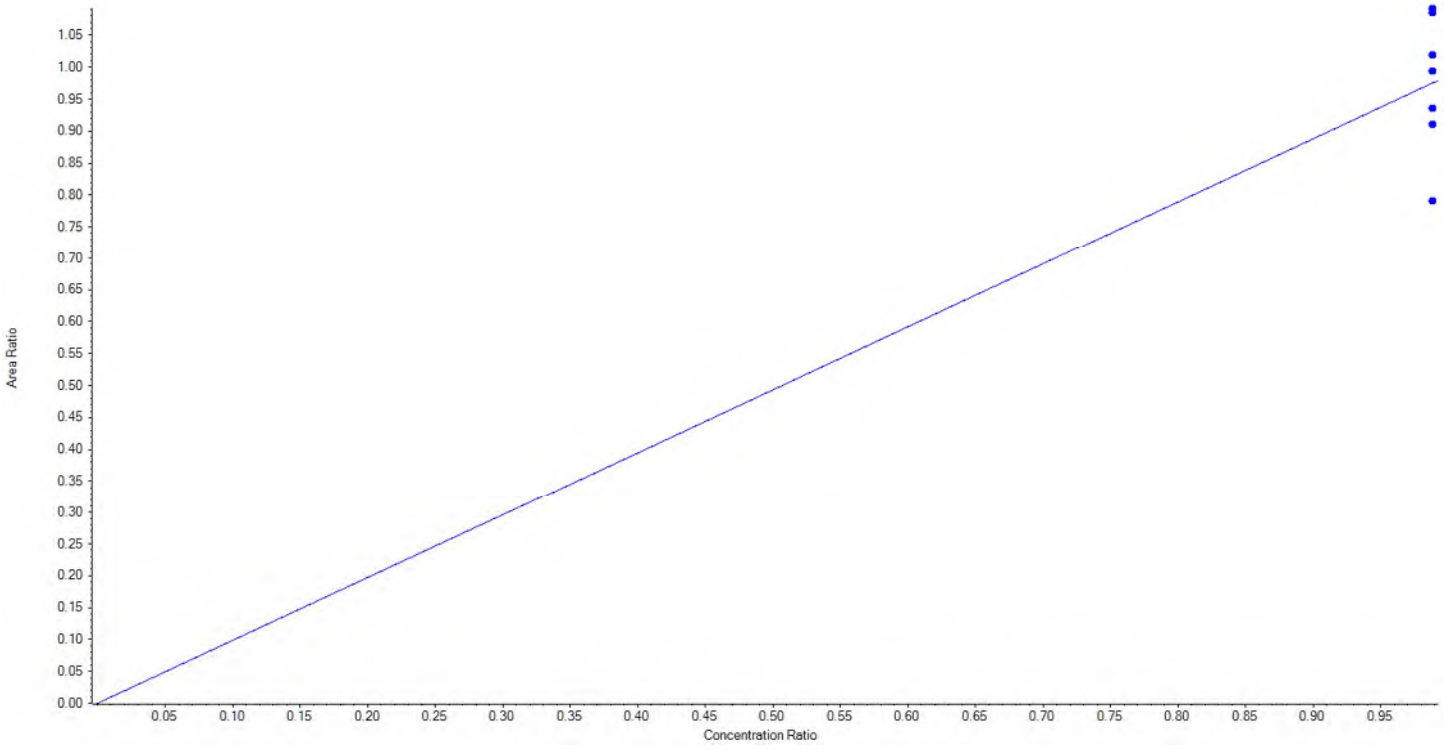
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C3-PFHxS	**Data File**	09172018.wiff
MRM Transition	402.0 / 99.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98657 x (std. dev. = 0.10718) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	236.50	263.027392	111.2
3	KA87	L2	True	236.50	240.956459	101.9
4	KA88	L3	True	236.50	220.837181	93.4
5	KA89	L4	True	236.50	264.688242	111.9
6	KA90	L5	True	236.50	226.762154	95.9
7	KA91	L6	True	236.50	247.296909	104.6
8	KA92	L7	True	236.50	191.931664	81.2



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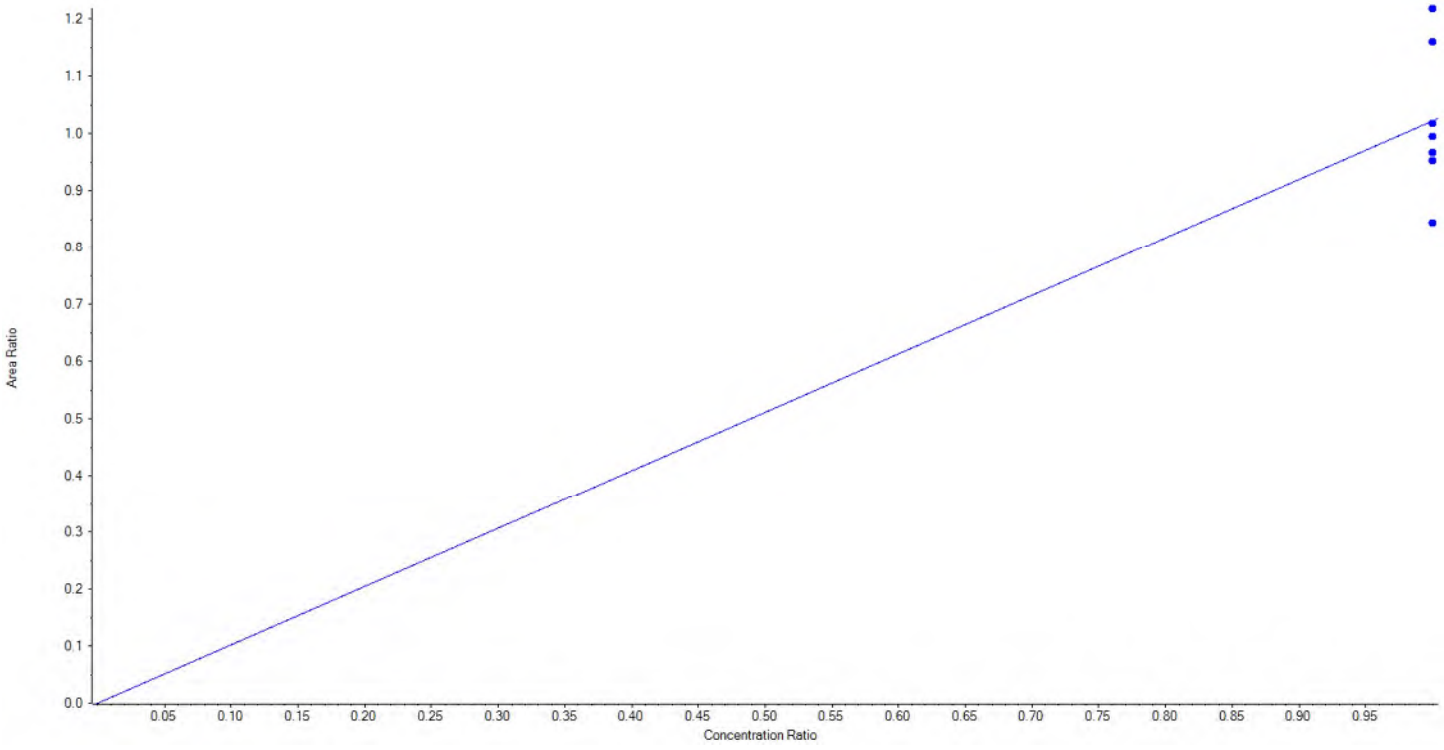
Calibration Summary Report

Created with Analyst Reporter
Printed: 18/09/2018 3:23:00 PM

Analyte Name	13C8-PFOS	**Data File**	09172018.wiff
MRM Transition	507.0 / 99.0	**Result Table**	18-0559_18-0560_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/17/2018 6:08:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.02196 x (std. dev. = 0.12752) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KA86	L1	True	239.25	271.446975	113.5
3	KA87	L2	True	239.25	233.090965	97.4
4	KA88	L3	True	239.25	222.951796	93.2
5	KA89	L4	True	239.25	285.097240	119.2
6	KA90	L5	True	239.25	238.217338	99.6
7	KA91	L6	True	239.25	226.394998	94.6
8	KA92	L7	True	239.25	197.550687	82.6



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	Isotope Dilution Calibration Curve Concentrations (ng/L)						
	KA86	KA87	KA88	KA89	KA90	KA91	KA92
PFBA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFPeA	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFHxA	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFHpA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFOA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFNA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFDA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFUnA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFDoA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFTrDA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFTeDA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
NMeFOSAA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
NEtFOSAA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFOSA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFBS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFPeS	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFHxS (Branched)	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFHpS	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFOS (Branched)	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFDS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFNS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
4:2FTS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
6:2FTS	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
8:2FTS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
	Surrogates / Extracted Internal Standards						
13C4-PFBA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C5-PFPeA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C5-PFHxA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C4-PFHpA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C8-PFOA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C9-PFNA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C6-PFDA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C7-PFUnA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFDoA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFTeDA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
d3-MeFOSAA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
d5-EtFOSAA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C8-FOSA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C3-PFBS	232.25	232.25	232.25	232.25	232.25	232.25	232.25
13C3-PFHxS	236.50	236.50	236.50	236.50	236.50	236.50	236.50
13C8-PFOS	239.25	239.25	239.25	239.25	239.25	239.25	239.25
13C2-4:2FTS	233.75	233.75	233.75	233.75	233.75	233.75	233.75
13C2-6:2FTS	237.25	237.25	237.25	237.25	237.25	237.25	237.25
13C2-8:2FTS	239.50	239.50	239.50	239.50	239.50	239.50	239.50
	Internal Standards						
13C3-PFBA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFOA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFDA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C4-PFOS	239.25	239.25	239.25	239.25	239.25	239.25	239.25

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Summary Ion Ratio Report

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Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:19:17	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.360	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.04	PFNA			
PFNA_2	463.0 / 219.0	3.04	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.250	0.190	ü
PFDA_1	513.0 / 469.0	3.39	PFDA			
PFDA_2	513.0 / 219.0	3.39	PFDA	0.090	0.056	
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.70	PFUnA	0.080	0.063	ü
PFDoA_1	613.0 / 569.0	3.99	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.140	0.161	ü
PFTrDA_1	663.0 / 619.0	4.23	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.23	PFTrDA	0.080	0.065	ü
PFTeDA_1	713.0 / 669.0	4.45	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.45	PFTeDA	0.060	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.54	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.640	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.70	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	

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Summary Ion Ratio Report

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Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:30:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.280	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.320	0.290	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.340	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.200	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.060	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.170	0.161	ü
PFTrDA_1	663.0 / 619.0	4.23	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.44	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.44	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.54	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.54	NMeFOSAA	0.550	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.70	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:41:03	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.270	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.160	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.060	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.70	PFUnA	0.080	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.44	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.44	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.54	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.54	NMeFOSAA	0.690	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.70	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.68	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T18:51:56	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.060	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.290	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.500	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.090	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:02:47	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.320	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.37	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.170	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.540	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA91	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:13:39	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.02	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.150	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.550	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA92	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:24:30	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.70	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.150	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.530	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.060	0.069	ü

QC Summary Report

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Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.54	1116.333150	1010.00	110.53
PFBS_2	298.9 / 99.0	1.53	1111.905753	1010.00	110.09
PFHxA_1	313.0 / 269.0	1.85	971.237452	1010.00	96.16
PFHxA_2	313.0 / 119.0	1.85	1014.998847	1010.00	100.49
PFHpA_1	363.0 / 319.0	2.24	885.762834	1000.00	88.58
PFHpA_2	363.0 / 169.0	2.25	823.742767	1000.00	82.37
PFHxS_1	399.0 / 80.0	2.27	893.448263	1010.00	88.46
PFHxS_2	399.0 / 99.0	2.27	894.022753	1010.00	88.52
PFOA_1	413.0 / 369.0	2.64	904.476779	1000.00	90.45
PFOA_2	413.0 / 169.0	2.64	821.562878	1000.00	82.16
PFNA_1	463.0 / 419.0	3.03	875.909235	1000.00	87.59
PFNA_2	463.0 / 219.0	3.03	890.057205	1000.00	89.01
PFOS_1	499.0 / 80.0	3.03	915.195881	1000.00	91.52
PFOS_2	499.0 / 99.0	3.03	887.163253	1000.00	88.72
PFDA_1	513.0 / 469.0	3.38	1017.457860	1000.00	101.75
PFDA_2	513.0 / 219.0	3.38	972.619130	1000.00	97.26
PFUnA_1	563.0 / 519.0	3.69	1010.148911	1000.00	101.01
PFUnA_2	563.0 / 269.0	3.69	1008.854852	1000.00	100.89
PFDoA_1	613.0 / 569.0	3.98	1017.301356	1000.00	101.73
PFDoA_2	613.0 / 319.0	3.97	1024.352918	1000.00	102.44
PFTrDA_1	663.0 / 619.0	4.22	1127.958999	1000.00	112.80
PFTrDA_2	663.0 / 169.0	4.22	1067.801351	1000.00	106.78
PFTeDA_1	713.0 / 669.0	4.43	1082.338578	1000.00	108.23
PFTeDA_2	713.0 / 169.0	4.43	1083.852728	1000.00	108.39
NMeFOSAA_1	570.0 / 419.0	3.53	992.889949	1000.00	99.29
NMeFOSAA_2	570.0 / 512.0	3.53	877.311431	1000.00	87.73
NEtFOSAA_1	584.0 / 419.0	3.69	1127.984070	1000.00	112.80
NEtFOSAA_2	584.0 / 483.0	3.69	958.925191	1000.00	95.89

QC Summary Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	2562.158854	2525.00	101.47
PFBS_2	298.9 / 99.0	1.53	2523.811438	2525.00	99.95
PFHxA_1	313.0 / 269.0	1.84	2210.407494	2525.00	87.54
PFHxA_2	313.0 / 119.0	1.84	2224.902959	2525.00	88.11
PFHpA_1	363.0 / 319.0	2.24	2108.523934	2500.00	84.34
PFHpA_2	363.0 / 169.0	2.24	2082.294087	2500.00	83.29
PFHxS_1	399.0 / 80.0	2.26	2262.286719	2525.00	89.60
PFHxS_2	399.0 / 99.0	2.26	2363.136829	2525.00	93.59
PFOA_1	413.0 / 369.0	2.64	2186.203668	2500.00	87.45
PFOA_2	413.0 / 169.0	2.64	2141.091874	2500.00	85.64
PFNA_1	463.0 / 419.0	3.02	2189.921889	2500.00	87.60
PFNA_2	463.0 / 219.0	3.02	2077.266124	2500.00	83.09
PFOS_1	499.0 / 80.0	3.02	2578.120772	2500.00	103.12
PFOS_2	499.0 / 99.0	3.02	2723.056815	2500.00	108.92
PFDA_1	513.0 / 469.0	3.38	2364.317466	2500.00	94.57
PFDA_2	513.0 / 219.0	3.37	2201.311331	2500.00	88.05
PFUnA_1	563.0 / 519.0	3.69	2215.286564	2500.00	88.61
PFUnA_2	563.0 / 269.0	3.69	2292.018710	2500.00	91.68
PFDoA_1	613.0 / 569.0	3.97	2456.729993	2500.00	98.27
PFDoA_2	613.0 / 319.0	3.97	2503.451892	2500.00	100.14
PFTrDA_1	663.0 / 619.0	4.22	2698.215172	2500.00	107.93
PFTrDA_2	663.0 / 169.0	4.21	2656.127469	2500.00	106.25
PFTeDA_1	713.0 / 669.0	4.43	2622.647058	2500.00	104.91
PFTeDA_2	713.0 / 169.0	4.43	2581.993222	2500.00	103.28
NMeFOSAA_1	570.0 / 419.0	3.53	2550.890367	2500.00	102.04
NMeFOSAA_2	570.0 / 512.0	3.53	2461.204487	2500.00	98.45
NEtFOSAA_1	584.0 / 419.0	3.69	1914.531767	2500.00	76.58
NEtFOSAA_2	584.0 / 483.0	3.69	2257.930143	2500.00	90.32

QC Summary Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	970.519928	1010.00	96.09
PFBS_2	298.9 / 99.0	1.53	976.869488	1010.00	96.72
PFHxA_1	313.0 / 269.0	1.84	904.541993	1010.00	89.56
PFHxA_2	313.0 / 119.0	1.84	1012.384838	1010.00	100.24
PFHpA_1	363.0 / 319.0	2.24	849.658216	1000.00	84.97
PFHpA_2	363.0 / 169.0	2.25	918.365917	1000.00	91.84
PFHxS_1	399.0 / 80.0	2.27	932.340067	1010.00	92.31
PFHxS_2	399.0 / 99.0	2.26	938.925801	1010.00	92.96
PFOA_1	413.0 / 369.0	2.64	906.239590	1000.00	90.62
PFOA_2	413.0 / 169.0	2.64	808.029972	1000.00	80.80
PFNA_1	463.0 / 419.0	3.03	958.857816	1000.00	95.89
PFNA_2	463.0 / 219.0	3.03	958.111137	1000.00	95.81
PFOS_1	499.0 / 80.0	3.03	957.054200	1000.00	95.71
PFOS_2	499.0 / 99.0	3.03	999.473654	1000.00	99.95
PFDA_1	513.0 / 469.0	3.38	982.570105	1000.00	98.26
PFDA_2	513.0 / 219.0	3.38	962.910872	1000.00	96.29
PFUnA_1	563.0 / 519.0	3.70	985.293525	1000.00	98.53
PFUnA_2	563.0 / 269.0	3.69	1078.119913	1000.00	107.81
PFDoA_1	613.0 / 569.0	3.98	980.524956	1000.00	98.05
PFDoA_2	613.0 / 319.0	3.98	1093.385687	1000.00	109.34
PFTrDA_1	663.0 / 619.0	4.22	1019.295145	1000.00	101.93
PFTrDA_2	663.0 / 169.0	4.22	1080.456762	1000.00	108.05
PFTeDA_1	713.0 / 669.0	4.43	983.249373	1000.00	98.32
PFTeDA_2	713.0 / 169.0	4.43	972.260718	1000.00	97.23
NMeFOSAA_1	570.0 / 419.0	3.53	903.363198	1000.00	90.34
NMeFOSAA_2	570.0 / 512.0	3.53	907.307691	1000.00	90.73
NEtFOSAA_1	584.0 / 419.0	3.69	824.951148	1000.00	82.50
NEtFOSAA_2	584.0 / 483.0	3.69	727.569297	1000.00	72.76

QC Summary Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	2486.177445	2525.00	98.46
PFBS_2	298.9 / 99.0	1.53	2520.387620	2525.00	99.82
PFHxA_1	313.0 / 269.0	1.84	2162.030102	2525.00	85.62
PFHxA_2	313.0 / 119.0	1.84	2402.722028	2525.00	95.16
PFHpA_1	363.0 / 319.0	2.24	2210.173211	2500.00	88.41
PFHpA_2	363.0 / 169.0	2.24	2331.453782	2500.00	93.26
PFHxS_1	399.0 / 80.0	2.26	2437.554085	2525.00	96.54
PFHxS_2	399.0 / 99.0	2.26	2406.276274	2525.00	95.30
PFOA_1	413.0 / 369.0	2.64	2397.133761	2500.00	95.89
PFOA_2	413.0 / 169.0	2.64	2265.213532	2500.00	90.61
PFNA_1	463.0 / 419.0	3.03	2269.608310	2500.00	90.78
PFNA_2	463.0 / 219.0	3.03	2269.209063	2500.00	90.77
PFOS_1	499.0 / 80.0	3.03	2206.238231	2500.00	88.25
PFOS_2	499.0 / 99.0	3.03	2222.133669	2500.00	88.89
PFDA_1	513.0 / 469.0	3.38	2423.527279	2500.00	96.94
PFDA_2	513.0 / 219.0	3.38	2188.869595	2500.00	87.55
PFUnA_1	563.0 / 519.0	3.70	2395.483046	2500.00	95.82
PFUnA_2	563.0 / 269.0	3.70	2488.207974	2500.00	99.53
PFDoA_1	613.0 / 569.0	3.98	2530.007922	2500.00	101.20
PFDoA_2	613.0 / 319.0	3.98	2672.475012	2500.00	106.90
PFTrDA_1	663.0 / 619.0	4.22	2644.163950	2500.00	105.77
PFTrDA_2	663.0 / 169.0	4.22	2663.453678	2500.00	106.54
PFTeDA_1	713.0 / 669.0	4.44	2573.191179	2500.00	102.93
PFTeDA_2	713.0 / 169.0	4.43	2583.501905	2500.00	103.34
NMeFOSAA_1	570.0 / 419.0	3.53	2965.743023	2500.00	118.63
NMeFOSAA_2	570.0 / 512.0	3.53	2702.293657	2500.00	108.09
NEtFOSAA_1	584.0 / 419.0	3.69	2480.198322	2500.00	99.21
NEtFOSAA_2	584.0 / 483.0	3.69	2898.654998	2500.00	115.95

QC Summary Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	974.459124	1010.00	96.48
PFBS_2	298.9 / 99.0	1.53	984.314044	1010.00	97.46
PFHxA_1	313.0 / 269.0	1.84	918.697425	1010.00	90.96
PFHxA_2	313.0 / 119.0	1.84	917.862692	1010.00	90.88
PFHpA_1	363.0 / 319.0	2.24	807.375743	1000.00	80.74
PFHpA_2	363.0 / 169.0	2.24	789.987798	1000.00	79.00
PFHxS_1	399.0 / 80.0	2.26	925.563822	1010.00	91.64
PFHxS_2	399.0 / 99.0	2.26	920.902595	1010.00	91.18
PFOA_1	413.0 / 369.0	2.64	834.756026	1000.00	83.48
PFOA_2	413.0 / 169.0	2.64	845.599943	1000.00	84.56
PFNA_1	463.0 / 419.0	3.03	903.533034	1000.00	90.35
PFNA_2	463.0 / 219.0	3.03	886.095368	1000.00	88.61
PFOS_1	499.0 / 80.0	3.03	1031.633327	1000.00	103.16
PFOS_2	499.0 / 99.0	3.03	1047.276826	1000.00	104.73
PFDA_1	513.0 / 469.0	3.38	1020.531203	1000.00	102.05
PFDA_2	513.0 / 219.0	3.38	1027.740100	1000.00	102.77
PFUnA_1	563.0 / 519.0	3.70	959.897932	1000.00	95.99
PFUnA_2	563.0 / 269.0	3.69	910.524632	1000.00	91.05
PFDoA_1	613.0 / 569.0	3.98	973.609436	1000.00	97.36
PFDoA_2	613.0 / 319.0	3.98	1013.883407	1000.00	101.39
PFTrDA_1	663.0 / 619.0	4.22	1002.169038	1000.00	100.22
PFTrDA_2	663.0 / 169.0	4.22	1030.981655	1000.00	103.10
PFTeDA_1	713.0 / 669.0	4.43	1013.671368	1000.00	101.37
PFTeDA_2	713.0 / 169.0	4.43	1014.143147	1000.00	101.41
NMeFOSAA_1	570.0 / 419.0	3.53	1060.683055	1000.00	106.07
NMeFOSAA_2	570.0 / 512.0	3.53	873.218164	1000.00	87.32
NEtFOSAA_1	584.0 / 419.0	3.69	907.899063	1000.00	90.79
NEtFOSAA_2	584.0 / 483.0	3.69	721.367752	1000.00	72.14

QC Summary Report

Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.96	249.050713	250.00	99.62
d3-MeFOSAA	573.0 / 419.0	3.52	240.151495	250.00	96.06
d5-EtFOSAA	589.0 / 419.0	3.68	215.693399	250.00	86.28
13C5-PFHxA	318.0 / 273.0	1.83	253.703004	250.00	101.48
13C4-PFHpA	367.0 / 322.0	2.23	255.340283	250.00	102.14
13C8-PFOA	421.0 / 376.0	2.63	279.453097	250.00	111.78
13C9-PFNA	472.0 / 427.0	3.01	295.245165	250.00	118.10
13C6-PFDA	519.0 / 474.0	3.37	249.663304	250.00	99.87
13C7-PFUnA	570.0 / 525.0	3.68	252.400097	250.00	100.96
13C2-PFTeDA	715.0 / 670.0	4.42	240.677736	250.00	96.27
13C3-PFBS	302.0 / 99.0	1.52	200.782472	232.25	86.45
13C3-PFHxS	402.0 / 99.0	2.25	244.099953	236.50	103.21
13C8-PFOS	507.0 / 99.0	3.02	234.963362	239.25	98.21

QC Summary Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.96	252.577447	250.00	101.03
d3-MeFOSAA	573.0 / 419.0	3.52	261.066600	250.00	104.43
d5-EtFOSAA	589.0 / 419.0	3.68	311.544389	250.00	124.62
13C5-PFHxA	318.0 / 273.0	1.83	265.867654	250.00	106.35
13C4-PFHpA	367.0 / 322.0	2.23	246.903056	250.00	98.76
13C8-PFOA	421.0 / 376.0	2.63	268.778426	250.00	107.51
13C9-PFNA	472.0 / 427.0	3.01	280.852546	250.00	112.34
13C6-PFDA	519.0 / 474.0	3.36	246.763154	250.00	98.71
13C7-PFUnA	570.0 / 525.0	3.68	259.082819	250.00	103.63
13C2-PFTeDA	715.0 / 670.0	4.42	225.555711	250.00	90.22
13C3-PFBS	302.0 / 99.0	1.51	232.647581	232.25	100.17
13C3-PFHxS	402.0 / 99.0	2.25	257.585777	236.50	108.92
13C8-PFOS	507.0 / 99.0	3.01	250.267566	239.25	104.61

QC Summary Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.97	258.007645	250.00	103.20
d3-MeFOSAA	573.0 / 419.0	3.52	224.039865	250.00	89.62
d5-EtFOSAA	589.0 / 419.0	3.68	259.242306	250.00	103.70
13C5-PFHxA	318.0 / 273.0	1.83	244.902285	250.00	97.96
13C4-PFHpA	367.0 / 322.0	2.23	234.265770	250.00	93.71
13C8-PFOA	421.0 / 376.0	2.63	257.338598	250.00	102.94
13C9-PFNA	472.0 / 427.0	3.02	247.098072	250.00	98.84
13C6-PFDA	519.0 / 474.0	3.36	258.339166	250.00	103.34
13C7-PFUnA	570.0 / 525.0	3.68	262.004974	250.00	104.80
13C2-PFTeDA	715.0 / 670.0	4.43	246.578254	250.00	98.63
13C3-PFBS	302.0 / 99.0	1.52	210.194712	232.25	90.50
13C3-PFHxS	402.0 / 99.0	2.26	217.994166	236.50	92.18
13C8-PFOS	507.0 / 99.0	3.01	219.996842	239.25	91.95

QC Summary Report

Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.97	259.215830	250.00	103.69
d3-MeFOSAA	573.0 / 419.0	3.53	212.732280	250.00	85.09
d5-EtFOSAA	589.0 / 419.0	3.69	238.570534	250.00	95.43
13C5-PFHxA	318.0 / 273.0	1.82	266.017188	250.00	106.41
13C4-PFHpA	367.0 / 322.0	2.23	268.964631	250.00	107.59
13C8-PFOA	421.0 / 376.0	2.63	257.258600	250.00	102.90
13C9-PFNA	472.0 / 427.0	3.01	272.558581	250.00	109.02
13C6-PFDA	519.0 / 474.0	3.37	269.629741	250.00	107.85
13C7-PFUnA	570.0 / 525.0	3.68	263.150753	250.00	105.26
13C2-PFTeDA	715.0 / 670.0	4.43	237.199622	250.00	94.88
13C3-PFBS	302.0 / 99.0	1.51	219.795852	232.25	94.64
13C3-PFHxS	402.0 / 99.0	2.25	223.466863	236.50	94.49
13C8-PFOS	507.0 / 99.0	3.01	264.102573	239.25	110.39

QC Summary Report

Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.97	241.840919	250.00	96.74
d3-MeFOSAA	573.0 / 419.0	3.53	216.252413	250.00	86.50
d5-EtFOSAA	589.0 / 419.0	3.69	260.864117	250.00	104.35
13C5-PFHxA	318.0 / 273.0	1.83	263.142202	250.00	105.26
13C4-PFHpA	367.0 / 322.0	2.23	269.211058	250.00	107.68
13C8-PFOA	421.0 / 376.0	2.63	285.991381	250.00	114.40
13C9-PFNA	472.0 / 427.0	3.02	278.495159	250.00	111.40
13C6-PFDA	519.0 / 474.0	3.37	235.767853	250.00	94.31
13C7-PFUnA	570.0 / 525.0	3.68	249.459090	250.00	99.78
13C2-PFTeDA	715.0 / 670.0	4.43	228.589928	250.00	91.44
13C3-PFBS	302.0 / 99.0	1.51	207.857195	232.25	89.50
13C3-PFHxS	402.0 / 99.0	2.25	223.748986	236.50	94.61
13C8-PFOS	507.0 / 99.0	3.02	223.986927	239.25	93.62

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Summary Ion Ratio Report

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Sample Name	JY45 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:46:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.97	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.490	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.050	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:34:51	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.02	PFNA			
PFNA_2	463.0 / 219.0	3.02	PFNA	0.290	0.309	ü
PFOS_1	499.0 / 80.0	3.02	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.190	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.37	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.97	PFDoA			
PFDoA_2	613.0 / 319.0	3.97	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.21	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.530	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:50:54	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.190	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.180	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.560	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA90 CCV	**Injection Vial**	6
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:50:22	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.70	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.060	0.065	ü
PFTeDA_1	713.0 / 669.0	4.44	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.500	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KA89 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T03:00:45	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.70	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.050	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.170	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.460	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.050	0.069	ü

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Summary Ion Ratio Report

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Sample Name	JY46 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T19:35:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS	0.310	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.410	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.04	PFNA	0.370	0.309	ü
PFOS_1	499.0 / 80.0	2.99	PFOS			
PFOS_2	499.0 / 99.0	3.04	PFOS	0.120	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.080	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	3.97	PFDoA			
PFDoA_2	613.0 / 319.0	3.98	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.080	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.44	PFTeDA	0.070	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.510	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	CR817PB-FS(0)	**Injection Vial**	21
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T21:56:35	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	CR818LCS-FS(0)	**Injection Vial**	22
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:07:27	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.190	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	3.98	PFDoA			
PFDoA_2	613.0 / 319.0	3.97	PFDoA	0.160	0.161	ü
PFTrDA_1	663.0 / 619.0	4.22	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.22	PFTrDA	0.070	0.065	ü
PFTeDA_1	713.0 / 669.0	4.43	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.43	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.53	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.53	NMeFOSAA	0.560	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.69	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.69	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7785-FS(0)	**Injection Vial**	23
Sample ID	JAX-TCC-FRB-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:18:19	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.52	PFBS			
PFBS_2	298.9 / 99.0	1.51	PFBS	0.470	0.296	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7774-FS(0)	**Injection Vial**	24
Sample ID	JAX-TCC-EB02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:29:11	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7784-FS(0)	**Injection Vial**	25
Sample ID	JAX-TCC-EB03-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T22:40:02	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7778-FS(0)	**Injection Vial**	27
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:12:37	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.280	0.296	ü
PFHxA_1	313.0 / 269.0	1.83	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.62	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.320	0.309	ü
PFOS_1	499.0 / 80.0	2.92	PFOS			
PFOS_2	499.0 / 99.0	3.00	PFOS	0.130	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7778-FS-D(3)	**Injection Vial**	28
Sample ID	JAX-TCC-MWB1-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:23:29	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7775-FS(0)	**Injection Vial**	29
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:34:21	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.280	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.140	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7775-FS-D(3)	**Injection Vial**	30
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:45:13	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.140	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Printed: 18/09/2018 4:11:04 PM

Sample Name	J7775-FS-D(5)	**Injection Vial**	31
Sample ID	JAX-TCC-MWC3-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-17T23:56:05	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.140	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7776-FS(0)	**Injection Vial**	32
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:06:57	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.270	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.140	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7776-FS-D(3)	**Injection Vial**	33
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:17:49	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	2.93	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.150	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7776-FS-D(5)	**Injection Vial**	34
Sample ID	JAX-TCC-MWC3-09112018-FD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T00:28:40	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7779-FS(0)	**Injection Vial**	35
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:12:07	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.260	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.090	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.37	PFDA	0.040	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.070	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7779-FS-D(3)	**Injection Vial**	36
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:22:59	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7779-FS-D(5)	**Injection Vial**	37
Sample ID	JAX-TCC-SW01-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:33:50	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7780-FS(0)	**Injection Vial**	38
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:44:42	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.290	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.02	PFNA			
PFNA_2	463.0 / 219.0	3.02	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.02	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	3.36	PFDA			
PFDA_2	513.0 / 219.0	3.36	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.070	0.063	ü
PFDoA_1	613.0 / 569.0	3.97	PFDoA			
PFDoA_2	613.0 / 319.0	4.18	PFDoA	1.330	0.161	
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	3.68	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.67	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7780-FS-D(3)	**Injection Vial**	39
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T01:55:34	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	3.02	PFOS			
PFOS_2	499.0 / 99.0	3.02	PFOS	0.190	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7780-FS-D(5)	**Injection Vial**	40
Sample ID	JAX-TCC-SW02-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:06:26	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.290	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	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.309	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7777-FS(0)	**Injection Vial**	41
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:17:18	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.270	0.296	ü
PFHxA_1	313.0 / 269.0	1.83	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.310	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.01	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.38	PFDA	0.050	0.056	ü
PFUnA_1	563.0 / 519.0	3.69	PFUnA			
PFUnA_2	563.0 / 269.0	3.69	PFUnA	0.060	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7777-FS-D(3)	**Injection Vial**	42
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:28:10	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.83	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.310	0.290	ü
PFOA_1	413.0 / 369.0	2.64	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.300	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.170	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

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Summary Ion Ratio Report

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Sample Name	J7777-FS-D(5)	**Injection Vial**	43
Sample ID	JAX-TCC-MWI2-09112018	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-18T02:39:01	**Data File**	09172018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0559_18-0560_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	0.296	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.067	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.300	0.290	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	3.04	PFNA			
PFNA_2	463.0 / 219.0	3.03	PFNA	0.310	0.309	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.03	PFOS	0.180	0.190	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.056	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.063	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.161	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.065	ü
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	0.567	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.069	ü

DODCMD_ID	INSTALLATION_ID	SDG	SITE_NAME	NORM_SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	CONTRACT_ID	DO_CTO_NUMBER	CONTR_NAME
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	SITE 00011	JAX-TCC-MWB1	Monitoring well	440563.5021	2148250.102	N6247016D9008	N6945017F0375	TETRA TECH, INC.
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	SITE 00011	JAX-TCC-SW01	Surface water body - nonspecific	440685.7485	2148470.875	N6247016D9008	N6945017F0375	TETRA TECH, INC.
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	SITE 00011	JAX-TCC-MWC3	Monitoring well	440792.8144	2148911.681	N6247016D9008	N6945017F0375	TETRA TECH, INC.
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	SITE 00011	JAX-TCC-MWI2	Monitoring well	440713.214	2148563.759	N6247016D9008	N6945017F0375	TETRA TECH, INC.
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	SITE 00011	JAX-TCC-SW02	Surface water body - nonspecific	440623.7656	2148490.794	N6247016D9008	N6945017F0375	TETRA TECH, INC.
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	SITE 00011	JAX-TCC-MWC3	Monitoring well	440792.8144	2148911.681	N6247016D9008	N6945017F0375	TETRA TECH, INC.
SOUTHEAST	JACKSONVILLE_NAS	18-0560							N6247016D9008	N6945017F0375	TETRA TECH, INC.
SOUTHEAST	JACKSONVILLE_NAS	18-0560							N6247016D9008	N6945017F0375	TETRA TECH, INC.
SOUTHEAST	JACKSONVILLE_NAS	18-0560							N6247016D9008	N6945017F0375	TETRA TECH, INC.

DODCMD_ID	INSTALLATION_ID	SDG	SITE_NAME	SAMPLE_NAME	SAMPLE_MATRIX_DESC	SAMPLE_TYPE_DESC	COLLECT_DATE	ANALYTICAL_METHOD	ANALYTICAL_METHOD_GRP_DESC	RES_META_ID
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	JAX-TCC-MWB1-09112018	Ground water	Normal (Regular)	11-Sep-18	537	Perfluoroalkyl Compounds	20190201100027.00
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	JAX-TCC-SW01-09112018	Surface water	Normal (Regular)	11-Sep-18	537_MOD	Perfluoroalkyl Compounds	20190201100027.00
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	JAX-TCC-MWC3-09112018-D	Ground water	Field duplicate	11-Sep-18	537	Perfluoroalkyl Compounds	20190201100027.00
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	JAX-TCC-MWI2-09112018	Ground water	Normal (Regular)	11-Sep-18	537	Perfluoroalkyl Compounds	20190201100027.00
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	JAX-TCC-SW02-09112018	Surface water	Normal (Regular)	11-Sep-18	537_MOD	Perfluoroalkyl Compounds	20190201100027.00
SOUTHEAST	JACKSONVILLE_NAS	18-0560	OFFSITE_RW	JAX-TCC-MWC3-09112018	Ground water	Normal (Regular)	11-Sep-18	537	Perfluoroalkyl Compounds	20190201100027.00
SOUTHEAST	JACKSONVILLE_NAS	18-0560		JAX-TCC-EB03-09112018	Water for QC samples	QC Sample	11-Sep-18	537	Perfluoroalkyl Compounds	20190201100027.00
SOUTHEAST	JACKSONVILLE_NAS	18-0560		JAX-TCC-EB02-09112018	Water for QC samples	QC Sample	11-Sep-18	537	Perfluoroalkyl Compounds	20190201100027.00
SOUTHEAST	JACKSONVILLE_NAS	18-0560		JAX-TCC-FRB-09112018	Water for QC samples	QC Sample	11-Sep-18	537	Perfluoroalkyl Compounds	20190201100027.00